

## *Arthonia excipienda* recorded for Germany again

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**Abstract:** DOLNIK, C. 2004. *Arthonia excipienda* recorded for Germany again. – Herzogia 17: 325–327.

After more than hundred years the Western European species *Arthonia excipienda* is recorded for Germany again.

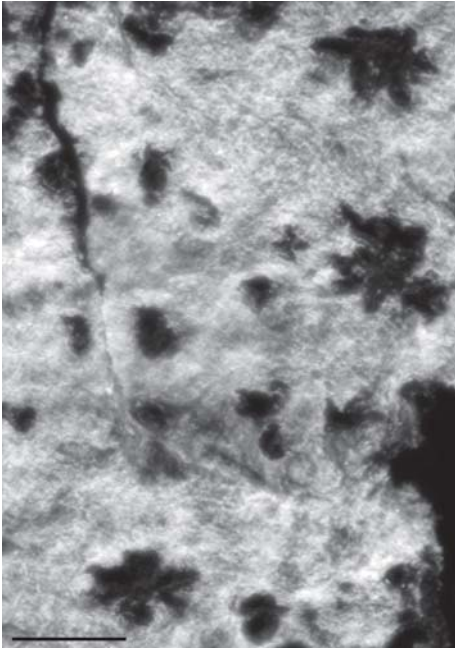
**Zusammenfassung:** DOLNIK, C. 2004. *Arthonia excipienda* wieder in Deutschland nachgewiesen. – Herzogia 17: 325–327.

Nach über hundert Jahren wurde *Arthonia excipienda* wieder für Deutschland nachgewiesen.

**Key words:** Lichenized Ascomycetes, immigrating species, SO<sub>2</sub>-immission.

*Arthonia excipienda* (Nyl.) Leight. was recorded for Germany by ARNOLD (1898) in his work about the lichens of forests around Munich/Bavaria but has not been found since. Most probably it became extinct with increasing air pollution of the area in the 20<sup>th</sup> century. In recent lists of lichens for Germany (WIRTH 1994, SCHOLZ 2000, FEUERER 2004b) the species was not mentioned any more. Only the new checklist of lichens and lichenicolous fungi of the German Federal State Bavaria (FEUERER 2004a) quoted the old record of Arnold. Recently *A. excipienda* was found again in Southern Germany on bark of *Fraxinus excelsior* in a mixed broadleaved forest with *Fagus sylvatica*, *Quercus robur* and *Carpinus betulus* in Riedheimer Wald near Schlatt am Randen, Baden-Württemberg, 490 m alt., 47°46,32'N, 08°42,52'E, 09.09.2002, leg. & det. C. Dolnik, conf. G. Stolley, A. Aptroot, STU.

The geographical distribution of *A. excipienda* is counted as Atlantic and Western European. It is recorded from Ireland, UK (COPPINS 1992), Norway, Sweden, Finland (SANTESSON et al. 2004), The Netherlands (APTROOT et al. 1999), Italy (NIMIS 2001) and Spain (LLIMONA & HLADUN 2001) but up to now not from Austria (HAFELLNER & TÜRK 2001), Switzerland (SCHEIDEGGER & CLERC 2002), Belgium and Luxembourg (DIEDERICH & SÉRUSIAUX 2002). Apart from F. Arnold's old German record the next known localities to the new one are in Northern Italy (NIMIS 2001) and some hundred kilometres away. The Riedheimer Forest borders to Switzerland near Thayngen/Schaffhausen. Therefore further findings of *A. excipienda* can also be expected from Switzerland. The new record is of interest for the discussion about indigenous and immigrating species after the decline of SO<sub>2</sub>-immission (WIRTH 1997). Since 1986, the locality in the Riedheimer Forest is part of an ecological monitoring carried out by the regional environmental authority (LfU) in Baden-Württemberg to register emission impacts. The lichen vegetation has been observed within a permanent plot. There the number of species increased remarkably from 7 in 1986 up to 29 in 1996 and 2002 and more sensitive lichens like *Acrocordia gemmata*, *Bacidia rubella* on *Fraxinus* and *Bactrospora dryina*, *Chaenotheca furfuracea* and *Ch. trichialis* on *Quercus* occurred as new species (CEZANNE et al. 1997, DOLNIK & RASSMUS 2004). Since the changes in the local lichen flora of the permanent plot is well documented by specialists, a new colonisation of *A. excipienda* is most likely.



**Fig. 1:** *Arthonia excipienda* with branched apothecia, on bark of *Fraxinus excelsior*, Riedheimer Wald (Photo M. Dahmen). Scale bar = 1mm.

*A. excipienda* is counted as an easily overlooked species. A short description and key for identification is given in COPPINS (1992). The species is also included in the key of the genus *Arthonia* by WIRTH (1995) where it is keyed-out together with *Arthonia dispersa*, which has smaller and lesser branched apothecia. Diagnostic features for *A. excipienda* are the curved, often flexuous and star-like branched apothecia with well developed 'exiple'-like margin (fig. 1) resembling a little bit *Opegrapha*. The size of apothecia is similar to that of the common *Arthonia radiata*. But the only two-celled ascospores are comparably broad like those of *Arthonia didyma*: about  $6 \times 15 \mu\text{m}$ . The exsiccate from Riedheimer Forest has chlorococcoid algae as photobiont, but sensu COPPINS (1992) photobionts can be absent or adventitious.

This record of *Arthonia excipienda* may attract our attention to unusual looking *Arthonia*-species in the field. Hopefully within a few years more records of *A. excipienda* will help us to answer the question whether the species is expanding to the east or not.

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André Aptroot (Utrecht) and Gregor Stolley (Kiel) kindly confirmed the determination. The photo of *Arthonia excipienda* was made by M. Dahmen (Kiel). The data about lichens of the Riedheimer Forest were collected during fieldwork for the "Ökologisches Wirkungskataster Baden-Württemberg" of the State Institute for Environmental Protection (LfU), Karlsruhe, Germany. I thank Aimee Collins (Spokane, Washington) for improving the English and Tassilo Feuerer (Hamburg) for valuable literature information.

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