

New Species of Genus *Hapaline* (Araceae) from Vietnam

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ABSTRACT

Hapaline loci, a species, new to the genus, is described from northwest Vietnam.

KEY WORDS

Araceae, *Hapaline*, Vietnam.

INTRODUCTION

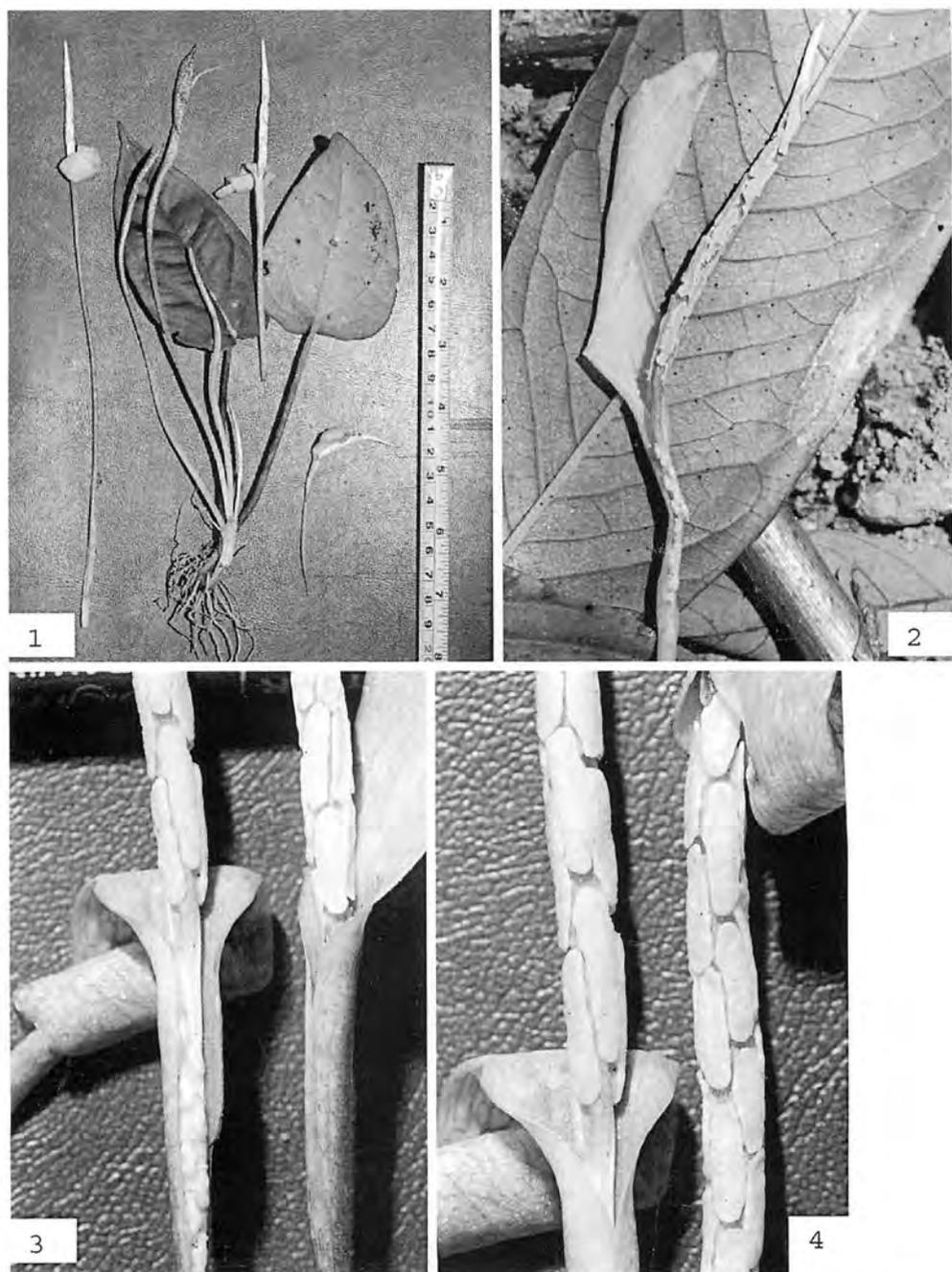
Seven species are recorded for the genus *Hapaline* distributed from Myanmar and China to Brunei (Boyce, 1996). Among them, 3 species were recorded in Vietnam (Boyce, 1996; Nguyen, 1999). In the course of expeditions in Northwest Vietnam by Vietnamese and Russian botanists, we found *Hapaline locii*, a new species of the genus, bringing the species count for Vietnam to four and the number for the genus to eight. *Hapaline locii* is close to *H. appendiculata* Ridl., from Malaysia and *H. celatrix* P.C. Boyce from in Brunei in having the sterile apex of appendix formed from fused synandrodes. But *H. locii* differs from *H. appendiculata* by having the peduncle longer than petiole, the leaf base round to cordate, and a discoid stigma that is not capitate and papillose. It differs from *H. celatrix* by having much larger inflorescences with the spadix longer than the spathe, and by its bottle-shaped ovaries.

nov. TYPE: VIETNAM Lao Cai, Van Ban, Khanh Yen, *Phan Ke Loc et al.* 2842 (holotype, HN; isotype, LE).

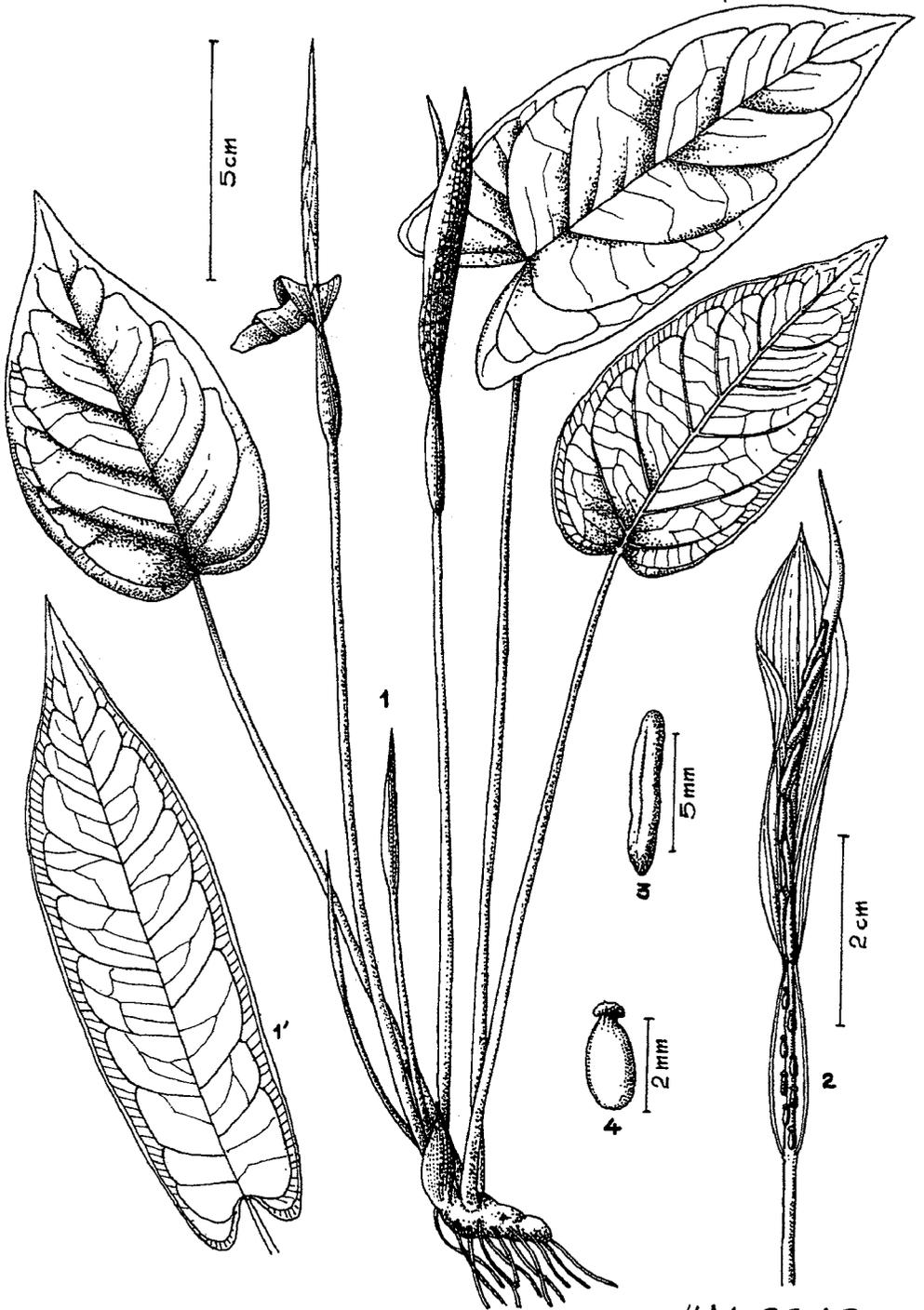
Planta terrestris, 15–25 cm; caudex tuberoso-rhizomatoso, 1.5–2 × 0.4–0.5 cm; lamina elliptica vel lanceolata, interdum ovata, 7–14 cm longa, 3.5–7 cm lata; nervis primariis lateralibus 3 utroque; petiolus 6–28 cm longus; inflorescentia 2–3; pedunculus 14–19 cm longa, 1.5–2 mm diam; spatha 4.5–7 cm longa, pallide viridis extus, albidus intus; tubus 1.2–2.5 cm longus, elliptica vel elongato-lanceolata; spadix 5–8 cm longa; parte pistillata 1.5–2 cm longa; parte staminata cylindrica 2.2–4 cm longa, 3 mm diam.; ovarium ampulliformium, 2 mm longum.

Herbaceous plant 15–25 cm tall. STEM tuberous-rhizomatous, 1.5–2 × 0.4–0.5 cm. LEAVES 2–3; **lamina** entire, elliptic to lanceolate, sometime ovate, 7–14 × 3.5–7 cm, base rounded to cordate or with triangular lobes directed outward in the form of a “V”, sometime overlapping in juvenile phase, rarely parallel, apex acute to cuspidate, (acumen 7–12 mm long); primary lateral veins 3, angled from midrib at an angle of 60–90°, collective veins 3–7 mm from the margin, the minor veins conspicuous; **petioles** slender, 6–28 cm long. INFLORESCENCES 2–3, **fragrant**; **peduncle** slender, longer than petiole, 14–19 × 0.15–0.2 cm, dull light green except light purple at apex; spathe 4.5–7 cm long, dull

Hapaline locii V. D. Nguyen & Croat. **sp.**



Figs. 1–4. *Hapaline locii* V. D. Nguyen & Croat. 1. Habit; 2. Inflorescence; 3. Left hand inflorescence: spathe split to show female portion. Right hand inflorescence and Fig. 4. unopened spathes male portion protruding. (Photo: N. V. Du & Averyanov).



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Fig. 5. *Hapaline locii* V. D. Nguyen & Croat. 1. Habit; 1'. Leaf in detail; 2. Inflorescence; 3. Synandrodium; 4. Ovary.

light green outside, whitish inside; spathe tube 12–25 × 2–2.5 mm, covering all of female portion; spathe lime-green elliptic to elongate lanceolate, 4–5 × 1.0–1.2 cm, acute at apex, acumen short, 0.5–1 cm. SPADIX slender, longer than spathe, 5–8 cm long; **female portion** 1.5–2 cm long, bearing 8–10 ovaries arranged in 2 alternating rows, scattered; **male portion** cylindrical, ca. 2.2–4 × 0.3 cm synandrodes distant, upper part conical to subulate, **sterile (infertile) portion** formed by the sterile half of the terminal synandrodes. **Ovaries** bottle-shaped, irregularly shaped, 2 mm long, 1–1.2 mm wide; **stigmas** sessile, discoid-shape, much smaller than the ovary, protruded and penicillate on the surface. **Synandrodes** elongate boat-shaped, inflated, obtuse at apex, 4–6 mm long, 1.2–1.5 mm wide, sometimes 2 cm long with only the lower part fertile at apex, upper part a sterile appendage.

The plant grows on the ground in the broad leaf evergreen forest at the base of a limestone mountain at 400–700 m. Flowering time: March–April, inflorescence very fragrant. The species is found in Northern Vietnam not far from Yunnan of China, and may extend into this province.

Hapaline locii is closest to *Hapaline appendiculata* Ridl. and *H. celatrix* P.C. Boyce

in having the sterile apex of appendix formed from fused synandrodes. However *H. locii* differs from *H. appendiculata* in having the peduncle longer than petiole, the leaf base round to cordate, and in having a discoid stigma (not capitate and papillose). It differs from *H. celatrix* by having a much larger inflorescence, a very pleasant smell, a spadix that is longer than the spathe, and bottle-shaped ovaries.

The species epithet refers to the name of one of collectors, Prof. Phan Ke Loc.

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LITERATURE CITED

- Boyce, P. C. 1996. The genus *Hapaline* (Araceae: Aroideae: Caladieae). *Kew Bull.* 51:63–82.
- Nguyen, V. D. 1999. *Hapaline ellipticifolium* (Araceae) a new record for Flora of Vietnam. *J. Biol.* 21:8–10.