

DELINEATION of IMPORTANT HABITATS of THREATENED PLANT SPECIES in SOUTH-EASTERN NEW SOUTH WALES



RESEARCH REPORT
to the
Australian Heritage Commission

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Zieria sp. 7 (sp. "O"; Lochiel)

Family: Rutaceae

Conservation Status: Endangered (Code 2E/N/58)

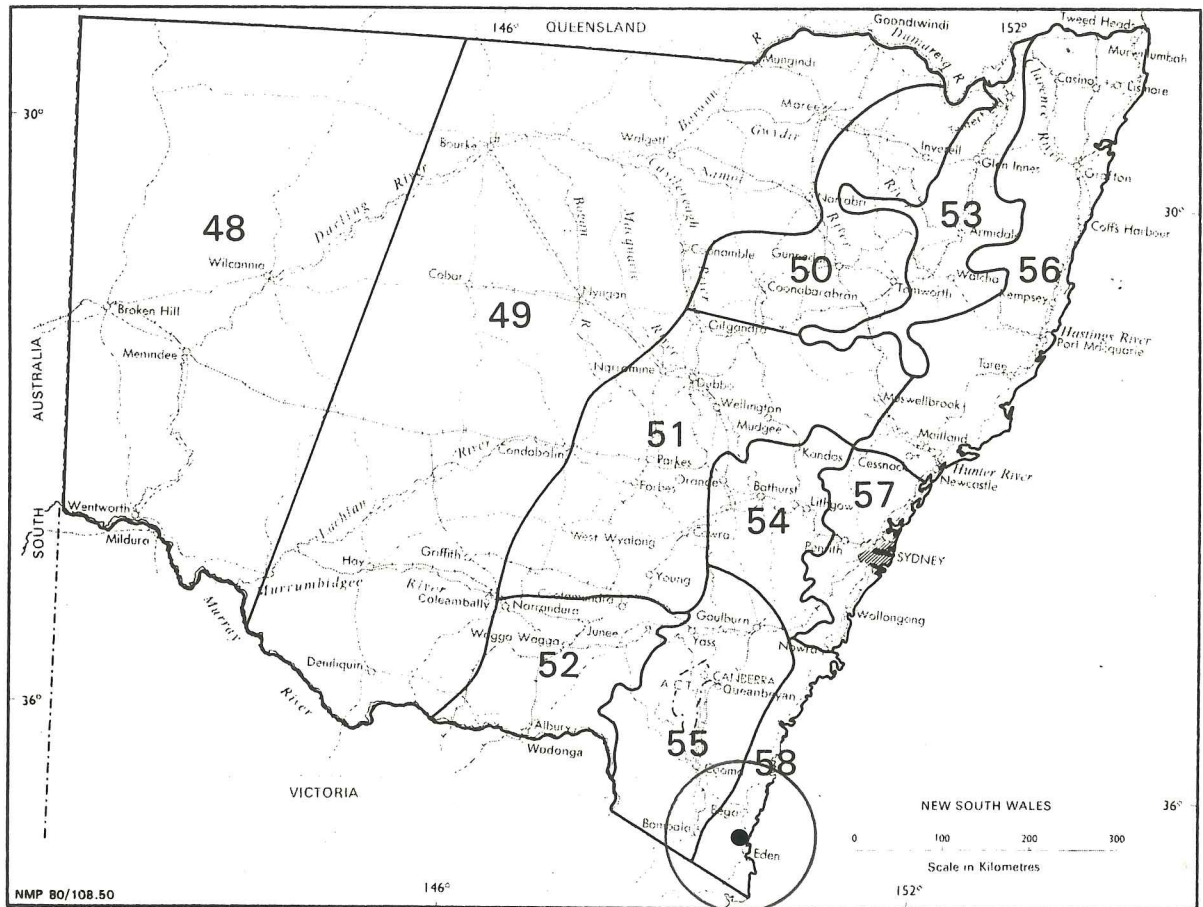


When in flower the large compound inflorescences mostly obscure the leaves, but in this photo a few of the greyish-green trifoliate leaves are visible.

Description

Dense rounded shrub to 1.5 m high and 1 m across. Leaves opposite and comprised of three leaflets (trifoliate). Both surfaces of the leaves are covered with a dense velvety layer of short stellate hairs giving the foliage a pale-greyish-green appearance. The upper surface is covered with numerous small warts (tubercles) whilst the lower surface is sparsely warty. The central leaflet is lanceolate, 15-30 mm long and 3-5 mm broad with strongly recurved

Distribution of Zieria sp.7(sp."0")



margins and the secondary leaflets are similar, but only about three quarters the size. *Flowers* pale-pink and arranged in large 26-45-flowered clusters arising from the leaf axils and protruding slightly beyond the leaves. Each flower is 6-9 mm across and has 4 obovate petals. *Fruit* is a capsule about 5 mm across and deeply divided into 4 chambers. Each chamber contains one or rarely two elliptical dark-brown seeds 2-2.5 mm long.

Flowering: September-October.

Note: This species is to be described by J.D.B. and J. Armstrong and will be given the name *Z. formosa*. The name *formosa* is from the Latin adjective *formosus*, beautiful and refers to the attractive, usually neatly rounded shrubs which bear masses of pale pink flowers in early spring.



A typical shrub of *Zieria* sp. 7 growing amongst ignimbrite boulders.

Distribution

Known only from the one population of 125 plants at Lochiel, 6 km south-west of Pambula on the New South Wales far South Coast. The species was discovered by D. Albrecht in 1986. Numerous searches of similar habitats in the area by D. Albrecht, N. Fisher and M. Parris (pers. comms.) and J.D.B. have failed to locate other populations.

Habitat Summary

Zieria sp. 7 grows in skeletal soil on a rocky, ignimbrite breakaway supporting a shrub community.

Threats

The species is vulnerable to local development or disturbance due to its low population and highly localised occurrence. Although the area is too rocky to be cleared for agricultural purposes it is unfenced from adjacent pastures and many plants on the more accessible edges of the site have been trampled to varying degrees by cattle. Fortunately, unlike many other species of *Zieria*, this species appears to be unpalatable to domestic stock (cattle at least) and so browsing damage to the population has been minimal. Although significant weed invasion has occurred along the edge of the site adjacent to the pasture this threat is unlikely to extend onto the more rocky parts of the site. The current owners are sympathetic with preservation of the species but are contemplating selling their property.

Reservation

Not reserved.

Cultivation

A total of 22 plants taken from 5 individuals have been established from cuttings at the Australian National Botanic Gardens, Canberra (M. Richardson, pers. comm.). The species generally strikes readily from cuttings although J.D.B. has found that cuttings from certain individuals can be difficult to strike. The species is not readily propagated from seed. This species is attractive when in flower and could have horticultural appeal. It is intolerant of low winter temperatures such as those experienced in Canberra.

Recommendations

The population should be fenced off from the adjacent grazing land to prevent continued trampling damage by stock. Longer term protection of the site would best be achieved through a conservation agreement with the landholder similar to that possible under the Heritage Agreement Scheme operating in South Australia.

The site has been included on the Interim List of the Register of the National Estate.

SITE DETAILS

Site 1 - Lochiel

Latitude and Longitude: 36° 57' 10", 149° 48' 50".

Altitude: 50 m.

Location: 300 m east of the Back Creek Road turn-off on the Wyndam-Pambula road, then 100 m south of the road. The site is encompassed by a rectangular area bounded by straight lines joining the Pambula 1:25,000 map sheet 8824-11-S grid reference points 50500708-50650710-50700675-50550675. (See map page 291).

Land Status: Private freehold.

Area: 2 ha.

Population: 125 mature plants. The majority were in a healthy state but many on the western edge of the site had been damaged by trampling stock. No seedlings were observed.

Habitat

Soil: Skeletal grey sandy loam amongst broken rocks and boulders.

Substrate: Ignimbrite.

Topography: Upper, moderately steep slopes of a breakaway area above a small valley.

Aspect: North-east.

Vegetation: Shrub community including *Acacia mearnsii*, *Commersonia fraseri*, *Dodonaea triquetra*, *Prostanthera nivea*, *Pittosporum undulatum*, *Kunzea ambigua*, *Stypandra glauca*, *Plectranthus parviflorus*, *Dendrobium speciosum*, *Cheilanthes tenuifolia*, *Platysace lanceolata* and *Hymenanthera dentata*.

Survey Dates: 22/9/87 and 16/12/87.

Voucher Specimens: J.D.B. and M. Parris Nos. 2267 and 2268.



An upper section of the breakaway supporting *Zieria* sp. 7. A few large flowering shrubs of the species can be seen in mid-picture growing amongst large ignimbrite boulders.

