

VASCULAR FLORA OF THE OUTER BANKS, NORTH CAROLINA, U.S.A.

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ABSTRACT

A complete catalogue of the vascular flora of the North Carolina Outer Banks is presented. Rarity, habitat, distribution within the Outer Banks, and earliest and latest specimens are given for each taxon. The flora contains 1020 species and infraspecific taxa, plus an additional 80 taxa that lack voucher specimens. Some 770 taxa are considered native; 250 non-native. Fifty-one taxa reach their northern range limit on the Outer Banks; 11 their southern limit. Fifty-five taxa are listed as rare in North Carolina; one of them also listed Threatened by the U.S. Fish and Wildlife Service. Twenty-four natural communities are described and assessed for vulnerability to sea level rise. Prior botanical research is listed chronologically.

RESUMEN

Se presenta un catálogo completo de la flora vascular de los Outer Banks de Carolina del Norte. La rareza, el hábitat, la distribución en los Outer Banks y los especímenes más antiguos y más recientes se aportan para cada taxón. La flora contiene 1020 especies y taxones infraespecíficos, más 80 taxones adicionales que carecen de especímenes testigo. Unos 770 taxones se consideran nativos; 250 no nativos. Cincuenta y un taxones alcanzan su límite de distribución norte en los Outer Banks; 11 su límite sur. Cincuenta y cinco taxones se enumeran como raros en Carolina del Norte; uno de ellos también enumeró Amenazado por el Servicio de Pesca y Vida Silvestre de EE.UU. Se describen y evalúan veinticuatro comunidades naturales para determinar su vulnerabilidad por el aumento del nivel del mar. La investigación botánica previa se enumera cronológicamente.

INTRODUCTION

It has been more than twenty years since Stalter and Lamont (1997, 1999) published a vascular flora of North Carolina's Outer Banks, and 60 years since Burk's Ph.D. thesis on the floristics of the Outer Banks (Burk 1961). These three papers are the only attempts at a complete flora of this ecologically diverse and floristically dynamic region. Since then, much has changed in terms of nomenclature and taxonomic circumscriptions at all levels (family, genus, species; see Weakley 2018), such that a revision is necessary to bring the flora forward to current concepts. In addition, intensive fieldwork and herbarium research have added many new taxa to the list, deleted others, and clarified the status of questionable or unvouchered taxa (Clark et al. 2016; Fauchette et al. (2020); Krings 2002a; Krings 2005; Krings 2010; Lamont & Stalter 2007; LeBlond 2006; North Carolina State Parks 2013; Sorrie 2014a, 2014b). Moreover, increased development, recreation pressures, and concerns over sea-level rise and climate change have made it imperative that the Outer Banks flora be an accurate baseline from which to assess future changes.

THE OUTER BANKS

Well-defined by geological and ecological processes, the Outer Banks (hereafter OBX) is a striking feature of the mid-Atlantic coastline (Beyer 1991; Godfrey & Godfrey 1976; Hosier 2018; Moslow & Heron 1994; Pilkey et al. 1978; Stick 1958). Figure 1 is a map of the Outer Banks from the Virginia state line south to Emerald Isle on Bogue Banks, approximately 326 km (204 mi.). OBX includes parts of four counties: Currituck, Dare, Hyde, and Carteret. Major islands, communities, and counties are named on the map. Like Stalter and Lamont (1997, 1999) and Krings (2010), I do not include as part of OBX various islands that occur between the barrier islands and the mainland, such as Roanoke Island (Dare County) and Harkers Island (Carteret County). These islands support a flora which is transitional to that of the mainland, reflecting generally more developed soils than those of OBX. Information on the flora of Roanoke Island can be found in Dunes of Dare Garden Club (1980), via specimens collected by Philip Crutchfield at NCU, and in Sorrie (2014a, 2014b).

Topography and Physiography

The Outer Banks are situated on the outer Coastal Plain, fronting the Atlantic Ocean. This is a geologic zone of recently deposited material over older, deeply buried, limestone rock and unconsolidated sands and clays (Beyer 1991, Moslow and Heron 1994). The Outer Banks formed in response to rising sea level following melting of the last glacial ice sheets, beginning roughly 18,000 years ago (Beyer 1991). Originally formed farther out on the continental shelf, the barrier islands have slowly moved westward and changed configuration as the sea rose; they continue to do so today (Riggs et al. 2009). The topography of OBX is essentially flat; older (inland) dune ridges are elevated above the surrounding marshes but seldom exceed 15 m. Maximum elevations reach 35 m at Jockey's Ridge (Dare County), a live and unstable sand dune. In 1950 Jockey's Ridge stood at 42 m; this loss appears to result from a reduction of sand input, due to surrounding development which has stabilized potential sand movement (Hosier 2018). While there are no flowing creeks on OBX, there are many narrow leads or channels connecting interdune areas to the sounds; a number of these have been enhanced via ditching while others have been closed off by dikes.

The physiography of the Outer Banks is dominated by water. The Banks separate the Atlantic Ocean from Currituck, Pamlico, Roanoke, Albemarle, and Core Sounds. OBX consists of barrier islands separated by narrow inlets that open and close at or near the same place a few times each century (Pilkey et al. 1978; Riggs et al. 2009; Riggs 2010). Currently, the major breaks between islands (Oregon Inlet, Beaufort Inlet, etc.) are maintained by repeated dredging. However, natural processes are also at work. New Inlet (north of Rodanthe in Dare County) was opened by breaches numerous times during past and recent storm events, and requires frequent maintenance to close it and to keep route 12 passable. One historical break, Caffey's Inlet, occurred at the Currituck/Dare County line; it was closed by natural processes more than a hundred years ago.

A simplistic cross-section of a typical barrier island is ocean beach-foredune-interdune swales-rear-dunes and enclosed swamps/marshes-tidal marshes. Foredunes are grass-herb dominated, whereas rear-dunes are mostly forested. The narrowest sections of OBX ("simple barrier islands" of Riggs et al. 2009) support only beach-foredune-interdune swale-tidal marsh. The broadest sections ("complex barrier islands") support extensive, forested dunes interspersed with freshwater marshes occupying enclosed depressions. At Kitty Hawk Woods (Dare County) there is a remarkable series of elongate, parallel dune ridges which support upland forest on top and strips of swamp forest below (Clark et al. 2016). A similar but less striking system of parallel ridges occurs in the Buxton Woods-Frisco area.

Climate and Soils

Climate and soils data for the northern Outer Banks can be found in Clark et al. (2016), Faucette et al. (2020), Krings (2010), and Stalter and Lamont (1997, 1999).

Tidal Regimes

The vast sounds represent drowned river valleys and their estuaries; they are the product of rising sea level following the melting of Pleistocene glaciers. They are slightly tidal in nature, but during periods of strong prevailing winds water can inundate the fringing marshes. Tidal amplitude in the sounds is remarkably low for the Atlantic coast, with the normal range between high tide and low tide less than 0.5 m.

The Outer Banks and Sea Level Rise

The Outer Banks are highly vulnerable to sea level rise. During the past several centuries, sea level has been rising in this part of North Carolina, in part due to geological subsidence, and some historical settlements are now under water or have become engulfed by marshes (Pilkey et al. 1978). The narrow ribbon that is the Outer Banks is vulnerable to storm overwash in a number of locations and in recent years overwash has occurred during non-hurricane storms as well as during hurricanes (pers. obs.). Weather scientists and climatologists predict that storm severity is likely to increase in the future (Defeo et al. 2009, Hosier 2018). On the adjacent and very flat mainland, marshes may not decrease in size with sea level rise, but may simply migrate inward at the expense of swamp forests, leaving forests with reduced acreage. However, many marshes on the sound side of OBX will greatly diminish in size with even minor increases of water level, owing to the line of dunes or dunefields at their edges. Lendemer and Allen (2014) discuss the unsure future of lichens, arboreal as well

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as terrestrial, that inhabit maritime environments. Estimates of future sea level rise vary, depending in which model one chooses, but the data suggest a potential rise of between 0.3 and 1.1 meters (1–6.5 feet) by the year 2100 (Stratus Consulting 2010, Menon et al. 2010).

A striking example of rising waters is Rawls Island, at the south end of mainland Dare County. This island once harbored thriving colonies of nesting herons and terns. Looking at aerial photos from the 1930s to today, it is evident that the island has undergone a gradual loss of area, with the final blow between 2002 and 2006 (Sorrie 2014a). Most recently, heavy rainfall and tidal surge from Hurricane Dorian in 2019 inundated nearly all of Ocracoke Island (Hyde County) and heavily impacted Buxton and the Cape Hatteras region (Dare County). Riggs et al. (2009) mapped eight places just on Pea Island that are vulnerable to opening, or re-opening, of inlets in the near future.

Today the Outer Banks are experiencing a narrowing of the islands, as the ocean front is eroded and the marsh flats on the sound side are gradually inundated. Barrier islands naturally move landward over time, through storm overwash which transports sand from the ocean side to the sound side (Hosier 1973; Pilkey et al 1978; Griggs 2017). However, artificial buildup of foredunes, and development immediately behind (and on) the ocean-front dunes has curtailed the natural westward movement of the beach and dune system. As a consequence, protection normally provided by vegetated dunes and beaches has been and will be compromised. For extended discussions of the potential effects of climate change, see Hosier (2018) and Griggs (2017).

Protected Areas

The fragile nature of the Outer Banks, combined with difficulties inherent in permanent occupation, has limited the amount of development (with notable exceptions such as the Nags Head urban area). Over the decades, some two dozen of the most vulnerable—and ecologically important—areas have been set aside and protected from development. The responsible agencies include a wide variety, from local homeowners associations to municipalities, NC State Parks, NC State Game Lands, NC Coastal Reserve Program, The Nature Conservancy, US Fish & Wildlife Service, and National Park Service. Within the four OBX counties (Currituck, Dare, Hyde, and Carteret), protected areas range in size from the 4.4 hectare Duck Town Park, with its mile long boardwalk, to Cape Hatteras National Seashore at 12,140 ha. and Cape Lookout NS at 11,297 ha. Acquisition and protection of these irreplaceable reserves has come at the very time period when the Outer Banks has experienced meteoric human growth. For example, from 1960–2000, Dare County's population increased 400%, from 5935 to 29,967, virtually all of it on the Outer Banks portion of the county and Roanoke Island (Riggs et al. 2009).

In addition to the impressive number of protected areas, OBX is part of a previously unrecognized “regional biodiversity hotspot” for plants and particularly for lichens and lichenized fungi (Lendemer & Allen 2014). Named the Mid-Atlantic Coastal Plain (southern New Jersey to southeastern North Carolina), this region harbors 512 species of lichens. However, the authors state that the sites with highest lichen diversity are located in areas of lowest elevation (e.g., mainland Dare County and adjacent Tyrrell County), and most of those areas will become inundated in the coming decades, assuming even the most conservative estimates of sea level rise.

Prior Botanical Work

Krings (2010) gave an excellent summary of plant collecting at Nags Head Woods and on Bodie Island. Here I will present a chronological summary of botanical collecting from throughout OBX, decade-by-decade.

1890–1899. The earliest known specimens are those collected by William W. Ashe (1872–1932) of the North Carolina Geological Survey in 1898. At that time, OBX was isolated and accessible only by boat, yet Ashe managed to take specimens from Nags Head south to Cape Hatteras Point. Ashe's specimens are mostly at the herbarium at the University of North Carolina, Chapel Hill (acronym NCU).

1900–1909. Thomas H. Kearney, Jr. (1874–1956) of the U.S. Department of Agriculture conducted an ecological study of the vegetation of Ocracoke Island, published in 1900. While not intended to be a complete account of the island's flora, he provided an important early account of its plantlife. His specimens are housed at the Smithsonian Institution (acronym US).

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1910–1919. Shackleford Banks is well represented by botanical collections, beginning with Ivey F. Lewis (1882–1964), whose paper (1917) on the vegetation of the island contained the first comprehensive list. He sent his specimens to John K. Small at the New York Botanical Garden (NY), who provided determinations and presumably retained them at NY.

1920–1929. In 1923 John Simcox Holmes (1868–1958) collected several specimens on Bogue Banks. William C. Coker (1872–1953), whose career at the University of North Carolina spanned 51 years, was primarily a mycologist. He collected a number of vascular plants on OBX in 1927 and was first to recognize the maritime variety of *Smilax bona-nox*.

1930–1939. Andrew C. Mathews (1907–1994) collected many specimens in 1931. Hugo L. Blomquist of Duke University made a number of trips to OBX, including Ocracoke Island, from 1933–1951, while gathering material for his book on the grasses of North Carolina (Blomquist 1948). Henry R. Totten (1892–1974), dendrologist at UNC Chapel Hill, made several collecting trips to OBX from 1938–1964. W.L. Engels collected from 1939–1940.

1940–1949. Francis Raymond Fosberg (1908–1993) of the U.S. Department of Agriculture spent most of his career studying the plant life of Pacific islands, but also collected over one hundred specimens in 1940 from Hatteras and Ocracoke Islands. For a brief period Carroll E. Wood, Jr. (1921–2009) taught at UNC Chapel Hill and collected on OBX in 1946–1947. William B. Fox (1915–1952) of NC State University collected from 1947–1952. Larry A. Whitford (1902–1995) of NC State University collected from 1947–1951, often in the company of W.B. Fox. Robert K. Godfrey, also at NC State, collected on OBX from 1949–1950, often in the company of W.B. Fox. Albert E. Radford (1918–2006), curator of the UNC Chapel Hill herbarium, collected hundreds of specimens from throughout OBX from 1949–1985. The extensive collections of Burk, Fosberg, Radford, and the three NC State botanists provide a broad base for floristic work on OBX.

1950–1959. Paul O. Schallert (1879–1970) made collections from scattered locations from 1950–1959. A. Katherine Rondthaler wrote a catalogue of flowering plants of Ocracoke Island in 1952 for her Bachelor's degree at Reed College; many of her specimens are at DUKE. Corbin & Raymond L. Wyatt (1926–) collected a number of specimens in 1954. Robert L. Wilbur (1925–), Professor at Duke, made extensive collections on Hatteras Island and Shackleford Banks from 1955–1970. Ernest L. Beal (1928–1980) of N.C. State University collected many aquatic taxa from 1958–1961 while preparing his manual on aquatic plants (Beal 1977). Philip J. Crutchfield (1928–2009) prepared a flora of Roanoke Island in Dare County for his Ph.D. thesis at UNC Chapel Hill. On several occasions from 1958–1962 he also collected plants on OBX, sometimes in the company of C.J. Burk. His thesis remains unpublished, but he did prepare a compendium of taxa new to NC from Roanoke Island (Crutchfield 1964). Harry E. Ahles (1924–1981) served as curator of the UNC-Chapel Hill herbarium during the period of intensive collecting for the Flora of the Carolinas (Radford, Ahles, and Bell 1968). However, he collected only sparingly on OBX, in 1958. Clair Alan Brown (1903–1982) of Louisiana State University wrote a book on the vegetation of the Outer Banks (Brown 1959); it is not known how many specimens he collected; they are deposited at LSU. C. John Burk (1935–) collected from nearly every barrier island from 1959–1960 to prepare his Ph.D. thesis (Burk 1961) at UNC Chapel Hill. While he did not intend to write a complete flora, his species list included more than 520 taxa and is a benchmark work on the flora of OBX. Although he stated that his specimens were deposited at NCU, in fact many ended up at the National Park Service Cape Hatteras National Seashore Herbarium in Manteo, NC (acronym CAHA).

1960–1969. William R. Anderson (1942–) collected many species in 1962, mostly on Shackleford Banks, while a graduate student at Duke. J.B. Phipps made collections on Shackleford Banks in 1964. David M. Dumond collected in 1966 and perhaps later. Robert M. Downs (1935–) of the N.C. Museum of Science collected from 1966–1973. Steven W. Leonard (1943–), curator at the UNC Chapel Hill herbarium from 1968–1971, made several trips to OBX from 1968–1974, often with A.E. Radford. Shu-Fun Au collected from 1966–1970 while preparing a Ph.D. thesis at Duke on the vegetation of Shackleford Banks (Au 1974); included was a complete floristic list of the island. This important work and that of Greg Krakow (Krakow 1991) remain the most complete sources of plant records for Shackleford.

1970–1979. Lytton Musselman (1943–) of Old Dominion University made a number of collections in Currituck County and southward on Bodie Island from 1970–1976. W.E. Baker collected many specimens from Buccaneer's Cove in Colington (Dare County) in 1972; his specimens are at Carnegie Museum (CM). Jerry W. Usher and R.W. Tyndall, students at Old Dominion University, collected in 1974–1975 while conducting a survey of the Corps of Engineers property north of Duck (Levy 1976). They reported significant finds in a short paper (Usher, Tyndall, and Levy 1978). Cheryl McCaffrey, a Cape Hatteras NS employee, collected from 1973–1974. John O. Fussell III (1949–) made a number of collections and many important sightings from 1974–2019 on Bogue Banks. I am indebted to him for discovering many new species to OBX. Paul J. and M.M. Godfrey, coastal ecologists at University of Massachusetts, Amherst, made several collections on the under-studied South Core Banks in 1975. Wilbur H. and Marion B. Duncan (1910–2005; 1919–2012) of the University of Georgia collected on OBX in the 1970s while researching their book on seashore plants of the Atlantic and Gulf Coasts (1987). Marie-Louise Peterson collected specimens from 1976–1979 with the Dunes of Dare Garden Club. C. Gifford, also a member of the Garden Club, collected a number of orchids in 1976. Griffen made several important collections of *Carex* in 1977, deposited at NCSC.

1980–1989. Debbie Qualls collected in 1981. Kathryn Davison, an NPS employee, made collections from 1984–1989. L.L. "Chick" Gaddy (1949–) was contracted by the National Park Service to conduct a rare species survey of Cape Hatteras NS (Gaddy 1985); his collection dates are 1984–1985. Caroline Kindell, an N.C. State University graduate student, made several collections in 1986. Richard Stalter (1942–) of Saint Johns University, New York, made many collections from most of the OBX islands from 1989–1997, often in the company of Eric E. Lamont. These specimens are at CAHA, CALO (both now at the same location), and USCH. Their two papers (Stalter and Lamont 1997, 1999) constituted the most complete floristic compilation of the Outer Banks until now.

1990–1999. Gregory A. Krakow, of the Georgia Natural Heritage Program, was contracted by the National Park Service to conduct a botanical survey of Cape Lookout National Seashore. He collected from 1990–1991. His publication (Krakow 1991) is the most complete compilation for that portion of OBX from Portsmouth Island south to Shackleford Banks. Richard J. LeBlond (1941–), a botanist with the N.C. Natural Heritage Program, collected from 1998–2006 while preparing revised treatments of *Dichanthelium*, *Scleria*, and other graminoids. He made a number of significant finds on Ocracoke Island. Bruce A. Sorrie (1944–), also a botanist with the N.C. Natural Heritage Program, collected from 1992–2018 and completed a natural areas inventory of Dare County (Sorrie 2014a). Barton Bauers collected from 1995–1999; his specimens are at NCSC. Redden, a National Park Service employee, made collections from 1997–1998.

2000–2009. Rhana Paris collected plants in 2001. Under the direction of Robert K. Peet, Michael P. Schafale, Alan S. Weakley, and Thomas Wentworth, the North Carolina Vegetation Survey has sampled vegetation plots in natural communities throughout the state. They, their students, and volunteers collected vouchers from portions of the Outer Banks from 2003–2009. Alexander Krings (1972–), curator at the NC State herbarium, published the first fully documented (and illustrated) flora of any location on OBX: Nags Head Woods (Krings 2010). He tallied more than 550 plant taxa there. Krings also prepared a list of plants collected at Run Hill State Nature Preserve (adjacent to Nags Head Woods). Krings collected specimens from 2001–2014. Carol A. McCormick (1959–) and Mark A. Peifer (1958–) collected several species from OBX in 2006. Rachel K. Clark completed a Master's Thesis at N.C. State University on the flora of Kitty Hawk Woods (Clark et al. 2016); she collected from 2009–2010. She tallied more than 420 plant taxa there.

2010–2019. Terry Holdstock (1963–) collected in the vicinity of Corolla (Currituck County) from 2011–2019; I am indebted to him for discovering many species new to OBX. Amanda L. Faucette completed a Master's Thesis at N.C. State University on the flora of Buxton Woods (Faucette 2020); she collected from 2013–2014. She tallied 473 plant taxa there. Jacob Dakar, also at NCSU, collected plants from 2013–2017.

METHODS

Initially, I prepared a spreadsheet of all reported taxa for OBX, based on Stalter and Lamont (1997, 1999), recent floristic works (cited in Introduction), and from the historical literature (Atkinson & List 1978; Au

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1974; Blonder & Stalter 1992; Brown 1959; Burk 1961; Burk 1962; Dickerson 1978; Gaddy 1995; Johnson 1900; Kearney 1900; Krakow 1991; Levy 1976; Lewis 1917; Lopazanski et al. 1988; Resource Management Staff 1977; Sorrie et al. 1992; Van Der Valk 1975).

For all taxa I attempted to locate herbarium vouchers at CAHA (Cape Hatteras National Seashore herbarium), CALO (Cape Lookout National Seashore herbarium, now housed at the same building as CAHA), DUKE, NCSC, and NCU. I also cast a wider net by searching the SERNEC portal online (SERNEC 2018-20) and found many vouchers, including Stalter specimens at USCH and Krakow specimens at GA. Taxa for which no voucher specimen could be found are listed in Appendix 1. Krings (2010) discussed at some length the likely reasons for the loss of specimens of certain plants collected on OBX (e.g., *Liriodendron tulipifera*, *Lyonia ligustrina*, and *Ulmus americana*). Krings also discussed the unlikelihood of certain reported taxa to occur on OBX; however, such decisions are seldom clear-cut, since OBX has proven to harbor a number of plant populations disjunct from their core ranges.

Nomenclature, common names, and taxonomy follow Weakley (2018). Identification of plant specimens was done primarily via earlier versions of Weakley, aided by treatments in Flora of North America and selected monographs and revision papers. The sequence of families also follows Weakley (2018): clubmosses, ferns, gymnosperms, magnoliids and primitive angiosperms, monocots, and eudicots. Within these major groupings, families and genera are listed alphabetically. Terms of abundance follow those of Palmer et al. (1995). Alien taxa are denoted by an asterisk (*) and here defined as not native to North Carolina. Several species, including *Magnolia grandiflora*, are treated as alien species, since their native range is well documented to exclude OBX. For many taxa, we may never know if they are truly native or non-native to OBX. Where possible, two or more specimens are cited to show a span of time from the earliest known collection to the most recent. More complete specimen citations can be found in the floras of specific areas on OBX (Clark et al. 2016; Faucette 2016; Krakow 1991; Krings 2010).

Rarity status of state and federal listed taxa are taken from Robinson (2018). Categories used here are FE = federally endangered, FT = federally threatened; E = state endangered, T = state threatened, SC = special concern, SR = significantly rare.

To make this document useful to a broad readership concerned with the Outer Banks, I have included in the Literature Cited and References section papers from many disciplines.

RESULTS

Natural Communities

The Outer Banks supports a rich assortment of natural communities, despite the relatively small landmass (Schafale 2012, Sorrie 2014a). All are affected significantly by the maritime environment and climate: saltspray, soil salinity, low soil fertility, sand transport, windshear, high insolation. The following descriptions are taken primarily from Sorrie (2014a) and Schafale (2012), with contributions from Au (1974), Bordeau and Oosting (1959), Burk (1961), Clark et al. (2016), Faucette (2016), Frost et al. (1992), Krakow (1991), Krings (2010), LeBlond (2006), and Lopazanski et al. (1988). The communities are more finely split and their descriptions more extensive than those in older literature, reflecting more detailed study from the 1980s forward.

1) Upper Beach. Ocean beaches, where not heavily disturbed by human activities, support a narrow zone of specialized vegetation at their upper margin, at the base of the foredune. This is also the place where a wrack-line forms in summer—vegetation and other debris washed up by high tides. In the Southern Subtype, *Cakile edentula* ssp. *harperi* is the prominent plant, co-occurring with *Euphorbia polygonifolia*, *Kali* species 1 (formerly *Salsola kali*), and often an orach (genus *Atriplex*). *Polygonum glaucum* and *Amaranthus pumilus* (FT) are two rare species that sometimes inhabit Upper Beaches. In the Northern Subtype, *Cakile edentula* ssp. *edentula* is prominent.

2) Sand Flat. This sparsely vegetated community develops where sand is actively deposited on a sandspit or an accreting tip of an island. Sand Flats feature *Sesuvium portulacastrum* and *Suaeda linearis*, along with species of Upper Beaches, including *Polygonum glaucum* and *Amaranthus pumilus* (FT). With restricted access,

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Sand Flats are important nesting sites for birds, including Piping Plover (*Charadrius melanotos*). Sand Flat communities are highly vulnerable to changes in extent and width due to storm events; they may even be eliminated. A subtype or related community is **Beach Overwash**, which occurs when storms spread sand across a narrow portion of an island, sometimes reaching the soundside marshes. Portions of Pea and Hatteras Islands are particularly susceptible to overwash (Riggs et al. 2009). The deposited sand supports a mix of species from Sand Flat and Upper Beach communities.

3) Dune Grass. Dune Grass communities cover the coastal foredunes and some dunes in the interior of barrier islands. They are influenced by sand movement and salt spray, and are notable for the absence of soil development. They are dominated by a small set of specialized plants that are deep-rooted to seek water and/or that form rather dense patches or rows via underground rhizomes. Three subtypes are recognized.

The **Southern Subtype** features *Uniola paniculata* as the dominant grass, usually with *Hydrocotyle bonariensis* and *Smilax auriculata* as associates, often also with *Panicum amarum* and *Croton punctatus*. This subtype occurs from Nags Head southward, but on Hatteras Island (south to Avon) there are mixtures of this and the next subtype.

The **Northern Subtype** features *Calamagrostis breviligulata* as the main sand-holding species on the foredune. *Panicum amarum* may also occur; *Uniola paniculata* is rare or uncommon. On the more stable back dunes, *Schizachyrium littorale* may co-occur. With the extensive development from Nags Head northward, and with planting of *Calamagrostis breviligulata* on enhanced dunes southward in the 1930s (Stratton 1943, Riggs et al. 2009), it is difficult today to determine the natural southern limit of this subtype.

The **Bluestem Subtype** occurs primarily on rear slopes of foredunes and on back dunes of the interior. It also can be found on upper slopes of the high, active dunes of Run Hill and Jockey's Ridge in Dare County. *Schizachyrium littorale* is dominant. Associates include *Uniola paniculata*, *Panicum amarum*, *Heterotheca subaxillaris*, *Euphorbia polygonifolia*, and other sand-loving herbs. There is a hiatus between Jockey's Ridge State Park and Buxton Woods where the Bluestem Subtype does not occur; it is believed that mechanical dune enhancement in the 1930s and 1940s, combined with planting of other dune grasses, eliminated the bluestem.

4) Live Dune Barren. As its name suggests, this is a community of active sand movement, influenced by prevailing winds and by storms. Our two most famous examples, Jockey's Ridge and Run Hill, have occupied nearly the same positions for 300 years, thus reflecting the overall balance between prevailing wind directions in summer and winter. In recent years, these dunes have transgressed more to the south and west, burying portions of maritime forest. While large portions of these high dunes may be devoid of vegetation, a number of hardy species eke out an existence, including some dune grasses, *Morella pensylvanica*, *Prunus serotina*, and *Muscadina rotundifolia*.

5) Stable Dune Barren. Stable Dune Barrens occupy sparsely to moderately vegetated, low-height, stable dunes and high sand flats of barrier island interiors. They are not dominated by *Uniola* or *Calamagrostis*.

In the **Southern Subtype**, dominant vegetation includes *Dichanthelium* spp., *Smilax auriculata*, *S. bonariensis* var. *littoralis*, *Opuntia pusilla*, *Gaillardia pulchella*, and other species that are rare in Dune Grass communities. *Schizachyrium littorale* may be locally common. Shrubs and stunted trees may also occur in small numbers. Its northern limit occurs at Pea Island National Wildlife Refuge.

In contrast to the previous, the **Beach Heather Subtype** has *Hudsonia tomentosa* and *Lechea maritima* var. *virginica* as prominent species and lacks *Smilax auriculata* and *Gaillardia pulchella*. Its southern limit is on southern portions of Bodie Island.

6) Maritime Dry Grassland. As opposed to Stable Dune Barrens, Maritime Dry Grasslands are densely vegetated and lack sizeable open sand areas. They occur on inland dune flats and in slight depressions. Salt spray and/or storm overwash prevent most tree and shrub growth, but *Juniperus virginiana* and *Ilex vomitoria* may be frequent. In this community the dominant grass is *Spartina patens*, along with *Eustachys petraea*, *Oenothera humifusa*, *Conyza canadensis* var. *pusilla*, *Hydrocotyle bonariense*, *Gaillardia pulchella*, and *Solidago mexicana*.

The NC rare *Eleocharis montevidensis* occurs in this community where transitional to Maritime Wet Grassland. Dare County examples of this habitat are of exceptionally high quality, largely due to the absence of grazing feral horses (pers. obs.; R. LeBlond in litt.).

7) Maritime Wet Grassland. Maritime Wet Grasslands occur under the same conditions as Maritime Dry Grasslands, but where the water table is higher. The two may occupy the same shallow basin. They share some of the species as dry grasslands, notably *Spartina patens*, but support a wide variety of other species, some of them restricted to this community type. All OBX examples are the **Southern Hairgrass Subtype**. Common and conspicuous plants include *Muhlenbergia sericea*, *Rhynchospora colorata*, *Sabatia stellaris*, *Juncus megacephalus*, *Spiranthes vernalis*, and *Seutera angustifolia*. A number of rare plant species occur in this habitat, including *Dichanthelium caerulescens*, *D. neuranthum*, *Rhynchospora odorata*, *Paspalum vaginatum*, and *Ludwigia alata*. Dare and Hyde County examples of this habitat are of exceptionally high quality, largely due to the absence of grazing feral horses (pers. obs., R. LeBlond in litt.).

8) Interdune Marsh. A distinction is made here between the two major communities of wet dune hollows: marshes and ponds. The latter are more-or-less permanently ponded, often with a fringe of emergent vegetation, whereas marshes normally support emergent vegetation throughout the basin and are intermittently ponded. In both cases, the wetlands are usually surrounded by old, forested dunes. Interdune Marshes support much taller vegetation than Maritime Wet Grasslands, and the plants usually occur in large patches: *Zizania aquatica*, *Schoenoplectus pungens*, *Typha domingensis*, *Pluchea baccharis*, and *Persicaria hydropiperoides*. Small groves of *Salix caroliniana* or *Cornus stricta* may be present.

9) Interdune Pond. In contrast to the previous, Interdune Ponds do not dry out unless under exceptional circumstances. In places such as Buxton Woods, a pond may go dry during drought years and then support abundant herbaceous plants. In normal years, the water column supports fully aquatic plants, such as *Utricularia* spp., *Brasenia schreberi*, *Nymphaea odorata*, *Potamogeton illinoensis*, and duckweeds (*Lemna*, *Spirodela*, *Wolffia*, *Wolfiella*). *Cephalanthus occidentalis*, *Decodon verticillatus*, and other tall emergents may occupy the margins. Nags Head Woods contains the largest collection of Interdune Ponds on the Atlantic Coast.

10) Maritime Shrub. Maritime Shrub communities are dominated by woody species that are kept at shrub size (less than 5 m) by salt spray and wind pruning. They occur on stable dunes and flats back from the ocean and generally have a dense, streamlined canopy. Three subtypes are recognized.

The **Stunted Tree Subtype** covers examples that are dominated or co-dominated by *Quercus virginiana*, *Q. hemisphaerica*, *Pinus taeda*, *Persea palustris*, *Juniperus virginiana*, and *Ilex vomitoria*. It is best developed on the windward side of Maritime Evergreen Forests and generally lacks the herbaceous growth found in forests.

In the **Wax Myrtle Subtype**, *Morella cerifera* is the dominant species, often with *Ilex vomitoria*, *Persea palustris*, and *Smilax bona-nox* var. *littoralis*. Trees are absent except scattered *Juniperus*. In North Carolina it overlaps and intergrades with the Bayberry Subtype northwards from Avon to the Virginia border.

The **Bayberry Subtype** differs only in the prominence of *Morella pensylvanica* rather than *M. cerifera*. Dare County, however, is in the overlap zone of these two species, and they often share a mixed dominance in this subtype south to Avon.

11) Maritime Evergreen Forest. This is the major pine-hardwood forest community of the North Carolina barrier islands. Our examples are the **Mid Atlantic Subtype**. This community grows on old stable dune ridges and hollows, carpeting the sand with leaf and needle litter. Salt spray and hurricane winds are major environmental influences. The vegetation is dominated by various combinations of *Quercus virginiana*, *Q. hemisphaerica*, *Pinus taeda*, and *Juniperus virginiana*. *Persea palustris*, *Carpinus caroliniana*, and *Ilex vomitoria* are common in the understory. The herb layer varies from sparse to dense, and locally may be surprisingly diverse. Common species include *Dichanthelium boscii*, *D. commutatum*, *Chasmanthium sessiliflorum*, *Carex floridana*, *Scleria flaccida*, *Mitchella repens*, and *Galium hispidulum*. Buxton Woods supports the finest examples of this subtype known anywhere.

12) Maritime Deciduous Forest. This is one of the rarest communities in the state, known only from Nags Head Woods, Kitty Hawk Woods, and Southern Shores in northern Dare County. Compared with the evergreen forest, *Pinus taeda* is much reduced in abundance and the evergreen oaks are joined by *Quercus alba*, *Q. falcata*, *Fagus grandifolia*, and *Carya glabra*. *Ostrya virginiana* and *Cornus florida* join the understory species. The herb layer is comparable to that of the evergreen forest, but with more sedge species (*Carex* spp.). Nags Head Woods supports the finest example known anywhere; mature trees frequently exceed two feet in diameter.

13) Maritime Swamp Forest. Maritime Swamp Forests form in interdune swales with long hydroperiods. There are two subtypes, both characterized by the tallest trees on OBX.

The **Typic Subtype** is dominated by *Nyssa biflora*, *Acer rubrum*, *Fraxinus pennsylvanica*, and *Liquidambar styraciflua*, with scattered *Taxodium distichum*. *Pinus taeda* usually occurs at the margins. *Carpinus caroliniana* is a common understory tree. Sedges (*Carex* spp.), ferns, and miscellaneous aquatic and semi-aquatic plants grow in the water or on logs and stumps. On OBX this community is well developed only at Nags Head Woods and Kitty Hawk Woods. At the latter, it forms remarkable, elongate strips between the numerous, parallel, linear dunes.

In the globally rare **Cypress Subtype**, *Taxodium distichum* as the sole dominant, with maple and sweetgum far less numerous. In North Carolina it has been documented only at Southern Shores and at Kitty Hawk Woods.

14) Maritime Shrub Swamp. Shrub swamps occur in old dune hollows with shallow water (may be dry in summer), where tall shrubs dominate. It is uncertain why wetland trees do not invade; perhaps the hydroperiod is too short. These communities are nestled in hollows surrounded by maritime forests.

In the **Dogwood Subtype**, *Cornus stricta* forms a closed to open canopy up to 5 m tall, along with some *Carpinus caroliniana* and small amounts of *Persea palustris*. *Berchemia scandens* climbs well up into the canopy. *Sabal minor* is frequent beneath, with abundant *Thelypteris palustris* and *Rhynchospora miliacea*. Examples with open canopies usually have patches of the rare *Eleocharis fallax*. The Dogwood Subtype is known only from Buxton Woods.

The **Red Bay Subtype** is very much like the previous, but with *Persea palustris* as the dominant. *Sabal minor* and *Eleocharis fallax* are absent, and *Cornus stricta* is scarce or absent. This very rare community is known only from Nags Head Woods/Run Hill and the middle portion of Hatteras Island.

The **Willow Subtype** is very much like the Dogwood Subtype, but *Salix caroliniana* is the dominant and *Cornus stricta* is scarce or absent. Only a few examples are documented, but there is much Carolina willow present in Interdune Marshes and Interdune Ponds at Buxton Woods and elsewhere, so perhaps some of these could be considered Willow Subtype shrub swamps.

15) Freshwater Seepage Swamp. An interesting variant of this community type has developed at Run Hill, where water seeps from the base of the high dune to form a broad streamhead. Tall shrubs here include *Persea palustris*, *Morella cerifera*, and *Vaccinium fuscatum*. Small trees include *Acer rubrum*, *Liquidambar styraciflua*, *Magnolia virginiana*, and *Carpinus caroliniana*. *Smilax laurifolia* is a common climber, along with *Berchemia scandens*. Sedges (*Carex* spp.) and ferns are common. This is the only place in the North Carolina Coastal Plain for the orchid *Liparis loeselii*, although not seen since 1988. This community variant does not fit well in Schafale (2012), and may warrant a new subtype.

16) Estuarine Fringe Pine Forest. This community type covers strongly pine-dominated forests and woodlands adjacent to sounds, which have lower strata indicative of estuarine tidewater influence. Only the **Loblolly Pine Subtype** occurs on OBX, at a single site at Jockey's Ridge SP. *Pinus taeda* is dominant, with *Acer rubrum* and *Morella cerifera* beneath; *Ilex glabra* is locally common. Small openings support patches of *Spartina patens*. Rising sea level and wind-tide flooding bring salty minerals to the soil.

17) Tidal Red Cedar Forest. This rare community has been found only on Ocracoke Island, Hyde County (LeBlond 2006). It occupies the upper fringe of an estuarine area, grading downslope to Brackish Marsh.

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Juniperus virginiana is dominant, with an understory of *Morella cerifera*. In the ground layer, *Spartina patens* is dominant and *Fimbristylis castanea* is important.

18) Salt Marsh. Salt marshes are flooded daily by sea water at full salinity, as opposed to the diluted waters of brackish marshes within the sounds. They are dominated by *Spartina alterniflora*, usually also with *Salicornia* spp. and *Distichlis spicata*. They lack *Lilaeopsis chinensis* and other less salt-tolerant species. There are two subtypes on OBX.

The **Carolinian Subtype** covers examples of the Carolinian Faunal Zone, from Cape Hatteras southward, which differ from the Virginian Subtype in the composition of their invertebrate animal communities and algal flora (Schafale 2012). On OBX, it has been documented from Hatteras Inlet and other inlets to the south.

In the **Virginian Subtype** the vascular plants are the same, but the algae and the invertebrate animal life are representative of more northern climates (Schafale 2012). On OBX, it has been documented from Oregon Inlet.

19) Brackish Marsh. On OBX, brackish marshes occupy large acreages bordering the sounds. These marshes are more-or-less regularly flooded by brackish water. They are salt influenced but to a lesser degree than salt marshes, due to dilution of sea water by freshwater input into the sounds by rivers or by sheet flow from the mainland. They may be regularly flooded by lunar tides, or irregularly flooded by wind tides. Brackish marshes occur at some distance from oceanic inlets, whereas salt marshes occur near inlets where water is more saline. There are two subtypes.

In the **Needlerush Subtype** *Juncus roemerianus* dominates (sometimes totally), often with scattered patches of *Schoenoplectus pungens* and *S. americanus*, *Typha angustifolia*, and scattered *Juniperus virginiana*.

The **Salt Meadow Cordgrass Subtype** includes marshes of slightly higher, less salty zones. It is dominated or codominated by *Spartina patens*, with *Distichlis spicata* and *Borrichia frutescens* as frequent associates. Highly salt-tolerant species like glassworts and salt marsh cordgrass are absent. It is distinguished from Maritime Wet Grassland, which may also be dominated by *Spartina patens*, by the absence of “upland” species and salt-intolerant species such as *Rhynchospora colorata*. There may be extensive merging of this subtype and the Needlerush Subtype.

20) Salt Shrub. Salt Shrub communities occur on slight elevations within brackish or salt marshes and are dominated by *Borrichia frutescens*, with lesser amounts of *Iva frutescens* and *Baccharis halimifolia*. *Solidago mexicana* and other salt-tolerant herbs also occur. Only the **Low Subtype** occurs on OBX.

21) Tidal Freshwater Marsh. Tidal Freshwater Marshes occur at the upper margins of brackish marshes where salinity is at a minimum. They are very wet herbaceous wetlands, permanently saturated and regularly or irregularly flooded by lunar or wind tides with fully fresh or oligohaline water. Vegetation is often strongly zonal or patchy, and may include tall graminoids (grasses, sedges, rushes) or short broad-leaved and graminoid plants. There are five subtypes on OBX.

In the **Giant Cordgrass Subtype**, *Spartina cynosuroides* is common or dominant. As in the Sawgrass Subtype, the Giant Cordgrass Subtype is one of the more salt tolerant subtypes, and is transitional to Brackish Marsh. It often occurs in a mosaic with *Juncus roemerianus*, *Cladium mariscus* ssp. *jamaicense*, *Schoenoplectus pungens*, and *Typha angustifolia* patches in the marsh.

The **Sawgrass Subtype** is distinguished from other subtypes by the dominance of *Cladium mariscus* ssp. *jamaicense*. It is one of the most salt-tolerant subtypes, and often forms the transition to Brackish Marsh on OBX. With rising sea level and subsequent dieback of tidal swamps, this community now forms a fringe along much of the mainland side of the sounds and is invading into the swamps.

In the **Cattail Subtype**, *Typha angustifolia* or *T. latifolia* form monospecific stands or zones in the marsh, while other associates are less common. A large example occurs north of Bodie Island Lighthouse.

The **Needlerush Subtype** is similar to Brackish Marsh (Needlerush Subtype), but includes plants intolerant of such brackish conditions, such as *Sagittaria lanceolata*, and supports some *Thelypteris palustris*.

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In the **Threesquare Subtype**, *Schoenoplectus pungens* forms the primary vegetation patches, often right on the narrow, sandy beaches of the sounds. Associates include *Lilaeopsis chinensis*, *Samolus floribundus*, *Teucrium canadense*, and *Ipomoea sagittata*.

22) Coastal Plain Semipermanent Impoundment. This is a man-made community that over time functions much like a pond or lake or beaver pond, with similar hydrology and vegetation. Bodie Island Lighthouse Pond (Dare County) is an example, as it was created by blocking a tidal creek from draining a marsh. Common plants include *Phragmites australis* (non-native), *Schoenoplectus americanus*, *S. pungens*, *Typha latifolia*, *Mikania scandens*, and *Kosteletzkyia pentacarpos*. The wildlife impoundment ponds at Pea Island National Wildlife Refuge do not function as natural ponds and are excluded from this community type.

23) Roadsides, Parking Lots, Waterfowl Impoundments, and Other Disturbed Areas. As the names imply, these are not natural communities, but anthropogenic. They develop after severe alteration (or elimination) of natural communities, yet may contain a number of native species which re-sprout and persist. Because these areas are generally open to full sun, the remnant native species must compete with alien species which are quick to exploit disturbed soils. In some instances, populations of native species are larger here than seen elsewhere on OBX; examples are *Rhynchospora colorata* and *Spiranthes vernalis* on infrequently mown roadsides of Route 12 on Hatteras Island. Waterfowl impoundments on Pea Island were created by the U.S. Fish & Wildlife Service to provide feeding and resting areas for birds, notably wintering geese, swans, and ducks, but also for summering terns, herons, and shorebirds. Their broad, intermittently inundated margins support a number of plants typical of brackish marshes, plus the rare *Sesuvium maritimum*. Dredge-spoil islands in the sounds were created by depositing sand and shells to keep boat channels open; left to vegetate on their own, they have become nesting areas for pelicans, herons, ibises, terns, and skimmers.

FLORISTIC SUMMARY AND DISCUSSION

The totals for the vascular flora of the North Carolina Outer Banks are 147 families, 499 genera, and 1020 species and infraspecific taxa. An additional 80 taxa lack specimen or photographic documentation and are placed in Appendix 1. 770 taxa are native (75%), 250 are alien or adventive taxa (25%). Burk's pioneering work (1961) included 526 taxa. By my tally, Stalter and Lamont's (1997, 1999) totals for OBX are 848 taxa; 641 native (76%) and 207 alien or adventive (24%). In the past twenty years, the OBX flora has increased by 129 native taxa and 43 alien taxa, with percentages of the total remaining nearly constant. The significant increase of native taxa is not likely due to new arrivals over the past 20 years. Rather, the increase is due to several factors: an increase of botanists working on OBX, intensive fieldwork conducted in high quality natural areas, access to online herbarium databases, and taxonomic splitting of a number of species.

According to the most recent collection dates and sightings, 767 taxa (75%) are extant or current—all have been documented since 2000. 123 taxa (12%) were last documented from 1980–1999. The date of 1980 was chosen as a cutoff, as it marks the time when Natural Heritage Program field searches began on OBX and also the beginning of federal government-sponsored rare species inventories. 130 taxa (13%) were last documented prior to 1980. While it is probable that a significant number of taxa not reported since 1980, or even 1999, no longer occur on OBX, it is likely that some have been overlooked, while others may exist in the seedbed awaiting favorable disturbance. The dynamic nature of barrier island ecosystems is also a factor, as local plant populations wax and wane over time and as seeds and other propagules arrive from elsewhere.

The largest families in the Outer Banks flora are: Poaceae-162 taxa, Asteraceae-115, Cyperaceae-100, Fabaceae-56, Juncaceae-20. The largest genera are: *Cyperus*-26 taxa, *Carex*-24, *Dichanthelium*-23, *Juncus*-20, *Eleocharis*-15, *Paspalum*-11, *Rhynchospora*-11, and *Sympyotrichum*-11.

OBX supports 55 taxa which are treated as rare in North Carolina; one of them is also listed as rare by the US Fish & Wildlife Service (Table 1). Not included here are many taxa which are on the NC Plant Watch List (Robinson 2018).

There are no vascular plant species which are endemic (entirely restricted to) the Outer Banks. A small, perennial, shrublet of the dunes, *Trichostema nesophilum*, was originally detected on OBX as being distinct

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from the widespread annual known as Blue Curls (*Trichostema dichotomum* L.). This species was described new to science in 2019 (McClelland and Weakley 2019) and is confined to North and South Carolina. Recently, a new species of crustose lichen was described from plants collected at Buxton Woods and elsewhere (Lendemer 2016). Two alien species new to North Carolina were discovered in 2017 in one of the Cape Hatteras National Seashore campgrounds: *Polycarpon tetraphyllum* (L.) L. and *Trifolium scabrum* L. From these very recent discoveries it seems clear that our knowledge of the flora of even a well-worked area like OBX is incomplete and that future work in this dynamic environment will produce other novelties.

Eight Outer Banks taxa are unique records for the state of North Carolina (asterisk = non-native): **Artemisia stelleriana*, **Eragrostis mexicana* ssp. *mexicana*, *Juncus articulatus*, *Lysimachia radicans*, **Matthiola incana*, **Polycarpon tetraphyllum*, **Polygonum argyrocoleon*, and **Trifolium scabrum*. A total of 211 taxa are known on OBX only from one collection record ("sole OBX record" in the Species List) or from two to several records from a single locality ("sole OBX location"). This number represents a remarkable 20.7% of the Outer Banks flora and is indicative of a capacity of OBX to provide suitable habitat for a wide diversity of plants, whether permanent or temporary. From this pool of plants, each species with its own ecological characteristics and tolerances, will come the primary components of future natural communities, along with immigrants from elsewhere.

The Outer Banks is known among biologists as harboring many plants and animals at their southern or northern limit (Burk 1962, Frost et al. 1992, Lopazanski et al. 1988, Sorrie 2014a). Table 2 lists native vascular plants known to reach their extreme southern (11 taxa) or northern (51 taxa) limit on OBX.

THREATS TO NATURAL COMMUNITIES AND RARE SPECIES

As outlined in the introductory paragraphs, the Outer Banks are vulnerable to significant modification via sea level rise, tidal surge, storm overwash and salt spray. It is expected that impacts from intense storms will affect the lowest-lying natural communities more often, and, likely, most severely. Other impacts are related to human disturbances and include development on dunes and high use of vehicles on beaches. Here I present what I believe to be the most vulnerable communities on OBX and list the NC rare vascular plants that are associated with them. I use rare species as representatives of the general flora, under the assumption that their ecologies mirror those of more common species. An asterisk (*) indicates that all current NC populations for the species occur on OBX; thus, these species have increased value in protection efforts.

Upper Beach and Sand Flat. Vulnerable to sea level rise, storm overwash, ORV traffic, and re-shaping of beaches and spits. *Amaranthus pumilus*, *Diplachne maritima*, *Polygonum glaucum*, *Ipomoea imperati*, *Sesuvium portulacastrum*.

Maritime Wet Grassland. Vulnerable to storm overwash, migration of dunes westward, development of campgrounds, road re-alignment. From a conservation perspective, this may be the most important community to protect, as the community itself is rare globally (G2, Schafale 2012) and it harbors seven rare species, two of which occur nowhere else in the state. *Dichanthelium caerulescens*, *D. neuranthum**, *Eleocharis montevicensis*, *Paspalum vaginatum*, *Rhynchospora microcarpa*, *R. odorata**, *Scleria verticillata*.

Estuarine Fringe Pine Forest. Vulnerable to sea level rise, saltwater intrusion. No NC-rare plant species are known to occur in this community.

Tidal Freshwater Marsh. Vulnerable to sea level rise, storm washover, and westward movement of dunes. On OBX this community occurs along the shores of Sounds and adjacent tidal creeks. All of the subtypes are at sea level or at the upper limit of current tidal regimes. *Limosella australis**, *Eleocharis fallax*, *E. parvula*, *Lilaeopsis carolinensis*.

Brackish Marsh. Vulnerable to rising sea level, storm overwash, dune migration, and road re-alignment. The fate of the Needlerush Subtype, now extensive in the Sounds, is unclear--will higher water levels inundate this community completely or will sediment input from mainland rivers allow migration and new growth and thus maintain a balance? *Diplachne maritima*, *Eleocharis parvula*, *E. rostellata*.

Interdune Marsh and Interdune Pond. Vulnerable to storm overwash, saltwater intrusion, sand

encroachment. The lowest elevation examples of these communities occur in the Buxton-Hatteras Village area, barely above sea level. They support some of the highest plant species diversity of any community on OBX. *Eleocharis fallax*, *E. halophila**, *E. montevidensis*, *E. parvula*, *Malaxis spicata*, *Potamogeton illinoensis**, *Sesuvium maritimum*. These communities harbor seven rare species, three of which occur nowhere else in the state.

TABLE 1. Rare taxa documented from the Outer Banks. Status from Robinson (2018).

Federal Endangered	None	
Federal Threatened	<i>Amaranthus pumilus</i>	
North Carolina Endangered	<i>Crocanthemum carolinianum</i> <i>Crocanthemum georgianum</i> <i>Dichanthelium caerulescens</i> <i>Diplachne maritima</i> <i>Eleocharis cellulosa</i> <i>Crocanthemum corymbosum</i> <i>Hibiscus aculeatus</i> <i>Hudsonia tomentosa</i>	<i>Lechea maritima</i> var. <i>virginiana</i> <i>Liparis loeselii</i> <i>Polygonum glaucum</i> <i>Solidago villosicarpa</i> <i>Ipomoea imperati</i> <i>Limosella australis</i> <i>Sageretia minutiflora</i> <i>Tridens chapmanii</i> <i>Heliotropium curassavicum</i> <i>Hottonia inflata</i> <i>Juncus articulatus</i> <i>Lilaeopsis carolinensis</i> <i>Ludwigia brevipes</i> <i>Malaxis spicata</i> <i>Myriophyllum pinnatum</i> <i>Oplismenus setarius</i> <i>Parietaria praetermissa</i> <i>Paspalum vaginatum</i> <i>Potamogeton illinoensis</i> <i>Rhynchospora microcarpa</i> <i>Rhynchospora odorata</i> <i>Scleria verticillata</i> <i>Sesuvium maritimum</i> <i>Sesuvium portulacastrum</i> <i>Spiranthes laciniata</i> <i>Trichostema nesophilum</i> <i>Yucca gloriosa</i>
North Carolina Threatened		
North Carolina Significantly Rare	<i>Arenaria lanuginosa</i> <i>Carex calcifugens</i> <i>Ceratophyllum australe</i> <i>Clematis catesbyana</i> <i>Corallorrhiza wisteriana</i> <i>Cyperus dentatus</i> <i>Desmodium fernaldii</i> <i>Dichanthelium bicknellii</i> <i>Dichanthelium fusiforme</i> <i>Dichanthelium neuranthum</i> <i>Dichanthelium spretum</i> <i>Eleocharis fallax</i> <i>Eleocharis halophila</i> <i>Eleocharis montevidensis</i> <i>Eleocharis parvula</i> <i>Eleocharis rostellata</i> <i>Eleocharis vivipara</i> <i>Elymus virginicus</i> var. <i>halophilus</i> <i>Euphorbia bombensis</i>	

TABLE 2. Native taxa documented from their extreme southern or northern limit.

Southern Range Limit	
Calamagrostis breviligulata	<i>Juncus articulatus</i>
Cakile edentula ssp. edentula	<i>Lechea maritima</i> var. <i>virginica</i>
Eleocharis fallax	<i>Limosella australis</i>
Eleocharis halophila	<i>Liparis loeselii</i>
Hudsonia tomentosa	<i>Morella pensylvanica</i>
	<i>Solidago sempervirens</i> sensu stricto
Northern Range Limit	
Agalinis maritima var. <i>grandiflora</i>	<i>Muhlenbergia sericea</i>
Baccharis angustifolia	<i>Oenothera simulans</i>
Bulbostylis stenophylla	<i>Oplismenus setarius</i>
Cakile edentula ssp. <i>harperi</i>	<i>Opuntia drummondii</i>
Carex calcifugens	<i>Parietaria praetermissa</i>
Crocanthemum carolinianum	<i>Paspalum praecox</i>
Crocanthemum corymbosum	<i>Paspalum vaginatum</i>
Crocanthemum georgianum	<i>Persia borbonia</i> sensu stricto
Croton punctatus	<i>Pluchea baccharis</i>
Cyperus ovatus	<i>Prunus caroliniana</i>
Cyperus surinamensis	<i>Psilotum nudum</i>
Cyperus tetragonus	<i>Rhizophora mangle</i>
Dichanthelium arenicoloides	<i>Rhynchospora microcarpa</i>
Dichanthelium neuranthum	<i>Rhynchospora mixta</i>
Diodia harperi	<i>Rhynchospora odorata</i>
Eleocharis cellulosa	<i>Sabal minor</i>
Eleocharis montevidensis	<i>Sageretia minutiflora</i>
Eustachys petraea	<i>Seutera angustifolia</i>
Gordonia lasianthus	<i>Smilax auriculata</i>
Halodule wrightii	<i>Smilax bona-nox</i> var. <i>littoralis</i>
Hibiscus aculeatus	<i>Solidago villosicarpa</i>
Ipomoea brasiliensis	<i>Solanum pseudogracile</i>
Ipomoea imperati	<i>Spiranthes sylvatica</i>
Iva imbricata	<i>Sympyotrichum simmondsii</i>
Limonium carolinianum var. <i>angustum</i>	<i>Trichostema nesophilum</i>
	<i>Yucca gloriosa</i>

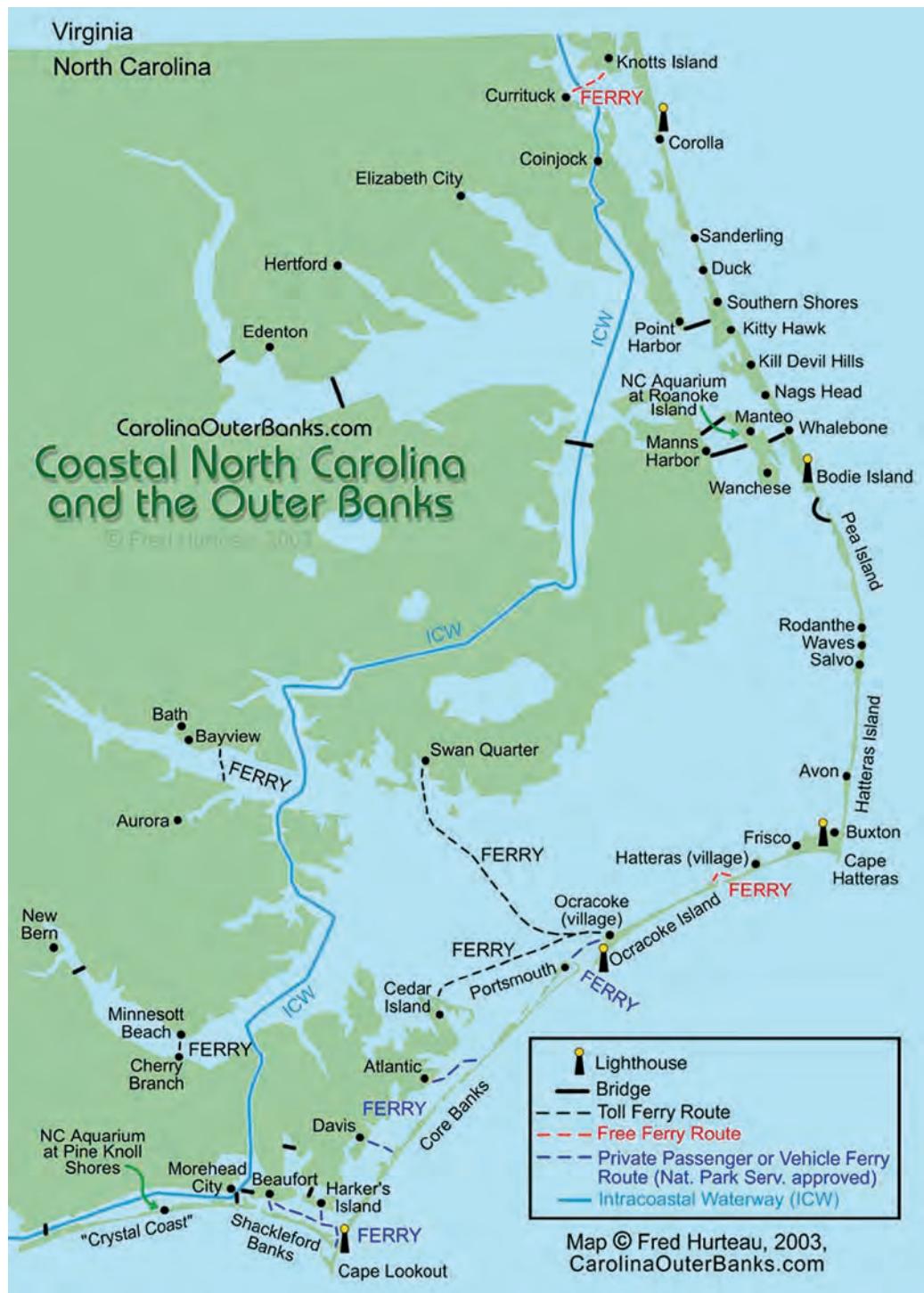


Fig. 1. Map of the North Carolina Outer Banks. With permission from Fred Hurteau.

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FIG. 2. Hatteras Island with Frisco in the distance.



3



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Fig. 3. Nags Head town, with dune of Jockey's Ridge State Park (back left) and Nags Head Woods Preserve (back right). Fig. 4. Shackleford Banks with Cape Lookout Lighthouse in far back.



Fig. 5. Bodie Island Lighthouse and marshes.

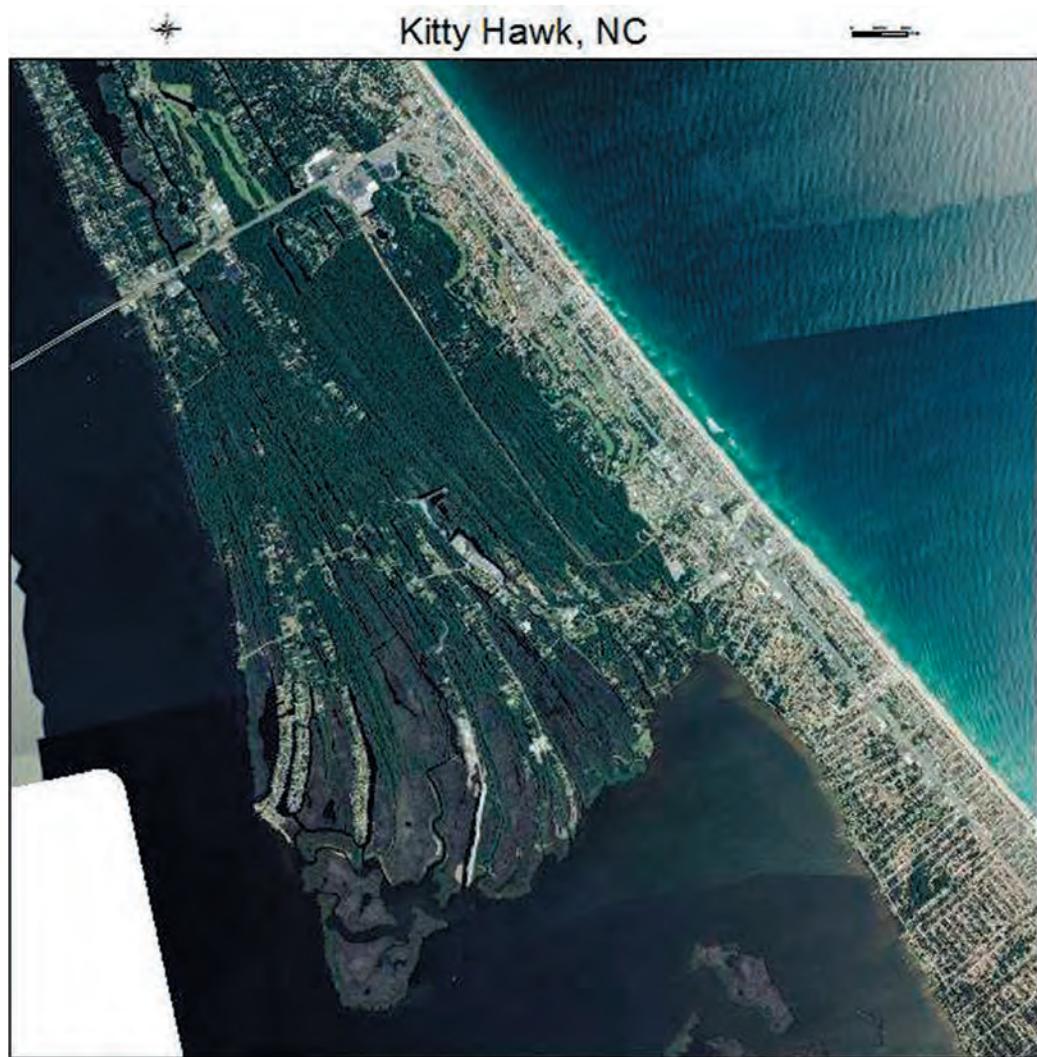


Fig. 6. Kitty Hawk Preserve from overhead. Note linear ridge and swale topography.



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Fig. 7. Buxton Woods and Cape Hatteras Lighthouse. Fig. 8. Overwash just northeast of Buxton.



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Fig. 9. Flooding on Ocracoke Island. Fig. 10. Tidal Freshwater Marsh with pond, Bodie Island.

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Fig. 11. Tidal Freshwater Marsh Cattail Subtype, Bodie Island. Fig. 12. Brackish Marsh, Bogue Banks.



Fig. 13. Dune Grass Northern Subtype, Jockeys Ridge SP, with *Calamagrostis breviligulata* and *Panicum amarum*. Fig. 14. Dune Grass Southern Subtype, Buxton, with *Uniola paniculata* and *Croton punctatus*.



Fig. 15. Maritime Shrub Stunted Tree Subtype, Frisco. Fig. 16. Interdune Marsh, Buxton, dominated by *Eleocharis cellulosa*.



Fig. 17. Interdune Marsh, Buxton, dominated by *Zizania aquatica* and *Salix caroliniana*. Fig. 18. Interdune Marsh, Buxton, with *Coleataenia rigidula* ssp. *condensa* and *Bidens laevis*.

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FIG. 19. Interdune Pond, Buxton, Open Pond, with emergent graminoids, floating *Potamogeton illinoensis*, and *Typha domingensis* in back.
FIG. 20. Maritime Deciduous Forest, Nags Head Woods.

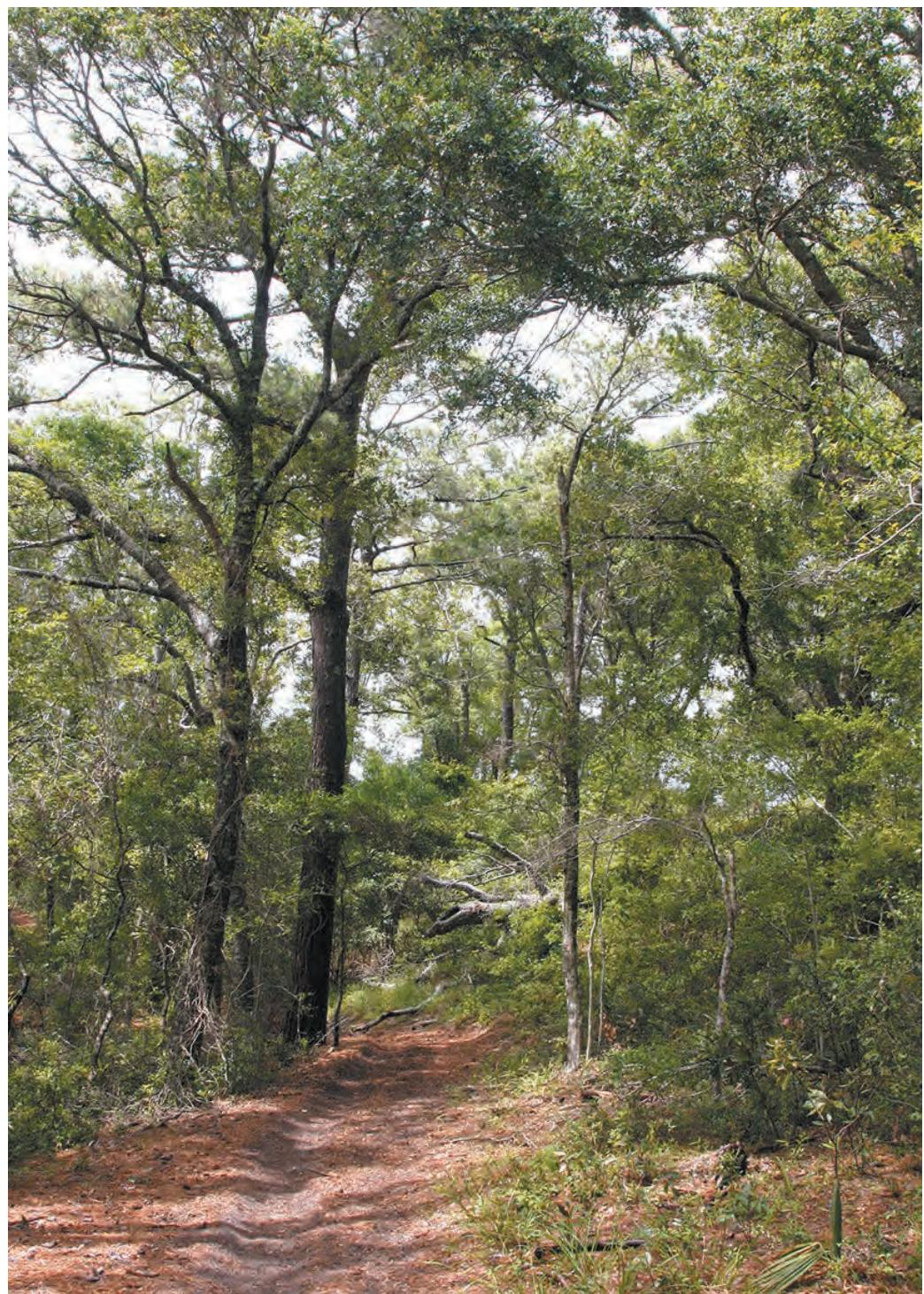


Fig. 21. Maritime Evergreen Forest, Buxton Woods.

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FIG. 22. Maritime Shrub Swamp, Buxton Woods, with *Sabal minor* and *Cornus stricta*.



Fig. 23. Maritime Shrub Swamp, Buxton Woods, with *Carpinus caroliniana* (left) and *Nyssa biflora* (dead tree and right). Fig. 24. Maritime Swamp Forest, Kitty Hawk Woods, with *Nyssa biflora* and *Acer rubrum*.



Fig. 25. Maritime Swamp Forest, Nags Head Woods, with *Nyssa biflora*. Fig. 26. Maritime Swamp Forest Cypress Subtype, Southern Shores, with *Taxodium distichum*.



Fig. 27. Maritime Dry Grassland, near Hatteras village. Fig. 28. Maritime Wet Grassland, Pea Island, with *Andropogon tenuispathus* and *Solidago mexicana*.



Fig. 29. Maritime Wet Grassland, near Cape Hatteras Point, with *Muhlenbergia sericea* and *Juniperus virginiana*. Fig. 30. Maritime Wet Grassland, Pea Island, with *Oenothera unguiculata*.



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Fig. 31. *Amaranthus pumilus* - courtesy of Maryland BioDiversity. Fig. 32. *Carex calcifugens*.



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Fig. 33. *Clematis catesbyana*. Fig. 34. *Corallorrhiza wisteriana*. Fig. 35. *Crocanthemum carolinianum*.

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Fig. 36. *Crocanthemum georgianum*. Fig. 37. *Cyperus surinamensis*. Fig. 38. *Cyperus tetragonus*.

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Fig. 39. *Dichanthelium caerulescens*. Fig. 40. *Dichanthelium neuranthum*. Fig. 41. *Eleocharis cellulosa*. Fig. 42. *Eleocharis montevidensis*.

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Fig. 43. *Eleocharis parvula*. Fig. 44. *Euphorbia bombensis*.



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Fig. 45. *Hibiscus aculeatus*. Courtesy of J. Marlow. Fig. 46. *Hottonia inflata*.



Fig. 47. *Hudsonia tomentosa*. Fig. 48. *Ipomoea imperata*. Courtesy of A. Krings. Fig. 49. *Malaxis spicata*. Courtesy of D. McAdoo.

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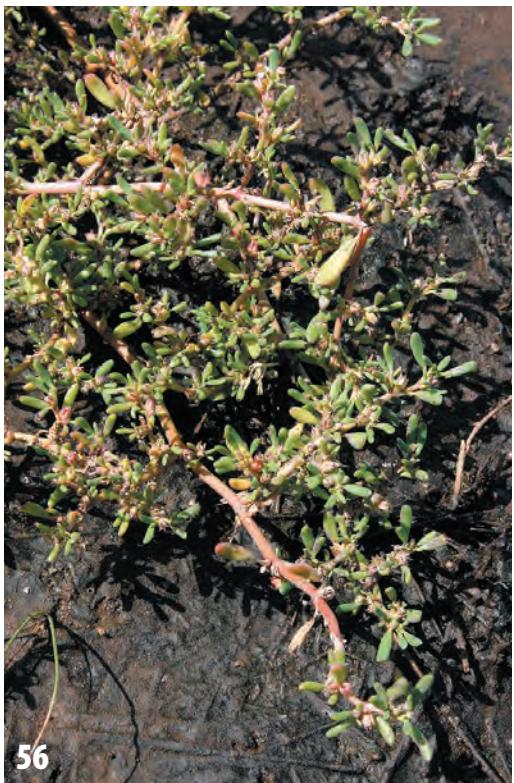
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Fig. 50. *Oplismenus setarius*. Fig. 51. *Potamogeton illinoensis*. Fig. 52. *Rhynchospora microcarpa*. Fig. 53. *Rhynchospora odorata*. Fig. 54. *Sageretia minutiflora*. Courtesy of K. Bradley.



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Fig. 55. *Scleria verticillata*. Fig. 56. *Sesuvium maritimum*. Fig. 57. *Trichostema nesophilum*.

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Fig. 58. *Tridens chapmanii*. Fig. 59. *Yucca gloriosa*. Courtesy of T. Howard.

SPECIES LIST

In the following list, families are presented first by major taxonomic group, then alphabetically by family name, as per Weakley (2018). Species and infraspecific taxa are listed in alphabetical order. Synonyms are provided for readers who are most familiar with names in Radford, Ahles, and Bell (1968) and other publications on the flora of OBX. Habitat descriptors reflect the community types as given above, with natural habitats listed before anthropogenic ones. Locations are cited from north to south: Corolla in Currituck County south to Emerald Isle in Carteret County (see Fig. 1). Abbreviations include SP (State Park), NA (designated Natural Area), NS (National Seashore), NWR (National Wildlife Refuge), NCNHP (NC Natural Heritage Program), BAS (Bruce A. Sorrie). “No recent collections” also implies that no recent reports or sight records are known. Sight records are included if the species is considered virtually unmistakable, or if prior specimen evidence exists. Species not supported by specimens (80) are found in Appendix 1.

LYCOPODIOPHYTA—CLUBMOSSES

LYCOPODIACEAE

Lycopodiella appressa (Chapm.) Cranfill

Southern Bog Clubmoss

Rare at edge of interdune pond; Nags Head Woods. Also reported

from “sandy moist swales at Jockey’s Ridge State Park” (Stalter and Lamont 1997). Godfrey & Fox 51035 (NCSC) in 1950; Stalter and Lamont report in 1990s; no recent collections.

POLYPODIOPHYTA—FERNS

ASPLENIACEAE

Asplenium platyneuron (L.) Britton, Sterns, & Poggenb.

Ebony Spleenwort

Frequent in maritime evergreen forest, maritime deciduous forest; throughout OBX. Radford 8121 (NCU) in 1954; Fauchette 68 (NCSC) in 2013.

record. Clark 469 (NCSC) in 2010.

BLECHNACEAE

Archista virginica (L.) C. Presl [*Woodwardia virginica* (L.) J.E. Smith]

Virginia Chainfern

Frequent in interdune marsh, maritime swamp forest, maritime shrub swamp; throughout OBX. Blomquist 16501 (DUKE); Clark 475 (NCSC) in 2010.

***Ophioglossum petiolatum** Hook.

Longstem Adder’s-tongue

Rare in maritime wet grassland; Shackleford Banks. Sole OBX location. Evans s.n. (DUKE) in 1987; Sorrie et al. 7107 (GH) in 1992; no recent collections.

Sceptridium dissectum (Spreng.) Lyon [*Botrychium dissectum* Spreng.]

Cutleaf Grapefern

Infrequent in maritime evergreen and deciduous forest; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton Woods. Burk et al. b34-1 (NCU) in 1959; Fauchette 403 (NCSC) in 2014.

OSMUNDACEAE

Osmunda spectabilis Willd.

Royal Fern

Frequent in maritime swamp forest, maritime shrub swamp; scattered throughout OBX. Radford et al. 7567 (NCU) in 1953; Fauchette 143 (NCSC) in 2013.

Osmundastrum cinnamomeum (L.) C. Presl [*Osmunda cinnamomeum* L.]

Cinnamon Fern

Frequent in maritime swamp forest, maritime shrub swamp, interdune marsh, interdune pond; throughout OBX. Radford 8113 (NCU) in 1954; Clark 489 (NCSC) in 2010.

POLYPODIACEAE

Pleopeltis michauxiana (Weatherby) Hickey & Sprunt [*Polyodium polypodioides* (L.) Watt var. *michauxianum* Weatherby]

Resurrection Fern

Occasional in maritime evergreen forest, maritime deciduous forest; scattered throughout OBX. Wilbur 12300 (DUKE); Clark 515 (NCSC) in 2010.

PSILOTACEAE

Psilotum nudum (L.) Beauv.

Whisk Fern

Rare in maritime deciduous forest; Kitty Hawk Woods. Sole record for OBX and one of only three from NC. Northern range limit.

DENNSTAEDTIACEAE

Pteridium latiusculum (Desv.) Hieronymus var. **pseudocaudatum**

(Clute) Maxon

Eastern Bracken

Occasional to frequent in maritime evergreen forest, maritime deciduous forest; throughout OBX. Anderson 164 (DUKE) in 1962; Clark 218 (NCSC) in 2009.

DRYOPTERIDACEAE

Dryopteris celsa (W. Palmer) Small

Log Fern

Rare in maritime evergreen forest; Roosevelt Natural Area on Bogue Banks. Sole OBX record. Fussell s.n. (NCSC) in 1974; no recent collections.

OPHIOGLOSSACEAE

Botrypus virginianus (L.) Michx. [*Botrychium virginianum* (L.) Sw.]

Rattlesnake Fern

Rare in maritime evergreen forest; Kitty Hawk Woods. Sole OBX

The native status of *Psilotum* in NC is uncertain; therefore it is not on the NC List of Rare Species (Robinson 2018). However, it is considered to be native in a maritime forest in Beaufort County, SC (K. Bradley in litt.) and Weakley (2018) accepts the record from nearby Chowan County, NC, to be native. *Clark* 335 (NCSC) in 2009.

SALVINIACEAE

Azolla caroliniana Willd.

Eastern Mosquito-fern

Infrequent in interdune pond; Kitty Hawk Woods, Nags Head

CUPRESSACEAE

Juniperus virginiana L.

Eastern Red Cedar

Frequent, locally abundant, in stable dune barren, maritime shrub, brackish marsh, and maritime evergreen forest; throughout OBX. The lengthy argument in Krings (2010) refutes the currently held theory that there are two distinct varieties (or species) of *J. virginiana* in the Southeast; I believe it best to recognize only a broad concept of this species, with weak morphological tendencies shown in populations in maritime habitats. *Totten* 1653 (NCU) in 1964; *Krings* 373 (NCSC) in 2004.

Taxodium distichum (L.) Richard var. **distichum**

Bald Cypress

Frequent, locally abundant, in maritime swamp forest; Southern Shores and Kitty Hawk Woods. It is rare in Nags Head Woods, south of Rodanthe, and near Cape Hatteras Lighthouse. *Fosberg* 17803 (NCSC) in 1940; *Clark* 413 (NCSC) in 2010.

PINACEAE

Pinus echinata Mill.

Shortleaf Pine

Infrequent in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Radford* 8132 (NCU) in 1954; *Clark* 516 (NCSC) in 2010.

***Pinus elliottii** Engelm.

Slash Pine

Rare; persistent in woods on road to Bodie Island lighthouse; also reported from Jockey's Ridge SP (plant list). *McCaffrey* 175 (CAHA) in 1974; *Stalter* s.n. (CAHA) in 1990; no recent collections.

***Pinus nigra** Arnold

European Black Pine

Abundant on Hatteras Island south of Salvo; frequent at Southern Shores; unidentified pines on Cape Lookout and elsewhere may be this species (pers. obs.). Planted and spreading locally. The identity of the planted pines on OBX is not settled. Brown (1959) and Burk (1961) reported *P. pinaster* (see account), but there are no specimens at NCU or CAHA. To identify my

Woods, Buxton Woods. *Atkinson* & *Radford* 2495 (NCU) in 1977; *Faucette* 355 (NCSC) in 2013.

THELYPTERIDACEAE

Thelypteris palustris Schott var. **pubescens** (G. Lawson) Fernald
Marsh Fern

Frequent, sometimes patch dominant, in maritime shrub swamp, maritime swamp forest, interdune marsh, interdune pond, maritime wet grassland; throughout OBX. *Burk* 4056 (CAHA) in 1959; *Faucette* 429 (NCSC) in 2014.

GYMNOSPERMS

specimens I used Haines (2011): *P. nigra* has sessile cones and sticky-resinous buds vs. *P. thunbergii* Parl. (known to be planted in several Atlantic states) with stalked cones and non-resinous buds. *Sorrie* 13186 and 13218 (NCU) in 2013.

Pinus palustris Mill.

Longleaf Pine

Infrequent in maritime evergreen forest; Colington Island, Nags Head Woods, Jockey's Ridge State Park. *Fox* & *Whitford* 388 (NCSC) in 1947; *Krings* 563 (NCSC) in 2004.

***Pinus pinaster** Aiton

Maritime Pine

Reported to be planted on Currituck Banks, Corolla, Bodie Island, and Hatteras Island 1936–1940 (Brown 1959); also reported from Ocracoke Island (Weakley 2018). However, no specimens have been located to verify these reports, and specimens I collected appear to be *P. nigra* (see account above). Rehder (1940) states that cones of *P. pinaster* are stalked and buds non-resinous, whereas my *P. nigra* plants had sessile cones and sticky-resinous buds. Additional study of the planted pines of OBX is needed to settle the identification issue.

Pinus serotina Michx.

Pond Pine

Rare in "marsh near Virginia line" (Burk 1961), estuarine fringe pine forest southwest of Wright Memorial. Reported from Jockey's Ridge State Park (plant list). Near Wright Memorial at least six trees occur in moist soil just back from the sound. *Fox* & *Whitford* 383 (NCSC) in 1947; *Sorrie* 13244 (NCU) in 2013.

Pinus taeda L.

Loblolly Pine

Abundant in maritime evergreen forest, maritime deciduous forest, margin of fresh to brackish marsh; throughout OBX. *Fox* & *Whitford* 1087 (NCSC) in 1947; *Faucette* 381 (NCSC) in 2013.

***Pinus thunbergii** Parl.

Japanese Black Pine

Planted and escaped locally at Buxton (no locality details) and at Cape Lookout NS ranger station (Stalter and Lamont 1999). *Stalter* 395 (CAHA) in 1991; no recent collections.

MAGNOLIIDS AND BASAL ANGIOSPERMS

ANNONACEAE

Asimina parviflora (Michx.) Dunal

Small-flowered Pawpaw

Rare in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods. *Radford* 8090 (NCU) in 1954; *Peterson* s.n. (CAHA) in 1976; no recent collections.

ARISTOLOCHIACEAE

Endodeca serpentaria (L.) Raf. [*Aristolochia serpentaria* L.]

Turpentine-root

Rare in maritime evergreen forest; Nags Head Woods. Sole OBX record. *Krings* 517 (NCSC) in 2004.

CABOMBACEAE

Cabomba caroliniana A. Gray

Carolina Fanwort

Rare in interdune pond; Nags Head Woods. Sole OBX record. *Whitford* s.n. (NCSC) in 1949; no recent collections.

LAURACEAE***Persea borbonia* (L.) Spreng. sensu stricto**

Red Bay

Infrequent in maritime evergreen forest, maritime shrub; Ocracoke Island, Shackleford Banks, Bogue Banks. Northern range limit. There are no proven records from north of Ocracoke, despite reports of *P. borbonia*.¹ *Phipps et al* 3682 (NCU) in 1964; *LeBlond 6148* (NCU) in 2005.

***Persea palustris* (Raf.) Sarg.**

Swamp Bay

Frequent in maritime deciduous forest, maritime evergreen forest, maritime shrub swamp; throughout OBX. *Ashe s.n.* (NCU) in 1898; *Faucette 44* (NCSC) in 2013.

***Sassafras albidum* (Nutt.) Nees**

Sassafrass

Occasional to frequent in maritime evergreen forest, maritime deciduous forest, maritime shrub; throughout OBX, but apparently absent from Buxton Woods. *Burk b20-49* (NCU) in 1959; *McCormick s.n.* (NCU) in 2006.

MAGNOLIACEAE***Liriodendron tulipifera* L.**

Tulip Tree

Apparently rare in maritime forest; near Fresh Pond at border of Nags Head Woods. Sole OBX record. Burk collected leaves from a sapling, but the specimen has been lost (see discussion in Krings 2010). As the species occurs on nearby Roanoke Island, it is likely that Burk's plant grew from seeds carried over to OBX by birds or wind.

****Magnolia grandiflora* L.**

Southern Magnolia

Infrequent at margin of interdune pond, maritime swamp forest, moist maritime evergreen forest; Kitty Hawk Woods, Nags

Head Woods, south of Buxton, and NC Aquarium on Bogue Banks. An escape in recent decades from plantings; not mentioned in the older literature of OBX. Native in NC only in the Wilmington area and southward. *Krings 485* (NCSC) in 2001; *Clark 643* (NCSC) in 2010.

***Magnolia virginiana* L.**

Sweetbay Magnolia

Occasional in maritime shrub swamp, margin of interdune marsh; Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. *Corbin & Wyatt s.n.* (NCU) in 1954; *Krings 659* (NCSC) in 2004.

NYMPHAEACEAE***Nuphar advena* (Aiton) Aiton**

Yellow Spatterdock

Rare in interdune pond; Nags Head Woods. Sole OBX record. *Stalter 1* (CAHA) in 1989; no recent collections.

***Nymphaea odorata* Aiton**

White Pondlily

Rare in interdune marsh, interdune pond; Buxton Woods. Sole OBX location. *Stalter and Lamont (1997)* report it from Nags Head Woods, but the only water lily specimen they collected there is *Nuphar advena*. *Fosberg 17975* (NCSC) in 1940; sight record at Open Pond by BAS in 2012.

SAURURACEAE***Saururus cernuus* L.**

Lizardtail

Frequent in maritime swamp forest, maritime shrub swamp, interdune marsh, interdune pond; Duck, Southern Shores, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Trinity Center and NC Aquarium on Bogue Banks. *Burk b10-6* (NCU) in 1959; *Clark 645* (NCSC) in 2010.

MONOCOTYLEDONAE**ACORACEAE******Acorus calamus* L.**

European Sweetflag

Rare in interdune marsh; Shackleford Banks. Sole OBX location. First reported by Lewis (1917); *Aus.s.n.* (reportedly at DUKE, but specimen not seen 2018); no recent collections.

AGAVACEAE***Yucca aloifolia* L.**

Spanish Dagger

Infrequent in stable dune barren, salt shrub, opening in maritime evergreen forest, roadside. Occurs at Kitty Hawk Woods, where rare, and from Hatteras Island south to South Core Banks. Other occurrences on roadsides and in developed areas are likely escapes from cultivation. *Ashe s.n.* (NCU) in 1898; *Faucette 339* (NCSC) in 2013.

***Yucca filamentosa* L.**

Curlyleaf Yucca

Infrequent in roadside, lawn, disturbed soil; Nags Head Woods, Jockey's Ridge SP, near Bodie Island Lighthouse. The native status is questionable on OBX, although certainly native on the nearby mainland. *Stone 29* (CAHA) in 1963; *Faucette 268* (NCSC) in 2013.

***Yucca gloriosa* L. SR**

Mound-lily Yucca

Infrequent in dune grass, stable dune barren, maritime dry grassland; scattered from Nags Head Woods and Jockey's Ridge State

Park (Bodie Island) to New Inlet (Hatteras Island), Shackleford Banks, and Roosevelt Natural Area on Bogue Banks. Northern range limit. *Radford 7782* (NCU) in 1953; *Krings 727* (NCSC) in 2004; BAS photo at New Inlet in 2013; *J. Fussell* report on Bogue Banks in 2018; *T. Howard* photo at JRSP in 2018.

ALISMATACEAE***Sagittaria lancifolia* L. var. *media* Micheli [*S. falcata* Pursh]**

Lanceleaf Arrowhead

Occasional in interdune pond, interdune marsh, margin of brackish marsh; scattered throughout OBX. Although widespread geographically on OBX, it is absent from many apparently suitable sites. *Fosberg 17896* (NCU) in 1940; *Usher & Tyndall s.n.* (NCU) in 1974; *Ingle s.n.* (NCSC) in 1991; *Clark 372* (NCSC) in 2009.

Sagittaria latifolia* Willd. var. *latifolia

Broadleaf Arrowhead

Occasional in interdune pond, interdune marsh, roadside ditch; Kitty Hawk Woods, Buxton Woods and vicinity, Shackleford Banks. *Fosberg 17823* (NCSC, NCU) in 1940; *Phipps et al. s.n.* (NCU) in 1964; *Clark 708* (NCSC) in 2010.

***Sagittaria subulata* (L.) Buchenau**

Dwarf Arrowhead

Rare in "small pond 3.9 miles N of Duck;" "shallow water of Currituck Sound" at Duck. *Burk (1961)* collected another specimen which has been lost. *Leonard & Radford 3401* (FSU) in 1970; no recent collections.

ALLIACEAE

***Allium ampeloprasum** L.

Eurasian Wild Leek

Rare in "dry dunes, Sea Scape Kitty Hawk." Sole OBX record. The specimen was originally determined as *A. vineale*. *Mulford s.n.* (CAHA) in 1979; no recent collections.

Allium canadense L. var. **canadense**

Wild Onion

Infrequent in maritime evergreen forest; Bodie Island, Buxton Woods, Portsmouth Island, Shackleford Banks. *McCaffrey 253* (CAHA) in 1974; *Faucette 396* (NCSC) in 2014.

***Allium vineale** L.

Eurasian Wild Garlic

Occasional in roadside, stable dune barren; scattered throughout OBX. *Burk b51-10* (NCU) in 1960; *Krings* sight record in 2014.

Nothoscordum bivalve (L.) Britton

False Garlic

Infrequent in maritime shrub, maritime evergreen forest, roadside, lawn; scattered throughout OBX. Several specimens were annotated from *Ornithogalum umbellatum* L., now relegated to the Excluded Species list (Appendix 1). *Blomquist & Jones 15325* (DUKE) in 1951; *Clark 501* (NCSC) in 2010.

AMARYLLIDACEAE

***Narcissus pseudonarcissus** L.

Daffodil

Rare escape from cultivation to clearing in maritime evergreen forest; Kitty Hawk Woods. Sole OBX record. *Clark 414* (NCSC) in 2010.

***Narcissus xincomparabilis** Mill.

Nonesuch Daffodil

Rare escape from cultivation to clearing in maritime evergreen forest; Kitty Hawk Woods. Sole OBX record. *Clark 431* (NCSC) in 2010.

ARACEAE

Arisaema triphyllum (L.) Schott sensu lato

Jack-in-the-Pulpit

Rare at margin of maritime swamp forest, maritime shrub swamp; Kitty Hawk Woods, Nags Head Woods. *Krings* (2010) determined his specimens as subspecies *triphyllum* on the basis of glaucous leaf undersides; *Clark* (2016) did not make any subspecies determination. *Krings 604* (NCSC) in 2004; *Clark 498* (NCSC) in 2010.

Landoltia punctata (G. Meyer) Les and D.J. Crawford [*Spirodela punctata* G. Meyer, *S. oligorrhiza* (Kurz) Hegelmaier]

Dotted Duckmeal

Infrequent in interdune pond, maritime swamp forest; Corolla, Kitty Hawk Woods, Nags Head Woods. *Fox & Whitford s.n.* (NCSC) in 1947; *Holdsclaw 795* (NCU) in 2016.

Lemna aequinoctialis Welw.

Lesser Duckweed

Rare in interdune pond; Nags Head Woods. Sole OBX record. *Fox & Whitford s.n.* (NCSC) in 1947; no recent collections.

Lemna obscura (Austin) Daubs

Little Duckweed

Occasional in interdune pond, pool in maritime swamp forest; Currituck Sound, Duck, Kitty Hawk Woods, Nags Head Woods, Bodie Island, west end of Bogue Banks. *Coker & Braxton s.n.* (NCU) in 1927; *Wilbur 12713* (DUKE) in 1970; *Clark 581* (NCSC) in 2010.

Lemna perpusilla Torr.

Tiny Duckweed

Infrequent in interdune pond; North of Nags Head, Buxton Woods, Pine Knolls on Bogue Banks. *Burk* (1961) reported *L. minor* L. as collected by Radford "in pool in Buxton Woods." This specimen (*Radford 8165* NCU) was annotated to *L. perpusilla* by E. Landolt in 1979 and by L.J. Davenport in 1988. Radford, Ahles, and Bell (1968) state that many reports and collections of *L. minor* from North Carolina misapplied the name to plants of *L. perpusilla*. It is likely that more populations of the latter occur on OBX. *Radford 8165* (NCU) in 1954; *Qualls 1298* (NCU) in 1981; reported from Pine Knolls by Stalter and Lamont (1999); no recent collections.

Lemna valdiviana Philippi

Pale Duckweed

Infrequent in interdune pond, tidal freshwater marsh; near Currituck Sound, Kill Devil Hills, Nags Head Woods. *Whitford 129* (NCSC) in 1949; *Musselman 4108* (NCU) in 1970; *Peterson s.n.* (CAHA) in 1979; no recent collections.

Peltandra virginica (L.) Schott

Arrow Arum

Infrequent in interdune pond, interdune marsh, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Atkinson and List* (1978) made the first report of this species on OBX, but no voucher can be located. *Krings 620* (NCSC) in 2004; *Faucette 144* (NCSC) in 2013.

Spirodela polyrhiza (L.) Schleid.

Greater Duckweed

Occasional in interdune pond, maritime swamp forest; scattered from near Currituck Sound south to Buxton Woods. *Radford 4648* (NCU) in 1949; *Clark 565* (NCSC) in 2010.

Wolffia brasiliensis Wedd. [*W. papulifera* C.H. Thompson; *W. punctata* Griesb.]

Brazilian Watermeal

Rare in interdune pond; Nags Head Woods. Sole OBX record. *Musselman 4103* (NCU) in 1970; no recent collections.

Wolffia columbiana H. Karsten

Colombian Watermeal

Rare in interdune pond, southwest of Kitty Hawk, Nags Head area, Kill Devil Hill. *Coker & Braxton s.n.* (NCU) in 1927 (double mounted with *Lemna obscura*); *Boufford 12153* (CM) in 1973; *Qualls 1294* (NCU) in 1981; no recent collections.

Wolffiella gladiata (Hegelm.) Hegelm.

Mud-midgets

Occasional in interdune pond; near Curritick Sound, Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Fox & Whitford s.n.* (NCSC) in 1947; *Faucette 63* (NCSC) in 2013.

ARECACEAE

Sabal minor (Jacq.) Pers.

Dwarf Palmetto

Occasional in maritime shrub swamp, maritime swamp forest, maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods (BAS photo in 2013), Buxton Woods, South Core Banks, Shackleford Banks. The northernmost verified population occurs on Monkey Island in Currituck County, not part of OBX proper. *Radford 8124* (NCU) in 1954; *Clark 663* (NCSC) in 2010.

BROMELIACEAE

Tillandsia usneoides (L.) L.

Spanish Moss

Frequent in maritime evergreen forest, maritime swamp forest; Corolla, Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge

SP, Buxton Woods, Ocracoke Island, Shackleford Banks, Bogue Banks. *Fosberg* 17919 (NCSC) in 1940; *Krings* 368 (NCSC) in 2004; *Holdsclaw* 779 (NCU) in 2016.

BURMANNIACEAE

***Burmannia biflora* L.**

Violet Burmannia

Rare in margin of interdune pond, in wet powerline; Nags Head Woods. Sole OBX location. *Coker & Braxton s.n.* (NCU) in 1927; *Krings* 850 (NCSC) in 2004.

CANNACEAE

****Canna × generalis* L.H. Bailey**

Garden Canna

Infrequent escape from cultivation to roadside; Caffey's Inlet north of Duck, north of Hatteras village, Shackleford Banks, Fort Macon SP on Bogue Banks. Included here are reports and specimens of *C. indica* L. First reported by Lewis from Shackleford Banks (1917); *Leonard & Radford* 3404 (NCU) in 1969; *Stalter* 396 (CAHA) in 1989; no recent collections.

COMMELINACEAE

****Commelina communis* L.**

Common Dayflower

Infrequent in roadside, waste ground, moist ditch; Duck, Nags Head Woods, Buxton Woods. *Willet s.n.* (CAHA); *Faucette* 42 (NCSC) in 2013.

***Commelina erecta* L. var. *angustifolia* (Michx.) Fernald**

Sand Dayflower

Frequent in maritime evergreen forest, roadside, powerline; scattered throughout OBX. *Fosberg* 17888 (NCSC) in 1940; *Krings* 1317 (NCSC) in 2004.

****Murdannia keisak* (Hassk.) Hand.-Mazz. [*Aneilema k.* Hassk.]**

Marsh Dewflower

Rare in wet powerline; Nags Head Woods. Sole OBX location. *Stalter* 94 (CAHA); *Krings* 1188 (NCSC) in 2004.

***Tradescantia ohiensis* Raf.**

Smooth Spiderwort

Rare on roadside, "west end of Kitty Hawk Road, Cape Hatteras National Seashore Park." Sole OBX record. *Peterson et al. s.n.* (NCSC) in 1978.

CYMODOCEACEAE

***Halodule wrightii* Asch.**

Shoal Grass

Frequent (locally dominant) in shallow water of Pamlico and Core Sounds; specimens have been seen from Cape Hatteras, Ocracoke Island, and Emerald Isle on Bogue Banks. Sightings and photographs of flowering plants are from Oregon Inlet to Cape Lookout by Ferguson et al. (1993). Northern range limit, disjunct some 700 km from northern Florida. *Rondthaler s.n.* (DUKE) in 1951; *Williams s.n.* (DUKE) in 1954; *Leonard* 7139 (NCU) in 1978; photos by Ferguson et al. (1993) in 1991; no recent collections.

***Ruppia maritima* L.**

Wigeon Grass

Frequent in shallow water of sounds; Currituck Sound at Duck, Kitty Hawk Bay, Colington, Nags Head Woods, Hatteras Island, Shackleford Banks, Bogue Sound. This, *Halodule wrightii*, and *Zostera marina* are the most important "seabed" plants of the NC estuaries and sounds, providing food, shelter, and nursery areas for fish, shrimp, and shellfish (Ferguson et al. 1989). *Ashe s.n.* (NCU) in 1898; *Krings & Kruger* 567 (NCSC) in 2003.

CYPERACEAE

***Bolboschoenus robustus* (Pursh) Sojak**

Saltmarsh Bulrush

Occasional in brackish marsh, tidal freshwater marsh, and interdune marsh, Kitty Hawk Woods, Nags Head Woods, Oregon Inlet, Buxton Woods, Ocracoke Island, South Core Banks. *Radford et al.* 7484 (NCU) in 1953; *Krings & Kruger* 572 (NCSC) in 2004.

***Bulbostylis capillaris* (L.) C.B. Clarke**

Common Hairsedge

Rare or occasional in stable dune barren, disturbed soil; south of water tank on Bodie Island, near Turtle Pond on Hatteras Island. Reported from Nags Head Woods (Atkinson and List 1978) and South Core Banks (Krakow 1991). *Davison s.n.* (CAHA) in 1985; *Stalter & Lamont s.n.* (CAHA) in 1989; no recent collections.

***Bulbostylis coarctata* (Elliott) Fernald [*B. ciliatifolia* (Elliott) Fernald var. *coarctata* (Elliott) Kral]**

Elliott's Hairsedge

Rare in maritime evergreen forest; Bogue Banks. Sole OBX record. The specimen was originally determined as *B. ciliatifolia* (Elliott) Fernald, but is referred here. Achenes of *B. coarctata* measure 0.6–0.7 mm vs. 0.8–0.9 in *B. ciliatifolia* (BAS unpublished data). *Burk* b39-4 (NCU) in 1959; no recent collections.

***Bulbostylis stenophylla* (Elliott) C.B. Clarke**

Sandhill Hairsedge

Infrequent in maritime evergreen forest; Shackleford Banks, Bogue Banks. Reported from South Core Banks (Krakow 1991). Northern range limit. *Burk* b39-5 (NCU) in 1959; *Anderson* 341 (DUKE) in 1962; no recent collections.

***Carex alata* Torr.**

Broad-winged Sedge

Infrequent in interdune marsh, wet roadside ditch; Nags Head Woods, Buxton Woods, Shackleford Banks. The Burk specimen was originally determined as *C. albolutescens* Schweinitz, but is referred here. *Burk* b9-9 (CAHA) in 1959; *Sorrie* 13035 (CAHA) in 2012.

***Carex amphibola* Steud.**

Eastern Narrow-leaved Sedge

Rare in maritime evergreen forest; Nags Head Woods. Sole OBX record. The specimen was originally determined as *C. digitalis* Willd., annotated by R.F.C. Naczi to *C. amphibola*. *Ashe s.n.* (NCU) in 1898; no recent collections.

****Carex arenaria* L.**

Sand Sedge

Rare in live dune grass, dune barren; "behind first dune, Nags Head." Sole OBX location. *Griffin s.n.* (NCSC) in 1977; *Stalter & Lamont s.n.* (CAHA) in 1990; *Krings* 2486 (NCSC) in 2007.

***Carex atlantica* L.H. Bailey sensu stricto**

Prickly Bog Sedge

Rare in maritime swamp forest; Kitty Hawk Woods. Sole OBX record. Plants are robust, taller and with wider leaves than those of *C. howei* in the same habitat. BAS photo in 2013.

***Carex calcifugens* Naczi SR**

Calcium-fleeing Sedge

Occasional in maritime deciduous forest, maritime evergreen forest; Southern Shores, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. Northern range limit. The Ashe specimen was originally not determined to species, annotated as *C. oligocarpa* Schkuhr by A.E. Radford, annotated as *C. calcifugens* by R.F.C. Naczi. *Ashe s.n.* (NCU) in

1898; Peet *et al.* 6794 (NCU) in 1990; Sorrie 12929 (GH, NCSC, NCU, NY) in 2012.

Carex comosa Boott

Bottlebrush Sedge

Occasional in interdune marsh, maritime swamp forest; near Currituck Sound, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Bogue Banks. Ashe *s.n.* (NCU) in 1898; Clark 587 (NCSC) in 2010.

Carex complanata Torr. & Hook.

Hirsute Sedge

Rare in maritime evergreen forest; Kitty Hawk Woods. Sole OBX record. Clark 575 (NCSC) in 2010.

Carex digitalis Willd. var. **macropoda** Fernald

Long-spiked Slender Woodland Sedge

Occasional in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Bogue Banks. Ashe *s.n.* (NCU) in 1898; Sorrie 13149 (NCSC, NCU) in 2013.

Carex floridana Schweinitz [*C. nigromarginata* Schweinitz var. *f.* (Schweinitz) Kükenthal]

Florida Sedge

Occasional in maritime evergreen forest; Southern Shores, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. OBX specimens originally determined as *C. albicans* Willd. var. *australis* (L.H. Bailey) Rettig or *C. nigromarginata* Schweinitz are referred here. *Aus.n.* (DUKE) in 1968; Rothfels *et al.* 2437 (DUKE) in 2007; Sorrie 12925 (NCSC, NCU, NY) in 2012.

Carex glaucescens Elliott

Bluish Sedge

Infrequent in margin of interdune pond; Nags Head Woods, Buxton Woods. McCaffrey 128 (CAHA) in 1974; Faucette 306 (NCSC) in 2013.

Carex howei Mackenzie [*C. atlantica* L.H. Bailey ssp. *capillacea* (L.H. Bailey) Reznicek]

Howe's Bog Sedge

Infrequent in maritime swamp forest, freshwater seepage swamp; Kitty Hawk Woods, Nags Head Woods, base of Run Hill. Krings 1066 (DOV, NCSC) in 2004; Sorrie 13011 (NCSC) in 2012.

Carex hyalinolepis Steud.

Shoreline Sedge

Rare in interdune pond; Kitty Hawk Woods. Sole OBX record. Clark 453 (NCSC) in 2010.

Carex intumescens Rudge

Bladder Sedge

Rare in moist maritime evergreen forest; Kitty Hawk Woods. Sole OBX record. Boggen 207 (DUKE) in 1955; no recent collections.

***Carex kobomugi** Owaki

Sea Isle Sedge

Rare in "dunes of Currituck Beach, 6 mi. north of Corolla," "near Lifesaving Station, Currituck NWR," and "dunes by roadside north of Oregon Inlet" (Bodie Island). Other specimens refer to *C. pumila*, which see. Leonard & Atkins 6046 (NCU) in 1974; Griffin *s.n.* (NCSC) in 1977; Wichmann *s.n.* (NCU) in 2003.

Carex leptalea Wahlenb.

Bristle-stalked Sedge

Rare in "soundside woods directly back of lighthouse, Buxton," presumably in an interdune marsh. Sole OBX record. Faucette (2020) determined this specimen to be var. *leptalea*. Burk b44-19 (NCU) in 1960; no recent collections.

Carex longii Mackenzie

Long's Sedge

Frequent in interdune marsh, maritime shrub swamp, margin of maritime swamp forest, moist powerline; throughout OBX. Specimens determined as *C. albolutescens* Schweinitz are all referred here; see Krings (2010) for discussion. Fosberg 17869 (NCSC) in 1940; Clark 113 (NCSC) in 2009.

Carex lupulina Muhl. ex Willd.

Hop Sedge

Infrequent in maritime swamp forest, interdune marsh; Corolla, Kitty Hawk Woods, Buxton Woods. Schafale 590360 (NCU) in 2007; Holdswa 530 (NCU) in 2011; Faucette 104 (NCSC) in 2013.

Carex mitchelliana M.A. Curtis [*C. crinita* var. *m.* (M.A. Curtis) Gleason]

Mitchell's Sedge

Rare in interdune marsh; Buxton Woods. Sole OBX record. The specimen was originally determined as *C. crinita* Lam. Radford 8137 (NCU) in 1954; no recent collections.

Carex muehlenbergii Schkuhr ex Willd.

Muhlenberg's Sedge

Rare in woodland edge, clearing in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods. Godfrey & Fox 49273 (NCSC) in 1949; Sorrie 13013 (NCU) in 2012.

***Carex pumila** Thunb.

Strand Sedge

Rare in unstable sand of dune grass; Corps of Engineers Research Facility in Duck, campground on Bodie Island, back of Coquina Beach on Bodie Island, "wet soil under Oregon Inlet bridge," "Hatteras Island." The first North American collection was by Burk; see Reznicek (1993) for its rediscovery. Most historical collections of *C. kobomugi* on OBX are actually of *C. pumila*. Burk b49-18 (NCU) in 1959; Griffin *s.n.* (NCSC) in 1977; Gaddy 263 (CAHA) in 1984; Sorrie 13184 (CAHA, NCU) in 2012.

Carex seorsa Howe

Weak Stellate Sedge

Rare in maritime swamp forest; Kitty Hawk Woods. Sole OBX record. Clark 75 (NCSC) in 2009.

Carex stipata Muhl. ex Willd. var. **maxima** Chapm.

Large Stalk-grain Sedge

Occasional in maritime evergreen forest, interdune marsh, interdune pond; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. Radford 8155 (NCU) in 1954; Faucette 444 (NCSC) in 2014.

Carex striatula Michx.

Lined Sedge

Rare in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. Ashe *s.n.* (NCU) in 1898; Stalter *s.n.* (CAHA) in 1991; Krings 1310 (NCSC) in 2005.

Carex willdenowii Schkuhr

Willdenow's Sedge

Rare in maritime deciduous forest; Nags Head Woods. Sole OBX record. The specimen is double-mounted on same sheet as *C. striatula*, verified by S. Tessel and BAS in 2017. Ashe *s.n.* (NCU) in 1898; no recent records.

Cladium mariscus (L.) Pohl ssp. **jamaicense** (Crantz) Kükenthal [*Cladium j.* Crantz]

Sawgrass

Frequent in brackish marsh, freshwater tidal marsh; throughout OBX. Fosberg 17976 (NCSC) in 1940; Clark 258 (NCSC) in 2009.

Cyperus bipartitus Torr. [*C. rivularis* Kunth]

Shining Flatsedge

Rare in saltmarsh, Hatteras Point, South Core Banks. The Radford specimen was originally determined as *C. filicinus*. *Radford et al.* 7800 (NCU) in 1953; Krakow report from South Core Banks in 1991; no recent collections.

***Cyperus brevifoloides** Thieret & Delahoussaye [*Kyllinga gracillima* Miquel]

Asiatic Greenhead Flatsedge

Rare in moist edge of woodland, edge of interdune pond; Kitty Hawk Woods, Trinity Center on Bogue Banks. The Stalter collection was originally determined as *Kyllinga brevifolia*. *Stalter 7* (EIU) in 1995; *Clark 370* (NCSC) in 2009.

Cyperus compressus L.

Poorland Flatsedge

Rare in roadside, disturbed soil; NPS Day Use Area in Salvo, Buxton Woods (both Hatteras Island). This weedy species is likely more widespread than records indicate. BAS sight record in 2012; *Faucette 386* (NCSC) in 2013.

Cyperus croceus Vahl [*C. globosus* Aublet]

Baldwin's Flatsedge

Occasional in openings in maritime evergreen forest, roadside; scattered throughout OBX. *Fosberg 17936* (NCSC) in 1940; *Krings 1144* (NCSC) in 2005.

Cyperus dentatus Torr. SC

Toothed Flatsedge

Rare, two records: Currituck Banks in vicinity of Whalehead Beach; one mile north of Duck. Reported from Currituck Banks by Coastal Zone Resources, Inc. (1974); *Usher & Tyndall s.n.* (ODU) in 1974; no recent collections.

***Cyperus difformis** L.

Variable Flatsedge

Rare, shore of Currituck Sound "about 1.5 km north of Duck," as reported by Usher et al. (1978). Sole OBX record. *Usher & Tyndall s.n.* (ODU) in 1974; no recent collections.

Cyperus echinatus (L.) Wood [*C. ovularis* (Michx.) Torr.]

Round-headed Flatsedge

Rare in trailside through maritime evergreen forest, forest opening; north of Duck, Nags Head Woods, Buxton Woods. *Usher & Tyndall s.n.* (ODU) in 1974; *Krings 688* (NCSC) in 2004; *Sorrie 13112* (CAHA, NCU) in 2012.

***Cyperus esculentus** L. var. **leptostachyus** Boeckeler

Yellow Nutsedge, Chufa

Occasional in disturbed soil, roadside; Nags Head Woods, Buxton Woods, Emerald Isle on Bogue Banks. *Burk b31-6* (CAHA) in 1959; *Faucette 25* (NCSC) in 2013.

Cyperus filicinus Vahl

Fern Flatsedge

Frequent in brackish marsh, fresh tidal marsh; throughout OBX. Several specimens were originally determined as *C. polystachyos* but are referred here. *Burk b36-66* (CAHA) in 1959; *Sorrie 13098* (CAHA) in 2012.

Cyperus flavescens L.

Yellow Flatsedge

Infrequent in interdune marsh, brackish marsh; Avon, Buxton Woods, Shackleford Banks. *Radford et al. 7727* (NCU) in 1953; *Faucette 201* (NCSC) in 2013.

Cyperus flavicomus Michx. [*C. albomarginatus* (Mart. & Schrader) Steud.]

White-edged Flatsedge

Rare in disturbed area; Jockey's Ridge SP, Ocracoke Island.

Specimens of this species at CAHA were misidentified as *C. bipartitus* Torr. *Stalter s.n.* (CAHA) in 1990; *Redden s.n.* (CAHA) in 1997; no recent collections.

Cyperus grayi Torr.

Gray's Flatsedge

Occasional in stable dune barren, maritime dry grassland; scattered throughout OBX. *Radford et al. 7517* (NCU) in 1953; *Clark 297* (NCSC) in 2009.

Cyperus haspan L.

Sheathed Flatsedge

Occasional in interdune marsh, interdune pond; scattered throughout OBX. *Fosberg 17968* (NCSC) in 1940; *Krakow s.n.* (DUKE) in 1990; no recent collections.

Cyperus hortensis (Salzm. ex Steud.) Dorr [*C. tenuifolius* (Steud.) Dandy; *Kyllinga pumila* Michx.]

Annual Greenhead Flatsedge

Rare in unspecified habitat and location. Sole OBX record. The specimen label is blank, but the specimen is definitely *C. hortensis*. An unvouchered report of *Kyllinga odorata* Vahl from a roadside ditch in Buxton (Stalter & Lamont 1997) may possibly be referred here. *Stalter & Lamont s.n.* (CAHA) in 1990; no recent collections.

***Cyperus iria** L.

Rice-field Flatsedge

Rare in churchyard; Duck. Sole OBX record. The species epithet on the label was originally blank, but the specimen is definitely this species. *Stalter & Lamont s.n.* (CAHA) in 1990; no recent collections.

Cyperus neotropicalis Alain [*Lipocarpha maculata* (Michx.) Torr.]

American Lipocarpha

Rare in "sandy marsh near Freshwater Lake, Nags Head." Sole OBX record. Burk's text (1961) states "salt marsh at Hatteras," apparently in error. *Radford 6610a* (NCU) in 1952; no recent collections.

Cyperus odoratus L.

Fragrant Flatsedge

Occasional in brackish marsh, tidal freshwater marsh, interdune marsh; throughout OBX. *Fosberg 17775* (NCU) in 1940; *Clark 671* (NCSC) in 2010.

Cyperus ovatus Baldw. [*C. retrorsus* (Chapm.) var. *deeringianus* (Britton & Small) Fernald & Griscom]

Ovate Flatsedge

Rare in moist roadside, Emerald Isle on Bogue Banks. Sole OBX record. *Stalter 152* (EIU) in 1990; no recent collections.

Cyperus plukenetii Fernald

Plukenet's Flatsedge

Occasional in maritime evergreen forest; Duck, Kitty Hawk Woods, Nags Head Woods, The Burk specimen was originally determined as *C. dipsaciformis* Fernald, but is referred here. *Burk 34-10* (CAHA) in 1959; *Krings 880* (NCSC) in 2005.

Cyperus polystachyos Rottboell

Coastal Flatsedge

Occasional in maritime wet grassland, border of brackish marsh; scattered throughout OBX. Note that this species includes var. *texensis* (Torr.) Fernald in synonymy. *Fosberg 17854* (NCSC) in 1940; *Sorrie 13129* (CAHA, NCU) in 2012.

Cyperus retrofractus (L.) Torr.

Rough Flatsedge

Rare in opening in maritime evergreen forest, powerline; Kitty

Hawk Woods, Nags Head Woods, Shackleford Banks. Reported from Shackleford by Lewis (1917); *Clark* 389 (NCSC) in 2009.

Cyperus retrorsus* Chapm. var. *retrorsus

Pine Barren Flatsedge

Occasional or frequent in roadside, powerline, stable dune barren; scattered throughout OBX. *Blomquist* 7475 (DUKE) in 1935; *Au s.n.* (DUKE) in 1967; *Faucette* 316 (NCSC) in 2013.

****Cyperus rotundus* L.**

Purple Nutsedge

Rare in "wet bog"; Nags Head Woods. Sole OBX record. The Stalter specimen was originally "Cyperus sp.," but is referred here. Two other collections (*Burk* b36-44, CAHA; b36-49 NCU) purported to be this species from Bodie Island brackish marshes actually are *C. odoratus* and *C. esculentus*, respectively. *Stalter s.n.* (CAHA) in 1989; no recent collections.

***Cyperus strigosus* L.**

Straw Flatsedge

Occasional in interdune marsh, maritime wet grassland, roadside ditch; scattered from Colington Island south to Bogue Banks. *Fosberg* 17966 (NCSC) in 1940; *Krings* 1137 (NCSC) in 2005.

***Cyperus surinamensis* Rottboell**

Tropical Flatsedge

Rare at margin of maritime wet grassland; Cape Point Campground on Hatteras Island. Sole OBX record. Northern range limit. *Sorrie* 13009 (CAHA, NCU) in 2012.

***Cyperus tetragonus* Elliott SC**

Four-angled Flatsedge

Infrequent in maritime evergreen forest; Buxton Woods, Shackleford Banks. Northern range limit. *Krakow* 905 (DUKE) in 1990; *Sorrie* 13077 (CAHA, NCSC, NCU) in 2012.

***Dulichium arundinaceum* (L.) Britton**

Three-way Sedge

Infrequent in interdune marsh, wet powerline; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Radford* 44481 (NCU) in 1961; *Stalter* 15 (CAHA); no recent collections.

***Eleocharis albida* Torr.**

White Spikerush

Frequent in brackish marsh, tidal freshwater marsh, roadside ditch; Kitty Hawk Woods, Bodie Island Lighthouse, Buxton, Portsmouth Island, Shackleford Banks. *Blomquist* 16416 (DUKE) in 1954; *Au s.n.* (DUKE) in 1966; *Clark* 676 (NCSC) in 2010.

***Eleocharis ambigens* Fernald [formerly synonymized under *E. fallax* Weatherby]**

Two-branched Creeping Spikerush

Occasional in brackish marsh, interdune marsh; north of Kitty Hawk Beach, Bodie Island, Jennette Sedge in Buxton, Shackleford Banks. By many authors subsumed within *E. fallax*, but see *Sorrie* and *LeBlond* (2014) for distinctions. A number of historical collections from North Carolina have been annotated from *E. fallax*. *Godfrey & Fox* 49268 (NCSC) in 1949; *Sorrie* 13216 (NCSC, NCU) in 2013.

***Eleocharis baldwinii* (Torr.) Chapm.**

Baldwin's Spikerush

Rare in margin of brackish marsh; Kitty Hawk Woods, Nags Head Woods. Reported from near Corolla Light (Stalter & Lamont 1997). This species normally inhabits exposed pond bottoms. *Stalter s.n.* (CAHA) in 1991, no recent collections.

***Eleocharis cellulosa* Torr. E**

Gulf Coast Spikerush

Rare (but may be abundant where found) in interdune marsh;

Buxton Woods, Ocracoke Island. Northern range limit. The Buxton Woods population is dominant over a hectare. *Fosberg* 17965 (MICH, NCSC) in 1940; *LeBlond* 6153 (pers. herb.) in 2005; *Sorrie* 13102 (CAHA, NCU) in 2012.

***Eleocharis fallax* Weatherby SR**

Three-branched Creeping Spikerush

Frequent in interdune marsh, tidal freshwater marsh; Buxton Woods and vicinity, Bogue Banks. Other reports and cited specimens need checking. *Sorrie* and *LeBlond* (2014) discussed the status of *E. fallax* rangewide; at least six populations are known in the Buxton area. Southern range limit. The Buxton specimen was originally determined as *E. calva* Torr., but is referred here. *Burk* b17-3 (NCU) in 1959; *Stone* 74 (CAHA) in 1964; *Sorrie* 13187 (GH, NCU) in 2012.

***Eleocharis flavescens* (Poir.) Urban**

Pallid Spikerush

Occasional in drawdown zone of interdune pond, brackish marsh; Nags Head Woods, Buxton Woods, Portsmouth Island, Shackleford Banks. This species can be difficult to distinguish from *E. olivacea*, see key in *Krings* (2010). *Radford* 6611 (NCU) in 1952; *Faucette* 39 (NCSC) in 2013.

***Eleocharis halophila* (Fernald & Brackett) Fernald SR**

Salt-loving Spikerush

Rare in interdune marsh; 4 miles north of Duck, Bodie Island Lighthouse. Reported from Cape Lookout NS (Stalter & Lamont 1999) but specimen not seen. Southern range limit. *Beal* 3971 (NCSC) in 1958; reported at the lighthouse by *Gaddy* (1985); *Franklin* 861 (NCU) in 2009.

***Eleocharis montevidensis* Kunth SR**

Sand Spikerush

Occasional in drier portion of interdune marsh, maritime wet grassland, margin of interdune pond; scattered from Buxton Woods to Bogue Banks. See *Sorrie* and *LeBlond* (2014) for distinctions among this species, *E. ambigens*, and *E. fallax*. Northern range limit. *Ashe s.n.* (NCU) in 1898; *LeBlond* 6202 (NCU) in 2005; *Sorrie* 12948 (CAHA, NCU) in 2012.

***Eleocharis obtusa* (Willd.) Schultes**

Blunt Spikerush

Rare in roadside ditch, interdune pond, wet powerline; Nags Head Woods, Bodie Island water tower. *Davison s.n.* (CAHA) in 1985; *Krings* 827 (NCSC) in 2004.

***Eleocharis olivacea* Torr.**

Olive Spikerush

Infrequent in drawdown zone of interdune pond, interdune marsh; Kill Devil Hill adjacent to Nags Head Woods, Buxton Woods, Shackleford Banks. *Godfrey & Fox* 51025 (TENN) in 1950; *Faucette* 346 (NCSC) in 2013.

***Eleocharis parvula* (Roem. & Schult.) Link SR**

Dwarf Spikerush

Rare in interdune pond, tidal freshwater marsh, brackish marsh; Jockey's Ridge State Park, Bodie Island Lighthouse, Chicamacomico (Hatteras Island), Buxton area. A reported specimen by *Burk* (1961) was not found. *Ashe s.n.* (FSU) in 1898; *Gaddy* 266 (CAHA) in 1984; *Sorrie* 13075 (NCU) in 2012.

***Eleocharis quadrangulata* (Michx.) Roem. & Schult.**

Four-angled Spikerush

Rare in interdune pond, semipermanent impoundment; "vicinity of Methodist Church" in Duck, Nags Head Woods, Pea Island NWR. *Fox & Godfrey* 2314 (DUKE, NCSC) in 1949; *Stalter s.n.* (CAHA) in 1990; no recent collections.

Eleocharis rostellata (Torr.) Torr. SR

Saltmarsh Spikerush

Occasional in brackish marsh, tidal freshwater marsh; boardwalk at Bodie Island Lighthouse, Avon, Buxton area, Ocracoke Island, Portsmouth Island. *Engels s.n.* (NCU) in 1940; *Krakow & Govus* 899 (GA) in 1990; *Krings* 777 (NCSC) in 2004.**Eleocharis tuberculosa** (Michx.) Roem. & Schult.

Large-tuberled Spikerush

Rare in seepage area of sandhill; water tower on Bodie Island. Sole OBX record. *Davison s.n.* (CAHA) in 1985; no recent collections.**Eleocharis vivipara** Link E

Viviparous Spikerush

Rare in interdune pond; Kill Devil Hills, Nags Head Woods. *Godfrey & Fox* 49279 (DUKE, NCSC) in 1949; *Krings* 1268 (NCSC) in 2005.***Fimbristylis annua** (Allioni) Roem. & Schult.

Annual Fimbr

Rare in disturbed sand; Shackleford Banks. Sole OBX record. The specimen was originally determined as *F. dichotoma*; annotated by B. van Eerden in 1994 and BAS in 2018. *Phipps et al.* 3752 (NCU) in 1964; no recent collections.**Fimbristylis autumnalis** (L.) Roem. & Schult.

Slender Fimbr

Infrequent in drawdown zone of interdune pond, interdune marsh, roadside ditch; Duck, Nags Head Woods, Portsmouth Island, Shackleford Banks. *Burk b24-65* (NCU) in 1959; *Stalter s.n.* (CAHA) in 1990; no recent collections.**Fimbristylis caroliniana** (Lam.) Fernald

Carolina Fimbr

Frequent in brackish marsh, maritime wet grassland, interdune pond; throughout OBX. Many collections were originally determined as *F. spadicea* (L.) Vahl. *Fosberg* 17956 (NCU) in 1940; *Sorrie* 12034 (CAHA, NCU) in 2012.**Fimbristylis castanea** (Michx.) Vahl

Chestnut or Marsh Fimbr

Occasional in brackish marsh; Bodie Island, Oregon Inlet, Hatteras Island, Ocracoke Island, Portsmouth Island. Several collections were originally determined as *F. spadicea* (L.) Vahl, which is more tropical in distribution. *Burk b24-64* (CAHA) in 1959; *Clark* 674 (NCSC) in 2010.**Fimbristylis dichotoma** (L.) Vahl

Forked Fimbr

Rare in maritime dry grassland, dune grass; Corps of Engineers property north of Duck, South Core Banks. Morphology and habitat are close to *F. annua* and specimens are often confused. *Usher & Tyndall s.n.* (ODU) in 1974; Krakow report from South Core Banks in 1991; no recent collections.***Fimbristylis schoenoides** (Retz.) Vahl

Ditch Fimbr

Rare in maritime evergreen forest; Kill Devil Hills. Sole OBX record. The specimen was originally determined as *Eleocharis* sp., but is referred here. *Stalter s.n.* (CAHA) in 1990; no recent collections.***Fimbristylis tomentosa** Vahl

Woolly Fimbr

Rare in unspecified habitat; South Core Banks. Sole OBX record. The specimen was originally determined as *F. dichotoma*. *Krakow & Govus* 872 (NCSC) in 1990; no recent collections.**Fuirena breviseta** (Coville) Coville

Short-bristled Umbrella-sedge

Rare in maritime wet grassland, Shackleford Banks. Sole OBX location. The Phipps collection was originally determined as *F.**squarrosa* Michx. *Anderson* 521 (DUKE) in 1962; *Phipps et al.* 3754 (NCU) in 1964; *Au s.n.* (DUKE) in 1967; no recent collections.**Fuirena pumila** Torr. [*F. squarrosa* Michx., misapplied]

Dwarf Umbrella-sedge

Occasional in interdune pond, interdune marsh, wet depression; scattered from Duck to Ocracoke Island. A report of *F. squarrosa* Michx. (Burk 1961) actually refers to *F. pumila*. *Fosberg* 17790 (NCSC) in 1940; *Sorrie* 13082 (NCU) in 2012.**Rhynchospora caduca** Elliott

Angle-stem Beaksedge

Rare in maritime swamp forest, maritime evergreen forest; Kitty Hawk Woods, Shackleford Banks. *Au s.n.* (DUKE) in 1968; *Clark* 585 (NCSC) in 2010.**Rhynchospora chalarocephala** Fernald & Gale

Loose-headed Beaksedge

Rare in "moist depression," Nags Head Woods. Sole OBX record. *Krings* 1170 (NCSC) in 2004.**Rhynchospora colorata** (L.) H. Pfeiff. [*Dichromena colorata* (L.) Hitchc.]

Narrowleaf White-topped Sedge

Frequent in maritime wet grassland, roadside ditch; throughout OBX. The Ashe specimen was originally determined as *Dichromena latifolia* Baldw., known from nearby Roanoke Island but not OBX. *Ashe s.n.* (NCU) in 1898; *Clark* 715 (NCSC) in 2010.**Rhynchospora corniculata** (Lam.) A. Gray

Short-bristled Horned Beaksedge

Rare in maritime swamp forest; Nags Head Woods. Reported in "freshwater marsh at Buxton" (Stalter and Lamont 1997), but no specimen found. The report of *Rhynchospora macrostachya* Torr. ex A. Gray (JRSP plant list) probably belongs here. *Krings* 1172 (NCSC) in 2005.**Rhynchospora inexpansa** (Michx.) Vahl

Nodding Beaksedge

Rare in moist depression in maritime evergreen forest, estuarine fringe pine forest; Nags Head Woods, Wright Memorial. *Krings* 770 (NCSC) in 2004; BAS sight record at Wright Memorial in 2013.**Rhynchospora microcarpa** Baldw. ex A. Gray SR

Southern Beaksedge

Infrequent in maritime wet grassland, interdune marsh, roadside ditch; at least four populations are known between Buxton and Frisco. Northern range limit. *Fosberg* 17987 (NCSC) in 1940; *Faucette* 498 (NCSC) in 2014.**Rhynchospora miliacea** (Lam.) A. Gray

Millet Beaksedge

Occasional in maritime shrub swamp, maritime swamp forest; Kitty Hawk Woods, Buxton-Frisco area. *Ashe s.n.* (NCU) in 1898; *Stalter s.n.* (CAHA) in 1991; *Faucette* 191 (NCSC) in 2013.**Rhynchospora mixta** Britton

Mingled Beaksedge

Rare in maritime shrub swamp; Sedge Trail in Buxton Woods. Sole OBX record. Northern range limit. *Sorrie* 13032 (CAHA, NCU) in 2012.**Rhynchospora nitens** (Vahl) A. Gray [*Psilocarya nitens* (Vahl) Wood]

Black-fruited Beaksedge

Rare in interdune pond; Turtle Pond in Buxton. Reported from "a pondshore near Corolla" (Stalter & Lamont 1997), but no specimen has been found. Specimens from Kitty Hawk Woods and Nags Head Woods, originally determined as *P. nitens* by Stalter

(CAHA 2218 and 2227), were annotated to *R. scirpoides*. *Sortie 13081* (CAHA, NCU) in 2012.

Rhynchospora odorata C. Wright ex Griseb. SC

Fragrant Beaksedge

Infrequent in maritime wet grassland; north of Cape Hatteras Point, Ocracoke Island, Shackleford Banks. Northern range limit. *Au s.n.* (DUKE) in 1966; *Gaddy 273* (CAHA) in 1985; *Stalter s.n.* (CAHA) in 1990; *LeBlond 6082* (pers. herb.) in 2004; *Sortie 13128* (NCSC) in 2012.

Rhynchospora scirpoides (Torr.) Griseb. [*Psilocarya scirpoides* Torr.]

Brown-fruited Beaksedge

Rare in interdune pond; Kitty Hawk Woods, Nags Head Woods. *Stalter s.n.* (CAHA) in 1991; *Stalter 52* (CAHA) in 1991; no recent collections.

Schoenoplectus americanus (Pers.) Volk ex Schinz & R. Keller

[*Scirpus olneyi* A. Gray]

Olney's Threesquare

Infrequent in interdune marsh, tidal freshwater marsh; boardwalk at Duck, boardwalk at Bodie Island Lighthouse. Krings (2010) cites numerous specimens from OBX, but he apparently does not distinguish between *S. americanus* and *S. pungens*. *Cappel & Godfrey 120* (GA, NCSC) in 1950; *Davison s.n.* (CAHA) in 1984; *Stalter s.n.* (CAHA) in 1990; BAS photo in 2012.

Schoenoplectus etuberculatus (Steud.) Sojak [*Scirpus etuberculatus* (Steud.) Kuntze]

Canby's Bulrush

Rare in "shallow wetland north of Jennette Sedge" in Buxton. Sole OBX record. *Gaddy 253* (CAHA) in 1984; no recent collections.

Schoenoplectus pungens (Vahl) Palla [*Scirpus americanus* Pers., misapplied]

American Threesquare, Chair-maker's Bulrush

Frequent in tidal freshwater marsh, brackish marsh, roadside ditch; throughout OBX. *Ashe s.n.* (NCU) in 1898; *Krings 855* (NCSC) in 2005.

Schoenoplectus tabernaemontani (C.C. Gmel.) Palla [*Scirpus validus* Vahl]

Softstem Bulrush

Occasional in interdune marsh, brackish marsh, roadside ditch; Nags Head Woods, Buxton, Frisco, Shackleford Banks, Bogue Banks. Reports of *Scirpus acutus* Muhlenberg ex Bigelow are based on misidentifications and belong here. Reported from Shackleford by Lewis (1917); *Radford 8162* (NCU) in 1954; *Faucette 145* (NCSC) in 2013.

Scirpus cyperinus (L.) Kunth

Woolgrass

Occasional in interdune marsh, depression in powerline, roadside ditch; Kitty Hawk Woods, Nags Head Woods, Buxton, Bogue Banks. *Wilbur 9400* (DUKE) in 1967; *Clark 686* (NCSC) in 2010.

Scleria flaccida Steud. [*S. trigloemerata* Michx., in part]

Maritime Nutrush

Occasional in opening in maritime evergreen forest; Buxton-Frisco area, Ocracoke Island, Shackleford Banks, Bogue Banks. LeBlond (in Weakley 2018) has convincingly split this robust species of maritime forests and near-coastal swamp forests from *S. trigloemerata*, which inhabits wet pine savannas and streamhead seepage slopes on the mainland and is absent from OBX. *Fosberg 17874* (NCSC, NCU) in 1940; *Sortie 12945* (CAHA, NCU) in 2012.

Scleria muehlenbergii Steud. [*S. reticularis* Michx. var. *pubescens* Britton]

Pitted Nutrush

Rare in interdune marsh; Nags Head Woods. Sole OBX record. *Krings 1174* (NCSC) in 2005.

Scleria nitida Willd. [*S. trigloemerata* Michx., in part]

Shining Nutrush

Rare in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods. Reported from Bogue Banks (Stalter & Lamont 1999). LeBlond (in Weakley 2018) has convincingly split this slender species of dry pine-oak forests and pine barrens from *S. trigloemerata*, which inhabits wet pine savannas and streamhead seepage slopes on the mainland and is absent from OBX. *Godfrey & Fox 49276* (NCSC) in 1949; *Stalter s.n.* (CAHA) in 1991; *Sortie 13016* (NCSC) in 2012.

Scleria verticillata Muhl. SR

Savanna Nutrush

Infrequent in maritime wet grassland; Buxton-Cape Hatteras Point area, Ocracoke Island, South Core Banks, Shackleford Banks. Reported from Ocracoke by Kearney (1900); *Fosberg 17991* (NCSC) in 1940; *Sortie 13108* (CAHA, NCU) in 2012.

HEMEROCALLIDACEAE

***Hemerocallis fulva** (L.) L.

Orange Daylily

Infrequent in churchyard, roadside; Duck, Southern Shores, Nags Head Woods. *Peterson s.n.* (CAHA) in 1976; *Stalter & Lamont s.n.* (CAHA) in 1990; *Krings 451* (NCSC) in 2004.

HYDROCHARITACEAE

Eloea nuttallii (Planch.) St. John

Nuttall's Waterweed

Rare in Currituck Sound near Duck. Sole OBX record. *Radford 5436* (NCU) in 1950; no recent collections.

Limnobium spongia (Bosc) Richard ex Steud.

American Frog-bit

Occasional in interdune pond, interdune marsh; from near Currituck Sound south to Nags Head Woods; also NC Aquarium on Bogue Banks. A report of *Heteranthera reniformis* Ruiz & Pav. (Dunes of Dare Garden Club 1981) belongs here; the specimen was annotated by Krings. *Godfrey & Fox s.n.* (NCSC) in 1949; *Krings 1284* (NCSC) in 2005.

Najas guadalupensis (Spreng.) Magnus

Common Naiad

Rare in interdune pond, shallow water of Sound; Currituck Sound south of Duck, Buxton Woods, Trinity Center on Bogue Banks. *Fosberg 17973* (NCSC) in 1940; *Stalter s.n.* (CAHA) in 1993; no recent collections.

Vallisneria americana Michx.

Tapegrass, Water Celery

Rare in Currituck Sound near Duck, maritime shrub swamp in Buxton Woods. *Burk b10-12* (CAHA) in 1959; *Faucette 397* (NCSC) in 2013.

HYPoxidaceae

Hypoxis hirsuta (L.) Coville

Common Stargrass, Yellow Stargrass

Rare in opening in maritime evergreen forest; Shackleford Banks. Sole OBX record. *Krakow s.n.* (DUKE) in 1990; no recent collections.

Hypoxis wrightii (Baker) Brackett [*H. micrantha* Pollard]

Bristleseed Stargrass

Infrequent in maritime dry grassland; opening in maritime evergreen forest; Bodie Island, east of Frisco, Ocracoke Island. *Burk b1-25* (NCU) in 1959; *Sortie 12949* (NCU) in 2012.

IRIDACEAE

***Gladiolus xgandavensis** van Houtte

Garden Gladiolus

Rare escape from cultivation to roadside; Hatteras Island, Portsmouth Island. Burk and Lauermann report (1975); Stalter s.n. (CAHA) in 1991; no recent collections.

Iris virginica L.

Southern Blueflag

Rare in interdune marsh, maritime swamp forest; Methodist Church at Duck, Kitty Hawk Woods, Nags Head Woods. Reported from Nags Head by Atkinson and List (1978); Stalter s.n. (CAHA) in 1991; Clark 697 (NCSC) in 2010.

Sisyrinchium angustifolium Mill.

Meadow Blue-eyed-grass

Infrequent in maritime wet grassland; Jockey's Ridge SP, Buxton, Ocracoke Island. To be expected elsewhere on OBX, in moister habitats than those occupied by *S. atlanticum*. *LeBlond* 6204 (NCU) in 2004; Sorrie 13141 (NCSC, NCU) in 2013.

Sisyrinchium atlanticum E.P. Bicknell

Atlantic Blue-eyed-grass

Occasional in dry to moist roadside, powerline, trailside; rare in maritime dry grassland; from Jockey's Ridge SP south to Shackleford Banks. Ashe s.n. (NCU) in 1898; Clark 563 (NCSC) in 2010.

Sisyrinchium mucronatum Michx.

Needle-tip Blue-eyed-grass

Rare in unspecified habitat; "Cape Hatteras." Sole OBX record. Most likely, this species occurred in an opening in maritime evergreen forest. The specimen was originally determined as *S. angustifolium*. Ashe s.n. (NCU) in 1898; no recent collections.

Sisyrinchium rosulatum E.P. Bicknell

Annual Blue-eyed-grass

Occasional in roadside, lawn; north of Oregon Inlet, Buxton Woods, Ocracoke Island, Portsmouth Island. This species is spreading rapidly in the southeastern U.S. Burk (1961) reported a specimen from Hatteras Village, but it actually is *S. atlanticum*. Davison s.n. (CAHA) in 1985; Faucette 108 (NCSC) in 2013.

JUNCACEAE

Juncus acuminatus Michx.

Sharp-fruited Rush, Tapertip Rush

Occasional in interdune marsh, tidal freshwater marsh, roadside ditch; Pine Island Audubon Sanctuary (Currituck County), Kitty Hawk Woods, Rodanthe, Buxton Woods. Fox & Godfrey 49267 (DUKE, NCSC) in 1949; Sorrie 13212 (NCU) in 2013.

Juncus articulatus L. SR

Jointed Rush

Rare in "marsh at Cape Hatteras." Sole OBX and NC record. Southern range limit (Sorrie 2014b). Radford 8188 (NCU) in 1954; no recent collections.

Juncus biflorus Elliott

Two-flowered Rush

Occasional in maritime wet grassland, roadside ditch, moist powerline; scattered throughout OBX. The majority of OBX specimens determined as *J. marginatus* actually belong here; see Weakley (2018) for identification criteria. Also, Burk's specimen of *J. longii* Fernald is referred here. Radford 7778 (NCU) in 1953; Krings 820 (NCSC) in 2004.

Juncus bufonius L.

Toad Rush

Occasional in brackish marsh, interdune pond, sandflat, roadside

ditch; north of Bodie Island Lighthouse, Buxton Woods, South Core Banks. Ashe s.n. (NCU, NY) in 1898; Faucette 443 (NCSC) in 2014.

Juncus canadensis J. Gay

Canadian Rush

Infrequent in fresh tidal marsh, interdune marsh; Nags Head Woods, Pea Island, Buxton area. Honick 134 (ODU); Krings 556 (NCSC) in 2004.

Juncus coriaceus Mackenzie

Leathery Rush

Occasional in interdune marsh, maritime shrub swamp, maritime swamp forest, roadside ditch; scattered throughout OBX. Anderson 116 (DUKE) in 1962; Clark 646 (NCSC) in 2010.

Juncus debilis A. Gray

Weak Rush

Rare in wet swale in maritime forest; Nags Head Woods. Sole OBX record. Krings 704 (NCSC) in 2004.

Juncus dichotomus Elliott

Forked Rush

Frequent in dry maritime grassland, opening in maritime evergreen forest, stable dune barren, roadside, powerline; throughout OBX. Ashe s.n. (NCU) in 1898; Dakar 22 (NCSC) in 2013.

***Juncus diffusissimus** Buckley

Diffuse Rush

Rare in roadside ditch, wet interdune swale; Corolla (Currituck County), Jockey's Ridge SP. Weakley (2018) indicates that this rush is adventive east of the Appalachians. BAS sight record at JRSP in 2013; Holdclaw 857 (NCU) in 2018.

Juncus effusus L. ssp. **solutus** (Fernald & Wiegand) Hamet-Ahti

Soft Rush

Occasional in interdune pond, maritime shrub swamp, wet roadside ditch; scattered throughout OBX. Beal 3243 (NCSC) in 1957; Driskill 4 (NCU) in 2015.

Juncus ellottii Chapm.

Elliott's Rush

Rare in interdune marsh, wet maritime grassland; Pea Island, Frisco. Radford 8182 (NCU) in 1954; Sorrie 12492 (CAHA, NCU) in 2012.

Juncus longii Fernald

Long's Rush

Rare in interdune marsh; Frisco. Sole OBX record. See Knapp and Naczi (2008) for a treatment of the *J. marginatus-biflorus-longii* complex. Radford 8177 (NCU) in 1954; no recent collections.

Juncus marginatus Rostkovius

Grass-leaved Rush

Infrequent in maritime wet grassland, roadside ditch; Rodanthe, Ocracoke Island, Shackleford Banks. The majority of OBX specimens originally determined as *J. marginatus* actually are *J. biflorus*; see Knapp and Naczi (2008) for identification criteria. Beal 1752 (NCSC) in 1961; Redden s.n. (CAHA) in 1998; no recent collections.

Juncus megacephalus M.A. Curtis

Large-headed Rush

Frequent in interdune marsh, interdune pond, margin of brackish marsh; scattered throughout OBX. Fosberg 17850 (NCSC) in 1940; Clark 626 (NCSC) in 2010.

Juncus polyccephalus Michx.

Many-headed Rush

Rare in roadside ditch under powerline, shortly north of Oregon Inlet. Sole OBX record. Plants showed the distinctive falcate

leaves of this species. Several collections are known from nearby Roanoke Island, e.g., *Crutchfield* 3961 (NCU) in 1959. BAS sight record in 2012.

Juncus roemerianus Scheele

Black Needle Rush

Abundant in brackish marsh, tidal freshwater marsh; throughout OBX. One of the characteristic and dominant plants of marshes on OBX. *Burk* 24-83 (NCU) in 1959; *Krings* 700 (NCSC) in 2004.

Juncus scirpoides Lam. var. ***compositus*** R.M. Harper

Lobed Rush

Occasional in interdune marsh, margin of brackish marsh, maritime wet grassland, roadside ditch; Nags Head Woods, Jockey's Ridge SP, Bodie Island (several locations), Ocracoke Island. This variety has lobulate heads, unlike the nominate variety. *Burk* b37-18 (CAHA) in 1959; *Krings* 823 (NCSC) in 2004.

Juncus scirpoides Lam. var. ***scirpoides***

Needlepod Rush

Infrequent in brackish marsh, roadside ditch, powerline; scattered throughout OBX. Much less common on OBX than variety *compositus*. *Radford* et al 7464 (NCU) in 1953; *Krings* 882 (NCSC) in 2004.

Juncus tenuis Willd. var. ***tenuis***

Path Rush

Frequent in trail through maritime evergreen forest, trail through maritime deciduous forest, disturbed soil in village; Kitty Hawk Woods, Nags Head Woods, Buxton area, Ocracoke Island, Portsmouth Island, Shackleford Banks. *Radford* 8139 (NCU) in 1954; *Clark* 106 (NCSC) in 2009.

****Juncus validus*** Coville

Vigorous Rush

Rare in roadside ditch, interdune pond; Rodanthe, Buxton Woods. Adventive or introduced from western United States. *Stalter* s.n. (CAHA) in 1989; *Faucette* 342 (NCSC) in 2013.

JUNCAGINACEAE

Triglochin striata Ruiz & Pav.

Southern Arrowgrass

Frequent in brackish marsh, maritime swamp forest, maritime wet grassland; Kitty Hawk Woods, Nags Head Woods (reports), Pea Island, Buxton area, Ocracoke Island, Portsmouth Island, Bogue Banks. *Fosberg* 17839 (NCSC) in 1940; *Clark* 197 (NCSC) in 2009.

ORCHIDACEAE

Corallorrhiza wisteriana Conrad SR

Spring Coralroot

Rare in maritime evergreen forest; Shackleford Banks. Sole OBX location. *Au* s.n. (DUKE) in 1968; seen again there in 1994 and 1997 (Lamont and Stalter 2007); no recent collections.

Cypripedium acaule Aiton

Pink Lady's-slipper

Rare in maritime evergreen forest; Nags Head Woods. Sole OBX location. Small numbers of plants are scattered on the preserve. *Peterson* s.n. (NCSC) in 1976; *Krings* 471 (NCSC) in 2004; BAS photograph in 2012.

Goodyera pubescens (Willd.) R. Br.

Downy Rattlesnake-orchid

Rare in maritime evergreen forest, maritime deciduous forest; Nags Head Woods. Sole OBX location. First reported for OBX by Brown (1959); *Gifford* s.n. (CAHA) in 1976; no recent collections.

Habenaria repens Nutt.

Water-spider Orchid

Rare in margin of interdune pond, wet depression; Fresh Pond

adjacent to Nags Head Woods, south end of Jockey's Ridge SP. *Radford* 6616 (NCU) in 1952; seen early to mid 1990s (Lamont and Stalter 2007); no recent collections.

Liparis loeselii (L.) Richard E

Fen Orchid

Rare in freshwater seepage swamp at base of Run Hill on Bodie Island. Sole OBX record. Although no specimen exists, this distinctive (and state rare) species was well described by R. Peet and A. Weakley in 1988. OBX marks the southern range limit of the species on the Atlantic Coast. Subsequent efforts to relocate it have failed.

Listera australis R. Br. [*Neottia bifolia* (Raf.) Baumbach]

Southern Twayblade

Rare in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Gifford* s.n. (CAHA, NCSC) in 1976; *Clark* 422 (NCSC) in 2010.

Malaxis spicata Sw. SC

Florida Adder's-mouth

Rare in margin of interdune marsh; north side of Jennette Sedge in Buxton, Roosevelt Natural Area on Bogue Banks. As many as 100 individuals have been seen at the Buxton site (Lamont and Stalter 2007). *Ahles* & *Tate* 53880 (NCU) (undated but probably late 1950s/early 1960s); Gaddy report to NC Natural Heritage Program in 1985; independently observed later at this location by M. Schafale, R. Stalter, and A. Krings. Reported from Roosevelt NA by J. Fussell in 2018.

Malaxis unifolia Michx.

Green Adder's-mouth

Rare in moist maritime forest; Nags Head Woods. Sole OBX location. *Gifford* s.n. (CAHA) in 1976; no recent collections.

Platanthera cristata (Michx.) Lindley [*Habenaria c.* (Michx.) R. Br.]

Crested Fringed Orchid

Rare in maritime swamp forest, freshwater seepage swamp; Run Hill, Nags Head Woods. Two specimens of *P ciliaris* (L.) Lindley from Nags Head Woods are referred here; see Krings (2010) for details. *Gifford* s.n. (CAHA) in 1976; *Stalter* s.n. (CAHA) in 1990; sight record by BAS in 2013.

Pogonia ophioglossoides (L.) Ker Gawler

Rose Pogonia

Rare in open marsh near Virginia line, sandy bank by Duck Road (Bodie Island), wet depression at south end of Jockey's Ridge SP. Lamont and Stalter (2007) report hundreds of individuals at Jockey's Ridge SP. *Radford* 8080 (NCU) in 1954; *Peterson* s.n. (CAHA) in 1977; sight record by Lamont and Stalter early to mid 1990s; no recent collections.

Spiranthes cernua (L.) Richard

Nodding Ladies'-tresses

Occasional in interdune marsh, wet roadside ditch; Jockey's Ridge SP, south of Bodie Island Lighthouse road, Buxton Woods, Ocracoke Island. *Fosberg* 17972 (NCSC) in 1940; *Davison* s.n. (CAHA) in 1985; no recent collections.

Spiranthes laciniata (Small) Ames SC

Lace-lip Ladies'-tresses

Rare in interdune marsh; Portsmouth Island, Shackleford Banks. These are the only known OBX populations. *Krakow* 736 and 771 (DUKE) in 1990; sight records and specimen (NYS) of the Shackleford population by Stalter and Lamont 1994-1997 (Lamont and Stalter 2007); no recent collections.

Spiranthes odorata (Nutt.) Lindley [*S. cernua* var. *odorata* (Nutt.) Correll]

Fragrant Ladies'-tresses

Rare in unspecified habitat at "Duck Road north" on Bodie Island. Sole OBX record. The specimen is 0.8 m tall, with leaves to 2 cm wide, and corollas 10–13 mm long. Also known from nearby Knotts Island in Currituck County (here not considered to be part of OBX). *Peterson s.n.* (CAHA) in 1976; no recent collections.

Spiranthes sylvatica* P.M. Brown [*S. praecox*, in part]*Woodland Ladies'-tresses**

Infrequent in moist soil of maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton-Frisco area, NC Aquarium and Roosevelt Natural Area on Bogue Banks. In NC, this species occurs primarily in maritime forests, whereas *S. praecox* (Walter) S. Watson occurs in savannas and seepage bogs on the mainland. See naming paper by Brown (2001). *Radford 8143* (NCU) in 1954; *Clark 562* (NCSC) in 2010; *BAS 12950* (NCU) and photo in 2012.

Spiranthes tuberosa* Raf. [*S. grayi* Ames]*Little Ladies'-tresses**

Rare in powerline; Nags Head Woods. Sole OBX record. *Krings 967* (NCSC) in 2004.

Spiranthes vernalis* Engelm. & A. Gray*Spring Ladies'-tresses**

Frequent in dry to moist roadside, edge of interdune pond, maritime wet grassland; scattered throughout OBX. In the second week of June thousands may turn sections of the roadside white from Nags Head Village to Hatteras Village, although in most years mowing curtails this spectacle. *Burk b14-13* (NCU) in 1959; *Sorrie 13004* (NCU) in 2012.

Tipularia discolor* (Pursh) Nutt.*Cranefly Orchid**

Infrequent in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. Lamont and Stalter (2007) reported over 1000 individuals at Kitty Hawk Woods in 2000. *Fox 4158* (NCSC) in 1950; *Clark 267* (NCSC) in 2009.

Triphora trianthophoros* (Sw.) Rydb.*Three Birds Orchid**

Rare, but may be numerous where found, in maritime evergreen forest; between Atlantic Beach and Salter Path, and at Roosevelt Natural Area, both sites on Bogue Banks. Hundreds of plants have been seen in favorable years (J. Fussell pers. com.). *Blum s.n.* (NCSC) in 1970; *Fussell s.n.* (NCSC) in 1974; documented sightings by J. Fussell up to 2017.

POACEAE***Agrostis hyemalis* (Walter) B.S.P.****Ticklegrass**

Rare, habitat not stated; Kitty Hawk. Sole OBX record. *Blomquist s.n.* (DUKE) in 1933; no recent collections.

****Agrostis stolonifera* L.****Creeping Bentgrass**

Infrequent in brackish marsh, roadside; Bodie Island (Stalter and Lamont 1997), Portsmouth Island (Krakow 1991), near Fort Macon on Bogue Banks. Reported for Jockey's Ridge SP (plant list 2013). *Blomquist 10321* (DUKE) in 1938; reports in 1990s and 2013.

****Aira praecox* L.****Early Hairgrass**

Rare in dry roadside, lawn; near Coquina Beach on Bodie Island, park staff housing area on Bodie Island, Hatteras Village. At Coquina Beach it was growing with *A. caryophyllea* L. (see Appendix 1). *Burk b45-27* (NCU) in 1960; *Davison s.n.* (CAHA) in 1984; *Sorrie 13183* (CAHA, NCU) in 2013.

Andropogon cretaceus* Weakley & Schori [*A. glaucopsis* Elliott]*Chalky Bluestem**

Infrequent in soundside swampy woods, interdune marsh; vicinity of Methodist Church at Duck, Buxton Woods, Portsmouth Island. *Stalter s.n.* (CAHA) in 1990; *Krakow & Govus 1053* (GA) in 1991; BAS sight record 2012.

Andropogon tenuispathaeus* (Nash) Nash*Maritime Bushy Bluestem**

Frequent in maritime wet grassland, margin of brackish marsh, wet interdune swale, roadside ditch; throughout OBX. Specimens and reports of *A. glomeratus* (Walter) B.S.P. are all referred here; *A. glomeratus* sensu stricto inhabits streamhead seepage slopes and wet pine savannas on the mainland, whereas *A. tenuispathaeus* inhabits maritime communities. *Radford 7745* (NCU) in 1953; *Faucette 378* (NCSC) in 2013.

Andropogon ternarius* Michx.*Splitbeard Bluestem**

Occasional in lightly shaded maritime evergreen forest, powerline; Kitty Hawk Woods, Wright Memorial, Nags Head Woods, Shackleford Banks, Bogue Banks. *Wilbur 12698* (DUKE) in 1970; *Krings 1183* (NCSC) in 2005.

Andropogon virginicus* (L.) var. *decipiens* C.S. Campbell*Deceptive Bluestem**

Occasional in opening in maritime evergreen forest, powerline, disturbed soil; Wright Memorial, Jockey's Ridge SP, Buxton area, Emerald Isle on Bogue Banks. Although only var. *decipiens* has been verified from OBX, it is likely that var. *virginicus* also occurs here, as there is a collection from nearby Roanoke Island. *Fosberg 17875* (DUKE, MICH) in 1940; *LeBlond 6143* (NCU) in 2005, *Schwartzman s.n.* (WCUH) in 2005.

****Anthoxanthum odoratum* Boissier****Sweet Vernal Grass**

Infrequent in roadside, disturbed ground; Duck, Kitty Hawk Woods, Buxton area. *Stalter s.n.* (CAHA) in 1991; *Clark 462* (NCSC) in 2010.

Aristida lanosa* Muhl. ex Elliott*Woollysheathe Three-awn**

Rare in maritime deciduous forest, maritime evergreen forest, Duck, Kitty Hawk Woods, Nags Head Woods. The specimen of *A. condensata* Chapm. reported by Burk (1961) is misidentified and referred here. *Radford 8771* (DUKE, NCU) in 1955; *Sorrie 13236* (NCSC, NCU) in 2013.

Aristida purpurascens* Poir.*Arrowfeather Three-awn**

Infrequent in dry disturbed soil, stable dune barren; Duck, Wright Memorial, Nags Head Woods, west of Bodie Island water tower. *Radford 44485* (NCU) in 1961; *Krings 1187* (NCSC) in 2005.

****Arthraxon hispidus* (Thunb.) Makino****Asian Basket Grass**

Infrequent in maritime shrub swamp, edge of maritime swamp forest, moist to wet roadside; Kitty Hawk Woods, Buxton-Hatteras area, Shackleford Banks. *Stalter s.n.* (CAHA) in 1989; *Krakow et al. 1038* (TENN) in 1990; *Faucette 479* (NCSC) in 2014.

Arundinaria tecta* Walter*Switchcane**

Occasional, but locally abundant, in maritime swamp forest, maritime shrub swamp, margin of interdune marsh; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. Dense stands occur along trails at Kitty Hawk Woods (Clark et al. 2016). Previous reports and specimens of *A. gigantea* (Walter) Muhl. are all

referred here. *Radford et al.* 7568 (NCU) in 1953; *Clark* 477 (NCSC) in 2010.

****Arundo donax* L.**

Giant Cane

Infrequent in moist to wet roadside, disturbed soil; Kitty Hawk Woods, Buxton area, Hatteras village. *Dumond* 551 (NCSC) in 1966; BAS sight record in 2012.

****Avena sativa* L.**

Cultivated Oats

Rare in border of brackish marsh on Bodie Island, at pony pen on Ocracoke Island. *Burk* b49-5 (NCU) in 1960; *Davison s.n.* (CAHA) in 1985; no recent collections.

***Axonopus fissifolius* (Raddi) Kuhlmann [*A. affinis* Chase]**

Common Carpetgrass

Infrequent in roadside, lawn, disturbed soil; Kitty Hawk Woods, South of Kitty Hawk, Buxton Woods, Portsmouth Island. *Dumond* 557 (NCSC) in 1966; *Downs* 334 (NCSC) in 1970; *Faucette* 242 (NCSC) in 2013.

***Axonopus furcatus* (Flüggé) Hitchc.**

Big Carpetgrass

Rare in drawdown margin of Open Pond in Buxton Woods. A specimen collected by J. Larke from Shackleford Banks in the mid 1990s has not been located. BAS photo from Open Pond in 2012.

****Briza minor* L.**

Lesser Quaking Grass

Occasional to frequent in dry roadside, disturbed soil; Corolla in Currituck County, Kitty Hawk Woods, south of Whalebone Junction on Bodie Island, Buxton Woods, Ocracoke Island, Portsmouth Island. *Burk* b49-3 (NCU) in 1959; *Clark* 555 (NCSC) in 2010; *Holdsclaw* 793 (NCU) in 2018.

****Bromus catharticus* Vahl**

Rescue Grass

Occasional in roadside; Corolla, Duck, Buxton Woods, Bogue Banks. *Stalter s.n.* (USCH) in 1989; *Faucette* 436 (NCSC) in 2014; *Holdsclaw* 801 (NCU) in 2016.

****Bromus commutatus* Schrader [*B. racemosus* L.]**

Hairy Chess

Occasional in edge of maritime evergreen forest, in powerline, roadside; Kitty Hawk Woods, Buxton area, near Hatteras Village, Ocracoke Island. Weakley (2018) discusses the difficulty in separating this species from *B. racemosus* L.; I include them together until OBX material can be studied. *Burk* b2-16 (NCU) in 1959; *Clark* 541 (NCSC) in 2010.

****Bromus japonicus* Thunb.**

Japanese Chess

Rare in roadside; Bodie Island south of Whalebone Junction, also between Buxton and Rodanthe. *Davison s.n.* (CAHA) in 1985; no recent collections.

***Bromus pubescens* Muhl. ex Willd.**

Eastern Brome, Hairy Brome

Rare in roadside through maritime evergreen forest; Buxton Woods. Sole OBX record. *Sorrie* 13000 (NCU) in 2012.

****Bromus rigidus* Roth [*B. diandrus* Roth]**

Riggit Brome

Rare in dry roadside; Buxton village, Buxton Woods. *Davison s.n.* (CAHA) in 1989; *Sorrie* 12957 (NCSC, NCU) in 2012.

****Bromus secalinus* L.**

Common Cheatgrass

Rare at schoolgrounds; Ocracoke Island. Sole OBX record. *Burk* b1-34 (NCU) in 1959; no recent collections.

****Bromus tectorum* L.**

Downy Brome

Rare in dry roadside; Nags Head village. Sole OBX record. *Sorrie* 13150 (NCSC, NCU) in 2013.

***Calamagrostis breviligulata* (Fernald) Saarela [*Ammophila b.* Fernald]**

American Beachgrass

Frequent in dune grass, live dune barren; from Virginia line south to Ocracoke Island (North Point); historical report from South Core Banks; a 1983 specimen from Fort Macon SP on Bogue Banks. This species is certainly native north of Oregon Inlet, but its status southward is unclear, as it was extensively planted for dune stabilization on Pea and Hatteras Islands, at least. Southern range limit. *Mobberley* 198 (NCU) in 1952; *Redden s.n.* (CAHA) in 1997; *Krings* 2295 (NCSC) in 2008.

***Cenchrus incertus* M.A. Curtis [*Cenchrus spinifex* Cav.]**

Coastal Sandspur

Occasional in dune grass, roadside, powerline, woodland edge; Kitty Hawk Woods, Run Hill, Nags Head Woods, Fort Macon SP on Bogue Banks. *Wilbur* 12339 (DUKE) in 1970; *Krings* 1717 (NCSC) in 2007.

***Cenchrus longispinus* (Hack.) Fernald [*C. pauciflorus* Benth.]**

Northern Sandspur

Occasional in sandy roadside, disturbed soil; Corolla, Buxton, Portsmouth Island, Bogue Banks. *Burk* b15-3 (NCU) in 1959; *Faucette* 310 (NCSC) in 2013.

***Cenchrus tribuloides* L.**

Dune Sandspur

Frequent in dune grass, stable dune barren; throughout OBX. *Mathews s.n.* (NCU) in 1931; *Clark* 287 (NCSC) in 2009.

***Chasmanthium laxum* (L.) Yates [*Uniola l.* (L.) Britton, Sterns, & Poggenb.]**

Slender Spikegrass

Frequent in moist soil of maritime evergreen forest, edge of maritime swamp forest; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Ocracoke Island, Bogue Banks. *Fosberg* 17877 (NCSC) in 1940; *Clark* 629 (NCSC) in 2010.

***Chasmanthium sessiliflorum* (Poir.) Yates [*Uniola s.* Poir.]**

Longleaf Spikegrass

Infrequent in mesic soil of maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Buxton Woods. Inflorescence branches vary continuously from short and appressed to elongate and divergent. *Radford & Pence* 45097 (NCU) in 1966; *Sorrie* 13034 (CAHA, NCSC, NCU, US) in 2012.

***Cinna arundinacea* L.**

Common Woodreed

Rare in tidal freshwater marsh; Nags Head Woods. Sole OBX record. *Krings* 1047 (NCSC) in 2004.

***Coleataenia anceps* (Michx.) Soreng ssp. *anceps* [*Panicum anceps* Michx.]**

Beaked Panic-grass

Rare in roadside, disturbed soil; Buxton Woods, Shackleford Banks. *Au s.n.* (DUKE) in 1966; *Dakar* 49 (NCSC) in 2013.

***Coleataenia anceps* (Michx.) Soreng ssp. *rhizomatata* (A.S. Hitchcock & Chase) Soreng [*Panicum anceps* var. *rhizomatatum* (Hitchc. & Chase) Fernald]**

Creeping Beaked Panic-grass

Frequent in trail through maritime evergreen forest, roadside, clearing; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, South Core Banks. *Burk* b22-2 (NCU) in 1959; *Sorrie* 13029 (CAHA) in 2012.

Coleataenia rigidula (Bosc ex Nees) LeBlond ssp. **condensa** (Nash) LeBlond. [*Panicum agrostoides* Spreng. var. *condensum* (Nash) Fernald]

Dense Panic-grass

Infrequent in interdune marsh, drawdown zone of interdune pond; Buxton area, Ocracoke Island. *Radford* 8260 (NCU) in 1954; *Sorrie* 13014 (CAHA, NCU) in 2012.

***Cortaderia selloana** (J.A. & J.H. Schultes) Ascherson & Graebn.

Pampas Grass

Infrequent in roadside, edge of walking path; Jockey's Ridge SP, Nags Head village, Buxton-Frisco area, Fort Macon SP on Bogue Banks. Reported by Stalter & Lamont (1999); *Faucette* 382 (NCSC) in 2013; *Lyle* 1 (CAU) in 2018.

***Cynodon dactylon** (L.) Pers.

Bermuda Grass

Frequent in stable dune barren, back dune, roadside, disturbed soil; Duck, Run Hill, Nags Head Woods, Bodie Island, Ocracoke Island, North Core Banks, Shackleford Banks. *Reed* 42028 (MO) in 1958; *Burk* b37-55 (NCU) in 1959; *Au* s.n. (DUKE) in 1966; *Krings* 1691 (NCSC) in 2007.

***Dactylis glomerata** L.

Orchard Grass

Occasional in roadside, along trail; Kitty Hawk Woods, Nags Head Woods, Buxton, Ocracoke Island, Bogue Banks. *Stalter* 12 (USCH) in 1993; *Stalter & Lamont* s.n. (CAHA) in 1993; *Krings* 681 (NCSC) in 2004.

Danthonia sericea Nutt.

Silky Oatgrass

Infrequent in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Radford* 8086 (NCU) in 1954; *Krings* 1365 (NCSC) in 2005.

Dichanthelium aciculare (Desv. ex Poir.) Gould & C.A. Clark var. **aciculare** [*Panicum aciculare* Desv. ex Poir.]

Needle-leaved Witchgrass

Occasional in opening in woods, roadside, sandy lawn; Pine Island Audubon Sanctuary in Currituck County, Nags Head Woods, Bodie Island water tank, Bogue Banks. A number of OBX specimens of *D. aciculare* have been annotated to *D. arenicoloides*, due to fusiform spikelets and more spreading habit. *Davison* s.n. (CAHA) in 1984; *Krings* 837 (NCSC) in 2004.

Dichanthelium acuminatum (Sw.) Gould & Clark var. **acuminatum** [*Panicum acuminatum* Sw.]

Woolly Witchgrass

Occasional in sandy roadside, disturbed soil; near Bodie Island water tank, Buxton Woods, Portsmouth Island, Ocracoke Island, Shackleford Banks. Included here are plants at CAHA determined (too hastily by BAS) as *D. villosissimum* (Nash) Freckmann. *Stone* 8 (CAHA) in 1974; no recent collections.

Dichanthelium acuminatum (Sw.) Gould & Clark var. **fasciculatum** (Torr.) Freckmann [*Panicum lanuginosum* Elliott]

Slender-stemmed Witchgrass

Infrequent in maritime shrub, roadside; Buxton Woods, Hatteras Inlet, Portsmouth Island, Shackleford Banks. *McCaffrey* 26 (CAHA) in 1973; *Faucette* 234 (NCSC) in 2013.

Dichanthelium angustifolium (Elliott) Gould [*Panicum angustifolium* Elliott]

Narrow-leaved Witchgrass

Rare in maritime evergreen forest; Buxton Woods, Ocracoke Island.

There are no collections prior to 2000. *LeBlond* 6098 (NCU) in 2004; *Faucette* 469 (NCSC) in 2014.

Dichanthelium arenicoloides (Ashe) LeBlond [*Panicum arenicoloides* Ashe]

Sand-loving Witchgrass

Occasional in dry sandy soil of openings in and edges of maritime evergreen forest, stable dune barren, roadside; Southern Shores, Wright Memorial, Nags Head Woods, Whalebone Junction, near Bodie Island Lighthouse, Ocracoke Island. Northern range limit. See LeBlond (2017) for detailed treatment of this species. *McCaffrey* 66 (CAHA) in 1973; *Sorrie* 13072 (NCSC, NCU) in 2012.

Dichanthelium bicknellii (Nash) LeBlond [*Panicum bricknellii* Nash] SR

Bicknell's Witchgrass

Rare on dry sandy roadside; Roosevelt NA on Bogue Banks. Sole OBX record. *Fusell* s.n. (NCU) in 2017; specimen determined by R. LeBlond.

Dichanthelium boscii (Poir.) Gould & C.A. Clark [*Panicum boscii* Poir.]

Bosc's Witchgrass

Infrequent in maritime deciduous forest, maritime evergreen forest; Southern Shores, Nags Head Woods, Buxton Woods. *Fox & Godfrey* 2316 (NCSC) in 1949; *Sorrie* 13213 (NCSC, NCU) in 2013.

Dichanthelium caerulescens (Hack. ex Hitchc.) Correll [*Panicum dichotomum* sensu lato] E

Blue Witchgrass

Occasional in maritime wet grassland, margin of interdune marsh; Pea Island, Buxton-Frisco area, Ocracoke Island. It is very distinctive in autumn, with its elongate stems to 0.7 m and numerous fascicles of leaves. See Sorrie (2014b) for additional specimen data. *Radford* et al. 7627 (NCU) in 1953; *LeBlond* 6137 (NCU) in 2005; *Sorrie* 13256 (CAHA, DUKE, NCU, NY) in 2013.

Dichanthelium clandestinum (L.) Gould [*Panicum clandestinum* L.]

Deer-tongue Witchgrass

Rare in moist opening in maritime evergreen forest; Nags Head Woods. Sole OBX record. *Krings* 833 (NCSC) in 2004.

Dichanthelium commutatum (Schultes) Gould var. **commutatum** [*Panicum commutatum* Schultes]

Variable Witchgrass

Frequent in maritime evergreen forest, maritime deciduous forest, margin of maritime swamp forest; throughout OBX. *Blomquist* 10650 (NCSC) in 1939; *Wilbur* 9282 (DUKE) in 1967; *Faucette* 317 (NCSC) in 2013.

Dichanthelium consanguineum (Kunth) Gould & C.A. Clark [*Panicum consanguineum* Kunth]

Kunth's Witchgrass

Rare in maritime forest; Nags Head Woods, Cape Hatteras. Reported from Buxton Woods by Stalter and Lamont (1997), but no voucher has been found. *Ashe* s.n. (NCU) in 1898; *Fox & Godfrey* 2325 (NCSC) in 1949; no recent collections.

Dichanthelium dichotomum (L.) Gould var. **dichotomum** [*Panicum dichotomum* L.]

Forked Witchgrass

Infrequent in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Shackleford Banks, Roosevelt NA on Bogue Banks. *Radford* 8093 (NCSC) in 1954; *Clark* 623 (NCSC) in 2010; BAS photo in 2018.

Dichanthelium fusiforme (Hitchc.) Harvill [*Panicum fusiforme* Hitchc.] SR
Spindle-fruited Witchgrass
Rare in live dune barren; Run Hill. Sole OBX record. Specimen determined by R. LeBlond. *Carolina Vegetation Survey s.n.* (NCU) in 2009.

Dichanthelium laxiflorum (Lam.) Gould [*Panicum laxiflorum* Lam.]
Open-flowered Witchgrass
Occasional in maritime evergreen forest, maritime swamp forest;
Southern Shores, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. *Blomquist 1203* (DUKE) in 1933; *Faucette 227* (NCSC) in 2013.

Dichanthelium meridionale (Ashe) Freckmann [*Panicum meridionale* Ashe; *D. acuminatum* var. *implicatum* (Scribn.) Gould & C.A. Clark]
Matting Witchgrass
Rare in maritime evergreen forest; Buxton Woods, Ocracoke Island.
Only two collections are known, none prior to 2000. *LeBlond 6158* (NCU) in 2005; *Faucette 214* (NCSC) in 2013.

Dichanthelium microcarpon (Muhl. ex Elliott) Mohlenbrock [*Panicum dichotomum* (L.) Gould var. *ramulosum* (Torr.) Lelong]
Small-fruited Witchgrass
Rare in "freshwater marsh," Ocracoke Island. Sole OBX record.
Rondthaler s.n. (DUKE) in 1951; no recent collections.

Dichanthelium neuranthum (Griesb.) LeBlond [*Panicum n.* Griesb.; *D. aciculare* ssp. *neuranthum* (Griesb.) Freckmann & Lelong] SC
Nerved Witchgrass
Occasional in maritime wet grassland; Hatteras Island, Ocracoke Island. Northern range limit. Unique in our *Dichanthelium* taxa in its slender, barely expanded inflorescence. There are seven current populations known from OBX, all discovered since 2000 and all in ungrazed natural grasslands. *LeBlond 6083* (NCU) in 2004; *Sorrie 12943* (CAHA, NCSC, US) in 2012.

Dichanthelium oligosanthes (Schultes) Gould var. **oligosanthes** [*Panicum oligosanthes* Schultes]
Few-flowered Witchgrass
Occasional in opening in maritime evergreen forest, stable dune barren, powerline; Duck, Southern Shores, Kitty Hawk Woods, Nags Head Woods. See Krings (2010) for discussion of this and related taxa. *Blomquist 10655* (DUKE) in 1939; *Clark 539* (NCSC) in 2010.

Dichanthelium ovale (Elliott) Gould & C.A. Clark sensu lato [*Panicum ovale* Elliott]
Oval-flowered Witchgrass
Rare in sandy opening in maritime evergreen forest, roadside; Nags Head Woods, south of Buxton. See Krings (2010) for discussion of infraspecific taxa. Stalter and Lamont (1997) reported *Panicum commonsianum* Ashe [in Krings = *D. ovale* ssp. *pseudopubescens* (Nash) Freckmann & Lelong], based on an Ashe specimen. All specimens of *D. ovale* from OBX need closer examination to determine infraspecific identity. *Ashe s.n.* (NCU) in 1898; *Blomquist 10658* (NCSC); *Krings 2477* (NCSC) in 2007.

Dichanthelium portoricense (Desv. ex Hamilton) B.F. Hansen & Wunderlin ssp. **patulum** (Scribn. & Merrill) Freckmann & Lelong [*Panicum lancearium* Trin.]

Nash's Witchgrass
Occasional in sandy opening in maritime evergreen forest, maritime shrub; scattered throughout OBX. *Radford 7765* (DUKE) in 1953; *Sorrie 13030* (CAHA, NCU) in 2012.

Dichanthelium scoparium (Lam.) Gould [*Panicum scoparium* Lam.]

Velvet Witchgrass

Frequent in moist roadside, moist powerline, maritime wet grassland; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP, south of Whalebone Junction, Buxton Woods, Shackleford Banks. *Blomquist 7484* (DUKE) in 1935; *Krings 1371* (NCSC) in 2005.

Dichanthelium sphaerocarpum (Elliott) Gould [*Panicum sphaerocarpum* Elliott]

Round-fruited Witchgrass

Occasional in maritime evergreen forest, roadside; Nags Head Woods, Whalebone Junction, south of Bodie Island water tank, north of Rodanthe, Buxton (reported by Burk 1961), Ocracoke Island, Shackleford Banks. *Fox & Godfrey 2317* (NCSC) in 1949; *LeBlond 6122* (NCU) in 2005.

Dichanthelium spretum (Schultes) Freckmann SR

Eaton's Witchgrass

Rare in maritime wet grassland, Shackleford Banks. Sole OBX record. *Au s.n.* (DUKE) in 1968; no recent records.

Digitaria ciliaris (Retz.) Koeler [*D. sanguinalis* var. *c.* (Retz.) Parl.]

Southern Crabgrass

Rare in powerline, disturbed soil; Kitty Hawk Woods. Sole OBX record. This is a native species closely related to the alien *D. sanguinalis* and only recently separated by taxonomists. *Clark 396* (NCSC) in 2009.

Digitaria filiformis (L.) Koeler

Threadlike Crabgrass

Frequent in roadside, disturbed soil; Kill Devil Hills, Nags Head Woods, Buxton Woods, Shackleford Banks, south Core Banks. *Radford et al. 7555* (NCU) in 1953; *Dakar 82* (NCSC) in 2013.

***Digitaria ischaemum** (Schreber) Muhl.

Smooth Crabgrass

Occasional in roadside, lawn, disturbed soil; Kitty Hawk, Bodie Island, Ocracoke Island, Bogue Banks. *Burk b32-22* (NCU) in 1959; *McCravy 425* (NCU) in 1963; no recent collections.

***Digitaria sanguinalis** (L.) Scopoli

Northern Crabgrass, Eurasian Crabgrass

Frequent in roadside, lawn, disturbed soil; throughout OBX. *Burk b15-1* (NCU) in 1959; *Clark 301* (NCSC) in 2009.

Digitaria villosa (Walter) Pers. [*D. filiformis* var. *villosa* (Walter) Fernald]

Shaggy Crabgrass

Occasional in roadside, powerline, disturbed soil; Duck, Kitty Hawk Woods, south of Wright Memorial, Buxton area, Ocracoke Island. *Radford 8773* (DUKE) in 1955; *Au s.n.* (DUKE) in 1966; *Faucette 343* (NCSC) in 2013.

Digitaria violascens Link

Violet Crabgrass

Rare at Pony Pen on Ocracoke Island. Sole OBX record. *Redden s.n.* (CAHA) in 1997; no recent collections.

Diplachne maritima E.P. Bicknell [*Leptochloa fascicularis* (Lam.) A. Gray var. *m.* (E.P. Bicknell) Gleason] E

Salt-meadow Grass

Infrequent in sand flat, edge of impoundment pond, upper edge of brackish marsh; Bodie Island, Pea Island, Hatteras Island. *Burk b36-23* (NCU) in 1959; *McCaffrey s.n.* (CAHA) in 1973; *Davison s.n.* (CAHA) in 1985; BAS photo in 2012.

Distichlis spicata (L.) Greene

Saltgrass

Frequent, locally abundant, in brackish marsh, salt marsh; scattered

throughout OBX. *Blomquist* 15318 (DUKE) in 1951; *Rondthaler s.n.* (DUKE) in 1951; *Clark* 720 (NCSC) in 2010.

***Echinochloa crus-galli** (L.) Beauv.

Barnyard Grass

Infrequent in dried-up pool, border of brackish marsh, roadside; near Corolla lighthouse, Kill Devil Hill, Nags Head Woods, Buxton-Hatteras area, Shackleford Banks, Emerald Isle. *Wilton s.n.* (ECUH) in 1947; *Stalter* 40 (USCH) in 1990; *Clark* 721 (NCSC) in 2010.

***Echinochloa frumentacea** Link

Billion Dollar Grass, Japanese Millet

Infrequent in edge of interdune pond, maritime shrub; Ocracoke Island. Sole OBX location. The three Redden collections were originally determined as *E. crus-galli*. *Redden s.n.* (CAHA) in 1997; no recent collections.

Echinochloa muricata (Beauv.) Fernald

Rough Barnyard Grass

Rare in fresh marsh; Shackleford Banks. Sole OBX record. The specimen was originally determined as *E. crus-galli*. *Au s.n.* (DUKE) in 1968; no recent collections.

Echinochloa walteri (Pursh) A. Heller

Swamp Barnyard Grass

Frequent in brackish marsh, tidal freshwater marsh, interdune marsh; scattered throughout OBX. *Blomquist* 11279 (DUKE, NCSC) in 1940; *Faucette* 374 (NCSC) in 2013; *Damrel et al.* 6960 (CLEMS) in 2018.

***Eleusine indica** (L.) Gaertner

Goose Grass

Occasional in roadside, disturbed soil, margin of brackish marsh; scattered throughout OBX. *Burk* b31-24 (CAHA) in 1959; *Clark* 687 (NCSC) in 2010.

Elymus glabriiflorus (Vasey) Scribn. & Ball

Smooth-flowered Wild-rye

Rare in disturbed sand of powerline, moist interdune thicket; Corolla, Kitty Hawk Woods, Little Kinnakeet Coast Guard Station on Hatteras Island. See Clark (2016) for key to distinguish this species from *E. virginicus*. Clark states that *E. glabriiflorus* is non-native at Kitty Hawk Woods, but I disagree; that powerline supports many species that typically occupy mesic forests. *Duncan & Duncan* 29306 (GA) in 1975; *Clark* 377 (NCSC) in 2009; *Holdsclaw* 754 (NCU) in 2016.

Elymus virginicus L. var. **halophilus** (E.P. Bicknell) Wiegand SC

Maritime Wild-rye

Infrequent in brackish marsh, tidal freshwater marsh, interdune swale; Run Hill, Nags Head Woods, Jockey's Ridge SP, Shackleford Banks. *Burk* (1961) stated that this species was "generally distributed," but I have not found any of his vouchers. *Au s.n.* (DUKE) in 1968; *Stalter s.n.* (CAHA) in 1990; *Krings* 1530 (NCSC) in 2007; BAS sight record at Jockey's Ridge SP in 2012.

Elymus virginicus L. var. **virginicus**

Common Wild-rye

Occasional in moist maritime evergreen forest, roadside, disturbed soil; Duck, Nags Head Woods, Buxton Woods. The recent resurrection of *E. glabriiflorus* suggests that prior specimens and reports of *E. virginicus* var. *virginicus* need to be re-evaluated; see Clark et al. (2016) for a key. *Usher & Tyndall s.n.* (ODU) in 1974; *Faucette* 266 (NCSC) in 2013.

Eragrostis capillaris (L.) Nees

Lacegrass

Rare in sandy disturbed powerline; Kitty Hawk Woods. Sole OBX record. *Clark* 342 (NCSC) in 2009.

***Eragrostis curvula** (Schrader) Nees

Weeping Lovegrass

Occasional in sandy roadside, woodland opening, maritime dry grassland; Corolla, Nags Head Woods, Jockey's Ridge SP, Buxton village, Bogue Banks. *Windsor s.n.* (NCSC) in 2006; *Holdsclaw* 744 (NCU) in 2015.

Eragrostis elliottii S. Watson

Elliott's Lovegrass

Frequent in maritime wet grassland, maritime dry grassland, sand flat, moist roadside; scattered throughout OBX. *Blomquist* 10197 (DUKE) in 1937; *Shepard & Wichmann s.n.* (NCU) in 2009; *Sorrie* 13094 (CAHA, NCSC, NCU) in 2012.

Eragrostis hirsuta (Michx.) Nees

Bigtop Lovegrass; Tumbleweed Lovegrass

Infrequent in roadside, disturbed soil; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. There are no collections prior to 2000. *Krings* 1216 (NCSC) in 2005; *Faucette* 296 in 2013.

***Eragrostis mexicana** (Hornemann) Link ssp. **mexicana**

Mexican Lovegrass

Rare in roadside; "south of Nags Head at milepost 18." Sole OBX and NC record. *Ludwig* 1018 (NCU) in 1989; no recent collections.

Eragrostis refracta (Muhl.) Scribn.

Broken Lovegrass

Infrequent in roadside, opening in maritime evergreen forest, interdune marsh; Nags Head Woods, near National Seashore water tower, south of Rodanthe, Buxton Woods. Due to close similarity with *E. elliottii*, older literature reports are unreliable. *Brown s.n.* (LSU) in 1955; *Davison s.n.* (CAHA) in 1984; *Faucette* 487 (NCSC) in 2014.

***Eragrostis secundiflora** J. Presl ssp. **oxylepis** (Torr.) S.D. Koch

Red-tipped Lovegrass

Rare, but locally numerous, in sand driveway and lawn at Little Kinnakeet Life Saving Station on Hatteras Island. Sole OBX record. *Sorrie* 13099 (CAHA, NCU) in 2012.

Eragrostis spectabilis (Pursh) Steud.

Purple Lovegrass, Tumblegrass

Frequent in dry roadside, powerline, disturbed soil, forest edge; scattered throughout OBX. *Radford et al.* 7781 (NCU) in 1953; *Duncan* 30274 (EKY, MO, NY) in 1976; *Clark* 387 (NCSC) in 2009.

***Eremochloa ophiuroides** (Munro) Hack.

Centipede Grass

Frequent in roadside, lawn, stable dune barren; Run Hill, Jockey's Ridge SP and along route 12 south to Buxton. This species has recently and rapidly colonized the main roads on Bodie, Pea, and Hatteras Islands; to be expected elsewhere. *Sorrie* 13259 (CAHA, NCU) in 2013; *Krings* 2514 (NCSC) in 2014.

Erianthus brevibarbis Michx. var. **contortus** (Elliott) D.B. Ward

[*E. contortus* Elliott]

Bent-awn Plumegrass

Rare in "woods 4 miles west of Atlantic City" on Bogue Banks. Sole OBX record. *Burk* b32-7 (NCU) in 1959; no recent collections.

Erianthus giganteus (Walter) Muhl. [*Saccharum* *g.* (Walter) Pers.]

Giant Plumegrass

Occasional in interdune marsh, wet roadside ditch; Nags Head Woods, Bodie Island at mile marker 23, Shackleford Banks, Bogue Banks. *Radford et al.* 7771 (NCU) in 1953; *Krings* 559 (NCSC) in 2004.

Eustachys petraea (Sw.) Desv. [*Chloris* *p.* Sw.]

Dune Finger-grass

Frequent in stable dune barren, maritime dry grassland, edge of

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brackish marsh, sandy roadside; scattered throughout OBX. Northern range limit. *Wood, Jr.* 7024 (NCU) in 1947; *Faucette* 178 (NCSC) in 2013.

Festuca rubra L.

Red Fescue

Frequent in margins of brackish and fresh-tidal marsh, roadside, lawn, disturbed soil; Nags Head Woods, fresh pool near Bodie Island Lighthouse, Buxton area, Ocracoke Island, south Core Banks, Shackleford Banks. As suggested by Weakley (2018), OBX has both native and non-native populations. *Burk* b12-11 (CAHA) in 1959; *LeBlond* 6100 (NCU) in 2004.

Festuca subverticillata (Pers.) Alexeev [*F. obtusa* Biehler]

Nodding Fescue

Rare in maritime deciduous forest, maritime evergreen forest; Kitty Hawk Woods, Buxton Woods. I have seen no collections prior to 2000. *Clark* 446 (NCSC) in 2010; *Sorrie* 12956 (CAHA, NCU) in 2012.

***Festuca trachyphylla** (Hack.) Krajina [*F. ovina* L., misapplied]

Hard or Sheep Fescue

Rare in roadside, sandy margin of brackish marsh; Ocracoke Island, Roosevelt Natural Area. *Burk* b2-34 (NCU) in 1959; *Fussell* s.n. (NCU) in 2018.

Glyceria septentrionalis Hitchc.

Eastern Mannagrass

Rare in interdune marsh, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods. *Radford* 8083 (NCU) in 1954; *Clark* 583 (NCSC) in 2010.

***Holcus lanatus** L.

Velvet Grass

Rare in nature trail at Bodie Island Lighthouse, also moist roadside. *Kologiski* et al. (UNCC) in 1971; *McCaffrey* s.n. (CAHA) in 1974; reported from moist roadside on Bodie Island (Stalter and Lamont 1997); no recent collections.

Hordeum pusillum Nutt.

Little Barley

Rare in disturbed soil; Run Hill, north end Cape Hatteras NS. Also reported but without locality by Stalter and Lamont (1997). *Oldham & Delisle-Oldham* 10557 (MICH) in 1990; *Krings* 1731 (NCSC) in 2007.

Kellochloa verrucosa (Muhl.) Lizarazu, Nicola, & Scataglini [*Panicum verrucosum* Muhl.]

Warty Panic-grass

Occasional in interdune marsh, interdune pond, depression in powerline; Kitty Hawk Woods (BAS sight record), Nags Head Woods, Buxton Woods, South Core Banks. *Krings* 1276 (NCSC) in 2004; *Faucette* 484 (NCSC) in 2014.

Leersia oryzoides (L.) Sw.

Rice Cutgrass

Frequent in interdune marsh, interdune pond, salt shrub, freshwater seepage swamp; Duck, Run Hill, Nags Head Woods, Avon, Buxton Woods, Shackleford Banks, Bogue Banks. *Radford* et al. 7789 (NCU) in 1953; *Stalter* 68 (USCH) in 1990; *Faucette* 48 (NCSC) in 2013.

Leersia virginica Willd.

White Cutgrass

Occasional in maritime shrub swamp, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Ocracoke Island, Shackleford Banks. *Fox & Whitford* 1155 (NCSC) in 1947; *Sorrie* 12991 (CAHA) in 2012.

***Lolium perenne** L. var. **aristatum** Willd. [*L. multiflorum* Lam.]

Italian Ryegrass

Infrequent in roadside, powerline; Duck, Kitty Hawk Woods, Buxton village, Ocracoke Island. *Burk* et al. b9-19 (NCU) in 1959; *Stalter* 21 (USCH) in 1991; *Clark* 538 (NCSC) in 2010.

***Lolium perenne** L. var. **perenne**

English Ryegrass

Rare in roadside; Corolla, Ocracoke Island. *Burk* b2-11 (NCU) in 1959; *Stalter* 26 (USCH) in 1993; *Holdsclaw* 749 (NCU) in 2015.

Melica mutica Walter

Two-flowered Melic

Frequent in maritime evergreen forest, maritime deciduous forest;

Kitty Hawk area, Nags Head Woods, Buxton Woods, Ocracoke Island, Portsmouth Island, Shackleford Banks, Bogue Banks. *Radford* 8157 (NCU) in 1954; *Oldham & Delisle-Oldham* 10562 (MICH) in 1990; *Faucette* 111 (NCSC) in 2013.

***Microstegium vimineum** (Trin.) A. Camus

Japanese Stiltgrass

Infrequent in maritime evergreen forest, maritime shrub swamp, trail through maritime swamp forest; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton Woods. Currently restricted to a small number of populations (Clark et al. 2016), this highly invasive species is likely to increase. *Stalter* 61 (CAHA, USCH) in 1990; *Clark* 727 (NCSC) in 2010.

Muhlenbergia schreberi J.F. Gmel.

Nimblewill

Rare in moist roadside; Buxton. Sole OBX record. *Stalter* 13 (CAHA) in 1989; no recent collections.

Muhlenbergia sericea (Michx.) P.M. Peterson [*M. capillaris* (Lam.)

Trin. var. *filipes* (M.A. Curtis) Chapm. ex Beal]

Basket Grass, Sweetgrass, Dune Hairgrass

Abundant in maritime wet grassland, upper margin of brackish marsh; scattered locations from southern portion of Bodie Island south to Shackleford Banks. Northern range limit. See Weakley (2018) for discussion of this beautiful and valuable grass. *Burk* b35-5 (CAHA) in 1959; *Redden* s.n. (CAHA) in 1997; BAS photo in 2012.

Opismenus setarius (Lam.) Roem. & Schult. [*Opismenus hirtellus* (L.) Beauv. ssp. *setarius* (Lam.) Mez ex Ekman] SR

Woods Grass

Occasional on trail through maritime evergreen forest; Buxton Woods, Shackleford Banks, Fort Macon SP and Emerald Isle on Bogue Banks. Northern range limit. Leaves form prostrate patches on the forest floor. *Radford & Browne*, Jr. 8783 (NCU) in 1955; *Sorrie* 13111 (CAHA, NCSC, NCU) in 2012.

Panicum amarum Elliott var. **amarum**

Seabeach Grass

Occasional in dune grass, stable dune barren, roadside; scattered throughout OBX. See discussion in Krings (2010) on separating the two varieties; not all specimens key cleanly and there may be merit to lumping them. *Radford* et al. 7736 (NCU) in 1953; *Krakow* s.n. (DUKE) in 1990; no recent collections.

Panicum amarum Elliott var. **amarulum** (Hitchc. & Chase) P.G. Palmer

Southern Seabeach Grass

Frequent in dune grass, stable dune barren, storm overwash, roadside; throughout OBX. *Blomquist* 11278 (DUKE, NCSC, NCU) in 1940; *Krings* 558 (NCSC) in 2004.

Panicum dichotomiflorum Michx. var. **dichotomiflorum**

Spreading Panic-grass

Infrequent in roadside, interdune, disturbed soil; Nags Head Woods, South of Oregon Inlet, Buxton Woods, Ocracoke Island. *Duncan & Duncan* 30261 (GA) in 1976; *Stalter s.n.* (CAHA) in 1990; *Krings 1054* (NCSC) in 2004; BAS sight record at Hatteras Inlet in 2012.

Panicum virgatum L. var. **spissum** Linder

Saltmarsh Panic-grass

Occasional in brackish marsh, salt shrub; scattered throughout OBX. Sorrie (2018) extended the range of this maritime taxon to the mid and southern Atlantic states. Previous reports and specimens of "*Panicum virgatum*" and *P. virgatum* var. *cubense* Griesb. from OBX are referred here (no specimens of the nominate variety or of var. *cubense* have been verified). *Blomquist 7449* (DUKE) in 1935; *Au s.n.* (DUKE) in 1967; *Faucette 501* (NCSC) in 2014.

***Parapholis incurva** (L.) C.E. Hubbard

Sickle Grass

Occasional in sand flat, open disturbed sand; Chicamacomico, Cape Hatteras, Shackleford Banks. *Ashe s.n.* (BOON, NCU) in 1898; *Blomquist 17034* (DUKE) in 1956; no recent collections.

***Paspalum dilatatum** Poir.

Dallis Grass

Rare in roadside; Buxton Woods, Cape Hatteras, Teach's Hole on Ocracoke Island. First collected in 1951 on Ocracoke Island, but the collector's name is not legible. *Stalter 49* (USCH) in 1989; *Redden s.n.* (CAHA) in 1997; *Dakar 85* (NCSC) in 2013.

Paspalum distichum L.

Joint Crownglass

Infrequent in interdune marsh, border of brackish marsh; Buxton Woods, Ocracoke Island, South Core Banks, Shackleford Banks. *Kearney 2296* (US) ca. 1898; *Au s.n.* (reportedly DUKE, but specimen not found in 2018); *Sorrie 13033* (NCU) in 2012.

Paspalum floridanum Michx.

Florida Crownglass, Big Crownglass

Rare in opening in maritime evergreen forest, moist sandy soil, roadside; Bodie Island, South Core Banks, Shackleford Banks. First reported for OBX by Lewis (1917) on Shackleford Banks; *Blomquist 7480* (DUKE) in 1935; *Au s.n.* (DUKE) in 1968; BAS sight record on Shackleford Banks in 1992; no recent records.

Paspalum laeve Michx. var. **laeve**

Field Crownglass

Infrequent in open woodland; near Cape Hatteras Lighthouse, South Core Banks, Shackleford Banks. *Burk b38-17* (CAHA) in 1959; *Wilbur 9274* (DUKE) in 1967; no recent collections.

***Paspalum notatum** Fluegge

Bahia Grass

Infrequent in roadside, powerline, disturbed soil; Corolla, Nags Head Woods, Buxton area, Hatteras Village. *Stalter s.n.* (CAHA) in 1990; *Holdsworth 528* (NCU) in 2011; *Faucette 475* (NCSC) in 2014.

Paspalum praecox Walter

Savanna Crownglass, Early Crownglass

Rare in maritime wet grassland; Access Ramp 49 east of Frisco. Sole OBX record for this species ordinarily of wet pine savannas and streamhead ecotones. Northern range limit. *Sorrie 13258* (CAHA, NCU) in 2013.

Paspalum setaceum Michx. var. **ciliatifolium** (Michx.) Vasey

Eyelash Crownglass

Occasional in roadside, powerline, disturbed soil; Kitty Hawk Woods, Buxton Woods, north of Hatteras Village, Bogue Banks. *Radford et al. 7559* (NCU) in 1953; *Burk b26-21* (NCU) in 1960; *Clark 636* (NCSC) in 2010.

Paspalum setaceum Michx. var. **muhlenbergii** (Nash) Fernald

Muehlenberg's Crownglass

Rare in dry sandy soil; Bodie Island. Sole OBX record. *Blomquist 7481* (DUKE) in 1935; no recent collections.

Paspalum setaceum Michx. var. **setaceum**

Bristle Crownglass

Rare in roadside sandy soil; Whalebone Junction on Bodie Island, Shackleford Banks. *McCaffrey 60* (CAHA) in 1974; *Krakow & Govus 828* (GA) in 1990; no recent collections.

***Paspalum urvillei** Steud.

Vasey Grass

Infrequent in moist roadside; Nags Head Woods, Buxton Woods, Hatteras Village. *Wilbur 5087* (NCSC) in 1955; *Krings 585* (NCSC) in 2004.

Paspalum vaginatum Sw. SR

Seashore Crownglass

Occasional in brackish marsh, maritime wet grassland; north of Duck, Kitty Hawk Woods, Little Kinnakeet Coast Guard Station, Buxton area, Ocracoke Island, Shackleford Banks. Northern range limit. *Kearney 2281* (US) ca. 1898; *Blomquist 6497* (DUKE) in 1934; *Duncan 29299* (GA) in 1975; *LeBlond 6172* (NCU) in 2005.

Phalaris caroliniana Walter

Carolina Canary-grass

Infrequent in roadside, sand flat, disturbed soil; Hatteras village, Ocracoke Island, Shackleford Banks. Reported from Jockey's Ridge SP (plant list). *Burk b1-32* (NCU) in 1959; *Au s.n.* (DUKE) in 1968; no recent collections.

***Phleum pratense** L.

Timothy

Rare in roadside; Nags Head Woods, Cape Hatteras National Seashore, Shackleford Banks. Reported by Lewis (1917) from Shackleford; *Stalter 292* (USCH) in 1989; *Krings 1061* (NCSC) in 2004.

Phragmites australis (Cav.) Trin. ex Steud. ssp. **americanus**

Saltonstall, P.M. Peterson, & Soreng

Native Reed

Rare, documented so far only from Mackay Island NWR (Currituck County), adjacent to Currituck Banks. Although this nearby island is not on the Outer Banks, I include this record in hope that botanists will search for native populations of phragmites on OBX. See Clark et al. (2016) for discussion of the two subspecies.

***Phragmites australis** (Cav.) Trin. ex Steud. ssp. **australis**

Common Reed

Frequent, locally abundant, in interdune marsh, interdune pond, brackish marsh, tidal freshwater marsh; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, west end of Bogue Banks. This aggressive alien invasive is increasing on OBX and likely will occupy all islands eventually. It displaces native herbs, sedges, grasses, and shrubs. *McCaffrey s.n.* (CAHA) in 1973; *Stalter 46* (USCH) in 1990; *Clark 255* (NCSC) in 2009.

Piptochaetium avenaceum (L.) Parodi [*Stipa a.* L.]

Black Needlegrass

Occasional in maritime deciduous forest, maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. *Blomquist 1514* (DUKE) in 1933; *Faucette 106* (NCSC) in 2013.

***Poa annua** L.

Annual Bluegrass

Frequent in lawn, roadside; scattered locations throughout OBX. *Blomquist 1407* (DUKE) in 1933; *Clark 468* (NCSC) in 2010.

***Poa compressa** L.

Flatstem Bluegrass

Rare in undescribed habitat; Ocracoke Island. Reported from Ocracoke by Burk (1961), but his specimen has not been found. Collections from locations adjacent to OBX are: Currituck County, Knotts Island, *Correll 2184* (DUKE) in 1935; Dare County, Roanoke Island, *Blomquist 7506* (DUKE) in 1935; Roanoke Island, Crutchfield 3644 (NCU) in 1959; no recent collections.

***Poa pratensis** L.

Kentucky Bluegrass

Occasional in roadside, disturbed soil; Kitty Hawk Woods, Buxton area, Shackleford Banks, Bogue Banks. *Blomquist 1430* (DUKE) in 1933; *Stalter s.n.* (CAHA); no recent collections.

***Polypogon monspeliensis** (L.) Desf.

Rabbitfoot Grass

Frequent in edge of brackish marsh, maritime wet grassland, roadside ditch; throughout OBX. *Ashe s.n.* (BOON) in 1898; *Blomquist 1444* (DUKE, NCSC) in 1933; *Krings 701* (NCSC) in 2004.

Sacciolepis striata (L.) Nash

American Cupscale

Occasional in interdune marsh, interdune pond, maritime shrub swamp; scattered throughout OBX. *Radford et al. 7535* (NCU) in 1953; *Dakar 40* (NCSC) in 2013.

***Schedonorus arundinaceus** (Schreber) Dum.Cours. [*Festuca elatior* L., misapplied]

Tall Fescue

Occasional in roadside, disturbed soil; Corolla, Kitty Hawk Woods, Nags Head Woods, route 12 Bodie Island, Buxton Woods, Ocracoke Island; *Burk b2-33* (CAHA) in 1960; *Clark 164* (NCSC) in 2009; *Holdsclaw 742* (NCU) in 2015.

***Schedonorus pratensis** (Hudson) Beauv. [*Festuca pratensis* Hudson, in part]

Meadow Fescue

Infrequent in roadside; Whalebone Junction, north of Oregon Inlet, Cape Hatteras. *Ashe s.n.* (NCU) in 1898; *Sorrie 12940* (NCSC, NCU) in 2012.

Schizachyrium littorale (Nash) E.P.Bicknell [*Andropogon scoparius* Michx. var. *littorale* (Nash) Hitchc.]

Seaside Little Bluestem

Frequent in dune grass, stable dune barren; Corps of Engineers facility in Duck, Run Hill, Jockey's Ridge SP, "Old Nags Head," South Core Banks, Shackleford Banks, Bogue Banks. Very numerous in dunes at Fort Macon SP on Bogue Banks in 2018. *Billings 1236* (BYU) in 1939; *Sorrie 7057* (NCU) in 1992; *Walker 45* (NCU) in 2016.

Schizachyrium scoparium (Michx.) Nash sensu stricto [*Andropogon scoparius* Michx. var. *s.*]

Little Bluestem

Infrequent in opening and edge of maritime evergreen forest; Nags Head Woods, Wright Memorial, Buxton Woods. *Taylor 17* (DUKE) in 1980; *Krings 1302* (NCSC) in 2005; BAS sight record at Wright Memorial in 2013.

Setaria magna Griesb.

Saltmarsh Foxtail

Frequent in brackish marsh, tidal freshwater marsh, interdune marsh, interdune pond; throughout OBX. *Fox s.n.* (NCSC) in 1947; *Faucette 354* (NCSC) in 2013.

Setaria parviflora (Poir.) Kerguélen [*S. geniculata* Beauv.]

Perennial Foxtail, Knotroot

Frequent in brackish marsh, maritime wet grassland, moist road

side; throughout OBX. *Blomquist 7474* (DUKE) in 1935; *Faucette 287* (NCSC) in 2013.

***Setaria pumila** (Poir.) Roem. & Schult. [*S. glauca* (L.) Beauv.]

Yellow Foxtail

Rare in dry roadside, disturbed soil; Kitty Hawk Woods, Shackleford Banks. *Au s.n.* (DUKE) in 1968; *Clark 299* (NCSC) in 2009.

Sorghastrum elliotii (C. Mohr) Nash

Slender Indian-grass

Occasional in maritime evergreen forest, maritime deciduous forest, mesic powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. *Fosberg 17836* (DUKE) in 1940; *Krings 1322* (NCSC) in 2005.

***Sorghum halepense** (L.) Pers.

Johnson Grass

Rare in roadside, Bodie Island. Reported from Jockey's Ridge SP (plant list). *Burk et al. b35-21* (NCU) in 1959; no recent collections.

Spartina alterniflora Loisel.

Saltmarsh Cordgrass

Abundant in salt marsh, occasional in brackish marsh; scattered throughout OBX. *Fosberg 17772* (DUKE) in 1940; *Krings 845* (NCSC) in 2004.

Spartina cynosuroides (L.) Roth

Giant Cordgrass

Frequent in tidal freshwater marsh, brackish marsh; Corolla south to Hatteras village; Ocracoke Island; South Core Banks. *Radford et al. 7512* (NCU) in 1953; *Clark 259* (NCSC) in 2009.

Spartina patens (Aiton) Muhl.

Saltmarsh Hay, Saltmeadow Cordgrass

Abundant in brackish marsh, maritime wet grassland, salt shrub, estuarine fringe pine forest; throughout OBX. One of the most characteristic plants of the Outer Banks, dominant in upper portions of tidally-influenced marshes. Most, perhaps all, of our plants are *S. patens* var. *monogyna* (M.A. Curtis) Fernald, coarse plants with strongly ascending spikes. The actual distribution of var. *patens* on OBX has yet to be determined. *Fosberg 17768* (DUKE) in 1940; *Faucette 263* (NCSC) in 2013.

Sphenopholis filiformis (Chapm.) Scribn.

Filiform Wedgegrass

Rare in powerline cut through maritime evergreen forest; Nags Head Woods. Sole OBX record. *Krings 1295* (NCSC) in 2005.

Sphenopholis nitida (Biehler) Scribn.

Shiny Wedgegrass

Infrequent in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Blomquist 10653* (DUKE) in 1939; *Sorrie 13155* (NCU, US) in 2013.

Sphenopholis obtusata (Michx.) Scribn.

Prairie Wedgegrass

Occasional in roadside; Buxton Woods, Hatteras village, Ocracoke Island, Shackleford Banks, Fort Macon SP on Bogue Banks. *Ashe s.n.* (NCU) in 1898; *Faucette 126* (NCSC) in 2013.

Sphenopholis pensylvanica (L.) Hitchc. [*Trisetum p.* (L.) Beauv.]

Swamp Oats

Rare in interdune marsh, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Shackleford Banks. *Blomquist 1569* (DUKE) in 1933; *Krings 1297* (NCSC) in 2005.

Sporobolus clandestinus (Biehler) Hitchc.

Rough Dropseed

Rare in mesic powerline; Kitty Hawk Woods. Sole OBX location. *Radford 44486* (NCU) in 1961; *Sorrie 13237* (NCSC, NCU) in 2013.

Sporobolus indicus (L.) R. Br. [*S. poiretii* (Roem. & Schult.) Hitchc.]
Smutgrass, Blackseed
Occasional in roadside, disturbed soil; Jockey's Ridge SP, Buxton-
Hatteras area, Ocracoke Island, Shackleford Banks. *Radford et al.* 7619 (NCU) in 1953; *Faucette* 21 (NCSC) in 2013.

Steinchisma hians (Elliott) Nash [*Panicum h.* Elliott]
Gaping Panic-grass
Rare, no habitat specified, Nags Head Woods. Sole OBX record.
Stalter 1 (USCH) in 1992; no recent collections.

Stenotaphrum secundatum (Walter) Kuntze
Carpet Grass
Occasional in roadside, maritime evergreen forest; Buxton Woods,
Portsmouth Island, Shackleford Banks, Bogue Banks. Weakley
(2018) considers this species native to NC, but it is doubtful
that all OBX populations are, since the species has been widely
used horticulturally and is known to escape. *Burk et al.* b24-91
(NCU) in 1959; *Sorrie* 13001 (CAHA, NCU) in 2012.

Tridens chapmanii (Steud.) Henrard T
Chapman's Redtop
Infrequent in maritime deciduous forest, mesic powerline; Duck,
Kitty Hawk Woods, Nags Head Woods. Separated from *T. flavus*
by robust size of plant, darker and browner spike color, and
spikes widely divergent from inflorescence branches. *Radford*
8772 (NCU) in 1955; *Sorrie* 13282 (NCSC, NCU) in 2012.

Tridens flavus (L.) Hitchc.
Common Redtop
Occasional in opening in maritime evergreen forest, roadside,
powerline; scattered throughout OBX. *Burk* b34-13 (NCU) in
1959; *Clark* 384 (NCSC) in 2009.

Triplasis purpurea (Walter) Chapm.
Purple Sandgrass
Occasional in stable dune barren, maritime dry grassland, dis-
turbed soil; scattered throughout OBX. *Blomquist & Williams*
1564 (DUKE) in 1933; *Faucette* 344 (NCSC) in 2013.

Tripsacum dactyloides (L.) L.
Gama Grass
Occasional in edge of brackish marsh, maritime evergreen forest,
roadside; Nags Head Woods, NPS campground on Bodie Island,
Hatteras Island, Shackleford Banks, Fort Macon SP on Bogue
Banks. *Radford et al.* 7775 (NCU) in 1953; *Stalter* 1 (USCH) in
1992; *Dakar* 51 (NCSC) in 2013.

***Triticum aestivum** L.
Cultivated Wheat
Rare in roadside; Nags Head Village, Hatteras Village. *Burk* b44-12
(NCU) in 1960; reported by Stalter and Lamont (1997); no
recent collections.

Uniola paniculata L.
Sea Oats
Frequent to abundant in live dune barren, stable dune barren;
throughout OBX. A characteristic plant of the dunes, valuable
in its sand-holding capability and highly valued by residents.
Engels s.n. (NCU) in 1939; *Krings s.n.* (NCSC) in 2001.

***Urochloa ramosa** (L.) T.Q. Nguyen [*Panicum r.* L.]
Browntop Millet, Dixie Signal-grass
Rare in moist woods; Nags Head Woods. Sole OBX record. *Stalter*
42 (CAHA); no recent collections.

Vulpia elliotae (Raf.) Fernald [*Festuca sciurea* Nutt.]
Squirretail Grass
Infrequent in disturbed forest edge, powerline, roadside; Kitty
Hawk Woods, Run Hill, near NPS residences on Bodie Island,

Ocracoke Island. *Burk et al.* b2-13 (NCU) in 1959; *LeBlond* 6105
(NCU) in 2005; *Krings* 1729 (NCSC) in 2007.

Vulpia myuros (L.) C. Gmel. [*Festuca myuros* L.]
Rat-tail Fescue
Occasional in roadside, lawn, disturbed soil; Run Hill, route 12 on
Bodie Island, Cape Hatteras, Portsmouth Island, Shackleford
Banks, Bogue Banks. *Radford* 8190 (NCU) in 1954; *Krakow* s.n.
(DUKE) in 1990; *Krings* 2476 (NCSC) in 2007.

Vulpia octoflora (Walter) Rydb. [*Festuca octoflora* Walter]
Sixweeks Fescue
Occasional in stable dune barren, maritime dry grassland, roadside,
disturbed soil; Kitty Hawk Woods, Cape Hatteras, Ocracoke
Island, Shackleford Banks, *Ashe* s.n. (NCU) in 1898; *Clark* 540
(NCSC) in 2010.

Zizania aquatica L. var. **aquatica**
Wild Rice
Occasional, but usually numerous where found, in interdune marsh,
interdune pond; Kitty Hawk Woods, near Colington, Nags Head
Woods, Buxton Woods, Bogue Banks. *Radford et al.* 7582 (NCU)
in 1953; *Faucette* 307 (NCSC) in 2013.

PONTEDERIACEAE
***Eichhornia crassipes** (Mart.) Solms
Water Hyacinth
Rare in wet depression in maritime evergreen forest; Buxton
Woods. Sole OBX record. This native of South America has been
introduced sparingly into NC via the horticulture trade and
occasionally escapes. *Faucette* 134 (NCSC) in 2013.

Pontederia cordata L.
Pickerelweed
Infrequent in interdune pond; Currituck Sound near Kitty Hawk,
Kitty Hawk Woods, Nags Head Woods. *Downs* 319 (NCSC) in
1966; *Clark* 607 (NCSC) in 2010.

POTAMOGETONACEAE
Potamogeton illinoensis Morong SR
Illinois Pondweed
Infrequent, but may be abundant where found, in interdune pond,
interdune marsh; Buxton-Hatteras Point area. *Fosberg* 17818
(NCSC) in 1940; *Sorrie* 13027 (CAHA, NCU) in 2012.

Potamogeton perfoliatus L.
Perfoliate Pondweed
Rare in pond in brackish marsh, waterfowl impoundment pond,
shallow water of sound; in Currituck Sound, 3 mi. south of
Oregon Inlet, North Pond on Pea Island. *Whitford* 380 (NCSC)
in 1952; *Beal* 3251 (NCU) in 1957; *Lynch* 103 (NCSC) in 1979; no
recent collections.

Potamogeton pulcher Tuck.
Spotted Pondweed
Infrequent in interdune pond, interdune marsh; Currituck Sound
near Duck, Nags Head Woods, Buxton Woods. First reported
for OBX by *Burk* (1961) but his specimen has not been found;
Faucette 453 (NCSC) in 2014.

Potamogeton pusillus L.
Small Pondweed
Rare in Currituck Sound "at inlet south of Duck" and "east of Kitty
Hawk." *Radford* 5431 and 5758 (NCU) in 1950 and 1951; no
recent collections.

Stuckenia pectinata (L.) Börner [*Potamogeton pectinatus* L.]
Sago Pondweed
Frequent in interdune pond, pool in brackish marsh, shallow water
of sound; Currituck Sound near Caffey's Inlet, Kitty Hawk Bay,

Nags Head Woods, 2.75 mi. south of Whalebone Junction, North Pond Pea Island, South Pond Pea Island, Shackleford Banks. *Radford* 5754 (NCU) in 1951; *Sorrie* 13253 (CAHA, NCU) in 2013.

Zannichellia palustris L.

Horned Pondweed

Occasional in shallow water of sound; Currituck Sound at Caffey's Inlet, bay at Colington, Pamlico Sound at Cape Hatteras. *Ashe s.n.* (NCU) in 1898; *Beal* 3972 (DUKE, NCSC) in 1958; no recent collections.

RUSCACEAE

***Liriope exiliflora** (L.H. Bailey) Hume

A Lilyturf

Rare in swampy depression in maritime forest; Nags Head Woods. Sole OBX record. *Krings* 1119 (NCSC) in 2004.

***Liriope muscari** (Decaisne) L.H. Bailey

Big Blue Lilyturf

Rare in maritime deciduous forest, Kitty Hawk Woods. Sole OBX record. See *Clark et al.* (2016) for how to distinguish from *L. exiliflora*. *Clark* 714 (NCSC) in 2010.

Polygonatum biflorum (Walter) Elliott var. **biflorum**

Solomon's-seal

Rare in maritime deciduous forest; Kitty Hawk Woods. Sole OBX location. *Peterson s.n.* (CAHA) in 1976; *Clark* 517 (NCSC) in 2010.

SMILACACEAE

Smilax auriculata Walter

Dune Greenbrier

Frequent in stable dune barren, dune grass, edge of maritime evergreen forest; Buxton Woods, east of Frisco, South Core Banks, Shackleford Banks, Bogue Banks. Northern range limit. *Rogers & Blomquist* 3282 (DUKE) in 1946; *Blomquist & Jones* 15311 (DUKE) in 1951; *Aus.s.n.* (DUKE) in 1967; BAS photo in 2012.

Smilax bona-nox L. var. **littoralis** Coker ex *Sorrie*

Maritime Catbrier

Frequent in stable dune barren, dune grass, maritime shrub, opening in maritime evergreen forest; throughout OBX. *Sorrie* (2014c) resurrected the variety *littoralis*, which is restricted to maritime environments, whereas var. *bona-nox* occupies floodplain forests and swamp forests on the mainland. Northern range limit. *Radford* 8145 (NCU), originally determined as *S. hispida* Raf., belongs here. *Radford et al.* 7552 (NCU) in 1953; *Krings* 1264 (NCSC) in 2005.

Smilax glauca Walter

Sawbrier

Occasional in maritime evergreen forest, forest opening; Kitty Hawk Woods, Nags Head Woods, Shackleford Banks, Bogue Banks. *Burk* b16-18 (NCU) in 1959; *Clark* 651 (NCSC) in 2010.

Smilax laurifolia L.

Laurel Brier; Blaspheme Vine

Frequent in maritime shrub swamp, maritime swamp forest, freshwater seepage swamp; Run Hill, Nags Head Woods, Buxton Woods, Shackleford Banks. *Fosberg* 17830 (NCSC) in 1940; *Faucette* 4 (NCSC) in 2013.

Smilax rotundifolia L.

Common Greenbrier

Apparently frequent, in maritime evergreen forest, Kitty Hawk Woods, Wright Memorial, Nags Head Woods, Buxton Woods, South Core Banks. *Burk et al.* b21-24 (NCU) in 1959; *Clark* 212 (NCSC) in 2009.

Smilax smallii Morong

Jackson Brier

Infrequent in maritime evergreen forest, margin of maritime swamp forest, moist powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Radford* 8148 (NCU) in 1954; *Krings* 1264 (NCSC) in 2005.

TYPHACEAE

Sparganium americanum Nutt.

American Bur-reed

Infrequent in interdune pond, interdune marsh; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Fox s.n.* (NCSC) in 1952; *Clark* 92 (NCSC) in 2009.

Typha angustifolia L.

Narrowleaf Cattail

Occasional, but usually abundant where found, in brackish marsh, interdune marsh; Bodie Island south of Whalebone Junction, Oregon Inlet, Buxton area, Ocracoke Island. Reported from South Core Banks by NPS staff (Krakow 1991). *Radford et al.* 7604 (NCU) in 1953; *Faucette* 275 (NCSC) in 2013.

Typha domingensis Pers.

Southern Cattail

Occasional, but usually abundant where found, in interdune marsh, interdune pond, brackish marsh; Bodie Island south of Whalebone Junction, North Pond on Pea Island, Buxton area, Shackleford Banks, Bogue Banks. *Au s.n.* (DUKE) in 1967; reported for Nags Head Woods (Blonder and Stalter 1992); BAS photo in 2012.

Typha latifolia L.

Broadleaf Cattail

Frequent, but usually abundant where found, in interdune pond, interdune marsh, tidal freshwater marsh, brackish marsh, roadside ditch. Scattered throughout OBX. *Burk* b17-14 (NCU) in 1959; *Krings* 1278 (NCSC) in 2005.

XYRIDACEAE

Xyris ambigua Breyr. ex Kunth

Savanna Yellow-eyed-grass

Rare in maritime wet grassland-like community; Jockey's Ridge SP. Sole OBX record. *Sorrie* 13277 (NCU) in 2013.

Xyris curtissii Malme [*X. difformis* Chapm. var. *curtissii*] (Malme) Kral

Curtiss's Yellow-eyed-grass

Rare in wet swale; Nags Head Woods. Sole OBX record. The specimen was originally determined as *X. platylepis* Chapm., annotated by Krings (2005). *Stalter* 12 (CAHA); no recent collections.

Xyris difformis Chapm.

Flatstem Yellow-eyed-grass

Rare at edge of impoundment pond, Pine Island Audubon Sanctuary in Currituck County. Sole OBX record. *Faucette* 528 (NCU) in 2016.

Xyris jupicai Richard

Richard's Yellow-eyed-grass

Rare in wet swale; Nags Head Woods. Sole OBX record. The specimen was originally determined as *X. platylepis* Chapm., annotated by Krings (2005). *Stalter* 13 (CAHA); no recent collections.

Xyris torta Sm.

Mountain Yellow-eyed-grass

Rare in wet swale; Nags Head Woods. Sole OBX record. *Burk et al.* b58-17 (NCU) in 1960; no recent collections.

ZOSTERACEAE***Zostera marina* L.**

Elgrass

Occasional, but abundant where found, in shallow water of sound; Jockey's Ridge SP, Hatteras Island, Ocracoke Island, South Core

Banks, Shackleford Banks, Bogue Banks. The ribbon-like plants wash up on sound shores to form a wrack line. *Blomquist & Jones* 15319 (DUKE) in 1951; reported from Nags Head Woods (Stalter and Lamont 1997); BAS sight record from JRSP in 2012.**EUDICOTS****ACANTHACEAE*****Ruellia caroliniensis* (J.F. Gmel.) Steud.**

Carolina Wild-petunia

Rare in "dry sandy woods, Bathing Beach, Southern Shores." Sole OBX record. *Peterson s.n.* (CAHA) in 1977; no recent collections.**ACERACEAE—see SAPINDACEAE****ADOXACEAE [CAPRIFOLIACEAE, in part]*****Sambucus canadensis* L.**

Black Elderberry

Rare in "roadside bordering moist woods near Duck." Sole OBX record. *Burk b10-8* (NCU) in 1959; no recent collections.***Viburnum nudum* L.**

Possum Haw, Swamp Viburnum

Rare in swampy depression; Nags Head Woods, Roosevelt Natural Area on Bogue Banks. Reported for Nags Head Woods by Atkinson & List (1978); *Krings* 606 (NCSC) in 2004; sight record by J. Fussell in 2019.***Viburnum rufidulum* Raf.**

Southern Black Haw

Rare in maritime evergreen forest; Nags Head Woods. Sole OBX location. *Peterson s.n.* (CAHA) in 1975; *Stalter* 35 (CAHA) in 1990; no recent collections.**AIZOACEAE*****Sesuvium maritimum* (Walter) B.S.P. SR**

Small Sea-purslane

Occasional in sand flat, bare spot in brackish marsh, margin of impoundment pond; Bodie Island, Pea Island, Hatteras Island, Shackleford Banks, South Core Banks. *Radford et al.* 7669 (NCU) in 1953; *Sorrie* 13220 (CAHA, NCSC, NCU) in 2013.***Sesuvium portulacastrum* (L.) L. SR**

Large Sea-purslane

Rare in beach of sound; South Core Banks. Sole OBX record. *Krakow s.n.* (CAHA) in 1990.**ALTINGIACEAE [formerly in HAMAMELIDACEAE]*****Liquidambar styraciflua* L.**

Sweetgum

Occasional in maritime swamp forest, edge of interdune pond, freshwater seepage swamp; Duck, Kitty Hawk Woods, Run Hill, Nags Head Woods, Bogue Banks. *Burk b16-1* (NCU) in 1959; *Clark* 59 (NCSC) in 2009.**AMARANTHACEAE******Alternanthera philoxeroides* (Mart.) Griesb.**

Alligator-weed

Occasional in interdune pond, creek through brackish marsh, wet roadside ditch; Caffey's Inlet, Duck, Nags Head Woods, Run Hill, Rodanthe, Buxton Woods. This is a noxious weed that should be eradicated. *Thomas* 406 (CM) in 1972; *Qualls* 1305 (NCU) in 1981; *Krings* 786 (NCSC) in 2004; *Faucette* 459 (NCSC) in 2014.****Amaranthus australis* (A. Gray) J.D. Sauer**

Southern Water-hemp

Occasional at edge of brackish marsh, sand dune, bank of dredged pond, vacant lot with remnant woodland; Ocracoke Island,

Banks, Hammocks Beach SP, south end of Bogue Bank. The Damrel collection (Ocracoke) states that some plants were about 3.5 meters tall! The native status of this species is not certain. *Ahles* 36133 (NCU) in 1957; *Wilbur* 12701 (DUKE) in 1970; *Damrel & Damrel* 6927 (CLEMS) in 2017.****Amaranthus blitum* L.**

Purple Amaranth

Rare weed in shrub bed at Tim Buck II shopping center south of Corolla. Sole record for OBX. *Holdsclaw* 890 (NCU) in 2018.***Amaranthus cannabinus* (L.) J.D. Sauer**

Saltmarsh Water-hemp

Frequent in brackish marsh, salt shrub, tidal freshwater marsh, interdune marsh; Kitty Hawk Woods, south of Whalebone Junction on Bodie Island, Buxton Woods, north of village of Cape Hatteras, Trinity Center and Pine Knoll Shores on Bogue Banks. *Oosting* 15322 (DUKE) in 1951; *Dumond* 579 (NCSC) in 1966; *Peifer & McCormick s.n.* (NCU) in 2006; *Holdsclaw* 888 (NCU) in 2018.***Amaranthus hybridus* L.**

Smooth Amaranth

Rare in roadside, disturbed soil; South Core Banks, Bogue Banks.

Specimen reportedly at CAHA (fide Krakow 1991); no recent collections.

***Amaranthus pumilus* Raf. FT**

Seabeach Amaranth

Occasional in upper beach, sandspit; near tern colony on Hatteras Island, Cape Hatteras Point, Hatteras Inlet, Ocracoke Island, Shackleford Banks, Emerald Isle on Bogue Banks. Populations fluctuate greatly, depending on storm alteration to beach morphology (Hancock and Hosier 2003). Vulnerable to excessive ORV traffic. This species was not seen during the 2012–13 Dare County inventory work, due to habitat loss (e.g., the sandspit at Hatteras Inlet) or to habitat disturbance by vehicles. *Atkinson* 2075 (NCU) in 1977; *Sorrie* 7115 (NCU) in 1992; no recent collections, but sight records from Shackleford Banks in 2012, Emerald Isle in 2016, Fort Macon SP in 2017, and Topsail Island in 2017.***Iresine rhizomatosa* Standl.**

Bloodleaf

Occasional in interdune marsh, margin of brackish marsh; scattered throughout OBX. *Burk* (1961) reported a collection of *I. diffusa* Humboldt & Bonpland, but the specimen is referred here. *Fosberg* 17840 (NCSC) in 1940; *Krings* 1076 (NCSC) in 2004; BAS sight records 2012–13.**ANACARDIACEAE*****Rhus copallina* L.**

Winged Sumac

Occasional in edge of maritime evergreen forest, forest opening, regenerating forest, maritime shrub; scattered throughout OBX. *Radford et al.* 7574 (NCU) in 1953; *Faucette* 500 (NCSC) in 2015.***Toxicodendron pubescens* Mill.**

Poison Oak

Rare on sand ridge in maritime evergreen forest; Nags Head Woods,

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Shackleford Banks. Sight record on Shackleford by BAS et al. (1992); *Krings 1275* (NCSC) in 2005.

Toxicodendron radicans (L.) Kuntze var. **radicans**

Poison Ivy

Frequent in maritime evergreen forest, maritime deciduous forest, maritime swamp forest, maritime shrub; throughout OBX. *Anderson 243* (DUKE) in 1962; *Clark 590* (NCSC) in 2010.

APIACEAE [UMBELLIFERAE]

Centella erecta (L.f.) Fernald [*C. asiatica* (L.) Urban, misapplied]

Centella, Coinleaf

Frequent in interdune marsh, maritime shrub swamp, maritime wet grassland, open moist sandy depression; throughout OBX. *Fosberg 17861* (NCU) in 1940; *Krings 793* (NCSC) in 2004.

Chaerophyllum tainturieri Hook.

Southern Chervil

Rare in "state road between 3rd and 4th Avenue" in Nags Head Village; a second collection from an unspecified location. *Peterson s.n.* (CAHA) in 1977; *Stalter 12* (USCH) in 1989; no recent collections.

Cicuta maculata L.

Water Hemlock

Occasional in interdune marsh, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP, Buxton Woods, Shackleford Banks. *Fosberg 17804* (NCSC) in 1940; *Clark 648* (NCSC) in 2010.

***Daucus carota** L.

Queen-Anne's-Lace

Occasional in roadside, waste soil, open woods; Duck, Buxton area, Ocracoke Island, South Core Banks, Bogue Banks. Reported from Ocracoke Island by Burk (1961); *M. Godfrey s.n.* (CAHA) in 1975; *Stalter s.n.* (CAHA) in 1992; no recent collections.

Eryngium aquaticum L. var. **aquaticum**

Marsh Eryngo

Rare in brackish marsh near Duck. Sole OBX record. *Schallert 5370* (NCU) in 1950; no recent collections.

***Eryngium maritimum** L.

Sea Holly

Rare in dune grass at Nags Head village. Reported by Brown (1957) as common in dunes on Bodie Island; Stalter and Lamont (1997) considered it extirpated there. *Fox 4133* (GA, NCSC) in 1950; *Bell 2931* (NCU) in 1956; *Leonard 3393* (many herbaria) in 1970; *Daniel 102* (SC) in 1974; no recent collections.

Lilaeopsis carolinensis Coulter & Rose SR

Carolina Lilaeopsis

Occasional in mudflat of tidal freshwater marsh, interdune pond; Duck, Kitty Hawk Bay, Jockey's Ridge SP, Buxton Woods, Bogue Banks. Reported from Nags Head by Burk (1961), but specimen not found. *Radford 5753* (NCU) in 1951; *Sorrie 13142* (NCU) in 2013.

Lilaeopsis chinensis (L.) Kuntze

Marsh Lilaeopsis

Infrequent in mudflat of tidal freshwater marsh, brackish marsh; Duck, Kitty Hawk Woods, Jockey's Ridge SP. Reported from Nags Head by Burk (1961), but specimen not found. *Radford 5432* (NCU) in 1950; *Clark 532* (NCSC) in 2010.

Ptilimnium capillaceum (Michx.) Raf.

Mock Bishop's-weed

Frequent in interdune marsh, wet maritime grassland, wet roadside ditch; scattered throughout OBX. *Hammond s.n.* (NCU) in 1959; *Krings 989* (NCSC) in 2004.

Sanicula canadensis L. var. **floridana** (E.P. Bicknell) H. Wolff

Florida Sanicle

Occasional in maritime evergreen forest, maritime deciduous forest; scattered throughout OBX. All OBX specimens seen of *S. "canadensis"* are referred to this maritime and near-maritime variety. *Ashe s.n.* (NCU) in 1898; *Sorrie 13214* (NCSC, NCU) in 2013.

Sanicula marilandica L.

Maryland Sanicle

Rare in maritime deciduous forest; Nags Head Woods. Sole OBX location. *Fox & Godfrey 2318* (NCSC) in 1949; *Krings 1082* (NCSC) in 2004; *Sorrie 13283* in 2013.

Sium suave Walter

Water Parsnip

Infrequent in edge of brackish marsh, interdune marsh, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods. *Dumond 548* (NCSC) in 1966; *Clark 549* (NCSC) in 2010.

Spermolepis divaricata (Walter) Raf.

Southern Spermolepis

Occasional in roadside, powerline, disturbed soil; Kitty Hawk Woods, Nags Head Woods, Buxton-Frisco area, Ocracoke Island, South Core Banks. *Ashe s.n.* (NCU) in 1898; *Faucette 417* (NCSC) in 2014.

***Spermolepis echinata** (Nutt. ex DC.) Heller

Bristlefruit Spermolepis

Rare in margin of clearing made to move Cape Hatteras Lighthouse. Sole OBX record. *Sorrie 13189* (NCU) in 2013.

APOCYNACEAE [including ASCLEPIADACEAE]

Apocynum cannabinum L.

Hemp Dogbane, Indian Hemp

Infrequent in edge of woodland, roadside, disturbed soil; Nags Head area, Buxton Woods, Cape Hatteras, South Core Banks. *Radford 8195* (NCU) in 1954; *Krakow & Govus 1085* (GA) in 1990; no recent collections.

Asclepias amplexicaulis J.E. Smith

Wavyleaf Milkweed

Rare in border of woodland, opening in maritime evergreen forest; Colington, Nags Head Woods. *Fox & Godfrey 2331* (NCSC); *Peterson s.n.* (CAHA) in 1976; no recent collections.

Asclepias incarnata L. var. **pulchra** (Ehrh.) Pers.

Downy Swamp Milkweed

Rare in interdune marsh, margin of interdune pond; near Corolla Lighthouse, Kitty Hawk Woods, Bodie Island Lighthouse area. *Ware & Thomas 6837* (NCU) in 1977; *Clark 718* (NCSC) in 2010.

Asclepias lanceolata Walter

Few-flowered Milkweed

Occasional in brackish marsh, tidal freshwater marsh; Nags Head Woods, near Nags Head Village, South Core Banks, Shackleford Banks. *Schallert 4027* (NCU) in 1950; *Krings 792* (NCSC) in 2004.

Asclepias tuberosa L. var. **tuberosa**

Orange Milkweed

Rare in edge of maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods. *Downs et al. 11117* (NCSC) in 1970; *Clark 600* (NCSC) in 2010.

Asclepias variegata L.

White Milkweed

Rare in maritime evergreen forest, forest opening; Kitty Hawk Woods, Nags Head Woods. *Fox & Godfrey 2319* (NCSC) in 1949; *Krings 1087* (NCSC) in 2004.

Gonolobus suberosus (L.) R. Br. var. **suberosus** [*Matelea gonocarpa* (Walter) Shinners]

Eastern Anglepod

Rare in maritime evergreen forest; Shackleford Banks, Roosevelt Natural Area on Bogue Banks. *Au s.n.* (reportedly DUKE, but specimen not found 2018); *Sorrie 13632* (NCU) in 2018.

***Nerium oleander** L.

Oleander

Occasional in roadsides and disturbed sites; near Cape Hatteras Lighthouse, salt flat at Hatteras Village, maritime hammock near Frisco airport. *Downs 344* (NCSC) in 1966; *Whetstone 1944* (WCUH) in 1973; no recent collections or sightings of non-cultivated plants.

Seutera angustifolia (Pers.) Fishbein & W.D. Stevens [*Cynanchum a.* Pers.]

Swallow-wort

Frequent in maritime wet grassland, interdune marsh, upper margin of brackish marsh; from Hatteras Island south to Bogue Banks. Northern range limit. *Radford et al. 7622* (NCU) in 1953; *LeBlond 6120* (NCU) in 2005; BAS photo in 2012.

***Vinca major** L.

Greater Periwinkle

Rare, in graveyard; Duck. Sole OBX record. *Stalter s.n.* (CAHA) in 1992; no recent collections.

***Vinca minor** L.

Lesser Periwinkle, Creeping Myrtle

Rare in roadside, woodland margin. Reported from Nags Head Woods by Atkinson and List (1978); reported "escaped from cultivation along roadside at Buxton" by Stalter and Lamont (1997). No specimens seen.

AQUIFOLIACEAE

Ilex glabra (L.) A. Gray

Gallberry, Inkberry

Occasional in maritime shrub swamp, moist maritime evergreen forest; Nags Head Woods, Kill Devil Hills, Bodie Island, Buxton Woods, Ocracoke Island, Shackleford Banks. *Mathewss.n.* (NCU) in 1931; *Krings 412* (NCSC) in 2004.

Ilex opaca Aiton

American Holly

Frequent in maritime evergreen forest, maritime deciduous forest, forest edge; throughout OBX. *Radford et al. 7606* (NCU) in 1953; *Clark 403* (NCSC) in 2009.

Ilex vomitoria Aiton

Yaupon

Frequent, locally abundant, in maritime evergreen forest, maritime deciduous forest, forest edge; throughout OBX. *Holmes s.n.* (NCU) in 1923; *Faucette 64* (NCSC) in 2013.

ARALIACEAE

Aralia spinosa L.

Devil's Walking-stick

Occasional in maritime shrub swamp, maritime deciduous forest, forest edge; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP, Buxton Woods. *Radford et al. 7603* (NCU) in 1953; *Clark 256* (NCSC) in 2009.

***Hedera helix** L.

English Ivy

Infrequent in trail through maritime forest, waste ground, former home site; Nags Head Woods, Buxton, Ocracoke Island, Pine Knolls village on Bogue Banks. *Crutchfield b3-1* (NCU) in 1959; *Franklin 641* (NCSC) in 2005; *LeBlond 6156* (NCU) in 2005.

Hydrocotyle bonariensis Lam.

Dune Pennywort

Frequent, locally abundant, in stable dune barren, maritime dry grassland, maritime shrub, roadside, lawn, powerline; from Jockey's Ridge SP southward to Bogue Banks. One of the characteristic plants of stable dunes, sandy roadsides, and yards on OBX. *Ulmer s.n.* (DUKE) in 1947; *Wilbur 12848* (DUKE) in 1970; BAS photo in 2018.

Hydrocotyle ranunculoides Lf.

Swamp Pennywort

Occasional, but may be abundant where found, in interdune marsh, interdune pond, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Bodie Island, NC Aquarium on Bogue Banks. *C.L. Rogers 528C* (NCU) in 1949; *Clark 692* (NCSC) in 2010.

Hydrocotyle umbellata L.

Marsh Pennywort

Frequent in interdune shrub swamp, interdune pond, interdune marsh, wet roadside ditch; throughout OBX. *Ashe s.n.* (NCU) in 1898; *Krings 628* (NCSC) in 2004.

Hydrocotyle verticillata Thunb.

Whorled Pennywort

Frequent in interdune shrub swamp, interdune pond, interdune marsh, maritime swamp forest; throughout OBX. *Whitford 262* (NCSC) in 1951; *Faucette 334* (NCSC) in 2013.

ASTERACEAE

***Acanthospermum australe** (Loefl.) Kuntze

Paraguay Bur, Starbur

Infrequent in live dune barren, edge of woods, powerline, roadside; Corolla, Kitty Hawk Woods, Run Hill. *Franklin 633* (NCU) in 2005; *Clark 345* (NCSC) in 2009; *Holdsclaw 894* (NCU) in 2018.

Achillea borealis Bongard [*A. millefolium* L. ssp. *lanulosa* (Nutt.) Piper]

Common Yarrow

Occasional in woodland clearing, roadside, disturbed soil; Duck, Kitty Hawk Woods, Nags Head Woods, Shackleford Banks, Fort Macon SP on Bogue Banks. See Weakley (2018) for taxonomic treatment of native forms of the global *A. millefolium*. *Schallert 5252* (NCU) in 1959; *Krings 610* (NCSC) in 2004.

Ambrosia artemisiifolia L.

Common Ragweed

Occasional in roadside, powerline, disturbed soil; scattered throughout OBX. *Fosberg 17896* (NCSC) in 1940; *Faucette 19* (NCSC) in 2013.

***Anaphalis margaritacea** (L.) Benth. & Hook.f.

Pearly Everlasting

Rare in sandy area behind foredunes, sand flat; Buxton and Cape Hatteras. *Frank s.n.* (CHRB) in 1960; *Halvorson 75-480* (SBBG) in 1975; no recent collections.

Antennaria plantaginifolia (L.) Richardson

Plantain-leaved Pussytoes

Rare in maritime evergreen forest; Nags Head Woods. Sole OBX record. *Stalter 6* (CAHA); no recent collections.

***Artemisia ludoviciana** Nutt.

White Sage

Infrequent in opening in maritime evergreen forest, roadside; Nags Head Woods, Bogue Banks. Reported from Buxton (Stalter and Lamont 1997), but no specimen seen. *Burk b56-1* (NCU) in 1960; no recent collections.

***Artemisia stelleriana** Besser

Dusty Miller

Locally common on primary dunes; "well established population in natural vegetation" at North Swan Beach, Currituck County. Also photographed on dunes at Nags Head (Graetz 1973). Southern range limit. Graetz photo in 1973; Peet 6827 (NCU) in 1995; reported for NC by Hosier (2018).

Baccharis angustifolia Michx.

False Willow

Occasional in interdune swale, edge of brackish marsh; Hog Island south of Salvo, Ocracoke Island, South Core Banks, Bogue Banks. Reported from North Core Banks by Krakow (1991). Northern range limit. Beard & O'Connell s.n. (NCU) in 1954; LeBlond 6136 (NCU) in 2005.

Baccharis halimifolia L.

Hightide Bush

Frequent in brackish marsh, salt shrub, tidal freshwater marsh, roadside ditch; throughout OBX. An attractive and characteristic shrub of late fall on OBX, when it's showy white heads appear. Fosberg 17894 (NCSC) in 1940; Clark 407 (NCSC) in 2009.

Bidens bipinnata L.

Spanish Needles

Occasional in interdune marsh, moist roadside, disturbed soil; Kitty Hawk Woods, Buxton Woods, Ocracoke Island, Bogue Banks. Reported from Ocracoke by Kearney (1900); Wilbur 8449 (DUKE) in 1965; Fauchette 496 (NCSC) in 2015.

Bidens discoidea (Torr. & A. Gray) Britton

Little or Swamp Beggar-ticks

Rare in maritime swamp forest; Kitty Hawk Woods, Nags Head Woods. Godfrey & Fox 51030 (NCSC) in 1950; Sorrie 13241 (NCU) in 2013.

Bidens laevis (L.) B.S.P.

Showy Bur-marigold

Frequent in interdune marsh, interdune pond; Kitty Hawk Woods, Nags Head Woods, Bodie Island, Buxton Woods, Shackleford Banks. Fosberg 17822 (NCSC) in 1940; Krings 1283 (NCSC) in 2005.

Bidens mitis (Michx.) Sheriff

Coastal Plain Tickseed-sunflower

Rare in marsh at Duck. Sole OBX record. The specimen was originally determined as *Coreopsis angustifolia* Aiton. Stalter s.n. (CAHA); no recent collections.

***Bidens polylepis** S.F. Blake

Midwestern Tickseed-sunflower

Rare in moist depression; Nags Head Woods. Sole OBX record. Krings 1230 (NCSC) in 2005.

Borreria frutescens (L.) DC.

Silver Seaside Oxeye

Frequent in brackish marsh, salt shrub; throughout OBX. Fosberg 17935 (NCSC) in 1940; Fauchette 413 (NCSC) in 2014.

Chrysopsis gossypina (Michx.) Elliott

Cottony Golden-aster

Occasional in stable dune barren, opening in maritime forest, open woods; scattered throughout OBX. Godfrey & Fox 51019 (NCSC) in 1950; Dakar 240 (NCU) in 2017.

Chrysopsis mariana (L.) Elliott

Maryland Golden-aster

Rare in "sandy woods"; Kitty Hawk Woods. Sole OBX location. Godfrey & Fox 51018 (DUKE, NCSC) in 1950; no recent collections.

***Cichorium intybus** L.

Chicory, Blue Sailors

Rare in roadside; Duck, Kitty Hawk. Peterson s.n. (CAHA) in 1977; Stalter s.n. (CAHA) in 1990; no recent collections.

Cirsium horridulum Michx. [*Carduus spinosissimus* Walter]

Common Yellow Thistle

Occasional in stable dune barren, opening in maritime evergreen forest, roadside, disturbed soil; north of Duck, Kitty Hawk Woods, Nags Head Woods, Shackleford Banks. Reported from Portsmouth Island and the two Core Banks by Krakow (1991). Au s.n. (DUKE) in 1967; Fauchette 101 (NCSC) in 2013.

Conoclinium coelestinum (L.) DC. [*Eupatorium coelestinum* L.]

Mistflower

Infrequent in margin of maritime swamp forest, moist roadside; near Corolla Lighthouse, Duck, Ocracoke Island. Fosberg 17907 (NCSC) in 1940; Stalter and Lamont report (1997) from Duck; no recent collections.

Conyza canadensis L. var. **canadensis**

Horseweed

Occasional in roadside, disturbed soil; north of Duck, Nags Head Woods, South Core Banks, Shackleford Banks, Bogue Banks. Wilbur 12319 (DUKE) in 1970; Fauchette 26 (NCSC) in 2013.

Conyza canadensis L. var. **pusilla** (Nutt.) Cronquist

Little Horseweed

Frequent in stable dune barren, roadside, powerline, disturbed soil; throughout OBX. Beard & O'Connell s.n. (NCU) in 1954; Krings 992 (NCSC) in 2004.

***Coreopsis basalis** (Dietrich) Blake

Texas Coreopsis, Texas Tickseed

Rare in roadside; milepost 12 on Old Beach Road on Bodie Island, Bogue Banks near bridge to Morehead City. Burk b50-2 (NCU) in 1960; Cotter 13 (JMUH) in 2000; reported for Jockey's Ridge SP (2013 plant list).

***Coreopsis lanceolata** L.

Prairie Coreopsis

Infrequent in roadside; Kill Devil Hills, Nags Head Village, Buxton-Hatteras area, Fort Macon SP on Bogue Banks. The native status on OBX is highly doubtful. Burk b13-13 (NCU) in 1959; Fauchette 184 (NCSC) in 2013.

***Coreopsis tinctoria** Nutt.

Calliopsis, Plains Coreopsis

Rare in roadside, and no specified habitat; Corolla, Buxton. The Buxton specimen was originally not determined, but definitely is this species. Stalter s.n. (CAHA); Holdswa 756 (NCU) in 2015.

***Cyanus segetum** Hill [*Centaurea cyanus* L.]

Bachelor's Button

Rare, escaped from cultivation to roadside; Bodie Island, Fort Macon SP on Bogue Banks. Burk b13-8 (NCU) in 1959; Burk b49-4 (NCU) in 1960; no recent collections.

Eclipta prostrata (L.) L. [*E. alba* (L.) Hassk.]

Yerba-de-Tajo

Occasional in wet depression in maritime forest, interdune pond, impoundment pond; Nags Head Woods, North Pond on Pea Island, Buxton Woods, Trinity Center on Bogue Banks. Radford et al. 7516 (NCU) in 1953; Fauchette 340 (NCSC) in 2013.

Elephantopus carolinianus Willd.

Leafy Elephant's-foot

Rare in evergreen maritime forest; Shackleford Banks. Sole OBX record. Krakow & Govus 906 (GA) in 1990; no recent collections.

Elephantopus nudatus A. Gray

Smooth Elephant's-foot

Frequent in maritime shrub swamp, margin of maritime swamp forest, moist trail through maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Core Banks, Shackleford Banks. *Wilbur* 9467 (DUKE) in 1967; *Clark* 691 (NCSC) in 2010.

Elephantopus tomentosus L.

Common Elephant's-foot

Frequent in maritime evergreen forest, especially along trails; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. *Fosberg* 17833 (NCSC) in 1940; *Krings* 746 (NCSC) in 2004.

Erechtites hieraciifolius (L.) Raf. ex DC. var. **hieraciifolius**

Burnweed, Fireweed

Occasional in tree fall in most types of maritime forest, disturbed soil, roadside; Nags Head Woods, Pea Island, Buxton Woods, Portsmouth Island, Shackleford Banks, Bogue Banks. *Godfrey* 49813 (NCSC) in 1949; *Krings* 865 (NCSC) in 2004.

Erigeron annuus (L.) Pers.

Annual Daisy-fleabane

Rare in forest margin, roadside; Kitty Hawk Woods, Shackleford Banks. Reported from Shackleford by *Krakow* (1991); *Clark* 597 (NCSC) in 2010.

Erigeron quercifolius Lam.

Oakleaf Daisy-fleabane

Occasional in roadside, maritime wet grassland; scattered throughout OBX. Various specimens of *E. 'philadelphicus'* and *E. 'pulchellus'* are misidentified and referred here. *Blomquist* 10625 (DUKE, NCSC) in 1939; *Stalter* 19 (USCH) in 1997; *Clark* 512 (NCSC) in 2010.

Erigeron strigosus Muhl.

Rough or Prairie Daisy-fleabane

Rare in roadside; Kill Devil Hills, Avon on Hatteras Island. *Peterson s.n.* (CAHA) in 1977; *Stalter* and *Lamont* report (1997); no recent collections.

Erigeron vernus (L.) Torr. & A. Gray

Spring Daisy-fleabane

Rare in margin of interdune pond, estuarine fringe pine forest; Kill Devil Hills, Nags Head Woods, Jockey's Ridge SP. *Burk b43-47* (NCU) in 1959; *Leonard* 2410 (NCU) in 1969; *BAS* sight record in 2012.

Eupatorium album L.

White Eupatorium

Rare in maritime evergreen forest; Nags Head Woods, Bogue Banks. *Brown s.n.* (LSU) in 1955; *Burk b32-24* (NCU) in 1959; no recent collections.

Eupatorium capillifolium (Lam.) Small

Common Dogfennel, Yankeeweed

Frequent in opening in maritime evergreen forest, maritime shrub, roadside, powerline, disturbed soil; scattered throughout OBX. *Fosberg* 17910 (NCSC) in 1940; *Faucette* 55 (NCSC) in 2013.

Eupatorium glaucescens Elliott [*E. cuneifolium* Willd.]

Wedgeleaf Eupatorium

Rare in opening in maritime evergreen forest; Nags Head Woods. Sole OBX locality. *Godfrey & Fox* 51026 (DUKE) in 1950; *Krings* 1126 (NCSC) in 2004.

Eupatorium hyssopifolium L.

Hyssopleaf Eupatorium

Occasional in opening in maritime evergreen forest, stable dune barren, roadside; Duck, Kitty Hawk, Nags Head Woods, Jockey's Ridge SP, Buxton area. Reported for Cape Lookout NS by *Stalter* and *Lamont* (1999), but not by *Krakow* (1991); no specimen seen. *Fosberg* 17974 (NCSC) in 1940; *Krings* 801 (NCSC) in 2004.

Eupatorium maritimum E.E. Schilling

Maritime Eupatorium

Occasional in margin of interdune pond, stable dune barren; Run Hill, Nags Head Woods, Freshwater Pond adjacent to Nags Head Woods, Portsmouth Island. This newly described species is what had previously been reported from OBX as *E. anomulum* Nash; see *Schilling* and *Grubbs* (2016). *Godfrey & Fox* 51022 (NCSC, TENN) in 1950; *Krakow & Nash* 1057 (TENN); *Krings* 1123 and 1333 (NCSC) in 2004; *Schilling* NC3 (TENN); *Krings* 1672 (NCSC) in 2007.

Eupatorium mohrii Greene [*E. recurvans* Small, in part]*Mohr's* Eupatorium

Occasional in shore of interdune pond, impoundment, maritime wet grassland; Pine Island Sanctuary, Nags Head Woods, Ocracoke Island, South Core Banks. *Fosberg* 17915 (NCSC) in 1940; *Krings* 1335 (NCSC) in 2004; *Dakar* 241 (NCU) in 2017.

Eupatorium pilosum Walter

Ragged Eupatorium

Infrequent in interdune marsh, wet powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Frisco. The specimen of *E. rotundifolium* var. *ovatum* (Bigelow) Torr. reported by *Stalter* and *Lamont* (1997) is referred here: *Radford et al.* 7768 (NCU). *Fosberg* 17868 (NCSC, NCU) in 1940; *Clark* 305 (NCSC) in 2009.

Eupatorium rotundifolium L. var. **rotundifolium**

Roundleaf Eupatorium

Infrequent in interdune marsh, opening in maritime evergreen forest; Nags Head Woods, Buxton Woods, Bogue Banks. *Wilbur* 9390 (DUKE) in 1967; *Faucette* 485 (NCSC) in 2014.

Eupatorium serotinum Michx.

Late Eupatorium

Infrequent in lee side of dune, edge of tidal freshwater marsh; Kitty Hawk Woods, Nags Head Woods, Emerald Isle on Bogue Banks. *Blomquist* 11400 (DUKE) in 1940; *Stalter s.n.* (USCH) in 1997; *Clark* 406 (NCSC) in 2009.

Euthamia caroliniana (L.) Greene ex Porter & Britton sensu stricto [*Solidago minor* Michx.; *S. microcephala* (Greene) Bush]

Southern Flat-topped Goldenrod

Frequent in moist interdune swale, maritime wet grassland, estuarine fringe pine forest, roadside; scattered throughout OBX. *Fosberg* 17815 (NCU) in 1940; *Wilbur* 5066 (MICH) in 1955; *Bradley & Radford* 2025 (GMUF) in 1963; *Faucette* 369 (NCSC) in 2013.

Euthamia hirtipes (Fernald) Sieren [*Solidago xhirtipes* Fernald]

Marsh Flat-topped Goldenrod

Occasional in moist to dry sandy soil at edge of brackish marsh, edge of interdune marsh; Nags Head Woods, Avon, Rodanthe, Buxton area, Ocracoke Island. See lucid discussion in *Sieren* (1981) in which he recognizes *E. hirtipes* as a good species. *Fosberg* 17806 (NCSC, NCU) in 1940; *Sorrie* 13124 (CAHA, NCU) in 2012.

Eutrochium dubium (Willd. ex Poir.) E.E. Lamont [*Eupatorium d. Willd. ex Poir.*]

Three-nerved Joe-Pye-Weed

Rare in wet area in maritime evergreen forest; Shackleford Banks. Sole OBX record of this distinctive plant. *Au s.n.* (reportedly at DUKE, but specimen not found in 2018); no recent collections.

****Facelis retusa* (Lam.) Sch.Bip.**

Trampweed

Rare on roadside in Corolla, Currituck County. Sole OBX record. *Holdsclaw 830* (NCU) in 2016.****Gaillardia pulchella* Foug. var. *drummondii* (Hook.) B.L. Turner**

Beach Blanket-flower

Frequent in stable dune barren, roadside, yard; throughout OBX.

One of our showiest wildflowers and characteristic of sandy roadsides along route 12. In 2020, A.R. Franck (2020) conclusively determined that this plant is not native to the East Coast. *Radford et al. 7536* (NCU) in 1953; *Clark 325* (NCSC) in 2009.***Gamochaeta argyrinea* Nesom** [*Gnaphalium purpureum* L., in part]

A Purple Everlasting

Occasional in roadside, lawn, disturbed soil; Kitty Hawk Woods,

Nags Head Woods, Shackleford Banks; Fort Macon SP on Bogue Banks. *Godfrey & Fox 49263* (DUKE, NCSC) in 1949; *Krings 1106* (NCSC) in 2004.***Gamochaeta calviceps* (Fernald) Cabrera** [*Gnaphalium calviceps* Fernald]

Narrowleaf Purple Everlasting

Infrequent in roadside, lawn, disturbed soil; Nags Head Woods,

Hatteras Village, Ocracoke Island. *Radford 8120* (NCU) in 1954; *LeBlond 6101* (NCU) in 2005.****Gamochaeta pensylvanica* (Willd.) Cabrera** [*Gnaphalium purpureum* L. var. *spathulatum* (Lam.) Baker]

Pennsylvania Purple Everlasting

Occasional in roadside, lawn, powerline, disturbed soil, grassy sand

flat; Kitty Hawk Woods, Nags Head Woods, Bodie Island, Buxton area, Shackleford Banks. *Burk 49-2* (NCU) in 1960; *Au s.n.* (DUKE) in 1968; *Clark 553* (NCSC) in 2010.***Gamochaeta purpurea* (L.) Cabrera** [*Gnaphalium purpureum* L. var. *purpurea*]

Spoonleaf Purple Everlasting

Infrequent in moist interdune sandflat; Run Hill, Bodie Island,

Buxton Woods. Reports of "*Gnaphalium purpureum*" elsewhere on OBX by earlier botanists cannot be taken at face value. *Burk b12-9* (NCU) in 1959; *Krings 1582* (NCSC) in 2007.****Helenium amarum* (Raf.) Rock**

Bitterweed

Infrequent in stable dune barren, roadside; Run Hill, Nags Head Village, Bodie Island, Bogue Banks. *Burk b16-43* (NCU) in 1959; *Lane 3688* (NCU) in 1967; *Krings 1557* (NCSC) in 2007.***Helenium autumnale* L.**

Autumn Sneezeweed

Rare in tidal freshwater marsh near Duck. Sole OBX location.

Duncan & Duncan 30253 (GA) in 1976; *Stalter s.n.* (CAHA) in 1992; no recent collections.***Helianthus angustifolius* L.**

Narrow-leaved Sunflower

Rare in edge of maritime swamp forest; Corolla Lighthouse, Duck. *Stalter s.n.* (CAHA) in 1990; no recent collections.****Helianthus debilis* Nutt.**

Beach Sunflower

Infrequent in roadside, vacant lot; Buxton area, Fort Macon SP and Salter Path on Bogue Banks. Our plants appear to be var. *cucumerifolius* (Torr. & A. Gray) A. Gray. A specimen from Buxton (*Burk b8-3* NCU) was originally determined as *H. annuus*. *Burk b15-2* (NCU) in 1959; *Stalter s.n.* (CAHA) in 1990; no recent collections.***Heterotheca subaxillaris* (Lam.) Britton & Rusby**

Dune Camphorweed

Frequent, and may be abundant where found, in stable dune barren, roadside, powerline, disturbed soil; scattered throughout OBX. Burk (1961) transplanted dune plants inland and grew them alongside weedy and presumed alien plants (treated as *H. latifolia* by Weakley). He found that such plants were indistinguishable and concluded that morphological features of dune plants were produced environmentally. Here I will follow Weakley (2018) until genetic studies can corroborate Burk's research. *Quarterman 321* (DUKE) in 1939; *Filipczak 144* (TENN) in 1980; *Faucette 257* (NCSC) in 2013.***Hieracium gronovii* L.**

Beaked Hawkweed

Frequent in forest opening, trail in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Oregon Inlet, Buxton Woods, Ocracoke Island, Shackleford Banks, Bogue Banks. *Fox 4139* (NCSC) in 1950; *Clark 272* (NCSC) in 2009.***Hieracium venosum* L.**

Rattlesnake Hawkweed

Rare in maritime deciduous forest, maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton area. *Godfrey & Fox 49289* (NCSC) in 1949; *Wilbur 5076* (NCSC) in 1955; no recent collections.****Hypochaeris glabra* L.**

Smooth Cat's-ear

Rare in roadside; Corolla, Salvo, Buxton Woods. A specimen originally determined as *H. glabra* actually is *H. radicata* (Stalter s.n. CAHA). *Thompson 6524* (CM) in 1989; *Faucette 416* (NCSC) in 2014; *Holdsclaw 866* (NCU) in 2018.****Hypochaeris radicata* L.**

Spotted Cat's-ear

Occasional in roadside, powerline, disturbed soil; Kitty Hawk Woods, Kill Devil Hills, Nags Head Woods, Buxton-Frisco area, Bogue Banks. *Leonard 2411* (APSC, NCU, etc.) in 1969; *Clark 550* (NCSC) in 2010.***Iva frutescens* L. var. *frutescens***

Southern Marsh-elder

Frequent in brackish marsh, salt shrub, tidal freshwater marsh; throughout OBX. *Fosberg 17789* (NCSC, NCU) in 1940; *Krings 940* (NCSC) in 2004.***Iva imbricata* Walter**

Dune Marsh-elder

Frequent in stable dune barren, dune grass; throughout OBX from Jockey's Ridge SP and southward. Northern range limit. *Radford 6620* (NCU) in 1952; *Damrel & Damrel* (CLEMS) 2016.***Krigia virginica* (L.) Willd.**

Virginia Dwarf-dandelion

Occasional in roadside, disturbed soil; scattered throughout OBX. *Godfrey & Fox 49284* (DUKE, NCSC) in 1949; *Faucette 94* (NCSC) in 2013.***Lactuca canadensis* L.**

North American Wild-lettuce

Occasional in roadside, disturbed soil; scattered throughout OBX. *Radford et al. 7602* (NCU) in 1953; *Clark 326* (NCSC) in 2009.***Lactuca graminifolia* Michx.**

Grass-leaved Wild-lettuce

Occasional in opening in maritime evergreen forest, roadside; scattered throughout OBX. *Godfrey & Fox 49257* (DUKE, NCSC) in 1949; *Faucette 168* (NCSC) in 2013.

***Lactuca serriola L.**

Prickly Lettuce

Rare in disturbed soil; Nags Head Woods. Sole OBX location. Reported by Blonder & Stalter (1992); Krings 1101 (NCSC) in 2005.

***Leucanthemum vulgare** Tourn. ex Lam. [*Chrysanthemum leucanthemum* L.]

Oxeye Daisy

Rare in roadside, disturbed soil; Nags Head Woods. Reported from Cape Lookout NS by Stalter and Lamont (1999), but not listed by Krakow (1991). Krings 452 (NCSC) in 2004.

Liatris pilosa (Aiton) Willd. [*L. graminifolia* Willd., in part]

Grass-leaved Blazing-star

Occasional in opening in maritime evergreen forest, pine-oak woods, powerline, roadside; Kitty Hawk, Wright Memorial, Nags Head Woods, Buxton Woods, Trinity Center on Bogue Banks. Williamson s.n. (NCU) in 1960; Fauchette 168 (NCSC) in 2013.

Mikania scandens (L.) Willd.

Climbing Hempweed

Frequent in upper margin of brackish marsh, salt shrub, tidal freshwater marsh; throughout OBX. Fosberg 17795 (NCSC) in 1940; Clark 207 (NCSC) in 2009.

Nabalus serpentarius (Pursh) Hook. [*Prenanthes serpentarius* Pursh]

Lion's Foot, Gall-of-the-Earth

Rare in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. Godfrey & Fox 51029 (DUKE, NCSC) in 1950; Krings 1226 (NCSC) in 2005.

Packera tomentosa (Michx.) C. Jeffrey [*Senecio tomentosa* Michx.]

Woolly Ragwort

Rare in moist sandy soil near Duck. Sole OBX record. Peterson s.n. (CAHA) in 1976; no recent collections.

Pityopsis graminifolia (Michx.) Nutt. var. *latifolia* Fernald [*Chrysopsis graminifolia* (Michx.) Elliott var. *latifolia* Fernald; *Heterotheca nervosa* (Willd.) Shinners]

Broad-leaved Golden-aster

Occasional in maritime evergreen forest, forest edge, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. Fosberg 17835 (NCU) in 1940; Krings 1220 (NCSC) in 2005.

Pluchea baccharis (Mill.) Pruski [*P. rosea* Godfrey]

Marsh Fleabane

Infrequent in maritime wet grassland; interdune marsh; Buxton-Frisco area, South Core Banks, Shackleford Banks. Northern range limit. Au s.n. (DUKE) in 1968; Sorrie 13005 (NCU) in 2012.

Pluchea camphorata (L.) DC.

Camphorweed

Infrequent in maritime shrub, open maritime forest; north of Duck, Jockey's Ridge SP (species list), Ocracoke Island (Kearney 1900), Shackleford Banks (Lewis 1917). Duncan & Duncan 30254 (GA) in 1976; no recent collections.

Pluchea foetida (L.) DC. var. *foetida*

Stinking Fleabane

Occasional, but may be abundant where found, in interdune marsh, drawdown zone of interdune pond, tidal freshwater marsh; scattered throughout OBX. Fosberg 17988 (NCSC, NCU) in 1940; Clark 705 (NCSC) in 2010.

Pluchea odorata (L.) Cass. [*P. purpurascens* (Sw.) DC.]

Saltmarsh Fleabane

Occasional in brackish marsh, impoundment pond, tidal freshwater marsh; scattered throughout OBX. Mathews s.n. (NCU) in 1931; Quarterman 346 (DUKE) in 1939; Fauchette 379 (NCSC) in 2013.

Pseudognaphalium obtusifolium (L.) Hilliard & B.L. Burtt [*Gnaphalium obtusifolium* L.]

Eastern or Fragrant Rabbit-tobacco

Occasional in opening in maritime forest, roadside, disturbed soil; scattered throughout OBX. Radford et al. 7511 (NCU) in 1953; Stalter s.n. (CAHA) in 1990; no recent collections.

***Pseudognaphalium stramineum** (Kunth) Anderberg [*Gnaphalium chilense* Spreng.]

Straw-colored Rabbit-tobacco; Cotton-batting Cudweed

Rare in stable dune barren, sandflat behind dune; North of Kitty Hawk Beach, 10 miles N of Buxton, west of Fort Macon SP on Bogue Banks. Godfrey & Fox 49265 (DUKE, GH, NCSC) in 1949; Burk b14-25 (NCU) in 1959; Duncan & Duncan 29305 (GA) in 1975; no recent collections.

Pyrrhopappus carolinianus (Walter) DC.

Carolina False-dandelion

Occasional in opening in maritime evergreen forest, roadside, disturbed soil; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. Radford 8105 (NCU) in 1954; Clark 552 (NCSC) in 2010.

Rudbeckia hirta L. var. *pulcherrima* Farwell

Black-eyed Susan

Rare in roadside; south of Buxton, Bogue Banks. Stalter 1906 (CAHA) in 1992; no recent collections.

***Senecio vulgaris** L.

Common Groundsel

Scattered in roadside, disturbed soil; Corolla, Avon, Buxton Woods, Shackleford Banks, Bogue Banks. Reported for Shackleford by Lewis (1917); Burk et al. b40-2 (NCU) in 1959; Bourgeois s.n. (USCH) in 1995; Holdswa 789 (NCU) in 2016.

Sericocarpus tortifolius (Michx.) Nees [*Aster tortifolius* Michx.]

Twistleaf Flat-topped Aster

Rare, 4 miles west of Atlantic City on Bogue Banks. Sole OBX record. Burk b32-13 (NCU) in 1959; no recent collections.

Solidago altissima L.

Tall Goldenrod

Infrequent in trail and opening in maritime forest, roadside; near Corolla Lighthouse, Kitty Hawk Woods, Fort Macon SP on Bogue Banks. Reported by Stalter & Lamont (1997); Clark 367 (NCSC) in 2009.

Solidago arguta Aiton var. *caroliniana* A. Gray[*S. a.* ssp. *pseudoyadkinensis* Morton]

Vasey's Goldenrod

Occasional in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP. This variety has much narrower leaves than those of other varieties of *S. arguta*. Godfrey & Fox 51028 (NCSC) in 1950; Krings 1131 (NCSC) in 2005.**Solidago erecta** Pursh [*S. speciosa* Nutt. var. *erecta* (Pursh) MacMillan]

Erect Goldenrod

Rare in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. Godfrey & Fox 51017 (DUKE, NCSC) in 1950; Sorrie 13281 (NCU) in 2013.

Solidago fistulosa Mill.

Hairy Pineywoods Goldenrod

Occasional in maritime evergreen forest, margin of interdune

marsh, depression in powerline; Kitty Hawk Woods, Colington, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. *Radford et al.* 7759 (NCU) in 1953; *Faucette* 43 (NCSC) in 2013.

***Solidago mexicana* L. [*S. sempervirens* L. var. *mexicana* (L.) Fernald]**
Southern Seaside Goldenrod

Frequent in brackish marsh, tidal freshwater marsh, maritime wet grassland, roadside ditch; throughout OBX. This species is distinguished from *S. sempervirens* by erect habit, less succulent foliage, widely spreading inflorescence branches, and habitat preference. OBX lies in the zone of overlap and some plants display intermediate characters. *Blomquist* 11391 (DUKE) in 1940; *Krings* 1270 (NCSC) in 2005.

***Solidago odora* Aiton**

Fragrant Goldenrod

Infrequent in maritime evergreen forest, maritime deciduous forest; Nags Head Woods, Buxton Woods, Bogue Banks. Reported from Shackleford Banks by Lewis (1917). *Burk* b32-25 (NCU) in 1959; *Clark* 271 (NCSC) in 2009.

***Solidago petiolaris* Aiton**

Downy Goldenrod

Rare in maritime deciduous forest; Nags Head Woods. Sole OBX location. *Peterson* s.n. (CAHA) in 1977; *Krings* 1291 (NCSC) in 2005.

***Solidago sempervirens* L. sensu stricto [*S. sempervirens* var. *sempervirens*]**

Northern Seaside Goldenrod

Infrequent in dune grass, stable dune barren; Jockey's Ridge SP, Pea Island, Cape Hatteras Point. In contrast to *S. mexicana* (which see), stems of this species often spread parallel to the sand, foliage is thicker and more succulent, inflorescence is compact, and it prefers drier, looser sand. OBX marks the southern range limit. *Qualls* 1252 (NCU) in 1981; BAS photo in 2013.

***Solidago villosicarpa* LeBlond E**

Carolina Maritime Goldenrod

Rare in mesic powerline; Kitty Hawk Woods. Sole OBX record. This remarkable species was discovered new to science in 2000 (LeBlond 2000) and is under consideration for federal listing. Northern range limit. The Kitty Hawk population is the only one of this species on a barrier island. *Clark* 395 (NCSC) in 2009.

****Soliva sessilis* Ruiz & Pav.**

Field Burweed

Rare in "sunny mulched landscape bed"; Corolla in Currituck County. Reported from Jockey's Ridge SP (species list). *Holdsclaw* 786 (NCU) in 2016.

****Sonchus asper* (L.) Hill**

Spinyleaf Sow-thistle

Occasional in roadside, disturbed soil; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP, Shackleford Banks, Bogue Banks. *Radford* 8104 (NCU) in 1954; *Faucette* 99 (NCSC) in 2013.

****Sonchus oleraceus* L.**

Common Sow-thistle

Rare in roadside, disturbed soil; North of Buxton, Buxton Woods, Ocracoke Village. *Henry* s.n. (CM) in 1956; *Burk* b2-36 (NCU) in 1959; *Faucette* 435 (NCSC) in 2014.

***Symphotrichum concolor* (L.) Nesom var. *concolor* [*Aster concolor* L.]**

Eastern Silvery Aster

Rare in maritime forest, Colington Island. Sole OBX record. *Radford* s.n. (NCU) in 1954; no recent collections.

***Symphotrichum dumosum* (L.) Nesom [*Aster dumosum* L.]**

Long-stalked Aster

Occasional in roadside; Kitty Hawk Woods, Bodie Island water tower, Buxton Woods, Bogue Banks. *Fosberg* 17871 (NCSC) in 1940; *Faucette* 383 (NCSC) in 2013.

***Symphotrichum elliottii* (Torr. & A. Gray) Nesom [*Aster elliottii* Torr. & A. Gray]**

Elliott's Aster

Rare in roadside depression, interdune marsh; Kitty Hawk Village, Buxton. *Radford* et al. 7767 (NCU) in 1953; *Stalter* 105 (CAHA) in 1990; no recent collections.

***Symphotrichum lanceolatum* (Willd.) Nesom var. *lanceolatum* [*Aster simplex* Willd.]**

Lance-leaved Aster

Rare in maritime wet grassland; Ocracoke Island. Sole OBX record. *LeBlond* 6149 (NCU) in 2005.

***Symphotrichum novi-belgii* (L.) Nesom [*Aster novi-belgii* L.]**

New York Aster

Rare in tidal freshwater marsh; Kitty Hawk Woods, Jockey's Ridge SP, Cape Hatteras NS. *Dunes of Dare Garden Club* s.n. (NCSC); *Bauers* 338 (NCSC) in 2004; BAS sight record at JRSP in 2012.

***Symphotrichum patens* (Aiton) Nesom var. *patens* [*Aster patens* Aiton]**

Skydrop Aster

Infrequent in opening in maritime evergreen forest, roadside; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Godfrey* & *Fox* 51027 (DUKE, NCSC) in 1950; *Clark* 682 (NCSC) in 2010.

***Symphotrichum pilosum* (Willd.) Nesom var. *pringlei* (A. Gray)**

Nesom [*Aster pilosum* Willd. var. *pringlei* A. Gray; *Aster pilosum* var. *demotus* S.F. Blake]

Frost Aster

Infrequent in roadside, disturbed soil; Duck, Nags Head Woods. Reported from Portsmouth Island by Lauermann and Burk (1975) and Shackleford Banks by Sorrie et al. (1992). *Stalter* 87 (CAHA) in 1990; *Krings* 2423 (NCSC) in 2005.

***Symphotrichum simmondsii* (Small) Nesom [*Aster simmondsii* Small]**

Simmonds's Aster

Occasional in interdune marsh, moist interdune swale, maritime wet grassland; Jockey's Ridge SP, Avon, Buxton-Cape Hatteras area, Ocracoke Island, Shackleford Banks. Northern range limit. Until the revision of *Aster* by Nesom, this species was overlooked or misidentified as other species in North Carolina. *Fosberg* 17970 (NCU) in 1940; *Aus.n.* (DUKE) in 1968; *Sorrie* 13278 (NCSC, NCU) in 2013.

***Symphotrichum subulatum* (Michx.) Nesom [*Aster s.* Michx.]**

Annual Saltmarsh Aster

Occasional in brackish marsh, salt shrub, moist interdune swale; scattered throughout OBX. *Fosberg* 17824 (NCSC) in 1940; *Krings* 1256 (NCSC) in 2005.

***Symphotrichum tenuifolium* (L.) Nesom [*Aster tenuifolium* L.]**

Perennial Saltmarsh Aster

Occasional in brackish marsh, salt marsh, salt shrub; scattered throughout OBX. *Fosberg* 17892 (NCSC) in 1940; *Sorrie* 13130 (CAHA) in 2012.

***Symphotrichum undulatum* (L.) Nesom [*Aster undulatum* L.]**

Wavyleaf Aster

Infrequent in edge of maritime evergreen forest, powerline; Kitty Hawk Woods, Nags Head Woods, Kill Devil Hills, Bogue Bank. *Godfrey* & *Fox* 51034 (NCSC) in 1950; *Burk* b39-10 (NCU) in 1959; *Krings* 1254 (NCSC) in 2005; *Clark* 328 (GA, NCSC) in 2009.

***Taraxacum erythrospermum** Andrzejowski ex Besser [*T. laevigatum* (Willd.) DC.]
Redseed Dandelion
Rare in roadside, Corolla in Currituck County. Sole OBX record.
Holdsclaw 781 (NCU) in 2016.

***Taraxacum officinale** L.
Common Dandelion
Infrequent in roadside, lawn; Nags Head Woods, Buxton Woods.
Reported by Stalter and Lamont (1997); Krings 1279 (NCSC) in 2005; *Faucette* 109 (NCSC) in 2013.

Verbesina occidentalis (L.) Walter
Southern Crownbeard
Rare at edge of maritime forest in powerline; Kitty Hawk Woods, Buxton area. Reported from Nags Head Woods by Stalter and Lamont (1997). *Radford* et al. 7761 (NCU) in 1953; *Clark* 399 (NCSC) in 2009.

Vernonia noveboracensis (L.) Michx.
New York Ironweed
Rare in moist soil at edge of woods; Corolla Lighthouse. Sole OBX record. *Stalter & Lamont* 93 (CAHA) in 1990; no recent collections.

Xanthium chinense Mill. [*X. strumarium* L. var. *glabratum* (DC.) Cronquist]
Common Cocklebur
Apparently rare and local in dune sand by road and inner beach behind a cottage; Shackleford Banks and Fort Macon SP. *Blomquist* 11399 (DUKE) in 1940; *Au* s.n. (DUKE) in 1968; no recent collections.

Xanthium orientale L. [*X. strumarium* L. var. *canadense* (Mill.) Torr. & A. Gray]
Glandular or Oriental Cocklebur
Occasional in beach near sound, sand near ocean, sand dunes, roadside; Jockey's Ridge SP, Nags Head, Avon, Ocracoke, Shackleford Banks. No plants of Dune Cocklebur (*X. echinatum* Murray) have been verified for OBX. See Weakley (2018) for distinguishing characters. *Braxton* s.n. (NCU) in 1927; *Burk* b37-15 (NCU) in 1959; *Krakow* and *Govus* 910 (GA) in 1990; Krings 965 (NCSC) in 2004.

***Youngia japonica** (L.) DC. [*Crepis japonica* (L.) Benth.]
Asiatic Hawk's-beard
Occasional in disturbed soil, roadside, lawn; Corolla, Kitty Hawk Woods, Nags Head Woods, "near Hatteras." An aggressive weed, now rapidly colonizing NC. First reported for OBX by Stalter and Lamont (1997); *Faucette* 118 (NCSC) in 2013; *Holdsclaw* 867 (NCU) in 2018.

BALSAMINACEAE

Impatiens capensis Meerburg
Orange Touch-me-not
Rare in maritime swamp forest, margin of interdune pond; Duck, Nags Head Woods. *Burk* b54-2 (NCU) in 1959; Krings 1001 (NCSC) in 2004.

BETULACEAE

***Betula nigra** L.
River Birch
Rare in wet thicket; Currituck Sound at Corps of Engineers Research Facility north of Duck. Sole OBX record. Common on mainland of NC in river floodplains, but adventive here as small trees. *Sorrie* 13208 (NCU) in 2013.

Carpinus caroliniana Walter
Ironwood, Swamp Hornbeam, Musclewood
Occasional in maritime swamp forest, maritime shrub swamp; Kitty

Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. *Engels* s.n. (NCU) in 1939; *Faucette* 17 (NCSC) in 2013.

Ostrya virginiana

(Mill.) K. Koch
Hop Hornbeam
Infrequent in maritime deciduous forest, maritime evergreen forest; Duck, Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Burk* b20-6 (NCU) in 1959; *Clark* 137 (NCSC) in 2009; sight record by J. Fussell at Roosevelt NA in 2020.

BIGNONIACEAE

Bignonia capreolata L. [*Anisostichus capreolata* (L.) Bureau]
Crossvine
Occasional in maritime swamp forest, maritime shrub swamp, moist maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Bauers* 315 (NCSC) in 1995; *Faucette* 87 (NCSC) in 2013.

Campsis radicans

(L.) Seem. ex Bureau
Trumpetvine
Occasional in maritime evergreen forest, maritime shrub swamp, forest edge; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. *Wilbur* 6199 (DUKE) in 1957; Krings 627 (NCSC) in 2004.

BORAGINACEAE

Heliotropium curassavicum L. SR
Seaside Heliotrope
Rare in upper beach, sand flat, brackish marsh; Ocracoke Island, Shackleford Banks. Reported from Shackleford by Lewis (1917); *Mathews* s.n. (NCU) in 1931; no recent collections.

Myosotis macrostperma

Engelm.
Bigseed Forget-me-not
Rare in undetermined habitat; Buxton Woods. Sole OBX record. *Radford* 8146 (NCU) in 1954; no recent collections.

*Myosotis stricta

Link ex Roem. & Schult. [*M. micrantha* Pallas]
Blue Scorpion-grass
Rare in lawn, parking lot edge; Corolla, Bodie Island marina, south side of Oregon Inlet bridge. *Terrell* 5063 (NCU) in 1984; *Stalter* s.n. (CAHA) in 1990; *Holdsclaw* 846 (NCU) in 2017.

BRASSICACEAE

***Arabidopsis thaliana** (L.) Heynh.
Mouse-ear Cress
Infrequent in disturbed soil; Run Hill, Nags Head Woods, Shackleford Banks, Bogue Banks. A report of *Arabis lyrata* L. (Stalter & Lamont 1997) is misidentified and is referred here. *Burk* b42-15 (NCU) in 1960; *Stalter* s.n. (CAHA) in 1990; Krings 2273 (NCSC) in 2007.

*Barbarea verna

(Mill.) Asch.
Early Wintercress
Rare, roadside in Nags Head Woods. Sole OBX record. Krings 1340 (NCSC) in 2005.

*Barbarea vulgaris

R. Br.
Common Wintercress
Infrequent in roadside, Corolla, Duck, Jockey's Ridge SP (plant list), near Trinity Center on Bogue Banks. Reported by Stalter & Lamont (1997, 1999); *Holdsclaw* 796 (NCU) in 2016.

Cakile edentula

(Bigelow) Hook. ssp. *edentula*
Northern Sea-rocket
Frequent in upper beach, upper margin of brackish marsh; scattered from Duck south to Portsmouth Island. Southern range limit. See Krings for distinction from subspecies *harperi*. OBX is within the overlap zone of these taxa, and distinguishing

one subtype from another is not always clearcut. *Silliman & Munson s.n.* (NCU) in 1954; *Krings 765* (NCSC) in 2004.

Calile edentula (Bigelow) Hook. ssp. **harperi** (Small) Rodman
Southern Sea-rocket

Frequent in upper beach, sand flat, upper margin of brackish marsh; scattered from Kill Devil Hills south to Bogue Banks. Northern range limit. Both subspecies may occur together, e.g., at Hatteras Point sand flats 19 Sept 2013 (BAS sight record). *Engels s.n.* (NCU) in 1940; BAS sight record in 2013.

***Capsella bursa-pastoris** (L.) Medik.

Shepherd's Purse

Rare in disturbed soil, roadside; Buxton area, pony pen on Ocracoke Island. *Davison s.n.* (CAHA) in 1984; reported by Stalter and Lamont (1997); no recent collections.

***Cardamine hirsuta** L.

Hairy Bittercress

Frequent in roadside, disturbed soil; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, Salter Path on Bogue Banks. *Burk 42-22* (NCU) in 1960; *Faucette 402* (NCSC) in 2014.

Cardamine parviflora L. var. **arenicola** (Britton) O.E. Schulz

Sand Bittercress

Rare in wet depression in powerline; near Currituck Sound, Kitty Hawk Woods. *Blomquist 10626* (DUKE) in 1939; *Clark 478* (NCSC) in 2010.

Cardamine pensylvanica Muhl. ex Willd.

Pennsylvania Bittercress

Infrequent in edge of maritime swamp forest, interdune marsh, wet roadside; Kitty Hawk Woods, Bogue Banks. *Crutchfield 468* (NCU) in 1960; *Clark 467* (NCSC) in 2010.

Descurainia pinnata (Walter) Britton sensu lato

Tansy-mustard

Infrequent in roadside; Buxton Woods, Bogue Banks. *Crutchfield 470* (NCU) in 1960; *Faucette 421* (NCSC) in 2014.

***Draba verna** L.

Whitlow-grass

Rare in roadside, disturbed soil; campground on Ocracoke Island. *Redden 3752* (CAHA) in 1998; reported from Jockey's Ridge SP (plant list).

Lepidium virginicum L.

Poor-man's-pepper

Occasional in roadside, disturbed soil; Duck, South Core Banks, Shackleford Banks, Fort Macon SP on Bogue Banks. *Burk & Tate b13-12* (NCU) in 1959; *Faucette 478* (NCSC) in 2014.

***Matthiola incana** (L.) W.T. Aiton

Stock Cress

Rare, "escaped from cultivation and well established at Buxton" (Burk 1961). His specimen label states: "common, roadsides, vacant lots Frisco." Sole record for OBX and NC. *Burk b44-5* (NCU) in 1960; no recent collections.

***Raphanus raphanistrum** L. ssp. **raphanistrum**

Wild Radish

Infrequent in roadside, disturbed soil; Corolla, Buxton Woods, Salter Path on Bogue Banks. Probably more widespread than these few records indicate. *Burk b42-20* (NCU) in 1960; *Besler 2* (URV) in 1998; *Faucette 327* (NCSC) in 2013.

***Raphanus sativus** L.

Garden Radish

Rare, "escaped from cultivation at Hatteras Village" (Burk 1961). Sole OBX record. *Burk b44-22* (NCU) in 1960; no recent collections.

***Teesdalia nudicaulis** (L.) W.T. Aiton

Shepherd's Cress

Rare, sandy road bank in Corolla, also at the Corolla Lighthouse. *Baldwin 8311* (WILLI) in 2014; *Holdsclaw 790* (NCU) in 2016.

CACTACEAE

Opuntia drummondii Graham [*O. pusilla* (Haworth) Nutt.; *O. pes-corvi* LeConte]

Dune Prickly-pear

Frequent in dune grass, maritime dry grassland, stable dune barren; throughout OBX, but not north of Run Hill/Nags Head Woods. A characteristic (and painful!) member of the dune communities. Northern range limit. *Fosberg 17906* (NCSC) in 1940; *Krings 1703* (NCSC) in 2007.

Opuntia mesacantha Raf. ssp. **mesacantha** [*O. humifusa* (Raf.) Raf., misapplied]

Eastern Prickly-pear

Occasional in opening in woods, yard, roadside; near Virginia line, Nags Head Woods, near Avon, South Core Banks, Shackleford Banks. It is unclear whether this species is native to OBX or has escaped from plantings taken from the mainland—nearly all current populations occur in yards or roadsides in villages. *Radford 8096* (NCU) in 1954; *Au s.n.* (DUKE) in; BAS sight record 2012.

***Opuntia monacantha** (Willd.) Haworth

Garden Prickly-pear

Rare, persisting after planting and spreading very locally; Little Kinnakeet Coast Guard Station on Hatteras Island. Sole OBX location. Plants at this population have spread vegetatively. The identity of the OBX plant is not conclusive, but they definitely are not *O. mesacantha*. First reported for OBX by Brown (1959); photos by BAS at same locality in 2012.

CAMPANULACEAE

Lobelia cardinalis L.

Cardinal-flower

Rare in maritime swamp forest; Duck, Kitty Hawk Woods. *Burk b34-3* (NCU) in 1959; BAS photo in 2012.

Lobelia elongata Small

Streamside Lobelia

Rare in freshwater marsh; Corolla, Duck. These are the only records of this species in maritime environments (BAS, unpublished data). *Burk b36-36* (NCU) in 1959; *Ingle s.n.* (NCSC) in 1991; no recent collections.

Triodanis perfoliata (L.) Nieuwland [*Specularia perfoliata* (L.) DC.]

Venus's Looking-glass

Frequent in roadside, disturbed soil, edge of maritime forest; scattered throughout OBX. *Radford 8181* (NCU) in 1954; *Clark 548* (NCSC) in 2010.

CANNABACEAE [ULMACEAE, in part]

Celtis laevigata Willd.

Southern Hackberry

Rare in maritime forest with shell fragments; Buxton, Bogue Banks. Stalter and Lamont (1997) wrote "widely scattered in maritime forests and old dunes." Stalter's specimen is the only voucher known for OBX. *Stalter 362* (CAHA) in 1989; sight record by J. Fussell at Theodore Roosevelt NA on Bogue Banks in 2020.

CAPRIFOLIACEAE

***Lonicera japonica** Thunb.

Japanese Honeysuckle

Frequent in maritime evergreen forest, maritime shrub, roadside thicket, fencerow; scattered throughout OBX. *Radford et al. 7572* (NCU) in 1953; *Faucette 119* (NCSC) in 2013.

***Lonicera sempervirens* L.**

Coral Honeysuckle

Occasional in maritime evergreen forest, roadside thicket; scattered throughout OBX. *Rogers* 3269 (DUKE) in 1946; *Blomquist & Jones* 13301 (DUKE) in 1951; *Clark* 202 (NCSC) in 2009.***Valerianella radiata* (L.) Dufr.**

Corn Salad

Occasional in interdune marsh, moist roadside; Kitty Hawk Woods, Buxton Woods, Shackleford Banks, Fort Macon SP on Bogue Banks. *Aus.s.n.* (DUKE) in 1968; *Faucette* 92 (NCSC) in 2013; *Sorrie* 13628 (NCU) in 2018.**CARYOPHYLLACEAE*****Arenaria lanuginosa* (Michx.) Rohrb. SR**

Spreading Sandwort

Infrequent in maritime evergreen forest; salt shrub; Duck, Buxton Woods, Hatteras Point, Bogue Banks. *Godfrey* 49762 (NCSC) in 1949; *Faucette* 294 (NCSC) in 2013.****Arenaria leptoclados* (Rech.f.) Guss.**

Small Thyme-leaved Sandwort

Rare in roadside, swath created to move Cape Hatteras Lighthouse; north of Avon, Buxton area, Shackleford Banks. Collections of *A. serpyllifolia* L. are referred here *Aus.s.n.* (DUKE) in 1968; *Furbish s.n.* (UNCC) in 1987; *Sorrie* 13191 (NCU) in 2013.****Cerastium fontanum* Baumg. ssp. *vulgare* (Hartman) Greuter & Burdet [*C. vulgare* Hartman]**

Common Mouse-ear

Infrequent in roadside, yard; Kitty Hawk Woods, Bodie Island, Ocracoke Island. *Burk* b1-51 (NCU) in 1959; *Clark* 518 (NCSC) in 2010.****Cerastium glomeratum* Thunb. [*C. viscosum* L., misapplied]**

Sticky Mouse-ear

Occasional in roadside, disturbed soil; scattered throughout OBX. *Burk* b45-23 (NCU) in 1960; *Faucette* 423 (NCSC) in 2014.****Cerastium semidecandrum* L.**

Little Mouse-ear

Infrequent in stable dune barren, disturbed soil; Run Hill, Nags Head Woods, Ocracoke Island. Reported from Nags Head Woods by Stalter and Lamont (1997); *Krings* 2278 (NCSC) in 2008.***Paronychia baldwinii* (Torr. & A. Gray) Fenzl ex Walpers ssp. *riparia* (Chapm.) Chaudhri [*P. riparia* Chapm.]**

Perennial Dune Whitlow-wort

Infrequent in dry maritime evergreen forest, mesic powerline; Kitty Hawk Woods, Nags Head Woods, Shackleford Banks. The report of *P. baldwinii* from Shackleford Banks (Lewis 1917) belongs here. *Burk* b56-11 (NCU) in 1960; *Clark* 683 (NCSC) in 2010.****Polycarpon tetraphyllum* (L.) L.**

Four-leaved Allseed

Rare in "campground at Oregon Inlet" (Bodie Island). Sole OBX and NC record. Photos by B. Finzel in June 2018.

***Sagina decumbens* (Elliott) Torr. & A. Gray**

Eastern Pearlwort

Infrequent in sandy opening in brackish marsh, shore of impoundment pond, maritime evergreen forest; Run Hill, Nags Head, Ocracoke Island, Shackleford Banks. *Ashe* s.n. (NCU) in 1898; *LeBlond* 6104 (NCU) in 2005; *Krings* 1461 (NCSC) in 2007.****Saponaria officinalis* L.**

Soapwort

Rare in roadside; Duck. Sole OBX record. *Burk* b11-3 (NCU) in 1959; no recent collections.****Scleranthus annuus* L.**

Knawel

Infrequent in stable dune barren, roadside, powerline; Corolla (Currituck Co.), Kitty Hawk Woods, Jockey's Ridge SP. Reported by Stalter and Lamont (1997) from unspecified location; *Clark* 47 (NCSC) in 2009; *Holdsclaw* 778 (NCU) in 2016.***Silene antirrhina* L.**

Sleepy Catchfly

Occasional in disturbed soil; Kitty Hawk Woods, Nags Head Woods, Shackleford Banks, Bogue Banks. *Aus.s.n.* (DUKE) in 1968; *Sorrie* 13151 (NCU) in 2013.***Silene caroliniana* Walter var. *pensylvanica* (Michx.) Fernald**

Northern Wild Pink

Rare in opening in maritime evergreen forest, mesic powerline; Kitty Hawk Woods, Nags Head Woods. *Ashe* s.n. (NCU) in 1898; *Clark* 484 (NCSC) in 2010.****Silene gallica* L.**

Small-flowered Catchfly

Frequent in stable dune barren, roadside; southern Bodie Island south to Frisco; Springer's Point on Ocracoke Island. *Burk* b6-7 (NCU) in 1959; *LeBlond* 6096 (NCU) in 2005; *Sorrie* 12944 (CAHA, NCU) in 2012.****Silene latifolia* Poir. ssp. *alba* (Mill.) Greuter & Burdet [*Lychnis alba* Mill.]**

Evening Lychnis

Rare in roadside; near Duck, Buxton Woods, Bogue Banks. Reported by Stalter and Lamont (1997); *Faucette* 103 (NCSC) in 2013.***Spergularia marina* (L.) Besser [*S. salina* J. Presl & K. Presl]**

Saltmarsh Sandspurrey

Occasional in brackish marsh, border of impoundment pond, moist interdune swale; Jockey's Ridge SP, Pea Island, Salvo, Hatteras Bay, Portsmouth Island, Shackleford Banks. *Ashe* s.n. (NCU) in 1898; *Sorrie* 13222 (NCU) in 2013.****Stellaria media* (L.) Villars**

Common Chickweed

Occasional in roadside, lawn, disturbed soil, powerline; scattered throughout OBX. The report of *Stellaria pallida* (Dum.Cours.) *Pire* in Stalter and Lamont (1997) belongs here. *Burk* b42-3 (NCU) in 1960; *Krings* 1368 (NCSC) in 2005.***Stipulicida setacea* Michx.**

Skeleton Plant

Rare in stable dune barren; Jockey's Ridge SP, Wright Memorial. First reported from OBX at Wright Memorial by M. Schafale in the 1990s; *Wichmann* s.n. (NCU) in 2009; *Sorrie* 13223 (NCU) in 2013.**CELASTRACEAE******Celastrus orbiculatus* Thunb.**

Oriental Bittersweet

Rare in disturbed maritime evergreen forest, shrub thicket; Nags Head Woods. Sole OBX location. This invasive alien vine should be eradicated before it spreads. *Krings* 532 (NCSC) in 2004.***Euonymus americanus* L.**

Heart's-a-Bustin'

Occasional in maritime swamp forest, maritime shrub swamp, moist maritime evergreen forest; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton-Frisco area. *Radford* 8089 (NCU) in 1954; *Clark* 569 (NCSC) in 2010.**CERATOPHYLLACEAE*****Ceratophyllum australe* Griesb. SR**

Southern Coontail

Rare in interdune pond within maritime evergreen forest; "south

end of Bogue Barrier." Sole OBX record. The specimen was originally determined as *C. echinatum*, but annotated by D. Les as *C. echinatum* ssp. *australe*, a synonym of *C. australe*. *Burk* 551-12 (NCU) in 1960; no recent collections.

Ceratophyllum demersum L.

Coontail

Occasional, but may be abundant where found, in interdune pond; Colington, Nags Head Woods, Pamlico Sound, Shackleford Banks, Bogue Banks. *Godfrey & Fox* s.n. (NCSC) in 1949; *Beal* 3420 (NCU) in 1957; no recent collections.

Ceratophyllum echinatum A. Gray

Northern Coontail

Occasional, but may be abundant where found, in interdune pond; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Radford* 5430 (NCU) in 1950; *Clark* 564 (NCSC) in 2010.

CHENOPODIACEAE

***Atriplex patula** L. sensu stricto

Spear Orach

Occasional in brackish marsh, sound shore, disturbed soil; Avon, Rodanthe, Buxton, Shackleford Banks. According to S.L. Welsh in Flora of North America (2003), this species occurs in non-saline soils, contra *A. prostrata*, but both species occur in brackish soils on OBX. *Fosberg* 17826 (NCU) in 1940; *Qualls* s.n. (NCU) in 1981; no recent collections.

Atriplex pentandra (Jacq.) Standl. [*A. arenaria* Nutt.; *A. mucronata* Raf.]

Seabeach Orach

Occasional in upper beach, dune grass, bare spot in brackish marsh, margin of impoundment pond; South Pond on Pea Island, Avon, Ocracoke Island, Core Banks, Shackleford Banks. I take a broad concept of this species and lump *A. arenaria* and *A. mucronata*, which have been treated at various ranks by botanists. *Radford* et al. 7508 (NCU) in 1953; reported by Sorrie et al. (1992) from Shackleford Banks; no recent collections.

***Atriplex prostrata** Boucher ex DC. [*A. patula* L. var. *hastata* (L.) A. Gray]

Thinleaf Orach

Frequent in wrackline of upper beach, Sound shore, brackish marsh, shore of waterfowl impoundment; scattered throughout OBX. *Radford* et al. 7617 (NCU) in 1953; *Faucette* 463 (NCSC) in 2014.

***Chenopodiumstrum murale** (L.) S. Fuentes Uotila, & Borsch [*Chenopodium murale* L.]

Wall Goosefoot

Rare in edge of pond in brackish marsh south of Whalebone Junction. Reported from Jockey's Ridge SP (species list). Burk's specimen was originally determined as *Chenopodium ambrosioides*, annotated to *C. murale* by H. Wahl in 1963 and H. Wilson in 1981. *Burk* 23-32 (NCU) in 1959; no recent collections.

***Chenopodium album** L.

Lamb's-quarters

Infrequent in roadside, disturbed soil; Nags Head Woods, Bogue Banks. *Burk* s.n. (CAHA); *Krings* 969 (NCSC) in 2004.

Chenopodium berlandieri Moq. var. **boscianum** (Moq.) H. Wahl

Berlandier's Goosefoot

Infrequent in sandy margin of brackish marsh, on low sand dunes of sandspit, sandy soundside beach; Nags Head Woods, islet northeast of Shackleford Banks, several places on Bogue Bank. Specimens were annotated by H. Wahl and/or H. Wilson. A sight record by BAS at Roosevelt NA in 2018 probably belongs here.

Hill 33 (DUKE, IND) in 1941; *McMillan* 114 (DUKE) in 1951; *Wilbur* 12354 (DUKE) in 1970; *Krings* 1096 (NCSC) in 2004.

***Dysphania ambrosioides** (L.) Mosyakin & Clements [*Chenopodium* a. L.]

Mexican Tea

Occasional in roadside, disturbed soil; scattered throughout OBX. *Radford* et al. 7579 (NCU) in 1953; *Krings* 1227 (NCSC) in 2005.

Dysphania anthelmintica (L.) Mosyakin & Clements [*Chenopodium* *anthelmintica* L.]

Wormseed

Infrequent in sandy powerline, shore of Pamlico Sound; Kitty Hawk Woods, Rodanthe, Buxton Woods. One or more of the specimens of *D. ambrosioides* might be referred here; further study is needed. *Fosberg* 17828 (NCSC) in 1940; *Duncan & Duncan* 30264 (GA) in 1976; *Clark* 389 (NCSC) in 2009.

Kali species 1 [*Salsola* *Kali* L. ssp. *pontica* (Pallas) Mosyakin; *S. caroliniana* Walter]

Southern Saltwort

Frequent in upper beach, sand flat, brackish marsh, disturbed soil; scattered from Pea Island south to South Core Banks; likely elsewhere. This entity needs a name at the species level, if considered distinct from *K. soda* (Weakley 2018). No specimens of nominate *K. soda* have been seen from OBX. *Mathews* s.n. (NCU) in 1931; *Faucette* 461 (NCSC) in 2014.

Sarcocornia ambigua Michx. [*Salicornia virginica*, misapplied]

Perennial Glasswort

Frequent in brackish marsh, margin of impoundment, storm wash-over; throughout OBX, but apparently not north of Oregon Inlet. This is the familiar perennial glasswort and is more often found than either of the annual species. First reported from OBX by Lewis (1917) on Shackleford Banks; *Engels* s.n. (NCU) in 1940; *Kindell* 449 (NCSC) in 1986; BAS sight record at New Inlet in 2013.

Salicornia bigelovii Torr.

Dwarf Glasswort

Occasional in brackish marsh, margin of waterfowl impoundment; scattered from Oregon Inlet south to Shackleford Banks. *Mathews* s.n. (NCU) in 1931; *Kindell* 447 (NCSC) in 1986; BAS sight record on Pea Island in 2013.

Salicornia virginica L. [*S. europaea* L. sensu Radford, Ahles, and Bell (1968)]

Samphire

Frequent in brackish marsh; scattered from Pea Island south to Emerald Isle on Bogue Banks. The name *Salicornia virginica* was for many decades misapplied to a perennial species (*Sarcocornia perennis*, which see); however, the type specimen is an annual in the *Salicornia europaea* complex. *Fosberg* 17886 (NCSC) in 1940; *Dakar* 144 (NCU) in 2015.

Suaeda linearis (Elliott) Moq.

Southern Seablite

Occasional in brackish marsh, sand flat, storm overwash; scattered from Pea Island south to South Core Banks. *Kessler & Lindley* s.n. (NCU) in 1954; *Faucette* 464 (NCSC) in 2014.

CISTACEAE

Crocanthemum canadense (L.) Britton [*Helianthemum canadense* L.]

Canada Frostweed

Rare in opening in and edge of maritime evergreen forest, powerline; Kitty Hawk Woods, Nags Head Woods. *Radford* 8079 (NCU) in 1954; *Clark* 546 (NCSC) in 2010.

Crocanthemum carolinianum (Walter) Spach [*Helianthemum carolinianum* Walter] E
Carolina Frostweed, Carolina Sunrose
Rare in stable dune barren in powerline; Kitty Hawk Woods. Sole OBX record. This population consists of only 15 plants. Northern range limit. *Sorrie* 13153 (GH, NCSC, NCU) in 2013.

Crocanthemum corymbosum (Michx.) Britton [*Helianthemum corymbosum* Michx.] T
Pinebarren Frostweed
Rare in opening in maritime evergreen forest; Run Hill, Frisco, South Core Banks, Shackleford Banks. Northern range limit. *Radford* et al. 7790 (NCU) in 1953; *Krings* 2513 (NCSC) in 2014.

Crocanthemum georgianum (Chapm.) Barnhart [*Helianthemum georgianum* Chapm.] E
Georgia Frostweed
Infrequent in opening in maritime evergreen forest, roadside; Buxton area, Ocracoke Island, Shackleford Banks. Northern range limit. *Ashe* s.n. (NCU) in 1898; *Sorrie* 13192 (CAHA, NCU) in 2013.

Hudsonia tomentosa Nutt. T
Beach Heather
Occasional in stable dune barren; Duck, Kitty Hawk Woods, Nags Head Woods, Kill Devil Hills, Bodie Island north of Lighthouse. Southern range limit. *Radford* 8076 (NCU) in 1954; *Gocke* s.n. (NCU) in 2015.

Lechea maritima Leggett ex B.S.P. var. *virginica* Hodgdon E
Virginia Pinweed
Occasional in stable dune barren, dune grass; north of Duck, Southern Shores, Kitty Hawk Woods, Wright Memorial, Nags Head Woods, Jockey's Ridge SP. Southern range limit. See Sorrie and Weakley (2007a) for taxonomic evaluation of this variety. *Kindell* 477 (NCSC) in 1986; *Krings* 1214 (NCSC) in 2005; *Sorrie* 13205 (NCU) in 2013.

Lechea minor L.
Thymeleaf Pinweed
Rare in opening in maritime evergreen forest, edge of road through maritime shrub; Avon, Roosevelt NA on Bogue Banks. *Schwartzman* 6944 (UNCA) in 2007; BAS sight record at Avon in 2012.

Lechea mucronata Raf. [*L. villosa* Elliott]
Hairy Pinweed
Occasional in opening in maritime forest, forest edge; scattered throughout OBX. *Fosberg* 17916 (NCSC) in 1940; *Clark* 346 (NCSC) in 2009.

Lechea pulchella Raf. var. *ramosissima* (Hodgdon) Sorrie & Weakley
[*L. leggettii* Britton & Hollick var. *ramosissima* Hodgdon]
Hodgdon's Pinweed
Rare in open maritime evergreen forest, forest edge; South Core Banks, Shackleford Banks. See Sorrie and Weakley (2007b) for taxonomic evaluation of this variety. *Wilbur* 12685 (DUKE) in 1970; *Wilbur* & *Hosier* 12837 (DUKE) in 1972; no recent collections.

CLETHRACEAE

Clethra alnifolia L.
Sweet Pepperbush
Rare in moist roadside; Duck. Sole OBX record of this unmistakable plant. Reported by Stalter and Lamont (1997); no recent collections.

CLUSIACEAE—SEE HYPERICACEAE

CONVOLVULACEAE

Convolvulus americanus (Sims) Greene [*Calystegia sepium* (L.) R. Br. ssp. *americana* (Sims) Brummit]
Northeastern Bindweed

Occasional in opening in maritime evergreen forest, margin of creek, upper margin of brackish marsh; scattered throughout OBX. OBX specimens need additional study to determine correct identity and distribution. For example, *Leonard* 2414 (CLEMS) was annotated as the present species, whereas a duplicate at NCU was annotated to *C. limnophilus* Greene by the same expert. *Schallert* 16870 (NCU) in 1950; *Leonard* 2414 (NCU) in 1969; *Krings* 662 (NCSC) in 2004.

Convolvulus soldanella L. [*Calystegia soldanella* (L.) R. Br. ex Roem. & Schult.]

Seaside Bindweed
Rare in upper beach, dune grass; near Kitty Hawk, Jockey's Ridge SP, Cape Hatteras Point. This species leads an ephemeral existence on OBX, appearing at a site one year and then skipping several years and appearing somewhere else. Records for NC and VA are isolated and disjunct from the rest of the range. Jockey's Ridge SP plant list; *Sorrie* 13254 (NCU) in 2013.

Cuscuta gronovii Willd.

Swamp or Common Dodder
Occasional in roadside, interdune marsh, shrub thicket; Buxton Woods, Shackleford Banks, Bogue Banks. *Fosberg* 17872 (NCU) in 1940; *Au* s.n. (DUKE); no recent collections.

Dichondra carolinensis Michx.

Carolina Ponyfoot
Occasional in shaded roadside, trailside; Corolla, Jockey's Ridge SP, Nags Head village, Buxton Woods, Fort Macon and Pine Knolls on Bogue Banks. *Stalter* s.n. (CAHA) in 1991; *Holdsclaw* 788 (NCU) in 2016.

Ipomoea brasiliensis (L.) Sweet [*I. pes-caprae* (L.) R. Br.]

Goat's-foot Morning-glory
Rare, sporadic occurrences in upper beach; Shackleford Banks, Fort Macon and Atlantic Beach on Bogue Banks. Northern range limit. Weakley (2018) considers it to be native via "periodic arrival of sea-borne seeds." Although no specimens are known from OBX, photos were taken in 2002 by M. Windsor and in 2017 by J. Fussell and J. Kraus.

Ipomoea imperati (Vahl) Griesb. [*I. stolonifera* (Cyrillo) Poir.] T
Beach Morning-glory

Rare in upper beach, sand spit; Ocracoke Island, Shackleford Banks, Bogue Banks. An ephemeral species on OBX, with few documented records. Northern range limit. Reported by Stalter and Lamont (1999) on Bogue; Krings photo on Ocracoke in 2012; reported by J. Kraus on Shackleford in 2013.

Ipomoea hederacea Jacq.

Ivyleaf Morning-glory
Rare in maritime shrub; Bodie Island. Sole record for OBX. *Davison* s.n. (CAHA) in 1985; no recent collections.

Ipomoea lacunosa L.

Little White Morning-glory
Rare in roadside, margin of maritime evergreen forest; Nags Head Woods, North Core Banks. *Krakow* & *Govus* 1043 (GA) in 1990; *Krings* 961 (NCSC) in 2004.

Ipomoea pandurata (L.) G. Meyer

Wild Sweet Potato, Manroot
Occasional in roadside, opening in maritime forest; Southern Shores, Kitty Hawk Woods, Nags Head Woods, South Core

Banks, Bogue Banks. *Bentley s.n.* (DUKE) in 1965; *Clark 116* (GA) in 2009.

***Ipomoea purpurea** (L.) Roth

Common Morning-glory

Rare in roadside at Sea Crest village (near Southern Shores on Bodie Island). Sole OBX record. *Peterson s.n.* (CAHA) in 1976; no recent collections.

Ipomoea sagittata Poir.

Saltmarsh Morning-glory

Frequent in tidal freshwater marsh, brackish marsh, interdune marsh; throughout OBX. A characteristic climbing or scrambling vine, whose rosy flowers decorate roadside views on OBX. *Mathews s.n.* (NCU) in 1931; *Faucette 265* (NCSC) in 2013.

Stylosma humistrata (Walter) Chapm.

Southern Dawnflower

Rare in "road to Bodie Island Lighthouse." Sole OBX record. *Stalter 16* (CAHA) in 1990; no recent collections.

CORNACEAE

Cornus florida L.

Flowering Dogwood

Frequent in maritime deciduous forest, maritime evergreen forest; throughout OBX. *Wells s.n.* (NCSC) in 192_ [date partly obscured]; *Millers.s.n.* (NCU) in 1953; *Krings 486* (NCSC) in 2004.

Cornus stricta Lam. [*C. foemina* Mill.]

Southern Swamp Dogwood

Frequent to abundant in maritime shrub swamp, margin of interdune pond; Kitty Hawk Woods, Nags Head Woods, Colington, Buxton Woods, Shackleford Banks, Bogue Banks. *Fosberg 17969* (NCSC) in 1940; *Faucette 14* (NCSC) in 2013.

CUCURBITACEAE

***Citrullus lanatus** (Thunb.) Matsum. & Nakai

Watermelon

Rare, thicket bordering brackish marsh, secondary dune; Shackleford Banks, Fort Macon SP on Bogue Banks. The population on Shackleford survived for at least 67 years. Reported by Kearney in 1900; *Wilbur 9635* (DUKE) in 1967; *Atha 3539* (NY) in 2002.

***Cucurbita pepo** L.

Cultivated Pumpkin

Rare, "persistent at abandoned homeplace, Portsmouth Island." Sole OBX record. *Burk b24-79* (NCU) in 1959; no recent collections.

Melothria pendula L.

Creeping Cucumber, Melonette

Occasional in interdune marsh, margin of maritime shrub swamp, roadside; scattered throughout OBX. *Rogers 3193* (DUKE) in 1946; *Clark 263* (NCSC) in 2009.

DROSERACEAE

Drosera capillaris Poir.

Early Sundew

Rare in wet interdune depression; Jockey's Ridge SP. Sole OBX record. *Stalter 58* (CAHA) in 1990; no recent collections.

Drosera intermedia Hayne

Spoonleaf Sundew

Rare in "margin of freshwater pool and seepage, Kitty Hawk Village on County Road 1209." Also collected in Kill Devil Hills. *Godfrey & Fox 49272* (NCSC) in 1949; *Crutchfield & Umphlett 5574* (NCU) in 1962; no recent collections.

EBENACEAE

Diospyros virginiana L.

Persimmon

Occasional in maritime evergreen forest, maritime swamp forest, maritime shrub swamp; scattered throughout OBX. *Rogers 3271* (DUKE) in 1946; *Sawyer, Jr. 304* (USCH) in 1964; *Sorrie 13630* (NCSC, NCU) in 2018.

ELAEAGNACEAE

***Elaeagnus pungens** Thunb.

Autumn Silverberry, Thorny Olive

Occasional in roadside; Nags Head Woods, Jockey's Ridge SP, Buxton Woods, NC Aquarium on Bogue Banks. *Clark et al. (2016)*, *Faucette 2020*, and *Stalter and Lamont (1997, 1999)* all state that this species is spreading on OBX. *Stone 1664* (MO) in 1998; *Krings 603* (NCSC, NY) in 2004; *Sorrie 13634* (NCU) in 2018.

***Elaeagnus umbellata** Thunb.

Spring Silverberry, Spring Olive

Rare, small population in maritime deciduous forest where persistent at former home site; Kitty Hawk Woods. Sole record for OBX. This aggressive weedy shrub is likely to spread if not controlled. *Clark 503* (NCSC) in 2010.

ERICACEAE

Chimaphila maculata (L.) Pursh

Spotted or Striped Pipsissewa

Occasional in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Colington, Nags Head Woods, near Bodie Island Lighthouse. *Fox & Godfrey 2334* (NCSC) in 1949; *Krings 372* (NCSC) in 2004.

Gaylussacia frondosa (L.) Torr. & A. Gray sensu stricto

Dangleberry

Occasional in maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, NC Aquarium on Bogue Banks. The report of *G. baccata* (L.) Torr. & A. Gray from Bogue Banks (*Stalter and Lamont 1999*) is referred here. *Radford 8092* (NCU) in 1954; *Faucette 447* (NCSC) in 2014.

Leucothoe axillaris (Lam.) D. Don

Coastal Plain Doghobble

Rare in undetermined habitat; "Bogue Banks west of Atlantic Beach." Sole OBX record of this shrub of swamps and wet forested streamside. *Drapalik 753 and 754* (GAS) in 1962; no recent collections.

Lyonia ligustrina (L.) DC.

Maleberry

Infrequent in margin of interdune pond, interdune swale; Kitty Hawk Woods. Reported by Burk (1961) from Nags Head Woods; see Krings (2010) for discussion. *Clark 554* (NCSC) in 2010.

Lyonia lucida (Lam.) K. Koch

Shining Fetterbush

Occasional, but may be frequent where found, in ecotone of maritime swamp forest; Colington, Nags Head Woods, Shackleford Banks, NC Aquarium and Pine Knolls Village on Bogue Banks. Reported from Shackleford by Lewis (1917); *Fox & Godfrey 2330* (NCSC) in 1949; *Krings 748* (NCSC) in 2004; sight record by J. Fussell in 2020.

Monotropa uniflora L.

Dutchman's Pipe

Occasional in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods, Kill Devil Hills, Bogue Banks. *Gupton 2687* (NCU) in 1960; *Clark 332* (NCSC) in 2009.

Oxydendrum arboreum (L.) DC.

Sourwood

Rare in maritime deciduous forest; Duck, Kitty Hawk Woods, Nags Head Woods. *Burk* b34-7 (NCU) in 1959; *Clark* 485 (NCSC) in 2010.**Vaccinium arboreum** Marshall

Sparkleberry

Infrequent in maritime evergreen forest; Nags Head Woods, Shackleford Banks, NC Aquarium on Bogue Banks. *Burk* b43-33 (NCU) in 1960; *Krings* 637 (NCSC) in 2004.**Vaccinium fuscum** Aiton [*V. atroccoccum* (A. Gray) Porter]

Black Highbush Blueberry

Occasional in maritime evergreen forest, margin of interdune pond, margin of maritime swamp forest; scattered locations throughout OBX. *Vaccinium formosum* Andrews is expected to occur on OBX; it would have glabrous leaves (vs. strongly pubescent beneath), larger and whiter flowers (vs. smaller, dull white, and often reddish-tinged), and blue berries (vs. black); see Krings (2010) for additional characters. *Radford* 8425 (NCU) in 1954; *Faucette* 446 (NCSC) in 2013.**Vaccinium pallidum** Aiton [*V. vacillans* Torr.]

Hillside Blueberry

Rare in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Stalter* 54 (CAHA); *Clark* 486 (NCSC) in 2010.**Vaccinium stamineum** L.

Deerberry

Rare in maritime evergreen forest; Nags Head Woods, Buxton Woods. *Stalter* 6 (CAHA); *Faucette* 390 (NCSC) in 2013.**Vaccinium tenellum** Aiton

Narrowleaf Blueberry

Rare in maritime forest on Bogue Banks. Reported as collected by *Burk* (1961); current sight record by *Fussell* in 2019 at Theodore Roosevelt Natural Area. A voucher specimen would be welcome.**EUPHORBIACEAE****Acalypha gracilens** A. Gray

Shortstalk Copperleaf

Occasional in roadside, disturbed soil; scattered throughout OBX. *Fosberg* 17878 (NCU) in 1940; *Krings* 1196 (NCSC) in 2005.**Cnidoscolus stimulosus** (Michx.) Engelm. & A. Gray

Tread Softly

Occasional in stable dune barren, opening in maritime evergreen forest, roadside, powerline; scattered throughout OBX, but not found in the Buxton-Hatteras-Ocracoke area. *Fox* 4153 (NCSC) in 1950; *Clark* 639 (NCSC) in 2010.***Croton capitatus** Michx.

Woolly Croton

Rare in "sandy area among dunes near salt marsh"; Bogue Banks. Sole OBX record. *Gillis* 3874 (FSU) in 1960; no recent collections.**Croton glandulosus** L. var. **septentrionalis** Müll.Arg.

Doveweed, Toothleaf Croton

Occasional in roadside, disturbed soil; scattered throughout OBX. *Mathews* s.n. (NCU) in 1931; *Stalter* 64 (USCH) in 1997; *Faucette* 488 (NCSC) in 2014.**Croton punctatus** Jacq.

Silverleaf Croton, Beach Tea

Frequent in dune grass, stable dune barren; from Salvo (northern Hatteras Island) south to Bogue Banks. Northern range limit. A characteristic dune plant of the southern half of OBX. *Mathews* s.n. (NCU) in 1931; *Qualls* s.n. (NCU) in 1981; BAS photo in 2012.**Euphorbia bombensis** Jacq. [*E. ammannoides* Kunth; *Chamaesyce bombensis* (Jacq.) Dugand; *C. ingallsii* Small] SR

Southern Seaside Spurge

Frequent in stable dune barren, dune grass (leeward side), upper margin of brackish marsh; known from Corolla area, Nags Head Village (Johnson 1992), from Oregon Inlet south to near Hatteras Village, Ocracoke Island, and Portsmouth Island. See Sorrie (2014b) for additional data. *Silliman* s.n. (NCU) in 1954; *Burk* b37-9 (NCU) in 1959; Johnson report in 1992; *Sorrie* 13100 (CAHA, GH, NCU) in 2012.**Euphorbia cyathophora** Murray [*E. heterophylla*, misapplied]

Painted Leaf, Fire-on-the-Mountain

Rare in roadside, disturbed soil; Nags Head Beach, south of Buxton, Ocracoke Island. *Peterson* s.n. (CAHA) in 1976; *Redden* s.n. (CAHA) in 1997; no recent collections.***Euphorbia helioscopia** L.

Sun Spurge, Wartweed

Rare as weed in shrub beds of small park in Corolla, Currituck County. Sole OBX record. *Holdsclaw* 858 (NCU) in 2018.**Euphorbia ipecacuanhae** L.

Carolina Ipecac

Rare in opening in pine-oak woods, stable dune barren; Nags Head Woods, Nags Head. *Burk* report in 1961; *Peterson* s.n. (CAHA) in 1976; *Krings* 1006 (NCSC) in 2004.**Euphorbia maculata** L. [*Chamaesyce maculata* (L.) Small; *E. supina* Raf.]

Spotted Spurge, Spotted Sandmat

Occasional in roadside, disturbed soil; scattered throughout OBX. *Mathews* s.n. (NCU) in 1931; *Krings* 923 (NCSC) in 2004.**Euphorbia polygonifolia** L. [*Chamaesyce polygonifolia* (L.) Small]

Northern Seaside Spurge

Occasional to frequent in upper beach, dune grass (mostly windward side), stable dune barren; throughout OBX. *Mathews* s.n. (NCU) in 1931; *Dumond* 520 (NCSC) in 1966; *Holdsclaw* 755 (NCU) in 2015.**Tragia urens** L.

Noseburn

Infrequent in maritime evergreen forest, forest clearing; Nags Head Woods, South Core Banks, Shackleford Banks, Bogue Banks. *Fox* 4152 (NCSC) in 1950; *Burk* b16-51 (NCU) in 1959; *Faucette* 474 (NCSC) in 2014.**FABACEAE****Aeschynomene indica** L.

Southern Jointvetch

Rare in "roadside ditch near lighthouse," "shrubby thickets near residence of Mr. Rondthaler"; Ocracoke Island. Sole OBX location. *Williams* s.n. (DUKE) in 1946; *Blomquist & Jones* 15300 (DUKE, NY) in 1951; no recent collections.***Albizia julibrissin** Durazz.

Mimos Tree

Infrequent in forest edge, roadside; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. Reported by *Stalter* and *Lamont* (1999) for Bogue Banks; *Clark* 711 (NCSC) in 2010.**Aipos americana** Medik.

Ground-nut

Occasional in maritime evergreen forest, forest edge, edge of interdune pond, interdune marsh; scattered throughout OBX, but no records from Cape Lookout NS. *Fox & Godfrey* 4444 (NCU) in 1950; *Faucette* 293 (NCSC) in 2013.

***Centrosema virginianum* (L.) Benth.**

Spurred Butterly-pea

Occasional in maritime evergreen forest, forest opening, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Bogue Banks. *Fox* 4156 (NCSC) in 1950; *Clark* 602 (NCSC) in 2010.***Cercis canadensis* L.**

Redbud

Rare in maritime deciduous forest; Kitty Hawk Woods. Sole OBX record. Its native status on OBX is assumed, as there are collections from Chowan and Perquimans Counties, NC, about 104 km (65 miles) away. *Clark* 573 (NCSC) in 2010.***Chamaecrista fasciculata* (Michx.) Greene [*Cassia fasciculata* Michx.]**

Common Partridge-pea

Occasional in forest edge, roadside; Kitty Hawk Woods, Ocracoke Island, Shackleford Banks, Bogue Banks. *Wilbur* 9397 (DUKE) in 1967; *BAS* sight record at Kitty Hawk Woods in 2013.***Chamaecrista nictitans* (L.) Moench [*Cassia nictitans* L.]**

Common Sensitive-plant

Occasional in edge of maritime evergreen forest, edge of brackish marsh, roadside, powerline; Kitty Hawk Woods, Nags Head Woods, Bodie Island, Buxton Woods, Bogue Banks. *Burk* b36-72 (NCU) in 1959; *Faucette* 20 (NCSC) in 2013.***Clitoria mariana* L.**

Butterfly Pea

Infrequent in openings in maritime evergreen forest, forest edge, powerline; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Fox* 4155 (NCSC) in 1950; *Krings* 574 (NCSC) in 2004.***Crotalaria rotundifolia* Walter ex J.F. Gmel. [*C. angulata* Mill.]**

Rabbitbells, Low Rattlebox

Rare in Kitty Hawk Woods, Nags Head Woods. *Fox* & *Godfrey* 2326 (NCU) in 1949; *Fox* 4160 (NCSC) in 1950; no recent collections.****Cytisus scoparius* (L.) Link**

Scotch Broom

Rare in roadside; Nags Head Woods. Sole OBX record. *Stalter* 47 (CAHA); no recent collections.***Desmodium canescens* (L.) DC.**

Hoary Tick-trefoil

Rare in maritime deciduous forest; Nags Head Woods. Sole OBX record. *Stalter* 37 (CAHA); no recent collections.***Desmodium fernaldii* Schubert SR**

Fernald's Tick-trefoil

Rare in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Fox* & *Godfrey* 4441 (NCSC) in 1950; *Krings* 980 (NCSC) in 2004.***Desmodium glabellum* (Michx.) DC.**

Tall Tick-trefoil

Occasional in maritime evergreen forest, forest opening, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. *Fox* & *Godfrey* 4440 (NCSC) in 1950; *Wilbur* 5036 (NCSC) in 1955; *Sorrie* 12958 (NCU) in 2012.***Desmodium nuttallii* (Schindl.) Schubert**

Nuttall's Tick-trefoil

Rare in opening in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Krings* 512 (NCSC) in 2004; *Sorrie* 13240 (NCU) in 2013.***Desmodium paniculatum* (L.) DC.**

Panicle Tick-trefoil

Occasional in maritime evergreen forest, maritime deciduous

forest, forest opening, roadside; Corps of Engineers property north of Duck, Buxton Woods, Ocracoke Island, Portsmouth Island, North Core Banks, Shackleford Banks. *Anderson* 351 (DUKE) in 1962; *Wilbur* 8511 (DUKE) in 1965; *Faucette* 482 (NCSC) in 2014.***Desmodium strictum* (Pursh) DC.**

Upland Slender Tick-trefoil

Rare in opening in maritime evergreen forest; Nags Head Woods. Sole OBX location. *Peterson* s.n. (CAHA) in 1976; *Krings* 1328 (NCSC) in 2005.***Desmodium viridiflorum* (L.) DC.**

Velvet Tick-trefoil

Rare in opening in maritime deciduous forest, roadside; Nags Head Woods. Sole OBX location. *Krings* 1221 (NCSC) in 2004.***Galactia macreei* M.A. Curtis [*G. volubilis* (L.) Britton, in part]**

Macree's Milkvetch

Frequent in maritime shrub, stable dune barren, roadside thicket; scattered throughout OBX. Collections originally determined as *G. regularis* (L.) B.S.P. are misidentified and are referred here. See *Krings* (2010) for key to OBX species of *Galactia*. *Fosberg* 17890 (NCSC) in 1940; *Krings* 789 (NCSC) in 2004.***Galactia volubilis* (L.) Britton**

Twining Milkvetch

Occasional in roadside thicket, opening in maritime evergreen forest; Kitty Hawk Woods, Kill Devil Hills, Nags Head Woods, Buxton Woods, Ocracoke Island. *Redden* s.n. (CAHA) in 1997; *Krings* 1016 (NCSC) in 2004.***Hylobedus nudiflorum* (L.) H. Ohashi & R.R. Mill. [*Desmodium* n. (L.) DC.]**

Naked Tick-trefoil

Infrequent in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Fox* 4151 (NCSC) in 1950; *Clark* 648 (NCSC) in 2010.***Indigofera caroliniana* Mill.**

Carolina Indigo

Rare in maritime evergreen forest; Bogue Banks. Sole OBX record. The specimen was originally determined as *I. tinctoria* L. *Burk* b16-44 (NCU) in 1959; no recent collections.****Kummerowia striata* (Thunb.) Schindler [*Lespedeza* s. (Thunb.) Hook.]**

Japanese Clover

Infrequent in roadside, disturbed soil; Run Hill, Shackleford Banks. Likely overlooked and may occur more widely. Reported by *Krakow* (1991) from Shackleford; *Krings* 1706 (NCSC) in 2007.****Lathyrus hirsutus* L.**

Caley Pea

Rare in roadside in Corolla, Currituck County. Sole OBX record. *Holdsclaw* 750 (NCU) in 2015.****Lespedeza bicolor* Turczanov**

Bicolor Lespedeza, Shrubby Lespedeza

Rare in roadside, edge of forest; Nags Head Woods, Bogue Banks. A potentially aggressive weed that should be eradicated. *Wilbur* 12434 (DUKE) in 1970; *Krings* 1257 (NCSC) in 2005.****Lespedeza cuneata* (Dum. Cours.) G. Don**

Sericea Lespedeza

Occasional in roadside, powerline; Kitty Hawk Woods, Nags Head Woods, Cape Hatteras Lighthouse. An aggressive weed that should be eliminated. *Burk* b38-15 (NCU) in 1959; *Clark* 286 (NCSC) in 2009.

***Lespedeza stuevei* Nutt.**

Velvet Lespedeza, Velvet Bush-clover

Infrequent in opening in maritime forest, powerline; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Fox & Godfrey 4455* (DUKE, NCSC) in 1950; *Krings 959* (NCSC) in 2004.***Lespedeza virginica* (L.) Britton**

Virginia Lespedeza, Virginia Bush-clover

Infrequent in opening in maritime evergreen forest; Corps of Engineers property north of Duck, Kitty Hawk Woods, Buxton Woods, Shackleford Banks. *Usher & Tyndall s.n.* (ODU) in 1974; BAS sight records at Kitty Hawk Woods and Buxton Woods in 2013.****Lotus corniculatus* L.**

Bird's-foot Trefoil

Frequent locally in roadside, yard; Kitty Hawk Woods and from north of Rodanthe south to Buxton. Collections were made on nearby Roanoke Island as early as 1977 (*Peterson et al. s.n.* CAHA), but not on OBX until 2013. *Sorrie 13185* (CAHA, NCU) in 2013.****Medicago arabica* (L.) Hudson**

Spotted Medick

Infrequent in roadside, yard; 4 miles south of Atlantic City on Bogue Banks. Sole OBX location. *Burk b42-8* (NCU) in 1960; no recent collections.****Medicago lupulina* L.**

Black Medick

Infrequent in roadside, yard, maritime dry grassland; north of Avon, Ocracoke Island, Bogue Banks. *Burk b42-4* (NCU) in 1960; *Furbish s.n.* (UNCC) in 1987; *Redden s.n.* (CAHA) in 1998; no recent collections.****Medicago sativa* L.**

Alfalfa, Lucerne

Occasional, but may be frequent where found, in roadside, yard; Nags Head Village south to Hatteras Village. *Stalter 10* (CAHA) in 1991; BAS sight records in 2012.****Melilotus albus* Medik.**

White Sweetclover

Occasional on beach, edge of marsh by sound, and roadside; Nags Head, Ocracoke Island, Fort Macon SP on Bogue Banks. *Wilbur 6201* (DUKE) in 1957; *Burk & Tate b13-11* (NCU) in 1959; *Thompson 6515* (CM) in 1989; BAS sight record at Fort Macon in 2018.****Melilotus officinalis* (L.) Pallas**

Yellow Sweetclover

Infrequent in roadside; Kitty Hawk Woods, Buxton area, Fort Macon SP on Bogue Banks. *Burk & Tate b13-10* (NCU) in 1959; *Clark 588* (NCSC) in 2010.***Mimosa microphylla* Dryand. [*Schrankia m.* (Dryand.) Macbride]**

Eastern Sensitive-briar

Rare in maritime dry grassland, Springer's Point; Ocracoke Island. Sole OBX record for this unmistakable plant. R. LeBlond sight record in 2006.

***Phaseolus polystachios* (L.) B.S.P.**

Wild Bean, Wild Kidney Bean

Infrequent in maritime evergreen forest, forest opening; Kitty Hawk Woods, Nags Head Woods, Fort Macon SP on Bogue Banks. *Stalter 36* (CAHA) in 1993; *Krings 1262* (NCSC) in 2005.****Pueraria montana* (Loureiro) Merrill var. *lobata* (Willd.) Maesen & S. Almeida**

Kudzu

Infrequent in edge of maritime forest, former homesite, roadside; Colington Island, Nags Head Woods. Reported by Brown (1959) on road to Colington; *Burk b56-5* (NCU) in 1960; *Krings 531* (NCSC) in 2004.***Rhynchosia difformis* (Elliott) DC.**

Twining Snoutbean

Occasional in stable dune barren, opening in maritime evergreen forest; Duck, Kitty Hawk Woods, Colington Island, Nags Head Woods, Fort Macon SP on Bogue Banks. *Wood, Jr. 6365* (NCU) in 1946; *Clark 717* (NCSC) in 2010.****Robinia hispida* L.**

Bristly Locust

Rare in roadside; Southern Shores, south of Buxton. *Peterson s.n.* (CAHA) in 1976; *Stalter and Lamont* report (1997) from south of Buxton.****Robinia pseudo-acacia* L.**

Black Locust

Occasional in maritime evergreen forest, forest edge; Kitty Hawk, Bodie Island, Pea Island, Buxton Woods. Reported for Nags Head Woods by Atkinson and List (1978); BAS sight record from Fort Macon SP on Bogue Banks in 2018. This species is native to the mountains and piedmont of NC, but not the coastal plain, where it has been extensively planted (e.g., "planted on dike of South Lake, Pea Island"). *Radford et al. 7798* (NCU) in 1953; *Faucette 428* (NCSC) in 2014.****Sesbania punicea* (Cav.) Benth. [*Daubentonia p.* Cav.]**

Scarlet Rattlebox

Frequent in tidal freshwater marsh, maritime swamp forest, margin of interdune pond, wet roadside; scattered throughout OBX. *Henry s.n.* (CM) in 1956; *Hardin 976* (NCSC) in 1958; *Kindell 462* (NCSC) in 1986; *Damrel & Damrel 6786* (CLEMS) in 2016.***Strophostyles helvola* (L.) Elliott**

Annual Sandbean

Occasional in maritime shrub, brackish marsh, forest edge; scattered throughout OBX. *Fosberg 17777* (NCSC, NCU) in 1940; *Krings 960* (NCSC) in 2004.***Strophostyles umbellata* (Muhl. ex Willd.) Britton**

Perennial Sandbean

Infrequent in stable dune barren, disturbed soil. South Core Banks, Shackleford Banks, Bogue Banks. Reported from Jockey's Ridge SP (plant list). *Anderson 445* (DUKE) in 1962; *Wilbur 12668* (DUKE) in 1970; no recent collections.***Stylosanthes biflora* (L.) B.S.P.**

Pencilflower

Rare in maritime evergreen forest; "2.2 miles south of Atlantic." Sole OBX record. *Fox et al. 2682* (NCSC) in 1950; no recent collections.***Tephrosia spicata* (Walter) Torr. & A. Gray**

Spiked Hoarypea

Rare in opening in maritime evergreen forest; Nags Head Woods. Sole OBX record. *Stalter 59* (CAHA); no recent collections.****Trifolium arvense* L.**

Rabbitfoot Clover

Occasional in roadside, lawn, disturbed soil; Nags Head Woods, Buxton Woods, Bogue Banks. *Wilbur 6202* (DUKE) in 1957; *Faucette 437* (NCSC) in 2014.****Trifolium campestre* Schreber [*T. procumbens* L.]**

Hop Clover

Infrequent in roadside, lawn; Kitty Hawk Woods, Buxton Woods, Bogue Banks. Apparently no collections made prior to 2000. *Clark 460* (NCSC) in 2010; *Holdsclaw 799* (NCU) in 2016.

****Trifolium dubium* Sibth.**

Little Hop Clover

Frequent in roadside, lawn, depression in dune; scattered throughout OBX. *Radford* 8171 (NCU) in 1954; *Faucette* 77 (NCSC) in 2013.****Trifolium pratense* L.**

Red Clover

Occasional in roadside, lawn; Kitty Hawk Woods, Cape Hatteras, Bogue Banks. *Radford* et al. 7757 (NCU) in 1953; *Clark* 560 (NCSC) in 2010.****Trifolium repens* L.**

White Clover

Frequent in roadside, lawn; Kitty Hawk Woods, Buxton Woods, Hatteras Village, Portsmouth Island, Bogue Banks. *Burk* 42-2 (NCU) in 1960; *Faucette* 129 (NCSC) in 2013.****Trifolium scabrum* L.**

Rough Clover

Rare in "campground at Oregon Inlet" (Bodie Island). Sole OBX and NC record. Identification verified by M. Vincent. In North America previously recorded only from Alabama and New Jersey. Photos by B. Finzel in June 2018.

****Vicia lathyroides* L.**

Spring Vetch

Rare in roadside, sand flat; Kitty Hawk Woods, Run Hill. *Clark* 430 (NCSC) in 2010; *Krings* 1446 (NCSC) in 2007.****Vicia sativa* L. ssp. *nigra* (L.) Ehrh. [*V. angustifolia* Reichenb.]**

Narrowleaf Vetch

Occasional in forest edge, roadside; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP, Buxton Woods, Bogue Banks. *Burk* b42-12 (NCU) in 1960; *Krings* 1014 (NCSC) in 2004.****Vicia villosa* Roth**

Hairy Vetch

Rare in "roadside near bridge to Morehead City" on Bogue Banks. Sole OBX record. *Burk* b50-1 (NCU) in 1960; no recent collections.****Wisteria floribunda* (Willd.) DC.**

Japanese Wisteria

Rare in disturbed woodland near former homesite; Nags Head Woods. Sole OBX record. See Krings (2010) for discussion of the identity of this specimen. *Stalter* 5 (CAHA); no recent collections.****Wisteria sinensis* (Sims) Sweet**

Chinese Wisteria

Rare in disturbed woodland near former homesite and on outskirts of Salter Path; Nags Head Woods, near Salter Path. *Ford* 247 (USF) in 1965; *Paris* s.n. (NCSC) in 2001; no recent collections.***Zornia bracteata* Walter ex J.F. Gmel.**

Viperina

Rare in open sandy open woods; NC Aquarium on Bogue Banks. Sole OBX record. *Vinson* s.n. (NCU) in 1987; no recent collections.**FAGACEAE*****Castanea pumila* (L.) Mill.**

Common Chinquapin

Infrequent in maritime evergreen forest; Duck, Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Holmes* s.n. (NCU) in 1923; *Clark* 571 (NCSC) in 2010.***Fagus grandifolia* Ehrh.**

American Beech

Abundant in maritime deciduous forest; Kitty Hawk Woods, Nags

Head Woods. The iconic tree of deciduous forests of the northern Outer Banks. *Fox* 4159 (NCSC) in 1950; *Krings* 641 (NCSC) in 2004.Note on *Quercus*: Burk (1961) collected many specimens of what he determined to be hybrids between various species. Some are mature leaves, some are leaves from sprouts, few include acorns; all are difficult to accurately place and are omitted here, following the practice of Krings (2010).***Quercus alba* L.**

White Oak

Occasional in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. *Burk* b43-43 (NCU) in 1961; *Clark* 505 (NCSC) in 2010.***Quercus falcata* Michx.**

Southern Red Oak

Frequent in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods, Kill Devil Hills, Bogue Banks. Reported for Shackleford Banks by Lewis (1917). *Fox* & *Godfrey* 2328 (NCSC) in 1949; *Burk* 20-3 (NCU) in 1959; *Krings* 629 (NCSC) in 2004.***Quercus hemisphaerica* Bartram ex Willd. [*Q. laurifolia* Michx., in part]**

Darlington Oak, Sand Laurel Oak

Abundant in maritime evergreen forest; throughout OBX. Specimens from dry sandy woods formerly determined as *Q. laurifolia* are referred here; *Q. laurifolia* sensu stricto is a tree of maritime swamp forests on OBX. *Fox* et al. 1150 (NCSC) in 1947; *Faucette* 368 (NCSC) in 2013.***Quercus incana* Bartram**

Bluejack Oak

Rare in maritime evergreen forest, forest ecotone to live dune; Nags Head Woods. Sole location on OBX. *Burk* 43-2 (NCU) in 1960; *Krings* 383 (NCSC) in 2004.***Quercus laurifolia* Michx. sensu stricto**

Laurel Oak

Rare in maritime swamp forest, wet maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods. See Clark (2016) for discussion of small individuals of this species, which were mistaken by previous observers (there and elsewhere on OBX) as *Q. phellos* L. Other specimens originally determined as *Q. laurifolia* are actually *Q. hemisphaerica*. *Krings* 900 (NCSC) in 2004; *Clark* 712 (NCSC) in 2010.***Quercus michauxii* Nutt.**

Swamp Chestnut Oak, Basket Oak

Infrequent in lower slope of maritime deciduous forest; Kitty Hawk Woods. Sole OBX location. *Crutchfield* & *Umphlett* 5575 (NCU) in 1962; *Clark* 440 (NCSC) in 2010.***Quercus nigra* L.**

Water Oak

Occasional, locally frequent, in maritime evergreen forest, ecotone of maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. Sprout leaves of this species and *Q. hemisphaerica* can be confused; specimens should be taken from mature plants only. *Totten* s.n. (NCU) in 1960; *Krings* 661 (NCSC) in 2004.***Quercus stellata* Wangenh.**

Post Oak

Infrequent in maritime evergreen forest, maritime deciduous forest; Nags Head Woods, Bogue Banks. Reported for Shackleford Banks by Lewis (1917); reported for Bogue Banks by Burk (1961); *Krings* 803 (NCSC) in 2004.

Quercus velutina Lam.

Black Oak

Rare in maritime evergreen forest; Nags Head Woods. Sole OBX location. First reported by Atkinson and List (1978); Krings 913 (NCSC) in 2004.

Quercus virginiana Mill.

Coast Live Oak

Abundant in maritime evergreen forest, maritime deciduous forest; throughout OBX. A characteristic OBX tree, with its wide-spreading lower limbs that may actually touch the ground. Fosberg 17801 (NCSC) in 1940; Faucette 393 (NCSC) in 2013.

FUMARIACEAE

Corydalis halei (Small) Fernald & B.G. Schub. [*C. micrantha* (Engelm. ex A. Gray) A. Gray ssp. *australis* (Chapm.) Ownbey]

Southern Corydalis

Rare in powerline; Kitty Hawk Woods, Nags Head. Ashe s.n. (NCU) in 1898; Clark 383 (NCSC) in 2009.

GELSEMIAEAE [formerly in LOGANIACEAE]**Gelsemium sempervirens** (L.) J. St.-Hil.

Carolina Jessamine

Frequent in maritime evergreen forest, maritime shrub swamp, edge of maritime swamp forest, estuarine fringe pine forest; Kitty Hawk Woods, Wright Memorial, Nags Head Woods, Buxton Woods, Shackleford Banks. Radford *et al.* 7634 (NCU) in 1953; Faucette 73 (NCSC) in 2013.

GENTIANACEAE**Bartonia virginica** (L.) B.S.P.

Common Bartonia

Rare in interdune red maple forest, moist swale; south of Corolla, Nags Head Woods. Leonard's collection label indicated that there were "thousands." Leonard 8176 (GSW) in 1983; Krings 1091 (NCSC) in 2005.

Sabatia angularis (L.) Pursh

Bitter-bloom

Rare, no habitat given; "Hatteras." Sole OBX record. W.E. Baker s.n. (CM) in 1972.

Sabatia brachiata Elliott

Narrowleaf Rosepink

Rare; 1 mile N of Buxton, Ocracoke Island. L.K. Henry s.n. (CM) in 1956; Schwartzman 6952 (UNCA) in 2004.

Sabatia calycina (Lam.) A. Heller

Coastal Plain Rosepink

Infrequent in bank of tidal creek; Kitty Hawk Woods, Nags Head Woods, 2 mi. south of Buxton. Another collection is from "rich woods," without locality: Stalter & Lamont 58 (CAHA). Stalter 36 (CAHA) in 1991; Clark 631 (NCSC) in 2010.

Sabatia dodecandra (L.) B.S.P. sensu stricto

Large Marshpink

Occasional in margin of brackish marsh, fresh tidal marsh; Duck, Kitty Hawk Bay Islands, Nags Head Woods. Fox 4144 (NCSC) in 1950; Clark 667 (NCSC) in 2010.

Sabatia stellaris Pursh

Annual Seapink

Frequent in maritime wet grassland, margin of brackish marsh, roadside ditch; scattered throughout OBX. Collections of *S. campanulata* (L.) Torr. are misidentified and are referred here. Engels s.n. (NCU) in 1939; Stalter s.n. (CAHA) in 1990; BAS photo 2013.

GERANIACEAE**Geranium carolinianum** L.

Carolina Geranium

Frequent in roadside, disturbed soil, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, South Core Banks, Shackleford Banks, Bogue Banks. Crutchfield b40-15 (NCU) in 1958; Faucette 414 (NCSC) in 2014.

***Geranium molle** L.

Dove's-foot Cranebill

Rare in roadside; Duck, Cape Hatteras Lighthouse Visitors Center. Stalter s.n. (CAHA) in 1991; no recent collections.

HALORAGACEAE***Myriophyllum aquaticum** (Vell.) Verd. [*M. brasiliense* Cambess.]

Brazilian Water-milfoil

Infrequent in interdune pond, interdune marsh, shallow water of Sound; Nags Head Woods, near Cape Hatteras Lighthouse. Radford *et al.* 7591 (NCU) in 1953; Krings & Kruger 569 (NCSC) in 2004.

Myriophyllum heterophyllum Michx.

Variable Water-milfoil

Infrequent in interdune pond; Kitty Hawk Woods, Buxton Woods, near Cape Hatteras Lighthouse. Miller s.n. (NCU) in 1953; Faucette 202 (NCSC) in 2013.

Myriophyllum pinnatum (Walter) B.S.P. SR

Alternate-leaved Water-milfoil

Rare in interdune pond, interdune marsh; near Kitty Hawk, Pea Island. Two Radford specimens from OBX, known to be deposited at NCU, are now missing. A specimen currently in the NCU collection was taken from Currituck Sound at Waterlily just west of OBX. Radford 6575 (NCU) in 1952. There are no recent collections from OBX.

***Myriophyllum spicatum** L.

Eurasian Water-milfoil

Uncommon in shallow water of Currituck Sound, tidal creek; Kitty Hawk Woods, Jean Guite Creek, west of Duck, Nags Head Woods. Reported from Jockey's Ridge SP (plant list). This invasive alien is likely to increase its numbers and area of coverage on OBX. Lynch 102 (NCSC) in 1979; DeMont 871007-2A, -2B (NCU) in 1987; Clark 534 (NCSC) in 2010.

Proserpinaca palustris L.

Common Mermaid-weed

Occasional in interdune marsh, maritime swamp forest, roadside ditch; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. Fosberg 17967 (NCU, TENN) in 1940; Clark 71 (NCSC) in 2009.

HAMAMELIDACEAE**Hamamelis virginiana** L. var. *virginiana*

Witch Hazel

Occasional in maritime deciduous forest, maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. Totten 1736 (NCU) in 1963; Krings 1263 (NCSC) in 2005.

HYDRANGEACEAE**Decumaria barbara** L.

Climbing Hydrangea

Occasional in maritime shrub swamp, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, NC Aquarium on Bogue Banks. Radford 8141 (NCU) in 1954; Clark 709 (NCSC) in 2010.

HYPERICACEAE

Hypericum crux-andreae (L.) Crantz

St. Peter's-wort, St. Andrew's Cross

Rare in maritime evergreen forest; Portsmouth Island, Emerald Isle on Bogue Banks. Krakow report from Portsmouth Island in 1991; Stalter 45 (USCH) in 1997; no recent specimens.

Hypericum gentianoides (L.) Crantz

Pineweed, Orangeweed

Occasional in stable dune barren, dune swale, roadside; Run Hill, Jockey's Ridge SP, south of Oregon Inlet, Buxton area, South Core Banks, Shackleford Banks. Radford *et al.* 7472 (NCU) in 1953; Stalter s.n. (CAHA); Krings 2292 (NCSC) in 2008; BAS sight record from JRSP in 2013.**Hypericum gymnanthum** Engelm. & A. Gray

Clasping St. John's-wort

Rare in margin of interdune pond; Freshwater Pond adjacent to Nags Head Woods. Sole OBX record. Fox & Godfrey 4446 (NCSC) in 1949; no recent collections.

Hypericum hypericoides (L.) Crantz

St. Andrew's Cross

Frequent in maritime evergreen forest; scattered throughout OBX. Mathews s.n. (NCU) in 1931; Fauchette 12 (NCSC) in 2013.

Hypericum muticum L.

Dwarf St. John's-wort

Occasional in interdune marsh, wet roadside ditch, edge of maritime forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. Fosberg 17873 (NCU) in 1940; Krakow & Govus 824 (GA) in 1990; Krings 877 (NCSC) in 2004.

Hypericum virginicum L. [*Triadenum virginicum* (L.) Raf.]

Marsh St. John's-wort

Infrequent in interdune marsh, margin of interdune pond; Nags Head Woods, Buxton Woods, Bogue Banks. Reported from Shackleford Banks by Lewis (1917); Burk b28-11 (NCU) in 1959; Fauchette 313 (NCSC) in 2013.

Hypericum walteri J.F. Gmel. [*Triadenum walteri* (J.F. Gmel.) Gleason]

Walter's St. John's-wort

Infrequent in margin of interdune pond, maritime swamp forest; Southern Shores, Kitty Hawk Woods, Nags Head Woods. First reported for OBX by Blonder and Stalter (1992); Krings 1225 (NCSC) 2005.

ITEACEAE

Itea virginica L.

Sweetspire, Virginia Willow

Rare in maritime swamp forest; Kitty Hawk Woods. Sole OBX record. Clark 570 (NCSC) in 2010.

JUGLANDACEAE

Carya glabra (Mill.) Sweet

Pignut Hickory

Frequent in maritime deciduous forest, maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. Included here are plants that key uneasily to *C. ovalis* (Wangenheim) Sarg. Fox & Whitford 390 (NCSC) in 1947; Radford 6605 (NCU) in 1952; Krings 467 (NCSC) in 2004.**Carya pallida** (Ashe) Engelm. & Graebn.

Sand Hickory

Occasional in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. There are no OBX collections prior to 2000. Clark 506 (NCSC) in 2010.

Carya tomentosa (Poir.) Nutt.

Mockernut Hickory

Infrequent in maritime evergreen forest; Nags Head Woods. Sole OBX location. Stalter 44 (CAHA); BAS sight record 2013.

Juglans nigra L.

Black Walnut

Rare, "single small tree, shrub zone, Bodie Island." Sole OBX record. Without knowing the precise habitat, it is not feasible to determine native vs. alien status. Burk b36-46 (NCU) in 1959; no recent collections.

LAMIACEAE

Callicarpa americana L.

Beautyberry

Frequent in maritime evergreen forest, maritime deciduous forest, edge of maritime shrub swamp; scattered throughout OBX. Fosberg 17839 (NCSC) in 1940; Fauchette 174 (NCSC) in 2013.

***Lamium amplexicaule** L.

Common Henbit

Infrequent in roadside, disturbed soil; Corolla, Nags Head Woods, Bogue Banks. Burk b42-6 (NCU) in 1960; Stalter s.n. (CAHA) in 1990; Besler 6 (URV) in 1998; no recent collections.

***Lamium purpureum** L.

Purple Henbit

Rare in roadside; south of Corolla, south of Nags Head. Stalter s.n. (CAHA) in 1990; Holdswa 798 (NCU) in 2016.

Lycopus angustifolius Elliott

Slender Horehound

Rare in maritime swamp forest; Nags Head Woods, Frisco on Hatteras Island. Specimens formerly determined as *L. rubellus* Moench are referred here. Bradley 2018 (NCU) in 1963; Krings 1289 (NCSC) in 2005.***Lycopus europaeus** L.

European Horehound

Rare in interdune pond edge; Buxton. Sole OBX record. Burk b55-8 (NCU) in 1960; no recent collections.

Monarda punctata L. var. **punctata**

Spotted Beebalm

Occasional in stable dune barren, roadside, powerline; scattered throughout OBX. Fosberg 17881 (NCSC) in 1940; Clark 637 (NCSC) in 2010.

***Monarda punctata** L. var. **villicaulis** (Pennell) Palmer & Steyermark

Hairy Spotted Beebalm

Rare in stable dune barren; Wright Brothers Monument. Sole OBX record. The specimen was annotated by R. Scora. Henry s.n. (CM) in 1954.

Salvia lyrata L.

Lyre-leaved Sage

Occasional in trail in maritime evergreen forest, roadside, lawn; Duck, Nags Head Woods, Bogue Banks. Usher & Tyndall s.n. (ODU) in 1974; Stalter 64 (USCH) in 1995; Krings 473 (NCSC) in 2004.

Scutellaria integrifolia L.

Narrowleaf Skullcap

Rare in interdune marsh; Shackleford Banks. Sole OBX location. Wilbur 12665 (DUKE) in 1970; Krakow & Govus 911 (GA) in 1990; no recent collections.

****Stachys floridana*** Shuttlew. ex Benth.

Florida Hedge-nettle

Rare, but may be abundant where found, in moist roadside; Buxton Woods, near Coast Guard Station on Bogue Banks. There are no records prior to 2013. *Faucette* 117 (NCSC) in 2013; *Sorrie* 13627 (NCSC, NCU) in 2018.

Teucrium canadense L. var. ***hypoleucum*** Griesb.

Germander

Occasional in interdune marsh, tidal freshwater marsh, edge of brackish marsh, tidal creek bank; throughout OBX. *Mathews s.n.* (NCU) in 1931; *Clark* 656 (NCSC) in 2010.

Trichostema dichotomum L.

Common Bluecurls

Infrequent in roadside, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. This species has medium to dark blue flowers, in contrast with the following. *Burk* b32-12 (NCU) in 1959; *Clark* 355 (NCSC) in 2009.

Trichostema nesophilum K.S. McClell. and Weakley SR

Dune Bluecurls

Frequent in dune grass, stable dune barren; from Hatteras Island south to Bogue Banks. A newly described perennial species (McClelland and Weakley 2019) with pale lavender bluish flowers. It has a very limited distribution from Dare County, NC, to Georgetown County, SC. Northern range limit. *Fosberg* 17944 (NCSC) in 1940; *LeBlond* 6084 (NCU) in 2004; *Sorrie* 13126 (CAHA, GH, NCU) in 2012.

****Vitex rotundifolia*** L.f.

Beach Vitex

Planted and locally escaped to primary dunes; South of Nags Head village, Ocracoke Island, Bogue Banks. This highly invasive alien is subject of an eradication program by the U.S. Fish and Wildlife Service. *Weakley s.n.* (NCU) in 2005; *Scott s.n.* (NBYC) in 2008; *Suiter* 2539 (NCU) in 2009.

LENTIBULARIACEAE

Utricularia biflora Lam. [*U. gibba* L., in part]

Two-flowered Bladderwort

Rare, but may be numerous where found, in interdune marsh; west of Turtle Pond at Buxton. Sole OBX record. Considered by various authors to be synonymous with *U. gibba*, but the larger corolla and elongate pointed spur are consistent differences. *Sorrie* 13026 (CAHA) in 2012.

Utricularia gibba L.

Bog Bladderwort

Occasional, but may be numerous where found, in interdune marsh, interdune pond; Southern Shores, Kitty Hawk Woods, Kill Devil Hills, Nags Head Woods, Buxton Woods, Bogue Banks. *Godfrey & Fox* 49286 (NCSC) in 1949; *Culwell* 312 (UCAC) in 1966; *Faucette* 121 (NCSC) in 2013.

Utricularia inflata Walter

Big Floating Bladderwort

Occasional in interdune pond; Nags Head Woods. Sole OBX location. *Paris s.n.* (NCSC) in 2001; BAS sight record in 2012.

Utricularia macrorhiza LeConte [*U. vulgaris* L., misapplied]

Greater Bladderwort

Rare in maritime swamp forest, "nature trail Jennette Sedge"; Kitty Hawk, Buxton. *Blomquist* 4906 (DUKE) in 1933; *Stalter s.n.* (CAHA) in 1990; no recent collections.

Utricularia subulata L.

Zig-zag Bladderwort

Occasional in interdune marsh, moist interdune swale, exposed

shore of interdune pond; scattered throughout OBX. *McCaffrey* 211 (CAHA) in 1974; *Krakow* report from Shackleford Banks in 1991; BAS sight record from Buxton area in 2012.

LINACEAE

Linum curtissii Small [*L. medium* (Planch.) Britton var. *texanum* (Planch.) Fernald; *L. virginianum* L. var. *medium* Planch.]

Texas Yellow Flax

Occasional in moist roadside, opening in maritime evergreen forest, interdune marsh; Pea Island, Frisco, Ocracoke Island, Portsmouth Island, Shackleford Banks. Specimens previously determined as *L. virginianum* L. are referred here. *Radford et al.* 7510 (NCU) in 1953; *Wilbur* 12717 (DUKE) in 1970; *LeBlond* 6146 (NCU) in 2005.

Linum striatum Walter

Wetland Flax

Rare in edge of maritime swamp forest; Nags Head Woods. Sole OBX record. *Krings* 2424 (NCSC) in 2006.

LINDERNIACEAE [SCROPHULARIACEAE, in part]

Lindernia dubia (L.) Pennell var. ***anagallidea*** (Michx.) Cooperrider

False Pimpernel

Rare in moist sand; Waves village on Hatteras Island. Sole OBX record. *Radford* 6608 (NCU) in 1952; no recent collections.

Lindernia dubia (L.) Pennell var. ***dubia***

False Pimpernel

Infrequent in margin of interdune pond, interdune swale, wet roadside. Nags Head Woods, Nags Head village. *Leonard* 2114 (ODU) in 1968; *Stalter* 44 (CAHA) in the 1990s; no recent collections.

LOGANIACEAE

Mitreola petiolata (J.F. Gmel.) Torr. & A. Gray

Stalked Mitrewort

Occasional in margin of interdune pond, interdune marsh; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks. *Cokers.s.n.* (NCU) in 1927; *Phipps et al.* 3472 (NCU) in 1964; *Clark* 707 (NCSC) in 2010.

LYTHRACEAE

Ammannia latifolia L.

Pink Redstem

Infrequent in tidal freshwater marsh, brackish marsh; Duck, Portsmouth Island, Shackleford Banks. *Beal* 3239 (NCSC) in 1957; *Wilbur* 12624 (DUKE) in 1970; *Stalter* 16 (CAHA) in 1995; no recent collections.

****Cuphea carthagenensis*** (Jacq.) Macbride

Colombian Waxweed

Rare in maritime wet grassland, edge of open woodland; Guthrie's Hammock on South Core Banks, Shackleford Banks. *Anderson* 348 (DUKE) in 1962; *Wilbur* 12468 (DUKE) in 1970; *M. Godfrey s.n.* (CAHA) in 1975; *Sorrie* 7110 (NCU) in 1992; no recent collections.

Decodon verticillatus (L.) Elliott

Water Willow

Frequent in maritime swamp forest, interdune marsh, interdune pond, freshwater seepage swamp; Nags Head Woods, Buxton Woods, Shackleford Banks, NC Aquarium on Bogue Banks. Reported from Shackleford by Lewis (1917); *Beal* 3419 (NCSC) in 1957; *Krings* 1197 (NCSC) in 2005.

****Lagerstroemia indica*** L.

Crepe Myrtle

Infrequent in yard, roadside; Duck, Nags Head Woods, Buxton area, Bogue Banks. It is unclear whether any OBX record is from an established population or merely persistent plants after cultivation. *Burk* b56-3 (NCU) in 1959; *Peterson s.n.* (NCSC) in 1978; no recent collections.

***Lythrum lineare* L.**

Narrowleaf Loosestrife

Frequent in brackish marsh; Kitty Hawk Woods, Kill Devil Hills, Nags Head Woods, Bodie Island south of Lighthouse, Pea Island, Buxton area, South Core Banks, Shackleford Banks. *Radford et al.* 7534 (NCU) in 1953; *Carter* 7123 (GA) in 1988; *Clark* 668 (NCSC) in 2010.****Lythrum salicaria* L.**

Purple Loosestrife

Rare in freshwater tidal marsh; Duck. Sole OBX record. Stalter and Lamont (1997) report this virtually unmistakable plant. As a highly aggressive alien it should be eradicated. No recent collections.

***Rotala ramosior* (L.) Koehne**

Toothcup

Rare in shore of interdune pond; Nags Head Woods, Buxton Woods. *Fox & Godfrey* 4445 (NCSC) in 1950; *Sorrie* 13101 (CAHA, NCU) in 2012.**MALVACEAE******Abutilon theophrasti* Medik.**

Velvetleaf, Pie-marker

Rare in disturbed soil, NC Aquarium on Bogue Banks. Sole OBX record. *Stalter* 57 (USCH) in 1997; no recent collections.***Hibiscus aculeatus* Walter T**

Savanna Hibiscus

Rare in maritime forest; Roosevelt Natural Area on Bogue Banks.

This species occurs on low ridges as they end on the sound shore. Sole OBX location. Northern range limit. A specimen collected by Fussell in 1974 reportedly is at herbarium NCSC; sight records by Fussell as recently as 2019.

Hibiscus moscheutos* L. ssp. *moscheutos

Eastern Rose-mallow

Occasional in interdune marsh, tidal freshwater marsh; Duck, Kitty Hawk Woods, Nags Head Woods, Pea Island, Portsmouth Island, Shackleford Banks. See Krings (2010) for discussion on infraspecific taxonomy. *Radford et al.* 7639 (NCU) in 1953; *Clark* 647 (NCSC) in 2010.***Kosteletzkya pentacarpos* (L.) Ledeb. [*K. virginica* (L.) C. Presl]**

Saltmarsh Mallow, Seaside Mallow

Frequent in brackish marsh, tidal freshwater marsh; scattered throughout OBX. While possessing neither the largest flowers nor the most colorful, this is one of the most beautiful wildflowers on OBX. *Mathews s.n.* (NCU) in 1931; *Krings* 939 (NCSC) in 2004.****Sida rhombifolia* L.**

Arrowleaf Fanpetals

Infrequent in roadside; Nags Head Woods, Ocracoke Island, Bogue Banks. *Burk* b37-40 (NCU) in 1959; *Krings* 956 (NCSC) in 2004.****Sida spinosa* L.**

Prickly Fanpetals

Rare in roadside grass, Corolla village in Currituck County. Sole OBX record. *Holdsclaw* 885 (NCU) in 2018.**MARTYNIACEAE******Proboscidea louisianae* (Miller) Thellung**

Unicorn-plant; Devil's Horns

Rare in sandy soil, Shackleford Banks. Sole OBX record. *M. Hill* 115 (DUKE) in 1941; no recent specimens.**MELASTOMATACEAE*****Rhexia nashii* Small [*R. mariana* L. var. *purpurea* Michx.]**

Nash's Meadow-beauty

Occasional in interdune marsh, interdune swale, wet ditch, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. Reports of *Rhexia "marianna"* by Burk (1961) and Stalter and Lamont (1997, 1999) are misidentifications of *R. nashii*. Similarly, a report of *R. virginica* L. from Jockey's Ridge SP is also referred here, as is the specimen (*Radford* 7575 NCU) of *R. ventricosa* Fernald & Griscom reported by Burk (1961). So far as is currently known, only *R. nashii* occurs on OBX. *Radford et al.* 7575 (NCU) in 1953; *Faucette* 320 (NCSC) in 2013.**MELIACEAE******Melia azedarach* L.**

Chinaberry

Infrequent in roadside, disturbed soil; Avon, Buxton area, Ocracoke Island, Bogue Banks. *Radford et al.* 7732 (NCU) in 1953; *Faucette* 244 (NCSC) in 2013.**MENYANTHACEAE*****Nymphoides aquatica* (Walter) Kuntze**

Big Floating-hearts

Rare in interdune pond; Kitty Hawk Woods, Nags Head Woods. Reported from Nags Head Woods by Stalter and Lamont (1997); photo by BAS in 2013 at Covered Bridge Road, Kitty Hawk Woods.

MOLLUGINACEAE****Mollugo verticillata* L.**

Carpetweed

Occasional in roadside, powerline, disturbed soil; scattered throughout OBX. *Radford et al.* 7770 (NCU) in 1953; *Krings* 1043 (NCSC) in 2004.**MORACEAE******Ficus carica* L.**

Garden Fig

Infrequent, local escape or persistent after cultivation on Portsmouth Island, Shackleford Banks, and Bogue Banks. Also reported from Buxton (Stalter and Lamont 1997). *Burk* b24-5 (NCU) in 1959; *Wilbur* 9638 (DUKE) in 1967; no recent collections.****Maclura pomifera* (Raf.) Schneider**

Osage Orange

Rare, a single tree persistent after cultivation and fruiting; Shackleford Banks. Sole OBX record. *Wilbur* 9638 (DUKE) in 1961; no recent collections.***Morus rubra* L.**

Red Mulberry

Occasional in maritime deciduous forest, maritime evergreen forest; scattered throughout OBX. *Fox & Whitford* 394 (NCSC) in 1947; *Clark* 464 (NCSC) in 2010.**MYRICACEAE*****Morella cerifera* (L.) Small [*Myrica cerifera* L.]**

Wax Myrtle, Southern Bayberry

Abundant in stable dune barren, maritime shrub, maritime evergreen forest, maritime shrub swamp, freshwater seepage swamp, estuarine fringe pine forest; infrequent in other habitats; throughout OBX. One of the characteristic plants of OBX, this plant has given its name to the Myrtle (Yellow-rumped) Warbler (*Setophaga coronata* subspecies *coronata*), which winters on OBX in large numbers and feeds on the berries. *Mathews s.n.* (NCU) in 1931; *Faucette* 2 (NCSC) in 2013.***Morella pensylvanica* (Mirb.) Kartesz [*Myrica pensylvanica* Mirb.]**

Northern Bayberry

Frequent in stable dune barren, maritime shrub; scattered from the Virginia line south to Avon. Reported by Brown (1959)

from Ocracoke Island, but not substantiated by a specimen. Southern range limit. Often co-occurs with *M. cerifera* in dune communities. Krings (2010) treats *M. carolinensis* (Mill.) Small (=*Myrica heterophylla* Raf.) as synonymous, but it is a distinct southern species of mainland seepages, streamheads, pocosins, and swamp forests. Stalter & Lamont (1997) reported *Myrica heterophylla* from south of Jockey's Ridge SP, but the specimen (Stalter 51 CAHA) appears to me to be a hybrid between *Morella cerifera* and *M. pensylvanica*. *Downs* 299 (NCSC) in 1966; *Krings* 804 (NCSC) in 2004.

NYCTAGINACEAE

**Mirabilis jalapa* L.

Garden Four-o'clock

Rare as an escape from cultivation to disturbed soil; Duck, Nags Head Woods. *Burk* b56-4 (NCU) in 1960; no recent collections.

NYSSACEAE

Nyssa biflora Walter [*N. sylvatica* Marshall var. *b.* (Walter) Sarg.]

Swamp Black Gum

Frequent in maritime swamp forest, margin of interdune pond; Kitty Hawk Woods, Nags Head Woods, Shackleford Banks, Bogue Banks. Refer to Krings (2010) and Weakley (2018) for differing views on the taxonomy of *N. biflora* and *N. sylvatica*. *Fox & Whitford* 393 (NCSC) in 1947; *Crutchfield s.n.* (NCU) in 1959; *Clark* 694 (NCSC) in 2010.

Nyssa sylvatica Marshall

Upland Black Gum, Tupelo

Occasional in maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. In contrast to *N. biflora*, this species occurs strictly in dry or mesic upland habitats. *Petersons s.n.* (CAHA) in 1976; *Krings* 964 (NCSC) in 2004.

OLEACEAE

Cartrema americanum (L.) Nesom [*Osmanthus a.* (L.) Benth. & Hook.f.]

Wild Olive, Devilwood

Occasional or frequent in maritime evergreen forest; scattered throughout OBX. *Ashe s.n.* (NCU) in 1898; *Faucette* 86 (NCSC) in 2013.

Fraxinus pennsylvanica Marshall

Green Ash

Infrequent, but may be frequent where found, in maritime swamp forest; Kitty Hawk Woods, NC Aquarium on Bogue Banks. Reports of *F. caroliniana* Mill. by Stalter and Lamont (1997, 1999), vouchers not seen, probably belong here. Apparently there are no collections prior to 2000. *Clark* 567 (NCSC) in 2010; *Sorrie* 13635 (NCU) in 2018.

Fraxinus profunda (Bush) Bush

Pumpkin Ash

Rare in maritime swamp forest; Kitty Hawk Woods. Sole OBX record. *Fox & Whitford* 378 (NCSC) in 1947; no recent collections.

**Ligustrum lucidum* W.T. Aiton

Glossy Privet

Occasional in roadside shrub thicket; Bogue Banks. At least eight small populations were found on 21 May 2018 in flower, scattered along route 58 from near Fort Macon SP west to Salter Path. Sole location for OBX. *Sorrie* 13629 (NCU) in 2018.

**Ligustrum sinense* Loureiro

Chinese Privet

Rare in maritime swamp forest; Nags Head Woods. Sole OBX record. Two plants were found by Krings, both destroyed, as should be done with this highly invasive alien. *Krings* 866 (NCSC) in 2004.

ONAGRACEAE

Ludwigia alata Elliott

Winged Seedbox

Occasional in interdune marsh, maritime wet grassland; Pea Island, Buxton area, Ocracoke Island, Shackleford Banks. A misidentified specimen at NCSC, originally determined as *L. lanceolata* Elliott, is referred here. *Fosberg* 17964 (NCSC) in 1940; *Sorrie* 13120 (CAHA, NCSC, NCU) in 2012.

Ludwigia alternifolia L.

Alternate-leaved Seedbox

Infrequent in interdune marsh, drawdown zone of interdune pond, roadside ditch; Nags Head Woods, Buxton Woods, Bogue Banks. *Burk* b17-22 (NCU) in 1959; *Faucette* 299 (NCSC) in 2013.

Ludwigia brevipes (B. Long) Eames SR

Long Beach Seedbox

Infrequent in margin of interdune pond, tidal freshwater marsh; Duck, Kitty Hawk Woods, Nags Head Woods. *Oosting* 365 (DUKE) in 1936; *Godfrey & Fox* 49280 (DUKE, NCSC) in 1949; *Radford* 6615 (NCU) in 1952; *Duke* 54-240 (NCU) in 1954; no recent collections.

Ludwigia decurrens Walter

Wingstem Water-primrose

Rare in interdune marsh, wet powerline; Nags Head Woods. Sole OBX location. Reported by Stalter and Lamont in 1997; *Krings* 1325 (NCSC) in 2005.

Ludwigia maritima R.M. Harper

Harper's Seedbox

Occasional in interdune marsh; Nags Head Woods, Buxton Woods, Shackleford Banks. *Fox* 4142 (NCSC) in 1950; *Faucette* 481 (NCSC) in 2014.

Ludwigia microcarpa Michx.

Smallfruit Seedbox

Occasional in interdune marsh; Buxton-Cape Hatteras-Frisco area, South Core Banks, Shackleford Banks. Northern range limit. *Fosberg* 17993 (NCSC) in 1940; *Krakow* 822 (DUKE) in 1990; no recent collections.

Ludwigia octovalvis (Jacq.) Raven

Pond Water-purslane

Rare in interdune marsh, interdune pond, Buxton Woods. Sole OBX record. *Faucette* 357 (NCSC) in 2013.

Ludwigia palustris (L.) Elliott

Common Water-purslane

Occasional to frequent in interdune marsh, interdune pond, maritime swamp forest, wet roadside ditch; Duck, Nags Head Woods, Oregon Inlet, Buxton area, Shackleford Banks, NC Aquarium on Bogue Banks. *Radford* 7801 (NCU) in 1953; *Duncan & Duncan* 30258 (NCU) in 1976; *Krings* 1189 (NCSC) in 2005.

Ludwigia repens J.R. Forster

Creeping Seedbox

Occasional in interdune pond, Kitty Hawk Woods, Buxton Woods, Shackleford Banks. Hybrids between this and *L. palustris* were collected near Cape Hatteras Lighthouse by J.A. Duke in 1954 and annotated by C.-I. Peng (Duke 54-1 NCU). *Ashe s.n.* (NCU) in 1898; *Clark* 650 (NCSC) in 2010.

Oenothera biennis L.

Common Evening-primrose

Infrequent in roadside, powerline, disturbed soil; north of Duck, Nags Head Woods, Buxton Woods and vicinity. *Usher & Tyndall s.n.* (ODU) in 1974; *Stalter* 7 (CAHA); *Clark* 392 (NCSC) in 2009.

Oenothera humifusa Nutt.

Seabeach Evening-primrose

Frequent in stable dune, maritime dry grassland, maritime shrub; scattered throughout OBX. Ashe s.n. (NCU) in 1898; Fauchette 451 (NCSC) in 2014.

Oenothera laciniata Hill

Cutleaf Evening-primrose

Occasional in roadside, powerline, disturbed soil; Kitty Hawk Woods, Nags Head Woods, Buxton area, Portsmouth Island, Bogue Banks. Downs 13573 (NCU) in 1973; Krings 1025 (NCSC) in 2004.

Oenothera simulans (Small) W.L. Wagner & Hoch [*Gaura angustifolia* Michx.]

Southeastern Bee-blossom

Occasional in upper margin of brackish marsh, roadside, disturbed soil; Buxton Woods, South Core Banks, Shackleford Banks, Fort Macon SP and Emerald Isle on Bogue Banks. Northern range limit. Specimens of *Gaura parviflora* Douglas ex Lehmann and *G. biennis* L. are misidentified and are referred here. Rogers 3191 (DUKE) in 1946; Radford et al. 7588 (NCU) in 1953; Stalter 22 (USCH) in 1995; Fauchette 456 (NCSC) in 2014.***Oenothera speciosa** Nutt.

Showy Evening-primrose

Rare in roadside; "one population south of Buxton." Sole OBX record. Stalter 523 (CAHA) 1989; no recent specimens.

Oenothera unguiculata (Fernald) Sorrie, Weakley, & LeBlond[*O. fruticosa* L. var. *unguiculata* Fernald]

Southern Sundrops

Occasional in maritime wet grassland, upper margin of brackish marsh; Nags Head Woods, Pea Island, northern portion of Hatteras Island, South Core Banks. Sorrie, LeBlond, and Weakley (2018) assessed the status of this taxon and concluded that it is distinct from *O. fruticosa* L. by its larger corolla, longer fruit body, longer sepal tips, and maritime/near maritime habitats. Fox 4136 (NCSC) in 1950; Sorrie 12961 (NCU) in 2012.**OROBANCHACEAE** [SCROPHULARIACEAE, IN PART]**Agalinis fasciculata** (Elliott) Raf.

Fascicled Gerardia

Rare in open woodland, disturbed soil; Jockey's Ridge SP (plant list), Kill Devil Hills. Bradley & Radford 2026 (NCU) in 1963; JRSP list in 2013.

Agalinis maritima (Raf.) Raf. var. **grandiflora** (Benth.) Shinners

Saltmarsh Gerardia

Occasional in brackish marsh, roadside ditch; southern portion of Bodie Island, Pea Island, Ocracoke Island, Portsmouth Island, North and South Core Banks, Shackleford Banks, Bogue Banks. All specimens examined prove to be var. *grandiflora*, here at its northern range limit. Burk b24-20 (NCU) in 1959; Pippen 89-13 (DUKE) in 1989; BAS sight records 2012-13.**Agalinis purpurea** (L.) Pennell sensu stricto

Purple Gerardia

Frequent in maritime wet grassland, roadside ditch, disturbed soil, shore of island in Sound; Kitty Hawk Bay Islands, Pea Island, Cape Hatteras area, Shackleford Banks. Fosberg 17845 (NCU) in 1940; Clark 274 (NCSC) in 2009.

Aureolaria flava (L.) Pennell

Smooth Oakleech

Infrequent in maritime deciduous forest, powerline; Kitty Hawk Woods, Nags Head Woods. Musselman & Harris 4965 (NCSC, NCU) in 1976; Krings 1247 (NCSC) in 2005.

Aureolaria levigata (Raf.) Raf.

Appalachian Oakleech

Rare in maritime evergreen forest, Shackleford Banks. Sole OBX record. A rare plant in NC away from the mountains and upper piedmont. Au s.n. (DUKE) in 1968; no recent collections.

Buchnera floridana Gand.

Florida Bluehearts

Rare in maritime wet grassland; South Core Banks, Shackleford Banks. Specimens identified as *B. americana* by Krakow (1991) are referred here. Merlino s.n. (CAHA) in 1981; Krakow s.n. (DUKE) in 1991; no recent collections.**Conopholis americana** (L.) Wallr.

Squawroot

Occasional in mesic soil of maritime evergreen forest, maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. Reported from Buxton Woods by Stalter and Lamont (1997). As many as 40 plants have been seen in a morning in the northeastern portion of Kitty Hawk Woods (pers. obs.). Radford 8095 (NCU) in 1954; Clark 451 (NCSC) in 2010.

Epifagus virginiana (L.) W.P.C. Barton

Beechdrops

Occasional in maritime deciduous forest; Kitty Hawk Woods, Nags Head Woods. Clark (2017) reports it as "more prevalent in the western portion of [Kitty Hawk] woods." Stalter 36 (CAHA); Clark 333 (NCSC) in 2009.

OXALIDACEAE***Oxalis articulata** Savigny ssp. **rubra** (St. Hilaire) Lourteig [*O. rubra* St. Hilaire]

Garden Wood-sorrel

Infrequent in roadside, lawn; Kitty Hawk Woods, Buxton village, Ocracoke Island, Pine Knolls village on Bogue Banks. Planted as an ornamental and escaped locally. Burk b1-1 (NCU) in 1959; Clark 598 (NCSC) in 2010.

Oxalis dillenii Jacq.

Southern Wood-sorrel

Occasional in roadside, lawn, disturbed soil; scattered throughout OBX. To date, specimens examined of *O. stricta* L. are misidentified and are referred here; it is not known whether *O. stricta* occurs on OBX. Burk 45-14 (NCU) in 1960; Holdstock 859 (NCU) in 2018.**Oxalis florida** Salisbury [*O. filipes* Small]

Showy Wood-sorrel

Rare in opening in maritime evergreen forest; Shackleford Banks, Trinity Center on Bogue Banks. Specimens originally determined as *O. europaea* Jordan are misidentified and are referred here. Au s.n. (DUKE) in 1968; Stalter 49 (USCH) in 1992; no recent collections.**PAPAVERACEAE*****Eschscholtzia californica** Cham.

California Poppy

Rare; "escaped from cultivation at Buxton" (Burk 1961). Sole OBX record of this unmistakable plant. No specimens have been found, however.

***Papaver somniferum** L.

Opium Poppy

Rare, escaped from cultivation; reported from Jockey's Ridge SP (plant list) and from Buxton (Burk 1961). No specimens of this unmistakable plant have been seen.

PASSIFLORACEAE

Passiflora incarnata L.

Common Passion-flower

Occasional in maritime evergreen forest, roadside, disturbed soil; Duck, Cape Hatteras area, Frisco, Emerald Isle on Bogue Banks. *Fosberg* 17950 (NCSC) in 1940; *Stalter* 58 (USCH) in 1997; no recent collections.**Passiflora lutea** L.

Yellow Passion-flower

Frequent in maritime evergreen forest, maritime shrub swamp, roadside; scattered throughout OBX. *Blomquist & Jones* 15303 (DUKE) in 1938; *Dorr* 2468 (MO) in 1982; *Faucette* 258 (NCSC) in 2013.

PHYTOLACCACEAE

Phytolacca rigida Small [*P.americana* L. var. *rigida* (Small) Caulkins & Wyatt]

Dune Pokeweed

Frequent in opening in maritime evergreen forest, roadside thicket; scattered throughout OBX. To date, the common mainland species, *P.americana* L. sensu stricto, has not been verified for OBX; see Clark et al. (2016) for identification criteria. *Radford* et al. 7565 (NCU) in 1953; *Holdsclaw* 533 (NCU) in 2011.

PLANTAGINACEAE [SCROPHULARIACEAE, in part]

Bacopa monnieri (L.) Pennell

Monnier's Water-hyssop

Frequent in edge of interdune pond, interdune marsh; throughout OBX. *Fosberg* 17884 (NCSC) in 1940; *Krings* 528 (NCSC) in 2004; *Holdsclaw* 891 (NCU) in 2018.**Callitricha heterophylla** Pursh [formerly in CALLITRICHACEAE]

Common Water-starwort

Rare in "shaded pool near Virginia line" and "small freshwater ponds on old live oak dune ridge, Currituck Beach, 6 miles north of Corolla." *Radford* 8077 (NCU) in 1954; *Leonard* 6049 (NCU) in 1974; no recent collections.**Gratiola virginiana** L.

Virginia Hedge-hyssop

Rare in pool in maritime forest; Shackleford Banks, Roosevelt Natural Area on Bogue Banks. Reported by Krakow (1991, specimen at Duke Marine Laboratory); reported (in litt.) by J. Fussell at Roosevelt NA in 1974 and again in 2020.

Linaria canadensis (L.) Dum.Cours. [*Nuttallanthus canadensis* (L.) D.A. Sutton]

Blue Toadflax

Occasional in stable dune barren, roadside, powerline, disturbed soil; scattered throughout OBX. *Crutchfield* b40-8 (NCU) in 1958; *Faucette* 97 (NCSC) in 2013.**Plantago aristata** Michx.

Buckhorn Plantain

Infrequent, but may be locally numerous, in roadside, disturbed soil; Hatteras village, Bogue Banks. *Burk & Tate* b14-7 (NCU) in 1959; reported by Stalter & Lamont (1999); BAS sight record in 2013 at Hatteras village.***Plantago indica** L. [*P.psylgium* L.]

Indian Plantain

Occasional in roadside, disturbed soil; Corolla, Corps of Engineers Research Facility in Duck, Kill Devil Hills, Nags Head Woods, Oregon Inlet campground, Buxton Woods. *Hayden* 612 (URV) in 1982; *Radford* s.n. (NCU) in 1985; *Pickrel & Pickrel* s.n. (NCSC) in 2000; *Sorrie* 13221 (CAHA, NCU) in 2013.***Plantago lanceolata** L.

English Plantain

Occasional in roadside, disturbed soil; Buxton Woods, South Core Banks, Bogue Banks. *Burk & Tate* b14-14 (NCU) in 1959; *Faucette* 246 (NCSC) in 2013.***Plantago major** L.

White Man's Foot

Infrequent in roadside, lawn weed; Nags Head Woods, Buxton. *Ahles & Tate* 53878 (NCU) undated but probably 1958; *Clark* 684 (NCSC) in 2010.**Plantago virginica** L.

Virginia Plantain

Occasional in roadside, lawn, disturbed soil, depression in dune; Kitty Hawk Woods, Avon, Buxton Woods, Frisco, Ocracoke Island, Portsmouth Island, Shackleford Banks. *Radford* 8178 (NCU) in 1954; *Furbish* s.n. (UNCC) in 1987; *Faucette* 128 (NCSC) in 2013.***Plantago wrightiana** Decaisne [*P.hookeriana* Fischer & C.A. Meyer var. *nuda* (A. Gray) Poe]

Wright's Plantain

Infrequent in roadside, powerline, disturbed soil; Corolla, Kitty Hawk Woods, Nags Head Woods. There are no records prior to 2000. *Krings* 454 (NCSC) in 2004; *Clark* 551 (NCSC) in 2010; *Holdsclaw* 743 in 2015.**Sophronanthe pilosa** Small [*Gratiola pilosa* Michx.]

Hairy Hedge-hyssop

Rare in moist interdune swale; Nags Head Woods. Sole OBX record. *Krings* 1160 (NCSC) in 2005.***Veronica arvensis** L.

Corn Speedwell

Occasional in roadside, lawn, disturbed soil; Buxton Woods, Ocracoke Island, Core Banks, Shackleford Banks, Fort Macon SP on Bogue Banks. Reported from Jockey's Ridge SP (plant list). *Au s.n.* (DUKE) in 1968; *Faucette* 418 (NCSC) in 2014.**Veronica peregrina** L.

Purslane Speedwell

Infrequent in maritime wet grassland, edge of sidewalk, roadside; Corolla, Buxton-Cape Hatteras area, Core Banks, Salter Path on Bogue Banks. *Stalter* s.n. (CAHA) in 1990; *Holdsclaw* 845 (NCU) in 2017.***Veronica persica** Poir.

Bird's-eye Speedwell

Rare in roadside, lawn; Corolla, Jockey's Ridge SP. On the JRSP plant list (2013); *Holdsclaw* 850 (NCU) in 2015.***Veronica serpyllifolia** L.

Thymeleaf Speedwell

Rare in roadside, Corolla. Sole OBX record. *Holdsclaw* 803 (NCU) in 2016.

PLUMBAGINACEAE

Limonium carolinianum (Walter) Britton var. **carolinianum**

Sea Lavender

Occasional in brackish marsh, salt flat; North Lake on Pea Island, near Salvo on Hatteras Island, Ocracoke Island, South Core Banks, Shackleford Banks. This northern taxon is expected to occur elsewhere on Bodie Island and in Currituck County, but more field work is needed to document it. *Radford* et al. 7503 (NCU) in 1953; *Bradley* 2028B (NCU) in 1963; no recent collections.

Limonium carolinianum (Walter) Britton var. **angustum** (A. Gray)
Blake [*L. nashii* Small]

Sea Lavender

Occasional in brackish marsh, salt flat; south of Oregon Inlet, South Lake on Pea Island, South Core Banks, Fort Macon SP on Bogue Banks. Northern range limit. Lutelyn (1976), while synonymizing the two taxa, provided several characters by which to separate them; varietal level is appropriate. Radford et al. 7784 (NCU) in 1953; Bradley 2000 (NCU) in 1963; Bradley et al. 3478 (NCU) in 1966; Leonard & Radford 2091 (NCU) in 1968; no recent collections.

POLEMONIACEAE

***Phlox drummondii** Hook.

Annual Phlox, Drummond's Phlox

Infrequent in roadside, disturbed soil, cemetery; Duck, Buxton, Frisco, Ocracoke Island. Also reported from the Nags Head area (see Krings 2010). Radford 8160 (NCU) in 1954; Rippy 13 (ECUH) in 1972; McCoy & McCoy 124 (ILLS) in 1996; no recent collections.

POLYGALACEAE

Polygala lutea L.

Orange Milkwort, Candyroot

Rare in interdune swale; Nags Head Woods, South Core Banks.

Reported from South Core Banks by Krakow (1991, specimen reportedly at CAHA); Krings 1163 (NCSC) in 2005.

Polygonaceae

Fallopia scandens (L.) Holub [*Polygonum scandens* L.]

Climbing Buckwheat

Infrequent in roadside, forest clearing; Nags Head Woods, Buxton-Cape Hatteras area. Apparently all OBX plants are *F. scandens* sensu stricto. Fosberg 17953 (NCU) in 1940; Krings 947 (NCSC) in 2004.

Persicaria arifolia (L.) Haraldson

Halberd-leaved Tearthumb

Rare in "sand roadside ditch" in Corolla, Currituck County. Sole OBX record. Holdstock 532 (NCU) in 2015.

Persicaria glabra (Willd.) M. Gomez [*Polygonum densiflorum* Meissner]

Dense-flowered Smartweed

Infrequent in interdune marsh; near Cape Hatteras lighthouse, Hoop Pole Woods on Bogue Banks. Fosberg 17893 (NCSC, NCU) in 1940; Burk b59-4 (NCU) in 1960; no recent collections.

***Persicaria hydropiper** (L.) Spach [*Polygonum hydropiper* L.]

Waterpepper, Eurasian Smartweed

Infrequent in interdune marsh, margin of maritime swamp forest; Kitty Hawk Woods, Nags Head Woods. There are no records on OBX prior to 2000. Krings 1030 (NCSC) in 2004; Clark 613 (NCSC) in 2010.

Persicaria hydropiperoides (Michx.) Small [*Polygonum hydropiperoides* Michx.]

American Waterpepper

Occasional in interdune pond, interdune swale; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. All OBX plants appear to be the narrow-leaved variety *opelousanum* (Riddell ex Small) J.S. Wilson. Burk b23-2 (NCU) in 1959; Faucette 358 (NCSC) in 2013.

Persicaria lapathifolia (L.) S.F. Gray [*Polygonum lapathifolia* L.]

Willow-leaved Smartweed

Rare in edge of brackish marsh; Avon on Hatteras Island, Shackleford Banks. Radford et al. 7743 (NCU) in 1953; Au s.n. (reportedly DUKE, but no specimen found in 2018); no recent collections.

***Persicaria longiseta** (Bruijn) Kitag. [*Polygonum caespitosum* var. *longisetum*]

Oriental Lady's Thumb

Rare at roadside edge of swampy woods, Corolla (Currituck County); also edge of maritime swamp forest in Kitty Hawk Woods (Dare County). Sight record by Sorrie in 2013; Holdstock 884 (NCU) in 2018.

***Persicaria maculosa** S.F. Gray [*Polygonum persicaria* L.]

Lady's Thumb

Rare in roadside; Duck, Nags Head Woods. Reported from Duck by Stalter and Lamont (1997); Krings 1034 (NCSC) in 2004.

Persicaria pensylvanica (L.) M. Gomez [*Polygonum pensylvanica* L.]

Pinkweed, Pennsylvania Smartweed

Infrequent in moist roadside, disturbed ground; Currituck Sound, north of Kitty Hawk, Nags Head Woods, Frisco. Radford et al. 7769 (NCU) in 1953; Krings 1035 (NCSC) in 2004.

Persicaria punctata (Elliott) Small [*Polygonum punctata* Elliott]

Dotted Smartweed

Frequent in interdune marsh, interdune pond, freshwater tidal marsh; scattered throughout OBX. Fosberg 17796 (NCU) in 1940; Faucette 358 (NCSC) in 2013.

Persicaria sagittata (L.) H. Gross [*Polygonum sagittata* L.]

Arrowleaf Tearthumb

Rare in freshwater tidal marsh; Corps of Engineers facility north of Duck, Nags Head Woods. Usher & Tyndall s.n. (ODU) in 1974; Krings 853 (NCSC) in 2004.

Persicaria setacea (Baldw.) Small [*Polygonum setacea* Baldw.]

Swamp Smartweed

Rare in interdune marsh, maritime swamp forest; Kitty Hawk Woods, Buxton Woods, Shackleford Banks. Reported from Shackleford by Lewis (1917); Clark 362 (NCSC) in 2009.

***Polygonum argyrocoleon** Steud. ex Kunze [*P. sawatchense* Small]

Silver-sheath Knotweed

Rare in roadside at brackish marsh south of Whalebone Junction on Bodie Island. Sole OBX and NC record. Burk b49-10 (NCU) in 1960; no recent collections.

Polygonum glaucum Nutt. E

Seabeach Knotweed

Occasional in upper beach, sand flat; Chicamacomico (near Rodanthe), Buxton-Cape Hatteras area, south of Hatteras village, Ocracoke Island, Shackleford Banks, Fort Macon SP and Emerald Isle on Bogue Banks. Under threat from excessive vehicles on beaches, populations are now hard to find. Ashe s.n. (NCU) in 1898; Radford 44874a (NCU) in 1966; Krakow 723 (DUKE) in 1990; no recent collections.

Polygonum prolificum (Small) B.L. Rob. [*P. ramosissimum* Michx. var. *prolificum* Small]

Longfruit Knotweed

Rare in brackish marsh; north of Duck. Sole OBX record. The specimen was determined by R.S. Mitchell. Stalter s.n. (NYS) in 1990s; no recent collections.

***Rumex acetosella** L.

Sheep Sorrel

Occasional in roadside, powerline, disturbed soil; scattered throughout OBX. Burk b16-13 (NCU) in 1959; Clark 543 (NCSC) in 2010.

***Rumex conglomeratus** Murray

Clustered Green Dock

Infrequent in roadside, disturbed soil; Kitty Hawk Woods, Buxton

Woods, Ocracoke Island, Shackleford Banks. *Burk* b2-2 (NCU) in 1959; *Wilbur* 12682 (DUKE) in 1970; *Faucette* 453 (NCSC) in 2014.

***Rumex crispus** L.

Curly Dock

Occasional in roadside, disturbed soil, margin of brackish marsh; scattered throughout OBX. *Burk* b24-13 (NCU) in 1959; *Clark* 558 (NCSC) in 2010.

Rumex hastatalus Baldw.

Wild Dock, Heartwing Dock

Frequent in roadside, powerline, disturbed soil; Duck, Kitty Hawk Woods, near Rodanthe, Buxton Woods, Ocracoke Island, Portsmouth Island. *Radford* 8153 (NCU) in 1954; *Faucette* 123 (NCSC) in 2013.

Rumex verticillatus L.

Swamp Dock

Occasional in interdune marsh, interdune pond edge; Duck, Nags Head Woods, Buxton area, Bogue Banks. OBX plants show both narrow-winged and broad-winged fruits on the same individual; therefore I do not recognize *R. floridanus* Meisner. *Burk* b10-6 (NCU) in 1959; *Krings* 1075 (NCSC) in 2005.

PORTRULACACEAE

***Portulaca amilis** Speg.

Broadleaf Pink Purslane

Infrequent in roadside, yard, lawn; Wright Brothers Monument, south of Whalebone Junction on Bodie Island, "Barbara Midgette's yard" (no other location data given), Fort Macon SP on Bogue Banks. Three of the four specimens were originally determined as *P. pilosa* L., a native species, but in North Carolina the alien *P. amilis* has been collected far more often (M. Whitson in litt.), *Boufford* 15783 (GH) in 1974; *Davison* s.n. (CAHA) in 1985; *Peifer & McCormick* s.n. (NCU) in 2006.

Portulaca oleracea L.

Common Purslane, Garden Purslane

Infrequent in salt flat, soundside beach, disturbed ground; Nags Head Woods, Cape Hatteras Point, Ocracoke Island, Shackleford Banks and nearby islet. The collections from Cape Hatteras, Ocracoke, and Shackleford, all from natural primary habitats, argue for native status and may possibly represent the subspecies *nicaraguensis* Danin & Baker, which in Florida occurs mostly in maritime environments (Danin and Anderson 1986). Matthews et al. (1993) chose not to recognize infraspecific taxa; Weakley (2018) recognizes *nicaraguensis* at species level. Collected from Ocracoke by *Burk* (1961) but no specimen found; *Wilbur* 9567 (DUKE) in 1967; *Sorrie* 13255 (CAHA, NCU) in 2013.

PRIMULACEAE

Hottonia inflata Elliott SR

Featherfoil

Infrequent, but may be abundant where found, in interdune pond; Kitty Hawk Woods, Nags Head Woods. *Ashe* s.n. (NCU) in 1898; *Krings* 1258 (NCSC) in 2005.

***Lysimachia arvensis** (L.) U. Manns & A. Anderb. [*Anagallis* a. L.]

Scarlet Pimpernel

Rare in interdune marsh, lawn, roadside; Buxton, Cape Hatteras. *Radford* 8191 (NCU) in 1954; *Faucette* 107 (NCSC) in 2013.

Lysimachia radicans Hook.

Trailing Loosestrife

A single specimen from "moist depression in Nags Head Woods." Sole record for OBX and NC. The native status is uncertain. *Stalter* and *Lamont* (1997) report it from Buxton Woods,

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perhaps in error; there is no documentation that I can find. *C.A. Brown* s.n. (LSU) in 1955; no recent collections.

Samolus parviflorus Raf. [*S. floribundus* Kunth]

Water Pimpernel

Infrequent in interdune marsh, tidal creek margin; Kitty Hawk

Woods, Nags Head Woods, Bodie Island, Ocracoke Island, Buxton Woods, Shackleford Banks, Fort Macon SP and Trinity Center on Bogue Banks. *Mathews* s.n. (NCU) in 1931; *Stalter* 70 (USCH) in 1995; *Clark* 527 (NCSC) in 2010.

RANUNCULACEAE

Clematis catesbyana Pursh [*C. ligusticifolia* Nutt. ex Torr. & A Gray] SR

Coastal Virgin's-bower

Occasional in interdune marsh, roadside thicket; Corolla, Duck, Buxton area, Shackleford Banks, Emerald Isle on Bogue Banks. *Au* s.n. (DUKE) in 1968; *Sorrie* 13091 (NCSC, NCU) in 2012.

***Clematis terniflora** DC. [*C. dioscoreifolia* H. Lév. & Vaniot]

Sweet Autumn Clematis

Rare in edge of freshwater tidal marsh; Nags Head Woods. Sole OBX record for this invasive, but sweet-smelling, alien. *Krings* 691 (NCSC) in 2004.

***Ranunculus sardous** Crantz

Sardinian Buttercup

Infrequent in disturbed edge of forest, roadside; Corolla, north of Duck, Kitty Hawk Woods. Anomalous plants are discussed by *Clark* et al. (2016); her specimen needs additional study. BAS sight records of *R. bulbosus* L. in 2012 from Jockey's Ridge SP and Buxton area may possibly belong here. *Usher* & *Tyndall* s.n. (ODU) in 1974; *Clark* 520 (NCSC) in 2010; *Holdsclaw* 800 (NCU) in 2016.

Ranunculus sceleratus L.

Cursed Buttercup

Occasional in interdune marsh, interdune pond; Kitty Hawk Woods, Nags Head Woods, Shackleford Banks, NC Aquarium on Bogue Banks. *Wilbur* 9126 (DUKE) in 1967; *Paris* s.n. (NCSC) in 2001; *Sorrie* 13636 (NCU) in 2018.

RHAMNACEAE

Berchemia scandens (Hill) K. Koch

Supplejack

Occasional in maritime shrub swamp, maritime swamp forest, freshwater seepage swamp; scattered throughout OBX. This vine climbs up through supporting shrubs and small trees. *Mathews* s.n. (NCU) in 1931; *Clark* 652 (NCSC) in 2010.

Sageretia minutiflora (Michx.) Trelease T

Small-flowered Buckthorn

Rare in maritime evergreen forest; Roosevelt Natural Area on Bogue Banks. Sole OBX record. Northern range limit. A small population of this highly distinctive plant occurs on a slope full of oyster shells, with *Sideroxylon lycioides* and *Yucca gloriosa*. Reported by J. Fussell in August of 2018 (in litt.).

RHIZOPHORACEAE

Rhizophora mangle L.

Red Mangrove

Rare in maritime beach, where fruits wash ashore and take root; Cape Hatteras. Sole OBX location. Reproducing populations are found in Florida and southward. *Dennis* s.n. (NY) in 1966; *Pippen* s.n. (NCU) in 2009.

ROSACEAE

Amelanchier canadensis (L.) Medik.

Canada Serviceberry, Thicket Serviceberry

Occasional in maritime evergreen forest, maritime deciduous forest, maritime shrub swamp; Kitty Hawk Woods, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. Specimens originally determined as *A. arborea* (Michx.f.) Fernald and *A. obovalis* (Michx.) Ashe are misidentified and are referred here. *Totten s.n.* (NCU) in 1938; *Faucette 411* (NCSC) in 2014.

****Aphanes australis* Rydb.**

Slender Parsley-piert

Rare in suburban roadside; Corolla in Currituck County. Sole OBX record. *Holdsclaw 783* (NCU) in 2016.

***Aronia arbutifolia* (L.) Pers.**

Red Chokeberry

Occasional in maritime shrub swamp; edge of maritime swamp forest; Kitty Hawk Woods, Colington, Nags Head Woods, Buxton Woods, Shackleford Banks, Bogue Banks. *Fox & Whitford 1103* (NCSC) in 1947; *Krings 649* (NCSC) in 2004; sight record at Roosevelt NA by J. Fussell in 2019.

***Geum canadense* Jacq.**

White Avens

Infrequent in moist maritime evergreen forest, maritime swamp forest; Pine Island Audubon Sanctuary in Currituck County, Kitty Hawk Woods, Nags Head Woods. *Stalter 14* (CAHA) in 1990; *Clark 165* (NCSC) in 2009.

****Malus pumila* Mill.**

Common Apple

Rare in disturbed maritime forest; Salter Path on Bogue Banks. Sole OBX record. *Ford 248* (USF) in 1965. No recent collections.

****Potentilla indica* (Andrews) T. Wolf [*Duchesnia indica* (Andrews) Focke]**

Indian Strawberry

Rare in roadside, disturbed edge of forest; Corolla village, Kitty Hawk Woods. *Clark 474* (NCSC) in 2010; *Holdsclaw 849* (NCU) in 2017.

****Potentilla recta* L.**

Sulphur Cinquefoil

Rare in roadside, Kitty Hawk. Sole OBX record. This unmistakable plant was reported by Stalter and Lamont (1997); no recent collections.

***Prunus angustifolia* Marshall**

Chickasaw Plum

Infrequent in edge of maritime evergreen forest, roadside, powerline; Kitty Hawk Woods, Nags Head Woods, Buxton area, Portsmouth Island. *Crutchfield s.n.* (NCU) in 1959; *Peterson s.n.* (NCSC) in 1977; *Bauers 564* (NCSC) in 1995; no recent collections.

***Prunus caroliniana* (Mill.) Aiton**

Carolina Laurel Cherry

Frequent in maritime evergreen forest; Buxton Woods, Shackleford Banks, Bogue Banks. Northern range limit. *Fox, Godfrey, & Blomquist 2692* (NCU) in 1949; BAS sight records at NC Aquarium and Fort Macon SP on Bogue Banks in 2018.

Prunus serotina* Ehrh. var. *serotina

Black Cherry

Frequent in maritime evergreen forest, maritime deciduous forest, maritime shrub, regenerating woodland, roadside, even on live dune at Jockey's Ridge SP (BAS photo). Throughout OBX. *Radford 6633* (NCU) in 1952; *Heraty 2* (NCU) in 2015.

****Rosa bracteata* J.C. Wendl.**

McCartney Rose

Rare, persistent following cultivation and rarely escaping; Nags Head Woods. Sole OBX record. *Stalter 23* (CAHA) in 1990; no recent collections.

****Rosa multiflora* Thunb. ex Murray**

Multiflora Rose

Rare in a thicket at Corolla, and near the Park Service dock on Shackleford Banks, the latter apparently persistent following cultivation. This aggressive alien should be eradicated. Stalter and Lamont (1999) reported it from Shackleford; *Holdsclaw 862* (NCU) in 2018.

***Rosa palustris* Marshall**

Swamp Rose

Frequent in maritime swamp forest, margin of interdune pond, tidal creek margin, interdune marsh; Kitty Hawk Woods, Nags Head Woods, south of Rodanthe, Buxton Woods, South Core Banks. The report of *Rosa carolina* L. (Lewis 1917) belongs here. *Fosberg 17809* (NCSC, NCU) in 1940; *Faucette 164* (NCSC) in 2013.

***Rubus argutus* Link [*R. pensylvanicus*, in part, in Weakley 2018]**

Swamp Blackberry

Infrequent in moist maritime evergreen forest, moist roadside; north of Duck, Nags Head area, Buxton area, Shackleford Banks. *Ashe s.n.* (NCU) in 1898; *Faucette 427* (NCSC) in 2014.

****Rubus discolor* Weihe & Nees**

Topsy Blackberry

Rare in powerline; Kitty Hawk Woods. Sole OBX record. Flora of North America (2014) suggests that this name has been misapplied and that our plants actually are *R. bifrons* Vest. *Clark 54* (NCSC) in 2009.

***Rubus trivialis* Michx.**

Southern Dewberry

Frequent in opening in maritime evergreen forest, roadside, powerline, disturbed soil; Duck, Kitty Hawk Woods, Nags Head Woods, Buxton Woods, North Core Banks, Shackleford Banks, Bogue Banks. *Crutchfield b40-10* (NCU) in 1958; *Krings 542* (NCSC) in 2004.

RUBIACEAE

***Cephalanthus occidentalis* L.**

Buttonbush

Occasional in interdune marsh, interdune pond, maritime swamp forest; Kitty Hawk Woods, Nags Head Woods, Bogue Banks. *Burk b17-1* (NCU) in 1959; *Clark 566* (NCSC) in 2010.

***Diodia harperi* Small [*D. virginiana*, in part]**

Harper's Buttonweed

Rare, "coastline sand near Salvo" on Hatteras Island. Sole OBX record and northern range limit. See Sorrie (2016) for recognition and identification of this long-synonymized taxon. *Schallert 4007* (BRIT) in 1955; no recent collections.

***Diodia virginiana* L. sensu stricto**

Virginia Buttonweed

Frequent in interdune marsh, maritime wet grassland, moist roadside, roadside ditch; throughout OBX. *Edwards s.n.* (NCU) in 1940; *Clark 702* (NCSC) in 2010.

***Edrastima uniflora* (L.) [*Oldenlandia* u. L.; *Hedyotis* u. (L.) Lam.]**

One-flowered Oldenlandia

Occasional in opening in maritime evergreen forest, margin of interdune pond; Duck, Nags Head Woods, Buxton Woods, Portsmouth Island. *Logue 483* (USCH) in 1966; *Krakow & Govus 897* (GA) in 1990; *Sorrie 13079* (NCU) in 2012.

Galium aparine L.

Cleavers, Sticky-willy

In frequent in roadside, edge of woods; "large population in Duck, just south of the town offices," as reported by Krings (2010); BAS sight record at roadside at Fort Macon SP on Bogue Banks in 2018.

Galium circaeans Michx.

Licorice Bedstraw, Forest Bedstraw

Occasional in maritime deciduous forest, maritime evergreen forest; Kitty Hawk Woods, Nags Head Woods, Buxton Woods. Ashe s.n. (NCU) in 1898; Godfrey & Fox 49285 (DUKE) in 1949; Krings 1339 (NCSC) in 2005.

Galium hispidulum Michx. [G. bermudense in Weakley 2018]

Coastal Bedstraw

Frequent in maritime evergreen forest, forest edge; scattered throughout OBX. Mathews s.n. (NCU) in 1931; Faucette 255 (NCSC) in 2013.

Galium obtusum Bigelow var. **filifolium** (Wiegand) Fernald

Carolina Bedstraw

Rare in interdune marsh, moist maritime evergreen forest; Buxton Woods. Sole OBX location. This variety has very slender, almost filiform, leaves. Faucette 204 (NCSC) in 2013.

Galium obtusum Bigelow var. **obtusum**

Bluntleaf Bedstraw

Rare or infrequent in maritime swamp forest; scattered throughout OBX. Specimens need identification check, as several have been annotated to G. tincturium. Krakow & Govus 878 (GA) in 1990; Krings 519 (NCSC) in 2004.

Galium orizabense Hemsl. ssp. **laevicaule** (Weatherby & S.F. Blake) Dempster[G. pilosum Aiton var. *laevicaule* Weatherby & S.F. Blake]

Bald Bedstraw

In frequent in maritime evergreen forest; Buxton Woods, Shackleford Banks, Emerald Isle on Bogue Banks. This glabrous-stemmed taxon is closely related to G. pilosum but intermediates have not been detected on OBX. In North Carolina it occurs most often in maritime habitats. Ashe s.n. (DUKE) in 1966; Wilbur 12342 (DUKE) in 1970; Sorrie 12992 (NCU) in 2012; Faucette 325 (NCSC) in 2013.

Galium pilosum Aiton [G. pilosum var. *puncticulatum* (Michx.) Torr. & A. Gray]

Hairy Bedstraw

Rare in maritime evergreen forest; Duck. Sole OBX record. Burk b20-36 (NCU) in 1959; no recent collections.

Galium tincturium L.

Three-lobed Bedstraw

Frequent in maritime swamp forest, interdune marsh; scattered throughout OBX. Ashe s.n. (NCU) in 1898; Wilbur 10333 (DUKE) in 1968; LeBlond 6150 (NCU) in 2005; Krings 2492 (NCSC) in 2007.

Galium uniflorum Michx.

One-flowered Bedstraw

Occasional in maritime evergreen forest; Southern Shores, Nags Head Woods, Buxton Woods. Apparently overlooked on OBX in the past, perhaps due to its short stature, inconspicuous appearance, and tiny flowers. Sorrie 12953 (CAHA, NCU) in 2012; Sorrie 13148 (NCSC) in 2013.

Hexasepalum teres (Walter) J.H. Kirkbr. [Diodia t. Walter]

Poor Joe

Frequent in roadside, disturbed soil; throughout OBX. Fosberg 17791 (NCSC) in 1940; Faucette 217 (NCSC) in 2013.

Houstonia pusilla Schoepf

Dwarf Bluets

Rare in disturbed soil; Kitty Hawk Woods. Sole OBX record. Clark 420 (NCSC) in 2010.

Mitchella repens L.

Partridgeberry

Frequent in moist maritime evergreen forest, moist maritime deciduous forest; Fox & Godfrey 4451 (NCSC) in 1950; Faucette 24 (NCSC) in 2013.

***Oldenlandia corymbosa** L.

Diamond-flower

Rare in sandy roadside, Corolla. Sole OBX record. Holdsworth 895 (NCU) in 2018.

***Richardia brasiliensis** Gomes

Tropical Richardia

Occasional in roadside, disturbed soil; south of Corolla, Duck, Kitty Hawk, Nags Head Woods, Buxton Woods, Frisco, Bogue Banks. Wilbur 9391 (DUKE) in 1967; Faucette 250 (NCSC) in 2013; Holdsworth 892 (NCU) in 2018.

RUTACEAE**Zanthoxylum clava-herculis** L.

Prickly Ash

Occasional in stable dune barren, maritime shrub, maritime evergreen forest, edge of brackish marsh, roadside; scattered throughout OBX. Mathews s.n. (NCU) in 1931; Russell 2274 (NCSC) in 1994; BAS sight record at Fort Macon SP on Bogue Banks in 2018.

SALICACEAE***Populus alba** L.

White Poplar, Silver Poplar

Occasional in roadside, disturbed soil; Avon, Buxton Woods, Ocracoke Island, Portsmouth Island, North and South Core Banks, Shackleford Bank, Bogue Bank. Mathews s.n. (NCU) in 1931; Radford et al. 7793 (NCU) in 1953; Bauers 329 (NCSC) in 1999; no recent collections.

***Populus deltoides** Marshall

Eastern Cottonwood

Rare, habitat not given; Chicahauk in northern Bodie Island. Sole OBX record. While the identification of the specimen is correct, the occurrence is non-native, as the habitat for P. *deltoides*, nutrient-rich floodplain forest, is absent on OBX. Peterson s.n. (CAHA) in 1976; no recent collections.

Populus heterophylla L.

Swamp Cottonwood

Rare, a few trees in maritime swamp forest; Kitty Hawk Woods at Covered Bridge Road. Sole OBX record. Sorrie 13280 (NCSC, NCU) in 2013.

***Populus nigra** L.

Lombardy Poplar

Rare "in woods south of Duck" and at "Ocracoke Realty." The Duck specimen was originally determined as *P. deltoides*, but actually belongs here. Stalter 24 (CAHA); no recent collections.

Salix caroliniana Michx.

Carolina Willow

Frequent in interdune marsh, interdune pond; Kitty Hawk Woods, Nags Head Woods, Buxton area, Portsmouth Island, Shackleford Banks. A specimen originally determined as *S. alba* L. (Fosberg 17867 NCSC, NCU) is misidentified and belongs here. Ashe s.n. (NCU) in 1898; Faucette 90 (NCSC) in 2013.

Salix nigra Marshall

Black Willow

Rare in interdune marsh; Corolla, Buxton. Reported from moist roadside north of Corolla (Stalter and Lamont 1997) and from Corolla village by Holdscaw in 2015 (species listed on collection label of another species). *Radford et al.* 7590 (NCU) in 1953; Stalter and Lamont report (1997); Holdscaw report in 2015.

Salix sericea Marshall

Silky Willow

Rare in maritime swamp forest; Kitty Hawk. Sole OBX record. *Burk 21-15* (NCU) in 1959; no recent collections.

SANTALACEAE**Phoradendron leucarpum** (Raf.) Reveal & M.C. Johnst. ssp. **leucarpum** [*P. serotinum* (Raf.) M.C. Johnst.]

American Mistletoe

Occasional in maritime swamp forest, interdune pond; Kitty Hawk Woods, Nags Head Woods, South Core Banks, Shackleford Banks, Bogue Banks. *Burk b41-2* (NCU) in 1960; *Clark 435* (NCSC) in 2010.

SAPINDACEAE [including ACERACEAE]**Acer rubrum** L.

Red Maple

Frequent, locally abundant, in maritime swamp forest, margin of interdune pond, interdune marsh, freshwater seepage swamp, maritime deciduous forest; throughout OBX. Our plants appear to be var. *trilobum* Torr. & A. Gray. *Burk b17-10* (NCU) in 1959; *Clark 642* (NCSC) in 2010.

SAPOTACEAE**Sideroxylon lycioides** L. [*Bumelia l.* (L.) Pers.]

Buckthorn Bumelia

Occasional and occurring at low densities in maritime evergreen forest, maritime swamp forest, roadside; Nags Head Woods, Buxton Woods, Frisco on Hatteras Island, Portsmouth Island, South Core Banks, Shackleford Banks, Roosevelt NA on Bogue Banks. The report of *Bumelia tenax* (L.) Willd. from Nags Head Woods (Blonder and Stalter 1992) is referred here. *Fox & Whitford 380* (NCSC) in 1947; *Faucette 476* (NCSC) in 2014.

SCROPHULARIACEAE***Buddleja davidii** Franch.

Butterfly Buddleia

Rare in disturbed forest edge; Kitty Hawk Woods. Sole OBX record. *Clark 701* (NCSC) in 2010.

Limosella australis R. Br. T

Mudwort, Awl-leaf

Rare in fresh tidal marsh; "marsh on Currituck Sound near Caffey's Inlet." Also reported from Jockey's Ridge SP (plant list) and Buxton Woods area (NCNHP). Caffey's Inlet occurred just south of the Dare-Currituck county border; it has been filled in by storm overwash. Southern range limit. *Radford 5756* (COLO, GA, NCU) in 1951; *Lynch 101* (NCSC) in 1979; no recent collections.

***Verbascum blattaria** L.

Moth Mullein

Rare in "brackish marsh, halfway between Hatteras village and Buxton." Sole OBX record. *Burk b6-1* (NCU) in 1959; no recent collections.

***Verbascum thapsus** L.

Woolly Mullein

Infrequent in roadside, powerline, disturbed soil. Kitty Hawk Woods, Buxton village, Frisco, Shackleford Banks. *Radford et al. 7599* (NCU) in 1953; *Clark 634* (NCSC) in 2010.

SIMAROUBACEAE***Ailanthus altissima** (Mill.) Swingle

Tree-of-Heaven

Infrequent in disturbed soil. Reported from Shackleford Banks by Lewis (1917), Nags Head Woods by Atkinson and List (1978), and from near the western road to mainland on Bogue Banks by Stalter and Lamont (1999). It is unclear whether there are any established populations on OBX; nonetheless, this aggressive alien should be eradicated whenever found. No specimens have been found.

SOLANACEAE***Datura stramonium** L.

Jimsonweed

Infrequent in disturbed soil; Avon. Reported from Shackleford Banks by Lewis (1917) and from near Cape Hatteras lighthouse by Stalter and Lamont (1997). *Radford et al. 7741* (NCU) in 1953; no recent collections.

***Petunia xatkinsiana** D. Don ex W. Baxter [*P. x hybrida* Vilm.; *P. violacea* Juss., misapplied]

Garden Petunia

Rare, "escaped from cultivation at Buxton and Hatteras" (Burk 1961); this information is repeated by Stalter and Lamont (1997); no recent collections.

Physalis heterophylla Nees

Clammy Ground-cherry

Rare, no habitat given; Cape Hatteras. Sole OBX record. The specimen was annotated by C.R. Bell, U. Waterfall, and J. Sullivan. *Ashe s.n.* (NCU) in 1898; no recent collections.

Physalis pubescens L.

Downy Ground-cherry

Rare in waste place in Colington (Dare County) and at Emerald Isle on Bogue Banks. *Radford s.n.* (NCU) in 1954; *Stalter s.n.* (USCH) in 1990; no recent collections.

Physalis walteri Nutt. [*P. viscosa* M.A. Curtis ssp. *maritima* Waterfall]

Dune Ground-cherry

Frequent in dune grass, stable dune barren, maritime dry grassland, opening in maritime evergreen forest, roadside. Nags Head Woods, Buxton-Cape Hatteras area, South Core Banks, Shackleford Banks, Bogue Banks. *Ashe s.n.* (NCU) in 1898; *Faucette 467* (NCSC) in 2014.

Solanum carolinense L.

Carolina Horse-nettle

Occasional in roadside, powerline, disturbed soil; scattered throughout OBX. *Anderson 162* (DUKE) in 1962; *Krings 1260* (NCSC) in 2005.

***Solanum elaeagnifolium** Cav.

Silverleaf Horse-nettle

Rare in roadside; route 158 in Nags Head. Sole OBX record. Knapp et al. (2019) cite this specimen. *Leonard & Radford 3394* (CLEMS, MEXU, NCU, NY, etc.) in 1970; no recent collections.

***Solanum lycopersicum** L. [*Lycopersicon esculentum* Mill.]

Garden Tomato

Rare in rubbish heap at Trinity Center on Bogue Banks. Sole OBX record for the common tomato. Reported by Stalter and Lamont (1999); no recent collections.

Solanum pseudogracile Heiser [*S. gracile* Link, misapplied]

Dune Nightshade

Occasional in dune grass, roadside, disturbed soil; Cape Hatteras, Shackleford Banks. Northern range limit. *Blomquist et al. 14750* (DUKE) in 1949; *Radford 8780* (NCU) in 1955; *Wilbur 12421*

(DUKE) in 1970; Stalter 52 (USCH) in 1997 probably belongs here but specimen needs ID check; no recent collections.

Solanum ptychanthum Dunal [*S. nigrum* L. var. *virginicum* L.]

American Black Nightshade

Infrequent in edge of Freshwater Pond adjacent to Nags Head Woods. Sole OBX record. Burk (1961) reported it from Cape Hatteras, but the specimen has been annotated to *S. pseudogracile*. Krings 975 (NCSC) in 2004.

SYMPLOCACEAE

Symplocos tinctoria (L.) L'Heritier

Sweetleaf, Horse-sugar

Rare in moist swales within maritime deciduous forest; Kitty Hawk Woods, Buxton Woods, Roosevelt Natural Area. Clark 450 (NCSC) in 2010; J. Fussell sight record from Roosevelt NA in 2019.

TAMARICACEAE

***Tamarix canariensis** Willd.

Canary Island Tamarisk

Rare in roadside; north of Kitty Hawk, Bogue Banks. Reports of *T. gallica* L. and *T. chinensis* Loureiro are based on misidentifications and belong here. Stalter & Lamont 67 (CAHA) in 1990; no recent collections.

TETRACHONDRAEAE [*Polyppremum* formerly placed in LOGANIACEAE]

Polyppremum procumbens L.

Rustweed, Juniperleaf

Frequent in roadside, disturbed soil; Kitty Hawk Woods, Nags Head Woods, Salvo, Buxton Woods, Portsmouth Island, South Core Banks, Shackleford Banks, Bogue Banks. Radford et al. 7520 (NCU) in 1953; Clark 605 (NCSC) in 2010.

THEACEAE

Gordonia lasianthus (L.) Ellis

Loblolly Bay

Rare in ecotone between maritime swamp forest and evergreen forest, Roosevelt Natural Area on Bogue Banks, Carteret County. Sole OBX record. Reported (in litt.) by J. Fussell in 2020.

ULMACEAE

Ulmus americana L.

American Elm

Rare, but may be locally abundant, in maritime swamp forest; Kitty Hawk Woods. Reported by Burk (1961) from Nags Head Woods, but not relocated there (see Krings 2010). Burk (NCU 245098) in 1960; Bauers 578 (NCSC) in 1996; Clark 454 (NCSC) in 2010.

URTICACEAE

Boehmeria cylindrica (L.) Sw.

False Nettle

Frequent in maritime swamp forest, interdune marsh, maritime shrub swamp; scattered throughout OBX. Radford et al. 7539 (NCU) in 1953; Faucette 176 (NCSC) in 2013.

Parietaria praetermissa Hinton SC

Coastal Pellitory

Infrequent in sparsely wooded dune; Ocracoke Island, Shackleford Banks. Northern range limit. Reports of *P. floridana* Nutt. from OBX are based on misidentifications and are referred here. Ashe s.n. (NCU) in 1898; Gaddy 255 (CAHA) in 1985; LeBlond 6102 (NCU) in 2005.

Pilea fontana (Lunell) Rydb.

Blackfruit Clearweed

Rare in wet soil in maritime evergreen forest; Shackleford Banks. Sole OBX location. Included here are specimens originally

determined as *P. pumila* (L.) A. Gray, but which have black achenes. Au s.n. (DUKE) in 1968; Wilbur 12630 (DUKE) in 1970; no recent collections.

VERBENACEAE

***Glandularia aristigera** (S. Moore) Tronc. [*Verbena tenuisecta* Briquet]

Moss Vervain

Rare in disturbed soil of vacant lot in Corolla (Currituck County). Sole OBX record. The specimen was originally determined as *Verbena hybrida* Voss. Besler 4 (URV) in 1998; no recent collections.

***Lantana urticoides** Hayek [*L. horrida* Kunth, misapplied]

Texas Lantana

Rare in roadside; Buxton village, Bogue Banks. The reports of *L. camara* L. are based on misidentifications and are referred here. Burk b8-2 (NCU) in 1959; Stalter and Lamont report (1999); no recent collections.

Phyla lanceolata (Michx.) Greene [*Lippia l.* Michx.]

Marsh Frogfruit

Occasional in interdune marsh, freshwater tidal marsh, margin of tidal creek; Kitty Hawk Woods, Nags Head Woods, Pea Island, Buxton Woods. Radford et al. 7501 (NCU) in 1953; Faucette 193 (NCSC) in 2013.

Phyla nodiflora (L.) Greene [*Lippia n.* (L.) Michx.]

Creeping Frogfruit

Frequent in edge of interdune marsh, moist roadside ditch, disturbed soil; throughout OBX. Fosberg 17821 (NCSC, NCU) in 1940; Clark 660 (NCSC) in 2010.

Verbena scabra Vahl

Rough Vervain, Rough Verbena

Rare in maritime wet grassland, edge of brackish marsh; Shackleford Banks. Sole OBX location. Au s.n. (DUKE) in 1968; Krakow 818 (DUKE) in 1990; no recent collections.

Verbena urticifolia L.

White Vervain

Infrequent in maritime wet grassland; near Corolla lighthouse, Shackleford Banks. Blomquist 15580 (DUKE) in 1952; Wilbur 12689 (DUKE) in 1970; Stalter and Lamont report (1997); no recent collections.

VIOLACEAE

Viola bicolor Pursh [*V. rafinesquii* Greene]

Wild Pansy

Infrequent in roadside; route 158 in Nags Head, route 12 on Bodie Island, Cape Hatteras Lighthouse. Austin 15 (NCU) in 1966; McCaffrey 172 (CAHA) in 1974; reported from Jockey's Ridge SP (2013 plant list).

Viola lanceolata L. var. *lanceolata*

Lanceleaf Violet

Infrequent in wet interdune swale; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP. Austin 117 (NCU) in 1966; Krings 1347 (NCSC) in 2005.

Viola sororia Willd. [*V. papilionacea* Pursh]

Common Blue Violet

Occasional in maritime evergreen forest, forest border, moist roadside; Kitty Hawk Woods, Nags Head Woods, Jockey's Ridge SP, Buxton Woods. Paris s.n. (NCSC) in 2001; Faucette 409 (NCSC) in 2014.

VITACEAE

Muscadina rotundifolia (Michx.) Small var. *rotundifolia* [*Vitis r.* Michx.]

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Muscadine Grape

Frequent in maritime evergreen forest, forest edge, roadside thicket; throughout OBX. *Fox & Godfrey 2329* (NCSC) in 1949; *Krings 623* (NCSC) in 2004.

Nekemias arborea (L.) J. Wen & Boggan [*Ampelopsis a.* (L.) Koehne]

Peppervine

Occasional in maritime evergreen forest, maritime shrub swamp, margin of tidal creek; scattered throughout OBX. *Engels s.n.* (NCU) in 1939; *Fosberg 17934* (NCSC) in 1940; *Hill 145* (NCSC) in 1941; *Clark 150* (NCSC) in 2009.

Parthenocissus quinquefolia (L.) Planch.

Virginia Creeper

Frequent in maritime evergreen forest, maritime shrub swamp, forest margin, maritime shrub, dune grass; throughout OBX. *Radford et al. 7585* (NCU) in 1953; *Faucette 180* (NCSC) in 2013.

Vitis aestivalis Michx. var. **aestivalis**

Summer Grape

APPENDIX 1

Excluded species: taxa reported from the Outer Banks without voucher specimens seen.

Anacardiaceae

Rhus glabra L. Smooth Sumac. Jockey's Ridge State Park (plant list).

Apocynaceae

**Vinca minor* L. Periwinkle. Nags Head Woods (Atkinson & List 1978).

Aquifoliaceae

Ilex cassine L. Dahoon. Shackleford Banks (Kearney 1900). If valid, this would be the northern range limit of the species.

Asparagaceae

**Asparagus officinalis* L. Wild Asparagus. Disturbed sites on Ocracoke Island and Bogue Banks (Stalter & Lamont 1997, 1999).

Asteraceae

Bidens frondosa L. Devil's Pitchforks. Nags Head Woods (Blonder & Stalter 1992).

Cirsium repandum Michx. Sandhill Thistle. Bogue Banks (Burk 1961).

**Conyza bonariensis* (L.) Cronquist. South American Horseweed. Jockey's Ridge State Park (plant list).

Eupatorium leucolepis (DC.) Torr. & A. Gray. White-bracted Boneset. Cape Lookout NS (Stalter & Lamont 1999); Jockey's Ridge State Park (BAS sight record).

Helianthus atrorubens L. Purpledisk Sunflower. Bogue Banks (Burk 1961).

**Leucanthemum lacustre* (Brotero) Sampaio. Portuguese Daisy. Duck, escaped from cultivation (Stalter & Lamont 1997).

Sympyotrichum racemosum (Elliott) Nesom [*Aster vimineus* Lam.]. Small White Aster. Shackleford Banks (Au 1974); Kitty Hawk Woods (BAS sight record 2013).

Bignoniaceae

**Catalpa speciosa* (Warder) Warder ex Engelm.. Northern Catalpa. Jockey's Ridge State Park (plant list).

Brassicaceae

**Brassica rapa* L. Turnip, Field Rape. Roadside, disturbed soil near Buxton (Stalter & Lamont 1997).

Draba brachycarpa Nutt. ex Torr. & A. Gray. Shortfruit Draba. Roadside near Buxton (Stalter & Lamont 1997); Jockey's Ridge SP (plant list).

**Lunaria annua* L. Honesty. Roadside, Kitty Hawk Woods (Stalter & Lamont 1997).

**Sinapis arvensis* L. Charlock. Jockey's Ridge SP (plant list).

Caryophyllaceae

**Ceratostylis pumilum* W. Curtis. Dwarf Mouse-ear. Nags Head Woods (Stalter & Lamont 1997).

**Stellaria graminea* L. Stitchwort. Jockey's Ridge SP (plant list).

Occasional in maritime evergreen forest, forest edge; scattered throughout OBX. *Blomquist 15431* (DUKE) in 1952; *Clark 700* (NCSC) in 2010.

Vitis simpsonii Munson [*V. cinerea* (Engelm.) Engelm. ex Millardet var. *floridana* Munson]

Florida Grape

Infrequent in maritime evergreen forest; Buxton Woods. Sole OBX location. *Sorrie 13110* (NCU) in 2012.

Vitis labrusca L.

Fox Grape

Infrequent in edge of maritime evergreen forest, roadside thicket; Shackleford Banks, reportedly elsewhere. Burk (1961) states that it is "generally distributed," but the intensive surveys of recent years refute that. *Wilbur 9265* (DUKE) in 1967; no recent collections.

Chenopodiaceae

**Dysphania botrys* (L.) Mosyakin & Clemants. Jerusalem-oak. Ocracoke Island (Kearney 1900 as *Chenopodium b.*).

**Oxybasis glauca* (L.) S. Fuentes, Uotila, & Borsch ssp. *glauca*. Oakleaf Goosefoot. Shackleford Banks (Lewis 1917 as *Chenopodium g.*).

Convolvulaceae

**Convolvulus arvensis* L. Field Bindweed. Jockey's Ridge SP (plant list).

**Cuscuta arvensis* Beyr. Field Dodder. Ocracoke Island (Kearney 1900).

**Ipomoea batatas* (L.) Lam. Sweet Potato. Porstmouth Island (Burk & Lauerman 1975).

Cucurbitaceae

**Citrullus lanatus* (Thunb.) Matsum. & Nakai. Watermelon. Ocracoke Island (Kearney 1900).

**Lagenaria siceraria* (Molina) Standl.. Bottle Gourd. Ocracoke Island (Kearney 1900 as *L. vulgaris*).

Cyperaceae

Cyperus filiculmis Vahl. Southeastern Flatsedge. Common in salt marshes (Burk 1961).

Eleocharis microcarpa Torr. Tinyfruit Spikesedge. Ocracoke Island (Kearney 1900).

Rhynchospora baldwinii A. Gray. Baldwin's Beaksedge. Ocracoke Island (Stalter & Lamont 1997).

Rhynchospora glomerata (L.) Vahl. Clustered Beaksedge. Shackleford Banks (Lewis 1917).

Ericaceae

Vaccinium tenellum Aiton. Narrowleaf Blueberry. Bogue Banks (Burk 1961).

Eriocaulaceae

Eriocaulon decangulare L. Hard Pipewort, Hatpins. Clark et al. (2017) cited a P.O. Schallert collection at NCU from Kitty Hawk Woods, allegedly in the 1950s. The only Schallert specimen from Dare County at NCU is from an unspecified location and was collected in 1941 (*Schallert s.n.* NCU). This species is known from several collections on nearby Roanoke Island, but not definitely from OBX.

Euphorbiaceae

Acalypha rhomboidea Raf. Diamondleaf Spurge. Disturbed sands, Bogue Banks (Stalter & Lamont 1999).

**Ricinus communis* L. Castor-oil Plant, Castorbean. Shackleford Banks (Lewis 1917).

Fabaceae

Amphicarpa bracteata (L.) Fernald. Hog Peanut. Nags Head Woods (Stalter & Lamont 1997).

Desmodium cuspidatum (Muhlenberg ex Willd.) Loudon. Large-bracted Tick-trefoil. Nags Head Woods (Blonder & Stalter 1992).

Desmodium perplexum Schubert. Perplexing Tick-trefoil. Shackleford Banks (Au 1974).

Desmodium rotundifolium (Michx.) DC. Roundleaf Tick-trefoil. Nags Head Woods (Atkinson & List 1978; Blonder & Stalter 1992).

**Kummerowia stipulacea* (Maximowicz) Makino. Korean Bush-clover. Roadsides [no locales given] (Stalter & Lamont 1997).

Sesbania herbacea (Mill.) McVaugh. Sesban, Coffeeweed. Nags Head Woods (Blonder & Stalter 1992).

**Trifolium hybridum* L. Alsike Clover. Roadside south of Buxton (Stalter & Lamont 1997).

Haloragaceae

Proserpinaca pectinata Lam. Feathery Mermaid-weed. Shackleford Banks (Lewis 1917).

Hydrocharitaceae

Najas flexilis (Willd.) Rosth. & Schmidt. Northern Naiad. Currituck Sound (Burk 1961).

Juglandaceae

Carya ovata (Mill.) K. Koch. Shagbark Hickory. Kitty Hawk Woods (Burk 1961).

Lamiaceae

**Glechoma hederacea* L. Gill-over-the-ground. Jockey's Ridge SP (plant list).

Lycopus virginicus L. Swamp Horehound. Maritime forest, Shackleford Banks (Au 1974).

**Marrubium vulgare* L. Eurasian Horehound. Ocracoke Island (Kearney 1900).

**Mentha x piperita* L. Peppermint. Roadside near Corolla Light (Stalter & Lamont 1997).

Lentibulariaceae

Pinguicula lutea Walter. Yellow Butterwort. Jockey's Ridge State Park (plant list).

Utricularia purpurea Walter. Purple Bladderwort. Shackleford Banks (Lewis 1917).

Malvaceae

**Gossypium hirsutum* L. Cotton. Ocracoke Island (Kearney 1900 as *G. herbaceum*).

Tilia americana L. American Basswood. Ocracoke Island (Kearney 1900).

Moraceae

**Broussonetia papyrifera* (L.) Ventenat. Paper Mulberry. Ocracoke Island (Kearney 1900).

Nelumbonaceae

**Nelumbo lutea* (Willd.) Pers. American Lotus-lily. Reported by Stalter and Lamont (1997) at Kitty Hawk Woods and Nags Head Woods, but no specimens have been seen and species was not relocated by Clark et al. (2016), Krings (2010), and Sorrie (2014a). Perhaps a mixup with *Nuphar advena* (= *Nuphar lutea*), which was collected by Stalter.

Nyssaceae

Nyssa aquatica L. Water Tupelo. Nags Head Woods (Otte 1984).

Onagraceae

Ludwigia virgata Michx. Wandlike Seedbox. Ocracoke Island (Kearney 1900).

Orchidaceae

Platanthera clavellata (Michx.) Luer. Clubspur Orchid. Nags Head Woods (Blonder & Stalter 1992).

Spiranthes eatonii Ames ex P.M. Brown. Eaton's Ladies'-tresses. Reports of *S. lacera* (Raf.) Raf. var. *gracilis* (Bigelow) Luer from

Jockey's Ridge SP (plant list) and Nags Head Woods (Krings 2010) pertain to *S. eatonii*. While no specimens have been seen for OBX, Correll 2175 (DUKE) is from nearby Knott's Island in Currituck County.

Spiranthes ovalis Lindley. Oval Ladies'-tresses. Shackleford Banks (Lewis 1917).

Spiranthes praecox (Walter) S. Watson. Grassleaf Ladies'-tresses. OBX specimens prove to be the recently described *S. sylvatica*.

Orobanchaceae

Aureolaria virginica (L.) Pennell. Downy False-foxfglove. Nags Head Woods (Atkinson & List 1978).

Plantaginaceae

**Linaria vulgaris* L. Butter-and-eggs. Jockey's Ridge SP (plant list).

Plantago rugelii Decaisnes. Rugel's Plantain. Nags Head Woods (Stalter & Lamont 1997).

**Veronica officinalis* L. Common Speedwell. Roadside near Kitty Hawk (Stalter & Lamont 1997).

**Veronica persica* Poir. Bird's-eye Speedwell. Jockey's Ridge SP (plant list).

Poaceae

**Aira caryophyllea* L. Silver Hairgrass. Roadside, Coquina Beach (BAS sight record).

Cenchrus echinatus L. Bristly Sandspur. Jockey's Ridge SP (plant list).

Coleataenia rigidula (Bosc ex Nees) LeBlond ssp. *rigidula* [*Panicum agrostoides* Spreng. var. *agrostoides*]. Reports by Krakow (1991) and Fauchette (); need to be vetted. The specimen cited by Burk (Radford 8260 NCU) is actually *C. rigidula* ssp. *condensa* as annotated by R.J. LeBlond.

Elymus hystrix L. Common Bottlebrush. Jockey's Ridge SP (plant list).

Eragrostis pectinata (Michx.) Steud. Carolina Lovegrass. Ocracoke Island (Kearney 1900).

**Eragrostis pilosa* (L.) Beauv. India Lovegrass. Dry sands, South Core Banks (Stalter & Lamont 1999).

Panicum capillare L. Old-witch Grass. Jockey's Ridge SP (plant list).

Paspalum setaceum Michx. var. *longepedunculatum* (LeConte) A. Wood. Longstalk Crownglass. Cape Hatteras; specimen at USCH needs careful identification.

**Phyllostachys aurea* Carriere ex Riviere. Golden Bamboo. Jockey's Ridge SP (plant list).

Poa chapmaniana Scribn. Chapman's Bluegrass. Ocracoke Island (Burk 1961).

Setaria corrugata (Elliott) Schultes. Wrinkled Bristlegrass. Jockey's Ridge SP (plant list).

Polemoniaceae

Phlox pilosa L. Hairy Phlox. Nags Head Woods (Atkinson & List 1978).

Polygonaceae

Polygonatum verticillata L. Whorled Milkwort. Shackleford Banks (Lewis 1917).

Polygonaceae

**Polygonum aviculare* L. ssp. *depressum* (Meissner) Arcangeli [*P. arenastrum* Boreau] Dooryard Knotweed. Roadsides and waste places [no locations given] (Stalter & Lamont 1997).

Rumex altissimus A. Wood. Tall Dock, Pale Dock. Marsh in Duck (Burk 1961).

Ranunculaceae

**Ranunculus acris* L. Tall Buttercup. Jockey's Ridge SP (plant list).

**Ranunculus bulbosus* L. Bulbous Buttercup. No location (Stalter & Lamont 1997); Jockey's Ridge SP (plant list); roadside in Buxton (BAS sight record 2012).

Salicaceae

**Salix babylonica* L. Weeping Willow. Roadside, Bodie Island (Burk 1961).

Sapindaceae

Acer negundo L. Box Elder, Ash-leaved Maple. Escaped from cultivation, Kitty Hawk Woods (Stalter & Lamont 1997).

Urticaceae

**Urtica dioica* L. Nettle. Jockey's Ridge SP (plant list).

Verbenaceae

**Verbena brasiliensis* Vell.. Brazilian Vervain. Jockey's Ridge SP (plant list).

Violaceae

Viola primulifolia L. Primrose-leaved Violet. Shackleford Banks (Au 1974).

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REFERENCES

ADAMS, R.P. 1986. Geographic variation in *Juniperus silicicola* and *J. virginiana* of the southeastern United States: multivariate analyses of morphology and terpenoids. *Taxon* 35:61–75.

ATKINSON, T.A. & H.E. LIST. 1978. Basic inventory and natural diversity summary of the Nags Head Woods, Dare County, North Carolina. Unpublished report to the North Carolina Nature Conservancy, Durham, North Carolina, U.S.A.

AU, S.-F. 1969. Vegetation and ecological processes on Shackleford Bank, North Carolina. Ph.D. dissertation, Duke University, Durham, North Carolina, U.S.A.

BARKWORTH, M.E., K.M. CAPELS, S. LONG, L.K. ANDERTON, & M.B. PIEP, EDS. 2003 and 2007. Magnoliophyta: Commelinidae (in part): Poaceae, parts 1 and 2. *Flora of North America*. Oxford Univ. Press, New York, New York, U.S.A.

BEAL, E.O. 1977. A manual of marsh and aquatic plants of North Carolina, with habitat data. *North Carolina Agric. Exp. Sta. Tech. Bull.* 247:1–298.

BELLIS, V.J. 1995. Ecology of maritime forests of the southern Atlantic coast: A community profile. National Biological Service, U.S. Dept. of Interior, Washington, DC, U.S.A.

BERENYI, N.M. 1966. Soil productivity factors on the Outer Banks of North Carolina. Ph.D. diss., North Carolina State Univ., Raleigh, North Carolina, U.S.A..

BERMAN, M. & H. BERQUIST. 2007. Coastal maritime forests in Virginia--delineation and distribution. *Virginia Coastal Zone Mgmt. Program*, Virginia Dept. of Environmental Quality, Richmond, Virginia, U.S.A.

BEYER, F. 1991. North Carolina; the years before man. A geologic history. Carolina Academic Press, Durham, North Carolina, U.S.A.

BLAND, J.A. 1990. The geomorphology and vegetation of Bear Island, Hammocks Beach State Park, North Carolina. M.S. thesis, Univ. North Carolina at Wilmington, Wilmington, U.S.A.

BLOMQVIST, H.L. 1948. The grasses of North Carolina. Duke Univ. Press, Durham, North Carolina, U.S.A..

BLONDER, B. & R. STALTER. 1992. Vascular plant species list: Nags Head Woods Preserve. North Carolina Nature Conservancy, Durham, U.S.A.

BORDEAU, P.F. & H.J. OOSTING. 1959. The maritime live oak forest in North Carolina. *Ecology* 40:148–152.

BRASWELL, A.L. 1988. A survey of the amphibians and reptiles of Nags Head Woods Ecological Preserve. *A.S.B. Bull.* 35:199–217.

BRATTON, S.P. & K. DAVISON. 1987. Disturbance and succession in Buxton Woods, Cape Hatteras, North Carolina. *Castanea* 52(3):166–179.

BRITTON, N.L. & A. BROWN. 1913. An illustrated flora of the northern United States, Canada, and the British Possessions. 3 vols. Scribner's Son, New York, New York, U.S.A..

BROOKS, R.E. & S.E. CLEMANTS. 2000. Magnoliophyta (in part): *Juncus*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

BROUILLET, L., J.C. SEMPLE, G.A. ALLEN, K.L. CHAMBERS, & S.D. SUNDBERG. 2006. Magnoliophyta: Asteridae, part 6: *Sympyotrichum*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

BROWN, C.A. 1959. Vegetation of the Outer Banks of North Carolina. Louisiana State Univ. Press, Baton Rouge, Louisiana, U.S.A.

BROWN, C.W. 1983. A palynological study of the peat layers from Jennette Sedge, North Carolina. M.A. Thesis, Smith College, Northampton, Massachusetts, U.S.A.

BROWN, P.M. 2001. *Spiranthes sylvatica* P.M. Brown, a new species of ladies'-tresses from the southeastern United States. N. Amer. Native Orchid J. 7:193–205.

BURK, C.J. 1961. A floristic study of the Outer Banks of North Carolina. Ph.D. diss., Univ. of North Carolina, Chapel Hill, U.S.A.

BURK, C.J. 1961. A botanical reconnaissance of Portsmouth Island, NC. J. Elisha Mitchell Sci. Soc. 77(1):72–73.

BURK, C.J. 1961. Distribution records and range extensions from the NC Outer Banks. Castanea 26(4):138–139.

BURK, C.J. 1961. Environmental variation in *Heterotheca subaxillaris*. Rhodora 62(753):243–246.

BURK, C.J. 1962. The Outer Banks of North Carolina: a floristic interpretation. J. Elisha Mitchell Sci. Soc. 78:21–28.

BURK, C.J. & S.D. LAUERMANN. 1975. Development of vegetation on Portsmouth Island, North Carolina: fourteen years of change. Dept. Biol. Sci., Smith College, Northampton, MA, U.S.A. [unpublished report]

BURK, C.J., H.A. CURRAN, & T. M. CZERNIAK. 1981. Dunes and vegetation: natural recovery on a damaged barrier island. Shore and Beach 49:21–25.

BURNET, D.A. & L.P. BURNET. 1987. Recent paleoecology of Nags Head Woods on the North Carolina Outer Banks. Bull. Torrey Bot. Club 114:156–168.

CAULKINS, D.B. & R. WYATT. 1990. Variation and taxonomy of *Phytolacca americana* and *P. rigida* in the southeastern United States. Bull. Torrey Bot. Club 117:357–367.

CLARK, R.C., A. KRINGS, J.M. STUCKY, & H.J. KLEISS. 2016. Guide to the vascular flora of Kitty Hawk Woods. Bot. Misc. 45., Botanical Research Institute of Texas, Fort Worth, Texas, U.S.A.

COASTAL ZONE RESOURCES, INC. 1974. Report on North Whalehead Beach Project to U.S. Fish & Wildlife Service, proposed Currituck Outer Banks National Wildlife Refuge.

CONNER, W.H., W.D. MIXON II, & G.W. WOOD. 2005. Maritime forest habitat dynamics on Bulls Island, Cape Romain National Wildlife Refuge, SC, following Hurricane Hugo. Forest Ecol. Managem. 212 (2005):127–134.

COOPER, S. 1988. Breeding birds of Nags Head Woods, Dare County, North Carolina. A.S.B. Bull. 35:218–222.

CRONQUIST, A. 1980. Vascular flora of the southeastern United States: Vol. 1, Asteraceae. Univ. of North Carolina Press, Chapel Hill, North Carolina, U.S.A.

CRUTCHFIELD, P.J. 1964. Taxa collected from Roanoke Island new to the flora of North Carolina. Castanea 29:129–137.

DANIN, A. & L.C. ANDERSON. 1986. Distribution of *Portulaca oleracea* L. (Portulacaceae) subspecies in Florida. Sida 11:318–324.

DAVIDSON-ARNOT, R. 2010. Introduction to coastal processes and geomorphology. Cambridge, U.K..

DAVIS JR., R.A. 1994. Barrier island systems--a geologic overview. In: R.A. Davis Jr., ed. Geology of Holocene barrier island systems. Springer-Verlag, New York, New York, U.S.A.

DEFEO, O., A. MCLACHLAN, D.S. SHOEMAN, T.A. SCHLACHER, J. DUGAN, A. JONES, M. LASTRA, & F. SCAPINI. 2009. Threats to sandy beach ecosystems: a review. Estuarine, Coastal Shelf Sci. 81:1–2.

DICKERSON, T.J. 1978. Floristic survey and plant community descriptions of Bear Island (Hammocks Beach State Park), Onslow County, North Carolina. M.S. thesis, North Carolina State University, Raleigh, U.S.A.

DUNBAR, G.S. 1958. Historical geography of the North Carolina Outer Banks. Louisiana State Univ. Press, Baton Rouge, Louisiana, U.S.A.

DUNCAN, W.H. 1967. Woody vines of the southeastern states. Sida 3:1–76.

DUNCAN, W.H. & M.B. DUNCAN. 1987. Seaside plants of the Gulf and Atlantic coasts. Smithsonian Inst. Press, Washington, DC, U.S.A.

DUNES OF DARE GARDEN CLUB. 1980. Wildflowers of the Outer Banks. Univ. of North Carolina Press, Chapel Hill, North Carolina, U.S.A.

ENGELS, W. 1942. Vertebrate fauna of North Carolina coastal islands. I. Ocracoke Island. Amer. Midl. Nat. 28:278–304.

ENGELS, W. 1952. Vertebrate fauna of North Carolina coastal islands. II. Shackleford Bank. Amer. Midl. Nat. 47:702–742.

FAUCETTE, A.L., A. KRINGS, & D.L. LINDBO. 2020. Guide to the vascular flora of Buxton Woods, Dare County, North Carolina. Sida, Bot. Misc. 54. Botanical Research Institute of Texas, Fort Worth, Texas, U.S.A.

FERGUSON, R.L., B.T. PAWLAK, & L.L. WOOD. 1993. Flowering of the seagrass *Halodule wrightii* in North Carolina, USA. Aquatic Bot. 46:91–98.

FERGUSON, R.L., J.A. RIVERA, & L.L. WOOD. 1989. Submerged aquatic vegetation in the Albemarle-Pamlico estuarine system. Ann. Report to the EPA and NC Albemarle- Pamlico Estuarine Study, Project No. 88-10.

FISHER, J.J. 1967. Development pattern of relict beach ridges, Outer Banks barrier chain, North Carolina. Ph.D. diss., Univ. of North Carolina, Chapel Hill, U.S.A.

FLORA NORTH AMERICA EDITORIAL COMMITTEE, EDS. 2002. Magnoliophyta: Commelinidae (in part): Cyperaceae. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

FLORA NORTH AMERICA EDITORIAL COMMITTEE, EDS. 2006. Magnoliophyta: Asteridae, part 6: Asteraceae, parts 1–3. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

FRANK, A.R. 2020. *Gaillardia pulchella* is not native to the eastern U.S.A. J. Bot. Res. Inst. Texas 124(2):205–208.

FROST, C.C., H.E. LEGRAND, JR., & J.O. FUSSELL, III. 1992. Regional inventory for critical natural areas, wetland ecosystems, and endangered species habitats of the Albemarle-Pamlico estuarine region: Phase 2 (Beaufort, Carteret, Craven, Hyde, Jones, Pamlico, and Pitt counties). North Carolina Natural Heritage Program, Raleigh, North Carolina, U.S.A.

FUNDEBURG, J.B. & D.S. LEE. 1978. Preliminary list of the vertebrate fauna of Nag's Head Woods, Dare County, North Carolina. North Carolina State Museum of Natural History, Raleigh, North Carolina, U.S.A.

FUSSELL, J.O. III. A birder's guide to coastal North Carolina. Univ. North Carolina Press, Chapel Hill, North Carolina, U.S.A.

GADDY, L.L. 1985. Rare, endangered, threatened, and exotic plants of the Cape Hatteras National Seashore. National Park Service, Coop. Park Studies Unit Tech. Report No. 18.

GODFREY, P.J. & M.M. GODFREY. 1976. Barrier island ecology of Cape Lookout National Seashore and vicinity, North Carolina. U.S. Nat. Park Serv. Monogr. Ser. 9.

GODFREY, R.K. 1988. Trees, shrubs, and woody vines of northern Florida and adjacent Georgia and Alabama. Univ. Georgia Press, Athens, Georgia, U.S.A.

GODFREY, R.K. & J.W. WOOTEN. 1979 and 1981. Aquatic and wetland plants of southeastern United States. Vols. 1 and 2. Univ. Georgia Press, Athens, Georgia, U.S.A.

GRAETZ, K.E. 1973. Seacoast plants of the Carolinas: for conservation and beautification. Sea Grant Publications, Raleigh, North Carolina, U.S.A.

GRAND, L.F. & C.S. VERNIA. 2002. A preliminary checklist of fungi in the Nags Head Woods maritime forest in North Carolina. Castanea 67:324–328.

GREGORY, R., J. ARVAL, & L.R. GERBER. 2013. Structuring decisions for managing threatened and endangered species in a changing climate. Conserv. Biol. 27:1212–1221.

GRIGGS, G. 2017. Coasts in Crisis. A Global Challenge. Univ. California Press, Oakland, California, U.S.A.

GUL, M.A. & B.D. GRIFFEN. 2018. A reliable bioindicator of anthropogenic impact on the coast of South Carolina. Southeastern Nat. 17:357–364.

HAAG, W.G. 1958. The archaeology of coastal North Carolina. Louisiana State Univ. Press, Baton Rouge, Louisiana, U.S.A.

HAINES, A. 2011. Flora Novae Angliae. Yale Univ. Press, New Haven, Connecticut, U.S.A.

HANCOCK, T.E. & P.E. HOSIER. 2003. Ecology of the threatened species *Amaranthus pumilus* Rafinesque. Castanea 68:236–244.

HILL, S.R. 1986. An annotated checklist of the vascular flora of Assateague Island (Maryland & Virginia). Castanea 51:265–305.

HINDE, H.P. 1954. The vertical distribution of salt marsh phanerogams in relation to tide levels. Ecol. Monogr. 24:209–225.

HITCHCOCK, A.S. (rev. A. Chase). 1951. Manual of the grasses of the United States. United States Dept. of Agr., Washington, DC, U.S.A.

HOBBS, C.H., C.B. LANDRY, & J.E. PERRY. 2008. Assessing anthropogenic and natural impacts on Ghost Crabs (*Ocypod quadrata*) at Cape Hatteras National Seashore, North Carolina. J. Coastal Res. 24:1450–1458.

HOLMES, W.C. 2002. Magnoliophyta: Liliidae: Liliales: *Smilax*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

HOLMGREN, N.H., P.K. HOLMGREN, R.A. JESS, K.M. McCUALEY, & L. VOGL. 1998. The illustrated companion to Gleason and Cronquist's manual. New York Botanical Garden, Bronx, New York, U.S.A.

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HOSIER, P.E. 1973. The effects of oceanic overwash on the vegetation of Core and Shackleford Banks, North Carolina. Ph.D diss. Duke Univ., Durham, North Carolina, U.S.A.

HOSIER, P.E. 2018. Seacoast Plants of the Carolinas. A new guide for plant identification and use in the coastal landscape. Univ. North Carolina Press, Chapel Hill, North Carolina, U.S.A.

HOSIER, P.E. & T.E. EATON. 1980. The impact of vehicles on dunes and grassland vegetation on a southeastern North Carolina barrier beach. *J. Applied Ecology* 17:173–182.

JOHNSON, A. 1900. Notes on the flora of the banks and sounds at Beaufort, North Carolina. *Bot. Gaz.* 30:405–410.

JOHNSON, S.R. 1992. Observations on populations of *Chamaesyce polygonifolia* Small and *C. ingallsii* Small (*Euphorbia ammannioides* H.B.K.) on barrier islands of Virginia and North Carolina. *Castanea* 57:291–292.

KEARNEY, T.H. 1900. The plant covering of Ocracoke Island: A study in the ecology of the North Carolina strand vegetation. *Contr. U.S. Natl. Herb.* 5:261–319.

KELLY, L. 2006. The vascular flora of Huggin's Island, Onslow County, North Carolina. *Castanea* 71:295–311.

KITTY HAWK MANAGEMENT PLAN. 1998. Report to Kitty Hawk Woods Conservation Working Group, Kitty Hawk. Unpublished document.

KLING, G.W. 1986. The physiochemistry of some dune ponds on the Outer Banks, North Carolina. *Hydrobiologia* 134:3–10.

KNAPP, S., G.E. BARBOZA, L. BOHS, & T. SARKINEN. 2019. A revision of the Morellloid clade of *Solanum* L. (Solanaceae) in North and Central America and the Caribbean. *PhytoKeys* 123:1–144.

KNAPP, W.M. & R.F.C. NACZI. 2008. Taxonomy, morphology, and geographic distribution of *Juncus longii* (Juncaceae). *Syst. Bot.* 33:685–694.

KRAKOW, G.A. 1991. Vascular plant checklist of Cape Lookout National Seashore, with information about rare taxa. Univ. of Georgia, Athens.

KRAL, R. 1993. Coniferophyta: Pinaceae: *Pinus*. *Flora of North America*, vol 2. Oxford Univ. Press, New York, New York, U.S.A.

KRINGS, A. 2002a. Additions to the flora of Nags Head Woods (Dare County, North Carolina) and the Outer Banks of North Carolina. *Sida* 20:839–843.

KRINGS, A. 2002b. The Nags Head Woods collections of the National Park Service Cape Hatteras National Seashore herbarium (CAHA). *J. North Carolina Acad. Sci.* 118:145–155.

KRINGS, A. 2005. The flora of Nags Head Woods and the Outer Banks of North Carolina: additions and corrections. *J. North Carolina Acad. Sci.* 121:111–116.

KRINGS, A. 2010. Manual of the vascular flora of Nags Head Woods, Outer Banks, North Carolina. Mem. New York Bot. Gard., Bronx, New York, U.S.A.

KROMBEIN, K.V. 1949. An annotated list of wasps from Nags Head and the Kill Devil Hills. *J. Elisha Mitchell Sci. Soc.* 65:262–272.

LAMONT, E.E. & R. STALTER. 2007. Orchids of Atlantic Coast Barrier Islands from North Carolina to New York. *J. Torrey Bot. Soc.* 134:540–551.

LEBLOND, R.J. 2000. *Solidago villosicarpa* (Asteraceae: Astereae), a rare new southeastern coastal plain endemic. *Sida* 19:291–300.

LEBLOND, R.J. 2006. Botanical and natural community surveys of Ocracoke Island, Hyde County, North Carolina. North Carolina Natural Heritage Program, Raleigh, U.S.A.

LEBLOND, R.J. 2017. Analysis of a W.W. Ashe species of *Panicum* and its transfer to *Dichanthelium* sect. *Angustifolia*. *J. Bot. Res. Inst. Texas* 11:314–316.

LENDEMER, J.C. 2016. *Trichothelium americanum*, a new species widespread in the coastal plain of southeastern North America. *J. Torrey Bot. Soc.* 143:199–206.

LENDEMER, J.C. & J.L. ALLEN. 2014. Lichen biodiversity under threat from sea-level rise in the Atlantic coastal plain. *BioScience* 20:1–9.

LENDEMER, J.C. & R.C. HARRIS. 2014. Seven new species of Graphidaceae (Lichenized Ascomycetes) from the Coastal Plain of southeastern North America. *Phytotaxa* 189(1):153–175.

LEVY, G.F. 1976. Vegetative study at the Duck Field Research Facility, Duck, North Carolina. U.S. Army Corps of Engrs., Coastal Engineering Res. Ctr. Misc. Rpt. No. 76-6, Ft. Belvoir, VA, U.S.A.

LEWIS, I.F. 1917. The vegetation of Shackleford Bank, Carteret Co. North Carolina, North Carolina Geol. Survey, Economic Paper 46.

LOPAZANSKI, M.J., J.P. EVANS, & R.E. SHAW. 1988. An Assessment of Maritime Forest Resources on the North Carolina Coast. Report to North Carolina Division of Coastal Management.

LUTEYN, J.L. 1976. Revision of *Limonium* (Plumbaginaceae) in eastern North America. *Brittonia* 28:303–317.

MALCOLM, J.R., A. MARKHAM, R.P. NEILSON, & M. GARACI. 2002. Estimated migration rates under scenarios of global climate change. *J. Biogeogr.* 29:835–49.

MALLINSON, D.J., C.W. SMITH, S. MAHAN, S.J. CULVER, & K. McDOWELL. 2011. Barrier island response to late Holocene climate events, North Carolina, USA. *Quaternary Res.* 76 (2011):46–57.

MATTHEWS, J.F., D.W. KETRON, & S.F. ZANE. 1993. The biology and taxonomy of the *Portulaca oleracea* L. (Portulacaceae) complex in North America. *Rhodora* 95:166–1283.

MAYES, C.H. & H.E. LIST. 1988. A symposium on interdune ponds in maritime forests. *Nags Head Woods Ecological Preserve*, North Carolina. *A.S.B. Bull.* 35:145–148.

MCCLELLAND, K.S. & A.S. WEAKLEY. 2019. A new species of *Trichostema* (Lamiaceae: Ajugoideae) from barrier island systems of North and South Carolina. *J. Bot. Res. Inst. Texas* 13:108–117.

MENON, S., J. SOBERON, X. LEE, & A.P. TOWNSEND. 2010. Preliminary assessment of biodiversity consequences of sea level rise mediated by climate change. *Biodivers. & Conservation* 19:1599–1609.

MOORHEAD, K.K. & M.M. BRINSON. 1995. Response of wetlands to rising sea level in the lower coastal plain of North Carolina. *Ecol. Appl.* 5:261–271.

MOSLOW, T.F. & S.D. HERON. 1994. The Outer Banks of North Carolina. In: R.A. Davis Jr. (ed.). *Geology of Holocene barrier island systems*. Springer-Verlag, New York, New York, U.S.A.

NATURESERVE. 2010. NatureServe Explorer: an online encyclopedia of life <http://www.natureserve.org/explorer/> Version 7.0, NatureServe, Arlington, Virginia, U.S.A.

NORTH CAROLINA NATURAL HERITAGE PROGRAM BIENNIAL PROTECTION PLAN: LIST OF SIGNIFICANT NATURAL HERITAGE AREAS. 2009. North Carolina Natural Heritage Program, Raleigh, North Carolina, U.S.A.

NORTH CAROLINA STATE PARKS. 2013. Vascular plant checklist, Jockey's Ridge State Park. NC Dept. of Parks and Recreation, Raleigh, U.S.A.

NIXON, K.C. 1997. Magnoliophyta: Magnoliidae and Hamamelidae: *Quercus*. *Flora of North America*. Oxford Univ. Press, New York, New York, U.S.A.

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES. 1996. Final management plan for the Buxton Woods Component of the North Carolina Coastal Reserve. Report to the NCDENR, Division of Coastal Management, Unpublished document.

ODUM, W.E. & J.W. HARVEY. 1988. Barrier Island interdunal freshwater wetlands. *ASB Bull.* 35:149–155.

OOSTING, H.J. 1954. Ecological processes and vegetation of the maritime strand in the southeastern United States. *Bot. Rev.* 20:226–262.

OOSTING, H.J. & W.D. BILLINGS. 1942. Factors affecting vegetation zonation on coastal dunes. *Ecology* 23:131–142.

Oosting, H.J. & P.E. Bourdeau. 1959. The maritime live oak forest in North Carolina. *Ecology* 40:148–152.

Otte, L.J., D.K.S. Atkinson, & T.A. Atkinson. 1984. Ecological inventory of a portion of the Nags Head Woods, Dare County, North Carolina. Unpublished report to the North Carolina Nature Conservancy, Durham, U.S.A.

OVERTON, M., W. BIRKEMEIER, S. BENTON, W. CLEARY, T. JARRETT, C. PETERSON, S.R. RIGGS, S. ROGERS, G. RUDOLPH, & E.J. SCIAUDONE. 2015. North Carolina Sea Level Rise Assessment Report, 2015 Update to the 2010 Report and 2012 Addendum. North Carolina Department of Environment and Natural Resources, Division of Coastal Management, Raleigh, NC, U.S.A.

PALMER, M.W., G.L. WADE, & P. NEAL. 1995. Standards for writing floras. *Bioscience* 45:339–345.

PARLIN, A.F., S.A. DINKELACKER, A. McCALL, M.S. GOSSELIN, C. METTEY, & R. TIBBET. 2019. Temporal and spatial assessment of the maritime forest herpetofauna on a barrier island in North Carolina. *S. E. Naturalist (Steuben)* 18:430–440.

PERRY, J.P. III & L.J. MUSSelman. 1994. *Psilotum nudum* new to North Carolina. *Amer. Fern. J.* 84:102–104.

PILKY, O.H., JR., W.J. NEAL, O.H. PILKEY, SR., & S.R. RIGGS. 1978. From Currituck to Calabash: living with North Carolina's barrier islands. Duke Univ. Press, Durham, North Carolina, U.S.A.

PIMENTAL, ET AL. 2000. Environmental and economic costs of nonindigenous species in the United States. *BioScience* 50:53–65.

RADFORD, A.E., H.E. AHLES, & C.R. BELL. 1968. Manual of the vascular flora of the Carolinas. Univ. of North Carolina Press, Chapel Hill, North Carolina, U.S.A.

REHDER, A.H. 1940. Manual of cultivated trees and shrubs hardy in North America. Collier MacMillan, New York, New York, U.S.A.

RESOURCE MANAGEMENT STAFF. 1977. Preliminary resource inventory of the vertebrates and vascular plants of Cape Lookout National Seashore North Carolina. Management Report No. 22, Cape Lookout N.S., National Park Service, U.S.A.

REZNICEK, A.A. 1993. *Carex pumila* (Cyperaceae) in North America. *Castanea* 58:220–224.

RIGGS, S.R. 2010. History of sea level and shoreline change in North Carolina. North Carolina sea level rise science forum, NC DENR and NC DECM, Morehead City, U.S.A., January 19, 2010.

RIGGS, S.R., D.V. AMES, S.J. CULVER, & D.J. MALLINSON. 2011. The battle for North Carolina's coasts. Univ. of North Carolina Press, Chapel Hill, North Carolina, U.S.A.

RIGGS, S.R. ET AL. 2009. Eye of a human hurricane: Pea Island, Oregon Inlet, and Bodie Island, northern Outer Banks, North Carolina. In: America's most vulnerable coastal communities; eds. J.T. Kelly, O.H. Pilkey, & J.A.G. Cooper. Geol. Soc. America Spec. Pap. 460-04:43–72.

ROBINSON, L.G. (ed.). 2018. Natural Heritage Program list of the rare plants of North Carolina. North Carolina Natural Heritage Program, Raleigh, North Carolina, U.S.A.

ROMERO-GONZÁLEZ, G.A., FERNÁNDEZ-CONCHA, G.C., DRESSLER, R.L., MAGRATH, L.K., & G.W. ARGUS. 2002. Magnoliophyta: Liliidae: Liliales: Orchidaceae. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

RONDTHALER, K. 1952. Flowering plants of Ocracoke Island. Unpubl. Bachelor's thesis, Reed College, Portland, Oregon, U.S.A.

SAVILLE, A.C. 2010. Delimiting species boundaries in the *Dichanthelium dichotomum* (L.) Gould complex. M.S. Thesis. North Carolina State University, Raleigh, North Carolina, U.S.A.

SCHAFALE, M.P. 2012. Classification of the natural communities of North Carolina, 4th approximation. North Carolina Natural Heritage Program. Raleigh, North Carolina, U.S.A.

SCHILLING, E.E. & K.C. GRUBBS. 2016. Systematics of the *Eupatorium mohrii* complex (Asteraceae). *Syst. Bot.* 41(3).

SCHROEDER, P.M., R. DOLAN, & B.P. HAYDEN. 1976. Vegetation changes associated with barrier-dune construction on the Outer Banks of North Carolina. *Environm. Managem.* 1–2:105–114.

SEMPLE, J.C. & R.E. COOK. 2006. Magnoliophyta: Asteridae, part 6: Asteraceae: *Solidago*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

SENEY, E.E. M.J. ROWLAND, R.A. LOWERY, R.B. GRIFFES, & M.M. MCCLURE. 2013. Climate change, marine environments, and the U.S. Endangered Species Act. *Conserv. Biol.* 27:1138–1146.

SERNEC (Southeast Regional Network of Expertise and Collections). 2018. Online at sernecportal.org.

SHEVIAK, C.J. & P.M. BROWN. 2002. Magnoliophyta: Liliidae: Liliales: Orchidaceae: *Spiranthes*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

SIEREN, D.J. 1981. The taxonomy of the genus *Euthamia*. *Rhodora* 83:551–579.

SIRIPUN, K.C. & E.E. SCHILLING. 2006. Magnoliophyta: Asteridae, part 6: Asteraceae: *Eupatorium*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

SMITH, S.G. 2002a. Magnoliophyta: Commelinidae (in part): Cyperaceae: *Bulboschoenus*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

SMITH, S.G. 2002b. Magnoliophyta: Commelinidae (in part): Cyperaceae: *Schoenoplectus*. Flora of North America. Oxford Univ. Press, New York, New York, U.S.A.

SMITH, S.G., J.J. BRUHL, M.S. GONZÁLEZ-ELIZONDO, & F.J. MENAPACE. 2002. Magnoliophyta: Commelinidae (in part): Cyperaceae: *Eleocharis*. Flora of North America, vol. 23. Oxford Univ. Press, New York, New York, U.S.A.

SORRIE, B.A. 2014a. An Inventory of the Natural Areas of Dare County, North Carolina. North Carolina Heritage Program, Division of Natural Resource Planning and Conservation, DENR, Raleigh, North Carolina, U.S.A.

SORRIE, B.A. 2014b. Noteworthy records from Dare and Tyrrell counties, North Carolina. *Phytoneuron* 2014-47:1–15.

SORRIE, B.A. 2014c. The maritime variant of *Smilax bona-nox* (Smilacaceae). *Phytoneuron* 16:1–3.

SORRIE, B.A. 2015. Magnoliophyta: Cistaceae: *Crocanthemum*. Flora of North America, vol. 6. Oxford Univ. Press, New York, New York, U.S.A.

SORRIE, B.A. 2016. Reinstatement of *Diodia harperi* (Rubiaceae), a southeastern United States coastal plain endemic. *Phytoneuron* 2016-3:1–13.

SORRIE, B.A. 2018. *Panicum virgatum* var. *spissum* in the southeastern United States. *J. Bot. Res. Inst. Texas* 12:61–62.

SORRIE, B.A. & R.J. LE BLOND. 2014. *Eleocharis fallax* (Cyperaceae): Recent collections and morphological comparison with *E. ambigens* and *E. montevidensis*. *Phytoneuron* 8:1–7.

SORRIE, B.A., R.J. LE BLOND, & A.S. WEAKLEY. 2018. Reassessment of *Oenothera fruticosa* var. *unguiculata* (Onagraceae). *J. Bot. Res. Inst. Texas* 12:471–475.

SORRIE, B.A., T.E. HIPPENSTEEL, J.O. LARKE, R.J. LEBLOND, M.J. RUSSO, & B. VAN EERDEN. 1992. List of plants found on Shackleford Bank, Carteret County, North Carolina, U.S.A. [unpublished]

SORRIE, B.A. & A.S. WEAKLEY. 2007a. Notes on *Lechea maritima* var. *virginica* (Cistaceae). *J. Bot. Res. Inst. Texas* 1:367–368.

SORRIE, B.A. & A.S. WEAKLEY. 2007b. Recognition of *Lechea pulchella* var. *ramosissima* (Cistaceae). *J. Bot. Res. Inst. Texas* 1:369–371.

STALTER, R. & E.E. LAMONT. 1997. Flora of North Carolina's Outer Banks, Ocracoke Island to Virginia. *J. Torrey Bot. Soc.* 124:71–88.

STALTER, R. & E.E. LAMONT. 1999. Vascular flora of Cape Lookout National Seashore and Bogue Banks, North Carolina. *J. Elisha Mitchell Sci. Soc.* 115:213–235.

STICK, D. 1958. The Outer Banks of North Carolina. Univ. of North Carolina Press, Chapel Hill, North Carolina, U.S.A.

STRATTON, A.C. 1943. Reclaiming the North Carolina "Banks": sand fences and plantings used to rehabilitate barrier beaches in proposed Hatteras National Seashore area. *Shore and Beach*, April 1943.

STRATUS CONSULTING, Inc. 2010. Climate Change Impacts in the Southeastern United States; Draft Discussion Paper. Prepared for: Office of Air and Radiation, Climate Change Division, Region 4, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC, U.S.A.

STUCKEY, J.L. 1965. North Carolina: Its geology and mineral resources. Department of Conservation and Development, Raleigh, U.S.A.

STUCKY, J.M. & E.C. SWAB. 2005. Winter keys to common, wetland, trees, shrubs, and woody vines of the North Carolina Coastal Plain. *Vulpia* 4:68–93.

SUSSMAN, K.R. & S.D. HERON, Jr. 1979. Evolution of a barrier island, Shackleford Banks, Carteret County, North Carolina. *Geol. Soc. Amer. Bull.* 90:205–215.

TANT, P.L. 1992. Soil Survey of Dare County, North Carolina. USDA, Soil Conservation Service, U.S.A..

TUCKER, G.C., B.G. MARCKS, & J.R. CARTER. 2002. Magnoliophyta: Commelinidae (in part): Cyperaceae: *Cyperus*. *Flora of North America*, vol. 23. Oxford Univ. Press, New York, New York, U.S.A.

USDA-NRCS PLANTS Database / USDA NRCS. Wetland flora: Field office illustrated guide to plant species. USDA Natural Resources Conservation Service. Washington, DC, U.S.A.

USHER, J.W., R.W. TYNDALL, & G.F. LEVY. 1978. *Cyperus difformis* (L.) a North Carolina state record, and additions to the flora of Dare County. *J. Elisha Mitchell Sci. Soc.* 94:177.

VAN DER VALK, A.G. 1975. The floristic composition and structure of foredune plant communities of Cape Hatteras National Seashore. *Chesapeake Sci.* 16:115–126.

VANDER KLOET, S.P. 2009. Magnoliophyta: Ericaceae: *Vaccinium*. *Flora of North America*, vol. 8. Oxford Univ. Press, New York, New York, U.S.A.

WEAKLEY, A.S. 2018. Flora of the Southern and Mid-Atlantic States. Univ. of North Carolina, Chapel Hill, North Carolina, U.S.A.

WEAKLEY, A.S. & M.A. BUCHER. 1992. Status Survey of seabeach amaranth (*Amaranthus pumilus* Rafinesque) in North and South Carolina. NC Plant Cons. Program and NC Endangered Species Field Office, Raleigh, North Carolina, U.S.A.

WEAKLEY, A. S., J.C. LUDWIG, J.F. TOWNSEND, & B. CROWDER 2012. Flora of Virginia. BRIT Press, Fort Worth, Texas, U.S.A.

WEAVER, P.G., B.W. WILLIAMS, & E.M. SADORF. 2018. A new record of the heart urchin *Rhynobrissus cuneus* (Spatangoida: Brissidae) from Buxton Beach, Dare County, North Carolina. *S. E. Nat. (Steuben)* 17/3:N34–N39.

WEBSTER, D.W. 1988. The mammals of Nags Head Woods Ecological Preserve and surrounding areas. *A.S.B. Bull.* 35:223–239.

WELLS, B.W. 1928. Plant communities of the coastal plain of North Carolina and their successional relations. *Ecology* 9:230–242.

WELLS, B.W. 1939. A new forest climax: the salt spray climax of Smith Island, N.C. *Bull. Torrey Bot. Club* 66:629–634.

WENTWORTH, T.R., M.P. SCHAFALE, A.S. WEAKLEY, R.K. PEET, P.S. WHITE, & C.C. FROST. 1992. A preliminary classification of North Carolina barrier island forests. In: C.A. Cole & K. Turner, eds. *Barrier Island Ecology of the Mid-Atlantic Coast: A Symposium*. U.S. Department of the Interior, National Park Service, Atlanta, Georgia, U.S.A. Pp. 31–46.

WHITAKER, J.D., J.W. McCORD, P.P. MAIER, A.L. SEGARS, M.L. REKOW, N. SHEA, J. AYERS, & R. BROWDER. 2004. An ecological characterization of coastal hammock islands in South Carolina. Final Report to Ocean and Coastal Resources Management, South Carolina Department of Health and Environmental Control, U.S.A.

WILBUR, R.L. 1963. The leguminous plants of North Carolina. *North Carolina Agric. Exp. Sta. Bull.* 151:1–294.

WOOD, G.W. 1981. Assessment of the impact of feral ungulates on the vegetation of Shackleford Banks, Cape Lookout National Seashore. *Belle W. Baruch Forest Inst.*, Clemson University, Clemson, South Carolina, U.S.A.

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