

NOVELTIES IN MESOAMERICAN *KEFERSTEINIA*
(ORCHIDACEAE: ZYGOPETALINAE)

FRANCO PUPULIN¹

Kefersteinia alata Pupulin *sp. nov.* TYPE: PANAMA. Bocas del Toro: road from David to Chiriquí Grande, around km. 74, ca. 450 m, epiphytic in premontane moist forest, 10 April 2001, flowered in cultivation at Gaia Botanical Garden, 18 August 2001, *F. Pupulin, D. Castelfranco & E. Salas 3119* (Holotype, USJ; Isotypes: USJ-Spirit). Fig. 1, 2A–B.

Species Kefersteiniae costaricensi Schltr. *similis, planta omnine majore, sepalis anguste ellipticis, petalis incurvatis, ventri columnae dente magno ornato dignoscenda.*

Plant epiphytic, erect, cespitose, to 22 cm tall, each shoot provided with 3–4 leaves and 2–3 basal cataphylls, foliaceous or not. **Roots**

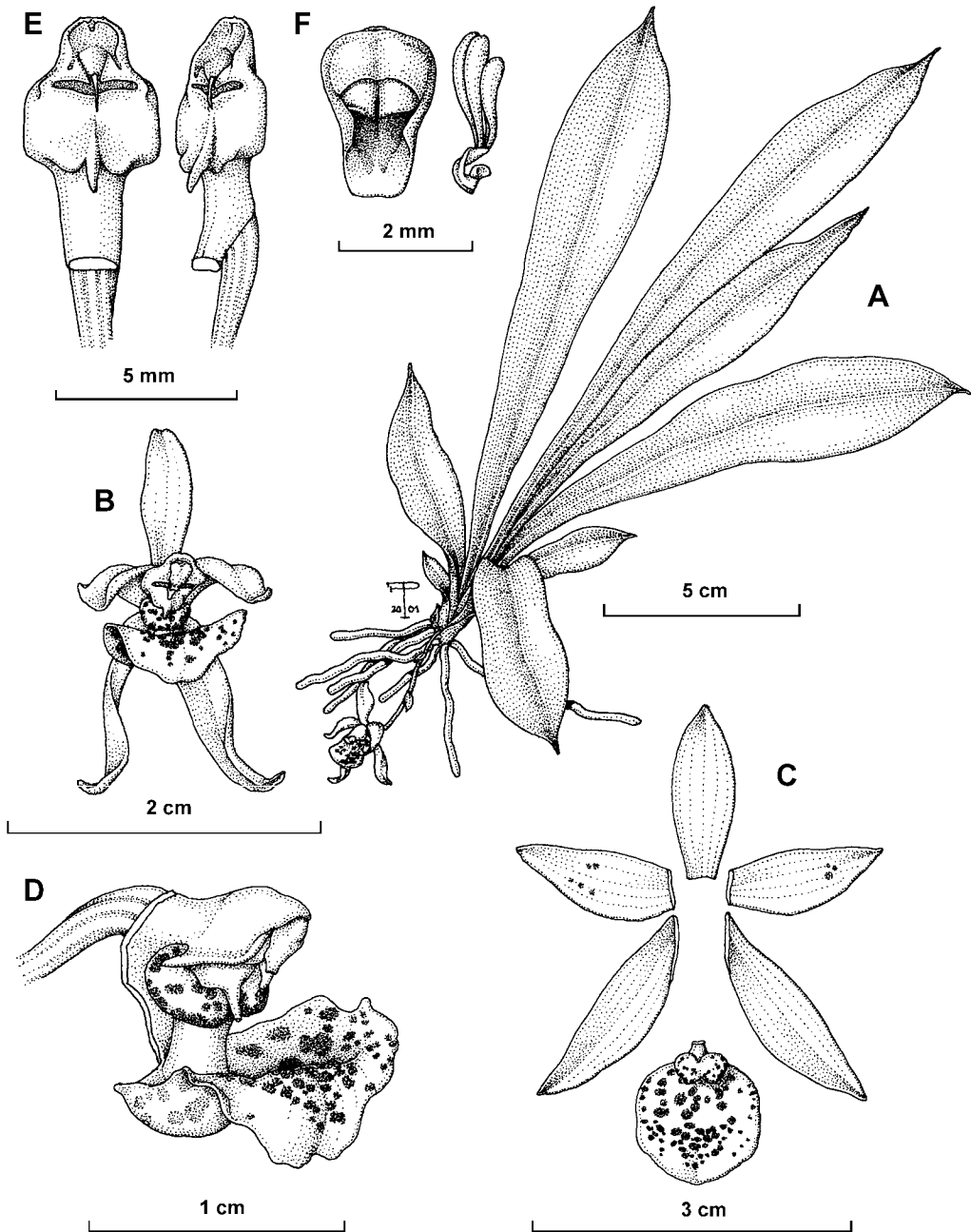


FIGURE 1. *Kefersteinia alata* Pupulin. A, habit; B, flower; C, perianth parts dissected; D, column and lip (lateral view); E, column (ventral and three-quarters views); F, anther cap and pollinarium. Drawn from the holotype.

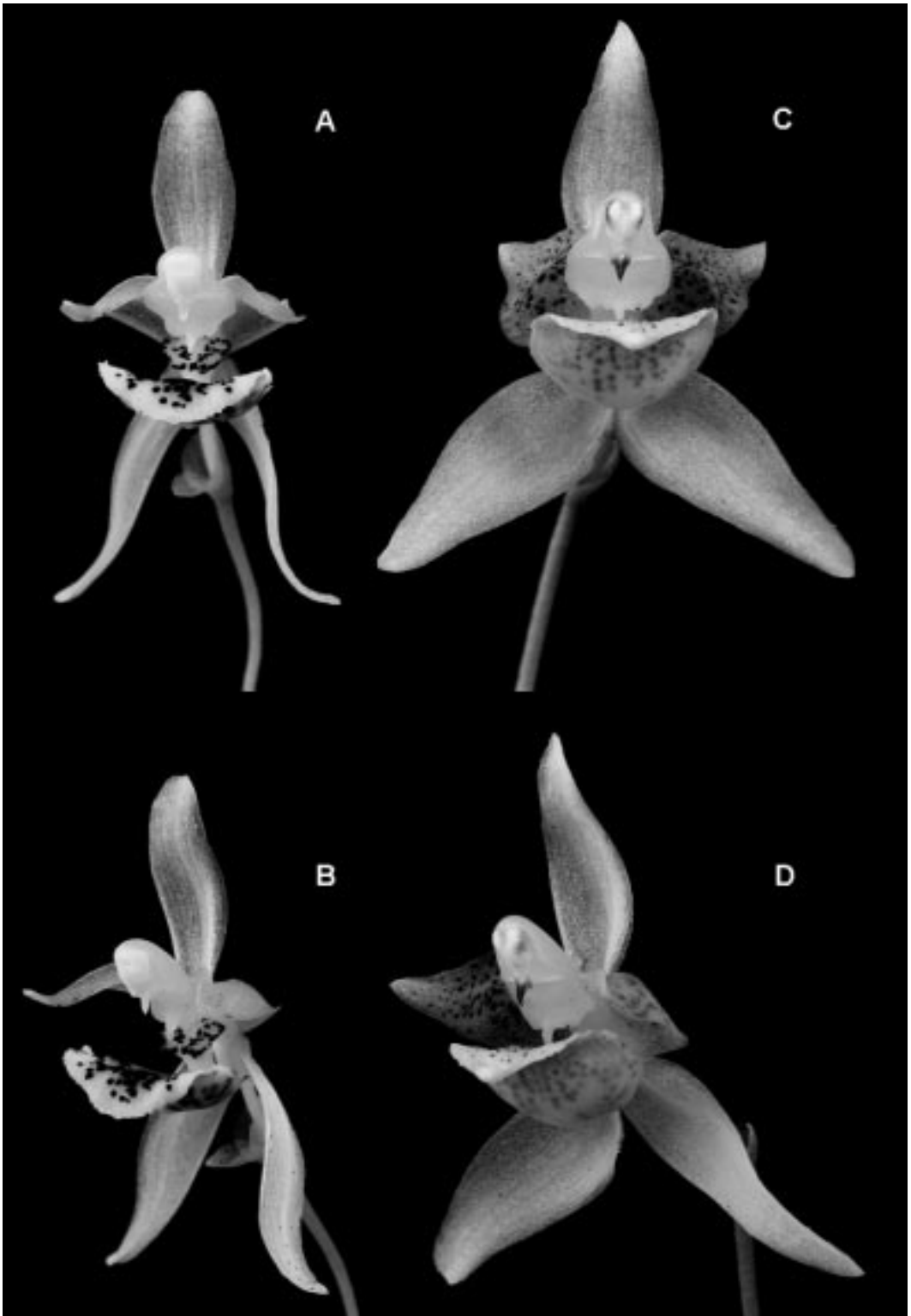


FIGURE 2. Comparison between *K. alata* (A–B) and *K. costaricensis* (C–D). A and C, flowers in frontal view. B and D, flowers in three-quarters view. A–B based on *Pupulin et al.* 3115; C–D based on the following voucher: Costa Rica. Puntarenas: Coto Brus, vicinity of San Vito, W. Chacón s.n. (USJ-Spirit).

rather coarse, flexuous, glabrous. **Leaves** oblong, acuminate, 7.3–20.0 cm long, 1.6–2.8 cm wide, narrowing at the base into a conduplicate petiole to 1.5 cm long. **Inflorescences** 1–2, each with a slender, pendent, solitary flower; peduncle terete, slender, to 3.5 cm long, with 2–3 conic-infundibuliform, membranous bracts. **Floral bracts** widely ovate, acute, 5 mm long, about 4 mm wide. **Ovary** subclavate, terete, 10 mm long including the pedicel. **Flowers** small, spreading, the sepals pure white, the petals white with few purple spots, the lip white spotted and blotched with dark purple, the callus white spotted purple. **Dorsal sepal** elliptic, acute, 16 mm long, 6 mm wide. **Lateral sepals** obliquely narrowly elliptic, acute, concave toward the apex, inserted on the column foot, 21 mm long, 6 mm wide. **Petals** lanceolate-elliptic, acute, incurved over the column, 16 mm long, 6 mm wide. **Lip** with a short cuneate claw, suborbicular, obtuse, concave at the base, the distal portion of the lamina recurved at middle, 13 mm long, 11 mm wide; callus basal, erect, pedicellate, bilobed, cordiform, the apex with a rhombic notch, 3 mm high, 5 mm wide, 3 mm long. **Column** elongate, with a prominent foot, 7 mm long, 4 mm wide at the middle, from a narrow base, the ventral surface forming a transversely rectangular plate, basally protruding into two short, rounded teeth, provided with a low median keel at the base of the stigma, projecting in the rear into a long, acute tooth. **Anther cap** cucullate, obovate, compressed, rounded at apex, truncate at the base, 2-celled. **Pollinia** 4, linear-oblong, laterally slightly sigmoid, on a large, infolded stipe; viscidium hyaline, ovate.

Distribution: Known only from Panama.

Paratypes: Panama. Same locality of the type, 10 April 2001, *F. Pupulin*, *D. Castelfranco* & *E. Salas 3116* (USJ-Spirit) and *3120* (USJ-Spirit). Chiriquí: La Fortuna area, road between Gualaca and Chiriquí Grande, km 42, 1130 m, epiphytic in shade along a small creek, lower montane moist forest, secondary vegetation, 10 April 2001, *F. Pupulin*, *D. Castelfranco* & *E. Salas 3115* (USJ-Spirit).

Ecology and phenology: Epiphytic in premontane and lower montane moist forest along the eastern and Caribbean slopes of Volcán Barú, at 450–1150 m elevation. Flowering occurs from June to September.

Etymology: From the Latin *alatus*, “winged,” in reference to the position of the petals, like

the wings of a bird taking flight.

Kefersteinia alata is closely related to *K. costaricensis* Schltr. but differs in the larger size of the plant, the narrow, elliptic sepals, the erect petals incurved along the column, the rounded apex of lip, and the distinctly longer tooth under the column (Fig. 2). Moreover, the petals and sepals of *K. costaricensis* are greenish white to pale yellow with the petals always densely spotted with purple, whereas *K. alata* has white petals and sepals, and the petals sometimes have a few scattered purple spots. In his treatment of *Chondrorhyncha costaricensis* for the Flora of Panama, Allen (1949) pointed out the more prominent apicule on the plate below the stigma in Panamanian material, as well as the subrhombic rather than scutellate divisions of the callus apex. Both *K. alata* and *K. costaricensis* are found in Panama, the latter species being illustrated in Fowlie (1966) (*H. Butcher* & *J.A. Fowlie F64P6*, photo!).