

Lepraria bergensis and *L. obtusatica* new to Germany

Toby SPRIBILLE & Tor TØNSBERG

Abstract: SPRIBILLE, T. & TØNSBERG, T. 2007. *Lepraria bergensis* and *L. obtusatica* new to Germany. – Herzogia 20: 327–328.

Two species of *Lepraria* described in recent years from Norway, *L. bergensis* Tønsberg and *L. obtusatica* Tønsberg, are reported from Germany for the first time. It is also the first report of *L. bergensis* from central Europe. The chemistry and distribution of the species are discussed.

Zusammenfassung: SPRIBILLE, T. & TØNSBERG, T. 2007. *Lepraria bergensis* und *L. obtusatica* neu für Deutschland. – Herzogia 20: 327–328.

Die kürzlich aus Norwegen beschriebenen Arten *Lepraria bergensis* Tønsberg und *L. obtusatica* Tønsberg werden erstmals für Deutschland nachgewiesen. Im Falle von *L. bergensis* handelt es sich um den ersten Nachweis für Mitteleuropa. Chemie und Verbreitung der beiden Arten werden diskutiert.

Key words: Leptose, lichenized Ascomycetes, Norway, sorediate, Stereocaulaceae.

Introduction

A total of twelve species of *Lepraria* are currently accepted for the German lichen flora (SCHOLZ 2000). However, *Lepraria* has not been revised recently for Germany and requires more detailed study. Here, we report the presence of two species of *Lepraria* new to Germany. If one recognizes the chemically and morphologically distinct *Lepraria crassissima* (Hue) Lettau treated by SCHOLZ (2000) as a synonym of *Lepraria incana* (L.) Ach., this brings the number of species of *Lepraria* s.lat. known for Germany to fifteen.

Lepraria bergensis Tønsberg

Lepraria bergensis was described from Bergen, Hordaland, Norway (TØNSBERG 2002) and has recently also been collected in Rogaland, another county in south-western Norway. ORANGE (2005) published it as new to the British Isles based on two finds. The species has a bluish grey thallus a few mm in diameter with a delimited and often raised margin, rather coarse granules, and an indistinct to distinct hypothallus reacting K+ purplish. It is characterized chemically by containing atranorin, rangiformic/jackinic acid (inseparable using TLC; ORANGE et al. 2001) with norrangiformic/norjackinic acid (trace), and a range of anthraquinones causing the thallus to react UV_{LW}+ dull yellow.

The present record from Germany appears to be the first from central Europe. Based on the presently known material the species is known only from north-western Europe. However, we believe it to be overlooked and that its known range of distribution will be expanded in the future.

SPECIMENS STUDIED (previously unpublished only): **Germany:** Hessen: Waltenstein b. Eppstein, TK 25: 5816/13, R/H-Wert: 34 532/55 548, elev. 260 m, sun-exposed green shale cliff, on moss and humus, 16.05.1997, leg. H. Thüs (FR 11464). – **Norway:** Rogaland, Rennesøy, NW-siden av Vikefjell, under overheng, [NW side of Vikefjell, under overhang], 80–100 m alt., 04.03.2006, J. I. Johnsen (BG).

Lepraria obtusatica Tønsberg

Lepraria obtusatica was described from Norway by TØNSBERG (1992). The species has since been reported to occur in Switzerland (DIETRICH & SCHEIDEGGER 1996) and France (ROUX et al. 2003). *Lepraria obtusatica* is characterized by a thin, greenish, leprose thallus with fine soredia and lacking effigurate margins. In the field it can easily be mistaken for a shade form of a leprose, usnic acid-containing crust such as, e.g., *Lecanora leuckertiana* Zedda. Its chemistry includes the name-giving substance obtusatic acid as well as an unidentified pigment and trace barbatic acid in the type specimen. A recent phylogenetic study (EKMAN & TØNSBERG 2002) showed that *L. obtusatica* is not in fact closely related to other species of *Lepraria* and probably belongs to another genus of unknown affinities.

The species was discovered as new to Germany during cryptogamic surveys of sandstone cliffs used for rock climbing in the vicinity of Göttingen (Lower Saxony). Here it was found at two localities in habitats dominated by *Lepraria incana* and *L. lobificans* Nyl. (THIEL & SPRIBILLE 2007). It should be looked for in similar areas in the adjacent Bundesland of Thuringia as well as in the floristically similar sandstone formations along the border of Germany and The Netherlands.

SPECIMENS STUDIED: **Germany**: Lower Saxony: east of Göttingen, 'Zwerge', Treppenberg, SSW of Waldschlösschen, near Reinhausen, 15.10.2005, T. Spribille 18008 (B); SE of Göttingen, 0.6 km N of Ischenrode, 23.10.2005, T. Spribille 18237 (BG).

Acknowledgements

The herbarium FR is thanked for a loan of material.

References

- DIETRICH, M. & SCHEIDEGGER, C. 1996. The importance of sorediate crustose lichens in the epiphytic lichen flora of the Swiss Plateau and the Pre-Alps. – *Lichenologist* **28**: 245–256.
- EKMAN, S. & TØNSBERG, T. 2002. Most species of *Lepraria* and *Leproloma* form a monophyletic group related to *Stereocaulon*. – *Mycological Research* **106**: 1262–1276.
- ORANGE, A. 2005. *Lepraria bergensis* Tønsberg (2002), p. 70. – In: Anonymous. New, rare and interesting lichens. – *British Lichen Society Bulletin* **97**: 69–79.
- ORANGE, A., JAMES, P. W. & WHITE, F. J. 2001. Microchemical methods for the identification of lichens. – *British Lichen Society*.
- ROUX, C., GUEIDAN, C., CLERC, P. 2003. Lichens et champignons lichénicoles des Alpes françaises: espèces nouvelles et intéressantes. – *Cryptogamie, Mycologie* **24**: 275–286.
- SCHOLZ, P. 2000. Katalog der Flechten und flechtenbewohnenden Pilze Deutschlands. – *Schriftenreihe für Vegetationskunde* **31**: 1–298.
- THIEL, H. & SPRIBILLE, T. 2007. Lichens and bryophytes on shaded sandstone outcrops used for rock climbing in the vicinity of Göttingen (southern Lower Saxony, Germany). – *Herzogia* **20**: 159–177.
- TØNSBERG, T. 1992. The sorediate and isidiate, corticolous, crustose lichens in Norway. – *Sommerfeltia* **14**: 1–331.
- TØNSBERG, T. 2002. Notes on non-corticolous *Lepraria* s. lat. in Norway. – *Graphis Scripta* **13** ["14"]: 45–51.

Manuscript accepted: 5 April 2007.

Addresses of the authors

Toby Spribille, Department of Vegetation Analysis and Plant Diversity, Albrecht von Haller Institute of Plant Sciences, University of Göttingen, Untere Karaspüle 2, D-37073 Göttingen, Germany. E-mail: tspribi@uni-goettingen.de

Tor Tønsberg, Museum of Natural History, University of Bergen, Allégt. 41, P.O. Box 7800, N-5020 Bergen, Norway. E-mail: tor.tonsberg@bm.uib.no