

NEW SPECIES AND COMBINATIONS PUBLISHED IN M.J. YOUNG'S *FAMILIAR LESSONS IN BOTANY WITH FLORA OF TEXAS* (1873)

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ABSTRACT

Familiar lessons in Botany with flora of Texas (1873) by M.J. Young was analyzed to establish how many nomenclatural novelties it contains. The flora portion of the book, written with the assistance of S.B. Buckley, borrowed almost all its descriptions, often verbatim, from earlier floras. Despite extensive copying, Young described two and Buckley one new species in this flora, and Young made six new combinations. These nine names as well as eight others either incorrectly attributed to Young or misapplied by her are discussed and seven lectotypes and four neotypes are designated here. Information is provided on when the manuscript for *Familiar lessons in Botany* appears to have been completed, when the book was published, and how it was publicized. Bibliographic and herbarium sources used by the author are discussed. In addition, details concerning Young's small circle of botanical contacts and correspondents are given to provide context for her unique contribution to the flora of Texas.

KEY WORDS: female botanist, history of botany, Maud Jeannie Young, Samuel Botsford Buckley, Texas

RESUMEN

Se analizó "*Familiar lessons in Botany with flora of Texas*" de M.J. Young (1873) para establecer cuántas novedades nomenclaturales contiene. La parte de flora del libro, que fue escrita con la ayuda de S.B. Buckley, tomó prestadas casi todas sus descripciones, a menudo palabra por palabra, de floras anteriores. A pesar de la copia extensa, en esta flora Young describió dos nuevas especies y Buckley una. Young hizo seis nuevas combinaciones. Se discuten estos nueve nombres, así como otros ocho atribuidos incorrectamente a Young o mal aplicados, y se designan aquí siete lectotipos y cuatro neotipos. Se proporciona información sobre cuándo parece haberse completado el manuscrito "*Familiar Lessons in Botany*", cuándo se publicó el libro y cómo se publicitó. Se comentan las fuentes bibliográficas y de herbario utilizadas por el autor. Además, se brindan detalles sobre el pequeño círculo de contactos y corresponsales botánicos de Young para brindar contexto a su contribución única a la flora de Texas.

INTRODUCTION

The first flora of Texas written by a resident of Texas is *Familiar lessons in Botany with flora of Texas, adapted to general use in the southern states* by M.J. Young. It was published in 1873, shortly after the end of the Civil War and a few years after Texas was readmitted to the Union in 1870. Studhalter (1931) published an extensive review of this book, providing not only a biographical sketch and photograph (Fig. 1) of its author, Matilda Jane (aka Maud or Maude [sic] Jeannie) Young (née Fuller) (1826–1882), but also detailed analyses of the first portion of the work that is a textbook ("*Familiar lessons in Botany*") and the second part that constitutes the first attempt at a comprehensive flora of the state ("*Flora of Texas*"). Studhalter (1931), however, did not critically analyze the flora for its nomenclatural novelties. This is not surprising since standard nomenclatural databases (Jackson 1884; IPNI 2021; Tropicos 2021) have also failed to fully account for the new species and combinations in Young's *Familiar lessons in Botany*.

Maud Jeannie Young (1826–1882)

A number of biographical sketches of the author of *Familiar lessons in Botany* have been published (Raymond 1870; Anonymous 1872; Dixon 1885; Brooks 1896; Studhalter 1931; Geiser 1948; Henson 2021) and there is little new to add. Briefly stated, Maud Jeannie Young was born in North Carolina, settled with her birth family in Texas by 1843, was widowed shortly after she married in 1847, and then lived with her birth family in Houston the rest of her life. Apart from raising a son who was born posthumously in 1848, she wrote poems,



MRS. M. J. YOUNG

FIG. 1. Mrs. M.J. Young, photograph reproduced from Studhalter (1931).

fiction, and essays that appeared in Houston newspapers and magazines from 1856 to 1867, and during the Civil War she also composed under various pseudonyms (e.g., “The Confederate Lady” and “The Soldiers Friend”) inspirational verse for Confederate soldiers. After the War she taught at the Houston Academy, a private school, from 1866 to 1869, and in 1872 she opened her own private school. She served as “State Botanist” from 1872 to 1873, which was an appointment made by Texas Gov. Edmund J. Davis, but the duties of the position and whether there was remuneration are unclear. She knew the Texas botanists Samuel B. Buckley and Gideon Lincecum and was aware of Ferdinand Lindheimer’s interest in the flora of Texas although there is no evidence that she met Lindheimer in person. She began to correspond with Sereno Watson in Cambridge, Massachusetts, and George Engelmann in St. Louis shortly before her flora was published. Correspondence with the pteridologist George E. Davenport of Boston, however, evidently occurred entirely post publication.

Publication of *Familiar Lessons in Botany* (1873)

Young’s flora bears the imprint of a New York publisher (A.S. Barnes & Co.) along with that of a Houston one (E.H. Cushing) (Fig. 2) and the latter seems to have been responsible for the actual printing and binding of the book (Anonymous 1873a). The book’s title page indicates that it was published in 1873, but the overleaf of the title-page states that it was copyright in 1872 indicating the manuscript was completed on the earlier date (or

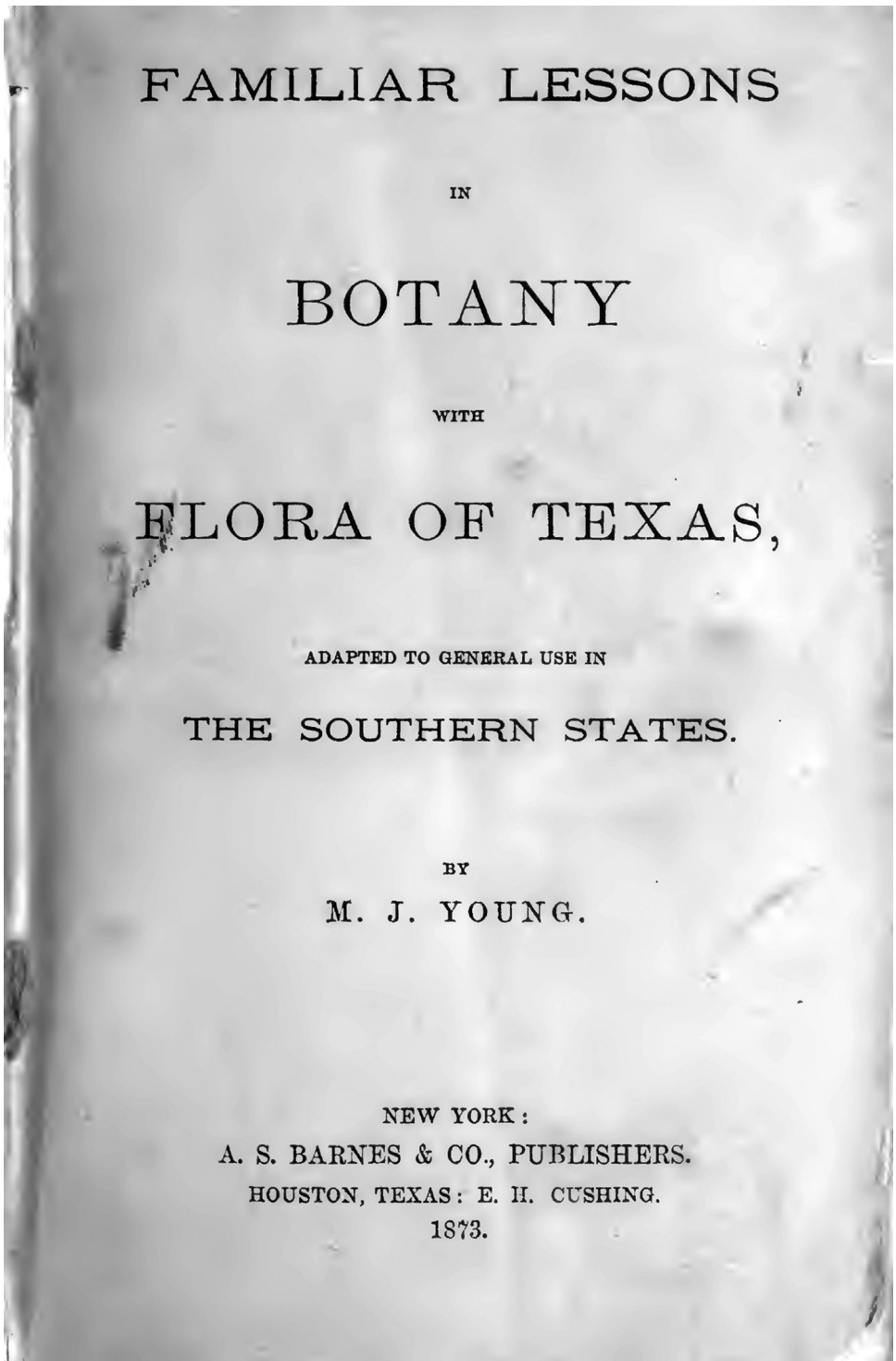


Fig. 2. Title page of *Familiar Lessons in Botany with Flora of Texas, adapted to general use in the southern states* (1873) by M.J. Young.

before). In a contemporaneous biographical sketch, Raymond (1870; see also Anonymous 1872) mentioned that Young had authored “a work on botany, soon to be issued, illustrative principally of the flora of Texas” adding credence to the supposition that the manuscript was completed several years before it was published. The actual publication date, however, was 6 December 1873 (Anonymous 1873a, 1873b).

A.S. Barnes released at least one pre-publication notice of her book in December 1873 (Anonymous 1873c), which was followed by brief notices in *The Publishers Weekly* (3 January and 21 February 1874, at least) (Anonymous 1874a, 1874b) where the book was listed for sale at \$2.00 and the publisher was stated to be “Cushing.” E.H. Cushing began advertising Young’s book in Texas newspapers in January 1874 with classified advertisements (Fig. 3) in *The Dallas Weekly Herald* (24 January 1874) and *The Waco Daily Examiner* (27 January and 28 February 1874), at least. A.S. Barnes also included advertisements for Young’s book in the back pages of its other school texts. A copy of a grammar textbook by Jewell (1867) owned by Harvard University (digitized by HathiTrust, see <https://babel.hathitrust.org/cgi/pt?id=hvd.32044029064722&view=1up&seq=9>) has in its back pages an advertisement for Young’s flora (see unnumbered pages with the header “The National Series of Standard School-Books”) where it is offered for sale at \$1.40. It seems unlikely that Young’s book would have been advertised six years before its publication and these advertisements probably were attached to one or more of the later (1869, 1875 or 1877) printings of this 1867 grammar. A manifestly post-publication advertisement is found in the back pages of Phelps (1874) and similar advertisements can be traced for the better part of a decade (see e.g., Wood 1882). All of these advertisements targeted the school textbook market and the advertising copy invariably reads: “Young’s Familiar Lessons in Botany. Combining simplicity of diction with some degree of technical and scientific knowledge, for intermediate classes. Specially adapted for the Southwest.” Although the advertisement in Jewell (1867) set the price at \$1.40, other price quotes were \$2.00 (see above and Phelps 1874): the latter sum is equivalent to ca. \$45.00 today. A single, uncritical review was discovered (Anonymous 1875), but no contemporary reviews or notices in scientific periodicals were found.

Botanical contacts acknowledged in *Familiar Lessons in Botany* (1873)

Evidently self-taught, it is not clear how Young acquired her knowledge of either Botany or the flora of Texas. It seems remarkable that someone who had never published anything remotely scientific could have conceived of and written *Familiar lessons in Botany*. She only acknowledges the help of two botanists in the prefatory note preceding the floral part of her book. She states that she relied heavily on Professor S.B. Buckley (miscited as “S.D. Buckley”) for floristic information, and elements of the text clearly show his influence. She identifies Buckley as “formerly Assistant Geologist and Botanist of Texas,” a position he held from November 1860 until the survey was suspended in April 1861. She also thanked Dr. Sereno Watson of the Botanic Gardens, Cambridge, Massachusetts “for his kind assistance in her prosecution of the study of Natural Classification.” There is nothing else in the text of *Familiar lessons in Botany* that mentions Watson and it is difficult to evaluate the nature and extent of his help. Watson only recently had become Asa Gray’s assistant at Harvard University in 1871 (Coulter 1892) and it is unlikely that he would have been in contact with Young before then. No correspondence between Young and Watson appears to survive, but in January 1874, Watson wrote Engelmann (Watson to Engelmann, 14 Jan. 1874, Engelmann Papers) who evidently had just informed him about the publication of *Familiar lessons in Botany* that he had not yet seen Young’s book even though Young had promised him a copy. Moreover, Watson informed Engelmann that he did not think he had done anything that merited her thanks. He was curious, however, to “see what Buckley’s things are”: this presumably a reference to Buckley’s contributions to Young’s flora.

Watson (or perhaps Buckley) had provided Young with an introduction to Engelmann only a few months before *Familiar lessons in Botany* was published. In August 1873, Watson wrote Engelmann (Watson to Engelmann, 25 Aug. 1873, Engelmann Papers) that Young intended to call on him in St. Louis, that she had recently been appointed “State Botanist of Texas,” and that she was interested in the Cactaceae of that state. When or if she met Engelmann in St. Louis is unclear. She did arrange to send Engelmann a copy of her book in late December 1873 (Studhalter 1931). A few weeks before that she wrote Engelmann and this letter (Young

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Factory, 205 Tchoupitoulas St.
Depot and office, 12 Union Street. New
Orleans, Louisiana. 2)wlm

NEW SCHOOL BOOKS

FAMILIAR LESSONS IN BOTANY, by
Mrs. M. J. Young, of Houston, Texas, with a
complete Flora of Texas. The best Botany
yet. Should be in every School.

HISTORY OF THE UNITED STATES, by
Alex. H. Stevens. In many respects the best
History yet written. E. H. CUSHING.
Houston, January 20, 1874.

J. J. GOOD, ED. G. BOWER, Z. E. COOMBES.

GOOD, BOWER & COOMBES,

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Fig. 3. Advertisement for *Familiar Lesson in Botany*, which appeared in *The Dallas Weekly Herald* on 24 January 1874.

to Engelmann, 12 Dec. [1873], Engelmann Papers) clearly was the continuation of an exchange of letters. In this letter, the only one in their correspondence that seems to have survived, she thanked Engelmann for a paper that he sent her on Cactaceae (“I don’t know that I will be able to master the thorny subject but shall try”), mentioned asking her father to gather acorns of white oaks for Engelmann, and said that she could supply Engelmann with seed of yucca species. She also informed Engelmann that Buckley appeared to be living in poverty and should have been named “State Botanist,” but she had accepted the position when it was offered knowing that if she refused it would not have gone to Buckley in any case.

Clearly Young had known Buckley in better times, but where and when they first met is unknown. Young’s late husband Samuel Oliver Young (1819–1847) had lived in Wilcox Co., Alabama before immigrating to Texas in 1846 (Palmer 1901). Buckley taught school in the same county and resided there almost continuously from 1839 until 1842. This opens the possibility that the two men could have met in Alabama before either one moved to Texas. It seems more likely, however, that Buckley met the widowed Young after he first arrived in Texas in November 1859 or less likely after he returned to Texas in January 1866 following the end of the Civil War.

As noted, Young resided in Houston and she occasionally visited San Antonio and Austin. Buckley was based principally in the last-named city where he was employed pre-Civil War by the Texas State Geological Survey. Although there is no evidence of Buckley visiting or spending time in Houston, the city might be the key to how he and Young met. Following a political shake-up in November 1860, Dr. Francis Moore, Jr. (1808–1864) of Houston was placed in charge of the Geological Survey. Buckley was in the field with Moore from December 1860 through January 1861 and again from early March through June 1861 during which time Buckley focused on collecting plants. Moore had strong ties to Houston that began before Texas Independence and he had served three terms as mayor of the city (Benham 2021) being succeeded on his final term by Col. Nathan Fuller (1803–1889), Young’s father, who then served two terms (Henson 2021). Perhaps it was Moore who recognized Buckley and Young’s shared interest in Botany and facilitated their introduction.

Interestingly, Moore had been the owner and editor of the *Houston Telegraph* from 1837 to 1854, which subsequently from 1856 to 1869 was edited (and then owned) by Edward Hopkins Cushing (1829–1879) (Reynolds 2021) who published some of Young's poetry. Cushing's sale of the newspaper after the War allowed him to focus on his book and stationary business, which published *Familiar lessons in Botany*.

Published sources used by *Familiar Lessons in Botany* (1873)

The floristic part of Young's *Familiar lessons in Botany* (1873) is not an original work, which the author candidly acknowledges. Much of it is copied from Chapman's *Southern flora* (1860). In a prefatory note preceding Part II of her book, Young wrote that it was Buckley who helped her select the taxa in Chapman's work that also occur in Texas as Chapman's flora only covered the southern states east of the Mississippi River. Apart from Chapman, Young does not explicitly mention any other publication as a source for her descriptions although analysis of her text establishes several that were consulted and copied.

Young mentioned both Asa Gray and John Torrey in her prefatory remarks but did not credit their flora of North America (1838) as a source for some of her descriptions even though a number of them were copied from it. Curiously, only the first, not the second volume of Torrey and Gray's flora seems to have been consulted. Young's failure to explicitly cite *A flora of North America* (1838) is not explained but it could be simply that she did not own or have access to a copy of the book and simply included descriptions of taxa that Buckley borrowed from this source.

Young (1873) frequently cites "Marcy" or "Marcy's Expedition," which are references to a report published by Torrey (1853) that provides records and localities of plant species found on the Red River that forms part of the boundary between northern Texas and Indian Territory (now Oklahoma). The Botanical appendix provided by Torrey did not include descriptions and consequently Young's (1873) references to Marcy also often lack them. At least one reference to Marcy's Expedition is erroneous. *Corchorus pilobolus* Link (= *C. hirtus* L.) (Malvaceae) is associated with Marcy by Young, but the locality cited ("Rocky hills of the Rio Grande") was not visited by that expedition. Young (or Buckley) also details a nomenclatural problem created by Torrey (1853). *Myosotis suffruticosa* Torr. [= *Oreocarya suffruticosa* (Torr.) Greene (Boraginaceae)] is recognized by Young (1873) even though Torrey (1853) called it *Eritrichium jamesii* Torr. Earlier Torrey (1828) had described the species as *M. suffruticosa* and his renaming the species (Torrey 1853) created a superfluous name, which Young (or Buckley) correctly elected not to use.

Twenty-four species described by Buckley are included in Young's flora. One, *Quercus san-sabeana* Buckley (Fagaceae), is newly described while the others were published earlier (Buckley 1843, 1861, 1862, 1866, 1870a). Two species, *Thalictrum debile* Buckley (Ranunculaceae) and *Phacelia pusilla* Buckley (Hydrophyllaceae), originally were based on material from Alabama (Buckley 1843) but their ranges extend to Texas. Young's descriptions of these two are copied almost verbatim from Chapman (1860) and not Buckley's original publication. The remaining species published by Buckley and included in Young's flora represent only a fifth of the ca. 120 species that he described from Texas. Young (1873) does not provide a rationale for why she included some of his Texas species while omitting others. Nonetheless, it seems that Buckley's dispute with Gray, which was precipitated by Buckley's descriptions of Texas plants may have been a factor. Gray (1862a, 1862b) severely criticized the taxa Buckley described from Texas and Buckley (1870b) belatedly published a partial defense in which he argued for the acceptance of 13 species that he thought Gray had wrongly dismissed. Eleven of these 13 are included in Young's flora. Why the other two were omitted is not clear. Young (1873) also recognized *Carya buckleyi* Meehan ex Durand (Juglandaceae), which is curious given that this name is an illegitimate renaming of *C. texana* Buckley. Her description, however, is almost verbatim that of Buckley (1861). It is difficult to imagine that Young would have known about this name proposed by Durand (1861) in the minutes of a meeting of the Academy of Natural Sciences in Philadelphia. For Buckley, however, the honor of eponymy apparently was more important than authorship.

None of Buckley's Texas Asteraceae are included in Young's (1873) flora. In this instance, she writes that she "followed Dr. Chapman's analysis of this Order [i.e., family] verbatim, finding it easy for the student, clear, and comprehensive." This effectively excluded Buckley's Asteraceae names because they were all published

after Chapman's (1860) flora was published. Buckley also described several genera and numerous species of grass from Texas and yet only one species, *Panicum texanum* Buckley, published in an appendix to his preliminary report of the Geological and Agricultural Survey of Texas (1866) is included by Young (1873) whose description is copied from that of the report.

The southeastern flora is not as rich in Cactaceae as that of Texas. Consequently, the descriptions of Cactaceae in Young's flora are mostly copied from the *Cactaceae of the Boundary* (Engelmann 1859). Inasmuch as there is no evidence that Young knew or was in contact with George Engelmann before the manuscript for her flora was completed, it would appear once again that it was Buckley who provided her with these descriptions. Young (1873) also cites "Emory's Reports" following *Cereus berlandieri* Engelm. (Cactaceae), but this is simply an alternate bibliographic reference to the *Cactaceae of the Boundary*.

Herbarium specimens cited in *Familiar Lessons in Botany* (1873)

Herbaria and herbarium specimens were not consulted critically by Young while writing her flora even though she occasionally cites specimens following her descriptions. Shortly after the flora was published, she informed Engelmann (Young to Engelmann, 12 Dec. [1873], Engelmann Papers) that Gideon Lincecum had sent her his herbarium for examination but that it was "a sepulcher of dust." She also noted that she had written to "a learned German Doctor of New Braunfels" (i.e., Ferdinand Lindheimer) asking to examine his collection, but he evidently declined reporting that he too had trouble maintaining an herbarium because of insects. Lincecum's post-War activities would seem to constrain when Young could have examined his herbarium. Lincecum joined a Confederate colony in Tuxpan, Veracruz, Mexico in 1868 and did not return to Texas until June 1873 (Burkhalter 2021). Assuming her manuscript was completed about 1870, this would mean Young could only have examined Lincecum's herbarium before his departure for Mexico. Irrespective of when she had access to it, its contents had little impact on her text because Lincecum is mentioned only once and then only in connection with *Vitis linsecumii* Buckley (Vitaceae), which was published in 1862.

Some localities cited in her flora such as "Mt. Bonnell, near Austin" suggest collections or observations made by Buckley who lived near Austin. Buckley had relinquished control of his own personal herbarium before the Civil War (Dorr 1997) and the references in Young's flora to species described by Buckley were based on publications rather than specimens. Following the War, Buckley assumed responsibility for a collection belonging to the Geological Survey of Texas that he largely had assembled pre-conflict, and which was kept in the state Capitol both during and after the War (Buckley 1866; Buckley to Davenport 16 Mar. 1874, Davenport Correspondence). There is no evidence that Young examined or even was aware of these specimens.

Specimens made by a dozen different collectors are cited in Young's flora. S.B. Buckley, Thomas Drummond, George Engelmann, Melines C. Leavenworth, E.F. Leitner, Randolph Barnes Marcy, André Michaux, Heinrich Poselger, Arthur Schott, George Thurber, John Torrey, and John A. Veatch are mentioned (often only by surname or by title and surname). Drummond is the collector most frequently cited followed by Marcy. None of these references to collectors, however, should be interpreted as references to material physically examined by Young (or Buckley). They are without exception references to specimens cited in the literature that Young (and Buckley) consulted. What ostensibly appear to be references to collections made by "Dr. Engelmann" and "Torrey and Gray" are, in fact, bibliographic references.

Studhalter (1931) stated that Young had a personal herbarium, which after her death was saved by her son Dr. Samuel Oliver Young (1848–1926), but then destroyed along with her letters in the Galveston hurricane of 1900. Correspondence with Engelmann (Young to Engelmann, 12 Dec. [1873], Engelmann Papers), however, indicates that about the time that she published her book she did not keep an herbarium herself: "I have no herbarium. The insects in this State are so numerous + troublesome that [it] is almost an impossibility to preserve specimens." About the same time, she informed Davenport (Young to Davenport, 16 Feb. 1874, Davenport Correspondence) that because of insect pests it was "quite impossible to keep plants in [an] herbarium." Additionally, there is little evidence that Young had much experience with Texas plants in the wild. She includes a single statement in her flora concerning a field observation and it concerns the non-native

China Tree (or Chinaberry) (*Melia azedarach* L. [Meliaceae]), which she saw “growing in the Brazos bottom, far from any habitation; also below Harrisburg, upon Buffalo Bayou.” Another statement regarding a fern (*Adiantum capillus-veneris* L. [Pteridaceae]) found in Buffalo Bayou implies a field observation. Yet, a third statement following *Potamogeton natans* L. (Potamogetonaceae) (viz., “I have not seen specimens. . .”) could as easily have been made by Buckley as Young.

Although the evidence of Young having a private herbarium is equivocal, she is known to have collected or at least distributed specimens collected in Texas of which only a handful survive (Table 1). Essentially all of Young’s herbarium collections that survive were collected in 1875 or 1876 after her book was published, and the majority are ferns that she sent to Davenport. At least one fern, *Hemionotis leucopoda* (Link) Christenh. (Pteridaceae) collected in “Uvalde Cañon,” was not mentioned in her own flora but is cited by Eaton (1878, as “*Cheilanthes leucopoda*, Link”) in his ferns of the Southwest. At least once, Young complained to Davenport (Young to Davenport, s.d., Davenport Correspondence) that as her health was poor, she had to do all her collecting by proxy. A separate letter (Young to Davenport, 3 Dec. [1875?], Davenport Correspondence) in which she asked Davenport’s opinion regarding “a new *Ampelopsis*” with a bright red flower (probably a misidentification of *Clematis pitcheri* Torr. & A. Gray [Ranunculaceae]) suggests that some of her collections from Uvalde Canyon may have been made by Col. John Robert Baylor (1822–1894). In the same letter, she mentions her intention to make her “long contemplated trip to the Nueces” (i.e., Uvalde Canyon) early in the spring. A few specimens (Table 1) appear to corroborate that she did visit Uvalde Canyon in 1876.

MATERIALS AND METHODS

Standard nomenclatural indices (Jackson 1884; IPNI 2021; Tropicos 2021) and JSTOR Global Plants (2021) were searched for names attributed to either Young or Buckley. In addition, Young’s (1873) flora was examined taxon by taxon for names that appeared to be novelties. A contemporaneous bibliographic index to North American botany compiled by Watson (1878) was also examined for references to Young’s flora. After a list of names that appeared to be new species or new combinations was generated, the names were evaluated to determine if each one complied with the requirements of the ICN (Turland et al. 2018) for valid publication. Finally, all of the names of novelties in the flora were researched to establish whether they had been typified. Where appropriate types are designated here.

RESULTS

A careful examination of the book suggests that it contains two new species described by Young and six new combinations. One new species also is described by Buckley in Young’s flora (1873). The combinations proposed by Young may, in fact, have been proposed by Buckley but no published statements support this. Unpublished correspondence regarding their working relationship does not speak to this issue either. Several names that indices listed as new species or new combinations proposed by Young were found not to be names or combinations as defined by the ICN (Turland et al. 2018).

The following list includes the names of the new species and combinations published in Young (1873). It also includes eight names that appear in her flora that are not nomenclatural novelties but often misstated to be such.

The “Index of Botanical Publications” published by Harvard University Herbaria & Libraries (https://kiki.huh.harvard.edu/databases/publication_search.php?mode=details&id=9061) adopted “Familiar Lessons Bot.” as the standard abbreviation for Young’s (1873) flora and it is the abbreviation used here. Tropicos (2021) and IPNI (2021) are inconsistent in abbreviating this work: both use “Familiar Lessons Bot.” as well as “Fl. Texas.”

TABLE 1. Herbarium Specimens Collected by M.J. Young.

Taxon	Location	Date	Herbarium
<i>Asplenium platyneuron</i> (L.) Britton et al.	Texas	1875	GH (barcode 01919981) ¹
<i>Clematis pitcheri</i> Torr. & A. Gray	W. Texas	1875	GH (barcode 01657101) ²
<i>Distimake dissectus</i> (Jacq.) A.R. Simões & Staples	W. Texas	1875	GH (barcode 02042966)
<i>Euphorbia heterophylla</i> var. <i>cyathophora</i> (Murray) Griseb.	on the Uvalde	1876	GH (barcode 00267485)
<i>Persicaria hydropiper</i> (L.) Delabre	San Antonio	Sep 1875	LSU (barcode 00085846)
<i>Adiantum capillus-veneris</i> L.	Barton Spring, Nr Austin	s.d.	MICH (barcode 1852134) ^{1,3}
<i>Adiantum capillus-veneris</i> L.	San Antonio	1875	NHA (barcode NHA-662732)
<i>Thelypteris</i> cf. <i>ovata</i> R.P. St. John	near Houston	1875	NHA (barcode NHA-660558) ⁴
<i>Acleisanthes longiflora</i> A. Gray	San Antonio, Texas	1875	US (barcode 03640074) ⁵
<i>Hemionotis leucopoda</i> (Link) Christenh.	Nueces, Texas	s.d.	YU (barcode YU.014193) ⁶
<i>Hemionotis leucopoda</i> (Link) Christenh.	Uvalde Cañon, Rio Nueces, Texas	1876	YU (barcode YU.014194) ⁷

¹ Ex Herb. George B. Davenport.

² This might be the "new *Ampelopsis* [sic]" Young described to Davenport (Young to Davenport, 3 Dec. [1875?]; Davenport Correspondence). If so, it was collected by Col. John Robert Baylor in Uvalde Canyon, Nueces County, Texas, not Young.

³ Annotated "Gray Herbarium, Transferred from Peabody Museum, Salem, 1942" and, in pencil, "ex herb. J. Robinson." "J. Robinson" probably is John Robinson (1846–1925), a Massachusetts botanist acquainted with Davenport.

⁴ A second label is beneath the one that reads "near Houston, Texas" and it provides a more precise locality (viz., "Banks of Buffalo Bayou, nr Houston, Texas"). Neither label is in Young's hand.

⁵ "Ex Herb. J.F. Joor, M.D." Dr. Joseph Finley Joor (1848–1892) corresponded with Davenport.

⁶ "sent by S. Watson, 1876". This almost certainly represents material collected by Young in Uvalde Cañon in 1876, which was sent to Watson who then conveyed it to the pteridologist Daniel Cady Eaton (1834–1895).

⁷ Herb. D.C. Eaton "from G.E. Davenport."

TAXONOMY

Astragalus trichocarpus (Torr. & A. Gray) M.J. Young, Familiar Lessons Bot. 228. 1873, non Graham ex Benth. in Royle, Ill. Bot. Himal. Mts. 199. 1835 [1839]. *Astragalus nuttallianus* var. *trichocarpus* Torr. & A. Gray, Fl. N. Amer. 1(2):334. 1838 ("β. *trichocarpus*"). TYPE: U.S.A. Texas. Sine loc., s.d. [1834], *T. Drummond* I s.n. [LECTOTYPE as "holotype" designated by Barneby (1964: 1067): NY00005570 as image!; ISOLECTOTYPE: BM [BM001042704 as image!] ["Texas 1"]; POSSIBLE ISOLECTOTYPES: G, LAU, OXF, US [US00004242!].

Young (1873) recognized six species of *Astragalus* L., including "*A. trichocarpus*, Gray and Torrey." She incorrectly ascribed authorship for what is, in fact, a new combination and change in status for *A. nuttallianus* var. *trichocarpus* Torr. & A. Gray (1838). Young's ascription of authorship to "Gray and Torrey," albeit the correct order of names reversed, provides an indirect reference (Turland et al. 2018; Art. 41.3) to the basionym. Additionally, Young's (1873) description is almost a verbatim copy of what Torrey and Gray (1838) published for *A. nuttallianus* s.l. However, Young (or Buckley) curiously managed to omit from her description the few characters used to distinguish *A. nuttallianus* var. *trichocarpus* from the nominate variety. The only collection cited for this taxon in either flora is "Drummond." A single, unnumbered Drummond collection ("Coll. 1") from Texas is in the Torrey Herbarium (NY) and was designated by Barneby (1964) as the lectotype of the basionym.

Berberis swaseyi Buckley, Southern Horticulturist 2(1):14. 1870 ("Swaseyi"); M.J. Young, Familiar Lessons Bot. 152. 1873 ("Swaseyi"). *Alloberberis swaseyi* (Buckley) C.C. Yu & K.F. Chung, Taxon 66:1387. 2017. TYPE: U.S.A. Texas. Hays Co.: Sine loc., s.d., *S.B. Buckley* (NEOTYPE, **designated here**: NYI-Columbia College Herbarium; POSSIBLE ISONEOTYPE: PH [PH00007702!]).

Watson (1878) and subsequent authors cite Young (1873) as the place of publication of Buckley's species, which is incorrect. The name was published several years earlier by Buckley in one of the many agricultural journals that were popular in 19th century America. In the protologue of *Berberis swaseyi*, Buckley (1870a)

indicates that he found this species with ripe fruit in the beginning of June 1866 in Hays County, Texas. Later, Young (1873) described the shrub's distribution as "Western Texas on the Perdinales [sic] River" and stated that the species flowered in February and March and that fruit was ripe in early June. This is consistent with the type description since the Pedernales River passes through northern Hays County, and we know that Buckley (1874) considered anything west of the Colorado River to be Western Texas. No original material has been located. The neotype designated here is a specimen in the Columbia College Herbarium (now NY) from Hays Co. labeled in ink by Buckley. According to Newberry (1884), Columbia College (now University) received about 300 specimens of Texas plants from Buckley in 1883–1884 and they probably were received when Buckley visited New York City in early 1884 shortly before he died. The specimen selected as neotype has ripe fruit, which is mentioned in the protologue. Possible isoneotype material (PH), also in fruit, is labeled in ink by Buckley "*Berberis Swaseyi* Buckley, Hays Co. Texas, April 2/81, S. B. Buckley." However, given that the neotype is undated and the possible isoneotype is dated, there is no way of ascertaining now if these two specimens are part of a single gathering.

Berberis trifoliata Hartw. ex Lindl., Bot. Reg. 27 [= n.s., 4]: [Misc.] 68. 1841; M.J. Young, Familiar Lessons Bot. 152. 1873. TYPE: MEXICO. Chihuahua: Rocky hills near Chihuahua, 25 Mar 1885 (fl), C.G. Pringle 261 p.p. (NEOTYPE, **designated here**: US [US00103926]!; ISONEOTYPES: P [P0232716 as image!], US [US00952515]!).

Mahonia trifoliolata var. *glauca* I.M. Johnst., J. Arnold Arbor. 31:190. 1950. TYPE: MEXICO. Chihuahua: Rocky hills near Chihuahua, 25 Mar 1885 (fl), C.G. Pringle 261 p.p. (LECTOTYPE, **designated here**: US [US00103926]!; ISOLECTOTYPES: P [P0232716 as image!], US [US00952515]!).

Alloerberis trifoliolata (Moric.) C.C. Yu & K.F. Chung, Taxon 66:1387. 2017. *Berberis trifoliolata* Moric., Pl. Nov. Amérique 113, t. 69. 1841. TYPE: MEXICO [now U.S.A. Texas]. Entre Laredo et Bejar, Mar 1828, J.L. Berlandier 1437 (LECTOTYPE, **designated here**: G [G00342708 as image!]; ISOLECTOTYPES: G [G00342706 as image!], G [G00342707 as image!], GH [GH00038685 as image!], NY [NY00000019 as image!], P [P00752258 as image!], P [P00752259 as image!], P [P00752260 as image!], WU [WU sheet no. 0064710 as image!]).

In her treatment of *Berberis* L., Young (1873) recognized both "B. trifoliata" and "B. trifoliolata, Torr." and provided them with very slightly different descriptions and distributions, although as she circumscribes them, they have overlapping morphology and geography and cannot really be distinguished. Both names antedate her flora, and both were published in 1841 as *B. trifoliata* Hartw. ex Lindl. and *B. trifoliolata* Moric., respectively. The former name has been placed in synonymy under the latter (Watson 1878), but priority cannot be established with certainty because while we know *B. trifoliata* was published in September 1841, only the year of publication is known for *B. trifoliolata*. Frequently the epithet of the former also is used mistakenly in place of the latter. Young's (1873) treatment of *Berberis* appears to be derived from an earlier note by Buckley (1870a) where he discussed the "Three-Leaved Berberry. (*Berberis trifoliata*.)" and was silent regarding *B. trifoliolata*. Elements of Buckley's description of "B. trifoliata," including its habit, distribution, and edible fruit, strongly suggest that it is the same as the description of "B. trifoliolata, Torr." in Young's flora.

Torrey (1857, 1859) also confounded "trifoliata" and "trifoliolata" when he treated *Berberis* from Texas and the Southwest. Invariably, however, he cited Moricand suggesting that his "B. trifoliata" was nothing more than a misreading of the epithet. Torrey (1857) treated a blue-berried species as "*Berberis trifoliata*, Moricand, Pl. Amer., t. 69?" and not only corrupted the epithet but misapplied the name to a species that he later described as *B. fremontii* Torr. [= *Alloerberis fremontii* (Torr.) C.C. Yu & K.F. Chung]. In his contribution to the Botany of the Boundary Survey, Torrey (1859) wrote "*Berberis trifoliata* [sic], Moric. Pl. Nuov. Amer. p. 113, t. 69 ... Western Texas, and on hills near the Copper Mines, New Mexico; Bigelow." This latter treatment is the source for part of the locality and the sole collector cited by Young (1873), viz. "Austin, thence west to New Mexico. – Bigelow."

The protologue of *Berberis trifoliata* Hedw. ex Lindl. indicates that the name was based on plants grown in England from seed collected in Mexico near Hacienda del Espiritu Santo on the road from Zacatecas to San Luis Potosi by "Mr. Hartweg." The seeds were then distributed by the Horticultural Society of London, but no original material has been traced. A neotype is designated here that fixes the application of the name to the glaucous-leaved form of *Alloerberis trifoliolata* found in both Mexico and the southwestern U.S.A.

Johnston (1950) intentionally redescribed *Berberis trifoliata* as *Mahonia trifoliolata* var. *glauca*. He indicated that “Pringle 261” was the type of this variety, but he did not specify where he examined material. Yu and Chung (2017) stated that a specimen at US was the “holotype,” but this is incorrect, and their designation cannot be treated as a misused term (Turland et al. 2018; Art. 9.10) because other provisions of the ICN are not met (Turland et al. 2018; Arts. 7.11, 9.23). Furthermore, Yu and Chung (2017) failed to notice that each sheet of “Pringle 261” is comprised of two separate gatherings: the labels clearly state “Flowers, 25, March; fruit, 20, May.” The flowering material only is designated here as the lectotype of this varietal name.

Yu and Chung (2017) considered a specimen of “Berlandier 1437” in Geneva (G) to be the “holotype” of *Berberis trifoliolata*. The name, however, was published without a holotype and the designation by Yu and Chung also cannot be treated as a misused term for the reasons cited in the previous paragraph. The lectotype designated here is the same specimen that they incorrectly assumed was the holotype.

Cereus vasmerae M.J. Young, Familiar Lessons Bot. 276. 1873 (“*Vasmerii*”). TYPE: U.S.A. Texas. Webb Co.: Laredo, 1906, J.N. Rose & J.S. Rose s.n. (NEOTYPE, **designated here**: US [US00048387]-excluding seeds in packet!).

Acanthocereus tetragonus (L.) Hummelinck, Succulenta (Netherlands) 20:165. 1938.

Cereus vasmerae is the only new species that Young (1873) appears to have intentionally published. Its type locality is stated to be “On hills near La Grange [Fayette Co., Texas]” and the species also was said to have been “introduced into gardens by Mrs. T.W. House.” Mrs. House or Mary Elizabeth House (née Shearn) (1822–1870) was the wife of Thomas William House (1814–1880), a financially successful Houston merchant and entrepreneur (Beazley 2021). Presumably the gardens noted by Young (1873) were those of their social circle in Houston.

It is not altogether clear that Young's new species was based on herbarium material and no original material of *C. vasmerae* is known. The neotype consists of flowers and the remnants of a fruit. The specimen appears to have been prepared from a cultivated plant (“06.1012”) from which seeds were acquired in September 1911. A separate sheet (US [US00048384]!) consists of seedlings of “06.1012” gathered in 1911. The seeds in the packet of the neotype and the separately-mounted seedlings cannot be considered part of the type gathering (Turland et al. 2018; Art. 8.2) even though they are very likely genetically identical to the neotype.

The etymology of the species epithet was not fully explained by Young (1873). She simply stated that *Cereus vasmerae* was “named for Mrs. Vasmer,” who probably was Elisabeth Holt Vasmer (née Stanley) (1835–1907) of Houston, the widow of a Dr. Ernest Henry Vasmer (1829–1865).

Cocculus carolinus (L.) DC., Syst. Nat. 1:524. 1817 [1818]; M.J. Young, Familiar Lessons Bot. 151. 1873 (“*Caroliniana*”).

The name “C[occulus] Caroliniana, DC.” adopted by Young (1873) is an orthographic variant of *C. carolinus*. The description of this species in her flora clearly is copied from Chapman (1860, as “*C. Carolinus*, DC.”), while the specific epithet probably was taken from Wood (1861, as “*C. Carolinianus* DC.”). Standard indices (IPNI 2021; Tropicos 2021) suggest that this orthographic variant first appeared in the horticultural literature as “*Cocculus carolinianus* auct., Gartenflora 35:404. 1886” even though this source itself attributes the name to “Gard. monthly Philad.” where the same orthographic variant was used (Thomson 1886) earlier. Nonetheless, as evidenced by Wood (1861) the variant spelling was in the floristic literature well before then.

Desmodium pubens (Torr. & A. Gray) M.J. Young, Familiar Lessons Bot. 233. 1873. *Desmodium paniculatum* var. *pubens* Torr. & A. Gray, Fl. N. Amer. 1(3):364. 1840 (“*y. pubens*”). TYPE: U.S.A. Louisiana. “Western Louisiana,” s.d., Dr. Hale s.n. (LECTOTYPE, **designated here**: GH [GH01961878 as image!]).

Desmodium paniculatum (L.) DC., Prodr. 2:329. 1825.

In Young's (1873) treatment of *Desmodium* Desv., this taxon is reported as “*D. pubens*.” She gave no authority for the name. Her description, however, was copied from Torrey and Gray (1838) and she ends her entry with “– Gray and Torrey,” an indirect reference to the latter publication and not to a specimen. This name was recorded by *Index Kewensis* (Jackson 1884) as “[*Desmodium*] *pubens*, Young, Fl. Texas, 233; ex S. Wats. Bibliog.

Ind. N. Am. Bot. 218 = paniculatum” and sometimes is cited incorrectly as “Desmodium pubens M.J. Young ex S. Watson.”

Hibiscus drummondii (Torr. & A. Gray) M.J. Young, Familiar Lessons Bot. 186. 1873 (“*Drummondii*”), non Turcz., Bull. Soc. Imp. Naturalistes Moscou 31(1):195. 1858. *Malvaviscus drummondii* Torr. & A. Gray, Fl. N. Amer. 1(2):230. 1838. **Malvaviscus arboreus** var. **drummondii** (Torr. & A. Gray) Schery, Ann. Missouri Bot. Gard. 29:215. 1942 (“*Drummondii*”). TYPE: U.S.A. Texas. Sine loc., s.d., *T. Drummond III 1* [LECTOTYPE, designated by Turner & Mendenhall (1993: 447): NY (NY00221867 as image!).]

Although this combination appears without authorship in Young (1873), it is indirectly linked to a name previously published by Torrey and Gray (1838). Young’s description of *Hibiscus drummondii* is copied almost verbatim from the protologue of *Malvaviscus drummondii*. The only differences are that the former is abbreviated in length. Otherwise, every word in the former is exactly the same as in the latter with one insignificant exception, Young (or Buckley) substituted “red” for “scarlet.” Given that the descriptions are identical, the species epithet is the same, the voucher collection is the same, and Young (and Buckley) is known to have used Torrey and Gray’s *A flora of North America* (1838) while compiling her own flora, it seems clear that *H. drummondii* is a combination and not a new species. The change in generic circumscription is not explained by Young (1873), but Gray (1852) in a footnote attached to his treatment of *M. drummondii* in *Plantæ Wrightiana* transferred *M. floridanus* Nutt. to *H. floridanus* (Nutt.) Shuttlew. ex A. Gray. Perhaps this was the impetus for the analogous transfer of *M. drummondii*.

The protologue of *Malvaviscus drummondii* states simply “Texas, Drummond!” The lectotype is a specimen in the Torrey Herbarium (NY) that does not have an original label. Torrey, however, wrote on the sheet “Malvaviscus Drummondii, T & Gr.” and “Texas, Drummond, Coll. III, 1.” The sheet also includes pencil sketches of the stigmas and the anther column, the latter mentioned in the protologue. It is not clear that there are duplicates of “Drummond, Coll. III, 1.” Several herbaria have Drummond specimens of *M. arboreus* var. *drummondii* from Texas that are labelled “Drummond Coll. II, no. 1” and these are found in: BM [BM000645403 as image!], GOET [GOET007742 as image!], K [K000659685 as image!] [“Brazoria Texas”, and P [P02285843 as image!]. Unnumbered Drummond specimens of this taxon from Texas also can be found in several herbaria, including: GH [GH0005294 as image!] [“no. 1 Hibiscus Malvaviscus| S. Felipe de Austin: Texas| T. Drummond. Hooker misit| Januar. 1835.”], GH [GH00052945 as image!], K [K000659686 as image!], and NY [NY00221866 as image!].

The type locality cannot be identified more precisely than Texas and the exact collecting date cannot be determined. Turner and Mendenhall (1993) inferred that the type locality is “San Felipe de Tejas” in Austin Co. from information on one of the unnumbered specimens. The fact that another Drummond specimen of this taxon is labeled “Brazoria” in Brazoria Co., which is some 135 km distant from San Felipe de Austin, makes this inference untenable and further suggests that Drummond may have assembled his sets of this taxon from different localities.

Malva lineariloba (Torr. & A. Gray) M.J. Young, Familiar Lessons Bot. 180. 1873. *Malva involocrata* var. *lineariloba* Torr. & A. Gray, Fl. N. Amer. 1(2):226. 1838 (“*β. lineariloba*”). **Callirhoe involocrata** var. **lineariloba** (Torr. & A. Gray) A. Gray, Proc. Acad. Sci. Philadelphia 1862:161. 1862. TYPE: U.S.A. Texas. [San Felipe de Austin], s.d. [Apr. 1834], *T. Drummond II 40* [LECTOTYPE, designated by Dorr (1990: 48): NY [NY00221809]!; POSSIBLE ISOLECTOTYPES: BM!, EI, G [G00353067]! [“40”], G [00353144]! [“40”], OXF!].

Although this species is presented simply as “*M[alva] lineariloba*” in Young’s (1873) flora, it is a new combination based on *M. involocrata* var. *lineariloba* (see e.g., IPNI 2021; Tropicos 2021). The description published by Young is almost a verbatim copy of the description of the variety published by Torrey and Gray (1838) except that she did not include Torrey and Gray’s parenthetical description of the length of the flowers, and she omitted their note that their description of the carpels was based on immature material. Both floras only cite “Drummond.” Thus, it appears that Young (1873) provides “a clear (if cryptic) indication, by an author citation or in some other way, that a previously and effectively published description or diagnosis applies” (Turland et al., 2018; Art. 38.14; emphasis added).

The lectotype is a specimen in the Torrey Herbarium (NY). Apart from "Tex. II" penciled by Torrey on the label, there are no locality data, and there is no collecting date. McKelvey (1955) noted that Drummond visited San Felipe de Austin in August and October 1833 and again in April 1834. Consequently, Dorr (1990) inferred that Drummond collected the type material of this spring-flowering species on the latter trip.

Several herbaria have Drummond specimens of *Malva involuocrata* var. *lineariloba* from Texas that are no. 40 in Drummond's "Coll. III." These include: K [K000659302]! ["No. 40 Third Collection, Texas Drummond, 1835"], K [K000659303]! ["Texas III n. 40, San Felipe"], K [K000659304]! ["Texas III, nr. 40" & "San Felipe"], NY [NY00221810]! ["Coll. III. No 40"], and P [P02286260]! ["III-40"]. At least two of these specimens indicate that they were collected in "San Felipe [de Austin]."

Mammillaria texana (Engelm.) M.J. Young, Familiar Lessons Bot. 279. 1873 ("*Mammillaria Texana*"). *Mammillaria pusilla* var. *texana* Engelm., Proc. Amer. Acad. Arts Sci. 3:261. 1856 ("*Mammillaria pusilla* var. *Texana*"); Engelm. in Emory, Rept. U.S. Mex. Bound. 2(1):5, t. 5. 1859 ("*Mammillaria pusilla* var. *Texana*"). *Mammillaria prolifera* var. *texana* (Engelm.) Borg, Cacti 316. 1937. TYPE: MEXICO. Santa Rosa, 1853, J.M. Bigelow s.n. (LECTOTYPE (second step), **designated here**: MO [MO-2035110 as image!]).

Although this species is presented simply as "*M[ammillaria] Texana*" in Young's (1873) flora, it is a new combination and change in status based on *M. pusilla* var. *texana* (see e.g., IPNI 2021; Tropicos 2021). When Engelm. (1856) published the varietal name, he indicated that he was validating it in advance of a more elaborate illustrated treatment of the Cactaceae for the "Reports of the Boundary Commission and those of the Pacific Railroad Surveys." In the original protologue, Engelm. (1856) states only "On the Rio Grande, near Eagle Pass and southward" and does not provide the name of a collector or collectors yet when he (Engelm. 1859) treated this taxon again in *Cactaceae of the Boundary*, he wrote "From Eagle Pass to Santa Rosa, Dr. Bigelow, and, according to Dr. Poselger, common on the Rio Grande below" thereby indicating that collections by Bigelow and Poselger constitute original material. The plate (Engelm. 1859) accompanying this later description, however, is not original material as it was completed several years after the varietal name was first validly published. Interestingly, Young's (1873) description is not copied from the protologue (Engelm. 1856), but rather the description published in the *Cactaceae of the Boundary* (Engelm. 1859). This suggests that Young (or Buckley) had a copy of the latter but not the former publication.

When Young (1873) published the combination *Mammillaria texana*, she cited only a collection made "Along the Rio Grande" by Dr. Poselger and not one made by Dr. Bigelow. This is not in and of itself a lectotype designation because the word type or its equivalent was not used. Coulter (1894) effectively selected a lectotype (first-step) when he wrote "Type, Bigelow specimens in Herb. Mo. Bot. Gard." Benson (1982), who discussed the typification of most cacti of the U.S.A. and who had access to the Engelm. collection, however stated "original material not found, Mo." A lectotype (second-step) is designated here because Coulter did not specify a single collection (viz., "specimens") and no material annotated by him has been located.

Petalostemon phleoides Torr. & A. Gray, Fl. N. Amer. 1(2):310. 1838; M.J. Young, Familiar Lessons Bot. 221. 1873 ("*aphleoides*"). *Dalea phleoides* (Torr. & A. Gray) Shinn. Field & Lab. 17:83. 1949. TYPE: U.S.A. "Arkansas" [Texas?]. Sine loc., s.d., Dr. M.C. Leavenworth s.n. (LECTOTYPE, **designated here**: NY [NY00026681 as image!]).

Given that Young (1873) borrowed extensively from Torrey and Gray (1838), it is difficult to interpret "*Petalostemon aphleoides*" as anything more than the inadvertent miscopying of the specific epithet of *P. phleoides* and not as a new species as is done in Tropicos (2021). Watson (1878) very early adopted the former interpretation. Young's (1873) description clearly is copied from Torrey and Gray (1838) although she altered in her flora the sequence of characters that they listed.

Young (1873) cites "Drummond" at the end of her description, which is unfortunate if not understandable as it is the sole collection attributed to Texas in Torrey and Gray (1838) who cited Drummond as the type of *Petalostemon phleoides* var. *microphyllus* Torr. & A. Gray. The type of *P. phleoides* is a Leavenworth collection from Arkansas, but because there are no modern collections from that state there is a suspicion (Barneby 1977; Turner 2013) that the material may have been collected in eastern Texas, which was visited by Leavenworth in 1834 and 1837 (McVaugh 1947). Despite citing the type of *P. phleoides* var. *microphyllus* with

her treatment of “*P. aphleoides*” (i.e., *P. phleoides* var. *phleoides*), the morphological characters provided by Young (1873) match those of the nominate variety and not those of the small-leaved taxon that Turner (2013) refers to *Dalea drummondiana* Shinnery [= *D. phleoides* var. *microphylla* (Torr. & A. Gray) Barneby].

Ptelea baldwinii Torr. & A. Gray, Fl. N. Amer. 1(2):215. 1838 (“*Baldwinii*”); M.J. Young, Familiar Lessons Bot. 196. 1873 (“*Baldwinii*”). TYPE: U.S.A. Florida. “St. John’s, East Florida,” s.d., Wm. Baldwin s.n. (HOLOTYPE: PH [PH00022669 as image!]).

Ptelea trifoliata L., Sp. Pl. 1:118. 1753.

Watson (1878) treated *Ptelea baldwinii* Torr. & A. Gray and “*P. baldwinii* Young” as distinct names. The former he accepted and the latter he considered to be a synonym of *P. angustifolia* Benth. [= *P. trifoliata* var. *angustifolia* (Benth.) M.E. Jones]. Watson’s synonymy was repeated in *Index Kewensis* (Jackson, 1884) and adopted by IPNI (2021). Young’s name, however, is not a nomenclatural innovation, but simply a citation of the species described earlier by Torrey and Gray (1838). The description in Young (1873) matches verbatim that in the earlier flora except that the phrase “styles none” in the latter is corrupted to “style none” in the former. Young also suppressed the locality and collector information provided by Torrey and Gray (1838).

Pyrus angustifolia var. *melanocarpa* (Michx.) M.J. Young, Familiar Lessons Bot. 259. 1873. *Mespilus arbutifolia* var. *melanocarpa* Michx., Flor. Bor.-Amer. 1:292. 1803 (“β. *melanocarpa*”). *Aronia melanocarpa* (Michx.) Elliott, Sketch Bot. S. Carolina 1(6):557. 1821 (“*Melanocarpa*”). *Pyrus arbutifolia* var. *melanocarpa* (Michx.) Hook., Fl. Bor.-Amer. 1(4):204. 1832 (“β. *melanocarpa*”). ***Photinia melanocarpa*** (Michx.) K.R. Robertson & J.B. Phipps, Syst. Bot. 16:391. 1991. TYPE: “*Mespilus* [a sic] fruit noir! *Mespilus arbutifolia* fructo nigro! Tres [sic] Hautes Montagnes de la Caroline Septentrionale et! Canada; aussi Connecticut, Boston, etc.” and auxiliary label “*Mespilus arbutifolia* Amelanchier d’Ameri, fruit noir. Canada! Mistassin et Quebec” [LECTOTYPE, designated by Uttall (1984: 200): P-MICH (as IDC microfiche 6211. 65: III. 6)!].

Young (1873) clearly associated “Var., *melanocarpa*” with *Pyrus angustifolia* Ait. Her brief description of the variety is taken directly from Chapman (1860) and her equally brief description of the species is almost word for word the same as Chapman’s (1860) description of *P. arbutifolia* var. *melanocarpa*, which Chapman associated with “*Aronia melanocarpa* Elliott [sic].” The variety published by Young (1873) is interpreted here as a new combination made by indirect reference to the basionym. Why she chose to associate this variety with *P. angustifolia* rather than *P. arbutifolia* L. is unknown although it appears to have been done in error. In Chapman (1860), the description of *P. arbutifolia* is sandwiched between a description of *P. angustifolia* and a description of *P. arbutifolia* var. *erythrocarpa* (Michx.) Torr. It is easy to imagine Young (or Buckley) inadvertently associating the variety with the wrong species as she (he) hastily cut and pasted descriptions.

Quercus san-sabeana Buckley in M.J. Young, Familiar Lessons Bot. 507. 1873 (“*San-Sabeana*”). TYPE: U.S.A. Texas. San Saba Co.: “Limestone Hills,” 1875, S.B. Buckley s.n. [NEOTYPE, designated by Dorr & Nixon (1985: 219): MO (MO-20-4129)!].

Quercus sinuata var. ***breviloba*** (Torr.) C.H. Mull., J. Arnold Arbor. 25:439. 1944.

This new species is clearly attributed to Buckley in Young’s (1873) flora (viz., “*Q. San-Sabeana*, Buckley”). The specific epithet “san-sabeana” is hyphenated in the flora and this punctuation should be maintained. Although “san-” does not appear to stand independently, it is an abbreviated form of Santa (a noun in the nominative) and “sabeana” is an adjective in the nominative. Such epithets, if published with a hyphen, retain the hyphen (see Turland et al. 2018; Art. 60.11).

Quercus texana Buckley, Proc. Acad. Nat. Sci. Philadelphia 1860:444. 1860 [1861]; M.J. Young, Familiar Lessons Bot. 507. 1873 (“*Q. Texana*, Buckley”). TYPE: U.S.A. Texas. Liberty Co.: 1 mi W of Romayor along Texas State Hwy 105, ca. 0.5 mi W of the Trinity River, 22 Oct 1983, K.C. Nixon & P. Phillips 4063 [NEOTYPE, designated by Dorr & Nixon (1985: 220): TEX (TEX00370442)!].

It is unclear why Tropicos (2021) considers “*Quercus texana* M.J. Young” to be a later homonym of *Quercus texana* Buckley, especially as the name is clearly attributed to Buckley in Young’s (1873) flora. Her statement (“Hills in the vicinity of Austin”) suggests that she (or Buckley) was, however, misapplying this name to what is known now as *Q. buckleyi* Nixon & Dorr. The reasons why she (or Buckley) did this are discussed at length in Dorr and Nixon (1985).

Rhamnus drummondii M.J. Young, Familiar Lessons Bot. 204. 1873 (“*Drummondii*”). TYPE: U.S.A. Texas. Sine loc., s.d., *T. Drummond II 67* (NEOTYPE, **designated here**: NY [NY00415024 as image!]; POSSIBLE ISOLECTOTYPE: G [G00440908 as image!] [“67”]).

Colubrina texensis (Torr. & A. Gray) A. Gray, Boston J. Nat. Hist. 6:169. 1850. *Rhamnus texensis* Torr. & A. Gray, Fl. N. Amer. 1(2):263. 1838 (“*R.? Texensis*”); M.J. Young, Familiar Lessons Bot. 204. 1873 (“*Texensis*”). TYPE: U.S.A. Texas. Sine loc., s.d., *T. Drummond II 67* (LECTOTYPE, **designated here**: NY [NY00415024 as image!]; POSSIBLE ISOLECTOTYPE: G [G00440908 as image!] [“67”]).

Rhamnus drummondii is one of four species of *Rhamnus* L. recognized by Young (1873). She lists it simply as “*R. Drummondii*.” No author is given nor is a collection cited. Interestingly, her description comes very close to being a verbatim copy of the second paragraph of the protologue of *R. texensis* published by Torrey and Gray (1838) with simply the omission of the phrase that begins this paragraph, viz. “Texas, *Drummond!* (coll. 2. no. 67).”

Rhamnus texensis was also accepted in Young’s (1873) flora. In this instance, her description is a verbatim copy of the first paragraph of the protologue of *R. texensis* published by Torrey and Gray (1838) with merely the parenthetic and speculative phrase “(flowers solitary?)” omitted (and, of course, the second paragraph suppressed in its entirety).

Johnston (1971) effectively designated a lectotype for the name *Rhamnus texensis* when he stated that the holotype was a specimen at GH. However, the specimen he selected was from the third (III), not the second (II) collection of Drummond and thus does not agree with the protologue and can be superseded. Moreover, the GH specimen was acquired well after the publication of the name and cannot be considered original material. Specimens of *R. texensis* from the third collection can be found in the following herbaria: BM [BM000838445 as image!] [“III, 67”], GH [GH00139465 as image!] [“III 67”], K [K000729226 as image!] [“Third collection, No 67”], P [P01818876 as image!] [“III, 67”], and US [US00094445]! [“III 67”].

Rhus toxicodendron var. *trilobata* M.J. Young, Familiar Lessons Bot. 197. 1873 (“*Trilobate*”), nom. nud.

Toxicodendron radicans (L.) Kuntze, Revis. Gen. Pl. 1:153. 1891.

Young (1873) divided *Rhus toxicodendron* L. (= *Toxicodendron radicans*) into four varieties. Three were noted explicitly and the fourth presumably was the nominate variety. No description accompanies *R. toxicodendron* var. *trilobata*. Young (1873) simply states “Found in the northern part of Texas.” There is no indication that Young (1873) is proposing a new combination and change in status based on *R. trilobata* Nutt., which was described from the Rocky Mountains but also occurs in Texas.

Spiranthes brevifolia Chapm., Fl. South. U.S. 462. 1860; M.J. Young, Familiar Lessons Bot. 539. 1873. TYPE: U.S.A. Florida. Franklin Co.: Apalachicola, Oct–Nov, A.W. Chapman s.n. (LECTOTYPE, **designated here**: NY [NY00009342 as image!]; POSSIBLE ISOLECTOTYPE: NY [NY00009343 as image!]).

Spiranthes longilabris Lindl., Gen. Sp. Orchid. Pl. 476. 1840.

In her treatment of *Spiranthes* Rich., Young (1873) included “*S. brevifolia*, n. sp.” and provided a description. Despite the “n. sp.” it does not appear that she intended to describe this orchid species. Her treatment is almost a verbatim copy with very minor emendations of a species described earlier by Chapman (1860). Young’s description was copied so faithfully that she (or Buckley) failed to excise the “n. sp.” from Chapman’s original description! Young (or Buckley) did manage to modify the locality and phenology data to imply that the species is found in Texas (where it does occur). “Open grassy swamps in the pine barrens, Apalachicola, Florida. Oct. and Nov.” in Chapman (1860) becomes “Open grassy swamps in the pine-barrens. October and November” in Young (1873).

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