Deparia petersenii subsp. congrua

SYNONYMS
Athyrium japonicum sensu Allan (1961); Deparia tenuifolia (Kirk) M.Kato; Diplazium congruum Brack.; Diplazium japonicum sensu Cheeseman; Athyrium congruum (Brack.) Copel.; Athyrium japonicum sensu Dobbie

FAMILY
Athyriaceae

AUTHORITY
Deparia petersenii subsp. congrua (Brack.) M.Kato

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Ferns

NVS CODE
DEPPSC

CHROMOSOME NUMBER
2n = 164

CURRENT CONSERVATION STATUS
2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES
2009 | Not Threatened
2004 | Not Threatened

DISTRIBUTION
Indigenous. New Zealand: Kermadec Islands (Raoul Island), North and South Islands (common from Te Paki to the southern Waikato and Bay of Plenty, thence less common but evidently expanding its range southwards; current southern limit is in the vicinity of Westport). Also Australia (eastern Queensland, eastern New South Wales and eastern Victoria), Malesia, Polynesia and Norfolk Island.

HABITAT
Coastal to lowland (rarely montane). A weedy fern of river flats, disturbed forest, forest margins, rough pasture, willow car and urban situations. Prefers damp ground and/or semi-shade to heavy shade.

FEATURES
Terrestrial unpleasantly aromatic ferns. Rhizome long-creeping, c.5 mm diameter, scaly; scales brown, basifixed, thin, broad, entire and acuminate. Fronds crowded. Stipe 20-500 mm long, base scaly and swollen, faintly winged. Lamina 150-500 × 60-250 mm, yellow-green to green, 2-3-pinnate, groove of rachis not open at junctions with grooves of pinna midribs, brittle, pinnatifid and tapered apically; lower pinnae stalked; upper pinnae sessile; longest pinnae central, 70-100 × 15-25 mm, lobed almost to the veins. Lobes elliptic to ovate, oblong or broadly obtuse; apical part of pinnae drawn out into a lobed, tapered cauda; main rachis with numerous septate hairs; lower surface scaly; veins simple or forked. Sori elongate, medial on the veins, often paired back to back; indusium thin, entire.
**SIMILAR TAXA**

*Deparia petersenii* subsp. *congrua* is a distinctive and easily recognised fern which has little resemblance to other New Zealand ferns (indigenous and naturalised). The long creeping rhizomatous habit, brittle yellow-green to dark green scaly fronds, which have an unpleasant aroma when bruised and/or crushed are diagnostic. It is sometimes confused with Diplazium australe, with which it often grows, partly because both Diplazium and Deparia have sori arranged in a herring bone pattern, a pattern which may also lead to confusion with Asplenium. Both Deparia and Diplazium differ from Asplenium by the sori which are pairs back-to-back along the veins. Diplazium differs from Deparia by its much larger, more divided, glabrous fronds and by the groove of the rachis which is open and confluent with the grooves of the pinna midribs (rather than not open at junctions with grooves of pinna midribs). Deparia petersenii is sometimes divided into two species, the indigenous *D. petersenii* subsp. *congrua* and endemic *D. tenuifolia*, the chief difference being that *D. tenuifolia* has a mostly tripinnate frond, primary pinnae which are ovate and secondary pinnae which are oblong and supposedly a darker green colour. However numerous gradations occur, including plants with bipinnate and tripinnate fronds on the same rhizome, and in cultivation *D. tenuifolia* type plants have provided unstable. On current evidence there seems no valid reason to maintain two species though some authors e.g., Brownsey & Smith-Dodsworth (2000) have retained both taxa.

**FLOWERING**

Not applicable - spore producing

**FLOWER COLOURS**

No flowers

**FRUITING**

Not applicable - spore producing

**LIFE CYCLE**

Minute spores are wind dispersed (Thorsen et al., 2009).

**PROPAGATION TECHNIQUE**

An easily grown fern that is inclined to become weedy and aggressive in most garden situations. Deparia flourishes in a semi-shaded situation, planted in moist, fertile soil. However, it will tolerate a diversity of conditions. In cooler areas it has a semi deciduous habit, dying down in winter and resprouting in spring. It is very easily grown from the division of established plants and also by spore, and is often found as a natural arrival in suitable gardens - at least in the northern part of its New Zealand range.

**WHERE TO BUY**

Occasionally available from mainline and specialist native plant nurseries. Often a nursery plant pot contaminant.

**NOTES**

*Deparia petersenii* subsp. *congrua* is probably a relatively recent natural arrival that is still expanding its range. The common bipinnate form was first noted in the New Zealand flora in 1906 however the unstable tripinnate form, sometimes treated as a distinct species (*D. tenuifolia*) was first noted in New Zealand in the 1870s suggesting that there may have been two independent dispersal events, or that there is an endemic element to this species in New Zealand.

**ATTRIBUTION**


**REFERENCES AND FURTHER READING**


