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A Continuation of the
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VOLUME 31

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PRELIMINARY STUDIES IN THE PALM GENUS
SYAGRUS MART. AND ITS ALLIES

S. F. GLASSMAN

TROPICAL AMERICAN PLANTS, VII

LOUIS O. WILLIAMS

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SUPPLEMENT TO ORCHIDS OF GUATEMALA
AND BRITISH HONDURAS

DONOVAN S. CORRELL

JUN 28 1966

FIELDIANA: BOTANY

VOLUME 31, NUMBERS 5, 6 AND 7

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SUPPLEMENT TO
ORCHIDS OF GUATEMALA
AND BRITISH HONDURAS

DONOVAN S. CORRELL
Principal Botanist, Texas Research Foundation

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Supplement to the Orchids of Guatemala (and British Honduras)

Since the appearance of Oakes Ames' and my work on the orchids of Guatemala (including British Honduras), published by Chicago Natural History Museum (1952-1953, *Fieldiana: Botany*, **26**, Nos. 1 and 2), important collections of several individuals have been made available to us. These are notably those of Percy H. Gentle from British Honduras, and C. L. Lundell and Elias Contreras from the Department of Petén, Guatemala, deposited in the Lundell Herbarium, Chicago Natural History Museum, and elsewhere. In addition to these, there are some specimens of various collectors in the United States National Herbarium which were inadvertently omitted in the original publication.

In view of the continued, if not increasing, interest in the orchids of this part of Latin America, it was thought advisable to make available this additional information. In citing supplementary distribution data for each taxon, page reference is made to where it is described and treated in *Orchids of Guatemala*. In the case of new additions to the flora, a brief description is included of the taxon, and the salient characteristics that distinguish it from all other presently known orchid taxa in Guatemala and British Honduras are given.

Orchids of Guatemala included a total of 527 species or 552 specific and infraspecific taxa in 89 genera. The present publication brings to 542 species or 567 specific and infraspecific taxa in 90 genera the number now known to occur in Guatemala and British Honduras.

One new species, *Pleurothallis tikalensis*, and one new combination, *Scaphyglottis major*, are proposed. The genus *Warrea* is definitely new to our flora and apparently the genus *Epistephium* should be included. The species new to our flora are *Habenaria Leprieurii*, *Vanilla Hartii*, *Elleanthus caricoides*, *Spiranthes pseudogodyerioides*, *Pleurothallis gelida*, *P. ovatilabia*, *Epidendrum cystosum*, *E. equitanti-folium*, *E. sculptum*, *Bletia tenuifolia*, *Warrea costaricensis*, *Coryanthes maculata*, *Ionopsis satyrioides* and *Campylocentrum hondurensis*.

ENUMERATION OF SPECIES

Habenaria bractescens Lindl.; Ames & Correll, p. 28, fig. 4.
Guatemala.—Petén: Dos Lagunas, *Contreras* 1771.

Habenaria clypeata Lindl.; Ames & Correll, p. 28, fig. 5.
British Honduras.—Toledo: Monkey River, between Monkey River and Cockscomb, *Gentle* 4229A.

Habenaria distans Griseb.; Ames & Correll, p. 32, fig. 6.
Guatemala.—Petén: Dolores, between kms. 86/87, east of Machaquila Road, *Contreras* 2976.

Habenaria Leprieurii Reichb. f. *Linnaea* 19: 376. 1846; Schultes, *Native Orchids of Trinidad and Tobago* 28. 1960. *H. mesodactyla* Griseb. *Fl. Brit. W. Ind. Isl.* 644. 1864; Ames, *Orch.* 4: 211, pl. 70. 1910; Williams, *Ceiba* 5(1): 14. 1956. *H. Cruegeri* Cogn. in *Urban, Symb. Ant.* 6: 303. 1910.

On sandy open pine ridges and uplands. Uncommon in British Honduras, Panama, Trinidad, and northern South America.

Plant slender, rigidly erect, up to 5 dm. tall, with one or more tuberosities at base. Leaves linear-setaceous, distant. Flowers greenish yellow, distantly placed in a 1- to 7-flowered spike. Bracts ovate-lanceolate to lanceolate, acuminate, 1-1.5 cm. long, exceeded by the incurved conspicuously ribbed pedicellate ovary. Sepals often with prominently ciliate margins, 5-6 mm. long; dorsal sepal broadly ovate-elliptic, obtuse, concave, about 3 mm. wide; lateral sepals obliquely ovate-lanceolate, acuminate, about 2 mm. wide below middle. Petals bipartite; anterior lobe setaceous, about 5 mm. long, usually much exceeding the linear posterior lobe. Lip tripartite, about 6 mm. long, the base about 2 mm. wide; lateral lobes linear to setaceous, curved, mostly somewhat exceeding the linear pendulous mid-lobe.

This species was not included in Ames and Correll (1952), but Williams (1956) reported it from British Honduras. It is quite possible that our plant should be at least varietally segregated from typical *H. Leprieurii*. It differs from the island plant in having larger flowers with the lateral lobes of the lip exceeding the mid-lobe and the anterior lobe of the petals exceeding the posterior lobe. Also the sepals are often conspicuously cellular-ciliate, a characteristic not noted in typical *H. Leprieurii*. The flowers of our plants agree perfectly with the illustration of *H. mesodactyla* in Ames, but it does not agree with any of the descriptions published of this plant, including the latest by Schultes.

British Honduras.—El Cayo: Mountain Pine Ridge, San Augustin, *Lundell* 6712.—Stann Creek: Commerce Bight Pine Ridge, *Gentle*

8291, 8361.—Toledo: near Jenkins Creek, north of Monkey River, *Gentle* 4097. Punta Gorda-San Antonio Road, *Gentle* 6597.

Habenaria novemfida Lindl.; Ames & Correll, p. 38, fig. 5.

British Honduras.—Toledo: in *sacatal* near Machaca, *Gentle* 6898.

Habenaria pauciflora (Lindl.) Reichb. f.; Ames & Correll, p. 39.

British Honduras.—Toledo: near Jenkins Creek, north of Monkey River, *Gentle* 4036.

Habenaria repens Nutt.; Ames & Correll, p. 42, figs. 5, 9.

Guatemala.—Sololá: Panajachel, swamp along Lake Atitlán, *O. Degener & I. Degener* 558.—Petén: Tikal National Park, Aguada Terminos, *Lundell* 16609.

British Honduras.—Stann Creek: Commerce Bight Pine Ridge, *Gentle* 8336.—Toledo: 12 Miles, Punta Gorda-San Antonio Road, *Gentle* 6596.

Habenaria strictissima var. **odontopetala** (Reichb. f.) L. Wms.; Ames & Correll, p. 46, figs. 5, 10.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos Road, *Contreras* 1934.

Vanilla Hartii Rolfe Kew Bull. (1899) 133; Portères in Bouriquet Le Vanillier et la Vanille (Encycl. Biol. XLVI) 250, fig. 113. 1954; Schultes Native Orchids of Trinidad and Tobago 39. 1960.

Climbing on trees in moist forests at low elevations, commonly on ridges. Uncommon in Trinidad, Tobago, British Honduras, Guatemala, Honduras (Dept. Atlántida, *Standley* 52824), Costa Rica (Prov. Limón, *Standley & Valerio* 48905), and Panama (Prov. Panamá, *Standley* 29353).

Stem slender. Leaves with a short twisted petiole up to 1 cm. long; blade fleshy but thinnish, elliptic-lanceolate to ovate-lanceolate or oblong-elliptic, more or less abruptly acuminate, up to 11 cm. long and 3.5 cm. wide, usually smaller, about as long as the internodes. Inflorescence axillary, compactly few-flowered, the floral axis 2 cm. or less long. Floral bracts broadly ovate, rarely more than 5 mm. long. Flowers white. Sepals and petals similar, very narrowly linear-oblong, narrowly obtuse at apex, up to about 4 cm. long and 7 cm. wide above the middle. Lip attached to the column almost to its apex to form a tube, with the tube slightly inflated at base, about 4 cm. long from its attachment at base of column to the crenulate-erose apical lamina, about 1.5 cm. wide across the free apical portion when spread out; disk with veins somewhat thickened toward apex of lip, with a small tuft of retrorse centrally placed plates arising about 12 mm. below apex of lip. Fruit short, 5-8 cm. long.

This species, which until now was thought to be endemic to Trinidad and Tobago, is new to Central America. The Central American plants have, on the whole, larger leaves than those described for the island plants by both Portères and Schultes, but Schweinfurth and I can find no clear distinction for separating the plants from these two regions. It may be distinguished from all other vanilla-species in our area not only by the floral difference and the long-acuminate leaves but by the extremely abbreviated floral axis.

Guatemala.—Petén: Dolores, on Río Mopan trail, *Contreras* 3063.

British Honduras.—Toledo: Bolo Camp, upper reach, Golden Stream, *Gentle* 4560. Between Orange Point and Moho River, *Gentle* 7673.

Vanilla Pfaviana Reichb. f.; Ames & Correll, p. 55, fig. 15.

British Honduras.—Toledo: near river beyond Columbia, *Gentle* 6152. Near ocotal pine ridge, 1–3 miles in trail from 7 miles Punta Gorda–San Antonio Road, *Gentle* 6957, 7078. Feeders Road leading to Big Fall, *Gentle* 7023. Near Columbia, *Gentle* 7108.

Vanilla planifolia Andrews; Ames & Correll, p. 57, fig. 16.

Guatemala.—Petén: Tikal National Park, Tikal, *Contreras* 1841 (narrow-leaved form). About 2 km. south of Dolores, *Contreras* 2239. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Lundell* 15818, 15940.

British Honduras.—Toledo: Bolo Camp, upper reach of Golden Stream, *Gentle* 4521. Canada Hill–Alta Visa Road, *Gentle* 8054.

The following collections have their inflorescences terminating a leafy branch or a mainstem. This is not a common occurrence, at least not in herbarium specimens, and it might be of some significance in this species.

British Honduras.—Toledo: Near Jacinto Hills, *Gentle* 5106. Feeders Road, 14 Miles, San Antonio–Punta Gorda Road, *Gentle* 6721. Beyond San Antonio, *Gentle* 7557.

Vanilla pompona Schiede; Ames & Correll, p. 59.

Guatemala.—Petén: Dolores, about 800 m. south of the village on the Machaquila Road, *Contreras* 2333. Dolores, on Río Mopan trail, *Contreras* 3063. Canchacan, *Lundell* 16457.

Epistephium sp. An unidentifiable specimen from British Honduras which I believe belongs to this genus is in the Ames Orchid

Herbarium at Harvard University. If correct, this would be its only known occurrence in North America.

Elleanthus caricoides Nash, Bull. Torr. Bot. Club 34: 119, pl. 7, 1907.

Epiphytic on trees in moist forests and groves. Uncommon in British Honduras, Nicaragua and Costa Rica.

Plant densely tufted, essentially smooth and glabrous, up to 4 dm. tall. Stems slender, numerous, fasciculate, terete, about 2 mm. in diameter, sparsely spotted with purple. Leaves 5 to 7; sheaths grooved, spotted with purple, much shorter than the blades; blades flat, shining, 7-nerved, erect, somewhat twisted and recurved above base, linear to linear-lanceolate, long-acuminate at apex, narrowed and sheathing at base, 1-2 dm. long, about 7 mm. wide, reduced above. Inflorescence congested and subcapitate, 2-3 cm. long, on a peduncle less than 1.5 cm. long. Floral bracts scarious, ovate-lanceolate, long-acuminate, greenish, 2 to 3 times as long as the white flowers, nearly erect and recurved above the middle. Flowers and ovary appressed-pubescent with black-brown hairs, about 1 cm. long, gibbous on one side. Lateral sepals oblong to oblong-elliptic, rather abruptly contracted above into a laterally compressed and keeled apex, 7-8 mm. long, about 3 mm. wide. Dorsal sepal 5-6 mm. long and about 2 mm. wide. Petals linear-oblong, somewhat dilated at the rounded and apiculate apex, 6-7 mm. long, 1.5-2 mm. wide. Lip nearly campanulate, completely surrounding the column so that its margins meet, 7-8 mm. long, when spread out 10-12 mm. wide at the truncate and sparingly ciliate apex, 5-6 mm. wide at the base; disk with a 2-ridged crest just below the middle, the 2 oblong appendages near the base of the lip oblong and 1.5-2 mm. long and 1 mm. wide. Column 7-8 mm. long, 4-toothed at the broadened apex.

This species, which was not included in Ames and Correll (1952), is new to British Honduras. It may be distinguished from all other species of *Elleanthus* (cf. Ames and Correll, p. 60) found in our region, especially *E. poiformis* Schltr., by its narrowly linear-lanceolate leaves and the tight subcapitate inflorescence with long-attenuate floral bracts that greatly exceed the flowers.

British Honduras.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4422. On hill top, Balsam Hill, Edwards Road, beyond Columbia, *Gentle* 6329.

Elleanthus linifolius Presl; Ames & Correll, p. 62.

Guatemala.—Petén: Santo Toribio, north of road, *Contreras* 2753. Dolores, on Machaquila Road, between kms. 85-87, *Contreras* 3021, 3135.

British Honduras.—Stann Creek: Dry Creek, Humming Bird Highway, *Gentle* 8399.—Toledo: Jacinto Creek, Río Grande, *Gentle* 4924. Punta Gorda-Seven Hills Road, ascending the Río Grande,

Gentle 5003. Balsam Hill, Edwards Road, *Gentle* 6331. On hill slope beyond Pate's Camp, Edwards Road beyond Columbia, *Gentle* 7159.

Sobralia decora Batem.; Ames & Correll, p. 64, figs. 18, 19.

Guatemala.—Alta Verapaz, Cacao, Finca Trece Aguas, *G. P. Goll* 48.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 452. On Remate Road, Tikal National Park, *Contreras* 1494. Dolores, km. 82, west of Machaquila Road, *Contreras* 2728. Dolores, on Río Mopan trail, *Contreras* 3058. On Remate Road, Tikal National Park, *Lundell* 16891.

British Honduras.—Stann Creek: Stann Creek—Sittee Road, *Gentle* 7927. Chavarrias Road, Resemederes, across Columbia River, *Gentle* 6279. Near San Antonio, *Gentle* 7535.

Sobralia fragrans Lindl.; Ames & Correll, p. 66.

Guatemala.—Petén: Dolores, kms. 83–86 on Machaquila Road, *Contreras* 2107, 2938. Dolores, on Río Mopan trail, about 3 km. east of village, *Contreras* 2836.

British Honduras.—Stann Creek: Eve's Pine Ridge, *Gentle* 8508.—Toledo: Jacinto Creek, Rio Grande, *Gentle* 4925. Near Jacinto Creek, 9 Miles, Punta Gorda—San Antonio Road, *Gentle* 4962. Chavarrias Road, Resemederes, across Columbia River, *Gentle* 6259. Near Mafridyle Lagoon, *Gentle* 7703.

Sobralia macrantha Lindl.; Ames & Correll, p. 68.

Guatemala.—Quiché, Chimique, *Heyde & Lux* 3515.

Sobralia mucronata Ames & C. Schweinf.; Ames & Correll, p. 69.

British Honduras.—Toledo: near Carmelita Camp, Edwards Road beyond Columbia, *Gentle* 7318. Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4314. Mira Mar Hill, Edwards Road, beyond Columbia, *Gentle* 6404.

Prescottia stachyodes (Sw.) Lindl.; Ames & Correll, p. 76.

Guatemala.—San Marcos: San Lorenzo, *W. C. Shannon* 449.

British Honduras.—Stann Creek: 20 miles Section Stann Creek Valley, *Gentle* 9275.—Toledo: Cero Hill, *Gentle* 6991.

Spiranthes acaulis var. ***assurgens*** (Reichb. f.) Correll; Ames & Correll, p. 100.

Guatemala.—Petén: Lacandon, *Contreras* 3462.

Spiranthes adnata (Spreng.) Benth. ex Fawc.; Ames & Correll, p. 100.

Although this species was included by Ames and Correll on the basis of its occurrence in British Honduras, this is the first collection that has been seen from Guatemala.

Guatemala.—Petén, Dolores, on Machaquila Road, between kms. 83–84, *Contreras* 2168.

Spiranthes costaricensis Reichb. f.; Ames & Correll, p. 106, fig. 28.

Guatemala.—Petén: Tikal National Park, Tikal, *Ibarra* 54. Tikal National Park, Tikal, *Lundell* 15636, 16796. On trail to Aguada La Aurora, Tikal National Park, *Lundell* 15686. Aguada Las Cucas, Tikal National Park, *Lundell* 16898.

British Honduras.—Toledo: On hill slope beyond Central Camp, Edwards Road beyond Columbia, *Gentle* 7304.

Spiranthes orchioides (Sw.) A. Rich.; Ames & Correll, p. 118, fig. 31.

Guatemala.—Izabal: Cristina, open grassy plain, *S.F. Blake* 7616.

British Honduras.—El Cayo: Road to Resthouse, Augustine, Mountain Pine Ridge, *D. R. Hunt* 404.—Stann Creek: Broken Pine Ridge, Stann Creek–Sittee road, *Gentle* 7931, 7950.—Toledo: Condemned Branch Pine Ridge, *Gentle* 5356, 5357. Beyond Columbia, *Gentle* 6140. Between Punta Gorda–San Antonio Road and Moho River, *Gentle* 6753. Cerro Road, *Gentle* 7064.

Spiranthes pseudogoodyerioides L. Wms. Bot. Mus. Leaflet. Harvard Univ. 12(7): 231. Pl. 33. 1946.

On rocks in shady moist places. Rare in Mexico (San Luis Potosí) and Guatemala.

Small terrestrial plants, scapose, erect, up to 2 dm. tall. Leaves basal, petiolate; lamina elliptic to ovate-elliptic, acute to somewhat acuminate, 5- to 7-nerved, submembranous, 2–8 cm. long, 1.5–4 cm. wide; petiole slender, shorter than the lamina. Scape pubescent, covered with scarious lanceolate acuminate bracts, the raceme spicate and compact with small flowers. Sepals greenish, about 2 mm. long and 1.2 mm. wide; dorsal sepal triangular-lanceolate, cochleate, 1-nerved, dorsally pubescent; lateral sepals obliquely broadly lanceolate, acute, 3-nerved, dorsally pubescent. Petals grayish red, elliptic, acute, arcuate, 1-nerved, about 1.5 mm. long and 0.5 mm. wide. Lip whitish with the posterior half orange-color, triangular-sagittate, somewhat fleshy, 1-nerved, 1.5–1.8 mm. long, 1–1.5 mm. wide. Column about 1.2 mm. long; anther erect, ovate. Ovary densely pubescent.

This species is new to Guatemala. It is distinguished by its small triangular-sagittate lip.

Guatemala.—Petén: In *ramonal* covering the ruins, Tikal National Park, *Contreras* s.n.

Spiranthes rosulata (W. Baxt.) Lindl.; Ames & Correll, p. 127.

Guatemala.—Santa Rosa, Cenaguilla, *Heyde & Lux* 3853.

Spiranthes seminuda Schltr.; Ames & Correll, p. 130.

Guatemala.—Petén: Tikal National Park, *Contreras* 608, 1839, 2139; *Ibarra* 53; *Lundell* 15495, 15560, 16562, 16600, 16827, 16887.

Spiranthes tortilis (Sw.) L. C. Rich.; Ames & Correll, p. 134.

British Honduras.—El Cayo: Mountain Pine Ridge, near summit of Baldy Beacon, 20 miles east northeast of Augustine, 3400 ft., *D. R. Hunt* 220.

Erythrodes purpurea Ames; Ames & Correll, p. 144.

Guatemala.—Petén: In high forest, south of Lacandon, *Contreras* 3461.

Erythrodes querceticola (Lindl.) Ames; Ames & Correll, p. 145, fig. 39.

Guatemala.—Alta Verapaz: Cacao, Trece Aguas, *F. L. Lewton* 326.—Petén: Tikal National Park, Tikal, growing on top of Temple IV, *Contreras* 1801, 1802. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 350, 1889; *Lundell* 15481, 15635, 16888.

British Honduras.—Stann Creek: *S. J. Record* s.n.—Toledo: Beyond Central Camp, Edwards Road beyond Columbia, *Gentle* 7264.

Tropidia Polystachya (Sw.) Ames; Ames & Correll, p. 151, fig. 41.

This species was included in the *Orchids of Guatemala*, based on a report of its occurrence there by Schlechter. The specimens cited here are the first we have seen for Guatemala.

Guatemala.—Alta Verapaz: Cubilquütz, Türekheim 7999.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 145. Tikal National Park, in *ramonal* at base of Temple III, *Contreras* 302.

Corymborchis forcipigera (Reichb. f.) L. Wms.; Ames & Correll, p. 153, fig. 42.

Guatemala.—Petén: Dolores, between km. 84 and km. 85, east of Machaquila Road, *Contreras* 2812.

Stelis aemula Schltr. Beih. Bot. Centralbl. 36, Abt. 2: 385. 1918.
S. perplexa Ames; Ames & Correll, p. 176.

Guatemala.—Petén: 4–5 kms. south southeast of Dolores, *Contreras* 2486, 3030.

Stelis ciliaris Lindl.; Ames & Correll, p. 160, figs. 46–48.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 199, 404, 1976; *Lundell* 16195, 16882. Tikal National Park, Bajo de Santa Fé, *Contreras* 585. Tikal National Park, northeast of Tikal, *Contreras* 607. Remate, on Fallabon Road, *Contreras* 963. Tikal National Park, Tikal, on top of temple in "H" Group, *Contreras* 1042. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Lundell* 15796.

Stelis gracilis Ames; Ames & Correll, p. 164, figs. 52, 53.

Guatemala.—Petén: On old Machaquila Road, 800 m. south of Dolores, *Contreras* 2340.

Stelis Johnsonii Ames; Ames & Correll, p. 169, fig. 56.

British Honduras.—Toledo: Jacinto Creek, Rio Grande, *Gentle* 4938. Moffredye Creek, San Antonio, *Gentle* 5083.

Stelis purpurascens A. Rich. & Gal.; Ames & Correll, p. 177, fig. 62.

Guatemala.—Quiché; near Iscopilas, *F. C. Lehmann* 1573.

Stelis rubens var. *oxypetala* (Schltr.) Ames; Ames & Correll, p. 180, fig. 64.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 140, 251, 347; *Lundell* 15460. Tikal National Park, northeast of Tikal, *Contreras* 1486. About 400 m. south of Dolores, *Contreras* 2837, 2839. Dolores, between kms. 86–87, east of Machaquila Road, *Contreras* 2975, 2981.

British Honduras.—Stann Creek: North Branch Section, Humming Bird Highway, *Gentle* 9223. Humming Bird Highway, beyond Middlesex, *Gentle* 3046, 7971.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4261. Near Columbia, *Gentle* 6092.

Masdevallia linearifolia Ames; Ames & Correll, p. 188.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering ruins, *Contreras* 155. Tikal National Park, Tikal, growing on top of Temple IV, *Contreras* 166A. Baja de Santa Fé, Tikal National Park, *Contreras* 562.

British Honduras.—Toledo: On hill slope near Pate's Camp, Edwards Road, beyond Columbia, *Gentle* 7130. Between Machaca and Río Grande, *Gentle* 6936. Mafridyle Creek, *Gentle* 7608.

Masdevallia tubuliflora Ames; Ames & Correll, p. 191, fig. 68.

British Honduras.—Toledo: between Rancho Chico and Cockcomb, Monkey River, *Gentle* 4417.

Lepanthes inaequalis Schltr.; Ames & Correll, p. 200.

Guatemala.—Chimaltenango: Near Tecpám, *A. F. Skutch* 520.

Lepanthes samacensis Ames; Ames & Correll, p. 202.

Guatemala.—Alta Verapaz: in mountain woods near Samác, *Türkheim* 47.

Lepanthes turialvae Reichb. f.; Ames & Correll, p. 204.

Guatemala.—Petén: 2–3 kms. south of Dolores, *Contreras* 2355, 2614, 3143. Dolores, between km. 84–87, east of Machaquila Road, *Contreras* 2809, 2977.

British Honduras.—Toledo: 1¼ miles in from 7 Miles, San Antonio–Punta Gorda Road, *Gentle* 7083. Mafridyle Creek, *Gentle* 7607. Near Jacinto Creek, 9 Miles, Punta Gorda–San Antonio Road, *Gentle* 4958.

Pleurothallis abjecta Ames; Ames & Correll, p. 210, fig. 75.

Guatemala.—Petén: Dolores, bordering the village clearing, *Contreras* 2201.

Pleurothallis Blaisdellii S. Wats.; Ames & Correll, p. 212, fig. 71.

British Honduras.—El Cayo: Humming Bird Highway, 39 miles section, *Gentle* 9140.—Toledo: Cow Pen, near Monkey River, *Gentle* 4130. Near Jacinto Creek, 9 Miles, Punta Gorda–San Antonio Road, *Gentle* 4956. Edwards Road beyond Columbia, *Gentle* 6258. Between Orange Point and Moho River, *Gentle* 7628.

Pleurothallis Brighamii S. Wats.; Ames & Correll, p. 213, fig. 72.

Guatemala.—Alta Verapaz: Cacao, Trece Aguas, *F. L. Lewton* 271. —Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 279, 3238; *Lundell* 15454, 16196, 16855. Tikal National Park, Bajo de Santa Fé, *Contreras* 564. Tikal National Park, on top of temple in "H" group, *Contreras* 1041. Tikal National Park, west of Isla de los Pavos, Bajo de Santa Fé, *Contreras* 1335. Tikal National Park, on Remate road south of Tikal, *Lundell* 15562.

British Honduras.—El Cayo: Valentin, *Lundell* 6186, 6342.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4229.

Pleurothallis ciliaris (Lindl.) L. Wms.; Ames & Correll, p. 219.

Guatemala.—Petén: Tikal National Park, Isla de los Pavos, *Contreras* 1321. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 3239.

Pleurothallis compacta (Ames) Ames & C. Schweinf.; Ames & Correll, p. 223.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15433. Tikal National Park, on Remate Road, *Lundell* 15558, 15563, 17122.

British Honduras.—Toledo: Edwards Road, beyond Columbia, *Gentle* 6139, 6286-A. Mafridyle Creek, *Gentle* 7609.

Pleurothallis gelida Lindl. Bot. Reg. 27: Misc. p. 91. 1841; Correll, Native Orchids of N. Amer. 250, pl. 98. 1950.

Epiphytic on trees and on rocks in forests. Widespread from Florida and the West Indies to Mexico, through Central America to northern South America.

Plant erect, caespitose, up to 6 dm. tall, usually much smaller. Roots from a short creeping rhizome, slender, clustered. Secondary stems several, approximate, glabrous, clothed with one or more tubular membranous sheaths that are 6–8 cm. long, bearing a solitary leaf at the summit. Leaf ovate-elliptic to oblong-elliptic or narrowly linear-oblong, obtuse to subacute, usually keeled through the center beneath, 7–25 cm. long (including the petiole), 1.5–7 cm. wide, coriaceous. Racemes 1 to 15, clustered in the axil of the leaf, slender, many-flowered, 6–28 cm. long, about 2 cm. in diameter, enclosed at the base by a short membranous spathe less than 2 cm. long. Floral bracts minute, tubular, apiculate, scarious and translucent, 2–3 mm. long. Flowers pale yellow to greenish yellow, 2-ranked, with the slender arching pedicellate ovaries 4–5 mm. long. Dorsal sepal oblong-elliptic to broadly lanceolate, strongly concave and dorsally keeled at the base, obtuse to acute and somewhat reflexed at the apex, with the inner surface pilose, 5–8 mm. long, about 3 mm. wide. Lateral sepals coherent at the base and forming a cup, narrowly oblong to elliptic, obtuse, dorsally keeled, pilose on the inner surface, 5–7 mm. long, about 2.5 mm. wide near the base. Petals whitish, obliquely oblong-obovate, either acute, broadly rounded, retuse or tridentate at the apex, 3–4 mm. long, about 2.5 mm. wide. Lip small, obscurely or obsoletely 3-lobed, narrowly cuneate or sometimes pandurate in outline (rarely broadest below the middle), broadly truncate and more or less retuse at the apex, arcuate-recurved in natural position, usually with a pair of minute lateral lobes or teeth; disc with a pair of erect keels near the middle. Column short, with 2 minute teeth on each side at the apex. Capsule ellipsoid, strongly 3-angled and triangular in cross section, light brown, 5–10 mm. long, 3–5 mm. in diameter.

This species was not included in Ames and Correll (1952). The specimens cited below are the first that have been seen from our region. The numerous rather large distinctive flowers are characteristic.

Guatemala.—Petén: On Río Mopan Trail, about 2 km. southeast of Dolores, *Contreras* 2517.

British Honduras.—Toledo: Beyond Carmelita Camp, Edwards Road beyond Columbia, *Gentle* 7215.

Pleurothallis Grobyi Batem. ex Lindl.; Ames & Correll, p. 230, fig. 72.

Guatemala.—Petén: Remate, on Fallabon Road, *Contreras* 962, 972. Remate, west of the village, *Contreras* 992. Tikal National Park, Tikal, on top of Temple IV, *Contreras* 1057. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Contreras* 1070. 2 km. south of Dolores, *Contreras* 2241. Tikal National Park, in *ramonal* covering the ruins, *Contreras* 3235; *Lundell* 15459, 16194. About 2 km. south of Lacandon, *Contreras* 3527. Tikal National Park, in growth bordering airfield, *Lundell* 15951. Tikal National Park, Tikal, Aguada Naranjal, *Lundell* 16166. Pop-tun, about 2 km. east of village *Lundell* 16417.

British Honduras.—Toledo: Temash River, *Gentle* 5209. Near Agua Caliente, near San Antonio, *Gentle* 5337. Edwards Road beyond Columbia, *Gentle* 6288 p.p., 7319. Big Hill, *Gentle* 7010. Joe Taylor Creek, *Gentle* 7409, 7767. Between Orange Point and Moho River, *Gentle* 7667. Condemned Branch Pine Ridge, *Gentle* 7758.

Pleurothallis hastata Ames; Ames & Correll, p. 231, fig. 75.

British Honduras.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4298 p.p. Edwards Road beyond Columbia, *Gentle* 6288 p.p.

Pleurothallis hondurensis Ames; Ames & Correll, p. 234, fig. 78.

Guatemala.—Petén: Lacandon, *Contreras* 3292.

British Honduras.—Toledo: Cattle Pass, Swasey Branch, Monkey River, *Gentle* 4447. On hill slope near San Antonio, *Gentle* 6651. Between Punta Gorda and Joe Taylor Creek, *Gentle* 6793. Feeder Road leading to Big Fall, *Gentle* 7044. Mafridyle Creek area, *Gentle* 7614. Near Mafridyle Lagoon, *Gentle* 7690.

Pleurothallis lancilabris var. *oxyglossa* (Schltr.) C. Schweinf.; Ames & Correll, p. 236.

Guatemala.—Petén: 2–3 miles south of Dolores, *Contreras* 2354, 3142.

British Honduras.—Stann Creek: Eve's Pine Ridge, *Gentle* 8504. Edwards Road beyond Columbia, *Gentle* 6207. Between Orange Point and Moho River, *Gentle* 7653.

Pleurothallis Lewisae Ames; Ames & Correll, p. 238, fig. 76.

This species is new to British Honduras.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 2005.

British Honduras.—Toledo: Punta Gorda–Seven Hills Road, ascending Rio Grande, *Gentle* 5007. Edwards Road beyond Columbia, *Gentle* 6285. Mafridyle Creek area, *Gentle* 7616.

Pleurothallis Matudiana C. Schweinf.; Ames & Correll, p. 238.

This species is new to British Honduras.

British Honduras.—Toledo: Monday Morning Hill, Edwards Road beyond Columbia, *Gentle* 6429.

Pleurothallis ovatilabia Ames & C. Schweinf., Sched. Orch. 10: 33. 1930.

In rain forests below 1500 m. alt. Uncommon in Guatemala, Honduras, Costa Rica and Panama.

Plant small for the genus, 5.5–7 cm. tall, caespitose. Roots filiform, flexuous, glabrous. Stems very short, 4–6 mm. long, entirely concealed and surpassed by several loose scarios imbricating sheaths. Leaf oblanceolate-spatulate, gradually narrowed to a rather long petiole; blade 2–4 cm. long, up to 6 mm. wide, minutely bilobed and mucronate at the rounded apex, chartaceous, the mid-nerve sulcate above and prominently carinate beneath; petiole 1–2 cm. long, slender, jointed near the middle. Inflorescence solitary, subequaling or surpassing the leaf, 4.7–5.5 cm. long. Peduncle up to the raceme 2.4–3.5 cm. long, filiform, with 2 or 3 scarios infundibuliform sheaths. Raceme short, often flexuous. Flowers very small. Sepals ovate, 1.7–1.8 mm. long, acute to subacute, strongly cucullate, 1-nerved, dorsally keeled. Petals linear-lanceolate, falcate, 1.6–1.7 mm. long, subacute, 1-nerved. Lip simple, ovate, 1.6–1.8 mm. long, subacute, densely papillose on the inner surface. Column short, stout.

This species is new to Guatemala. It differs from its nearest ally, *P. stenostachya*, in having solitary inflorescences that are relatively elongate and even sometimes surpass the leaf. Its larger leaves, shorter pedicels and ovate, acute perianth-segments distinguish it from *P. lancilabris*, whose segments are lanceolate and acuminate.

Guatemala.—Petén: Canchacan, in high rain forest of southeastern Petén, *Lundell* 16315.

Pleurothallis pansamalae Schltr.; Ames & Correll, p. 243.

British Honduras.—Toledo: Hill slope beyond Union Camp, Edwards Road beyond Columbia, *Gentle* 6483.

Pleurothallis sertularioides (Sw.) Spreng.; Ames & Correll, p. 252.

This species is new to British Honduras.

British Honduras.—Toledo: Near Jacinto Creek, Punta Gorda-San Antonio Road, *Gentle* 4974. Between Condemned Branch Pine Ridge and Moffredye Lagoon, *Gentle* 6043. Edwards Road beyond Columbia, *Gentle* 6227, 6250, 6302. Near Orange Point, *Gentle* 7460. Near Mafridyle Creek, near San Antonio, *Gentle* 7560. Condemned Branch Pine Ridge, *Gentle* 7761.

Pleurothallis setosa C. Schweinf.; Ames & Correll, p. 253.

British Honduras.—Toledo: Between Monkey River and Cockcomb, *Gentle* 4298 p.p. Edwards Road beyond Columbia, *Gentle* 6288 p.p.

Pleurothallis stenostachya Reichb. f.; Ames & Correll, p. 254, fig. 78.

Guatemala.—Petén: Tikal National Park, Tikal, on top of Temple IV, *Contreras* 165. Tikal National Park, Tikal, on ramonal covering the ruins, *Contreras* 445; *Lundell* 16879, 17084. Aguada El Cartucho, 8–11 km. west of Dos Lagunas, *Contreras* 1594, 1746. Tikal National Park, Tikal, on top of Temple V, *Contreras* 3229. Lacandon, *Contreras* 3325. Tikal National Park, on Remate road south of Tikal, *Lundell* 15555. Tikal National Park, Tikal, on Aguada Pucte trail, *Lundell* 16825.

British Honduras.—El Cayo: On hill slope, 41 Miles Section, Humming Bird Highway, *Gentle* 9153. Near Jacinto Creek, 9 Miles, Punta Gorda-San Antonio Road, *Gentle* 4957. Near San Antonio, *Gentle* 5439. Edwards Road, beyond Columbia, *Gentle* 6135, 6287. Joe Taylor Creek, *Gentle* 7412. Between Orange Point and Moho River, *Gentle* 7626. Beyond Mafridyle Lagoon, *Gentle* 7713.

Pleurothallis tikalensis Correll & C. Schweinfurth, sp. nov. Fig. 52.

Herba mediocris, caespitosa. Radices fibrosae, numerosae. Caules vaginis pluribus laxis omnino celati. Folium erectum, oblongum vel ovato-oblongum, acutum, basi sessili rotundatum vel subcuneatum. Inflorescentia solitaria, racemosa, quam folium multo brevior, dense multiflora, vagina scariosa conduplicata sustentata. Flores perparvi, bilabiati. Sepalum dorsale lineari-lanceolatum, acu-

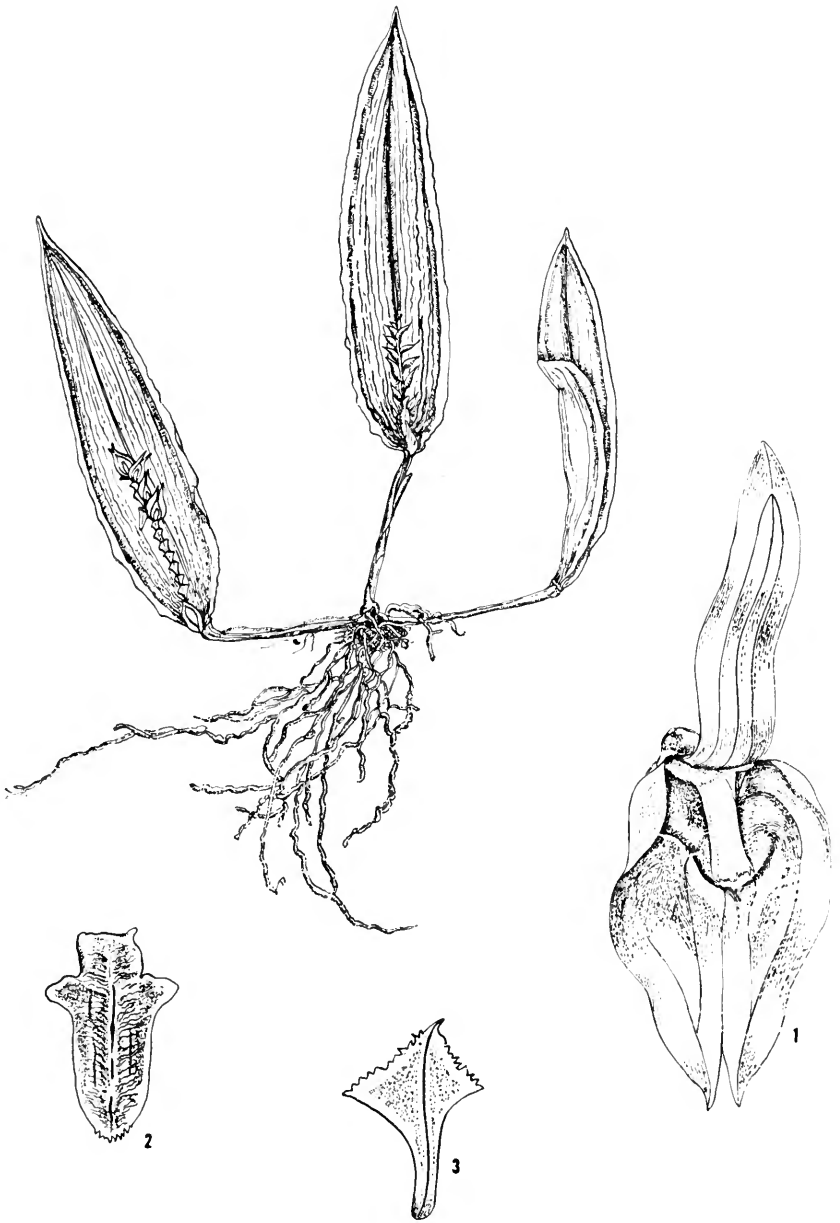


FIG. 52. *Pleurothallis tikalensis*. Plant ($\times \frac{1}{2}$); 1, sepals, spread out, and column ($\times 5$); 2, lip, spread out ($\times 5$); 3, petal ($\times 5$). Drawn by Vivien Frazier.

tum vel acuminatum. Sepala lateralia aequilonga, in laminam late ovatam bidentatam connata. Petala minuta, rhombico-spathulata, parte superiore irregulariter lacerato-dentata. Labellum simplex, expansum ovatum, apice rotundatum, basi cuneatum, prope basim utrinque triangulari-dilatatum. Columna brevis, in pedem conspicuum productum.

Plant medium-sized, caespitose, about 15 cm. high. Roots fibrous, flexuous, numerous. Stem 4–4.5 cm. high, entirely concealed by several loose scarious evanescent sheaths. Leaf solitary, erect, oblong or ovate-oblong, acute, rounded or subcuneate at the sessile base, up to 11 cm. long and 2.7 cm. wide, subcoriaceous. Inflorescence solitary, racemose, erect, much shorter than the leaf, about 3.5–4.5 cm. high, densely many-flowered to the base, subtended by a scarious conduplicate sheath up to 1.4 cm. long. Floral bracts minute, infundibuliform, scarious. Flowers very small, bilabiate. Dorsal sepal linear-lanceolate, acute or acuminate, 3-nerved, about 9.2 mm. long and 2.1 mm. wide. Lateral sepals connate into a broadly ovate bifid lamina about 9.2 mm. long and 7.2 mm. wide when expanded, 6-nerved, with the tips acute and mucronate. Petals very small, rhombic-spatulate from a narrow basal third, 1-nerved, the apical portion oblique, acuminate and irregularly lacerate-dentate, about 4.2 mm. long and 3 mm. wide above. Lip simple, carnosae, longitudinally concave with the lower sides erect, ovate when expanded, with the cuneate base gradually dilated on each side into an obtusely triangular point and with a pair of indistinct fleshy ridges on each side near the middle, obtuse, minutely denticulate on the anterior margins, about 5 mm. long and 2.1 mm. wide in natural position. Column small, about 3 mm. high, gradually wing-dilated toward the subtruncate apex, produced into a prominent fleshy foot.

This species is allied to *Pleurothallis angustisepala* Ames & Correll, but it has dissimilar petals and lip. The vegetative appearance recalls *P. pardipes* Reichb. f.

Guatemala.—Petén: Tikal National Park, Tikal, bordering Aguado Seca, epiphyte on tree trunk, flowers green and maroon, October 14, 1959, *Elias Contreras* 280 (type in Lundell Herbarium).

Pleurothallis tribuloides (Sw.) Lindl.; Ames & Correll, p. 256.

Guatemala.—Petén: About 400 m. south of Dolores, *Contreras* 2838. About 5 km. south southeast of Dolores, *Contreras* 3031.

British Honduras.—Toledo: Beyond San Antonio, *Gentle* 6587. Joe Taylor Creek, *Gentle* 7407, 7777.

Pleurothallis yucatanensis Ames & C. Schweinf.; Ames & Correll, p. 260.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 156.

British Honduras.—Toledo: Punta-Gorda Seven Hills Road, ascending Río Grande, *Gentle* 4994.

Malaxis Parthonii Morren; Ames & Correll, p. 272.

Guatemala.—Petén: Tikal National Park, Tikal, *Contreras* 1840. Santo Toribio, *Contreras* 2749. East of Dolores, *Contreras* 3092. Tikal National Park, on Remate Road, *Lundell* 17097. Tikal National Park, on Uaxactun, *Lundell* 17131.—Santa Rosa: Cenaguilla, *Heyde & Lux* 3866.

Epidendrum alatum Batem.; Ames & Correll, p. 300.

Guatemala.—Petén: Tikal National Park, Tikal, on top of Temple III, *Contreras* 921. Tikal National Park, Bajo de Santa Fé, *Contreras* 1262.

British Honduras.—Toledo: Rio Grande, *Gentle* 4695. Near Jacinto Creek, *Gentle* 5571, 5578. Between Punta Gorda and Moho River, *Gentle* 6779. Cerro Hill, *Gentle* 7059.—Indefinite: Mountain Pine Ridge, *H. H. Bartlett* 11864.

Epidendrum anceps Jacq.; Ames & Correll, p. 303, fig. 88.

Guatemala.—Petén: 1 km. west of Dolores, *Contreras* 2086. About 700 m. south of Dolores on old Machaquila Road, *Contreras* 2247.

Epidendrum aromaticum Batem.; Ames & Correll, p. 306.

Guatemala.—Quiché: Sacabajá, *Heyde & Lux* 3512.

Epidendrum atropurpureum Willd.; Ames & Correll, p. 307, fig. 89.

A rather rare species in Mexico (Chiapas, Mt. Ovando, near Escuintla, *Matuda* 6092) becoming frequent southward in northern South America.

Guatemala.—Quezaltenango: San Carlos Miramar, *Tonduz & Rojas* 180.

Epidendrum Boothii (Lindl.) L. Wms.; Ames & Correll, p. 309.

Guatemala.—Petén: Tikal National Park, Tikal, on Temple of the Inscriptions, *Contreras* 77. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 144. Tikal National Park, on Remate Road bordering Aguada El Charco, *Contreras* 1408. Santo Toribio, *Contreras* 2679.

British Honduras.—Toledo: Rio Grande, *Gentle* 4741. Near Condemn Branch Pine Ridge, *Gentle* 5381. Near San Antonio, *Gentle* 5447. Crique Queva, *Gentle* 6020. Edwards Road beyond Columbia, *Gentle* 6245. Between Punta Gorda-San Antonio Road and Moho River, *Gentle* 6750. Near Orange Point, *Gentle* 7477. Between Punta Gorda and Paslow, *Gentle* 7809.

Epidendrum bractescens Lindl.; Ames & Correll, p. 311.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 549. Remate, on Tikal Road, *Contreras* 824. On Santa Ana trail, about 7 km. east southeast of Lake Petén, *Contreras* 2032. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Lundell* 15876.

British Honduras.—Toledo: Bolo Camp, upper reach of Golden Stream, *Gentle* 4547. Near Condemn Branch Pine Ridge, *Gentle* 5290. Near Columbia, *Gentle* 6082. Chavarrias Road, Resemederes, across Columbia River, *Gentle* 6284.

Epidendrum ciliare L.; Ames & Correll, p. 318, fig. 91.

Guatemala.—Petén: About 3 km. south of Dolores, *Contreras* 3146. In forest bordering Dolores, *Contreras* 3190.

Epidendrum Clowesii Batem. ex Lindl.; Ames & Correll, p. 320.

Guatemala.—Suchitepéquez, vicinity of Mazatenango, *W. R. Maxon & R. Hay* 3619.

Epidendrum cobanense Ames & Schltr.; Ames & Correll, p. 322, fig. 79.

Guatemala.—Santa Rosa: Santa Rosa, *Heyde & Lux* 4605.

Epidendrum cochleatum L.; Ames & Correll, p. 323, fig. 92.

Guatemala.—Petén: Tikal National Park, Tikal, growing on Temple of the Inscriptions, *Contreras* 515. West of Remate, bordering lake, *Contreras* 983. About 2 km. 500 m. south of Dolores, *Contreras* 2357. Santo Toribio, *Contreras* 2691. Lacandon, *Contreras* 3463. Tikal National Park, Tikal, in Aguada Corriental, *Lundell* 15497. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15501. Tikal National Park, Bajo de Santa Fé, along Río Holmul, *Lundell* 15591.

British Honduras.—Corozal: Edge of New River, Pueblo Nuevo, *Gentle* 469.—El Cayo: Cave Branch Section, Humming Bird Highway, *Gentle* 9059.—Toledo: Rio Grande, *Gentle* 4717. Near Mofredye Creek, near San Antonio, *Gentle* 5330. Columbia Road, *Gentle* 6126. Between Orange Point and Moho River, *Gentle* 7627. Beyond Mafridyle Lagoon, *Gentle* 7712.

Epidendrum condylochilum Lehm. & Kränzl.; Ames & Correll, p. 325.

Guatemala.—Guatemala: Fiscal, *C. C. Deam* 6198.—Petén: Remate, *Contreras* 847, 980.

Epidendrum cristatum Ruiz & Pavon; Ames & Correll, p. 327.

Guatemala.—Petén: Tikal National Park, Tikal, growing on top of temple in "H" Group, *Contreras* 286, 1043.

British Honduras.—Toledo: Beyond Central Camp, Edwards Road beyond Columbia, *Gentle* 7342.

Epidendrum cystosum Ames Bot. Mus. Leaflet. Harvard Univ. 2: 106, *t.* 1934.

Epiphytic in forests, up to about 1500 m. alt. Rare in British Honduras and Honduras.

Plant about 13 cm. tall. Roots coarsely fibrous, smooth, longitudinally sulcate, whitish, spreading. Stems cespitose, erect, 4.5–5.5 cm. long, bearing about 6 leaves, complanate. Leaves 4.5–11 cm. long, 3.5–6 mm. wide, obliquely ascending, the uppermost one exceeding the tip of the raceme, chartaceous when dry, narrowly oblong or linear-lanceolate, tapering gradually to the acute to acuminate-attenuate apex, narrowed toward the base and jointed to the tubular complanate sheaths that are about 15 mm. long, and 2–3 mm. in greatest diameter. Peduncle terminal, to the tip of the rachis about 4.5 cm. long, few-flowered, usually one flower open at a time with the succeeding flower in bud. Peduncular sheaths about 3, closely appressed, imbricating, complanate, acute, the tip of the uppermost one extending beyond the lowermost floral bract, the lowermost sheath about 2 cm. long. Rachis of the raceme 4–7 mm. long. Bracts of the raceme infundibuliform, about 2.5 mm. long, acute, crowded. Lateral sepals lanceolate, 9 mm. long, 3 mm. wide, obliquely porrect, very slightly coherent at the base, acuminate, somewhat conduplicate at the acutish apex, 3-nerved with the mid-nerve carinate on the outer surface. Dorsal sepal similar to lateral sepals, 3-nerved, reflexed, at the base lightly coherent with the lateral sepals. Petals linear, 8.5 mm. long, spreading, tapering gradually to an acute tip, 1-nerved. Lip about 8 mm. long, adnate below the middle to the column, free portion 5 mm. long and 5 mm. wide, elliptical to suborbicular, acute, very fleshy, rigid, somewhat deflexed, lightly concave with a conspicuous elongated callus extending along the mid-nerve which is very prominent from the middle almost to the apex, this callus being joined on each side by an elongated much thickened simple or branching costa and with a free intramarginal costa, simple or branched on each side extending from the base of the free portion almost to the apex. Column 3.5 mm. long, completely adnate to the lip, minutely denticulate on the margin of the clinandrium. Pedicellate ovary 11 mm. long, with a pouchlike swelling where the ovary joins the base of the lip.

This species is new to our region. It differs from the distantly related *E. physodes* in its obliquely ascending chartaceous leaves, shorter stem, and differently shaped lip.

British Honduras.—Toledo: Between Orange Point and Moho River, *Gentle* 7660, 7658, 7659. Jacinto Creek, Rio Grande, *Gentle* 4898. Punta Gorda–Seven Hills Road, ascending Rio Grande, *Gentle* 4995.

Epidendrum difforme Jacq.; Ames & Correll, p. 328, fig. 93.

Guatemala.—Petén: Dolores, between kms. 81 and 82, *Contreras* 2541. 400 m.—2 km. south of Dolores, *Contreras* 2620, 2859.—Sacatepéquez: Villa Nueva, *Heyde & Lux* 4608.

British Honduras.—El Cayo: In advanced forest, limestone valley, *Lundell* 6424.

Epidendrum diffusum Sw.; Ames & Correll, p. 331.

Guatemala.—Petén: Tikal National Park, Tikal, growing on top of Temple III, Temple IV and temple in "H" Group, *Contreras* 99, 160, 488. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 491; *Lundell* 15438. Tikal National Park, Bajo de Santa Fé, *Contreras* 541. Tikal National Park, Aguada Naranjal, *Contreras* 1497.

Epidendrum equitantifolium Ames Sched. Orch. 4: 39. 1923.

Epiphytic on ridges and hills in forests at low elevations, up to about 1000 m. alt. Uncommon in Mexico and in Central America south to Panama.

Epiphytic or pendent cespitose plants up to about 4 dm. tall or long. Stems slender, leafy, ancipitous. Leaves 8–27 cm. long, 4–12 mm. wide, equitant, ancipitous, linear-lanceolate, acute to acuminate, fleshy. Inflorescence borne on an ancipitous winged peduncle up to 25 cm. long and simulating a leaf, 1- to few-flowered, subcapitate, subtended by a reduced leaf-like bract. Flowers small, dull-colored. Sepals 12–17 mm. long, 1.5–2.5 mm. wide, linear to linear-oblong or elliptic, acute to obtuse. Petals 8–13 mm. long, 1–2 mm. wide, linear-oblong to linear-elliptic. Lip unguiculate; the claw adnate to the column for about half its length; lamina 7–9 mm. long, 5–6 mm. wide, 3-lobed, provided with a callus on the claw at the base; lateral lobes semiorbicular; terminal lobe lanceolate to triangular-lanceolate; disc concave or cochleate.

This species was not included in Ames and Correll (1952–1953). It is included here on the basis of its occurrence in British Honduras.

British Honduras.—Toledo: On tree, in high ridge, near Union Camp, Edwards Road, about 25 miles beyond Columbia, *Gentle* 6497.

Epidendrum ibaguense H.B.K.; Ames & Correll, p. 333.

Guatemala.—Alta Verapaz: Along National Route No. 5, about 1 mile south of Cobán, *R. M. King* 3307.—Petén: Dolores, on Machaquila Road, between kms. 85–86, *Contreras* 3131.

British Honduras.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4282. Between Rancho and Cockscomb, *Gentle* 4346.

Epidendrum imatophyllum Lindl.; Ames & Correll, p. 335.

Guatemala.—Petén: Uaxactun, *H. H. Bartlett* 12669. On Fallabon Road, about 9 km. east of Remate, *Contreras* 892. Lacandon, *Contreras* 3315. Lacandon, bordering Sibal, *Contreras* 3445. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15922, 16880. Tikal National Park, Tikal, bordering airfield, *Lundell* 15958.

British Honduras.—Toledo: Botan Creek, Rio Grande, *Gentle* 4622. Temash River, *Gentle* 5218. Near Jacinto Creek, *Gentle* 5566.

Epidendrum ionophlebium Reichb. f.; Ames & Correll, p. 336.

Guatemala.—Escuintla: Escuintla, *J. D. Smith* 2248.—Suchitepéquez: Mazatenango, Río Sis, *J. D. Smith* 2644.

Epidendrum isomerum Schltr.; Ames & Correll, p. 338.

Guatemala.—Petén: Dolores, *Contreras* 2212. About 400 m. south of Dolores, *Contreras* 2843.

British Honduras.—El Cayo: Humming Bird Highway, *Gentle* 8586. 41 Miles Section, Belize-Cayo Road, *Gentle* 9680.—Stann Creek: Humming Bird Highway, *Gentle* 8653.—Toledo: Edwards Road beyond Columbia, *Gentle* 6384, 6434, 7222. Near San Antonio, *Gentle* 7540.

Epidendrum neurosum Ames; Ames & Correll, p. 345.

This species is new to British Honduras.

British Honduras.—Toledo: On tree, in high ridge, near Union Camp, Edwards Road beyond Columbia, *Gentle* 6495.

Epidendrum nocturnum Jacq.; Ames & Correll, p. 346, fig. 96.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 576, 1283. Tikal National Park, Arroyo Corriental, between Aguada Naranjal and Agua Perdida, *Contreras* 1904. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos Road, *Lundell* 16497.

British Honduras.—Stann Creek: Stann Creek Valley, Mt. Cow Ridge, *Gentle* 3561.—Toledo: Near Jenkins Creek, north of Monkey River, *Gentle* 4082. Rio Grande, *Gentle* 4846. Near Jacinto Creek, 9 Miles, Punta Gorda-San Antonio Road, *Gentle* 4970. Near San Antonio, *Gentle* 5507. Near Columbia, *Gentle* 6078. Chavarrias Road, across Columbia River, *Gentle* 6282. Beyond Pate's Camp, Edwards Road beyond Columbia, *Gentle* 7129. Lower Joe Taylor Creek, *Gentle* 7498. Mafridyle Creek near San Antonio, *Gentle* 7563.

Epidendrum oncioides Lindl.; Ames & Correll, p. 350.

Guatemala.—Petén: 5–6 km. east of Dos Lagunas, *Contreras* 1732, 1753.

British Honduras.—Belize: Colonel English pine ridge, Belize-Cayo Road, *Gentle* 9740.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4235.

Epidendrum paniculatum Ruiz & Pavon; Ames & Correll, p. 352.

Guatemala.—Petén: Bordering Bajo de Santa Fé, east of Tikal National Park, *Contreras* 1446.

British Honduras.—Toledo: near Mafridyle Creek, *Gentle* 7566.

Epidendrum Parkinsonianum Hook.; Ames & Correll, p. 354.

Guatemala.—Quiché: *F. C. Lehmann* 1570.

Epidendrum pentotis Reichb. f.; Ames & Correll, p. 355.

This species is new to British Honduras.

British Honduras.—Toledo: On tree, in high ridge, at base of hill near Union Camp, Edwards Road beyond Columbia, *Gentle* 6475.

Epidendrum physodes Reichb. f.; Ames & Correll, p. 356.

This species is new to British Honduras.

Guatemala.—Petén: Tikal National Park, about 9 km. northeast of Tikal, *Contreras* 1480. Julec, between Santo Toribio and Santa Ana, *Contreras* 2661. Canchacan, *Lundell* 16454.

British Honduras.—Toledo: On tree, in Give and Take Ridge, Rio Grande, *Gentle* 4878.

Epidendrum polyanthum Lindl.; Ames & Correll, p. 357.

Guatemala.—Petén: Tikal National Park, Aguada San Geronimo, *Contreras* 1502. Dos Lagunas, on Uaxactun trail, *Contreras* 1567. Tikal National Park, on Remate Road, *Lundell* 16130.—Santa Rosa: Estanzuela, *Heyde & Lux* 4275.

British Honduras.—Toledo: Rio Grande, *Gentle* 4745.

Epidendrum pygmaeum Hook.; Ames & Correll, p. 361, fig. 98.

Guatemala.—Petén: About 400 m. south of Dolores, *Contreras* 2860. Dolores, on Machaquila Road, between kms. 85–86, *Contreras* 3132.

British Honduras.—El Cayo: 31 Miles Section, Humming Bird Highway, *Gentle* 8922.—Stann Creek: Dry Creek, Humming

Bird Highway, *Gentle* 8398.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4273. Edwards Road beyond Columbia, *Gentle* 6368, 6454, 7219.

Epidendrum radiatum Lindl.; Ames & Correll, p. 362, fig. 99.

Guatemala.—Guatemala: San Rafael, *F. C. Lehmann* 1848.—Petén: Tikal National Park, Tikal, growing on top of Temple IV, *Contreras* 127. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 138, 490; *Lundell* 17176. Tikal National Park, Bajo de Santa Fé, *Contreras* 546, 602. About 3 km. north northwest of Dolores, *Contreras* 3080. Uaxactun, south of ruins in *ramonal*, *Lundell* 16635.

Epidendrum rigidum Jacq.; Ames & Correll, p. 369, fig. 100.

Guatemala.—Petén: Tikal National Park, Tikal, on top of temple in "H" Group and Temple IV, *Contreras* 372, 1054, 1187. Tikal National Park, Bajo de Santa Fé, *Contreras* 599. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 1199, 1211, 1985; *Lundell* 15437, 16084, 16176. About 2½ km. south of Dolores, *Contreras* 2356. About 2 km. east of Poptun, *Lundell* 16418. About 4 km. south southeast of Dolores, *Contreras* 2481. Dolores, *Contreras* 3004.

British Honduras.—El Cayo: 47 Miles Section, Humming Bird Highway, *Gentle* 8853. 32 Miles Section, Humming Bird Highway, *Gentle* 9163. 41 Miles Section, Belize-Cayo Road, *Gentle* 9679.—Toledo: Botan Creek, Rio Grande, *Gentle* 4644. Bank of Temash River, *Gentle* 4655. Crique Queva, *Gentle* 6027. Edwards Road beyond Columbia, *Gentle* 6299, 6379. Feeders Road, 14 Miles, San Antonio-Punta Gorda Road, *Gentle* 6698. Joe Taylor Creek, *Gentle* 7496.

Epidendrum sculptum Reichb. f. Bonpl. 2: 89. 1854. Williams in Woodson & Schery, Fl. of Panama (Ann. Mo. Bot. Gard. 33: 306 (374) 1946).

Epiphytic in hills and low mountain forests. Infrequent in British Honduras, Honduras, Costa Rica, Panama and northern South America.

Plants repent or pendent, up to about 5 dm. tall or long, usually much smaller. Stems simple or branched, densely leaved, covered with the chartaceous leaf-sheaths or becoming naked with age. Leaves spreading horizontally, 2–4.5 cm. long, 1–1.8 cm. wide, oblong to oblong-lanceolate, obtuse, retuse, coriaceous. Inflorescence with 1 to 3, usually 2, terminal flowers that are subtended by spathaceous bracts. Flowers leathery, green or yellowish green. Dorsal sepal 1–1.4 cm. long and 2.5–

3 mm. wide, lanceolate to oblong-lanceolate, obtuse. Lateral sepals 1–1.5 cm. long, about 3 mm. wide, oblong-lanceolate, oblique, acute. Petals 9–14 mm. long, 2–3 mm. wide, linear-elliptic to narrowly oblanceolate, oblique, obtuse. Lip unguiculate; claw adnate to the column; lamina 9–13 mm. long, 5.5–7 mm. wide, ovate-lanceolate, acute, 3-lobed; lateral lobes small, rounded, reaching to about the middle of the lip; mid-lobe lanceolate; disc provided with two callus-like thickenings at the base on the lateral lobes and with two longitudinal ridges along the median line and reaching to about the middle of the lip.

This species was not included in Ames and Correll (1952–1953). It is included here on the basis of its occurrence in British Honduras.

British Honduras.—Toledo: Punta Gorda–Seven Hills Road, ascending Rio Grande, *Gentle* 5029. Near San Antonio, *Gentle* 5431, 7536. Between Machaca and Rio Grande, *Gentle* 6937.

Epidendrum selligerum Batem. ex Lindl.; Ames & Correll, p. 374.

Guatemala.—Quiché: Sacabajá, *Heyde & Lux* 3508.

Epidendrum Stamfordianum Batem.; Ames & Correll, p. 380, fig. 105.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15566, 16881. Tikal National Park, Dos Aguadas, *Lundell* 15600.

Epidendrum stenopetalum Hook.; Ames & Correll, p. 382.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 1984, 345.

British Honduras.—Toledo: Bolo Camp, upper reach of Golden Stream, *Gentle* 4503. Jacinto Creek, Rio Grande, *Gentle* 4937. Punta Gorda–Seven Hills Road, ascending Rio Grande, *Gentle* 5035. Near Moffredye Lagoon, *Gentle* 5299. Near San Antonio, *Gentle* 5424, 5485. Edwards Road beyond Columbia, *Gentle* 6178, 6382, 7013.

Epidendrum strobiliferum Reichb. f.; Ames & Correll, p. 382, fig. 106.

British Honduras.—Toledo: Columbia Road, *Gentle* 6130. Lower Joe Taylor Creek, *Gentle* 7502. Between Orange Point and Moho River, *Gentle* 7654.

Epidendrum varicosum Batem. ex Lindl.; Ames & Correll, p. 389.

Guatemala.—Santa Rosa: Santa Rosa, *Heyde & Lux* 4637.

Diacrium bilamellatum (Reichb. f.) Hemsl.; Ames & Correll, p. 405, fig. 108.

British Honduras.—Toledo: Near Condemn Branch Creek, *Gentle* 5553. Between Punta Gorda and Joe Taylor Creek, *Gentle* 6794. Feeder Road leading to Big Fall, *Gentle* 7048. Mafridyle Creek, *Gentle* 7590. Between Condemned Branch Pine Ridge and Mafridyle Lagoon, *Gentle* 7685.

Cattleya aurantiaca (Batem. ex Lindl.) P. N. Don; Ames & Correll, p. 407.

Guatemala.—Amatitlán: Lake Amatitlán, *W. A. Kellerman* 4544. —Guatemala: El Naranjo, *G. Salas* 206. Guatemala, *J. D. Smith* 2252.—Sacatepéquez: Villa Nueva, *Heyde & Lux* 4598.

Cattleya Skinneri Batem.; Ames & Correll, p. 412, fig. 111.

British Honduras.—El Cayo: San Agustín, on granite banks of Río Frio, *Lundell* 6701.

Laelia Digbyana Benth.; Ames & Correll, p. 415, fig. 112.

This species was included in the *Orchids of Guatemala* since it is known from Mexico (Yucatan) and British Honduras, southward. The specimens cited here are the first we have seen for Guatemala.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 457, 556. About 10 km. west of Dos Lagunas, *Contreras* 1769.

Laelia tibicinis (Batem. ex Lindl.) L. Wms.; Ames & Correll, p. 419.

British Honduras.—Belize: Turneffe Island, Calabash Section, *F. E. Engler* 42–24. —Toledo: Botan Creek, Río Grande, *Gentle* 4641, 4642, 4643. Temash River, *Gentle* 4656. Along bank of Jacinto Creek, *Gentle* 5575, 5576.

Brassavola cucullata (L.) R. Br.; Ames & Correll, p. 422.

Guatemala.—Petén: West of Remate, bordering the lake, *Contreras* 982, 1028.

Brassavola nodosa (L.) Lindl.; Ames & Correll, p. 423, fig. 114.

British Honduras.—Stann Creek: Stann Creek–Sittee Road, *Gentle* 7987.—Toledo: near Columbia, *Gentle* 6391.

Meiracyllium trinasutum Reichb. f.; Ames & Correll, p. 425, fig. 115.

Guatemala.—Amatitlán: Lake Amatitlán, *W. A. Kellerman* 5035.

Scaphyglottis Behrii (Reichb. f.) Benth. & Hook.; Ames & Correll, p. 430, fig. 116.

British Honduras.—El Cayo: Vaca, *Gentle* 2547. Humming Bird Highway, *Gentle* 8596, 9067.—Stann Creek: Stann Creek—Sittee Road, *Gentle* 7928.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4340. Beyond Columbia, *Gentle* 6165. Near Central Camp, Edwards Road beyond Columbia, *Gentle* 7282. Mafridyle Creek, *Gentle* 7592.

Scaphyglottis cuneata Schltr.; Ames & Correll, p. 434.

Guatemala.—Petén: Tikal National Park, Tikal, growing on top of Temple IV, *Contreras* 1794. Tikal National Park, on Remate Road, *Lundell* 17121.

British Honduras.—Stann Creek: Between Silkgrass and Sapon Road, *Gentle* 8110. Eve's Pine Ridge, *Gentle* 8505.—Toledo: Cow Pen, near Monkey River, *Gentle* 4077. Between Monkey River and Cockscomb, *Gentle* 4295. Near San Antonio, *Gentle* 5470. Columbia Road, *Gentle* 6110. Near Big Falls, Feeders Road, 14 Miles, San Antonio—Punta Gorda Road, *Gentle* 6735. Mafridyle Creek, *Gentle* 7610.

Scaphyglottis Lindeniana (A. Rich. & Gal.) L. Wms.; Ames & Correll, p. 436.

British Honduras.—Toledo: Beyond Union Camp, Edwards Road, beyond Columbia, *Gentle* 6517.

Scaphyglottis livida (Lindl.) Schltr.; Ames & Correll, p. 438.

Guatemala.—Petén: About 3 km. south of Dolores, *Contreras* 3145.

Scaphyglottis major (C. Schweinf.) Correll, comb. nov.

Scaphyglottis Wercklei Schltr. var. *major* C. Schweinf. Bot. Mus. Leaf. Harvard Univ. 4: 117. 1937. *S. cuneata* var. *major* (C. Schweinf.) C. Schweinf. in Correll, *Lloydia* 10: 212. 1947; Ames & Correll, *Orchids of Guatemala* (Fieldiana: Botany, 26 (2): 435. 1953).

This species differs in several respects from *S. cuneata* to which it was referred in our work on the orchids of Guatemala. Although the lips are quite similar in shape, the lip of this species has no callus whatsoever on its disc and the apex of the lip is rather prominently lobulate. Also, the plants, especially the leaves, are much larger than in that species. No plants that could be considered as intermediate have been seen.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Contreras* 334. Tikal

National Park, Tikal, growing on top of temple in "H" Group, *Contreras* 383, 1822.

Scaphyglottis minutiflora Ames & Correll, p. 440, fig. 118.

In addition to being known from Guatemala, British Honduras, and Panama (*P. H. Allen* 2258), specimens in the United States National Herbarium have been seen from Honduras (Dept. Cortes, Santa Cruz de Yojoa, *J. B. Edwards* 618) and Costa Rica (Prov. Cartago, vic. of Pejivalle, *P. C. Standley & J. Valerio* 47251 bis).

Guatemala.—Alta Verapaz: Cubilquitz, *Tüerckheim* II 526, II 1062, 8758. Secanquim, near Finca Sepacuité, *O. F. Cook & R. F. Griggs* 267. Cacao, Trece Aguas, *F. L. Lewton* 268.—Petén: Dolores, between kms. 85–87, west of Machaquila Road, *Contreras* 2941, 2974, 3141.

British Honduras.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4265. Near Jacinto Creek, *Gentle* 4984. Chavarrias Road, Resemederes, across Columbia River, *Gentle* 6281. Edwards Road beyond Columbia, *Gentle* 6408, 6533.

Ponera striata Lindl.; Ames & Correll, p. 445, fig. 119.

Guatemala.—Petén: Tikal National Park, Tikal, growing on top of Temple III and temple in "H" Group, *Contreras* 487, 1783. Tikal National Park, Bajo de Santa Fé, *Contreras* 536. Tikal National Park, growing on top of Temple I, *Lundell* 15572.

British Honduras.—Toledo: Punta Gorda–Seven Hills Road, ascending Rio Grande, *Gentle* 5012. Beyond Carmelita Camp, Edwards Road beyond Columbia, *Gentle* 7213.

Jacquiella globosa (Jacq.) Schltr.; Ames & Correll, p. 448, fig. 120.

This species is new to British Honduras.

Guatemala.—Petén: Dolores, bordering the village clearing, *Contreras* 2202. About 4 km. south southeast of Dolores, *Contreras* 2488. On Río Mopan Trail, about 3 km. southeast of Dolores, *Contreras* 2567. About 3 km. south of Dolores, *Contreras* 3144.

British Honduras.—Toledo: Near Big Falls, Feeders Road, 14 Miles, San Antonio–Punta Gorda Road, *Gentle* 6743. Beyond Columbia, *Gentle* 6134, 6286-B.

Isochilus linearis (Jacq.) R. Br.; Ames & Correll, p. 450.

Guatemala.—Baja Verapaz: near Santa Rosa, *W. R. Maxon & R. Hay* 3374.—Santa Rosa: Santa Rosa, *Heyde & Lux* 3488.

Isochilus linearis var. **carosiflorus** (Lindl.) Correll; Ames & Correll, p. 451.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 458, 586. About 10 km. west-northwest of Dos Lagunas, *Contreras* 1712. Tikal National Park, in *ramonal* covering the ruins, *Contreras* 1823. Tikal National Park, Bajo del Hormiguero, 3 leagues south of Tikal on old Remate Road, *Lundell* 15536. Tikal National Park, Bajo de Santa Fe, bordering Aguada Pucte, *Lundell* 17011. Tikal National Park, Bajo del Hormiguero, *Lundell* 17191.

British Honduras.—Toledo: Punta Gorda—Seven Hills Road, ascending Rio Grande, *Gentle* 5011. Temash River, *Gentle* 5205. Beyond Columbia, *Gentle* 6131, 6412. Near San Antonio, *Gentle* 7541. Mafridyle Creek, *Gentle* 7567.

Arpophyllum spicatum La Llave & Lex.; Ames & Correll, p. 457.

This species is new to British Honduras.

Guatemala.—Sacatepéquez: Embaulada, *Heyde & Lux* 4597.

British Honduras.—Toledo: On tree, in high ridge, on hill top, beyond Manga Camp, Edwards Road beyond Columbia, *Gentle* 6508.

Polystachya cerea Lindl.; Ames & Correll, p. 466, fig. 126.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, bordering Aguada Pucte, *Contreras* 267. On Río Mopan trail, about 3 km. east of Dolores, *Contreras* 2826.

British Honduras.—Toledo: Near Mafridyle Lagoon, *Gentle* 7823.—Indefinite: Honey Camp, *Lundell* 664.

Polystachya clavata Lindl.; Ames & Correll, p. 468.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 203. Tikal National Park, Bajo de Santa Fé, *Contreras* 267A, 548. Tikal National Park, Bajo del Hormiguero, 3 leagues south of Tikal on old Remate road, *Lundell* 15568.

British Honduras.—El Cayo: *Lundell* 6913.—Stann Creek: 19 Mile Section, Stann Creek Valley, *Gentle* 9340.—Toledo: Near Cow Pen, Monkey River, *Gentle* 4119. Rio Grande, *Gentle* 4790, 4877. Near Jacinto Creek, 9 Miles, Punta Gorda—San Antonio Road, *Gentle* 4969. Near San Antonio, *Gentle* 5432, 7529, 7795. Between Condemned Branch Pine Ridge and Moffredye Lagoon, *Gentle* 6059. Chavarrias Road, Resemederes, across Columbia River, *Gentle* 6280, 6283. Middle Camp, Edwards Road beyond Columbia, *Gentle* 6411

p.p. Between Punta Gorda and Moho River, *Gentle* 6799. Near Mafridyle Creek, *Gentle* 7593.—Indefinite: 2 miles south of Maskall, *H. O'Neill* 8342.

Polystachya masayensis Reichb. f.; Ames & Correll, p. 470.

This species is new to British Honduras.

British Honduras.—Toledo: On tree, in high ridge, on hill top, Middle Camp, Edwards Road beyond Columbia, *Gentle* 6411 p.p.

Galeandra Baueri Lindl.; Ames & Correll, p. 472, fig. 128.

British Honduras.—Toledo: Rio Grande, *Gentle* 4841.—Indefinite: On pines in open places, *W. A. Schipp* 590.

Bletia purpurea (Lam.) DC.; Ames & Correll, p. 486, fig. 133.

Guatemala.—Alta Verapaz: Between Cajabon and Lanquin, *G. P. Goll* 119.—Guatemala: Pinula, *J. D. Smith* 2251.—Petén: West of Dolores, *Contreras* 2128.—Quiché: Sacabajá, *Heyde & Lux* 3513, 4607.

British Honduras.—Belize: Colonel English Pine Ridge, Belize-Cayon Road, *Gentle* 9518, 9717.—El Cayo: 37 Miles Section, Humming Bird Highway, *Gentle* 8962.—Toledo: Temash River, *Gentle* 4661. Condemn Branch Pine Ridge, *Gentle* 5307. Edwards Road beyond Columbia, *Gentle* 6214.

Bletia reflexa Lindl.; Ames & Correll, p. 488.

Guatemala.—Sacatepéquez: Volcán de Agua, *W. C. Shannon* 3669.

Bletia tenuifolia Ames & C. Schweinf., Bot. Mus. Leaf., Harvard Univ. No. 10: 6, f. 1933.

Terrestrial in forests of ridges. Rare in Mexico and British Honduras.

Plant scapose, up to about 5 dm. tall, with coarse flexuous fibrous roots and a subglobose rugose shining corm about 1.2 cm. long. Leaves 4 or 5 in a cluster arising from base of plant, very narrowly linear, articulated to convolute sheaths that are in turn loosely enveloped by several imbricating nervose scarios leaf-bearing sheaths; leaf-blades 15–34 cm. long, up to 3 mm. wide, complicate-acuminate, 3-nerved, erect-spreading. Scape somewhat surpassing the leaves, slender, concealed at base by 3 short imbricating nervose sheaths and above by only 3 remote appressed tubular sheaths. Rachis commonly subpaniculate with a single basal branch, up to 15 cm. long. Floral bracts lanceolate, long-acuminate, scarios, the lowermost about 5.5 mm. long. Raceme loose, with the flowers 1 cm. or more distant. Dorsal sepal elliptic-lanceolate, acute, 1 cm. long, 4 mm. wide, 5-nerved. Petals asymmetrically elliptic, narrowed to an obtuse to subacute apex, about 9 mm. long and 4.5 mm. wide, the margins of the upper half irregular, 3-nerved with the side nerves branching. Lip ovate in outline, 3-lobed near the apex, articulated to the short column-foot, 8 mm. long and about 6 mm. wide, broadly cuneate

at base; lateral lobes semiovate, 6.2 mm. long, lobulate at their rounded apex; mid-lobe much smaller than the lateral lobes, suborbicular-quadrata, about 2 mm. long and wide, shallowly retuse and apiculate, the margins strongly undulate and lobulate; disc traversed by 5 parallel keels that are highest in the middle of the lip and become undulate near their apex; the 3 middle keels extend about to the middle of the mid-lobe, the lateral keels stop below the base of the mid-lobe. Column arcuate, 7.5 mm. long.

This species is new to our region.

British Honduras.—Belize: Wooded island, Colonel English Pine Ridge, Belize-Cayo Road, *Gentle* 9736.

Chysis aurea Lindl.; Ames & Correll, p. 491, fig. 135.

British Honduras.—Toledo: Beyond Central Camp, Edwards Road beyond Columbia, *Gentle* 7401.

Bulbophyllum pachyrhachis (A. Rich.) Griseb.; Ames & Correll, p. 496, figs. 137, 138.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Contreras* 1935; *Lundell* 16570.

British Honduras.—Toledo: Between Rancho Chico and Cockscorn, Monkey River, *Gentle* 4339. Edwards Road beyond Columbia, *Gentle* 6377, 7301.

Eulophia alta (L.) Fawc. & Rendle; Ames & Correll, p. 499, fig. 139.

British Honduras.—Stann Creek: 17 Miles Section, Stann Creek Valley, *Gentle* 9262. Carib Switch near Stann Creek River, *Gentle* 7841.—Toledo: Condemn Branch Pine Ridge, *Gentle* 5143. Near and beyond Columbia, *Gentle* 6075, 6151. Near San Antonio, *Gentle* 7577.

Cyrtopodium punctatum (L.) Lindl.; Ames & Correll, p. 501, fig. 140.

Guatemala.—Alta Verapaz: Road from Secanquim to Sepacuité, *O. F. Cook & R. F. Griggs* 368. Cacao, Finca Trece Aguas, *G. P. Goll* 105, *F. L. Lewton* 306.

WARREA Lindl.

Erect terrestrial highland herbs with lanceolate acute to acuminate plicate strongly veined leaves. Leaves contracted at the base into a short stout sheathing petiole, either with or without an enclosed short cylindrical tapering pseudobulb. Inflorescence an erect leafless raceme produced from the axil of the lowest basal petiolar bract. Flowers relatively large and conspicuous. Sepals subequal, con-

cave, the bases of the lateral sepals oblique and adnate to the column-foot. Petals subequal to the sepals but usually somewhat wider. Lip subentire, the lateral margins erect and somewhat recurved; base of lip adnate to the column-foot; apex of lip spreading, emarginate, bilobed, obscurely apiculate or entire; disc lamellate. Column elongate, semiterete, with a short basal foot. Anther terminal, operculate, incumbent; pollinia 2 to 4, broadly semiglobose, waxy.

A small complex genus of about 6 species that occur from Guatemala south to northern South America.

Warrea costaricensis Schltr., *Repert. Sp. Nov.* 16: 446. 1920. Figure 53.

Terrestrial or semi-epiphytic in high forests, up to about 1200 m. alt. Uncommon in Guatemala, Costa Rica and Panama.

Plants erect, up to about 7 dm. tall. Leaves broadly elliptic-lanceolate, long-acuminate, 25–60 cm. long, up to 12 cm. wide, contracted at base into a short stout sheathing petiole. Inflorescence erect racemes of 6 or more large flowers, equal to or somewhat exceeding the leaves, produced from the sheathing base of a leafy petiole. Flowers large, with pedicellate ovaries up to 3 cm. long, reddish brown to deep bronze-red, the lip lighter with reddish-bronze markings. Floral bracts ovate to elliptic-lanceolate, about 1.5 cm. long. Dorsal sepal ovate-oblong, obtuse, concave, 3.2–3.5 cm. long, about 1.5 cm. wide. Lateral sepals subequal to the dorsal sepal, the bases oblique to form a short rounded mentum with the column-foot. Petals obovate, obtuse, oblique, with undulate-pleated margins, 2.8–3 cm. long, 1.3–1.5 cm. wide. Lip fleshy-thickened, 2.5–3.5 cm. long, 2.5–3 cm. wide, suborbicular to broadly elliptic when spread out, the margins coarsely undulate-crenate; disc with a narrow basal callus about 1.5 cm. long. Column slender, arcuate, about 2.5 cm. long, produced at the base into a foot.

This genus and species is new to Guatemala.

Guatemala.—Petén: In high forest on Río Mopan trail, about 5 km. east of Dolores, *Contreras* 3191.

Govenia superba (La Llave & Lex.) Lindl. ex Lodd.; Ames & Correll, p. 505, fig. 141.

Guatemala.—Jalapa: Laguna de Ayarza, *Heyde & Lux* 3851.

Govenia utriculata (Sw.) Lindl.; Ames & Correll, p. 507.

Guatemala.—Sacatepéquez: Volcán de Agua, *T. Shannon* 3668; *L. O. Williams* and *A. Molina R.* 13194.

Mormodes buccinator Lindl.; Ames & Correll, p. 509.

British Honduras.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4325.

Catasetum integerrimum Hook.; Ames & Correll, p. 516, fig. 144.



FIG. 53. *Warrea costaricensis*. Plant ($\times 1/6$); flower, spread out ($\times 1$).
Drawn by Vivien Frazier.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 16241.

British Honduras.—Toledo: Near Rio Grande, *Gentle* 4872. Crique Queva, *Gentle* 6021. Beyond San Antonio, *Gentle* 6586. Near Orange Point, *Gentle* 7445. Lower Joe Taylor Creek, *Gentle* 7497.

Cycnoches ventricosum Batem.; Ames & Correll, p. 519.

Guatemala.—Petén: Tikal National Park, on Uaxactun trail, *Contreras* 1229. Tikal National Park, about 11 km. northeast of Tikal, *Contreras* 1918. On Santo Toribio Trail, about 3 km. northwest of Dolores, *Contreras* 2430.

Stanhopea ecornuta Lem.; Ames & Correll, p. 531, fig. 150.

Guatemala.—Alta Verapaz: Cubilquütz, *Türckheim* 7996.

Stanhopea oculata (Lodd.) Lindl.; Ames & Correll, p. 532.

Guatemala.—Petén: Santo Toribio, *Contreras* 3009. Tikal National Park, in *ramonal* covering the ruins, *Contreras* 1228. Tikal National Park, on Uaxactun trail, *Lundell* 16521.

Gongora maculata Lindl.; Ames & Correll, p. 540, fig. 155.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 610, 1844; *Lundell* 15565. Dolores, km. 84 of road, *Contreras* 2500. Lacandon, *Contreras* 3433. Tikal National Park, Aguada Las Cucas, *J. A. Ibarra* 71; *Lundell* 16896.

British Honduras.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4319. Beyond Central Camp, Edwards Road beyond Columbia, *Gentle* 7362.

Coryanthes maculata Hook. Bot. Mag. t. 3102. 1831; Allen, Fl. Panama (Ann. Mo. Bot. Gard. 36: 67 (403), fig. 173. 1949).

Epiphytic on trees in forests on high ridges and hills at low elevations. Rare in British Honduras, Panama and northern South America.

Plants erect, with elongate subcylindric tapering and strongly ridged bifoliate pseudobulbs, 6.5–15 cm. long and 2.5–4 cm. wide. Leaves 2, at apex of pseudobulb, firm, lanceolate, acute to acuminate, plicate, strongly veined, 30–60 cm. long, 4–10 cm. wide. Inflorescence from base of pseudobulb, a slender, elongate raceme 3–5 dm. long, with the peduncle, rachis and pedicellate ovaries glandular-scurfy. Flowers usually 2 to 4, of variable color, large, subtended by membranous bracts up to 3 cm. long. Sepals membranous, free, clear yellow with a few purple spots, pale purple or reddish brown. Dorsal sepal suborbicular-ovate, broadly acute and minutely apiculate, the apical half strongly reflexed, the lateral margins revolute, 2–2.5 cm. long, 3–3.5 cm. wide when spread out. Lateral sepals very strongly reflexed, from a broadly lobulate base, obliquely subfalcate or the pair

(when spread out) dolabriform, 5-6.5 cm. long, 2.5-4 cm. wide. Petals membranous, usually colored similarly to the sepals, ligular-lanceolate, the apices obliquely subacute, the margins undulate, 3-3.5 cm. long, 6-10 mm. wide. Lip very fleshy, complexly 4-parted, clear waxy yellow, pale purplish spotted with dark red or the hypochile yellow, the mesochile and epichile reddish brown on the outer surfaces, the inner epichile white spotted red-brown; claw semiterete, continuous with the base of the column; hypochile broadly galeate, glabrous, the apex obtuse to subacute, in profile 2-2.5 cm. long and 2-2.5 cm. wide; mesochile canaliculate, glabrous, the basal half covered by the hypochile, in profile 2.5-3 cm. long and 8-15 mm. wide; epichile deeply cucullate or galeate, broadly obtuse, seen in profile 3-3.5 cm. long and 2.5-3.5 cm. wide, in fresh material resembling a waxy cup or bucket, prolonged below the apex of the column into a 3-cornute spout or channel. Column subterete, without a foot, near the base with 2 broad lateral subfalcate or obliquely auriculate glands, 8-10 mm. long, 5-10 mm. wide, the apex strongly reflexed and shortly 2-alate on either side of the clinandrium.

This species is new to our region.

British Honduras.—Toledo: On tree, in high ridge, on hill top near Central Camp, Edwards Road beyond Columbia, *Gentle* 7269.

Lycaste aromatica (Graham) Lindl.; Ames & Correll, p. 550.

Guatemala.—Alta Verapaz: Cajval, bank of Gahaton River, *H. Pittier* 210.

Lycaste cruenta Lindl.; Ames & Correll, p. 552.

Guatemala.—Amatitlán, Las Cachiflanas, V. de Pacaya, *Tonduz* 407.

Lycaste tricolor (Kl.) Reichb. f.; Ames & Correll, p. 554, fig. 158.

Guatemala.—Alta Verapaz: Sepacuité, *O. F. Cook* 118. Cubilgüitz, *Türkheim* II 1909.

Maxillaria alba (Hook.) Lindl.; Ames & Correll, p. 563.

This species was included in the *Orchids of Guatemala* based on a report of its occurrence there by Fawcett and Rendle. The specimens cited here are the first we have seen for both Guatemala and British Honduras.

Guatemala.—Alta Verapaz: Cobán, *Türkheim* 1216. Cubilgüitz, *Türkheim* 7785.

British Honduras.—El Cayo: Blue Hole Section, Humming Bird Highway, *Gentle* 8941.—Toledo: Lower Joe Taylor Creek, *Gentle* 7493. Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4338. Middle Camp, Edwards Road beyond Columbia, *Gentle* 6459.

Maxillaria crassifolia (Lindl.) Reichb. f.; Ames & Correll, p. 568, fig. 163.

Guatemala.—Petén: About 5 km. south-southeast of Dolores, *Contreras* 3032. Tikal National Park, Tikal, in *ramonal* at base of Temple V, *Lundell* 17171.

British Honduras.—Stann Creek: Dry Creek, Humming Bird Highway, *Gentle* 8404.—Bolo Camp, upper reach of Golden Stream, *Gentle* 4520. Near San Antonio, *Gentle* 6660. Lower Joe Taylor Creek, *Gentle* 7501.

Maxillaria cucullata Lindl.; Ames & Correll, p. 570.

Guatemala.—Baja Verapaz: Santa Rosa, *Türckheim* 1171.

Maxillaria densa Lindl.; Ames & Correll, p. 572, fig. 164.

Guatemala.—Petén: Tikal National Park, Tikal, east of Laguna Dimick, *Contreras* 639. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos Road, *Lundell* 16566.—Quiché: Sacabajá, *Heyde & Lux* 3506.—Sacatepéquez: Santiago, *R. Gómez* 886.

British Honduras.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4337. Beyond Union Camp, Edwards Road beyond Columbia, *Gentle* 6500.

Maxillaria elatior Reichb. f.; Ames & Correll, p. 575.

This species is new to British Honduras.

British Honduras.—Toledo: Temash River, *Gentle* 5219. Beyond Columbia, *Gentle* 6136. Monday Morning Hill, Edwards Road beyond Columbia, *Gentle* 6414.

Maxillaria Friedrichsthalii Reichb. f.; Ames & Correll, p. 576, fig. 165.

Guatemala.—Petén: Tikal National Park, Tikal, growing on top of temple in "H" Group, *Contreras* 369, 370. Tikal National Park, Bajo de Santa Fé, *Contreras* 453, 558, 559. Dolores, km. 87, east of Machaquila Road, *Contreras* 2982. Tikal National Park, on Remate road south of Tikal, *Lundell* 15557.—Santa Rosa: Casillas, *Heyde & Lux* 4592.

British Honduras.—Toledo: Near San Antonio, *Gentle* 5515. Columbia Road, *Gentle* 6125. Edwards Road beyond Columbia, *Gentle* 7161, 7255.

Maxillaria pulchra (Schltr.) L. Wms. ex Correll; Ames & Correll, p. 581.

Guatemala.—Petén: About 400 m. south of Dolores, *Contreras* 2844. Monte Santa Teresa, *Lundell* 2978. Canchacan, *Lundell* 16472.

British Honduras.—Toledo: Edwards Road beyond Columbia, *Gentle* 6531, 7238.

Maxillaria ringens Reichb. f.; Ames & Correll, p. 583.

Guatemala.—Petén: Santo Toribio, *Contreras* 2756. On Río Mopan trail, about 3 km. east of Dolores, *Contreras* 2827. About 400 m. south of Dolores, *Contreras* 2846.

British Honduras.—El Cayo: Blue Hole Section, Humming Bird Highway, *Gentle* 8883.—Between Monkey River and Cockscomb, *Gentle* 4305. Rio Grande, *Gentle* 4828. Near San Antonio, *Gentle* 5419. Joe Taylor Creek, *Gentle* 7427, 7494.

Maxillaria rufescens Lindl.; Ames & Correll, p. 584.

Guatemala.—Petén: Tikal National Park, Tikal, on top of Temple IV, *Contreras* 387. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 443; *Lundell* 15502, 17085. Tikal National Park, Bajo de Santa Fé, *Contreras* 574, 577. Tikal National Park, in *tintal* on *pinal* trail, *Contreras* 606. Aguada El Cartucho, about 8 km. west of Dos Lagunas, *Contreras* 1592. About 5 km. east of Dos Lagunas, *Contreras* 1752. Tikal National Park, Bajo del Hormiguero, on old Remate road, *Contreras* 1958.

British Honduras.—El Cayo: 40 Miles Section, Humming Bird Highway, *Gentle* 9012.—Toledo: Near Jacinto Creek, *Gentle* 4986. Near Jacinto Hill, *Gentle* 5131. Middle Camp, Edwards Road beyond Columbia, *Gentle* 6410. Lower Joe Taylor Creek, *Gentle* 7495.

Maxillaria simulans (Ames & C. Schweinf.) L. Wms., *Ceiba* 5(4): 207. 1956. *M. purpurea* (Spreng.) Ames & Correll, p. 582.

This species is new to British Honduras.

British Honduras.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4311. Punta Gorda-Seven Hills Road, ascending Rio Grande, *Gentle* 4996. Near Columbia, *Gentle* 6077. Edwards Road beyond Columbia, *Gentle* 6456, 7160.

Maxillaria tenuifolia Lindl.; Ames & Correll, p. 585.

Guatemala.—Alta Verapaz: Road from Secanquim to Sepacuité, *O. F. Cook & R. F. Griggs* 375.—Petén: Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Lundell* 15797.

British Honduras.—Toledo: Edwards Road beyond Columbia, near Central Camp, *Gentle* 7267, 7268.

Maxillaria uncata Lindl.; Ames & Correll, p. 586.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 141, 647; *Lundell* 15434. Tikal National Park, Bajo de Santa Fé, *Contreras* 340, 557, 561. Tikal National Park, Tikal, growing on top of temple of "H" Group, Temple III and Temple IV, *Contreras* 371, 494, 1796; *Lundell* 17163. Aguada El Carucho, about 8 miles west of Dos Lagunas, *Contreras* 1593. About 400 m. south of Dolores, *Contreras* 2840. Dolores, km. 87, west of Machaquila Road, *Contreras* 2983. Dolores, *Contreras* 2998. 2 km. east of Poptun, *Lundell* 16420.

British Honduras.—El Cayo: 49 Miles Section, Humming Bird Highway, *Gentle* 9109.—Toledo: Rio Grande, *Gentle* 4830. Near San Antonio, *Gentle* 5475, 7727. Edwards Road beyond Columbia, *Gentle* 6148, 6290, 6409, 7131, 7214. Joe Taylor Creek, *Gentle* 7433.

Maxillaria variabilis Batem. ex Lindl.; Ames & Correll, p. 587, fig. 166.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 336, 563; *Lundell* 16564. Tikal National Park, Tikal, on top of Temple IV, *Contreras* 388. Tikal National Park, Tikal, growing on Temple of the Inscriptions, *Contreras* 510. Tikal National Park, northeast of Tikal, *Contreras* 605. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 3241; *Lundell* 15448. Tikal National Park, on Remate road south of Tikal, *Lundell* 15556.

British Honduras.—El Cayo: 31½ Miles Section, Humming Bird Highway, *Gentle* 8718. Blue Hole Section, Humming Bird Highway, *Gentle* 8940. 38 Miles Section, Belize-Cayo Road, *Gentle* 9359.—Stann Creek: 28 Miles Section, Humming Bird Highway, *Gentle* 9309. North Branch Section, Humming Bird Highway, *Gentle* 9222.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4274. Edwards Road beyond Columbia, *Gentle* 6137, 6413, 7258.

Mormolyca ringens (Lindl.) Schltr.; Ames & Correll, p. 590, fig. 167.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 444; *Lundell* 15449, 15500. Tikal National Park, Bajo de Santa Fé, *Lundell* 17013.

British Honduras.—El Cayo: Humming Bird Highway, *Gentle* 8443.—Toledo: Moffredye Creek, San Antonio, *Gentle* 5082. Edwards Road beyond Columbia, *Gentle* 6376, 6496, 7254.

Trigonidium Egertonianum Batem. ex Lindl.; Ames & Correll, p. 592, fig. 168.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 550. Dolores, km. 81, on Machaquila Road, *Contreras* 3112. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15503.—Suchitepéquez: vicinity of Mazatenango, *W. R. Maxon & R. Hay* 3631.

British Honduras.—El Cayo: Humming Bird Highway, *Gentle* 8644.—Toledo: Swasey Branch, Monkey River, *Gentle* 3860. Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4405. Moffredye Creek, San Antonio, *Gentle* 5081. Edwards Road beyond Columbia, *Gentle* 6208. Near Mafridyle Lagoon, *Gentle* 7702.

Ionopsis satyrioides Reichb. f. in Walpers, *Ann. Bot.* 6: 683. 1863; Schultes, *Nat. Orch. Trinidad and Tobago* 216. 1960.

At low elevations among ruins. Uncommon in Guatemala, Jamaica, Hispaniola, Trinidad and northern South America.

Plant up to about 3 dm. tall, usually much shorter. Pseudobulbs obsolescent. Leaves fleshy, terete, subulate, falcate, 4–13 cm. long, 2–4 mm. wide. Inflorescence racemose or laxly paniculate, up to about 15 cm. long, few-flowered; peduncle purple or greenish purple, with a few distant lanceolate closely appressed sheaths that are up to 8 mm. long. Floral bracts small, triangular, acute, 2–3.5 mm. long. Flowers yellowish white, fragrant, about 5 mm. across, the lip and petals occasionally red-striped. Sepals subequal, lanceolate, acute, 7–8 mm. long, 2–2.5 mm. wide; lateral sepals basally united to form a 2-lobed sac. Petals ovate-oblong, obtuse to acuminate, marginally undulate, about 7 mm. long and 3 mm. wide. Lip entire, obovate, narrowly clawed, marginally undulate, obtuse, about 8.5 mm. long; claw basally with 2 minute bright yellow calluses and apically bilamellate. Column about 2 mm. long. Capsule ellipsoidal, up to 15 mm. long and 5 mm. in diameter.

This is the first known occurrence of this species in Central America. It may be distinguished from *I. utricularioides* in our flora by its inconspicuous more or less obsolescent pseudobulb, terete, not flat, leaves, and entire, not 2-lobed, lip.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Conteras* 1975.

Ionopsis utricularioides (Sw.) Lindl.; Ames & Correll, p. 597, fig. 170.

Guatemala.—Alta Verapaz: Cacao, Trece Aguas, *F. L. Lewton* 275.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 139. Tikal National Park, Isla de Los Pavos, *Contreras* 1277.—Santa Rosa: Casillas, *Heyde & Lux* 4626.

British Honduras.—Toledo: Cattle Pass, Swasey Branch, Monkey River, *Gentle* 4448.

Odontoglossum bictoniense (Batem.) Lindl.; Ames & Correll, p. 608.

Guatemala.—Sacatepéquez: San Rafael, *J. D. Smith* 2638.

Odontoglossum convallarioides (Schltr.) Ames & Correll, p. 610.

Guatemala.—Quiché: Chiul, *Heyde & Lux* 3503.

Odontoglossum Londesboroughianum Reichb. f. *Gard. Chron.* n.s. 6: 772. 1876.

Williams, in *The Orchidaceae of Mexico* (Ceiba 2: 280. 1951), gives this species as from Guatemala. He did not, however, include it from Guatemala in his *An Enumeration of the Orchidaceae of Central America, British Honduras and Panama* (Ceiba, Vol. 5. 1956). Since we have seen no specimens from either Guatemala or British Honduras it was, and has been, excluded from our work.

Odontoglossum majale Reichb. f.; Ames & Correll, p. 616.

Guatemala.—Quiché: Chiul, *Heyde & Lux* 3502.

Odontoglossum pulchellum Batem. ex Lindl.; Ames & Correll, p. 617.

Guatemala.—Baja Verapaz: Tactic, *F. C. Lehmann* 1437.—Sacatepéquez: Volcán Fuego, *J. D. Smith* 2641.

Odontoglossum Rossii Lindl.; Ames & Correll, p. 618.

Guatemala.—Chimaltenango: Tecpám, Montanas de Chichavac, *G. Salas* 577.

Brassia caudata (L.) Lindl.; Ames & Correll, p. 624, fig. 176.

Guatemala.—Alta Verapaz: Cubilquitz, *Türckheim* 7992.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 506. Tikal National Park, northeast of Tikal, *Contreras* 1359. About 400 m. east of km. 78 of road, Dolores, *Contreras* 2275. Dolores, between kms. 86–87, east of Machaquila Road, *Contreras* 2964. Tikal National Park, on Remate Road south of Tikal, *Lundell* 16209. Tikal National Park, on Uaxactun trail, *Lundell* 16522.

British Honduras.—El Cayo: 49 Miles Section, Humming Bird Highway, *Gentle* 9110.—Punta Gorda–Seven Hills Road, ascending Rio Grande, *Gentle* 5015. Beyond Manga Camp, Edwards Road beyond Columbia, *Gentle* 6506.

Brassia maculata R. Br.; Ames & Correll, p. 626.

Guatemala.—Petén: Tikal National Park, on Temple V, *Lundell* 15863.

Brassia verrucosa Lindl.; Ames & Correll, p. 628, fig. 177.

Guatemala.—Alta Verapaz: Pansamalá, *Türckheim* 107.

Oncidium ascendens Lindl.; Ames & Correll, p. 638.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 552. Lake Petén Itza, northwest of San Andres, *Contreras* 3556. Tikal National Park, Bajo del Hormiguero, 3 leagues south of Tikal on old Remate road, *Lundell* 15537. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15567, 16693. Uaxactun, *Lundell* 16636. Tikal National Park, Tikal, on temple of "H" Group, *Lundell* 16795.

British Honduras.—Stann Creek: Silkgrass Road, *Gentle* 8145.—Toledo: Beyond Columbia, *Gentle* 6233. Hutes Creek, Edwards Road beyond Columbia, *Gentle* 7198.

Oncidium brachyandrum Lindl.; Ames & Correll, p. 641.

Guatemala.—Santa Rosa: Zamorora, *Heyde & Lux* 4611.—near Salamá, *F. C. Lehmann* 1455.

Oncidium carthagenense (Jacq.) Sw.; Ames & Correll, p. 642, fig. 181.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 16148.

British Honduras.—Indefinite: Tower Hill Estate, *J. S. Karling* 50.

Oncidium Cavendishianum Batem.; Ames & Correll, p. 644.

Guatemala.—Alta Verapaz: *Türckheim* 1400.—Santa Rosa: Chiapas, *Heyde & Lux* 4602.

Oncidium crista-galli Reichb. f.; Ames & Correll, p. 645, fig. 182.

Guatemala.—Alta Verapaz: Finca Mocca, *H. Johnson* 42.

Oncidium ensatum Lindl.; Ames & Correll, p. 647.

Guatemala.—Alta Verapaz: Between Cajabon and Lanquin, *G. P. Goll* 135.

British Honduras.—Toledo: Condemn Branch Pine Ridge, *Gentle* 5147. Near San Antonio, *Gentle* 5505. 12 Miles, San Antonio—Punta Gorda Road, *Gentle* 6671. Mafridyle Creek, *Gentle* 7580. San Antonio Road and Moho River, between 17 Miles, *Gentle* 7597.

Oncidium luridum Lindl.; Ames & Correll, p. 650, figs. 183, 184.

Guatemala.—Petén: Lacandon, *Contreras* 3352. Tikal National Park, on Remate road south of Tikal, *Lundell* 15554.—Sacatepéquez: Volcán Fuego, *J. D. Smith* 2642.

British Honduras.—El Cayo: Humming Bird Highway, *Gentle* 8642.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4396.

Oncidium pusillum (L.) Reichb. f.; Ames & Correll, p. 663, fig. 187.

Guatemala.—Alta Verapaz: El Cacao, Finca Trece Aguas, *G. P. Goll* 104; *F. L. Lewton* 293.—Escuintla: San Juan Mixtam, *J. D. Smith* 2259.—Petén: Tikal National Park, Tikal, bordering airfield, *Contreras* 632. Tikal National Park, Isla de Los Pavos, *Contreras* 1319. About 10 km. west of Dos Lagunas, *Contreras* 1764. Tikal National Park, Bajo del Hormiguero, on old Remate road, *Contreras* 1886; *Lundell* 15524. Bordering Río Ixcol, 1 km. east of Dolores, *Contreras* 2404; Dolores, bordering the village, *Contreras* 3046. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 15835, 17168. Tikal National Park, Aguada Pucte, *Lundell* 16815.

British Honduras.—Stann Creek: Eve's Pine Ridge, *Gentle* 8485.—Toledo: Bolo Camp, upper reach of Golden Stream, *Gentle* 4498.

Oncidium sphacelatum Lindl.; Ames & Correll, p. 666.

Guatemala.—Alta Verapaz: El Cacao, Finca Trece Aguas, *G. P. Goll* 106; *F. L. Lewton* 305.—Petén: Remate, on Tikal Road, *Contreras* 817. Dolores, on Machaquila Road, *Contreras* 2159. Tikal National Park, Bajo de Santa Fé, Arroyo Corriental, on Aguada Terminos road, *Lundell* 15793. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 16690.

British Honduras.—El Cayo: *H. H. Bartlett* 12946.—Toledo: Bolo Camp, upper reach of Golden Stream, *Gentle* 4504. Edwards Road beyond Columbia, *Gentle* 6484, 7201.

Leochilus Johnstonii Ames & Correll, p. 674, fig. 188.

Guatemala.—Petén: Tikal National Park, Tikal, in *ramonal* covering the ruins, *Lundell* 17086.

Leochilus labiatus (Sw.) O. Ktze.; Ames & Correll, p. 676.

Guatemala.—Alta Verapaz: Near Finca Sepacuité, *O. F. Cook & R. F. Griggs* 24.

Leochilus scriptus (Scheidw.) Reichb. f.; Ames & Correll, p. 678.

Guatemala.—Petén: Tikal National Park, on Remate Road, south of Tikal, *Contreras* 625. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 1978, 3248; *Lundell* 16550.

Lockhartia hercodonta Reichb. f. ex Kränzl.; Ames & Correll, p. 682.

This species is new to British Honduras.

British Honduras.—Toledo: In high ridge, on hill top beyond Central Camp, Edwards Road beyond Columbia, *Gentle* 7363. The following are sterile but probably belong here.—Toledo: Edwards Road beyond Columbia, *Gentle* 6469, 7321.

Ornithocephalus bicornis Lindl.; Ames & Correll, p. 685, fig. 191.

This species is new to British Honduras.

Guatemala.—Petén: About 1 km. 700 m. south of Lacandon, *Contreras* 3501.

British Honduras.—Toledo: Between Monkey River and Cockscomb, in mountain cabbage ridge, *Gentle* 4267.

Ornithocephalus inflexus Lindl.; Ames & Correll, p. 686.

Guatemala.—Petén: Tikal National Park, Tikal, Aguada Seca, *Contreras* 1062. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 1086; *Lundell* 15938. Tikal National Park, Bajo de Santa Fé, between Isla de Los Pavos and Aguada Lagarto, *Contreras* 1278. Dolores, bordering the village clearing, *Contreras* 2203. Dolores, about 400 m. west of km. 82 on Machaquila Road, *Contreras* 2328. On Santo Toribio trail northwest of Dolores, *Contreras* 2383, 2429. Dolores, bordering Río Ixcol, *Contreras* 2416. About 4 km. south-southeast of Dolores, *Contreras* 2487. On Río Mopan Trail, 5 km. southeast of Dolores, *Contreras* 2568.

British Honduras.—El Cayo: 49 Miles Section, Humming Bird Highway, *Gentle* 9108.—Toledo: Feeder Road near Big Fall, *Gentle* 7027.

Ornithocephalus iridifolius Reichb. f.; Ames & Correll, p. 687.

Guatemala.—Santa Rosa: Naranjo, *Heyde & Lux* 4618.

Notylia Barkeri Lindl.; Ames & Correll, p. 689.

Guatemala.—Alta Verapaz: El Cacao, Finca Trece Aguas, *G. P. Goll* 72; *F. L. Lewton* 276.—Petén: Tikal National Park, Bajo de

Santa Fé, *Contreras* 31, 1279; *Lundell* 15592. Bordering clearing, Dolores, *Contreras* 2204. Lacandon, bordering Sibal, *Contreras* 3454. Tikal National Park, on Remate road south of Tikal, *Lundell* 15564, 16868.—Santa Rosa: Cuajiniquilapa, *Heyde & Lux* 6245.

British Honduras.—El Cayo: Humming Bird Highway, *Gentle* 8590.—Toledo: Jenkins Creek, Monkey River, *Gentle* 4425. Punta Gorda—Seven Hills Road, ascending Rio Grande, *Gentle* 5002, 5010. Temash River, *Gentle* 5228. Near San Antonio, *Gentle* 5438. Near Condemn Branch Creek, *Gentle* 5550. Columbia Road, *Gentle* 6111, 6112, 6115. Edwards Road beyond Columbia, *Gentle* 6204, 6390. Between Punta Gorda and Joe Taylor Creek, *Gentle* 6795. Between Orange Point and Moho River, *Gentle* 7662.

Cryptarrhena guatemalensis Schltr.; Ames & Correll, p. 692.

This species is new to British Honduras.

British Honduras.—Toledo: Between Monkey River and Cockscomb, in mountain cabbage ridge, *Gentle* 4309. On tree, in high ridge on hill slope beyond Union Camp, Edwards Road beyond Columbia, *Gentle* 6501.

Cryptarrhena lunata R. Br.; Ames & Correll, p. 694, fig. 193.

British Honduras.—Toledo: Between Monkey River and Cockscomb, *Gentle* 4266.

Dichaea hystricina Reichb. f.; Ames & Correll, p. 699.

Guatemala.—Alta Verapaz: Near Finca Sepacuité, *O. F. Cook & R. F. Griggs* 439.

Dichaea muricata (Sw.) Lindl.; Ames & Correll, p. 702.

Guatemala.—Alta Verapaz: El Cacao, Finca Trece Aguas, *G. P. Goll* 17, 73; *F. L. Lewton* 263.—Petén: About 2 km. south of Dolores, *Contreras* 2242.

Dichaea muricata* var. *neglecta (Schltr.) Kränzl.; Ames & Correll, p. 703.

This variety is new to British Honduras.

British Honduras.—El Cayo: Chalillo Crossing—Cohune Ridge trail, *Lundell* 6552.—Toledo: Give And Take Ridge, Rio Grande, *Gentle* 4879.

Dichaea panamensis Lindl.; Ames & Correll, p. 703, fig. 196.

Guatemala.—Alta Verapaz: El Cacao, Finca Trece Aguas, *F. L. Lewton* 272.

British Honduras.—El Cayo: 34 Miles Section, Humming Bird Highway, *Gentle* 9183.—Toledo: Between Rancho Chico and Cockscomb, Monkey River, *Gentle* 4395. Between Condemned Branch Pine Ridge and Moffredye Lagoon, *Gentle* 6032. Balsam Hill, Edwards Road beyond Columbia, *Gentle* 6322. Near San Antonio, *Gentle* 6632. Feeders Road, near Big Fall, *Gentle* 7026. Between Orange Point and Moho River, *Gentle* 7674.

Campylocentrum fasciola (Lindl.) Cogn.; Ames & Correll, p. 710.

Guatemala.—Petén: Tikal National Park, Bajo de Santa Fé, *Contreras* 28, 580. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 142, 1102, 1149. Tikal National Park, Isla de Los Pavos, *Contreras* 1280. Tikal National Park, growing on top of Temple V, *Contreras* 1425. Tikal National Park, Bajo del Hormiguero, on old Remate Road, *Contreras* 1960.

British Honduras.—Toledo: Moffredye Creek, San Antonio, *Gentle* 5077. 17 Miles, San Antonio Road and Moho River, *Gentle* 7601. Between Orange Point and Moho River, *Gentle* 7656.

Campylocentrum hondurense Ames, Sched. Orch. 5: 37, f. 1923.

Epiphytic in forests at low elevations. Rare in British Honduras and Honduras.

Roots fibrous, up to 15 cm. long, spreading, longitudinally sulcate. Stems up to 8 mm. long, complanate, concealed by the sheathing imbricating bases of the leaves, erect or ascending. Leaves about 7, distichous, up to 2.7 cm. long, 3.5-5 mm. wide, broadest above the middle, oblong, ligulate, articulated with a conduplicate base which is 2.5 mm. long, unequally bilobed at the tip, mid-vein prominent beneath. Peduncles with the raceme 1.4-2.7 cm. long, arising from the axil of the leaf-sheath. Raceme 1-2 cm. long. Bracts of the inflorescence 1.7 mm. long, exceeding the pedicels of the flowers, rigid, triangular, acute, concave. Flowers about 10, white, distichous, 3 mm. apart on the glandular-scarbidulous rachis. Dorsal sepal 2 mm. long, triangular, subacute, 1-nerved. Lateral sepals 2 mm. long, about 1 mm. wide at the base, triangular, acute, 1-nerved, carinate along the middle on the outer surface, connivent. Petals 1.7 mm. long, linear-oblong, 1-nerved, acute, membranous, parallel with the dorsal sepal. Lip scarcely 2 mm. long, a little less than 1 mm. wide near the base, triangular-trulliform to lanceolate, acute, membranous, produced at the base into a slender spur, ecallose. Spur 3 mm. long, terete, lightly sigmoid, attenuated at the ends, obtuse, more or less porrect. Column stout, abbreviated. Capsule 5 mm. long, ellipsoidal, 6-angled, sparsely glandulose.

This species is new to our region. It is rather distinct with its characteristic elongated spur and abbreviated stem.

British Honduras.—Toledo: Governor Creek, Monkey River, on tree in high ridge, *Gentle* 4472.

Campylocentrum micranthum (Lindl.) Rolfe; Ames & Correll, p. 711, fig. 197.

Guatemala.—Alta Verapaz: El Cacao, Finca Trece Aguas, *G. P. Goll* 71.—Petén: Tikal National Park, on old Remate Road, *Contreras* 626, 1967, 1995. Tikal National Park, Tikal, bordering airfield, *Contreras* 631. Tikal National Park, Tikal, on top of Temple IV, *Contreras* 1186. Tikal National Park, Isla de Los Pavos, *Contreras* 1303; *Lundell* 16740. Tikal National Park, Tikal, in *ramonal* covering the ruins, *Contreras* 1979; *Lundell* 16095, 16574. Bordering village clearing, Dolores, *Contreras* 2210, 3184. On tree in Dolores, *Contreras* 3001. On Santo Toribio Trail, Dolores, *Contreras* 2393. About 200 m. from Santo Toribio, *Contreras* 2762. Tikal National Park, on road to Aguada Naranjal, *Lundell* 16890. Lacandon, in low forest bordering Sibal, *Contreras* 3431.

British Honduras.—Toledo: Moffredye Creek, near San Antonio, *Gentle* 5049. Near Central Camp, Edwards Road beyond Columbia, *Gentle* 7311.

Campylocentrum Schiedei (Reichb. f.) Benth. ex Hemsl.; Ames & Correll, p. 712.

Guatemala.—Escuintla: Concepción, *J. D. Smith* 2246.

EXCLUDED SPECIES

Williams (in *Ceiba*, vol. 5, Nos. 1–4. 1956) cites the following as being within our region. I have, however, seen no material of any of these taxa: *Sobralia amparoae* Schltr. (p. 22, British Honduras); *Spiranthes graminea* Lindl. (p. 36, Guatemala and British Honduras); *Spiranthes sceptrodes* Reichb. f. (p. 41, Guatemala); *Corymborchis flava* (Sw.) O. Ktze. (p. 49, British Honduras); *Malaxis fastigiata* (Reichb. f.) O. Ktze. (p. 101, Guatemala); *Liparis fantastica* var. *cordiformis* (C. Schweinf.) L. Wms. (p. 105, Guatemala); *Maxillaria maleolens* Schltr. (p. 203, Guatemala); *Trichopilia marginata* Henfrey (p. 216, Guatemala).

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