

Auriculariopsis albomellea
(Agaricales, Schizophyllaceae) new for Poland

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The article deals with the taxonomy, ecology, general distribution and threatened status of *Auriculariopsis albomellea* Bondartsev Kotl. (Basidiomycetes). In Europe it is known only from Czech Republic, France, Sweden and Ukraine, in Africa from Canary Islands, in North America from Canada and United States. In Poland the fungus was found for the first time in NE part of the country, in a pine forest, on dead twigs of *Pinus sylvestris*. Habitat and distribution of this saprobic fungus in Africa, Europe and North America are described, list of synonyms and important references are cited, Polish name is proposed.

Key words: fungi, Basidiomycetes, distribution, habitat, taxonomy, threat

INTRODUCTION

In Poland hitherto was known only one species from *Auriculariopsis* genus: *A. ampla* (Lév.) Maire. It occurs especially on *Populus*, also on *Salix*, and is rather common in Poland (Wojewoda 2003). In the fungarium of the Institute of Botany of the Polish Academy of Sciences, was found second species from this genus: rare fungus – *A. albomellea* (Bondartsev) Kotl., new for Poland.

TAXONOMY

Cytidia albomellea Bondartsev, Bolezni Rast. (Morbi Plant.) 16: 96.1927 (basionym). – *Cytdiella albomellea* (Bondartsev) Parmasto, Consp. Syst. Cortic. 101.1968. – *Auriculariopsis albomellea* (Bondartsev) Kotl., Česká Mykol. 42(4): 239.1988. – *Phlebia albomellea* (Bondartsev) Nakasone, Mycologia 88(5): 766. 1996.

Cytdiella melzeri Pouzar, Česká Mykol. 8(3): 127. 1954. – *Auriculariopsis melzeri* (Pouzar) Stalpers, Persoonia 13(4): 504. 1988.

Proposed Polish name: uszaczek białobrzegi.

Systematic arrangement: Basidiomycetes: *Aphyllorphorales* (nomen illeg. according to Michael et al. 1988), *Corticaceae* s. l. (Donk 1964, Jülich 1984, Domański

1988, Rodríguez-Armas et al. 1992), Lindtneriales, *Auriculariopsidaceae* (Jülich 1981), Poriales, *Meruliaceae* (Michael et al. 1988), Stereales, *Meruliaceae* (Hawskworth et al. 1995), Schizophyllales, *Schizophyllaceae* (Knudsen 1995, Vesterholt 1997), Agaricales, *Schizophyllaceae* (Kirk et al. 2001: 466, Akulov et al. 2003), Corticiomycetes, *Corticaceae*, *Phlebioideae*, *Merulieae* (Parmasto 1968, 1986).

Sometimes it was confused with *Auriculariopsis ampla*, *Byssomerulius incarnatus*, and *Stereum gausapatum* (see Nakasone 1996).

DESCRITPIONS AND ILLUSTRATIONS

Domański (1988: 230, as *Cytidiella melzeri*); Eriksson, Ryvar den (1975: 339, Figs 135-136, as *Cytidiella melzeri*), Jülich (1984: 158, as *Cytidiella melzeri*), Nakasone (1996: 767, Figs 5, 9d-f, as *Phlebia albomellea*), Pouzar (1954: 126-127, Figs without numbers, as *Cytidiella melzeri*), Vesterholt (1997: 156, as *Cytidiella albomellea*). For cultural descriptions see Nakasone (1990).

HABITAT AND GENERAL DISTRIBUTION

Auriculariopsis albomellea occurs in forests and at skirts of peatbogs. Basidiomata of this saprobic fungus occur on dead fallen trunks, and on attached or fallen corticate branches of coniferous and deciduous trees: *Abies*, *Alnus*, *Corylus*, *Pinus* and *Quercus*, April–December. According to Ginns and Lefebvre (1993) the fungus may be associated with a brown rot, according to Nakasone (1996) it is associated with a white rot. For the first time it was found in Sweden in 1905 (Stalpers 1988). It is known hitherto from Northern Circumpolar: Africa, Europe and North America. Africa: Spain, Canary Islands: Tenerife, in association with *Arbutus canariensis*, *Picconia excelsa*, and *Visnea mocanera*, on dead wood, not identified (Rodríguez-Armas et al. 1992). Europe: Czech Republic, Bohemia, 5 localities: in forest with *Pinus* and at a skirt of a peat-bog with *Ledum palustre*, *Sphagnum* sp., *Vaccinium myrtillus* and *V. uliginosum*, on dead trunks and attached branches of *Pinus uncinata*, on bark and wood of *Pinus sylvestris*, and on dead, not fallen branches of *Quercus* sp. (Pouzar 1954, Pilát 1969, Nakasone 1996). France: on *Corylus avellana* (Boidin, Gilles 1990); Slovakia: on branch of *Pinus nigra* (Pouzar 1954); Sweden: 2 localities, on *Pinus sylvestris*, and on dead, dry branches of *Quercus robur* (Eriksson, Ryvar den 1975; Stalpers 1988; Nakasone 1996); Ukraine: in forest, on dead branches of *Pinus sylvestris* (Bondartsev 1927; Kotlaba 1988; Nakasone 1996; Akulov et al. 2003). North America: Canada, Yukon Territory, on bark of fallen *Alnus crispa*; United States: Arizona, Maine, Mississippi, New Mexico, Wisconsin, on fallen or attached dead corticate branches of *Abies concolor*, *Pinus palustris*, *P. ponderosa*, *P. resinosa* and *P. strobus* (Nakasone 1996).

According to Nakasone (1996, after Hallenberg 1981), *Auriculariopsis ampla* is known also from Iran in Asia, but by Hallenberg (l.c.) this species is not mentioned.

DISTRIBUTION AND HABITAT IN POLAND

North-Eastern Poland: the Niziny Mazowiecko-Podlaskie Lowlands, the Nizina Północnomazowiecka Lowland, the Równina Kurpiowska Plain, the Puszcza Kurpiowska Puszcza Zielona Forest, the Puszcza Myszyniecka Forest - Northern part of the Puszcza Kurpiowska Forest (Kondracki 2001), the Mingos reserve (Kowalska 1993); on some maps and in books as 'Mingus' or 'Mirzgos', 3.5 km NW of Kuzie village, 27 km NE of Ostrołęka, in pine forest with *Vaccinium vitis-idaea*, on pure sandy soil (*Peucedano-Pinetum* sensu Matuzkiewicz 2001), on fallen dead corticate twigs of *Pinus sylvestris*, 23 October 1976, leg. W. Wojewoda (Fig. 1).

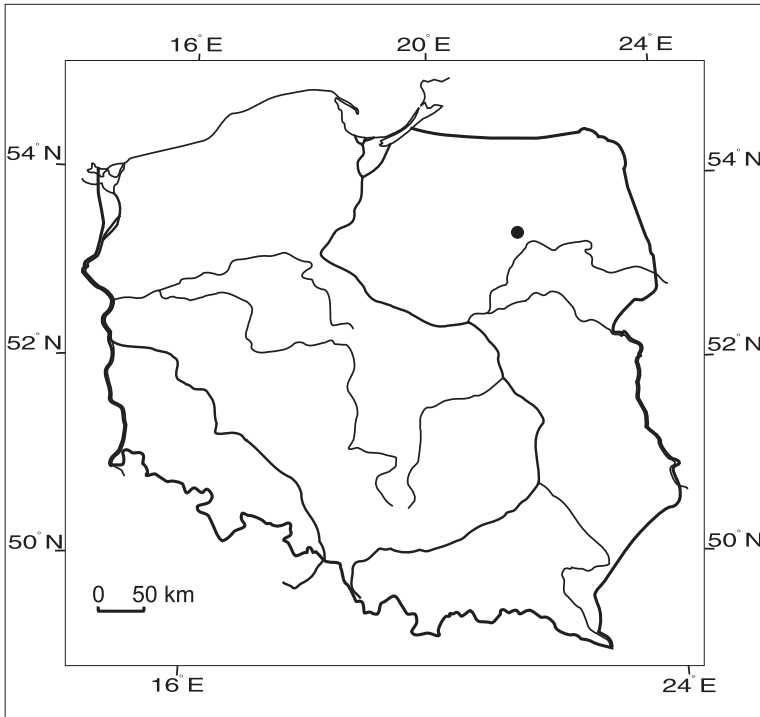


Fig. 1. Locality of *Auriculariopsis albomellea* in Poland.

SPECIMENS EXAMINED

KRAM F33108: Basidiomata 0.2-2.1 x 0.2-1.1 cm in diameter, resupinate, at first regularly circular, orbicular to disc-shaped with loosening or incurved white wool margin, then sometimes confluent and some irregular, ceraceous when fresh, membranous when dry. Outer surface white, tomentose. Hymenophore smooth or some tuberculate, pale brown to brownish orange. Hyphal system monomitic. Hyphae 2.0-4.8 μm in diameter, hyaline, with thin or thick (up to 1.5 μm) walls. Clamps at all septa of hyphae. Cystidia none. Basidia 28-42 x 4.5-7.0 μm , narrowly clavate, with subbasidial clamps, 4-spored. Basidiospores 5.8-7.5 x 3.0-3.8 μm , narrowly ellipsoid, hyaline, smooth, thin-walled, non-amyloid (Fig. 2).

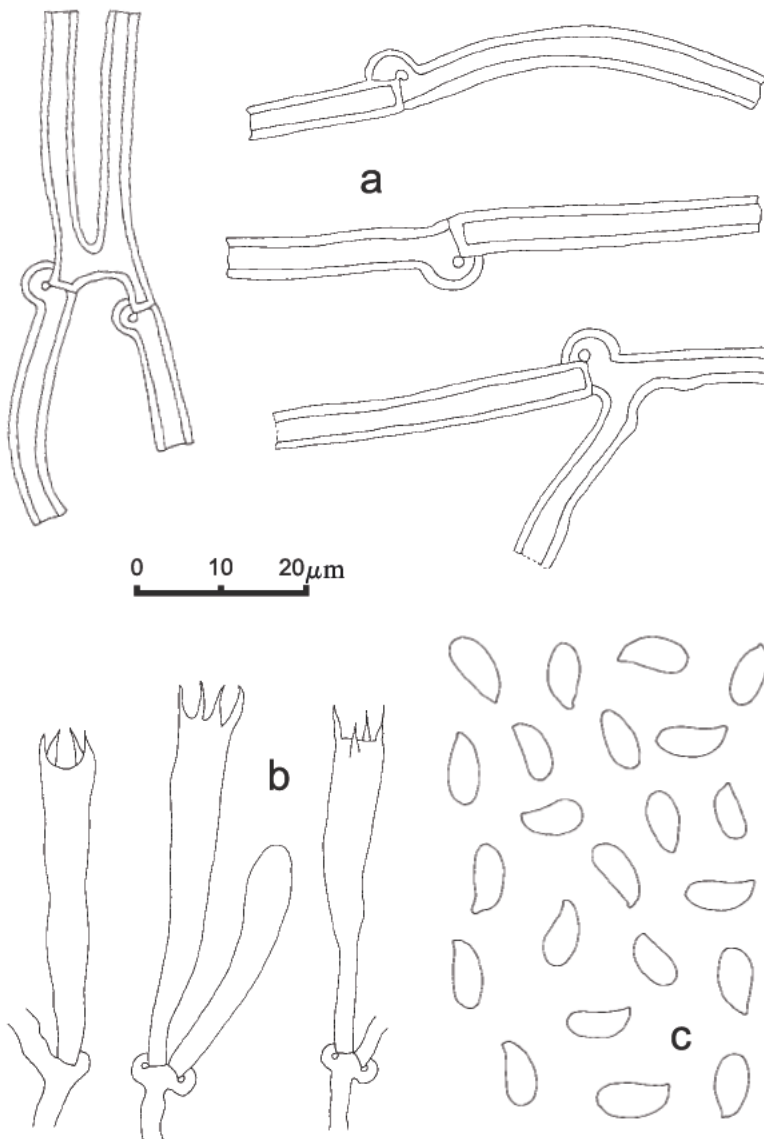


Fig. 2. Microscopic elements of *Auriculariopsis albomellea*: a subicular hyphae, b basidia, c basidiospores.

THREAT

Auriculariopsis albomellea is a rare species (Boidin, Gilles 1990). In Sweden is listed as a fungus extinct ('0' category) on the 'Red Lists of Macrofungi in the Baltic and Nordic region' (Anonymous 1995), and regionally extinct ('RE' category) on 'The 2005 Red List of Swedish Species' (Gärdenfors 2005). In Poland this species is known from one locality in a forest reserve only, and probably it is also threatened.

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Auriculariopsis albomella (*Agaricales*, *Schizophyllaceae*)
nowy gatunek dla Polski

Streszczenie

W fungarium Instytutu Botaniki im. W. Szafera PAN w Krakowie stwierdzono okazy *Auriculariopsis albomellea*, gatunku ostatnio zaliczanego do rodziny *Schizophyllaceae* w rzędzie *Agaricales* (*Basidiomycetes*). Okazy tego grzyba zebrano w 1976 r., w północno-wschodniej Polsce, w Puszczy Myszynieckiej (północna część Puszczy Kurpiowskiej), w rezerwacie Mingos, w subkontynentalnym borze świeżym *Peucedano Pinetum*, na martwych, opadłych, pokrytych korą gałązkach *Pinus sylvestris*. Jest to gatunek nowy dla mikrobioty Polski. Publikowany był z Europy (Republika Czeska, Francja, Słowacja, Szwecja, Ukraina), z Afryki (hiszpańskie Wyspy Kanaryjskie) i z Ameryki Północnej (Kanada, Stany Zjednoczone). Rozpostarte, dyskowate, brązowawe, białobrzeżone owocniki tego saprobowego grzyba z gładkim lub gruzełkowatym hymenoforem, występują na martwym drewnie drzew iglastych i liściastych: *Abies concolor*, *Corylus avellana*, *Pinus nigra*, *P. palustris*, *P. ponderosa*, *P. resinosa*, *P. sylvestris*, *P. strobus*, *P. uncinata*, *Quercus robur* i *Q.* sp. Uszaczek białobrzeży, jest gatunkiem rzadkim. W Szwecji umieszczono go na czerwonej liście grzybów zagrożonych w tym kraju, z kategorią „lokalnie wymarły”. W Polsce gdzie stwierdzono go tylko raz, w rezerwacie leśnym, też przy puszczałnie jest zagrożony.