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Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

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Bignoniaceae of Tropical North America

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FIELD MUSEUM OF NATURAL HISTORY

AMPHITECNA AND ENALLAGMA. The tribe Crescentieae of the Bignoniaceae in America, according to Schumann in Engler & Prantl, Pflanzenfamilien IV, 3B; 244. 1895, consists of five genera, the best known of which is *Crescentia*. The genus *Schlegelia* is an anomaly in the Bignoniaceae and I have transferred it to Scrophulariaceae for the "Flora of Guatemala." *Parmentiera* is easily distinguished from the other genera of the tribe but the three remaining, *Crescentia*, *Amphitecna*, and *Enallagma*, are closely related. *Crescentias* are fairly distinctive trees and the large globose or ovoid fruits are 1-celled. The fruits of *Amphitecna* are said to be 2-celled while those of *Enallagma* are said to be 1-celled or incompletely 2-celled. There are certainly more species of the *Amphitecna-Enallagma* complex than had been previously distinguished. Several of these are without known fruits and even of those for which I have good fruits it is difficult if not impossible to be sure whether the fruit is 1- or 2-celled.

With the several species now distinguished in the *Amphitecna-Enallagma* complex and the greater number of collections available I find that the characters presumed to distinguish the two genera break down completely and I am obliged to combine them. Dr. Seibert in his "Bignoniaceae of the Maya Area" (Carnegie Inst. Wash. Publ. 522: 380-381. 1940) calls attention to this possibility, but had insufficient material for study. Our material is still insufficient, and probably always will be, but there is now three times as much material as Dr. Seibert saw before 1940.

There are, at least, one or two more species in the herbaria which are not accounted for here. Better material for them is desirable.

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! h. W. A. 473

①
Amphitecna oblanceolata L. Wms. & sp. nov.

Amphitecna oblanceolata L. Wms. sp. nov.

Frutices vel arbusculae usque ad 10 m.,

Frutices vel arbusculae usque ad 10 m.,

2 ramuli graciles, teres vel angulati, ~~et albes~~
ramuli graciles, teres vel angulati,

albescentes albidi. Folia oblanceolata vel elliptica

albidi. Folia oblanceolata ^{vel} elliptica ^{oblanceolata}
acuminata basi cuneata, glabra, petioli

acuminata basi cuneata, glabra, petioli

per breves; inflorescentia terminalis vulgo uniflora;
per breves; inflorescentia terminalis vulgo uniflora;

calyx bilabiatus, ca. 2 cm. longum, lobi

calyx bilabiatus, ca. 2 cm. longum, lobi

late oblongo-ovati, obtusi; corolla campanulato-

late oblongo-ovati, obtusi; corolla campanulato-
infundibuliformis, zygomorpha, 5-lobata,

zygomorpha, 5-lobata;

fructus anguste ovato-cylindricus.

fructus anguste ovato-cylindricus.

1 vel anguste
OBOVATI

②

Amphitecna blanceolata L. Wms sp. nov.

Shrubs or small trees to 10 m. tall. Branches slender, terete or angulate, whitish, glabrous. Leaves ^{or elliptic-oblancoate} oblancoate, acuminate, ~~glabrous~~, cuneate to the base ^{glabrous}. Secondary nerves 10-15 pairs at nearly a right angle to mid-nerve, the tips anastomosing, the blade ^{acute or obtuse} 9-25 cm. long and 2-7 cm. broad ^{petiole} ~~petiole~~ ^{very short} 2-8 mm. long; inflorescence terminal on young branches, mostly a single ^{pedicellate} flower, ~~the~~ The pedicel 2-3 cm. long; calyx bilobate at anthesis, ~~about~~ ^{1.5-} 2 cm. long and ^{0.5-} 0.8 cm. broad at the base, the lobes broadly oblong-ovate ^{to narrowly ovate}, obtuse; corolla campanulate-funnelform, zygomorphic, 5-lobate, 2.5-4.5 ~~to 5~~ cm. long; fruit narrowly ovate-cylindric, probably more than 15 cm. long and about 3.5-~~5~~ cm. in diameter; seeds (nearly mature) immersed in the whitish pulp, subreniform in outline with the embryo at the center and with lateral wings thin and obtuse.

③ *Plumeria*

Río Chacón, Izabal, Feb. 10, 1921, Johnson 1241;

Guatemala: shrub, between Bananera and
"La Presa" in ~~Monta~~ Montaña del Mico, Izabal.

alt. 40-300 m., March 28, 1940, Steyermark 38210;

& at base of water fall, ^{small tree 30 feet tall,} between Bananera and

"La Presa" in Montaña del Mico, ^{Izabal} alt.

50-150 m., Izabal, April 9, 1940, Steyermark

39199; (~~Paratype for fruit, F~~); tree 30 feet tall,

wooded slopes, along Río Frío at Izabal.

alt. 75 m., Dec. 17, 1941, Steyermark 39944;

tree 30 feet tall, corolla creamy-greenish with
green calyx, along Río Frío and tributaries,

Izabal, alt. 75-150 m., Dec. 8, 1941,

Steyermark 41587; (~~holotype, F~~); shrub 8 feet

tall, Finca Yalpemech near Alta Verapaz-Petén
boundary line, alt. 100-150 m., March 23, 1942,

Steyermark 45207; Cerro Chinajá ~~low~~ tree

(4)

- 30 feet, lowland forest along Río San Román west of Chinajá, Peten, alt. 50 m., March 30, 1942, Steyermark 45508; small tree, Cerro Chinajá, between Finca Yalpamech and Chinajá, above source of Río San Diego, Alta Verapaz, alt. 150-700 m., April 12, ~~19~~ 1942, Steyermark 45575.

These specimens, except the holotype and two ~~Steyermark~~ offshoots (31991 and 41587), ~~paratype~~ are sterile but they seem to all be the same species. The fruit on the paratype has the apical portion broken away but its basic shape is shown. The fruit is said to have been bright green and soft on the outside. ^{Most} the specimens have been determined as Enallagma sessilifolia ^{folia} and E. downell-smithii to which they are not too closely related.

The species is distinctive because of the subcoriaceous ^{or elliptic-obovate} oblanceolate leaves with secondary nerves at a nearly a right angle to the

(5)

mid-nerve. The fruit is distinctive but fruits of some members of this genus are not known to me.

The specimens cited are all from the lowland forests along the Atlantic plain of Guatemala. The somewhat similar Amphitecna silvicola is easily distinguished by its cauliflorous inflorescences, its curious venation underleaf and it is a resident of the mountain forests.

Amphitecna sessilifolia (Donn.-Sm.) L. Wms
Comb. nov. Tabebuia sessilifolia Donn.-Sm.
Bot. Gaz. 25: 156. 1898. Neotuerckheimia
gonoclada Donn.-Sm. Bot. Gaz. 47: 259. 1909.
Enallagma sessilifolia Standl. Field Mus.
Bot. 18: 1120. 1938.

A species of the mountains of Costa Rica.
It has been attributed to Guatemala by
Seibert and others but the specimens
involved are mostly the lowland A. oblaucolata.

STIGMONEURACEAE

Amphitecna silvicola L. Wms. sp. nov.

Amphitecna silvicola L. Wms. sp. nov.

Frutex ^m circa 2 m. altus. Folia elliptica

Frutex circa 2 m. altus. Folia elliptica

vel oblanceolata, acuminata, breviter petiolata
vel oblanceolata acuminata / breviter petiolata;

Inflorescentiae fasciculatae 1-3. floribus, pedicellis
inflorescentiae fasciculatae * 1-3-floribus, pedicellis
graciles; flos albus; calyx ~~in~~ anthesis sub anthesi
graciles; flos albus; calyx, sub anthesi

bilobatum, ~~lobi~~ lobi obovati cochleati obtusi;
bilobatum, lobi obovati cochleati obtusi;

corolla campanulato-~~infundibulata~~ infundibuliformis.

corolla campanulata-infundibuliformis crenulato-lobata;
Crenulato-lobata; stamina 4, ~~inclusae~~ ~~inclusae~~ ~~inclusae~~;
stamina 4 / inclusae;

staminodium cylindricum arcuatum; anthera
staminodeum cylindricum arcuatum; anthera biloculares cellulae explanatae.
biloculares cellulae explanatae.

a shrub about 2 m. tall, the branches
angulate, becoming terete, glabrous. leaves
alternate on the new growths, elliptic or
oblanceolate, ~~acum~~ acuminate, ~~the~~ short petiolate
with 7-12 lateral nerves, these lighter-marginate on
the lower surface, The blades 8-12 cm. long
and 2.2-4 cm. broad, petiole to ~~10~~ 1 cm.

long; inflorescence fascicles of 1-3 flowers on
older wood from an enlarged multi-bracteolate
base, pedicels about 2 cm. long slender;
flowers white; calyx closed in bud, bilaterally
split in anthesis nearly to the base, each lobe
ovate, somewhat cochleate, stiff, glabrous,
15-20 mm. long and 10-12 mm. broad; corolla
campanulate-funneliform, crenulate-lobate,
mucronate toward the apex outside,
smooth and glabrous within, 4-5 cm. long

when mature; disk entire, obscurely lobate, young
ovary elongate, smooth; style about 30 mm.
long, narrowly truncate; joints unknown.

stamens 4, in two unequal pairs, reaching
to the throat of the corolla; staminode
cylindric, 3-4 mm. long, arcuate; anthers
2-celled, the cells exserted and joined through
apex of anther, each cell about 5 mm. long;

Mexico: flowers white, [shrub] 6 feet tall, heavily wooded slope at Lago Tsiskaw on the Guatemalan border, 30 miles east of La Trinitaria, municipio La Trinitaria, Chiapas, elevation 4,500 feet, 27 May 1965, predlose 10064 (type, F).

This ^{montane} plant ^{from middle elevations} is ~~almost certainly a second~~ ^{related to *A. macrophylla*} member of *Amphitecna* but quite distinct from it. *A. macrophylla* in the very much smaller leaves scattered along the new growth instead of ~~at the end~~ clustered on the new growth. Lower stature seems not greatly different in the two species, and both share the curious lighter colored margins of the veins and veinlets on the lower leaf surface. ~~The genus is genus has only two known species.~~

Amphitecna molinae R. Wms sp. nov.

Frutices aut arbusculae usque ad 6 m.

Folia alterna vel subfasciculata, oblanceolata,
Folia alterna vel subfasciculata, oblanceolata,
acuminata, breviter petiolata, chartacea vel
acuminata breviter petiolata chartacea vel

coriacea; inflorescentia terminalis, fasciculata biflora,
~~capiti~~ coriacea; inflorescentia terminalis fasculo bifloro,

pediceli 2.5-3 cm. longi basi bibracteolati; calyx
pediceli 2.5-3 cm. longi basi bibracteolati; calyx

anguste campanulatus trilobatus, lobi ovati acuti;
anguste campanulatus trilobatus lobi ovati acuti;

corolla ^{alba} infundibuliformis lobato-crenata;

corolla alba infundibuliformis lobato-crenata;

~~fruct~~ fructus cortice crasso.

fructus cortice crasso.

Shrub or weak tree 2-6 m. tall, The
young branches striate, becoming terete grayish-white,
glabrous. Leaves alternate or clustered

A. Molina 2

toward the apices of young branches, oblanceolate,
acuminate, short petiolate, lateral nerves

15-25 pairs at about 80° angle from mid-nerve.

glabrous, the blades chartaceous becoming

coriaceous with age, 8-17 cm. long and

2-6.5 cm. broad, the petiole to 1 cm. long;

inflorescence terminal, a fascicle of 2 flowers

(on type); pedicels about 2.5^3 cm. long,

bracteolate to near the base; calyx narrowly
campanulate, divided to about the middle and

trilobate, about 2.5 cm. long at anthesis, the
lobes ovate, acute, about 1 cm. long; The

corolla ^{white,} ~~to~~ ~~about~~ infundibuliform, lobate-

crenate, to about 5 cm. long;

fruits with ~~thick~~ heavy shell to 5 mm

thick, [LEAVE 2 lines]

Honduras: flowers white, weak tree to 6 m.
along river, open forest of Quebrada Rejarsia
between kms. 9-11 on road La Esperanza-
Marcala, dept. Intibucá, alt. 1,600 m.,

March 21, 1969, Molina ^(type F & EAP) 24295; with
the same data, Molina 24299 (F, EAP).

This small tree is ^{easily} distinguished from others
of the genus by the trilobate calyxes, the thick
and durable shell of the fruit, the relatively
small leaves with numerous lateral nerves. The
species memorializes the Molinas who have
collected ~~a~~ ~~in~~ assiduously in Central America
for some 25 years. It is a highland species
of the montane forest.

Amphitecna montana L. Wms sp. nov.

Arbores usque ad 15 m. altae, Ramuli

Arbores usque ad 15 m. altae. Ramuli

angulati vel teres, glabri. Folia alterna,
angulati vel teres glabri. Folia alterna
oblanceolata vel anguste obovato-elliptica,
oblanceolata vel anguste obovato-elliptica
acuminata, basi cuneata, ~~longiuscula~~
acuminata basi cuneata

longiusculo-petiolata glabra, subcoriacea;
longiusculo-petiolata glabra subcoriacea;
inflorescentiae uniflorae; flores pendentes,
inflorescentiae uniflorae; flores pendentes

pediceli graciles; calyx carnosus, coriaceus,
pediceli graciles; calyx carnosus coriaceus, bilobatus aut trilobatus
bilobatus aut trilobatus, basi circumscissilis;
basi circumscissilis;

corolla angusto campanulata, luteo crenulato-lobata,
corolla campanulata leviter crenulato-lobata
leviter zygomorpha; fructus elliptico-ovoideus, fragilis;
leviter zygomorpha; fructus elliptico-ovoideus fragilis;

semina crassa carnosae.
semina crassa carnosae.

Small forest trees 10-15 m. tall, the
branches angulate, ^{at first} becoming terete with age,
glabrous. Leaves alternate and scattered

along the branches or sometimes clustered
toward the apex, oblanceolate to
narrowly obovate-elliptic, acuminate,
uncinate to the base and rather long
petiolate (for genus), ~~glabrous~~ with 15-20
prominent lateral nerves anastomosing
toward the margins, blades subcoriaceous,
75 12-30 cm. long and 3-10 cm. broad,
the petioles mostly 2-4 cm. long; inflorescences
of single flowers in axils of leaves; ^{flowers} pendent,
The pedicel slender, to about 10 cm. long;
Calyx fleshy, coriaceous, bilobate or
possibly also trilobate to the middle, ~~the~~
about 3 cm. long, circumscissile
Circumscissile at the base and falling
away leaving the pedicel and young ovary;

a. Montana.

or elliptic-ovoid, to 15 cm.
long and 8 cm. in diameter,

Corolla ^{light green,} narrowly campanulate, shallowly
crenate-lobate, ~~nearly~~ slightly zygomorphic,
about 4.5 cm. long and about 2.5 cm. broad
at throat; fruits oblongoid ~~to 1.5 cm. long and 8 mm. diam.~~ shell thin and
fragile, the flesh hard and slightly bitter;
seeds thick and the cotyledons fleshy,
notched at both top and bottom, about
18 mm. broad, 12 mm. high and 8-10 mm.
thick.

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Guatemala: Tree 50 feet tall, flowers
pendent, easily separating from pedicel which
likewise easily separates from stem, pedicel or
branch, corolla pale greenish-yellow, anthers
dull blackish brown; mixed hardwood pine
woods bordering barranco half way up slopes of
barranco, barranco 6 miles south and west of town
of Taja mulco, northwestern slopes of Volcán
dipt. San Marcos
Taja mulco, alt. 2300-2800 m, Feb. 26, 1940.

Styromar 36704 (type ^{two sheets} F); tree 12 m. tall,
large fruits elliptic-ovate, about 15 cm. long

Montana.

and 8 cm. in diameter, pulp surrounding seeds white, flowers white; montane cloud forest area on outer slopes of Tajumulco Volcano, Sierra Madre Mountains about 8-10 Km. West of San Marcos, ~~to~~ dept. San Marcos, alt. $\pm$ 2300 m., Dec. 31, 1964 - Jan. 1, 1965, Williams et al.

26915.

Sterile collections from ~~same~~ Dept. San Marcos, Guatemala probably this species are:
Steyermark 36987, 37012; Stanley 86200
Siltepec, Chiapas, enero 1938, Mattuda 1947;
Mexico: Mt. Ovando, Escuintla, Chiapas,
1-16 July 1940, Mattuda 4206.

This is a ~~highland~~ ^{montane} species distinguished by the large petiolate leaves, the long slender pedicels of the flowers and the curious calyx circumscissile at the base. The fruit is perhaps the largest among the species of Guatemala and the shell very fragile. The species has been ~~determined as~~ ^{determined as} Enallagma sessilifolia in all cases, a montane species of Costa Rica to which it is allied.

Amphitecna latifolia (Miller) R. Wms comb. nov.

~~Gross.~~
Crescentia latifolia Miller, Gard. Dict. ed. 8. 1768.

~~Gross.~~ C. cucurbitina L. ~~Mant.~~ Mant. Pl. 250. 1771.

C. obovata Benth. Bot. Voy Sulph. 130, t. 46. 1845.

Enallagma cucurbitina Bail. Hist. Pl. 10: 24. 1888.

C. obovata Bail. ex Schumann in Engler & Prantl,

Pflanzenf. IV. ~~3b:~~ 3b: 247. 1895. C. latifolia Small,

Fl. Miami 171. 1913.

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Miller's name is used ~~as~~^{as} the basionym of this plant with considerable hesitation. His description of the leaves is not good and he may well have had something other ~~than~~ than that which Dr. Seibert and others thought he had. Crescentia cucurbitina L. seems to be a ~~renaming only of~~ a substitute name for C. latifolia. Crescentia obovata Benth. is a beautifully described and illustrated plant and is certainly the sea coast plant distributed from Mexico and the West Indies to Venezuela. If the name Crescentia latifolia proves to be

copy a. latifolia.

Something else or without basis then Benthams
name will need to be taken up.