

## Some interesting records of lichens and lichenicolous fungi from The Netherlands IV

P. P. G. VAN DEN BOOM

Arafura 16

NL-5691 JA Son, The Netherlands

email pvdboom@zonnet.nl

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**Abstract:** Five lichen species, *Gyalecta jenensis*, *Moelleropsis humida*, *Psammia* aff. *simplex*, *Thelecarpon imperceptum* and *Tremella pseudophysciae* are recorded for the first time for The Netherlands. *Chaenotheca xyloxena* and *Thrombium epigaeum* are recorded for the first time since the 19<sup>th</sup> century. More data are provided for *Lichenocodium pyxidatae*, *Macentina abscondita* and *Stereocaulon saxatile*. Notes on morphology and ecology are given.

**Zusammenfassung:** Fünf Flechtenarten, *Gyalecta jenensis*, *Moelleropsis humida*, *Psammia* aff. *simplex*, *Thelecarpon imperceptum* und *Tremella pseudophysciae*, werden erstmals aus den Niederlanden gemeldet. *Chaenotheca xyloxena* und *Thrombium epigaeum* wurden erstmals seit dem 19. Jahrhundert wiedergefunden. Weitere Funddaten von *Lichenocodium pyxidatae*, *Macentina abscondita* und *Stereocaulon saxatile* werden mitgeteilt. Kurze Bemerkungen über Morphologie und Ökologie der Arten werden angefügt.

Recent lichenological excursions in the southern part of The Netherlands resulted in several interesting additions to the lichen flora of The Netherlands. The increase of growth of epiphytic macrolichens because of the recent declining of SO<sub>2</sub> emission is visible due to the occurrence of species like *Hyperphyscia adglutinata* (FLÖRKE) MAYRH. & POELT, *Parmelia borrieri* (SM.) TURNER, *P. soledians* NYL. and *P. ulophylla* (ACH.) F. WILSON, formerly rare, but now common and recently everywhere delectable in the southern part of The Netherlands, in particular in the province of Noord-Brabant. Further, also microlichens which have never been found earlier or which were very rare species in the southern provinces are now more often found, for example *Bacidia neosquamulosa* APTROOT & VAN HERK, *Caloplaca obscurella* (KÖRBER) TH. FR., *Catillaria nigroclavata* (NYL.) SCHULER, *Chaenotheca brachypoda* (ACH.) TIBELL, *Macentina abscondita* COPPINS & VÉZDA, *Mycoblastus fucatus* (STIRT.) ZAHLBR., *Psilolechia clavulifera* (NYL.) COPPINS, and *Rinodina pityrea* ROPIN & MAYRH. These latter two species have been found in the city of Eindhoven in a park in large quantity, abundantly fertile. Since the beginning of the eighties, there is an intensive field study on lichens and lichenicolous fungi going on by the author, in all kinds of habitats, and in future, the results will be published as complete as possible from the province of Noord-Brabant.

However, the reason for writing the present paper is the detection of the occurrence of some very interesting terricolous lichens on a ruderal place. This hilly area with loamy soil was neglected for several years because of the delay of the construction of a controversial highway (A 50). In this area of c. 100 m<sup>2</sup>, at least 16 terricolous lichen species were encountered. Three different species of *Thelidium* have been found but one of them is not yet identified because it requires further study, the others, *T. minutulum* KÖRBER and *T. zwackhii* (HEPP) MASSAL. are already known from the southern part of the country.

Specimens are deposited in the author's herbarium and some of them will be distributed as exsiccata in the future.

### ***Chaenotheca xyloxena* NÁDV.**

Previously, material of this species has only been collected in the 19<sup>th</sup> century. (BRAND & al. 1988). It is known from many places in Europe, including the British Isles, however it is not known from Belgium and it is very rare in Luxemburg (DIEDERICH & SÉRUSIAUX 2000).

**Ecology:** on a rotting fallen decorticated trunk of *Pinus*, at a shaded spot in *Pinus* forest. The only accompanying species was *Thelocarpon intermediellum* NYL.

**Locality:** Noord-Brabant, Bergen op zoom, grid-ref. 49-35-53, 8 April 2000, P. V. D. BOOM 24168.

### ***Gyalécta jenensis* (BATSCH) ZAHLBR.**

It is remarkable that this lichen has never been found in The Netherlands before, although in the most southern part of The Netherlands, where calcareous outcrops occur, suitable habitats are available for this species. It is widespread in Europe, from Arctic Scandinavia to Mediterranean mountains, the British Isles and Canary Islands and in many places it is not rare. In Belgium it is rather common in the province of Namur and it is also known from Luxemburg (DIEDERICH & SÉRUSIAUX 2000).

**Ecology:** on damp brick of a wall, along a stream, rather shaded. The only accompanying species was *Conocephalum conicum* (L.) LINDB. (*Hepaticae*).

**Locality:** Zuid-Limburg, Wijlre, Grid-ref. 62-23-53, 23 June 2000, leg. P. J. KEIZER s.n. (herbarium V. D. BOOM).

### ***Lichenoconium pyxidatae* (OUDEM.) PETR. & SYD.**

Previously this species was only known from coastal areas in The Netherlands, so this is the first inland record for the country.

**Ecology:** on W exposed sandy face of a ditch, on squamulus and podetia of *Cladonia* spec.

**Locality:** Noord-Brabant, Oirschot, *Calluna* heathland, grid-ref. 51-33-32, 26 February 2000, P. V. D. BOOM 23911.

### ***Macentina abscondita* COPPINS & VĚZDA**

**Ecology:** Two collections from The Netherlands are from damp *Salix* woodlands in rather shaded situations. However one record is from a garden and one from fissures of bark of *Sambucus* in rather exposed situation in *Calluna* heathland, where this species was growing abundantly. In DIEDERICH & SÉRUSIAUX (2000) it is mentioned from *Corylus*, so this species has a wider ecological amplitude as suggested in PURVIS & al. (1992).

**Localities:** Noord-Brabant, S of Eindhoven, Heeze, on *Salix*, grid-ref. 51-55-53, 25 February 1998, P. V. D. BOOM 19831; - Soerendonk, *Calluna* heathland, on *Sambucus*, grid-ref. 57-25-25, 21 June 2000, P. V. D. BOOM 24611. Noord-Holland, N of Alkmaar, Schoorl, on base of young *Juglans*, 7 April 1996, leg. P. J. KEIZER s.n. (herbarium V. D. BOOM).

***Moelleropsis humida* (KULLH.) COPPINS & P. M. JØRG.**

The granular dull greyish-brown thallus contains *Nostoc* algae. On several, mostly shaded places, it was richly covered with red brown apothecia.

**Ecology:** This ephemeral species has been found in different situations, on sheltered and shaded but also on exposed and well-lit places. Associated species are *Peltigera didactyla* (WITH.) LAUNDON, *Placynthiella dasaea* (STIRT.) TØNSB., *Steinia geophana* (NYL.) STEIN, *Thelidium minutulum* and *Thelocarpon lichenicola* (FUCKEL) POELT & HAF. In WIRTH (1995) this species is mentioned as rare in central Europe.

**Locality:** Noord-Brabant, Son, near brickworks, grid-ref. 51-25-51, 18 March 2000, P. V. D. BOOM 24030.

***Psammia* aff. *simplex* EARLAND-BENNETT & D. HAWKSW.**

This hyphomycete has cartwheel-like conidia and the conidial arms are 10-18 x 2-3 µm, 0-2(-3) septate. They are sometimes more septate than those in the original description in EARLAND-BENNETT & HAWKSWORTH (1999).

**Ecology:** The dark brown to black conidial colonies are found on *Placynthiella dasaea*, on shaded N facing sand under grass and the host is discoloured white to pinkish. There is one species (*P. stipitata* D. HAWKSW.) of this genus mentioned in the checklist of The Netherlands (APTROOT & al. 1999). This publication is based on some records in herbarium BRAND from different host species.

**Locality:** Noord-Brabant, Putte, Kriekelareduinen, *Calluna* heathland, grid-ref. 49-56-41, 6 March 2000, P. V. D. BOOM 24006.

***Stereocaulon saxatile* H. MAGN.**

Since 1987, this species is known from the province of Noord Brabant, but these records have not been published previously. *Stereocaulon saxatile* is a red list species. During recent observations in the known localities, it appears that this species is still growing there in *Corynephorum* communities, as well-developed fungi. Most interesting accompanying species are *Cladonia borealis* STENROOS, *C. pyxidata* (L.) HOFFM. s. l. and *Stereocaulon condensatum* HOFFM. Specimens of *C. pyxidata* in this communities could refer to another taxon as *C. pyxidata* s. str. This latter species is found on calcareous places in the country only (H. SIPMAN, pers. comm.). The only other locality where *Stereocaulon saxatile* is still growing in The Netherlands is Bergeheide, prov. Zuid-Limburg (APT-ROOT & al. 1998).

**Ecology:** Although this species is widely distributed in boreal areas, it mostly has been found on rocks, however in The Netherlands it is only known terricolous from *Corynephorum* communities (BRAND & SIPMAN 1978).

**Localities:** Prov. Noord-Brabant, Leende, Leenderbos, *Calluna* heathland, among *Calluna* and grass, 28 February 1987, grid-ref. 57-15-34, P. V. D. BOOM 4491; - W of Soerendonk, Groote Heide, hilly *Calluna* heathland, terricolous among *Polytrichum piliferum* SCHREB. ex HEDWIG, 19 June 1987, P. V. D. BOOM 5637; - - grid-ref. 57-25-35, 21 June 2000, P. V. D. BOOM 24608; - - grid-ref. 57-25-25 P. V. D. BOOM 24612.

***Thelocarpon imperceptum* (NYL.) MIG.**

In POELT & VĚZDA (1977) this species is mentioned from the surroundings of Zürich (Switzerland) only. This very inconspicuous lichen has perithecia with somewhat the same colour as the loamy soil. The perithecia collected contained many mature asci, each with many spores of c. 12 x 5 µm.

**Ecology:** It has been found at Son in a large quantity on bare loamy soil associated with *Collema limosum* (ACH.) ACH. and several mosses viz. *Aloina aloides* (SCHULTZ) KINDB. var. *ambigua* (BRUCH & SCHIMP.) CRAIG, *Barbula convoluta* HEDW., *B. unguiculata* HEDW., *Bryum argentium* HEDW., *B. barnesii* WOOD ex SCHIMP., *B. gemiferum* R. WILCZEK & DEMARET, *Ceratodon purpureus* (L.) BRID., *Dicranella varia* (HEDW.) SCHIMP., *Didymodon fallax* (HEDW.) R. H. ZANDER and *Funaria hygrometrica* HEDW. The collection from Udenhout contains only a few perithecia, associated with a species of *Verrucaria*. This could be *V. geophila* ZAHLBR. because the perithecia are broadly ellipsoid, 0.4-0.5 mm wide, with a dark brown thick exciple and immersed in the substratum. The ascospores are 27-37 x 9-12 µm. However there are only a few perithecia and rather badly developed.

**Localities:** Noord-Brabant, Son, near brickworks, grid-ref. 51-25-51, 18 March 2000, P. v. D. BOOM 24029; - Udenhout, Leemkuilen, terrestrial on sloping loamy soil along fen, grid-ref. 45-51-41, 25 March 2000, P. v. D. BOOM 24073.

***Thrombium epigaeum* (PERS.) WALLR.**

**Ecology:** abundantly encountered on mainly horizontal top of exposed hills, on loamy soil, where it was associated with *Steinia geophana* (NYL.) B. STEIN, *Thelocarpon lichenicola* and sometimes with *Epigloea soleiformis* DÖBB. and *Strigula sychno-gonoides* (NITSCHKE) R. C. HARRIS. Occasionally the fungus *Omphalina obscurata* D. REID was also found in this community. In BRAND & al. (1988) *T. epigaeum* is mentioned as extinct and only known from the 19<sup>th</sup> century.

**Locality:** Noord-Brabant, Son, near brickworks, 18 March 2000, P. v. D. BOOM 24029.

***Tremella phaeophysciae* DIEDERICH & M. S. CHRIST.**

This lichenicolous fungus has been discovered during a weekend excursion to Zeeuws-Vlaanderen (prov. Zeeland). Beside some rare lichens, like *Ramalina lacera* (WITH.) LAUNDON, several interesting lichenicolous fungi were collected, of which only a few are recorded for the country, as *Xanthoriicola physciae* (KALCHBR.) D. HAWKSW. (on *Xanthoria parietina*) and *Arthonia phaeophysciae* GRUBE & MATZER (on *Phaeophyscia orbicularis*).

*Tremella phaeophysciae* is easily recognized by the dark brown spots (galls) on the thallus of *Phaeophyscia orbicularis*. According to DIEDERICH (1996) it seems to be restricted to the host species *P. orbicularis*.

**Locality:** prov. Zeeland, Zeeuws-Vlaanderen, 'Zwarte Polder', dune area, on *Sambucus*, 21 April 2000, grid-ref. 47-58-15, P. v. D. BOOM 24223.

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