

Two interesting new records for the Spanish lichen flora

Sergio Pérez-Ortega* y Fernando Fernández-Mendoza**

Abstract: Pérez-Ortega, S. & Fernández-Mendoza, F. 2009. Two interesting new records for the Spanish lichen flora. *Bot. Complut.* 33: 5-6.

In this paper we report two first records, *Absconditella lignicola* new for Spain, and *Opegrapha zwackhii*, a novelty for the Iberian Peninsula. We also comment on their ecology and distribution.

Key words: Ascomycetes, ephemeral lichens, lichenicolous fungi, Iberian Peninsula.

Resumen: Pérez-Ortega, S. & Fernández-Mendoza, F. 2009. Dos citas interesantes para la flora líquénica española. *Bot. Complut.* 33: 5-6.

Absconditella lignicola se cita por primera vez en España. *Opegrapha zwackhii* representa una novedad para la flora de la Península Ibérica. Se ofrecen comentarios sobre la ecología y distribución de ambas especies.

Palabras clave: Ascomycetes, líquenes efímeros, hongos liquenícolas, Península Ibérica.

Spanish lichen flora is relatively well studied, having a recently compiled checklist (Limona & Hladun 2001) that is being actively updated (Hladun & Llimona 2002-2007). However, many parts of the territory remain either unexplored or understudied (Pérez-Ortega & Álvarez-Lafuente 2006), therefore new species appear quite frequently in the course of floristic studies. During a survey of beech forest lichens in the Principado de Asturias, we found several new and interesting species. We report here two taxa that are new to the Spanish lichen flora.

RESULTS

Absconditella lignicola Vězda & Pisút

Absconditella Vězda is a genus of inconspicuous taxa, frequently overlooked due to their small size and their ephemeral nature. They occur on lignum or plant debris, forming very thin thalli, gelatinous when wet and usually intermingled with algal films. Eight species of this genus are known for Europe, of which apart of *A. lignicola* and *A. delutula* (Nyl.) Coppins & H. Kilius are reported to occur in the Iberian Peninsula. *A. lignicola* can be confused

with *Dimerella pineti* (Shrad.) Vězda, species that grows on similar habitats. The similar apothecia of both species can lead to confusion. Still, *Dimerella* has slightly larger apothecia (0.2-0.4 mm in diam) that are only sunken when young, whereas in *A. lignicola* are smaller (0.1-0.2 mm in diam) and tend to remain sunken. Furthermore, the two species are best differentiated by the presence of *Trentepohlia* as photobiont in *Dimerella* (chlorococcoid green algae in *Absconditella*) and the I+ blue reaction of its hymenium (I- or I+ yellow in *Absconditella*). A thorough description of *A. lignicola* can be found in Vězda & Pisút (1984) and Bielczyk & Kiszka (2001). Our specimens were found growing intermingled with algal films both on bryophytes and lignum (beech stump).

A. lignicola is a widespread species, occurring in both hemispheres. It has been previously reported in North America (Nash *et al.* 1998) and Tasmania (Kantvilas 2005), and in Europe from the British Isles (Coppins 1994), Czech Republic (Vězda & Pisút 1984), Estonia (Halonen *et al.* 2000), Eslovakia (Vězda & Pisút 1984), France (van den Boom *et al.* 1995), Italy (Thor & Nascimbene 2007), Lithuania (Motiejūnaitė & Andersson 2003), Poland (Bielczyk & Kiszka 2001). In the Iberian Peninsula it was previously found in Portugal (van den

Departamento de Biología Vegetal II, Facultad de Farmacia, Universidad Complutense de Madrid, Plaza de Ramón y Cajal s/n, E-28040 Madrid, Spain.

* sperezortega@farm.ucm.es

** ffm@bio.ucm.es

Recibido: 11 febrero 2009. Aceptado: 3 marzo 2009

Boom & Giralt 1996), and this locality means a new addition to the Spanish lichen flora.

Specimens examined: **SPAIN: ASTURIAS:** Consejo de Ponga, San Juan de Beleño, Bosque de Peloño, on bryophytes at beech base, 43° 10' 11.88" N, 5° 7' 33.72" W, S. Pérez-Ortega & F. Fernández-Mendoza (herb. Pérez-Ortega). Concejo de Somiedo, Pola de Somiedo, young beech forest close to La Peral, 43° 2' 58.07" N, 6° 13' 53.54" W, S. Pérez-Ortega & F. Fernández-Mendoza (hb. Pérez-Ortega). **GERMANY: HESSEN:** Rhein-Main-Tiefland. Laubwald nördlich der Hanauer Straße, auf entrindetem Holz von liegendem Kiefernstamm, TK 6018-314. 21-IX-2008, R. Cezanne & M. Eichler (herb. Pérez-Ortega).

Opegrapha zwackhii (Zwackh) Källsten

Ascomata roundish, up to 0,6 mm. Hymenium 65-80 µm tall, hyaline to slightly pale brown, ascus *Opegrapha*-type, up to 60 µm tall, 8-spored. Ascospores (3-) 4-septate, hyaline when young and brown to dark brown when old, finely verrucose, 17-15 × 3-5 µm. This species grows lichenicolous on *Phlyctis argena* (Sprengel) Flotow., and

it is characterized in the context of the lichenicolous species of *Opegrapha* by its roundish ascomata and its 4-septate ascospores. It seems to be a boreal-temperate species, already known from Austria (Hafellner 1994), Estonia (Suija 2005), Germany (Scholz 2000), Great Britain (Hawksworth 2003), Sweden (Santesson *et al.* 2004). Up to now, our specimen represents the southernmost record of the species. New to the Iberian Peninsula.

Specimens examined: **SPAIN: ASTURIAS:** Consejo de Ponga, San Juan de Beleño, Bosque de Peloño, on *Fagus sylvatica* on *Phlyctis argena*, N43°10'11.88" W5°7'33.72", S. Pérez-Ortega & F. Fernández-Mendoza (herb. Pérez-Ortega).

ACKNOWLEDGEMENTS

SPO is very obliged to the project ANT-COMPLEX (CGL2006-12179-CO2-01, MEC, Spain) for support, and to Reiner Cezanne and Marion Eichler (Darmstadt, Germany) for the kind donation of a specimen of *A. lignicola*.

BIBLIOGRAPHY

- BIELCZYK, U. & KISZKA, J. 2001. The genus *Absoconditella* (Stictidaceae, Ascomycota Lichenisati) in Poland. *Polish Bot. J.* 46: 175-181.
- COPPINS, B. J. 1994. New, rare and interesting British lichen records. En P. D. Crittenden (Ed.), *Bull. Brit. Lichen Soc.*, 74: 54.
- HAFELLNER, J. 1994. Beiträge zu einem Prodrömus der lichenicolen Pilze Österreichs und angrenzender Gebiete. I. Einige neue oder seltene Arten. *Herzogia* 10: 1-28.
- HALONEN, P., KUKWA, M., MOTIEJŪNAITĖ, J., LOHMUS, P. & MARTIN, L. 2000. Notes on lichens and lichenicolous fungi found during the XIV Symposium of Baltic Mycologists and Lichenologists in Järvselja, Estonia. *Folia Cryptog. Estonica* 36: 17-21.
- HAWKSWORTH, D. L. 2003. The lichenicolous fungi of Great Britain and Ireland: an overview and annotated checklist. *Lichenologist* 35: 191-232.
- HLADUN, N. & LLIMONA, X. 2002-2007. Checklist of the lichens and lichenicolous fungi of the Iberian Peninsula and Balearic Islands. <http://botanica.bio.ub.es/checklist/checklist.htm>
- KANTVILAS, G. 2005. Two ephemeral species of the lichen genus *Absoconditella* (Stictidaceae) new to Tasmania. *Muelleria* 21: 91-95.
- LLIMONA, X. & HLADUN, N. 2001. Checklist of the lichens and lichenicolous fungi of the Iberian Peninsula and Balearic Islands. *Bocconea* 14: 5-581.
- MOTIEJŪNAITĖ, J. & ANDERSSON, L. 2003. Contribution to the Lithuanian flora of lichens and allied fungi. *Bot. Lithuan.* 9: 71-88.
- NASH, T. H. III; RYAN, B. D.; DAVIS, W. C.; BREUSS, O.; HAFELLNER, J.; LUMBSCH, H. T.; TIBELL, L. & FEUERER, T. 1998. Additions to the lichen flora of Arizona IV. *Bryologist* 101: 93-99.
- PÉREZ-ORTEGA, S. & ÁLVAREZ-LAFUENTE, A. 2006. Primer catálogo de líquenes y hongos liquenícolas de la Comunidad Autónoma de Castilla y León (España). *Bot. Complut.* 30: 17-52.
- SANTESSON, R., MOBERG, R., NORDIN, A., TONBERG, T. & VITIKAINEN, O. 2004. *Lichen-forming and lichenicolous fungi of Fennoscandia*. Museum of Evolution, Uppsala University, Uppsala, Sweden.
- SCHOLZ, P. 2000. Katalog der Flechten und flechtenbewohnenden Pilze Deutschlands. *Schriftenreihe Vegetationsk.* 31: 1-298.
- SUIJA, A. 2005. Lichenicolous fungi and lichens in Estonia I. Ascomycota. *Nova Hedwigia* 80: 247-267.
- THOR, G. & NASCIBENE, J. 2007. A floristic survey in the Southern Alps: additions to the lichen flora of Italy. *Cryptog. Mycol.* 28: 247-260.
- VAN DEN BOOM, P. P. G. & GIRALT, M. 1996. Contribution to the flora of Portugal, lichens and lichenicolous fungi I. *Nova Hedwigia* 63: 145-172.
- VAN DEN BOOM, P. P. G.; ETAYO, J. & BREUSS, O. 1995. Interesting records of lichens and allied fungi from the Western Pyrenees (France and Spain). *Cryptog. Bryol. Lichénol.* 16: 263-283.
- VĚZDA, A. & PISŮT, I. 1984. Zwei neue Arten der Flechtengattung *Absoconditella* (lichenisierte Stictidaceae, Ostropales) in der Tschechoslowakei. *Nova Hedwigia* 40: 341-346.