Metus conglomeratus

SYNONYMS
Pilophoron cariosum, Pilophoron conglomeratum, Pilophorus conglomeratus

FAMILY
Cladoniaceae

AUTHORITY
Metus conglomeratus (F.Wilson) D.J.Galloway & P.James

FLORA CATEGORY
Lichen – Native

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Lichens - Crustose

CURRENT CONSERVATION STATUS
2018 | Not Threatened | Qualifiers: SO

BRIEF DESCRIPTION
Characterised by the corticolous/muscicolous habit (rotting stumps, tree trunks and branches); the spreading, granular–crustose, bright emerald-green primary thallus; the prominent terete podetia covered with emerald-green thalline granules, and often longitudinally fissured exposing internal chondroid layer of thick, cartilaginous strands; and terminal, swollen, conglomerate, brown-black apothecial discs.

DISTRIBUTION
North Island: Northland (Waipoua Forest, Little Barrier Island, Tangihua Forest), South Auckland (Motutapere, Kauaeranga Gorge, Te Aroha, Pirongia, Pureora), Gisborne (Lake Waikareiti) to Wellington (Akatarawa Range). **South Island**: Nelson (Lake Rotoiti, Lake Rotoroa, Springs Junction), Marlborough (Resolution Bay), Westland (Kelly Range), Canterbury (Arthur's Pass, Peel Forest), Otago (Rees Valley, Routeburn Valley) to Southland (Cascade Creek, Eglinton Valley). **Stewart Island**: (Glory Cove, Pegasus Creek).
Australasian. Also in Tasmania and Victoria.

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HABITAT
On trunks (often overgrowing bryophytes) and branches of a range of phorophytes (Galloway & James 1987: 564), and on rotting stumps and fern rhizomes and fronds. In shaded, undisturbed humid forest habitats; especially common in beech forest (*Fuscospora* spp., *Lophozonia menziesii*) close to the Main Divide in South Island.

DETAILED DESCRIPTION

Thallus dimorphic *Cladonia*-like, primary thallus effuse, granular–crustose, glaucous-green to deep emerald-green on a thin to thick, pale to blackish prothallus. **Podetia** supporting ascomata without cups, erect to decumbent, to 1.5 cm tall and to 1–2 mm diam., hollow, terete or compressed, irregularly wrinkled or furrowed to longitudinally fissured or ±clathrate, simple, rarely furcate, subulate, covered with thalline granules to ±decorticate. **Ascomata** apothecia, terminal, hymenial discs brown to brown-black, ±globular and simple to clustered, convolute–conglomerate. Hymenium pale yellow-brown, 40–50 µm tall, I+ blue. Hamathecium of paraphyses, slender, simple, furcate or with interconnecting lateral anastomoses to 2 µm diam., slightly swollen (to 4 µm) at tips. Hypothecium deep red-brown, granular–opaque, K+ brownish, to 50 µm thick, I−. Asci cylindrical, tapering at foot, 35–40 × 5–8 µm; apical tholus prominent I+ dark-blue, 8-spored. **Ascospores** biseriate, simple, colourless, spindle-shaped or dacryoid, 8–10 (–14) × (2.5–)3–4(–4.5) µm. Conidiomata pycnidia, occasional to frequent, at apices of sterile, often decorticate podetia, or singly or clustered among thalline granules, minutely stalked, cylindrical, swollen or tapering at apices, mostly simple, rarely 2–3-branched, black or brown-black. Conidia colourless, falciform, 4–4.5 × 1 µm.

Chemistry: Caperatic acid ±atranorin (tr.). Australian populations contain protolichesterinic and lichesterinic acids and atranorin (tr.).

SUBSTRATE

Corticolous

ETYMOLOGY

metus: Metus is Latin for "terror". Named after H.M.S. Terror, one of the two ships of the Antarctic expedition of 1839–1843 commanded by Sir James Clark Ross, which visited New Zealand and Tasmania during the course of the expedition.

Metus is an austral genus of three species (Galloway & James 1987) included in the family Cladoniaceae (Eriksson et al. 2004; Pennycook & Galloway 2004; Eriksson 2005), with two species being known from southern Chile, and one from New Zealand and SE Australia. All three species have a similar ecology and thrive in moist, humid conditions prevailing in stands of mature, primary or occasionally secondary forest, in areas of moderate to high rainfall. All are characteristic of markedly shaded habitats and many specimens collected are from rotting stumps and the basal plates or buttresses of large forest trees in the forest interior, where few other lichens are able to tolerate either reduced illumination or competition from bryophytes. The granular vegetative thallus of *Metus* develops on a pale or dark, arachnoid prothallus, and spreads over rotting or sometimes burned stumps, or covers pteridophyte rhizomes and/or fronds, e.g. the brush of tree ferns such as **Alsophila*, *Dicksonia* and **Sphaeropteris*, bryophytes or litter, investing these substrata with a thick green crust.

ATTRIBUTION

Fact sheet prepared by Melissa Hutchison (10 September 2021). Brief description, Distribution, Habitat, Features, and Extra information sections copied from Galloway (2007).

REFERENCES AND FURTHER READING

Eriksson O.E. (Ed.) 2005: Outline of Ascomycota – 2005: *Myconet 11*: 1-113.

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Galloway D.J. 2007: *Flora of New Zealand: Lichens, including lichen-forming and lichenicolous fungi.* 2nd edition. Lincoln, Manaaki Whenua Press. 2261 pp.

Galloway D.J. & James P.W. 1987: *Metus*, a new austral lichen genus and notes on an Australasian species of *Pycnothelia*. *Notes from the Royal Botanic Garden Edinburgh 44*: 561-579.

Pennycook S.R. & Galloway D.J. 2004: Checklist of New Zealand “Fungi”. *In*: McKenzie, E.H.C. (Ed.) Introduction to fungi of New Zealand. *Fungi of New Zealand/Ngā Harore o Aoteroa* Volume 1. *Fungal Diversity Research Series 14*: 401-488.

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/metus-conglomeratus/