

# Asplenium flabellifolium Cav.

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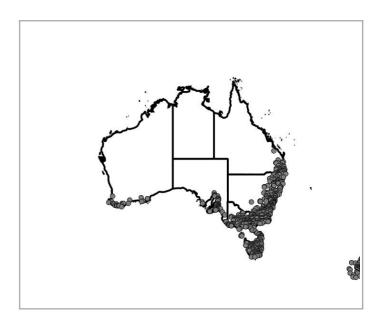
# Asplenium flabellifolium Cav.

- Brownsey, P.J. in McCarthy, P.M. (ed.) (1998), Aspleniaceae. Flora of Australia 48

### P.J.Brownsey

Prostrate or pendent ferns. Rhizome erect, scaly. Stipe and rachis mostly green, flaccid, ±glabrous, 1-15 cm long, 0.3-1 mm diam.; rachis often extending beyond uppermost pinnae and becoming proliferous at apices. Lamina very narrowly ovate to ±linear, pinnate, 4-30 cm long, 0.8-4 cm wide, pale green, ±glabrous. Pinnae in 7-30 pairs, mostly flabellate to cuneate; lower pinnae sometimes rhombic or triangular; bases broadly cuneate, shortly stalked; margins variously dentate or incised; largest pinnae 4-20 mm long, 5-20 mm wide at or near base, decreasing gradually upwards to an attenuate apex. Sori to 6 mm long. Perispores dark with fimbriate wings and tuberculate or veined lacunae; exospores 43.8-49.9 × 36.3-44.8 µm (means).

*Distribution:* Widespread from south-western W.A., through southern S.A., and in south-eastern Qld, eastern N.S.W., Vic. and Tas.; also New Zealand.



Common Name: Necklace Fern

*Chromosome Numbers: 2n* = c. 212 (apomictic), J.D.Lovis, *Bot. J. Linn. Soc.* 67, Suppl. 1: 211-228 (1973).

Habitat: Commonly found in rock crevices, among boulders, under overhangs, on rocky banks or in gorges, either in exposed situations or under open forest, but also a low epiphyte on logs, or on tree fern or cycad trunks; tolerates a variety of rock types and grows from sea-level to alpine areas.

Representative Herbarium Specimens: W.A.: Beedelup Falls, Pemberton, A.S.George 2636 (PERTH). S.A.: Mt Lofty, 27 July 1981, P.J.Brownsey (WELT). Qld: Mt Roberts, Lamington Natl Park, S.T.Blake 20368 (BRI). N.S.W.: Robertson, head of Macquarie Pass, M.Evans 2607 (AD, CANB, NSW). Vic.: Byaduk Caves, B.D.Duncan 71537 (MEL). Tas.: Whites Mill Rd, Lilydale, A.M.Buchanan 3564 (HO).

Notes: Two chromosome races, with 2n = 210-211 and 2n = 277-280, have been reported from this species in New Zealand where it is also apomictic (P.J.Brownsey, New Zealand J. Bot. 15: 39-86, 1977). Similar races could be expected in Australian populations, and C.F.Puttock & C.J.Quinn, Austral. J. Bot. 28: 305-322 (1980) illustrate two rather different spore types with a discernible difference in the height of the ridges which could reflect such cytological variation. The spores of this species, in common with others that have a similar apomictic life cycle, are almost spherical and produced in diads (T.G.Walker, Proc. Roy. Soc. Edinburgh 86B: 59-66, 1985). However, one population from Burnett Creek, Qld (Sharpe 437 & Dorrington , BRI) has reniform spores which are significantly smaller (34.3 × 22.9  $\mu$ m) than those from elsewhere, suggesting that this could be a sexually reproducing cytotype of lower ploidy. Although the spelling of the specific epithet in Cavanilles's original description is flavelifolium , the reasons for changing this to flabellifolium are explained in detail by Brownsey (New Zealand J. Bot. 15: 40 (1977)).

Illustrations: B.D.Duncan & G.Isaac, Ferns & Allied Pl. Victoria, Tasmania & S. Australia 168, fig. 17.5 (1986); P.J.Brownsey & J.C.Smith-Dodsworth, New Zealand Ferns & Allied Pl. 108, fig. 132, pl. 24D (1989); S.B.Andrews, Ferns Queensland 61, fig. 4.6C (1990).

Source: Data derived from Flora of Australia Volume 48 (1998), a product of ABRS, ©Commonwealth of Australia

### **Conservation Status**

QLD - Least concern

### **Nomenclature**

Brownsey, P.J. in McCarthy, P.M. (ed.) (1998), Aspleniaceae. *Flora of Australia* 48: 301-302, Figs 67, 108, Map 274

nomenclatural synonym: Chamaefilix flabellifolia (Cav.) Farw.: 301 taxonomic synonym: Asplenium flabellifolium var. dissecta F.Muell.: 301 taxonomic synonym: Asplenium flabellifolium f. tasmanica Gand.: 301 common name: Necklace Fern: ~ 301-302, Figs 67, 108, Map 274

## **Images**



Fig. 1: 'Asplenium flabellifolium' by Hill, R. (© Australian National Botanic Gardens)



Fig. 2: 'Asplenium flabellifolium' by Greig, D. (© Australian National Botanic Gardens)



Fig. 3: 'Asplenium flabellifolium' by Fagg, M. (© Fagg, M.)



Fig. 4: 'Asplenium flabellifolium' by Fagg, M. (© Australian National Botanic Gardens)



Fig. 5: 'Asplenium flabellifolium' by Hill, R. (© Director of National Parks)



Fig. 6: 'Asplenium flabellifolium' by Fagg, M. (© Australian National Botanic Gardens)



Fig. 7: 'Asplenium flabellifolium' by Schmidt-Lebuhn, A.N. (© Centre for National Biodiversity Research)



Fig. 8: 'Asplenium flabellifolium' by Fagg, M. (© Fagg, M.)

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Fig. 9: 'Asplenium flabellifolium' by Fagg, M. (© Fagg, M.)



Fig. 10: 'Asplenium flabellifolium' by Fagg, M. (© Fagg, M.)



Fig. 11: 'Asplenium flabellifolium' by Fagg, M. (© Fagg, M.)



Fig. 12: 'Asplenium flabellifolium' by Fagg, M. (© Australian National Botanic Gardens)

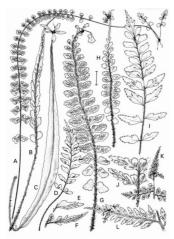


Fig. 13: 'Asplenium flabellifolium' by T.Galloway. (© Commonwealth of Australia)



Fig. 14: 'Asplenium flabellifolium' by Manley, G. (© Australian National Botanic Gardens)



Fig. 15: 'Asplenium flabellifolium' by Manley, G. (© Director of National Parks)



Fig. 16: 'Asplenium flabellifolium' by Fagg, M. (© Australian National Botanic Gardens)



Fig. 17: 'Asplenium flabellifolium' by Fagg, M. (© Australian National Botanic Gardens)



Fig. 18: 'Asplenium flabellifolium' by Greig, D. (© Director of National Parks)



Fig. 19: 'Asplenium flabellifolium' by Schmidt-Lebuhn, A.N. (© Centre for National Biodiversity Research)

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