

Ergänzungen zur Flechtenflora von Madeira mit besonderer Berücksichtigung lichenicoler Pilze

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100 lichenicole Pilze und 48 lichenisierte Ascomyceten werden erstmals aus Madeira berichtet. Davon sind 35 lichenicole Pilze Erstfunde in Makaronesien (*Abrothallus suecicus*, *Arthonia columbiana*, *Bloxamia leucophthalma*, *Capronia epilobarina*, *Cladophialophora parmeliae*, *Chalara lobariae*, *Didymocyrtis foliaceiphila*, *D. slaponiensis*, *Endococcus propinquus*, *E. verrucisporus*, *Endophragiella franconica*, *Epibryon conductrix*, *Epicladonia stenospora*, *Intralichen lichenum*, *Leptosphaerulina peltigerae*, *Lichenocodium cargillianum*, *L. follmannii*, *Lichenostigma chloroterae*, *Niesslia peltigeriicola*, *Phaeospora parasitica*, *Phoma peltigerae*, *Polycoccum alboatrum*, *P. decolorans*, *P. deformans*, *Pronectria anisospora*, *P. leptogii*, *Skyttea megalosporae*, *Sphaerellothecium cladoniae*, *Stigmidium degelii*, *S. lobariae*, *S. peltidae*, *Trichonectria australis*, *Tubeufia heterodermiae*, *Xenonectriella aurantiaca*, *Zwackhiomyces kiszkiensis*), 7 lichenicole Pilze sind Neufunde für Europa (*Abrothallus usneae* var. *tetraspora*, *Llimoniella pertusariae*, *Opegrapha melanospila*, *Stromatopogon geminatum*, *Trichonectria usneicola*, *Xenonectriella rosea* und *Zwackhiomyces kantvilasii*). Die lichenicolen Pilze *Arthonia griseopruinosa*, *A. leucomelodis*, *Opegrapha hafellneri*, *Pronectria neofissuriprodians*, *Stigmidium parmotrematis* und *S. placopsidis* werden neu beschrieben. Die Neukombination *Zwackhiomacromyces hyalosporus* wird vorgeschlagen. Von den 48 erstmals in Madeira nachgewiesenen Flechten sind zwei neu für Europa (*Bacidina crystallifera*, *Malmidea fuscella*) und 14 neu für die Makaronesien (*Catapyrenium daedaleum*, *Collemopsidium sublitorale*, *Dermatocarpon rivulorum*, *Ionaspis lacustris*, *Leptogium plicatile*, *L. tenuissimum*, *Lichenomphalia umbellifera*, *Melaspilea proximella*, *Polysporina simplex*, *Pseudosagedia globulans*, *P. interjungens*, *Rhizocarpon simillimum*, *Sporodictyon cruentum*, *Thelenella modesta*). Amphibische Flechtenassoziationen konnten erstmals in Madeira gefunden werden.

Abstract: BERGER, F. & ZIMMERMANN, E. 2016. Addition to the lichen flora of Madeira with special focus on lichenicolous fungi. – *Herzogia* 29: 235–276.

One hundred lichenicolous fungi and 48 lichenized ascomycetes are reported for the first time from Madeira. Among them 35 lichenicolous taxa are first records in Macaronesia (*Abrothallus suecicus*, *Arthonia columbiana*, *Bloxamia leucophthalma*, *Capronia epilobarina*, *Cladophialophora parmeliae*, *Chalara lobariae*, *Didymocyrtis foliaceiphila*, *D. slaponiensis*, *Endococcus propinquus*, *E. verrucisporus*, *Endophragiella franconica*, *Epibryon conductrix*, *Epicladonia stenospora*, *Intralichen lichenum*, *Leptosphaerulina peltigerae*, *Lichenocodium cargillianum*, *L. follmannii*, *Lichenostigma chloroterae*, *Niesslia peltigeriicola*, *Phaeospora parasitica*, *Phoma peltigerae*, *Polycoccum alboatrum*, *P. decolorans*, *P. deformans*, *Pronectria anisospora*, *P. leptogii*, *Skyttea megalosporae*, *Sphaerellothecium cladoniae*, *Stigmidium degelii*, *S. lobariae*, *S. peltidae*, *Trichonectria australis*, *Tubeufia heterodermiae*, *Xenonectriella aurantiaca*, *Zwackhiomyces kiszkiensis*); seven taxa are reported for the first time from Europe (*Abrothallus usneae* var. *tetraspora*, *Llimoniella pertusariae*, *Opegrapha melanospila*, *Stromatopogon geminatum*, *Trichonectria usneicola*, *Xenonectriella rosea*, and *Zwackhiomyces kantvilasii*). The lichenicolous fungi *Arthonia griseopruinosa*, *A. leucomelodis*, *Opegrapha hafellneri*, *Pronectria neofissuriprodians*, *Stigmidium parmotrematis*, and *S. placopsidis* are described as new for science. The new combination *Zwackhiomacromyces hyalosporus* is proposed. Among 48 taxa of lichens new for Madeira 14 are first records from Macaronesia (*Catapyrenium daedaleum*, *Collemopsidium sublitorale*, *Dermatocarpon rivulorum*, *Ionaspis lacustris*, *Leptogium plicatile*, *L. tenuissimum*, *Lichenomphalia umbellifera*, *Melaspilea proximella*, *Polysporina simplex*, *Pseudosagedia globulans*, *P. interjungens*, *Rhizocarpon simillimum*, *Sporodictyon cruentum*, *Thelenella modesta*); two lichens are new for Europe (*Bacidina crystallifera*, *Malmidea fuscella*). We succeeded to locate some amphibious lichen associations not known until now in Madeira.

Key words: Amphibious lichens, *Arthonia*, biodiversity, lichenicolous fungi, Macaronesia, new species, *Opegrapha*, *Pronectria*, *Stigmidium*, *Zwackhiomacromyces*.