

JAMESIELLA ANASTOMOSANS, A LICHEN SPECIES NEW TO POLAND

ANNA ŁUBEK

Anna Lubek, Institute of Biology, J. Kochanowski University, Świętokrzyska 15, PL-25-406 Kielce, Poland; e-mail: anna.lubek@ujk.kielce.pl

Jamesiella anastomosans (P. James & Vězda) Lücking, Sérus. & Vězda was found during lichenological research in the Oleszno Nature Reserve in the Wyżyna Przedborska upland in 2008. It was also found in herbarium material collected from this reserve in 2005 by S. Cieśliński. This noteworthy lichen species has not been reported from Poland previously. The genus *Jamesiella* is also new to Poland.

There are four species currently placed in the genus *Jamesiella*: *J. anastomosans*, *J. chaverriae* Chaves, Umaña & Lücking, *J. perlucida* (Vězda & Hafellner) Lücking, Sérus. & Vězda and *J. scotica* (P. James) Lücking, Sérus. & Vězda (Lücking *et al.* 2006). Two of them (*J. anastomosans*, *J. scotica*) were previously included in the closely related genus *Gyalideopsis* (see *Index Fungorum*; <http://www.indexfungorum.org>). According to Lücking *et al.* (2005), the genus *Jamesiella* is distinguished from *Gyalideopsis* s.str. based on the presence of isidiiform hyphophores ('thlasidia'), which are considered to be transformed stipitate hyphophores in which the diahyphae are produced internally instead of externally; as a result the entire hyphophore is dispersed and as an entity plays the role of diaspore.

Jamesiella anastomosans (P. James & Vězda) Lücking, Sérus. & Vězda

Lichenologist 37(2): 165. 2005. – *Gyalideopsis anastomosans* P. James & Vězda

The species is characterized by a continuous, filmy (skin-like), smooth or verrucose, glaucous to pale grey thallus. Thallus occurs in the form of discrete patches up to 1 cm in diam., occasionally

coalescing. Protothallus often well delimited, pale grey or white. Hyphophores thin, 0.1 mm high, usually abundant and crowded, only sometimes absent; often flattened, pale greenish and translucent at the pointed apices. Apothecia frequent, 0.2–0.4 mm diam., scattered or occasionally crowded and contiguous; disc orange-red to black-brown, round or angular; margin smooth or irregularly uneven, pale, translucent. Asci (6-)8-spored; ascospores ellipsoid or subclavate, muriform or submuriform, 20–30 × 6–13 μm.

Jamesiella anastomosans grows on smooth bark of deciduous trees, especially on *Salix* spp. and *Fagus* spp. It occurs in moist, sheltered woods, copses and carrs. More rarely it is found on wood or bryophytes among boulder scree or under rock overhangs (Giavarini & James 1992).

NOTES. The examined specimens of *J. anastomosans* have a typical thin, skin-like thallus with pale grey protothallus and a number of very well developed, characteristically shaped translucent hyphophores 80–250 μm long (Fig. 1). Apothecia were not observed in the investigated material. The species was found on bark of *Fraxinus excelsior* in the crown, and on the trunk of *Populus* sp. It was accompanied by *Physcia tenella* (Scop.) DC., *Rinodina efflorescens* Malme, *Pertusaria albescens* (Huds.) M. Choisy & Werner and some bryophytes.

DISCUSSION. *Jamesiella anastomosans* is easily separated from other taxa in the genus by its cylindrical to flattened and pale greenish 'thlasidia'. *J. perlucida* is similar to *J. anastomosans* but differs by the color of hyphophores, which are white in the former. *Jamesiella perlucida* also has

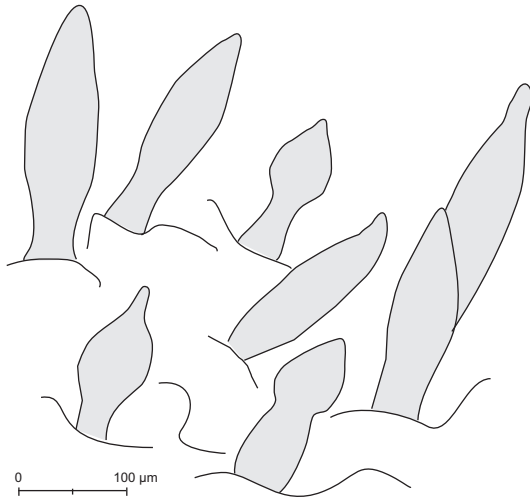


Fig. 1. Hyphophores ("thlasidia") of *Jamesiella anastomosans* (P. James & Vězda) Lücking, Sérus. & Vězda.

yellowish white apothecia and larger ascospores (Giavarini & James 1992; Lücking *et al.* 2006). *Jamesiella perlucida* has not been found in Central Europe so far. *Jamesiella scotica*, which occurs in Europe, is characterized by rounded and squat peg or top-like hyphophores. They are creamy brown to red-brown, 0.1–0.3 mm high and 0.1–0.2 mm wide. *Jamesiella chaverriae*, a species most recently described from Central America, is characterized by flask-shaped hyphophores with an inflated lower part and a tapering and often thinly

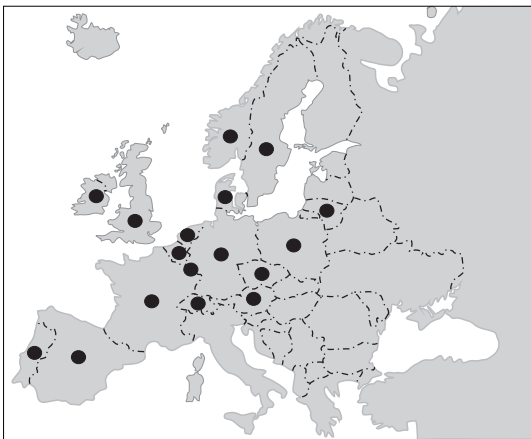


Fig. 2. Distribution of *Jamesiella anastomosans* (P. James & Vězda) Lücking, Sérus. & Vězda in Europe.

ciliate apex. They are translucent greenish white and 0.12–0.15 mm high, 60–80 μm wide above the base and 15–25 μm wide at apex.

EUROPEAN DISTRIBUTION. Austria (Hafellner & Türk 2001), Belgium, Luxembourg and northern France (Diederich *et al.* 2008), Czech Republic (Liška *et al.* 2008), Denmark (Søchting & Christensen 1997), Germany (De Bruyn *et al.* 2000), Great Britain and Ireland (Coppins 2002), Lithuania (Motiejūnaitė 2000), Netherlands (Aptroot *et al.* 1999), Norway and Sweden (Santesson 1993), Portugal (Hafellner 1995), Spain (Limona & Hladun 2001) and Switzerland (Clerc 2004) (Fig. 2).

SPECIMENS EXAMINED. POLAND. WYŻYNA PRZED-BORSKA UPLAND, Czarna Pilczycka River valley, Oleszno Nature Reserve (ATPOL grid square Ee-60), on trunk of *Populus* sp., 10 Oct. 2005, *leg.* S. Cieśliński (KTC 8157); near Oleszno Nature Reserve, forest section No. 73, 50°56'50"N/20°06'24"E, on bark of *Fraxinus excelsior* in crown, 7 Feb. 2008, *leg.* A. Lubeck (KTC 8158).

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