

NOTE ON *ARRHENECHTHITES HAPLOGYNA* (ASTERACEAE)

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Arrhenechthites haplogyna (F. Mueller) Mattfeld was originally described as *Senecio haplogynus* F. Mueller (Trans. Roy. Soc. Victoria 1, 1899: 14), based on rather poor material collected by Sir William MacGregor from Mount Knutsford. Von Mueller remarks that the species could be placed both in *Senecio* or *Erechthites*, basing himself on the statement by Bentham and Hooker in the Genera Plantarum 2 (1873) 208, 'that occasionally some solely pistillate flowers occur in species of *Senecio*, hence the only characteristic which separates *Erechthites* from *Senecio*, is unreliable, and therefore the present plant may be placed in either genus'.

Mattfeld (Bot. Jahrb. 69, 1938: 292) creates a new genus, *Arrhenechthites*, and moves *Senecio haplogynus* into this genus, after originally having it placed in *Erechthites* (Bot. Jahrb. 62, 1929: 442). The grounds on which *Arrhenechthites* is distinguished in the first place from *Erechthites*, and secondly from *Senecio*, are rather flimsy but distinct. From both *Arrhenechthites* differs in having all marginal florets fertile but having sterile ovaries in the disk florets. The genus *Erechthites* differs from *Senecio* by having style arms with a crown of divergent hairs surrounding an appendage of fused papillose hairs. In *Senecio* this same crown of divergent hairs is present but the tips of the style arms are truncate or bluntly appendaged. Applying these data to von Muellers species it is clear that it is a species of *Arrhenechthites* and not a *Senecio*.

During a fieldtrip in May 1976 to Papua New Guinea, and more in particular to Mount Service, a peak southeast of Mount Victoria, I happened to collect a remarkable plant that at first sight could be a *Senecio*. The distinctive sweet fragrance of the flowers made it easy to locate the specimens. It turned out to be an abundant though rather localised species at an altitude of about 3800 m. Studying the material it soon turned out that it belonged to *Arrhenechthites haplogyna*. Checking this material against von Muellers description and the later description by Koster (Blumea 18, 1970: 144, pl. 18 f. 6—11) it was clear that several details were lacking. This is not surprising since the type specimen consists only of the top 7—8 cm of the plant. To emend the description given by von Mueller and Koster the following description is given:

Small to tall herb, 20—100 cm high, bushy. *Stems* unbranched, often dark purple, ribbed, glabrous, leafless in lower parts but with distinct transverse scars, tapering into the inflorescence. *Leaves* close together, obliquely patent, sessile or subsessile, glabrous, sparkling yellowish green with dark purple veins, lanceolate-spathulate or elliptic-lanceolate, 2.5—9 by 0.7—2 cm, acute, base auricled, midrib slightly grooved above, prominent and angular below, lateral nerves 5—7, ascending at less than 20° from midrib, slightly grooved above, slightly prominent below, at base with 3—5 nerves fanshaped radiating, nervation reticulate, prominent above, grooved below, margin irregularly

dentate, with inconspicuous to large, rounded teeth. Petiole 0—3 mm, flattened, glabrous. *Inflorescence* a large umbelliform aggregate of axillary and terminal corymbs, 4—8 by 5—10 cm, manyheaded, glabrous, all parts dark purple except for the white florets. Partial inflorescences 3—10-flowered, 4—9 cm long, peduncle slender, 2—6 cm long, at tip with a leaf-like or much reduced, linear, 6—25 by 2—8 mm large bract. Pedicels slender, 8—22 mm long, with 2—5 linear, 3—6 by *c.* 1 mm large bracts reducing in size towards the heads. *Heads* heterogamous, narrowly oblong obconoid, 7—10 by (2—)4—6 mm. Phyllaries 8, narrowly lanceolate-oblong, 7—10 by 1.5—2.2 mm, acute or obtuse, glabrous, but on outside papillate at very tip. Receptacle flat, glabrous. *Marginal florets* ♀, 8—13; corolla tubular, 4—4.5 by *c.* 0.2 mm, glabrous, unequally 3—5-lobed at tip, sometimes indistinctly 2-lipped; style exsert, filiform, 6.2—6.5 mm long, very shortly bifid at tip, stigmas 2, *c.* 0.2 mm long, rounded at tip, flat on inside, finely papillate on inside along margins and tip only; pappus in 2 indistinct series, white, 4—6.5 mm long, scabridulous; ovary fusiform-ellipsoid, 2.6—3 by *c.* 0.5 mm, 8-ribbed, ribs patently pilose. *Discoid florets* ♂, with sterile ovary, 5—8; corolla 6—7 mm long, glabrous, tubular but at base slightly widened and at tip widening into the 5-lobed limb, tube 0.3—0.5 mm across, lobes fleshy, ovate-lanceolate, 1.4—1.8 by 0.3—0.5 mm, subacute and cucullate at tip, papillate on outside at very tip only; stamens 5—6 mm long, filaments filiform, anthers linear, 1.4—1.6 mm long including the *c.* 0.5 mm long, oblong, obtuse apical appendage, cells obtuse and hardly spurred at base; style exsert, slender, 6.5—7.2 mm long, glabrous, slightly grooved at tip and widening, stigmas very short, clavate, triangular in cross section, flattened at tip, with a whorl of papillate hairs along their margins, flattened parts finely papillate; pappus similar to that of the marginal florets; ovary cylindrical, 8-ribbed, glabrous. Ripe *achenes* not seen.

H o l o t y p e. *MacGregor s.n.* (MEL)

D i s t r . Endemic to New Guinea.

NEW GUINEA. Papua New Guinea. Central Province. Mt. Knutsford, *MacGregor s.n.*; Owen Stanley Ra., *MacGregor s.n.*; The Rock Pile, 3660 m, *van Royen 10938*, May.

E c o l o g y. In subalpine shrubberies or rarely in alpine grasslands, 3600—3900 m.

N o t e s. Koster gives the altitude of 2400 m but judging from the rather narrow zone in which the specimens were found by me I believe that this is a misinterpretation of MacGregor's localities. The Owen Stanley Range where MacGregor collected includes among other Mt. Scratchley, Mt. Knutsford, Mt. Service, and Mt. Victoria. It is known that MacGregor spent several days on the summits of all of them but not on Mt. Service. All summits are around the 3600—3900 m altitude, and this also is a reason not to include the 2400 m altitude as given by Koster.

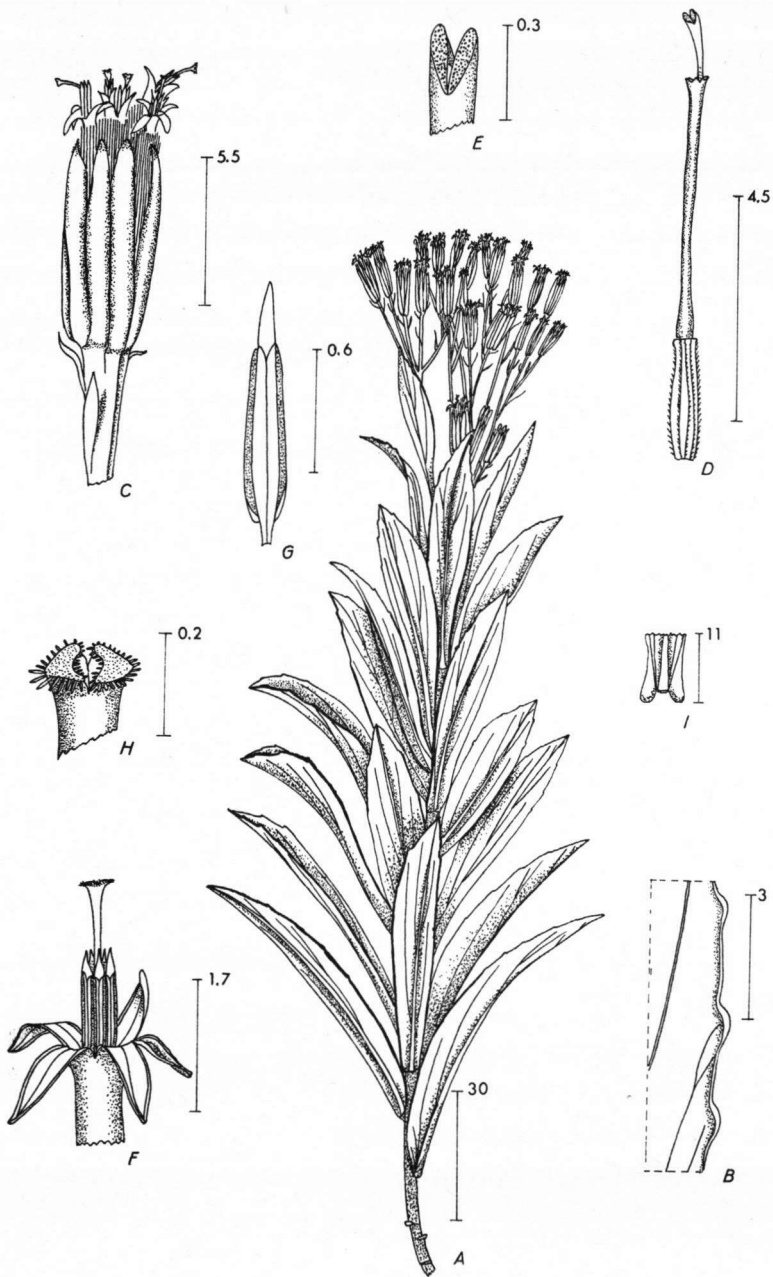


Fig. 1. *Arrhenechthites haplogyna* (F. Mueller) Mattfeld. A. habit; B. part of margin of leaf, underside; C. flowerhead; D. marginal floret, pappus hairs left out; E. stigmas of marginal floret; F. tip of disk floret; G. anther of disk floret; H. stigmas of disk floret; I. base of leaf, underside. (van Royen 10938).