ORCHIDACEAE—contributed by Germán Carnevali & Ivón Ramírez

The generic revision of the Spiranthinae by L.A. Garay (1982) formed the basis for a better understanding of the spiranthoid complex. A reevaluation of this group for a treatment of the Orchidaceae from the Venezuelan Guayana has revealed the presence of a very distinctive new species that cannot be assigned to any of the genera delimited in Garay's revision.

Aracamunia liesneri Carnevali & I. Ramírez, gen. et sp. nov. TYPE: Venezuela. Territorio Federal Amazonas: Dept. Río Negro, Cerro Aracamuni, summit, Popa Camp, on moss covered streambank in almost closed forest, 01°26'N, 65°47'W, 1,550 m, 16 Oct. 1987, *R. Liesner & F. Delascio 21988* (holotype, VEN; isotype, AMES, MO). Figure 13.

Plantae terrestres, graciles, minutae (vix 4–7 cm altae); radicibus cylindraceis, carnosis, pubescentibus; foliis basalibus vel caulescentibus subpetiolatis, vagina basi appendice liguliformi rigido ascendenti apice irregulariter dilatato pilis minimis breviter pedunculatis instructo; caulibus e rhizomate brevi decumbenti vix erectis; racemo

elongato remote paucibracteato, apice laxe spicato; floribus parvulis. Species singula adhuc nota, venezuelensis. Sepala similia, inter se satis alte connata, nectarium vel tubum amplum formantia, apicibus parallelibus; sepalis extus minute glandulari-papillosis, sepalo postico columnae basi dorsaliter adnato; sepalis lateralibus sepalo dorsali valde similibus, antice valde concavis, sepalo postico partim agglutinata, basi leviter decurrentia. Labellum longe unguiculatum, ungue tubo sepalino omnino adnatum, deinde sagittatum, marginibus in medio utrinque columnae lateribus agglutinatis. Columna erecta, dorsaliter sepalo postico satis alte adnata, apice libera, basi in pedem brevissimum apice ovarii oblique praedita; stigmate transverse elliptico; rostello valido, oblongo, apice truncato, apice structura globulari et papillosa praedito. Anthera ellipsoidea. Pollinia lineari-clavata, viscidio parvulo, rotundo affixa. Ovarium subcilindricum, sessile, haud tortum.

Small terrestrial or muscicolous erect herbs, 4–7 cm high. Roots cylindric, 3–6, fleshy, coarse, pubescent, up to 3 cm long. Stems 5–15 mm long, ca. 3 mm thick, totally enveloped by the leaf sheaths, terete. Leaves glabrous, thinly subfleshy, marcescent, 7–11 per rosette, 4–5 fresh at flowering, sheaths imbricating and invaginating the stem, lamina flat or concave, margins slightly undulate, elliptic or ovate-elliptic, acute or shortly acuminate, 5–9 mm long, 3–4 mm wide, basally contracted into a channeled pseudopetiole 1 1.5 mm long and wide, this merging into the sheath. Sheath ovate to ovate-elliptic, ca. 5 mm long, 4 mm wide when flattened, with 1(2) erect, liguliform structures connected at the center of the sheath base and protruding from it, these 3.8–4.5 mm long, 1–1.2 mm wide, rigid, ± expanded apically where covered by multicellular short-pedunculate, globose hairs ca. 0.05 mm long. Inflorescence a terminal raceme, 35–45 mm long, laxly 3–6-flowered, fertile in the upper ¼, covered (except for the bracts) with sparse, cylindric to subcapitate, unicellular hairs ca. 0.1–0.2 mm long. Peduncle terete, 21–28 mm long, triarticulate, each articulation subtended by one glabrous, lanceolate, long-acuminate bract, this basally enveloping and apically spreading, the lowermost bracts 6.5–7 mm long, 3 mm wide, the apical bracts 5 mm long, 2 mm wide. Rachis 12–17 mm long, straight or slightly fractiflex. Floral bracts 3–7 mm long, 2–2.5 mm wide, identical to the peduncle bracts but somewhat smaller, much longer than the pedicellate ovary. Flowers tubular, not resupinate, white, 7–8 mm long including the ovary, forming an acute angle with the rachis. Ovary subcylindrical, 2–2.2 mm long, 1–1.2 mm thick. Sepals fused in the basal ¾, forming a cylindric, 5–5.5-mm-long tube around the column, petals, and labellum, the free parts concave, triangular-oblong, rounded apically, 2–2.1 mm long, 0.9–1.1 mm wide, minutely glandular-papillose without; dorsal sepal partially adnate to back of column in the basal ⅓ within. Petals membranaceous, connivent with the dorsal sepal along their whole length, uninervate, linear-spathulate, ca. 5 mm long, 0.7 mm wide near apex, 0.1–0.2 mm wide in the attenuated basal half. Labellum connivent with column margins, membranaceous, trinervate, 5.5–6 mm long, ca. 1 mm wide near apex, narrowly oblong in general outline, somewhat dilated in the apical ¼, apex obtuse, thickened and finely papillose-ciliate, base sagittate with 2 retrorse, linear-oblong, apically rounded and thickened lobes 1.3–1.5 mm long, 0.4 mm wide; labellum attached to ovary apex by a relatively long, linear-oblong claw, 0.9–1.2 mm long, 0.4 mm wide, this adnate to the sepaline tube. Column erect, elongate, subcylindric, 4.5 mm long, 0.7–0.8 mm wide at base. Anther ellipsoid, bilocular, obtuse at both extremes, 2 mm long. Rostellum oblong, 1.8 mm long, ca. 1 mm wide, apically truncate and bearing a globular, papillose structure 0.4 mm long and wide. Clinandrium margins narrow, membranaceous, ± erect and slightly enclosing the anther. Stigmatic surface ventral, papillose, transversely elliptic, 0.8 mm wide.

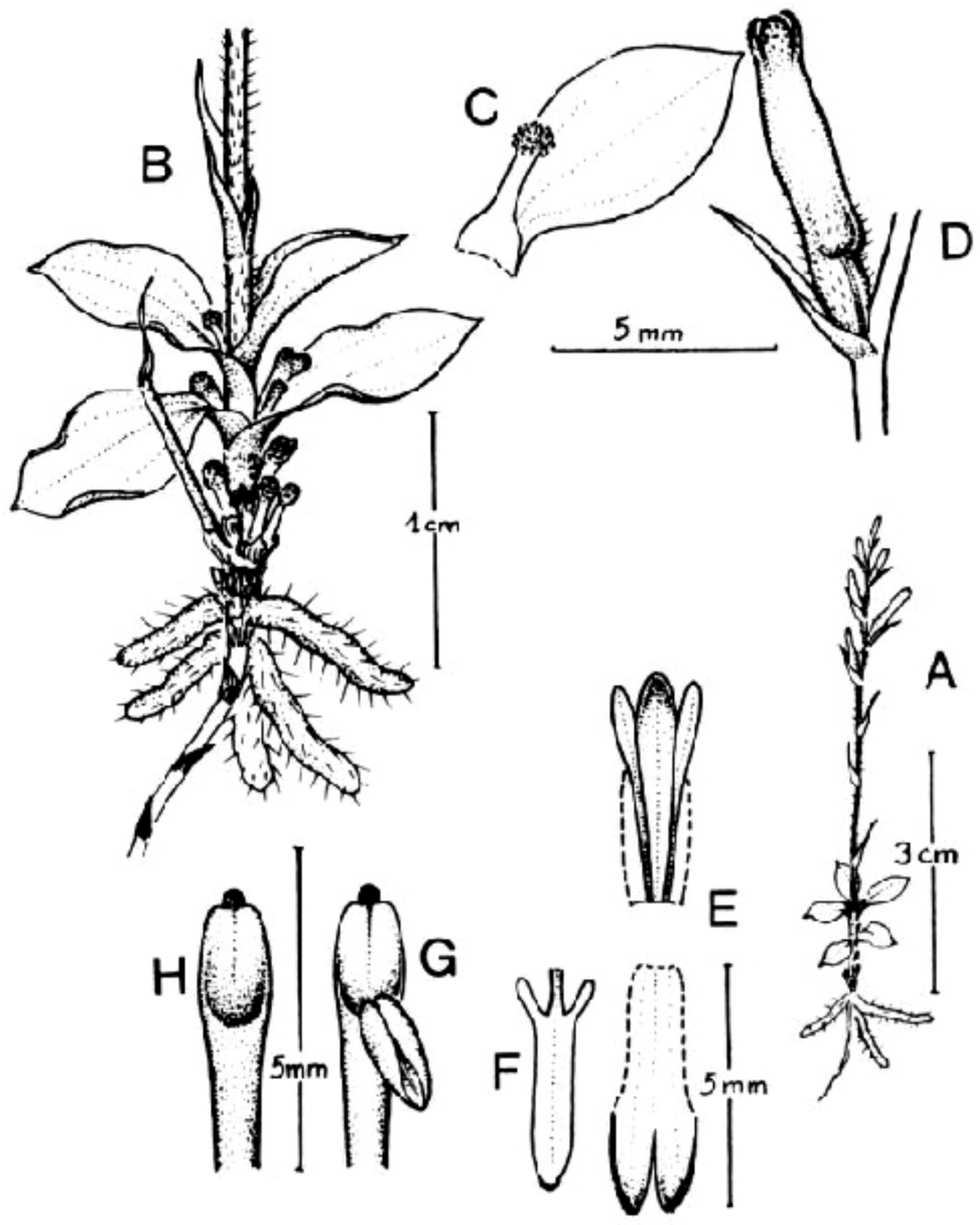

FIGURE 13. *Aracamunia liesneri*.—A. Habit.—B. Detail of plant, showing the ligulelike structures.—C. Leaf with ligulelike structure at leaf sheath.—D. Flower, pedicellate ovary, and floral bract.—E. Perianth segments.—F. Labellum.—G. Upper side view of column, with anther retracted. H. Lower side view of column showing stigmatic surface. (From *Liesner & Delascio 21988.*)

This new genus seems to belong to the *Eury-*

styles Wawra complex, with which it shares the small vegetative habit, nonresupinate flowers, and sepals connate for at least part of their length. However, *Aracamunia* differs from the other genera of the *Eurystyles* complex in its terrestrial habit, eciliate leaves and bracts, presence of ligulelike structures, noncapitate inflorescences, and ecristate sepals connate for about ¾ of their length (vs. up to ½ their length). Within the complex, it seems to be closer to *Eurystyles* as defined by Burns-Balogh et al. (1985), but in *Aracamunia* the stigmas are confluent as in *Pseudoeurystyles* Hoehne.

The most distinctive feature of *Aracamunia* is the presence of the ligular, apparently glandular structures that originate from the bases of the leaf sheaths and persist even after disintegration of the leaf blades and sheaths. These ligular structures are erect, rigid, solitary, or (rarely) in pairs on each leaf sheath. They show traces of vascular axes, with phloem extending farther apically than the xylem, suggesting a glandular function. The apices vary widely in shape: sometimes bifid, lobulate, coarsely dentate, or expanded into a suborbicular blade. The multicellular hairs of the liguliform structures are denser in younger more apical portions, with each of the hair cells containing a large nucleus proportionate to the size of the cells.

The ligular structures have vascular connections with the leaf sheaths and the stem. Further study is required to determine if they are glandular or perhaps have an assimilative function.

Etymology. Generic name for Cerro Aracamuni where the type species was collected, in the Federal Territory of Amazonas in southern Venezuela. The specific epithet honors Ronald Liesner who collected the type material.