

Fissidens hyophilus

COMMON NAME

Moss

SYNONYMS

Fissidens oblongifolius var. *hyophilus* (Mitt.) J.E.Beever et I.G.Stone

FAMILY

Fissidentaceae

AUTHORITY

Fissidens hyophilus

FLORA CATEGORY

Non-vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Mosses

CURRENT CONSERVATION STATUS

2009 | At Risk – Naturally Uncommon | Qualifiers: DP, SO, Sp

DISTRIBUTION

Indigenous. New Zealand: Kermadec Islands (Raoul Island and The Meyers), North Island (from Te Pahi to Whangamata - mostly on eastern offshore islands especially those in the Hauraki Gulf - but also recorded from Petone, Wellington), South Island (Kaikoura coastline), Chatham Islands (Rekohu only). Widespread and common Australia and many of the islands in the South Pacific.

HABITAT

Coastal and lowland. usually in dense coastal forest but also in coastal scrub. *Fissidens hyophilus* has a very specific habitat being mostly found growing on the exposed roots and on the bark on the basal portion of trees (sometimes extending from the trunk base and exposed roots to the surrounding soil). It occasionally grows on rock. Favoured host trees include nikau (*Rhopalostylis baueri* and *R. sapida* - on which it may grow a long way up the trunk), pohutukawa (*Metrosideros excelsa* and *M. kermadecensis*), tawapou (*Planchonella costata*), coastal maire (*Nestegis apetala*) and houpara (*Pseudopanax lessonii* s.l.)

DETAILED DESCRIPTION

Plants 4-10 mm long, medium to dark green, in scattered clusters or densely gregarious. Stems frequently branched by means of innovations from below the terminal gametoecia, with rhizoids at the base only. Leaves in 10-15(-17) pairs, overlapping in mid-stem, patent, plane when moist, tips loosely and irregularly rolled up when dry, tending away from the substratum, lingulate, 1.5-2.5 x 0.3-0.4 mm; the apex obtuse to abruptly acute; laminae unistratose; the vaginant lamina up to 2/3 the leaf length, half-open to closed; margins serrulate-crenate on the apical, dorsal, and the vaginant laminae, with cells of the suprabasal vaginant lamina margins isodiametric to oblate; cells of the apical and dorsal laminae irregularly hexagonal, smooth, strongly bulging. Dorsal lamina usually reaching the insertion; cells of the apical and dorsal laminae (5.0-)7.0-9.0(-10.5) x (5.0-)7.0-9.0(-10.5) μ m. Costa failing below the leaf apex. Gonioautoicous. Perigonia axillary in distal parts of shoots, inconspicuous, with perigonial leaves smaller than the vegetative leaves. Perichaetia terminal on main shoots and innovations, with occasional scattered naked archegonia or additional perichaetia in the axils of subterminal leaves; perichaetial leaves narrower than the vegetative leaves. Seta slender 2.5-3.5 mm; capsules inclined to erect, slightly asymmetric, 0.5-0.75 mm. Calyptra smooth, mitrate. Spores 10.0-13.5 μ m.



SIMILAR TAXA

Fissidens hyophilus is distinguished from the other allied species of the *Fissidens oblongifolius* complex by its leaf and capsule shape, shorter seta and by the characteristic rolling up of the leaf tips away from the substratum when dry (Beever et al. 2002). It is also ecologically distinct from *F. oblongifolius* and *F. capitatus* preferring the exposed roots and lower trunks of a range of coastal and lowland trees (on Raoul island it is the dominant *Fissidens* in the 'wet forest' of that island).

FRUITING

Sporophytes are commonly seen throughout the year

THREATS

Fissidens hyophilus is a sparsely distributed as times locally common moss of mostly the northern North Island and associated offshore islands. In some locations such as Raoul Island or Hauturu (Little Barrier Island) it is extremely common although more usually it occurs in widely scattered sites and is often rather scarce. Beyond loss of coastal forest habitat in some parts of northern New Zealand this species is secure on numerous offshore islands and there are no serious threats known to affect it.

SUBSTRATE

Corticolous. Rarely saxicolous.

ETYMOLOGY

fissidens: From the Latin *fissio* 'fission' and *dens* 'tooth, prong' meaning split tooth and referring to shape of the lamina.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 12 October 2011. Description from Beever et al. (2002).

REFERENCES AND FURTHER READING

Beever, J. Malcolm, B.; Malcolm, N. 2002: The moss genus *Fissidens* in New Zealand – an illustrated key. Nelson, Micro-Optics Press.

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Fissidens hyophilus* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/fissidens-hyophilus/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/fissidens-hyophilus/>