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While studying in Paris in 1936, I investigated the types of the Hawaiian species of *Labordia* described by H. Baillon.[2] He discussed the sexuality of the flowers and the diversity in inflorescences, and concluded that *Labordia* must be fused with and reduced to *Geniostoma*. In a rambling discussion he proposed sectional names for two of the groups of species to be placed in *Geniostoma*. He stated the characters of the sections, and listed and briefly described the species known to him, though some were not assigned to named sections. In the section *Rabdolia* he included *L. Echitis* and *G. Cyrtandrae*. In an unnamed group he listed *G. Remyana, L. hedyosmifolia,* and *L. molokaiana*. Thus he actually described the five new Hawaiian species, putting two under *Geniostoma* and three under *Labordia,* despite his previous argument that they could not be maintained as separate genera.

These species of Baillon have usually been overlooked by students of the Hawaiian flora. Hillebrand was apparently unaware of them, though they were published six years before his death and eight years before the publication of his flora. Rock saw Baillon's descriptions but not the type specimens, and adopted with some doubt one of Baillon's names to replace a later name by Hillebrand. Skottsberg[3] recently discussed Baillon's species, questioned the accuracy of Rock's identification of *L. lophocarpa* Hillebrand with *L. molokaiana* Baillon, and argued that all Baillon's names are little more than *nomina nuda* which may be used if the species are described as new, but that they are not valid against later names accompanied by a description.

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[1] This is the fourth of a series of papers designed to present descriptions, revisions, and records of Hawaiian plants. The preceding papers have been published as B. P. Bishop Museum, Occasional Papers, vol. 10, no. 4, 1933; vol. 10, no. 12, 1934; vol. 11, no. 14, 1935.

[2] Baillon, H., Sur la tribu des Labordiées: Soc. Linn. Paris, Bull., vol. 1, pp. 238-240, 1880.

[3] Skottsberg, Carl, Vascular plants from the Hawaiian islands. Part II: Göteborgs Bot. Trädgard, Medd., vol. 10, pp. 156-157, in footnote, 1936.

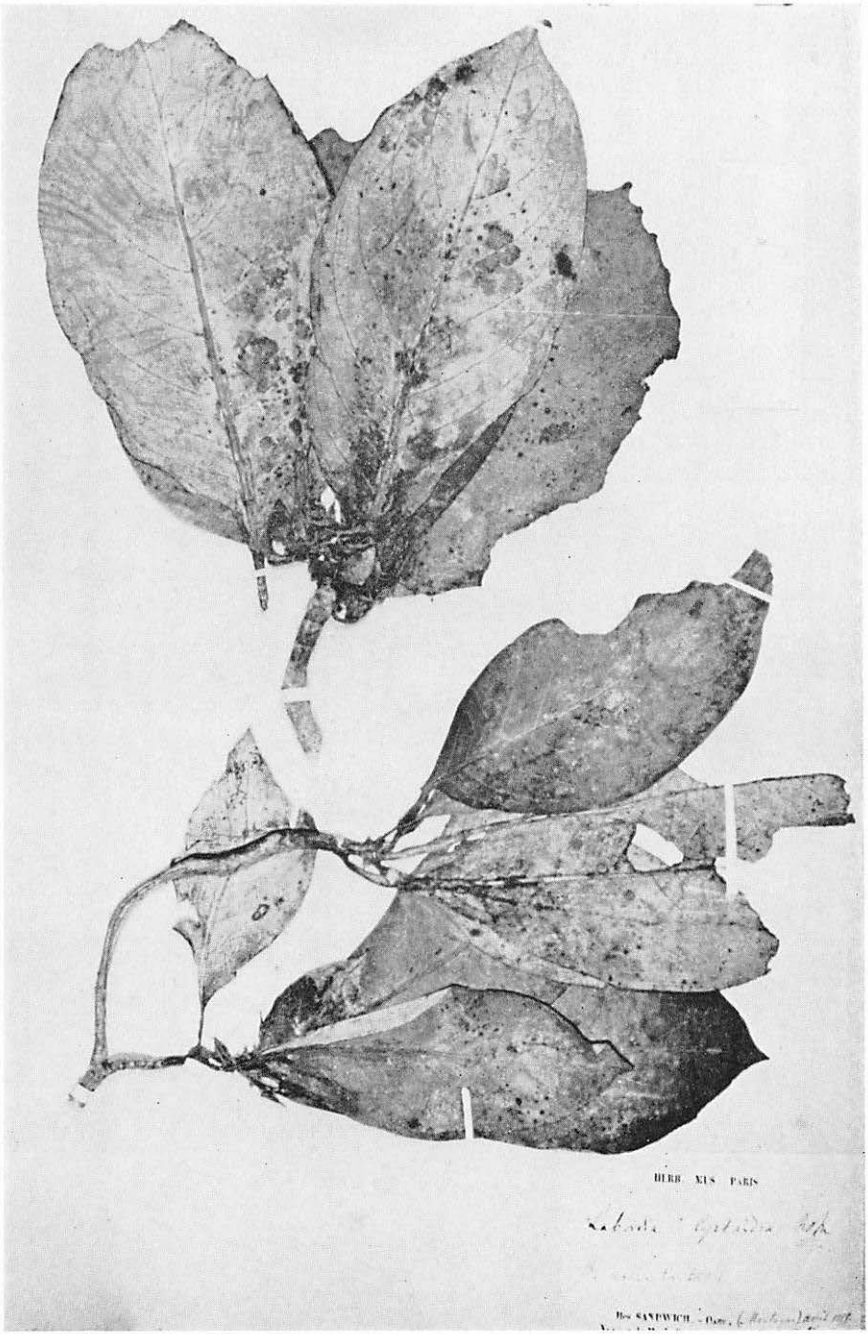

PLATE 1.—*Labordia Cyrtandrae,* from type specimen, J. Remy 358 bis.

Baillon's types are all collections by J. Remy from the Sandwich Islands. The specimens are adequate, all but one were labeled by Baillon, and all are available for study in the herbarium of the Museum Nationale d' Histoire Naturelle at Paris. Through the courtesy of Dr. H. Humbert, I have had an opportunity to examine them. *L. Echitis* Baillon is placed in the well-defined section *Rabdolia.* For the species a type is cited, but the description is brief ("feuilles . . . réunis par de courtes stipules interpétiolaires et vaginiformes. Les . . . fleurs . . . sont mâles"; and by inference, inflorescences less contracted than in *G. Cyrtandrae*). I agree with Skottsberg that *L. Echitis* Baillon is a *nomen nudum.* As the type collection, Remy 363 bis, represents a hitherto unrecognized species, I am providing a new name and a new description. The remaining four of Baillon's species, *G. Cyrtandrae, G. Remyana, L. hedyosmifolia,* and *L. molokaiana* have adequate descriptions, generally including habit, stipules, leaves, inflorescences, and flowers. As I consider these species valid I attach the results of my reexamination of them.

Both *Geniostoma* and *Labordia* are maintained by Engler and Prantl[4] and seem to have sufficient morphological characters. *Geniostoma* occurs from Madagascar to Fiji, and has the inflorescence from the lower leafy axils and the corolla tube short rotate. *Labordia* occurs only in the Hawaiian islands, and has the flowers terminal, single or in sessile or peduncled cymes, and the corolla tube well developed, cylindric.

Family LOGANIACEAE

Genus LABORDIA

Labordia Cyrtandrae (Baillon) St. John, new combination (pl. 1).

Geniostoma Cyrtandrae Baillon: Soc. Linn. Paris, Bull., vol. 1, p. 239, 1880.

Labordia hypoleuca Degener: Flora Hawaiiensis, Family 302, August 10, 1932.—St. John: B. P. Bishop Mus., Occ. Pap., vol. 10, no. 4, pp. 4-6, 1933.

There are two specimens of the type number (Remy 358 bis, Oahu, Montagnes, avril, 1855) in the Paris herbarium. They show stems, leaves, inflorescences, and flowers. The flowers are rather

[4] Engler, A., and Prantl, K., Die Naturlichen Pflanzenfamilien, Teil IV, Abt. 2, pp. 30-31, 1897.

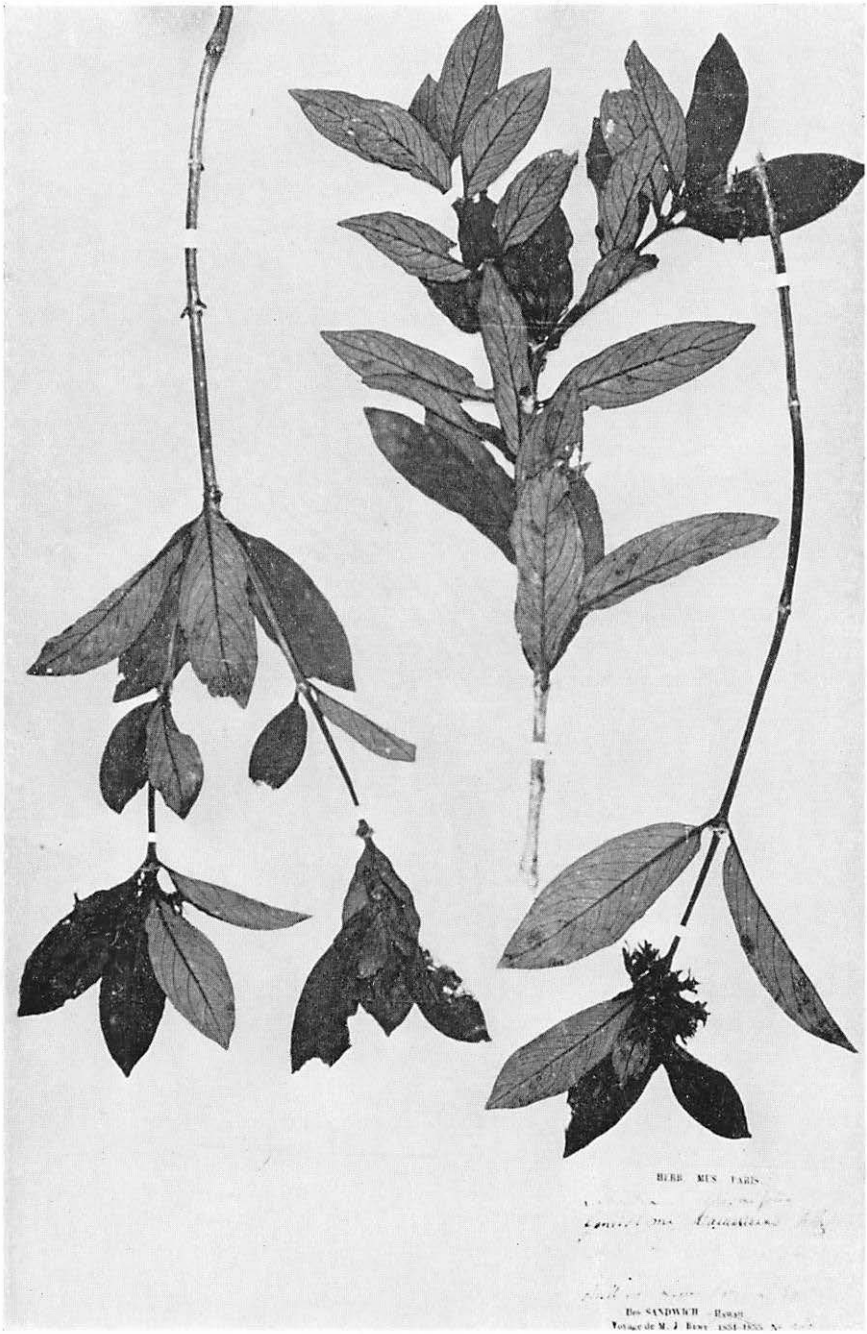

PLATE 2.—*Labordia hedyosmifolia*, from type specimen, J. Remy 362.

poorly preserved, but there is no question as to the identity of the species.

Labordia hedyosmifolia Baillon (pl. 2).

Geniostoma Remyana Baillon: Soc. Linn. Paris, Bull., vol. 1, p. 240, 1880.

Labordia hedyosmifolia Baillon: Soc. Linn. Paris, Bull., vol. 1, p. 240, 1880.

Labordia fagraeoidea sensu Gray: Am. Acad. Arts Sci., Proc., vol. 4, p. 323, 1860, not of Gaudichaud (1826).

Labordia Grayana Hillebrand: Flora Hawaiian islands, pp. 290-291, 1888.

Labordia hedyosmifolia Baillon was described from the island of Hawaii, Remy 362. I have compared it carefully with the type of *Geniostoma Remyana* and find no distinctive characters. *L. hedyosmifolia* has the sepals somewhat narrower and more lanceolate, and some of the blades more narrowly elliptic or oblance-elliptic, but the extremes overlap, and the difference appears to be such as might occur between the leaves of two adjacent bushes of the same species. I consider them to represent one species.

The type specimen of *Geniostoma Remyana* Baillon is Iles Sandwich, Hawaii, 1851-55, J. Remy, without number, in Herb. Paris. It contains two large branches in flower. The glabrous, elliptic-oblanceolate leaves, and every detail of its characters coincide with the type of *Labordia Grayana* Hillebrand from the island of Hawaii, Wilkes Expedition (U. S. Nat. Herb.), the characters of which have been confirmed by Skottsberg.[5]

Labordia hedyosmifolia Baillon variety **centralis** (Skottsberg) St. John, new combination.

Labordia Grayana Hillebrand variety *centralis* Skottsberg: Göteborgs Bot. Trädgard, Medd., vol. 10, pp. 159-160, 1936.

Labordia molokaiana Baillon (pl. 3).

Labordia molokaiana Baillon: Soc. Linn. Paris, Bull., vol. 1, p. 240, 1880.

Labordia lophocarpa Hillebrand: Flora Hawaiian islands, p. 289, 1888.

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[5] Skottsberg, Carl, Vascular plants from the Hawaiian islands. Part II: Göteborgs Bot. Trädgard, Medd., vol. 10, p. 157, 1936.

PLATE 3.—*Labordia molokaiana*, from type specimen, J. Remy 363.

I have compared the type of *Labordia molokaiana*—Iles Sandwich, Molokai, 1851-55, J. Remy 363 (Herb. Paris)—with an isotype of *L. lophocarpa* Hillebrand—Flora Hawaiiensis, Molokai, 1870, W. Hillebrand (Herb. Kew)—and although *L. lophocarpa* is in fruit and *L. molokaiana* is in flower, I find them inseparable. Rock[6] somewhat doubtfully adopted *L. molokaiana*. More recently Skottsberg[7] has argued that *L. lophocarpa* with the leaves elliptico- or obovato-oblong, and with the flowers single, terminal, could not be the same as *L. molokaiana* with the leaves narrow, lanceolate, and with the cyme few-flowered, contracted. After comparing the type specimens I have come to the conclusion that these differences are rather in terminology than in morphology. In both the leaves are oblanceolate and the flowers single and terminal.

Labordia Baillonii St. John, new species (pl. 4).

Labordia Echitis Baillon: Soc. Linn. Paris, Bull., vol. 1, p. 239, 1880 (*nomen nudum*).

Frutex (?), ramulis validis subquadrangularibus luteis, stipulis intrapetiolaribus vaginiformibus 3-5 mm altis, petiolis 1-2 cm longis, laminis 7-10.5 cm longis, elliptici-ovatis subacuminatis cuneatis integris subtus pallidioribus sparse adpressihirsutulis, cymis sessilibus terminalibus sparse hirsutis 15-18-floriferis, pedicellis 4-14 mm longis ad apicem hirsutis, floribus masculis luteis (?), sepalis 4.5-7 mm longis exterioribus 2-2.5 mm latis ovati-lanceolatis longe acuminatis interioribus angustioribus, tubis corollarum 7-11 mm longis, lobis 8-10 mm longis, antheris 3.5-4 mm longis anguste oblongis acutis, floribus foemineis non vidi.

Shrub (?); branches stout, somewhat 4-angled; bark smooth, yellowish; stipules chartaceous, intrapetiolar, united into a loose sheath 3-5 mm high; petioles 1-2 cm long, above glabrous and grooved, beneath more or less hirsutulous; blades 7-10.5 cm long, 32-58 mm wide, firm chartaceous, elliptic-ovate, abruptly subacuminate at apex, cuneate and tapering to the petiole at base, the margin entire, below paler green, sparsely subappressed hirsutulous; cyme terminal, sessile, about 4-5 cm long, 15-18-flowered, sparsely hirsute; bractlets 2-5 mm long, linear, tapering; pedicels 4-14 mm long, hirsute, especially at apex; the flowers unisexual, apparently dioecious; male flowers with the 5-6 sepals 4.5-7 mm long, two thirds to three fourths length of corolla tube, somwhat hirsutulous towards the base, the outer ones 2-2.5 mm wide, ovate-lanceolate below, long acuminate above, palmately 5-7-nerved, the marginal nerves heavy and prominent towards the tip; the inner ones 1-1.5 mm wide, lanceolate below, long acuminate above; corolla yellowish (?), firm, glabrous outside, inside at base of lobes sparsely hirsutulous; corolla tube 7-11 mm long, about 2 mm in diameter, slightly contracted below the throat, the 5 lobes 8-10 mm long, lance-linear; anthers 3.5-4 mm long, narrowly oblong, acutely pointed at apex; pisti-

[6] Rock, J. F., Indigenous trees of the Hawaiian islands, Honolulu, 1913.

[7] Skottsberg, Carl, Vascular plants from the Hawaiian islands. Part II: Göteborgs Bot. Trädgard, Medd., vol. 10, pp. 156-157, 1936.

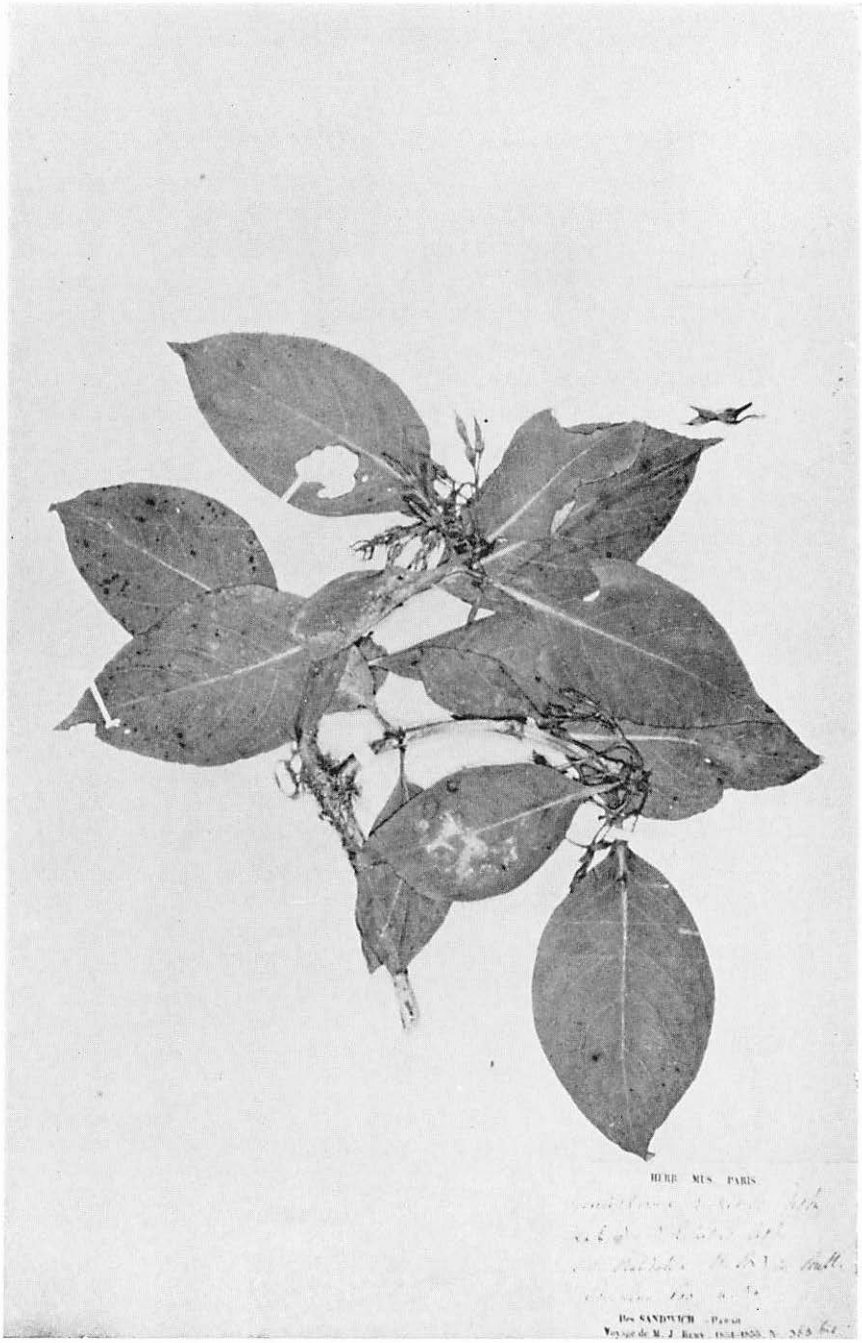

PLATE 4.—*Labordia Baillonii*, from type specimen, J. Remy 363 bis.

lode about 15 mm long, slender fusiform at base, with a slender style, and a narrowly ellipsoid, papillose apex; pistillate flowers and fruit not seen.

The closest relative is apparently *L. membranacea* Mann, occurring on the island of Oahu. It has the branchlets rufous hispidulous; the leaves rufous hispidulous beneath; the cyme viscous hirsutulous or hirsute; the calyx 6-15 mm long, divided, the sepals linear or subulate, rufous hirsute, half the length of the corolla tube or less; the corolla tube 12-20 mm long; and the corolla glabrous within. In contrast, the new species has the branchlets glabrous; the leaves sparsely white hirsutulous beneath; the cyme sparingly hirsutulous; the calyx 4.5-7 mm long, divided; the outer sepals ovate-lanceolate, long acuminate, sparingly white hirsutulous at base, two thirds to three fourths the length of the corolla tube; the corolla tube 7-11 mm long; and the corolla sparingly hirsutulous within at the base of the lobes.

Hawaiian islands: Hawaii, Iles Sandwich, 1851-55, Voyage de M. J. Remy no. 363 bis (type in Paris Herbarium).