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# THE JUGLANDACEAE OF GUATEMALA

LOUIS O. WILLIAMS

AND

ANTONIO MOLINA R.

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# An Overlooked Genus of the Scrophulariaceae

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Dorothy Nash Gibson, while studying the Verbenaceae for the "Flora of Guatemala," called my attention to several species described from Mexico and Central America as Clerodendron, which she thought not to belong in the Verbenaceae. There were five of these—two described by Standley, two by Standley and Steyermark, and one by Moldenke—one from Costa Rica, one from Mexico, and three from Guatemala. One of these species belongs in the Acanthaceae and Mrs. Gibson will write about it; one belongs in an undetermined family but not Verbenaceae; and three belong in what is apparently an undescribed genus of the Scrophulariaceae, near that no-mans-land between the Scrophulariaceae and Bignoniaceae.

The genus *Gibsoniothamnus* is one of those that seem to be near the gap, and a very narrow gap it is, between the Scophulariaceae and the Bignoniaceae. The genus to which it seems most closely allied is *Schlegelia* Miq. (syn. *Dermatocalyx* Oersted). Joseph Monachino was apparently the first to discover that *Schlegelia*, ascribed to the Bignoniaceae, and *Dermatocalyx*, ascribed to the Scophulariaceae, were one and the same genus (Phytologia 3: 102–105. 1949). Monachino's discussion of the familial position is good and there is no point in repeating it here, except to say that Monachino apparently thought the genus to belong in the Scrophulariaceae.

John W. Thieret was the next to mention the problem of *Schlegelia* and *Dermatocalyx*. In his "The Tribes and Genera of Central American Scrophulariaceae" (Ceiba 4:175. 1954) Dr. Thieret points out "that placental and seed characteristics of these taxa definitely point to the Scrophulariaceae" but curiously he did not include *Schlegelia* in his treatment cited above.

The discovery of a new genus, apparently related by several important characters to *Schlegelia*, but almost certainly more "scrophulariaceous" provides an important new consideration in deciding the

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FIG. 1. *Gibsoniothamnus pithecobius*. A flowering branch, × 1; corolla dissected to show stamens, × 2; calyx, × 2; enlarged anthers from front and back, × 5.

family affiliation of *Schlegelia*. The new material indicates its relationship to the Scrophulariaceae rather than to the Bignoniaceae.

Dr. Sandwith, the specialist in the Bignoniaceae, admitted *Schlegelia* into that family. Dr. Pennell, a life-long student of the Scrophulariaceae, thought *Schlegelia* not to be Scrophulariaceae. I believe

the impression of Monachino and of Thieret that *Schlegelia* might be scrophulariaceous is considerably strengthened by the discovery of *Gibsoniothamnus*.

It is a curious circumstance that the several species discussed here all have similar calyx lobes. This one thing more than any other is perhaps the reason that they were all put into *Clerodendron* as related species.

The first one of these, *Clerodendron moldenkeanum*, was described by Standley who said that it was "distinct from the few known previously from Mexico and Central America."

The next species described, *Clerodendron epiphyticum*, was admitted as "a somewhat puzzling and annoying plant" but the calyx was compared to that of *C. moldenkeanum*. The type specimen is poor and *probably* belongs neither to Verbenaceae nor to Scrophulariaceae. It is the only one of this group from Costa Rica.

The last two species of this alliance, *Clerodendron pithecobium*, placed here because of the relationship to *C. moldenkeanum*, and *C. mimicum*, placed because of relationship to *C. pithecobium*, are certainly closely allied one to another.

It is curious that Standley, a very competent botanist who apparently was responsible for all the original work on the four species discussed here, did not notice that the ovary was very unlike that known for Verbenaceae.

It is curious again that Dr. Moldenke, the authority on Verbenaceae who has seen all these species, agreed that they belonged in Clerodendron—and then described still another Clerodendron of his own with a bilocular ovary, but one belonging in Acanthaceae.

**Gibsoniothamnus** L. Wms. gen. nov. Scrophulariacearum, tribus: Cheloneae.

Typus generici: *Clerodendron pithecobium* Standl. & Steyerm.

Frutices parvi epiphytici vel terrestres divaricato-ramosi. Folia opposita petiolata coriacea anisophylla; inflorescentiae pauciflorae breves axillares pedunculi perbreves vel subnulli pedicelli elongati; calyx campanulatus quinquelobatus, lobi vulgo elongati et angusti; corollae regulares et symetrici vel leviter irregulares tubiformes, limbi 5-lobati, lobi subaequales et breves; stamina 4 aequales vel didynama inclusa libra fundo tubo corollae inserta; staminodium praesentium filiforme; stylus gracilis quam stamina longior; stigma capitata; ovarium bilocularis, ovula in loculis numerosa; capsula baccata verosimiliter indehiscens calyce persistans tecta; semina angulares vel vermiformes, embryone curvato.

**Gibsoniothamnus mimicus** (Standl. & Steyerm.) L. Wms. comb. nov. *Clerodendron mimicum* Standl. & Steyerm. Field Mus. Bot. 23: 227. 1947.

Known only from the highlands of Guatemala.

**Gibsoniothamnus moldenkeanus** (Standl.) L. Wms. comb. nov. *Clerodendron moldenkeanum* Standl. Field Mus. Bot. 22: 99. 1940.

Known from a single collection from Mexico, *Matuda 2760*.

This species differs from the other two species which I have placed in this genus in sometimes lacking a staminodium although material available for study is scant. The leaves, immature on all specimens of the single collection known, seem not to be as coriaceous as in the other two species, but like them, the leaves of a pair are decidedly anisophyllous.

**Gibsoniothamnus pithecobius** (Standl. & Steyerm.) L. Wms. comb. nov. *Clerodendron pithecobium* Standl. & Steyerm. Field Mus. Bot. 22: 373. 1940.

Known only from Guatemala. This is selected as the type species of the genus *Gibsoniothamnus*, and is the most common of the species.

EXCLUDED:

**Clerodendron epiphyticum** Standl. Field Mus. Bot. 22: 168. 1940.

Costa Rica: *Lankester 1296* (type) and *Brenes 12648*.

The specimens cited are almost certainly neither Verbenaceae nor are they Scrophulariaceae and *perhaps* represent two other families. The species was described by Standley with considerable hesitation and perhaps can never be placed unless by chance.

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