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Biscogniauxia repanda, B. marginata and *Camarops polysperma* (*Pyrenomycetes*) in Poland and Lithuania

ANDRZEJ CHLEBICKI*, ANNA BUJAKIEWICZ **

* W. Szafer Institute of Botany, Polish Academy of Sciences. Podwale 75, PL-50-440 Wrocław, Poland
** Department of Plant Ecology and Environment Protection, Adam Mickiewicz University, Niepodległości 14, PL-61-713 Poznań, Poland

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In the present paper, *Biscogniauxia repanda, B. marginata* and *Camarops polysperma* are resported from Poland and Lithuania. *Pseudotrichia mutabilis* has been noted on old stromata of *B. marginata* from Lithuania.

The following species of fungi *Camarops polysperma* (Mont.) J. H. Miller, *Biscogniauxia marginata* (Fr.) Pouzar and *B. repanda* (Fr.: Fr.) Kuntze are evidently rare in Central Europe. Nannfeld (1972) used epithet "meteoric" for *C. polysperma*. In Poland three species belonging to the genus *Camarops* were noted: *C. tubulina*, *C. microspora* and *C. polysperma*. The first species was reported by Schroeter (1897), from *Abies alba* (Herb.). Schroeter, *Hypoxylon tubulina*, Guschwitz, 10 July 1884, on *Abies alba*, in Książkowice near Niemodlin in Poland. This very old specimen was identified by J. A. Nannfeld on 16 April 1970 and was deposited in Herbarium (WRSL) of Wrocław University. Dr Z. Pouzar found *C. tubulina* on *Picea abies* in Starożyn Reserve (CN Poland), herb. Chlebicki 2024; (the second locality in Poland). *C. microspora* was reported by Chlebicki (1989) from *Alnus incana* in Babia Góra National Park and from *A. glutinosa* in Białowieża National Park (Bujakiewicz et al., 1992). *C. polysperma*, is known from five localities in Poland. It has been found for the first time by Truszkowska (1965) on a dead trunk of *Carpinus betulus* in Białowieża National Park and on *Alnus glutinosa* (Domański et al., 1970) in Bieszczady National Park. The third locality was noted by A. Bujakiewicz (Bujakiewicz et al., 1992) in section 256 of Białowieża National Park in deciduous woods. The next localities have been reported by Chlebicki (1993) from Puszcza Romincka Forest and Puszcza Augustowska Forest in northern Poland.

In Poland, the genus *Biscogniauxia* is represented by three species. S c h r o e t e r (1908) reported *Nummularia nummularia* (Bull.) Schroet. = *B. nummularia* (Bull. : Fr.) O. Kuntze from *Fagus sylvatica* in Silesia Lower. According to G r a n m o et al. (1989) two species of the genus *Biscogniauxia* have been gathered in Białowieża: *B. nummularia* on *Prunus* sp. by R a h e n b o r g et K l u g - A n d e r s e n, 8 October 1984 (in herb. C) and *B. marginata* by participants of the excursion of the Danish Mycological Society in 1984 (herb. C). C h l e b i c k i (1993) found *Biscogniauxia repanda* on *Sorbus aucuparia* in Puszcza Augustowska Forest.

In 1993 we collected some fungi during the excursions of the 12th International Conference "Fungi and Lichenes in the Baltic Region" in Lithuania. The excursions were carried out in the surroundings of Vilnius in Żaliuju ezeru Nature Reserve and Dukstos forest Reserve. R u k s e n i e n e (1993) collected some pyrenomycete fungi in the patches of *Pinetum oxalidosum* in the first reserve but did not record *B. marginata* and *B. repanda*. All of our collected species have been found in Lituania so far.

Camarops polysperma from Białowieża National Park is deposited in POZM – Herbarium in Poznań. The remaining material is housed in KRAM – (herb. Chleb.) in Wrocław.

Biscogniauxia repanda (Fr.: Fr.) O. Kuntze, Rev. Gen. Plant. 2: 398. 1891

Basionym: *Sphaeria repanda* Fr. 1815.
Syn.: *Nummularia repanda* (Fr. ex Schmidt) P. Karsten 1966; other syn. see Pouzar (1986).

The fungus has black cupulate stromata with surrounding fruit bodies with sterile, wavy margin and slightly papillate ostioles (Fig. 1); ascospores 12-15(17) x 4-5 µm with longitudinal germ slit.

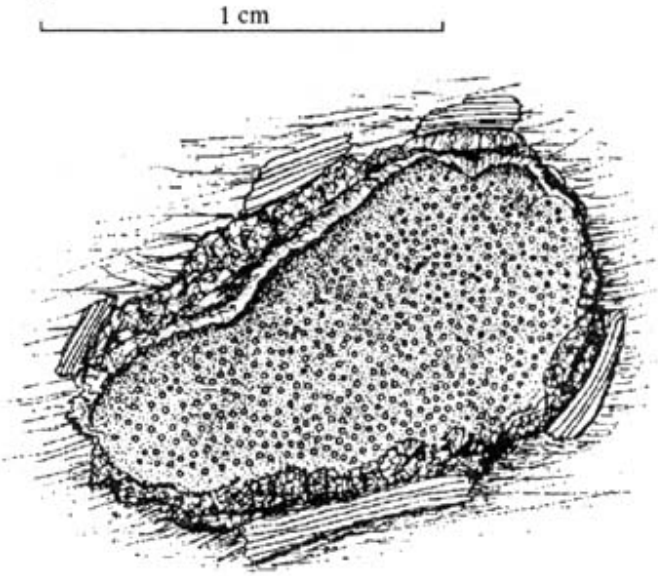

Fig. 1. *Biscogniauxia repanda* (Fr.: Fr.) O. Kuntze
Polish collection from Puszcza Augustowska Forest, herb. Chlebicki 1742

Localities. P o l a n d: Wigry National Park, Wysoki Most near Czarna Hańcza River, on dead standing log of *Sorbus aucuparia* damaged by animals, 13 August 1991 leg. A. Chlebicki, herb. Chlebicki 1742; Puszcza Augustowska Forest, Starożyn Reserve, on fallen log of *Sorbus aucuparia* damaged by animals, 1 May 1993. leg. B. Biernat-Chlebicka, herb. Chlebicki 1745; Sudety Mts. Bystrzyckie Mts. Lesica near Międzylesie, on dead standing log of *Sorbus aucuparia* damaged by deers, 7 August 1992, leg. A. Chlebicki, herb. Chlebicki 1743;

L i t h u a n i a: Žaliuju ežeru Reserve, on a dead standing log of *Sorbus aucuparia* on top of a hill, in a forest with *Picea abies* and *Quercus robur*, 29 September 1993, leg. A. Chlebicki, herb. Chlebicki 2022 (only some stromata, together with very numerous old stromata of *Biscogniauxia marginata* (Fig. 3).

Exsic: Thümen "Mycotheca universalis" No. 1460. *Nummularia repanda* Nke, Mustiala in Sorbi Aucupariae Lin. ligno vetusto, Rarissime Octob. 1874, leg. P. A. Karsten; Krieger "Fungi saxonici" No. 2155, *Nummularia repanda* (Fr.) Nke, An entrindeten Stellen von Aesten und Stämmen von *Sorbus aucuparia* L. bei Wolkenstein und Schmiedeberg im Erzgebirge, sehr selten, Sept. 1901, Aug. 1902. Leg. Wagner: Erbor. "Crittogam. Ital." Ser. II. No. 442. *Hypoxylon repandum*, sui tronchi scortecciati di antichi Sorbus Aucupariae a Riva, in Valesie. Maggio 1868, Carestia.

Hosts: It occurs on *Sorbus aucuparia* (Pouzar, 1979), *S. aria* (Pouzar, 1986) *S. splendida* and rarely on *Betula, Prunus, Malus, Quercus, Alnus* and *Tilia* (Granmo et al., 1989).

Distribution: *B. repanda* is a species with boreal-montane distribution in Europe (G r a n m o et al., 1989). It is hemiboreal and boreal in the Nordic countries and seems to be common in Estonia (G r a n m o et al., 1989). According to P o u z a r (1986) it is known only from Česke stredohori mountains and the mountains of Brdy and Šumava in Czech Republik. K r i e g l s t e i n e r and E n d e r l e (1989) did not report *B. repanda* from West Germany. However, it has been found recently in Germany in National Park Bayerisches Wald between 800-1200 above sea level on living trees only (N. Luschka information in letter. 1992), and in National Park Berchtesgaden (S c h m i d - H e c k e l, 1988) on different hosts. Recently, I have seen a specimen of Kreiger "Fungi Saxonici" No. 2155 from Schmiedeberg (Erzgebirge) in Germany (WRSL!) and a second specimen of Erbor. "Crittogam. Ital". Ser. II from Riva (Alps) in Italy (WRSL!). *B. repanda* is not recorded from Switzerland (P e t r i n i et M ü l l e r, 1986). It seems to be absent in central, lowland part of Poland because of warm and temperate climate of this region. The far-northern localities in Poland are under the influence of the hemiboreal zone.

Biscogniauxia marginata (Fr.) Z. Pouzar, Česka Mycol. 33 (4): 216, 1979

Basionym: *Sphaeria marginata* Fr. 1828.
Syn.: *Nummularia discreta* (Schw.) Tul. et C. Tul. 1863; other syn. see Pouzar (1986).

Stromata previously discoid, brownish-black to black with indistinct smooth margin surrounded by peridermal lobes, ostioles umbilicate, ascospores with curved germ slit.

Locality: L i t h u a n i a: Żaliuju ežeru Reserve, on a dead standing trunk of *Sorbus aucuparia* on top of a hill, in a forest with *Picea abies* and *Quercus robur*, 29 September 1993, leg. A. Chlebicki, herb. Chlebicki 2023 (together with two stromata of *Biscogniauxia repanda*). (Fig. 3A).

Host.: The fungus occurred previously on *Sorbus aucuparia* and on other trees (G r a n m o et al., 1989).

Distribution: P o u z a r (1986) recorded *B. marginata* from only one locality in Czech Republik, Petrini and Müller reported it from Switzerland. G r a n m o et al. (1989) recorded three localities from Nordic countries and one from Białowieża in Poland. It is a very rare species in North and Central Europe (Fig. 3).

The material of *B. marginata* from Lithuania is very old but in some cases the umbilicate ostioles are visible. Almost all stromata are covered by ascocarps of hypersaprobic *Pseudotrichia mutabilis* (Pers.: Fr.) Wehm. which C h l e b i c k i (1989) also found in the old stroma of *Diatrypella favacea* in Babia Góra (Carpathians Mts.) in Poland.

Camarops polysperma (Mont.) J. H. Miller, Trans. Brit. Mycol. Soc. 15 (1/2): 151, 1930

Basionym: *Hypoxylon polyspermum* Mont., 1842.

Syn.: *Camarops hypoxyloides* P. Karst. 1873; other syn. see Nannfeldt (1972) and Hilber et Hilber (1980).

Stromata very large and fiat-pulvinate, blackish, with firm ectostroma perforated by the perithecial necks, asci 19-23 x 4-5,7 µm, ascospores 3.8-4,5 x 2.5-2.8 µm (Fig. 2).

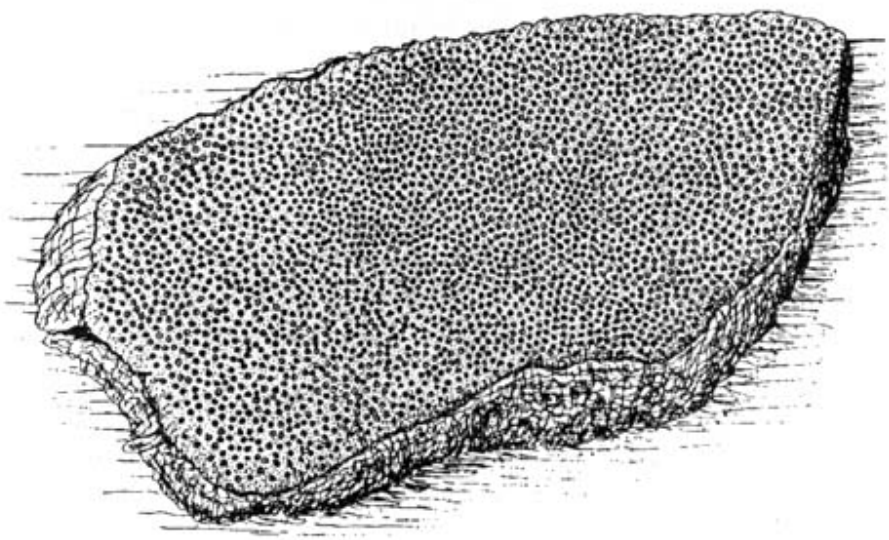

Fig. 2. *Camarops polysperma* (Mont.) J. H. Miller
Appearence of stroma of the Polish collectionhh, herb. Chlebicki 2020

Localities. P o l a n d: Białowieża National Park, section 256, *Fraxino-Alnetum*, deciduous woods, (3 October 1990), leg. A. Bujakiewicz, POZM, Biał. 772. Puszcza Augustowska Forest, Starożyn Reserve, *Carici elongatae-Alnetum*, on lying stump of *Alnus glutinosa*, 1 May 1993, leg. A. Chlebicki, herb. Chlebicki 2019; Puszcza Romincka Forest, Boczki Reserve, on slope of a hill, *Tilio-Carpinetum*, on lying stump of *Fraxiunus excelsior*!, 24 April 1993, leg. A. Chlebicki, herb. Chlebicki 2020;
L i t h u a n i a: Dukštos forest Reserve, boggy alder forest (*Alnus glutinosa*), on fallen alder log, 29 September 1993, leg. et det. A. Bujakiewicz, herb. Chlebicki 2021 (Fig. 3 C).

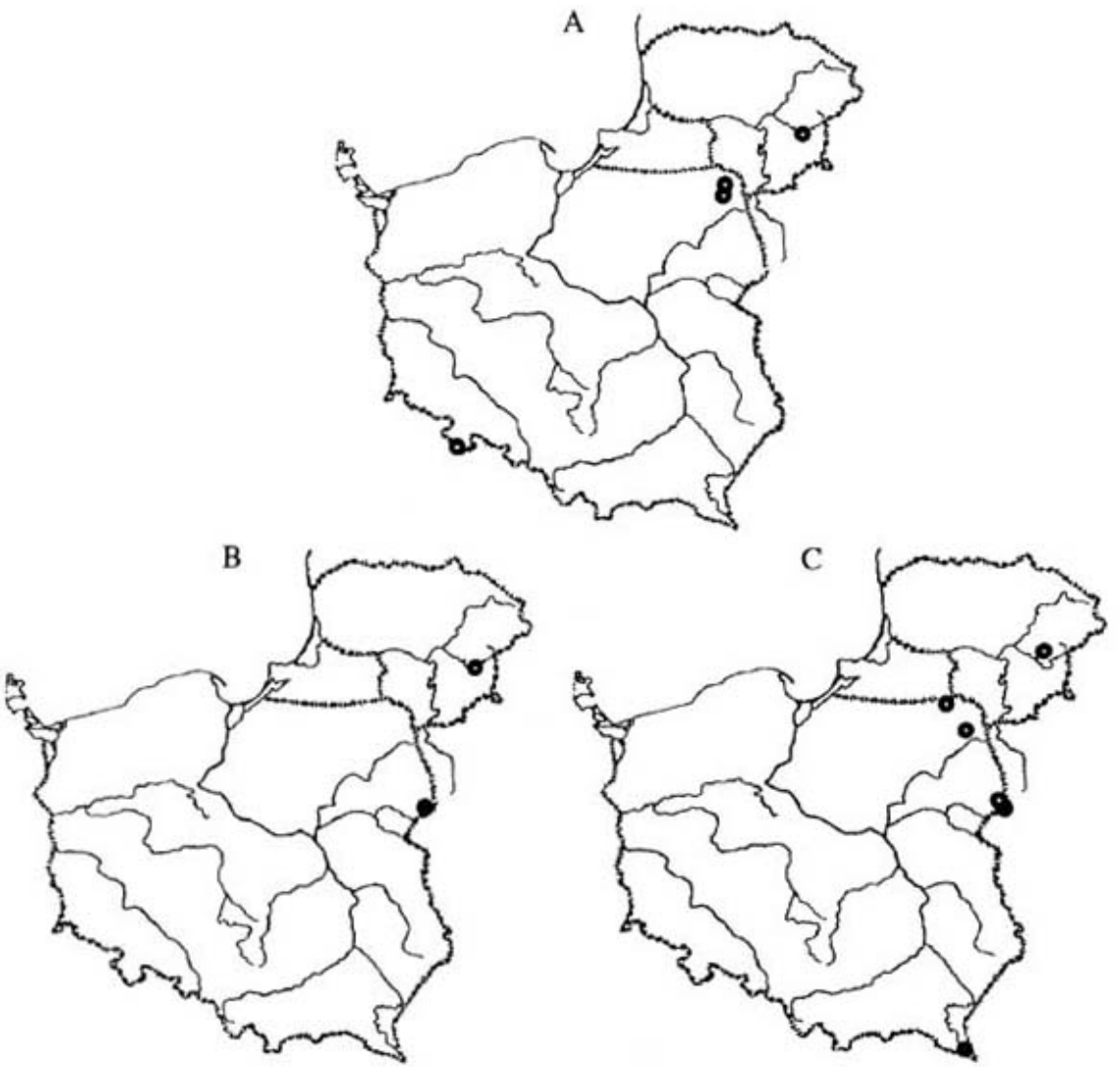

Fig. 3. Distribution
A – of *Biscogniauxia repanda* (Fr.:Fr), B – of *B. marginata* (Fr.) Z. Pouzar in Poland and Lithuania ,
C – of *Camarops polysperma* (Mont.) J. H. Miller;
open symbols denote new localities

Hosts: *Alnus glutinosa* is the principal substrate for *C. polysperma* in Europe (Nannfeldt, 1972). It also occurs on *Fagus sylvatica* (Maas Geesteranus, 1968), *Carpinus betulus* (Truszkowska, 1965) and *Fraxinus excelsior* (in this paper). In addition, Nannfeldt (1972) reported many tropical host-plants from America and Africa.

Distribution: *C. polysperma* is a species with a tropical temperate and hemiboreal distribution. Karsten (1873) published first European find from *Tavastia australis* on *Alnus glutinosa* as *Camarops hypoxyloides*. It has been found several times in Sweden, Denmark, Great Britain (Nannfeldt, 1972; Eriksson, 1982), Germany and Czecho-Slovakia (Hilber R. and Hilber O., 1980; Enderle, Hilber O. and Hilber R., 1981). However it is still a very rare species.

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