PHANTOMS IN THE FLORA OF THE BAHAMAS

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A phantom is defined by Webster's New International Dictionary (unabridged, second edition) as an illusion, a fallacious appearance, a representation of something in appearance but not in reality. There are a number of such phantoms in the Bahama Flora (Britton and Millspaugh, 1920), described as being part of the flora, but which are not there at all, at least not as separate entities.

Nathaniel Lord Britton recognized diversity in plants in a way somewhat typical of his period. If differences among specimens could be detected, he named the specimens as discrete species. He never used infraspecific categories. He often fell prey to the same plague that has befallen other writers of insular floras, i.e., that of naming plants as distinct species when in fact the populations possess minor variations that differ from island to island. Britton seldom practised this proliferation of names with such fury as in the Rubiaceae. Most of his "species" in the Bahama flora were described from specimens which he did not collect. He was a keen observer, but may be looked upon in retrospect as having named specimens rather than populations. The "species" of Britton and Millspaugh are the phantoms discussed in this paper.

As a step in the revision of the Bahama flora in collaboration with George R. Proctor and Richard A. Howard, the author has examined much of the material available to Britton and Millspaugh when they wrote their flora over 50 years ago, especially type specimens. In addition, he has had the advantage of examining considerably more specimens, both in the field and in herbaria, than were available to Britton and Millspaugh. Additions to the flora have been noted (Gillis, Howard, and Proctor, 1973; Correll, 1973), and names have been updated for a substantial portion of the flora (Gillis, 1974). Now, a closer examination has been made of the so-called endemics within the flora as viewed by Britton and Millspaugh.

Shortly after the original Bahama Flora was completed, Taylor (1921) analyzed the distributions as published in the flora and revealed that 12% of the flora was reported to be endemic, or about 120 species. This figure appears to be exceptionally high. The Bahama flora is essentially one which populated the islands during and since the Pleistocene. There has hardly passed enough time for such a degree of endemism to develop. Furthermore, the islands are surrounded on three sides by nearby land masses which

have contributed most of the fauna and flora or their antecedents: Hispaniola, Cuba, and the southern United States mainland. In addition, there is a dearth of diverse habitat types in a group of islands such as the Bahamas where no point is greater than 210 feet above sea level, where there are no rivers, and where the substrate is virtually all limestone. It appeared to me that those plants labeled "endemic" in the Bahama flora of Britton and Millspaugh could indeed be found in other neighboring floras, probably under earlier names, if one were but to search for them.

I should like to acknowledge with gratitude a generous grant to the Arnold Arboretum of Harvard University by an anonymous donor who has interest in the Bahama Flora. Under terms of the fellowship thus underwritten, I have been able to examine considerable herbarium material at the Arnold Arboretum and Gray Herbaria, and had opportunities to study the classic Britton and Millspaugh specimens at the New York Botanical Garden and the Field Museum of Natural History, as well as examine older material in herbaria in Europe. The curators of these herbaria have been very gracious in allowing me to examine their material so freely. Of special value were the duplicates of Wright and Grisebach specimens at the Gray Herbarium, often representing type collections of earlier names, originally described from Cuba, but also represented in the Bahamas. A portion of the field work was supported by a grant from the National Geographic Society.

As in previous papers, my use of the term "Bahamas" should be construed in its geographical sense to include the Turks and Caicos Islands as well. For ease of reference, this paper will follow the order of species presented in Britton and Millspaugh's Bahama Flora, only Dicotyledons being discussed herein. For brevity, Britton and Millspaugh's Flora is designated by the expression B&M in the text of this paper. The figure in the lefthand margin refers to the page in B&M on which the taxon in question is discussed. Herbarium abbreviations are those of Index Herbariorum (Lanjouw and Stafleu, 1964).

132 <u>Torrubia bracei</u> and <u>Torrubia longifolia</u>. The blollies are notoriously variable plants. There appear even to be some differences in vegetative morphology between staminate and pistillate populations. According to the key in B&M, which employs only characters of the anthocarps, it is not possible to determine identity of sterile, staminate, or flowering pistillate material. Moreover, when examining populations in the field or specimens in the herbarium, there appear to be plants whose characters fall between the limits as defined by B&M. As Adams (1972) pointed out, leaf shape differs markedly, even on the same plant. The leaves may be variously oblong to elliptical or obovate, or even sub-

orbicular. The tips may be rounded or emarginate; the bases rounded or cuneate. An examination of individuals in the wild shows that such variation may be contained within a single species. I therefore believe that <u>Torrubia bracei</u> and <u>T. longifolia</u> are not distinguishable. The earliest name available for this species is based on <u>Pisonia</u> <u>discolor</u> Sprengel (1825). If this species is placed in a genus that is segregated from <u>Pisonia</u> on fruits characters, then its name should be <u>Guapira discolor</u>.

<u>Guapira discolor</u> (Sprengel) Little, Phytologia 17: 367. 1968. Basionym: <u>Pisonia discolor</u> Sprengel, Syst. Veget. ed. 16, 2: 168. 1825. <u>Torrubia discolor</u> (Spreng.) Britton, Bull. Torrey Bot. Club 31: 613. 1904. <u>Guapira</u> longifolia (Heimerl in Urban) Little, Phytologia 17: 367. 1968. <u>Torrubia longifolia</u> (Heimerl in Urban) Britton, Bull. Torrey Bot. Club 31: 614. 1904. <u>Pisonia longifolia</u> (Heimerl in Urban) Sarg., Man. Trees North Amer. 314, fig. 251. 1905. Basionym: <u>Pisonia discolor</u> Y <u>longifolia</u> Heimerl in Urban, Bot. Jahrb. 21: 627. 1896. <u>Guapira</u> <u>bracei</u> (Britton) Little, Phytologia 17: 367. 1968. Basionym: <u>Torrubia bracei</u> Britton, Bull. Torrey Bot. Club 31: 614. 1904. Type: New Providence Island, Ft. Montague coastal coppice, <u>Britton and Brace</u> 168 (NY).

- 73 Given a specimen of Caesalpinia (other than Subg. Guilandina) from the Bahamas, one has a difficult choice in deciding whether it might be C. bahamensis or C. reticulata. The former is described by B&M as "prickly throughout; leaflets scarcely reticulated" and the latter as "unarmed or with a few prickles at the base; leaflets strongly reticulated." On the surface, it appears that these are useful characters. But the populations in the field are not so distinct. The type specimen of C. bahamensis in the Lamarck Herbarium at Paris shows only a few weak prickles opposite the leaves. There are populations which show prickles on the stem only far below where most botanists would bother to select a herbarium specimen. Hence, we can see that the presence or absence of prickles is a variable character, variable both as to degree and to position. It does not appear to be consistent enough to use to separate two otherwise identical populations. It is curious that the prickles become less evident in the southern (i.e., drier) sites; one might suppose that these outgrowths might have been interpreted as responses to droughty conditions. The reticulate nature of the leaves is not a constant character, nor one easy to diagnose. These two names are thus treated as synonymous under C. bahamensis Lam.
- 47 <u>Maytenus lucayana</u> Britton. This name is known from only the type collection, which is represented by mere fragmentary material in an envelope on a herbarium sheet. It seems to

be representative of a population of <u>Maytenus buxifolia</u> that has unusually broad leaves. The definitive character of having a cordate leaf base is not consistent within the few scraps representing the type. Unless more of this material can be found and the distinct nature of the plant reaffirmed, it seems best to treat this population as synonymous with <u>M. buxifolia</u> (A.Rich.) Griseb. The type of <u>M. lucayana</u> is at the Field Museum (F-280855), from West End, Grand Bahama Island.

- 199 Erythroxylon reticulatum Northrop. The characters which Britton and Millspaugh used to separate this species from E. arcolatum -- those of longer pedicels and shorter leaves -- appear to be only a difference in populations. Furthermore, the drupes on the type specimen of E. reticulatum are not mature, and only the field notes of Mrs. Northrop suggest that the fruits are purple-black instead of red. I interpret this name to be only a synonym of Erythroxylum arcolatum L., and further that the generic name should be spelled thus.
- 284 Myroxylon ilicifolium (Northrop) Britton. In his examination of Cuban collection by Charles Wright, Grisebach (1860) discussed several species of Xylosma (the conserved name in the Flacourtiaceae for Myroxylon). He described Xylosma infestum and X. buxifolium, both of which are represented by isotypes at GH. Upon thorough examination, I have determined them to be synonymous. There are then two names with the same date (and page) of publication. I have chosen X. buxifolium for the name to be used when these two are united because it has been used more commonly in the West Indies. It compares favorably with the type of X. ilicifolia Northrop, and is of an earlier publication date. It is likely that Britton and Millspaugh overlooked a paper by Urban (1893) in which this species (X. buxifolium) is attributed to the Bahamas.

Xylosma buxifolium Gray ex Griseb., Mem. Amer. Acad. n. ser. 8: 155. 1860. Holotype: Cuba, <u>Wright</u> 1465 (GH). Xylosma infestum Griseb., Mem. Amer. Acad., n. ser. 8: 155. 1860. Isotype: Cuba, <u>Wright</u> 1109 (GH). Xylosma ilicifolia Northrop, Mem. Torrey Bot. Club 12: 51. 1902. <u>Myroxylon</u> ilicifolium (Northrop) Britton, Bull. N. Y. Bot. Gard. 4: 141. 1906. Type: Andros, Nichols Town, <u>Northrop</u> and <u>Northrop</u> 388 (Holotype: NY; isotypes: A, GH).

342 The eight species of <u>Metastelma</u> listed for the Bahamas by Britton and Millspaugh may be reduced to five, but there is one additional species found by Howard (1950) on Bimini and represented in herbaria by an earlier collection from South

Andros. Furthermore, as mentioned by Gillis (1974), the generic name <u>Metastelma</u> in the West Indies is changed to Cynanchum.

At the first point in the key to species of Metastelma, B&M separate <u>M</u>. <u>northropiae</u> from all others by its having a long-stipitate gynostegium. It is clear, upon careful examination, that their <u>M</u>. <u>bahamense</u> also has a longstipitate gynostegium. These two taxa appear to be synonymous, and they are hereby united under the earlier epithet, <u>bahamense</u>. A new combination in <u>Cynanchum</u> is indicated for this plant of Florida, Cuba, and the Bahamas:

Cynanchum bahamense (Griseb.) Gillis, comb. nov. Basionym: <u>Metastelma bahamense</u> Griseb., Cat. Pl. Cub. 174. 1866. <u>Epicion bahamense</u> (Griseb.) Small, Fl. Miami 149, 200. 1912. Type: Not found.

Metastelma northropiae Schltr. in Urban, Symb. Antil. 5: 468. 1908. <u>Cynanchum northropiae</u> (Schltr. in Urban) Alain. Mem. Soc. Cub. Hist. Nat. 22: 118. 1955. Type: Andros, Conch Sound, <u>Northrop and Northrop</u> 410 (NY).

Alain (1955) already determined that <u>Metastelma</u> <u>linearifolium</u> A. Rich. in Sagra could not be transferred to <u>Cynanchum</u> because the epithet was preoccupied in <u>Cynanchum</u>. Hence, he published a new name, <u>C. savannarum</u>. I have determined that this action was unnecessary because these plants are identical to <u>C. blodgettii</u> of the southern United States, and this name was available at the time. Moreover, I believe that the populations described as <u>M. barbatum</u> in the Bahama Flora also represent this species. Hence the following synonymy:

Cynanchum blodgettii (Gray) Shinners, Sida 1: 365. 1964. Basionym: <u>Metastelma</u> <u>blodgettii</u> Gray, Proc. Amer. Acad. 12: 73. 1877. Type: Blodgett, s.n., Big Pine Key, Florida (GH).

Metastelma linearifolium A. Rich. in Sagra, Hist. Cub. 11: 96. 1850. <u>Amphistelma linearifolium</u> (A.Rich. in Sagra) Griseb., Cat. Pl. Cub. 175. 1866. non <u>Cynanchum</u> <u>linearifolium</u> Hemsl., J. Linn. Soc. 26: 107. 1889 (China). Lectotype: Paris. New name: <u>Cynanchum</u> <u>savannarum</u> Alain, Mem. Soc. Cub. Hist. Nat. 22: 119. 1955.

Metastelma barbatum Northrop, Mem. Torrey Bot. Club 12: 58. 1902. Type: Andros, Red Bays, <u>Northrop and Northrop</u> 474. Holotype, NY; isotype, GH.

Alain recognized that Metastelma hamatum Griseb. could not

be transferred directly to <u>Cynanchum</u> because the epithet was preoccupied in that genus, so he published <u>C</u>. <u>caribaeum</u> as the new name. Having studied these species in the Bahamas very carefully, I have come to the conclusion that <u>C</u>. <u>inaguense</u> is identical with <u>C</u>. <u>caribaeum</u>, and it is not endemic to the Bahamas after all. The new name by Alain was therefore not necessary inasmuch as the basionym <u>Metastelma</u> <u>inaguense</u> Vail was available. The new synonymy follows:

Cynanchum inaguense (Vail) Howard & Dunbar, Rhodora 66: 13. 1964. Basionym: <u>Metastelma inaguense</u> Vail, Bull. N.Y. Bot. Gard. 4: 142. 1906. Type: Inagua, <u>Nash and</u> <u>Taylor</u> 913 (NY).

Metastelma hamatum Griseb., Cat. Pl. Cub. 173. 1866. non <u>Cynanchum hamatum</u> D. Dietr., Syn. Pl. 2: 906. 1840. New name: <u>Cynanchum caribaeum</u> Alain, Mem. Cub. Hist. Nat. 22: 119. 1955. Type: Cuba, <u>Wright</u> 2959. Isotypes: GH, NY.

Because of the large number of name changes and the addition of an additional species to the Bahama <u>Cynancha</u>, I feel that a new key would be useful. (<u>C. graminifolium</u>, reported by Howard [1950] as <u>M. graminifolium</u>, has been determined to be <u>C. scoparium</u>, a probable introduction from Florida to Bimini and South Andros.)

KEY TO BAHAMIAN SPECIES OF CYNANCHUM

- Leaves ovate with mucronate tips; gynostegium stipitate
 Cynanchum bahamense (Griseb.) Gillis
- Leaves linear, narrowly oblanceolate, spatulate, or absent; gynostegium sessile or subsessile.....2.
 - Corolla lobes glabrous within; inflorescence a true umbel.....3.
 - Flowers up to 6 mm. long; calyx lobes lanceolate, acute; follicles 6-8 cm. long; leaves sessileCynanchum angustifolium Pers.
 - Flowers 1.5 2.5 mm. long; calyx lobes triangular-ovate, obtuse; follicles 3.5 - 5 cm. long; plant frequently leafless; leaves, when present, petioled....Cynanchum scoparium Nutt.
 - Corolla lobes pubescent within; inflorescence not a umbel.....4.
 - Flowers borne singly, petals recurved and twisted like a pinwheel; leaves on short shoots...... <u>Cynanchum eggersii</u> (Schltr. in Urban) Alain.

- Inflorescence a compressed raceme on a short shoot; petals straight or recurved, but not twisted like a pinwheel; leaves borne on main axis.....5.
 - 5. Petals papillose at tip with tufts of villous hairs within from tip to 0.5 mm. below tip; leaves linear; fruits less than 3.5 cm. long.....Cynanchum blodgettii (Gray) Shinners.
 - 5. Petals papillose entire length of lobe or with wedge free from hairs in center of inner surface; leaves lanceolate, oblanceolate, or spatulate; fruit longer than 3.5 cm....Cynanchum inaguense (Vail) Howard & Dunbar.
- 346 In mapping collections of Evolvulus squamosus and E. bahamensis, I noted that the former did not occur south of the Crooked Island Passage, i.e., off the Great Bahama Bank. Furthermore, the latter, as interpreted by the key and description in B&M and the type collections, seemed to occur chiefly south of this Passage. Moreover, neither appeared to occur on the same island. The diagnostic features which distinguished these two taxa were the length of the leaves: scale-like or short-linear in the first, and linear, 6 - 15 mm. in the second. Upon close examination, it may be seen that there is a cline in leaf length, ranging from very short and scale-like in the northwestern portion of the archipelago, increasing in length to the southeast. With this interpretation, there seems to be but one species of woody Evolvulus in the West Indies. The leaf-length increases toward the south of the Great Bahama Bank and is still greater on Long Island and Rum Cay. The leaf length increases to distinctly non-scalar from Crooked Island southward. Moreover, this trend seems to continue onto Hispaniola; there, the species is known as E. arbuscula.

Van Oostrstroom (1934), in his monograph of <u>Evolvulus</u>, recognized three species in this group. For the most part, the characters he chose as definitive were considerably overlapping. His key in leading to <u>E. squamosus</u>, indicated that the ovary is "densely hairy, seldom almost or quite glabrous." In the description of the species, however, he stated "capsule globular, hairy at the top or glabrous...." The problems of separation become compounded with additional collections. As with other plants in our flora, there is greater variation within the Greater Antilles than there is for the same species within the Bahamian Archipelago. Such a pattern should not be surprising if a single biotype or a small group of biotypes resulted from one to few introductions to the Bahamas from the Greater Antilles. Hence, I interpret the Bahama populations of woody <u>Evolvulus</u> as Evolvulus arbusculus Poir. in Lam.

- Britton and Millspaugh distinguish their Varronia (Cordia) 359 brittonii from Varronia (Cordia) lucayana on the shape of the leaf: whether the leaves are linear-oblong to oblanceolate or spatulate-obovate! A second character of presence of pilose pubescence at the base of the filaments is also used as a distinguishing character. Again, as in Evolvulus, as one discovers in mapping distributions of specimens (using names assigned to the collections by B&M), Cordia brittonii appears in the northern islands, and C. lucavana in the southern ones. However, if one were given a specimen with no provenance indicated, it would not be possible to determine which species it is, given the information in B&M or the type specimens! I believe they are indistinguishable, and hereby unite them under Cordia brittonii (Millsp.) Macbride. They are names of the same date of publication, but the name C. brittonii has been used for plants in Cuba, so it has the greater scope of use. The pubescence on the filaments is not a reliable character.
- 363 The <u>Heliotropium</u> species also appear to be overdescribed. <u>Heliotropium eggersii</u> is known only from the type collection and is interpreted as only an insular form of <u>H. procumbens</u> (the earlier name for <u>H. inundatum</u> of B&M). <u>Heliotropium</u> <u>nanum</u> is surely no different from <u>H. inaguense</u>, but merely the upper, northwestern form of the plant. The earlier name is <u>H. nanum</u> Northrop. The other <u>Heliotropia</u> are under study by Mr. Michael Frohlich so that further disposition of the taxa in the Bahamas will await his conclusions.
- 384 When Mr. Proctor and I discovered and anomalous <u>Solanum</u> population on Inagua (<u>Gillis and Proctor</u> 12148), we thought we might have a new species. The population turned out to be <u>S. microphyllum</u> which we thought would thus be the first report of this species from the Bahamas. Then, I examined the type of <u>S. didymacanthum</u> which Millspaugh described from Exuma and Cat Islands. These names are determined to be synonymous. The older name to be used for the Bahama populations therefore must be <u>Solanum microphyllum</u> (Lam.) Dunal.
- 411 Britton and Millspaugh had trouble interpreting variation in the <u>Rubiaceae</u>, and consequently produced more phantom species in this family than elsewhere. One example of this difficulty is represented in <u>Catesbaea</u>. Their key separating <u>C</u>. <u>parviflora</u> and <u>C</u>. <u>foliosa</u> demonstrates so much overlap that the two cannot be determined. An examination of populations in the field shows the extent of this

variability such that <u>C</u>. <u>foliosa</u> and <u>C</u>. <u>parviflora</u> var. <u>septentrionalis</u> are merely extremes in the variation of leaf size and shape. The plant represented by the types of <u>C</u>. <u>fasciculata</u> and <u>C</u>. <u>parvifolia</u> is another. Hence, I should like to amend my consideration of the name of the Bahama plant (Gillis, 1974) by the following:

 <u>Catesbaea parviflora</u> Swartz, Prodr. 30. 1788. Type: S.
 <u>Catesbaea campanulata</u> Sagra ex DC. Prodr. 4: 401. 1830.
 <u>Catesbaea parviflora</u> var. <u>septentrionalis</u> Krug & Urban, Symb. An. 1: 429. 1899. Lectotype: Florida, Bahia Honda Key, <u>Curtiss</u> 1130 (GH); isotype: GH.
 <u>Catesbaea fasciculata</u> Northrop, Mem. Torrey Bot. Club 12: 66. 1902. Type: Fresh Creek, Andros, <u>Northrop and</u> <u>Northrop</u> 627 (Lectotype: F-130711; Isotypes: A, GH, NY).
 <u>Catesbaea foliosa</u> Millsp., Field Mus. Publ. Bot. ser. 2: 312. 1909. Holotype: West Caicos, <u>Wilson</u> 7761 (F-

- 413 Another genus which B&M tended to overdescribe was Guettarda. This genus was included in the unfinished treatment of Rubiaceae for North American Flora by Standley (1918-34), who simply accepted Britton's species uncritically. Earlier (Gillis, 1974), I united two species (G. taylori and G. inaguensis) under G. nashii. Since that time, I have again studied these populations from Inagua in the field, and have re-examined the types and isotypes. I have concluded that all of these names represent variations in Guettarda krugii. In this case, I am convinced that B&M named specimens and not populations. It is interesting to note that neither Britton nor Millspaugh ever saw these populations in the field, inasmuch as neither ever visited Inagua, the type localities of their three species. The types in question are at New York with isotypes at the Field Museum.
- 422 Another overdescribed genus of <u>Rubiaceae</u> for the Bahamas is <u>Borreria</u>. As with <u>Guettarda</u>, B&M tended to overdescribe species when they had not seen the populations in the field themselves. With the exception of the type for <u>Borreria</u> <u>brittonii</u> (later name for <u>B. saxicola</u> Britton which is a later homonym) which Millspaugh collected, the types of their proliferated species were collected by Percy Wilson or George Nash and Norman Taylor. I believe that woody <u>Borreria</u> species in the Bahamas should all be recognized as <u>B. thymifolia</u> Griseb. The various characters used in distinguishing features to separate species in B&M are all variable, not only within populations, but even on the type specimens of these "distinctive" plants themselves!

For example, the leaf size of <u>B. wilsonii</u> is intermediate

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between that of <u>B</u>. <u>inaguensis</u> and <u>B</u>. <u>bahamensis</u>. The "longciliate" calyx of <u>B</u>. <u>wilsonii</u> is represented on the type by 7 - 10 hairs between the lobes of the calyx, none of which is more than 0.5 mm. long, and they are not present on all calices. The ciliate nature of the leaves tends to increase, as does stem pubescence, with degree of droughty climate in the southern portion of the island chain. I have collected two adjacent populations of <u>Borreria</u> on Salt Cay (Turks) that superficially appeared to be distinct; one had bronze leaves; the other had dark green leaves. When they were pressed and dried, the two populations were indistinguishable.

The only species which one may argue is different might be <u>B. savannarum</u>, with its thin leaves, 1-3 cm. long (on herbarium sheets, they give the specimen a superficial resemblance to <u>Najas guadalupensis</u>). I would have continued to recognize this as a distinct species except for the fact that specimens available to me have shown all stages of intermediate leaf length on Inagua alone. Hence, it appears to make the most sense to unite all of the woody Borreria species in the Bahamas under <u>B. thymifolia</u> Griseb.

Borreria thymifolia Griseb., F. Brit. W. Ind. Is. 350. 1864. Type: Turks Island, Hjalmarsson, s.n. (K). Borreria inaguensis Britton in Britton et Millspaugh, Bahama Flora, p. 422. 1920. Type: Little Inagua, Nash and Taylor 1224 (erroneously given in Bahama Flora as 2124). Holotype: NY; isotypes: F-185973, F-479093). Borreria brittonii Standley, Publ. Field Mus. Nat. Hist. Bot. ser. 8: 388. 1931. New name for Borreria saxicola Britton in Britton et Millspaugh, Bahama Flora, p. 422. 1920. non Borreria saxicola K. Schum., Bot. Jahrb. 28: 112. 1901 (Trop. Afr.). Type: South Caicos, Millspaugh and Millspaugh 9242. Holotype: NY; isotype: F-278999. Borreria wilsonii Britton in Britton and Millspaugh, Bahama Flora, p. 423, 1920. Type: Castle Island, Wilson 7787 (Holotype: NY; isotypes: F-221907, GH). Borreria bahamensis Britton in Britton and Millspaugh. Bahama Flora, p. 423. 1920. Type: Crooked Island, Brace 4749. (Holotype: NY; isotype: F-199831). Borreria savannarum Britton in Britton and Millspaugh, Bahama Flora, p. 423. 1920. Type: Inagua, Nash and

- Taylor 1320. Holotype: NY.
- 441 Two aster species of the Bahamas are restricted to the northwestern portion of the islands, which suggests their introduction from the United States. These two "endemic" species appear to be extensions of the ranges of two U.S. instead of being Bahamian endemics, or even, in the case of <u>Aster bahamensis</u>, a species which is endemic to the Bahamas and Cuba. <u>Aster lucayanus</u> is really contained within <u>Aster</u>

<u>concolor</u> L. which extends from Florida to Louisiana and north to New England. The Bahamas are merely the southernmost extension of its range. Our variety is probably var. concolor.

Aster bahamensis matches Aster subulatus Michx., and is best matched with var. <u>euroaster</u> Fern. et Griscom. This is the coastal plain population which extends from Florida west to Louisiana and north to upstate New York. The Bahamas are merely a bridge in its distribution between the mainland and Cuban populations, easily understood when one realizes that, at low water level during the Pleistocene, the Great Bahama Bank was nearer the U.S. mainland by several miles, and only a mere 20 miles or so from Cuba.

- 447 <u>Tetranthus bahamensis</u> Britton was described as a Bahama endemic. There is, however, no doubt that it represents a northern population of the Cuban species, <u>T. litoralis</u> Sw. Although the only distinguishing feature between most Cuban species and the Bahamian ones is that the Cuban populations usually have larger leaves, there are collections from Cuba which are indistinguishable from those of the Bahamas.
- 451 The rong-bush, <u>Wedelia bahamensis</u>, was described as an endemic to the Bahamas, occurring more abundantly in the southern islands than the far northwestern ones. It is the same as populations in Cuba and Hispaniola of <u>W. calycina</u>, although more uniform than populations in the Greater Antilles. The complex synonymy has been listed in Schulz (1911) but he chose an illegitimate name as the correct one. Hence, a shortened synonymy of relevant names is perhaps in order:

Wedelia calycina L.C. Rich. in Persoon, Syn. Pl. 2: 490. 1807. Wedelia jacquinii L.C. Rich. in Persoon, Syn. Pl. 2:

490. 1807 (nomen illeg., pro syn.).

Wedelia buphthalmoides Griseb., Fl. Brit. W. Ind. Is. p. 372. 1864. Type: Bahamas, Swainson, s.n. (K).

Anomostephium buphthalmoides DC., Prod. 5: 560. 1836. Type: G.

Seruneum buphthalmoides (DC.) Kuntze., Rev. Gen. Pl. 1: 365. 1891.

Stemmodontia buphthalmoides (DC.) Cook and Collins, Contr. U.S. Nat. Herb. 8: 244. 1903.

Wedelia bahamensis (Britton) O.E. Schulz in Urban, Symb. Antil. 7: 106. 1911. Basionym: <u>Stemmodontia bahamensis</u> Britton, Bull. N.Y. Bot. Gar. 4: 126. 1905. Type: New 1974

Providence, coastal thicket, <u>Britton</u> and <u>Brace</u> 302. Holotype: NY.

SUMMARY: Twenty-eight names in the Bahama Flora have been reduced to species present in Cuba, Hispaniola, and Florida. These species were considered to be endemics to the Bahamas by Britton and Millspaugh (1920).

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