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593

SHORT COMMUNICATION

Rediscovery of *Haloragodendron lucasii* (Haloragaceae)

In my revision of the genus (Orchard 1975) I suggested that *Haloragodendron lucasii* might be extinct. No collections had been made for 50 years, and earlier records were all from the vicinity of Hornsby, New South Wales, in an area largely swallowed up by suburban development.

Happily, my gloomy suggestion has been proven false, with not one but two separate rediscoveries of the species. One population is from Barra Brui, not far from previous records in the Central Coast subdivision of NSW, the other is from Yarramun Creek near Mount Wilson in the Central Tablelands, representing a major extension of range.

Both collections are in flower and fruit. The Barra Brui collection agrees quite well with earlier specimens, although it is smaller in several of its measurements. The fruits are only semi-mature, but are winged, as previously described. The Yarramun Creek collection agrees also in most respects, but has a bluntly angled rather than winged fruit. It has been suggested (Peter G. Wilson, pers. comm.) that this specimen could represent a fourth species of the genus for New South Wales. While this is possible, and could be resolved by further field study or cultivation (particularly of seedlings), for the time being I am inclined to consider it as merely a variant of *H. lucasii*. It agrees with that species in all essential respects except fruit shape, a character that is known to be variable in this family, (Orchard 1975) — see for example *Haloragis acutangula*, *Haloragis odontocarpa*, *Haloragis aspera* and *Glischrocaryon aureum*.

An expanded description incorporating the new collections is given below.

***Haloragodendron lucasii* (Maiden & Betche) Orchard**, Bull. Auckland Inst. Mus. 10: 146–148 (1975).

Erect multistemmed shrub 1(–3) m tall, older stems with smooth grey bark, younger stems green to reddish, arranged decussately, 4-winged or -angled. Leaves decussate, sessile, oblanceolate, 2.3–3.0(–5.0) cm long, 0.4–0.6 cm wide, widest about two-thirds of the way to the acute apex, coriaceous, darker green above than beneath, serrate (rarely slightly biserrate) with 10–24 short teeth per leaf, mainly in the distal $\frac{1}{2}$ to $\frac{2}{3}$; midrib channelled above, prominent below, lateral veins not visible.

Inflorescence terminal on young stems. Axis terminated by a simple dichasium, with simple dichasia in the axils of the upper 3–4 pairs of primary bracts. Lateral inflorescences, similar to the terminal one but extending over only 1–3 nodes, are borne in the axils of the 3–6 (sometimes more) pairs of leaves immediately below the terminal inflorescence. Within each inflorescence the terminal flower of the terminal dichasium develops first, followed by the terminal flowers of the two lowest dichasia. The terminal flowers of the intermediate dichasia then open in basifugal order. The lateral flowers of each dichasium abort. Primary bracts similar in size and shape to upper leaves. Secondary bracts green to brown, opaque, lanceolate, \pm 2–3 mm long, 0.4 mm wide, entire, deciduous before anthesis. Tertiary bracts extremely minute, deciduous early with lateral flowers of the dichasium.

Flowers mostly hermaphrodite, sub-sessile on a pedicel 0.3 mm long. Sepals 4, broadly deltoid, 1–2 mm long, 1.5–1.7 mm wide, erect. Petals 4, creamy white, strongly twisted in bud, very shallowly navicular (almost planar) in flower, lanceolate, (7–)9.5–12(–14) mm long, 1.8–2.5 mm wide, becoming twisted again before abscission. Stamens 8, filaments 1.5–2.5 mm long; anthers yellow with reddish connective, narrowly sagittate, (4.0–)5.5–7.0 mm long, 0.5–0.6 mm wide at base, somewhat compressed, tapering to a blunt point at the apex. Styles 4, conical at first, later capped with a saddle-shaped fimbriate stigma. Ovary glabrous, ellipsoid, 4.2 mm long, 2.5 mm wide including the 4 longitudinal antipetalous wings 0.5 mm wide. Lower flowers of the inflorescence sometimes functionally male; as for the hemaphrodite flowers, but a little smaller, on pedicels 2 mm long, styles and ovary vestigial.

Fruit on pedicels up to 3 mm long, usually winged, body of fruit at least 5 mm long, 4–5 mm wide (incl. wings), but not seen fully mature. Fruit of the Yarramun Creek collection ovoid, 4-angled instead of winged, 6–7 mm long, 4 mm wide, endocarp woody, septa membranous and pushed aside by the developing 1 (or 2) seeds.

ECOLOGY: The collectors described the Barra Brui plants as being locally frequent on a south-facing sandstone hillside with *Eucalyptus gummifera*, *E. piperita*, *Elaeocarpus reticulatus*, *Banksia oblongifolia*, *Leptospermum trinervium*, *Hakea teretifolia* etc. in a *Gleichenia dicarpa* thicket at an altitude of 110 m. The Yarramun Creek collection was growing on a creek bank in *Eucalyptus oreades* open forest with *Ceratopetalum apetalum*, *Logania albiflora*, *Todea barbara*, *Gahnia* sp. and *Prostanthera* sp. at 730 m.

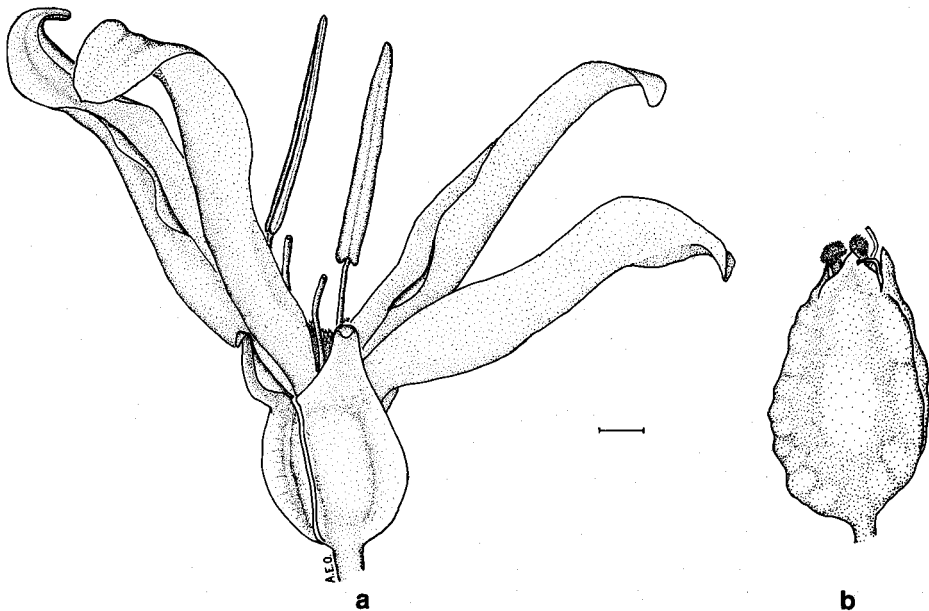


Fig. 1. *Haloragodendron lucasii*. a old hermaphrodite flower/young fruit, showing the development of wings on the ovary. b fruit of Yarramun Creek collection, with 4 irregular longitudinal angles instead of wings. (a from Coveny 12368 et al., b from Lembitt NSW 17100423. Scale represents 1 mm for both illustrations).

SPECIMENS EXAMINED: NEW SOUTH WALES: Central Coast: Barra Brui near Scout Hall, *Coveny 12368 et al.*, 22 Oct. 1986 (HO). Central Tablelands: Yarramun Creek, 7 km NNW of Mount Wilson, *Lembitt NSW 171423*, 7 Dec. 1986 (HO). (Original collections of both in NSW, n.v.)

Reference

Orchard, A.E. (1975). Taxonomic revisions in the family Haloragaceae. I. The genera *Haloragis*, *Haloragodendron*, *Glischrocaryon*, *Meziella* and *Gonocarpus*. *Bull. Auckland Inst. Mus.* 10: 1–299.

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