

SHORT COMMUNICATIONS

A new subspecies of *Lambertia echinata* (Proteaceae)

During the field work for a floristic survey of the Swan Coastal Plain (Gibson *et al.* 1994) a series of areas of unusual plant communities on shallow soils over sheet ironstone were documented. A number of plant taxa found in these areas, including *Lambertia echinata* R. Br., have been reduced to a single or very few populations with critically low numbers of individuals.

This population is one of a number of disjunct populations of Proteaceae that are found in the Whicher Range and foothills. These include *Conospermum teretifolium* R.Br., *Dryandra formosa* R. Br., *Franklandia fucifolia* R. Br. and *Lambertia rariflora* Meisn. subsp. *rariflora*. The occurrence of such taxa at the ends of their ranges is a major feature of the vascular flora of the Whicher Range area (Keighery unpublished data). Some of these disjunct populations, including *Lambertia echinata*, have genetic (D. Coates pers. comm.) and morphological discontinuities between the Whicher populations and their main ranges elsewhere and deserve taxonomic recognition.

In the treatment of *Lambertia* for the "Flora of Australia" (Hnatiuk 1995), populations previously placed in *L. echinata* and *L. propinqua* R. Br. were combined under *L. echinata* as two disjunct subspecies, *L. echinata* R.Br. subsp. *echinata* occurring east of Esperance and *L. echinata* subsp. *citrina* Hnatiuk occurring around Albany. Hnatiuk did not see any material of the Whicher Range variant, which was not discovered until late 1994. Subspecific rank within this species also appears appropriate for the third disjunct variant described here.

Taxonomy

Lambertia echinata* subsp. *occidentalis G.J. Keighery *subsp. nov.*

Typus: Abba Forest Block, south-west of Busselton [precise locality withheld for conservation purposes], Western Australia, 10 September 1995, *N. Gibson* 2377 (holo: PERTH sheet 04183622; iso: CANB, K, MEL).

Species haec ab *Lambertiae echinatae* subsp. *citrinae* differt foliis vegetivis integris linearibus, foliis floralibus plerumque integris vel trilobatis, et bracteis floralibus grandioribus, anguste obovatis.

Shrub, to 3 metres tall, not lignotuberous, much branched at the base with many short vegetative branches and a few long erect floral branches. *Vegetative leaves* entire, 17-45 mm long, linear-lanceolate, apex pungent. *Floral leaves* on erect branches, a few immediately below the inflorescence with up to 5 points, the remainder either trifid (50-80%) or entire (20-50%), 12-30 mm long. *Flowers* yellow. *Inflorescences* crowded at ends of branchlets, 7-flowered. *Floral bracts* scarious, entire, brown, acute, narrowly obovate, 15-19 mm long. *Perianth* 23-26 mm long; lobes recurved, 3-5 mm long. *Style* yellow, 33-36 mm long.

Other specimens examined. WESTERN AUSTRALIA: Abba Block, *B.J. Keighery & N. Gibson* 726 (PERTH); Abba Block, *J.A. Cochrane* 1213 (PERTH); Abba Block, *J.A. Cochrane* 1258 (PERTH).

Conservation status. The subspecies is known from only a single population of seven individuals. Plants lack a lignotuber and are killed by fire. Like most other members of the genus, it is very susceptible to dieback disease caused by *Phytophthora cinnamomi*, which is present in the immediate area. The subspecies is legally protected as declared rare flora under the manuscript name *Lambertia echinata* subsp. *septentrionale*.

Etymology. *Occidentalis* is derived from the Latin word meaning western, referring to the disjunct western occurrence of this subspecies.

Discussion. *Lambertia echinata* subsp. *echinata* is a compact shrub to 1 metre tall which has inflorescences of pink-red flowers on short branchlets in the main body of the plant. Both subspecies *citrina* and *occidentalis* have inflorescences of yellow flowers on short branchlets borne on long erect flowering branches to 3 metres tall above the main body of the plant. In *Lambertia echinata* subsp. *citrina* all vegetative and floral leaves have 3-5 rigid points, whereas *L. echinata* subsp. *occidentalis* has entire vegetative leaves and most floral leaves 3-pointed or entire. The floral bracts of subsp. *occidentalis* are longer, measuring 15-19 mm compared to 12-16 mm in subspecies *citrina*. There is also a difference in length between the floral leaves of all subspecies, 30-40 mm in subsp. *echinata*, 15-35 mm in subsp. *citrina* and 12-30 mm in subsp. *occidentalis*.

Acknowledgements

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References

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- Hnatiuk, R.J. (1995). *Lambertia*. In: "Flora of Australia." Vol. 16. pp. 425-436. (Austral. Govt Publishing Service: Canberra.)

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