Antrodia sandaliae (Polyporales, Basidiomycota), an interesting polypore collected in the Iberian Peninsula

Sergio PÉREZ GORJÓNa* & Annarosa BERNICCHIAb

aDepartamento de Botánica & CIALE
Universidad de Salamanca, Avda./ Licenciado Méndez Nieto s/n, 37007 Salamanca, Spain

bDipartimento di Scienze e Tecnologie Agroambientali, Patologia Vegetale
Università degli Studi di Bologna, Via Fanin 42, 40127 Bologna, Italy
annarosa.bernicchia@unibo.it

Résumé – L’espèce Antrodia sandaliae est reportée pour la première fois en Espagne, ce qui constitue la première observation hors de Sardaigne, localité typique. L’espèce est brièvement décrite et illustrée sur base des exemplaires ibériques. Arbutus unedo se confirme comme le substratum typique pour cette espèce méditerranéenne.

Espagne / Méditerranée / Polypores / Arbutus

Abstract – Antrodia sandaliae is reported for the first in Spain, what constitutes the first record out of the type locality in Sardinia (Italy). A brief description and a line drawing of the species based on the Iberian specimen is given. Arbutus unedo is confirmed as the typical substrate for this wood-inhabiting Mediterranean species.

Spain / Mediterranean / Polypores / Arbutus

INTRODUCTION

The Italian island of Sardinia shares climatic and floristic similarities with other Mediterranean territories. Recently, several interesting corticioid and polyporoid fungi have been described or reported from Sardinia; so far, Antrodia macrospora Bernicchia & De Domincis, Antrodiella ichnusana Bernicchia et al., Echinodontium ryvardenii Bernicchia & Piga, and Neolentiporus squamosellus (Bernicchia & Ryvarden) Bernicchia & Ryvarden, and several corticioid fungi, are only known from this island. Other species such as Lenzitopsis oxycedri Malençon & Bertault (Doğan et al., 2007; Malençon & Bertault, 1963; Manjón & Moreno, 1981; Melo et al., 2007; Pérez Gorjón & Bernicchia, 2008), Phellinus juniperinus Bernicchia & Curreli (Bernicchia, 2005), Trametes junipericola Manjón et al., (Manjón et al., 1984) or Vararia maremmana Bernicchia (Moreno et al., 2004; Pérez Gorjón & Bernicchia, 2008) have an exclusively known Mediterranean distribution.

* corresponding author, spgorjron@usal.es
As result of a mycological study from the Natural Park and Biosphere Reserve of “Las Batuecas-Sierra de Francia” (Salamanca, Spain), Antrodia sandaliae Bernicchia & Ryvarden, described from Sardinia (Bernicchia & Ryvarden, 2001), has been collected on strawberry tree (Arbutus unedo L.). This represents the first occurrence of this species outside the type locality in Sardinia, and outside Italy. This new locality is a old growth and dense Arbutus forest, with tree-like specimens. The climate in the area is typically Mediterranean humid, with mild winter temperatures and a high environmental humidity due partly to the dense plant cover.

MATERIALS AND METHODS

Description of species is based on the specimen deposited in herbarium SALA (a duplicate is also deposited in HUBO). Microscopic measurements and drawings were made from microscopical sections mounted in 3% KOH; a Leica DMRD microscope provided with a video camera Leica DC100 and image analysis program Leica Qwin was used to make the line drawing.

DESCRIPTION

**Antrodia sandaliae** Bernicchia & Ryvarden, Mycotaxon 79(1): 58.2001 Fig. 1

Basidiome annual, resupinate, confluent, effused, very slightly pulviniform, with abrupt whitish margin; hymenophore tubular with tubes 1–2 mm long, pores round, 2–3 mm in diameter, with entire and thick dissepiments; pore surface whitish to slightly cream (whitish to buff in Sardinian specimens), context very thin, up to 1 mm, whitish.

Hyphal system dimitic; generative hyphae clamped, thin to slightly thick-walled, 2-3.5(4) µm, hyaline, gelatinized in KOH; skeletal hyphae very rare and difficult to discern, thick-walled, 2.5-5(5.5) µm, hyaline. Cystidia absent; fusoid cystidiols 30-40(50) × (2.5)-3-4(4.5) µm, thin-walled, basally clamped. Basidia clavate, sinuous, 25-30 × 5-6(7) µm, 4-sterigate, with a basal clamp. Basi-diospores cylindrical, slightly curved, 8-9.5 × 2-2.5 µm, smooth, thin-walled, hyaline, not amyloid neither dextrinoid, not cyanophilous.

DISCUSSION

**Antrodia sandaliae** is morphologically close to *A. infirma* Renvall & Niemelä, that has shorter and broader spores and *A. primaevae* Renvall & Niemelä, that has a trimitic hyphal system and smaller, subellipsoid spores. Furthermore, these two species are only known from Northern, boreal areas and grow exclusively on *Pinus sylvestris* L. So far, the species is only known from *Arbutus unedo.*
For further comments on related species and a key to the known European species of *Antrodia* P. Karst., see Bernicchia & Ryvarden (2001) and Bernicchia (2005).

*Antrodia sandaliae* was so far known from the type locality in Sardinia (Bernicchia & Ryvarden, 2001; Bernicchia, 2005). We can confirm the typical substrate as *Arbutus unedo* and the distribution range to the Mediterranean area is amplified.

**Material studied:** Spain: Castilla y León, Salamanca, Villa-nueva del Conde, 30TTK4687, 650 m, on *Arbutus unedo*, 01-12-2007, leg. S. Pérez Gorjón & B.M. Rojas Andrés, det. S. Pérez Gorjón, *conf.* A. Bernicchia, SALA-Fungi 2615, 2616. Italy: Sardinia, Ogliastra, Montarbu forest, 900-950 m, on *Arbutus unedo*, 23-11-1999, HUBO 7337, 7339; *ibidem* 24-11-1999, HUBO 7340; *ibidem* 18-12-1999 HUBO 7352; *ibidem* 30-11-2000, HUBO 7486, 7488; *ibidem* 04-12-2000, HUBO 7348, 7350, 7351, 7513; *ibidem* 29-11-2003 HUBO 7803, 7804, 7784.

**Acknowledgements.** First author has been partly supported by a research grant co-financed by the Junta de Castilla y León and the European Social Fund; also by a brief research stay grant from the University of Salamanca; he also express his gratitude to the GPCV of CIALE for technical support and to Blanca M. Rojas Andrés for help in several field trips. C. Decock (MUCL) is acknowledged for suggestions and improvements in the manuscript.

**REFERENCES**


PÉREZ GORJÓN S. & BERNICCHIA A., 2008 — Algunas especies raras o interesantes de Aphyllophorales s.l. que fructifican sobre Juniperus oxycedrus en el Parque Natural de Arribes del Duero (Salamanca, España). Boletín Micológico de FAMCAL 3: 61-71.