

Coccomycetella richardsonii (Odontotremataceae, Ostropales), an ascomycete new to Norway

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KEYWORDS

Coccomycetella richardsonii, dead wood,
distribution, Norway, *Pinus sylvestris*, snag

NØKKELOORD

Coccomycetella richardsonii, død ved, furu,
høgstubbe, Norge, utbredelse

SAMMENDRAG

Sekksporesoppen *Coccomycetella richardsonii*
er påvist i Norge for første gang. Den vokste
på en død, avbarket furu på en ombrotrof myr
i nordboreal vegetasjonssone i et landskap
preget av veksling mellom myr og relativt
glissen barskog. De små, svarte fruktlegemene
har tannet poreåpning, dypt nedsenket hymenium
og sigmoide sporer som er spiralsnodd
inne i sporesekkene.

ABSTRACT

The odontotremoid ascomycete *Coccomycete-
tella richardsonii* is reported as new to Norway
from wood (snag) of *Pinus sylvestris* in a boreal
landscape with mires in an open coniferous
forest. The species is characterized by black
ascmata with deeply sunken hymenium and

sigmoid ascospores that are twisted in the ascus.

INTRODUCTION

The monospecific genus *Coccomycetella*
belongs to the family Odontotremataceae
that includes mainly saprotrophic species
(Sherwood-Pike 1987, Diederich et al. 2002,
Baloch et al. 2013). Recently the family was
shown to be polyphyletic with two rather
distantly related clades, and *Coccomycetella*
was suggested to be closely related to the
generic type *Odontotrema phacidioides*
(Baloch et al. 2013).

During fieldwork in a nature reserve in
Verdal, Central Norway, in the summer of
2012, the first author collected lichens on
dead decorticated trunks of *Pinus sylvestris*.
In one collection of *Pycnora xanthococca* an
unknown odontotremoid ascomycete was
associated. This species was later identified
by the second author as *Coccomycetella
richardsonii* Leight. The locality was revisited
by the first author in the autumn of 2013 and
C. richardsonii proved to be quite common
on this trunk, but was not found on nearby
trees.

THE SPECIES

Coccomycetella richardsonii is mainly charac-
terized by partly immersed to erumpent, c.
0.4–0.5 mm diameter, black ascmata with a
dentate pore and deeply sunken hymenium
(Figs. 1 – 2). Microscopically it is distinct by
the narrow, sigmoid, 1-3-septate ascospores
that are twisted in the ascus and by a brownish



Figure 1. *Cocomycetella richardsonii* on wood of *Pinus sylvestris*, a typical habitat for this species (Holien 14302), scale = 0.2 mm. Photo: P. Diederich.

pigment in the outer excipulum (Figs. 2 - 3). For a detailed description see Sherwood-Pike (1987).

Cocomycetella richardsonii is a saprotrophic species on conifer wood. The Norwegian specimen was growing on a dead, decorticated trunk of *Pinus sylvestris* in an ombrotrophic mire within a nature reserve situated in the northern boreal zone as defined by Moen (1999) (Fig. 4). The species occurred on several square-decimeters with many ascomata. Associated lichen species on the trunk

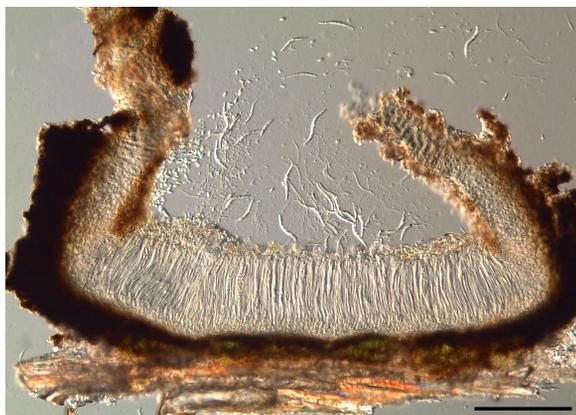


Figure 2. *Cocomycetella richardsonii*, ascoma section (Holien 14302), scale = 100 µm. Photo: P. Diederich.



Figure 3. *Cocomycetella richardsonii*, ascospore (Holien 14302), scale = 20 µm. Photo: P. Diederich.

included *Buellia arborea*, *Calicium glaucellum*, *Imshaugia aleurites*, *Protoparmelia oleagina* and *Pycnora xanthococca*. The species is here reported as new to the Norwegian funga as it is neither cited in the index of Norwegian fungi given by the Norwegian Biodiversity Information Centre (2014) nor in the catalog by Aarnæs (2002).

Outside Norway, *C. richardsonii* is reported from dead, decorticated twigs of *Pinus sylvestris* and wood of *Picea* in northern Fennoscandia (Finland and Sweden). It is also reported from wood

of *Pinus* in Russia (Karelia) as well as from western North America (Oregon) and northern Canada (Fort Enterprise) (Baloch et al. 2013, Sherwood-Pike 1987). It seems to be a slightly northern species that is probably overlooked. It may be a circumboreal species and it should be searched for in pine dominated forests in northern boreal areas and at high altitudes elsewhere.

Specimen examined

Nord-Trøndelag: Verdal, Fjellmannmyra – Vargdalsfloa nature reserve,



Figure 4. Habitat for the first sample of *Coccomycetella richardsonii* in Norway. Photo: H. Holien.

UTM: UL 52855, 65832, lat/long: 63°41.364' N, 12°01.429' E, alt. ca. 450 m, 04.10.2013, H. Holien 14302 (TRH and herb. Diederich).

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