Pteris vittata

Common Name(s):

ladder brake, Chinese brake

Current Threat Status (2009):

Non Resident Native - Coloniser

Distribution:

Indigenous? New Zealand: North Island (Bay of Plenty - in geothermal areas, especially along the shores of Lake Rotomahana). However, also reported as naturalised from Auckland City and Napier. Also present in Australia, Norfolk Island (where it may be indigenous but is currently regarded as naturalised - see de Lange et al. 2005), and throughout the tropical to warm temperate parts of the Old World.

Habitat:

On base rich rocks such as limestone, basalt, and also concrete. All recent records are urban but previously was reported from the margins of a geothermal spring (Tarawera Springs)

Features*:

Terrestrial or lithophytic ferns. Rhizome short-creeping; scale numerous, conspicuous, c.5 mm long, narrowly triangular, pale brown. Fronds monomorphic, arching, appearing to radiate from a crown. Stipe 20-250 mm long, pale brown, grooved, scaly towards base. Lamina 0.15-0.8 \times 0.05-0.3 m, 1-pinnate, oblong-obovate. Pinnae to 250 mm long, closely spaced, decreasing in length from apex to base, narrowly oblong, \pm falcate, and tapering above to an acute apex, base subcordate, \pm overlying rachis; margins finely serrate in sterile zones; most pinnae attached by midrib only. Lowermost pinnae distinctly shorter, deltoid to cordate; terminal



Caption: Geothermal area around Lake Rotomahana

Photographer: Paul Cashmore



Caption: Geothermal area around Lake Rotomahana

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pinna longest, veins free set at \pm 90 degrees to costa, simple or forked once, Paraphyses abundant.

Flowering:

Fruiting:

Not applicable - spore producing

Not applicable - spore producing

Threats:

Unknown. If this species was truly present at the Tarawera Springs it has now gone extinct there but it is abundant around the hot springs of Lake Rotomahana, and it is still locally present in Auckland and Napier - where it may have established from garden plants.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (18 January 2012). Description adapted from Kramer & McCarthy (1998).

References and further reading:

Adams, N.M. 2002: John Buchanan F.L.S. botanist and artist (1819-1898). Tuhinga 13: 71-115.

de Lange, P.J.; Gardner, R.O.; Sykes, W.R.; Crowcroft, G.M.; Cameron, E. K. Stalker, F.; Christian, M.L.; Braggins, J.E. 2005: Vascular flora of Norfolk Island: some additions and taxonomic notes. New Zealand Journal of Botany 43: 563-596.

de Lange, P.J.; Norton, D.A.; Courtney, S.P.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Hitchmough, R.; Townsend, A.J. 2009: Threatened and uncommon plants of New Zealand (2008 revision). New Zealand Journal of Botany 47: 61–96.

Kramer, K.U.; McCarthy, P.M. 1998: Pteridiaceae. Pp. 241-248. Flora of Australia 48. Australian Biological Resources Study, CSIRO Canberra

Cameron, E.K.; Parris, B.S. 1998: Pteris vittata L. - a new naturalised fern. New Zealand Botanical Society Newsletter 51: 9-10.

Cameron, E.K. 1999: Chinese brake (Pteris vittata) - an update. New Zealand Botanical Society Newsletter 56: 16-17.

Heenan, P.B.; de Lange, P.J.; Glenny, D.S.; Breitwieser, I.; Brownsey, P.J.; Ogle, C.C. 1999: Checklist of dicotyledons, gymnosperms, and pteridophytes naturalised or casual in New Zealand: additional records 1997-1998. New Zealand Journal of Botany 37: 629-642

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