NOTES RELATING TO THE FLORA OF BHUTAN: XVII Zingiberaceae

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A new species of *Hedychium*, *H. griersonianum*, is described and its relationship to *H. ellipticum* discussed. Two new combinations are made in *Stahlianthus*, *S. involucratus* (King ex Baker) R. M. Smith, for which a lectotype is selected, and *S. andersonii* (Baker) R. M. Smith.

Hedychium griersonianum R. M. Smith, **species nova** *H. elliptico* Ham. ex J. E. Smith ob folia elliptica, ligulam rubram et bracteas unifloras similis, sed inflorescentia magis elongata, floribus multo minoribus, et anthera rubra differt. **Fig.1A.**

Leafy shoots c.1m tall. Leaves subsessile or very shortly petiolate, $30-35 \times 8-10$ cm, elliptic acuminate, glabrous. Ligule red, 1cm long, membranous, entire, pubescent centrally on back; sheaths glabrous. Inflorescence drooping, c.12 × 6cm, elliptic, main axis pubescent; bracts green, imbricating, $1-2 \times 0.5-0.8$ cm, oblong acute with prominent hyaline margins, each subtending a single flower; bracteoles 1cm long, tubular. Flowers cream; calyx 2–2.5cm long, obscurely 3-dentate and lightly pubescent at apex; corolla tube 3.5cm long; lobes 2.5–3cm long, linear, acute; lateral staminodes 1.5cm long, 0.2–0.3cm at the widest part, unguiculate, limb narrowly elliptic; labellum 1cm long or a little more, unguiculate in lower, limb 0.4cm wide, elliptic, bilobed in upper $\frac{1}{3}$; filament 2.5–3cm long; anther crimson, 0.6–1cm long; stigma cilate at mouth; style linear, hidden in a groove in filament which continues within corolla; ovary pubescent. Fruit unknown.

Type: S Bhutan: Sarbhang district, Sarbhang-Chirang rd, 19km above Sarbhang, 26° 57′ 90° 14′E, 1100m, steep rocky slope in hot forest, flowers fragrant, perianth cream, 1 vi 1979. *Grierson & Long* 1547 (holo. E).

Additional material seen:

S BHUTAN: Chukka district, Marichong 'Mirichoma', 3500', scented, yellow, 3 vii 1914, Cooper 1152.

This species is dedicated to the late Mr A. J. C. Grierson, senior author of the *Flora of Bhutan*.

In the vegetative state it is impossible to distinguish *H. griersonianum* from *H. ellipticum* (Fig.1B), and the drooping inflorescence with its imbricating bracts is also common to both species. *H. griersonianum* differs in the more elongate inflorescence, considerably smaller flowers (those of *H. ellipticum* may be up to 15cm long) which, except for the crimson anther, are uniformly cream throughout, and in the more shortly exserted corolla tube. *Cooper* 1152 deviates in the entirely glabrous ligule.

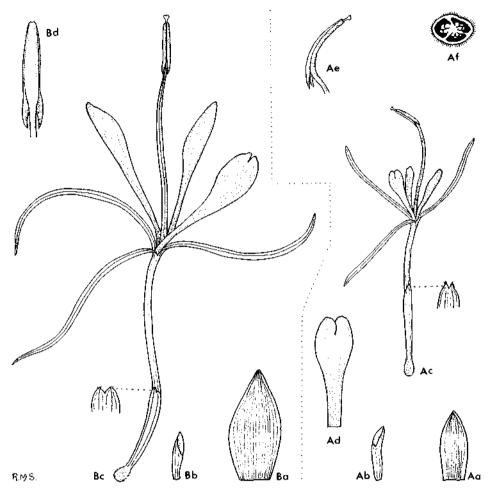


FIG. 1. A. Hedychium griersonicmum R. M. Smith: Aa, bract x 1; Ab, bracteole x 1; Ac, flower x 1; Ad, labellum x 3: Ae. anther from the side x 2; Af. ovary in T.S. x 4. B. H. ellipticum Ham. ex Smith: Ba, bract x 1; Bb, bracteole x 1; Be, flower x 1; Bd, anther from the rear x 2. All from spirit material. A, Grierson & Long 1547: B, Grierson & Long 2160.

Stahlianthus invoiucratus (King ex Baker) R. M. Smith, comb. nov.

Basionym: *Kaempferia involucrata* King ex Baker in Hook.f., Fl.Brit.Ind. 6:231 (1890). Lectotype (selected here): Darjeeling; Rangirum, 1877, Hort. Calcutta *Jaffray* s.n. (K). Also in Assam; *Jenkins* s.n. (n.v.).

Stahlianthus andersonii (Baker) R. M. Smith, comb. nov.

Basionym: Kaempferia andersonii Baker in Hook.f., Fl.Brit.Ind. 6:321 (1890).

Type: Burma, Hort. Calcutta, Anderson s.n. (CAL, n.v.).

In transferring the Thai *Kaempferia macrochlamys* Baker to *Stahlianthus* O. Kuntze, Craib remarked 'To *Stahlianthus* also belong *K. involucrata* and probably *K. andersonii*.' He did not make formal combinations.

This small genus of perhaps half a dozen species has a distribution ranging from N Thailand to Indo-China and the Himalaya; it may also occur in the Philippines. It is distinguished from *Kaempferia* by the conspicuous bell-like involucre which surrounds the inflorescence, the emarginate or only shortly bifid labellum and, *fide* Kuntze, the absence of epigynous glands. No recent collections have been seen and inflorescences, either living or preserved in alcohol are badly needed since their structure is poorly known.