

TWO NEW SPECIES OF *INGA* (LEGUMINOSAE) FROM PANAMA

This paper describes two species of *Inga* from Panama, bringing the total number of *Inga* species known from that country to 29 (D'Arcy, 1987). The two species are unrelated within the genus, apparently belonging to different sections. Both are from areas where endemism is reported in other groups.

Inga jefensis Liesner & D'Arcy, sp. nov.

TYPE: Panama. Panamá: 1 mi. upstream from Frizzel's Finca Indio, slopes of Cerro Jefe, flower & fruit, 9 Sep., Foster & Kennedy 1828 (holotype, PMA; isotype, MO). Figure 1.

Arbor parva, differt Ingis aliis panamensibus foliis glabris concoloribus, rhachibus non alatis, inflorescentia umbellata, pedicellis gracilibus longioribus, fructibus longioribus.

Tree 15 m tall, the branchlets copiously lenticellate, nearly glabrous but with occasional minute trichomes. Leaves with petiole 5–10 cm long, terete, slender, unwinged, drying olive green; rachis ca. 15 cm long, resembling the petiole, the glands ca. 2 mm across; petiolules (*Gentry 8854*) ca. 6 mm long, thick, drying olive green; leaflets 4–5 pairs, elliptic to obovate, acuminate, basally obtuse, 6.3–19 cm long, drying concolorous, olive green (emerging growth drying reddish brown), glabrous, the lateral veins 9–10 on each side; stipules oblong or obovate, ca. 15 mm long, 6 mm wide, drying enervate, membranaceous. Inflorescence umbellate; peduncle ca. 7 cm long, slender; pedicels slender, 7–12 mm long. Flowers ca. 23; calyx tubular, ca. 2 mm long, glabrate, the lobes short, rounded; corolla tubular, 13–14 mm long, lobed $\frac{1}{5}$ – $\frac{1}{3}$ its length, the lobes ca. 3 mm long, ca. 3 mm wide at the base; stamens ca. 3 cm long, exserted ca. 1.5 cm, the exserted portion longer than the corolla. Fruit linear, compressed around the seeds, the margins slightly

sinuate between the seeds, ca. 30 cm long, 18–25 mm wide, 8 mm thick (dried).

The fruit of this species is similar to but longer than that of *Inga portobellensis* Beurling (sect. *Leptinga* fide León, 1966) from the Caribbean coast north of the localities for the new species. *Inga jefensis* differs in its smaller calyx (2 mm vs. 20–25 mm long) and notably in having an unwinged leaf rachis. This species is also somewhat similar to *Inga paterno* Harms (also in sect. *Leptinga*), which ranges from Costa Rica to Mexico, but *I. paterno* has sessile florets and a short, massive fruit 4–7 mm wide and 2–3 cm thick.

Inga jefensis is known only from Central Panama. The two locations, Cerro Jefe, a mountain ridge behind Panama City with elevations up to 900 m, and Santa Rita Ridge, another mountain ridge paralleling the Caribbean coast, are both areas known to have many endemic species. The collection from Cerro Jefe was taken in flower and fruit in September, and the collection from Santa Rita Ridge was taken in December in flower.

Paratypes. PANAMA. COLÓN: Santa Rita Ridge road 4 mi. from Transisthmian Highway to Agua Clara weather station, 500 m, flower, 11 Dec., *Gentry et al. 8854* (MO).

Inga spiralis Liesner & D'Arcy. TYPE: Panama. Panamá: 23.4 km from Panamerican Highway, fruiting, 13 Apr., *Mori & Kallunki 5577* (holotype, PMA; isotype, MO). Figure 2.

Arbor parva, differt Ingis aliis panamensibus foliis grandibus, foliolis grandibus discoloribus rigidis, rhachibus non alatis, calyce lato, fructu solido spiraliter $1\frac{1}{2}$ -plo superposito puberulenti.

Tree 15 m tall (*Dressler 4325*), the branchlets drying reddish with scattered minute simple hairs, prominently lenticellate when young, glabrescent, becoming grayish.

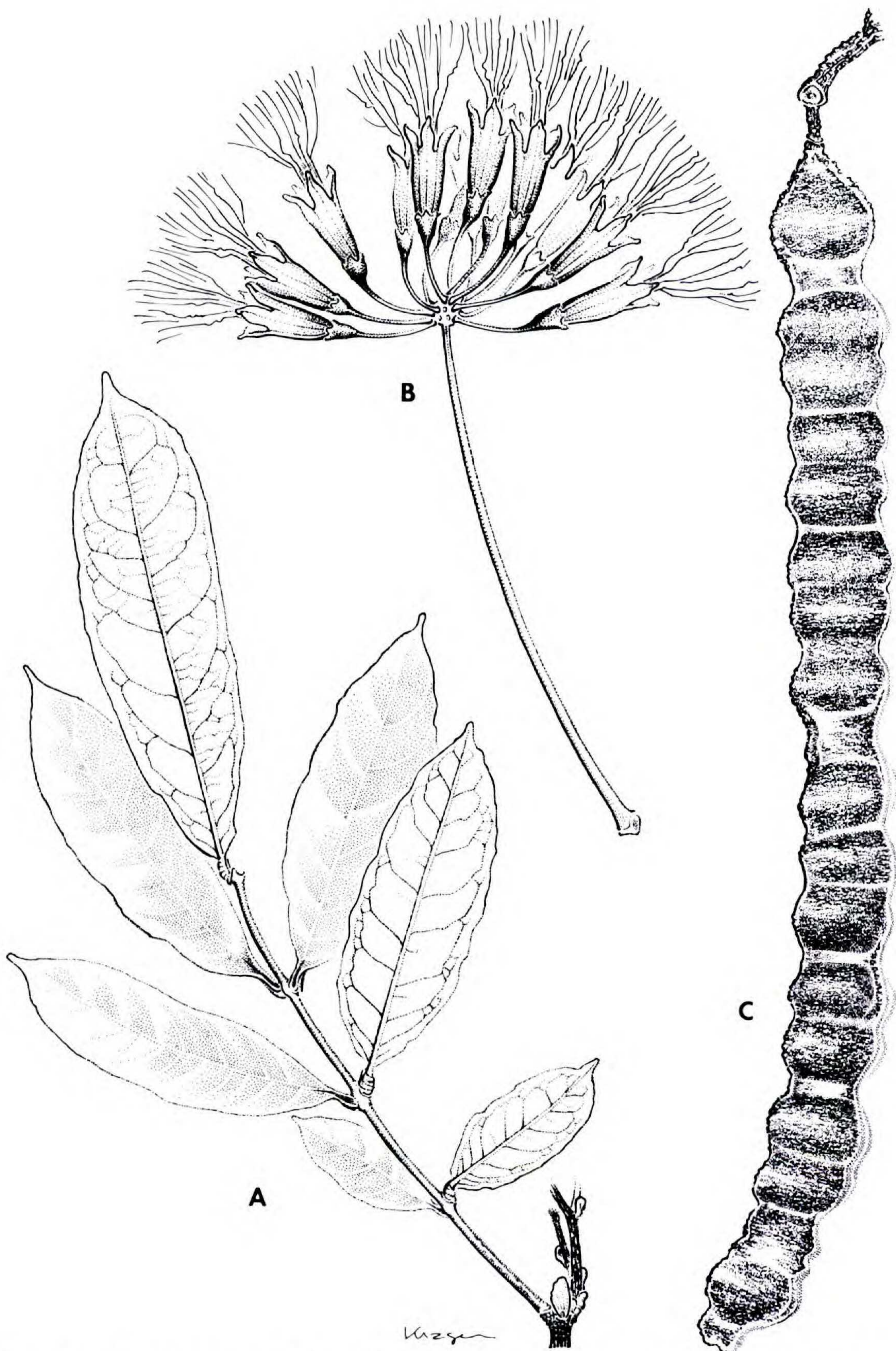


FIGURE 1. *Inga jefensis* (Foster & Kennedy 1828 (MO)).—A. Leaf and twig with stipule ($\times 0.5$).—B. Inflorescence ($\times 1$).—C. Fruit ($\times 0.5$).

Leaves with the petiole 10–21 cm long, subterete, slightly angled basally, unwinged, drying reddish, with sparse minute simple hairs; rachis 15–30 cm long, nonwinged, resembling the petiole, the glands subcupulate,

ca. 3 mm across; petiolules ca. 4 mm long, stout; leaflets elliptic to obovate, apically rounded and short apiculate, basally obtuse, 20–30 cm long, 16 cm broad, drying discolorous, slate-colored above, reddish be-

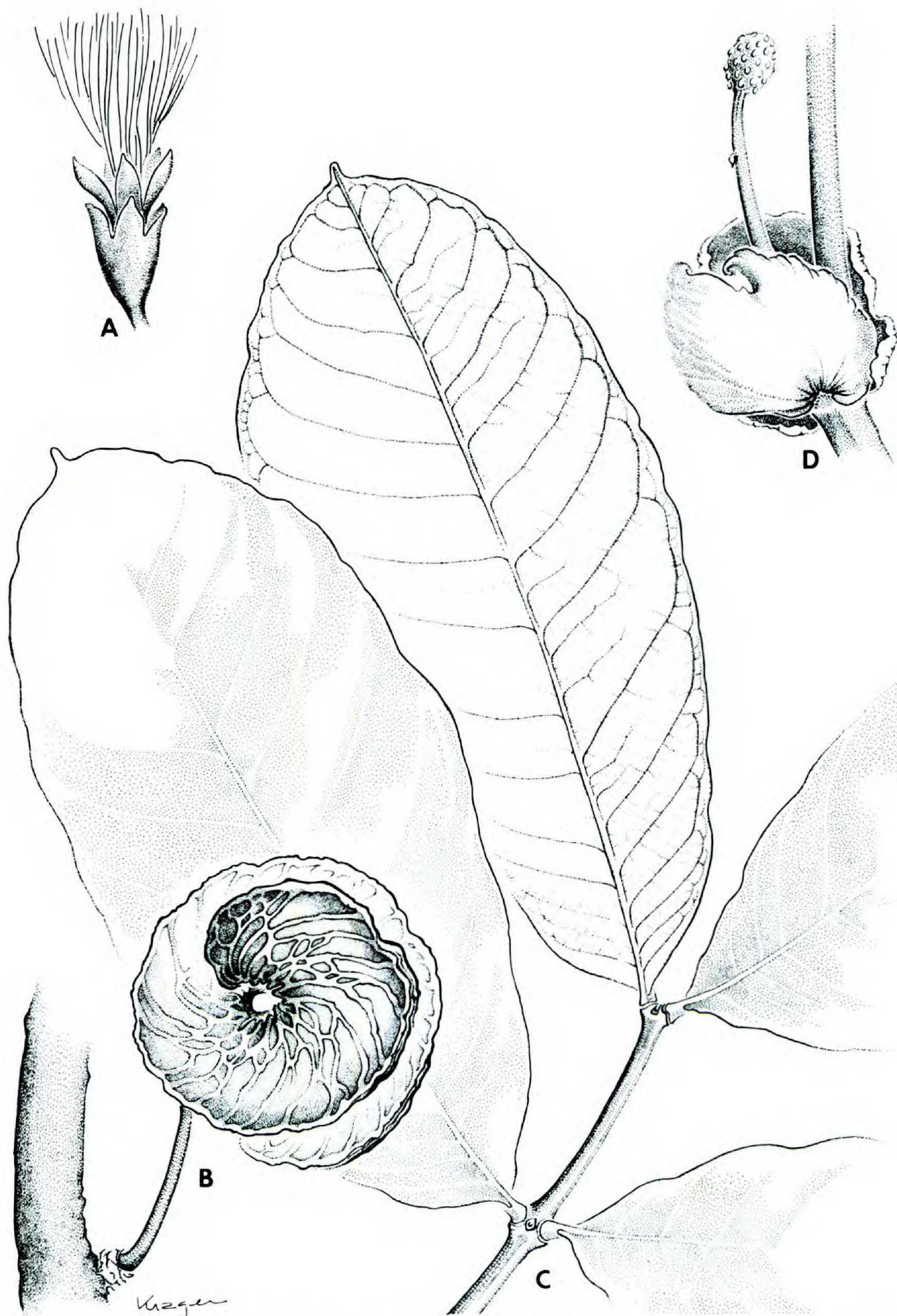


FIGURE 2. *Inga spiralis*.—A. Flower ($\times \frac{1}{3}$).—B. Fruit and pedicel borne on branch ($\times 0.5$).—C. Leaf ($\times \frac{1}{3}$).—D. Stipule and old inflorescence ($\times 0.5$). (A, C, from Dressler 4325 (MO); B, from Mori & Kallunki 5577 (MO); D, from Liesner 1314 (MO).)

neath, glabrous above, softly puberulent beneath with short hairs; lateral veins 16–18 on each side; stipules conspicuous, subfoliaceous, subcircular, ca. 5 cm long, drying prominently nerved, persistent. Inflorescence

(Dressler 4325) umbellate, the peduncle 7 cm long, straight, ca. 4 mm thick, borne “on branches ca. 3 cm diam.,” pedicels 3–4 mm long, broadening upwards. Flowers 40–50; calyx 1 cm long, lobed $\frac{1}{3}$ – $\frac{1}{2}$ way down, the

lobes oblong, 5–6 mm long, 4–5 mm wide at the base; corolla 2 cm long, deeply lobed, the lobes ca. 10 mm long, 4 mm wide, apically acute; filaments 3–4 cm long, exerted 2–3 cm. Fruit flattened, circinnate, coiled 1½ times, 3–4 cm across, conspicuously rugose nervate, forming a massive spiral 7–9 cm diam., softly puberulent with dense, short, whitish hairs.

This species is distinct in its massive, tightly coiled fruit. It is known only from the El Llano–Carti road in Panamá Province, not far south of Nusigandi. The fruit somewhat resembles that of *Inga davidsoniae* Standl. (sect. *Inga* ser. *Densiflorae* according to León, 1966) of Chiriquí Province, which is also short and thick, but that fruit is not coiled, and the leaflets of *Inga davidsoniae* are small in contrast to the unusually large leaves of the new species. Specimens in flower were collected

in March and April and fruiting specimens in April.

Paratypes. PANAMA. PANAMÁ: El Llano–Carti highway ca. 20 km N of El Llano, 300–350 m, flowering, 6 Apr. *Dressler 4325* (MO). SAN BLAS: El Llano–Carti road, continental divide to 1 km N of divide, flowering, 30 Mar., *Liesner 1314* (MO).

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