

A new locality of *Geastrum melanocephalum* in the vicinity of Poznań

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Geastrum melanocephalum recognized as a species in danger of extinction in Poland has been recently found in the old garden in Puszczykowo near Poznań. The paper gives a description of this fungus. The map of its distribution in Poland shows the concentration of localities in the central-western part of the country.

Key words: *Geastrum melanocephalum*, *Lycoperdales*, distribution of fungi, vicinity of Poznań.

Geastrum melanocephalum (Czern.) Staněk (= *Trichaster melanocephalus* Czern.), a representative of *Geastraceae* family and *Lycoperdales* order is a species of macrofungi which is very rare in Poland. For the first time it was found in 1934 by Teodorowicz (1937) in the Dendrological Garden of the University in Poznań. Then, according to Celiński and Filippek (1958), it was collected in 1936 by J. Rafalski in the park at Grabowno, the Wyrzysk district. The species was also reported by German authors: in 1936 from Wierzbno, the Skwierzyna district (Mallaach 1936), and in the 1933, 1934, 1940 from a vicinity of Koronowo in the former East Prussia (Michael and Hennig 1960).

After the second world war *Geastrum melanocephalum* is known only from the following few localities: Toruń – VII. 1950 and Olsztyn – VIII. 1958 (Rudnicka-Jezierska 1991), in the forest-steppe reserve in Bielinek on the Odra river slopes – VI. 1954 (Celiński and Filippek 1958); Bujakiewicz (1989) has recorded this fungus several times in similar patches in the Bielinek reserve, in the valley of the Sama river near Obrzycko

(the Poznań province) – III. 1981 (G r o b e l n y and P t a s z y k 1983) and in the „Księży las” forest in Strzelce Opolskie – VIII. 1988 (S o k ó ł and S z c z e p k a 1994). Besides, two unpublished localities of *Geastrum melanocephalum* are confirmed by the herbarium specimens deposited in the Department of Plant Ecology and Environment Protection, Adam Mickiewicz University (POZM): *Galio silvatici-Carpinetum* with *Fraxinus excelsior* in the „Uroczysko-Grodziszczce” reserve, the Świebodzin district – VIII. 1980, leg. J. Jurek, det. M. Lisiewska (J u r e k 1981 msc.); apple-orchard, Słupca – X. 1984, leg. J. Ptaszyk, det. A. Bujakiewicz (Fig. 1).

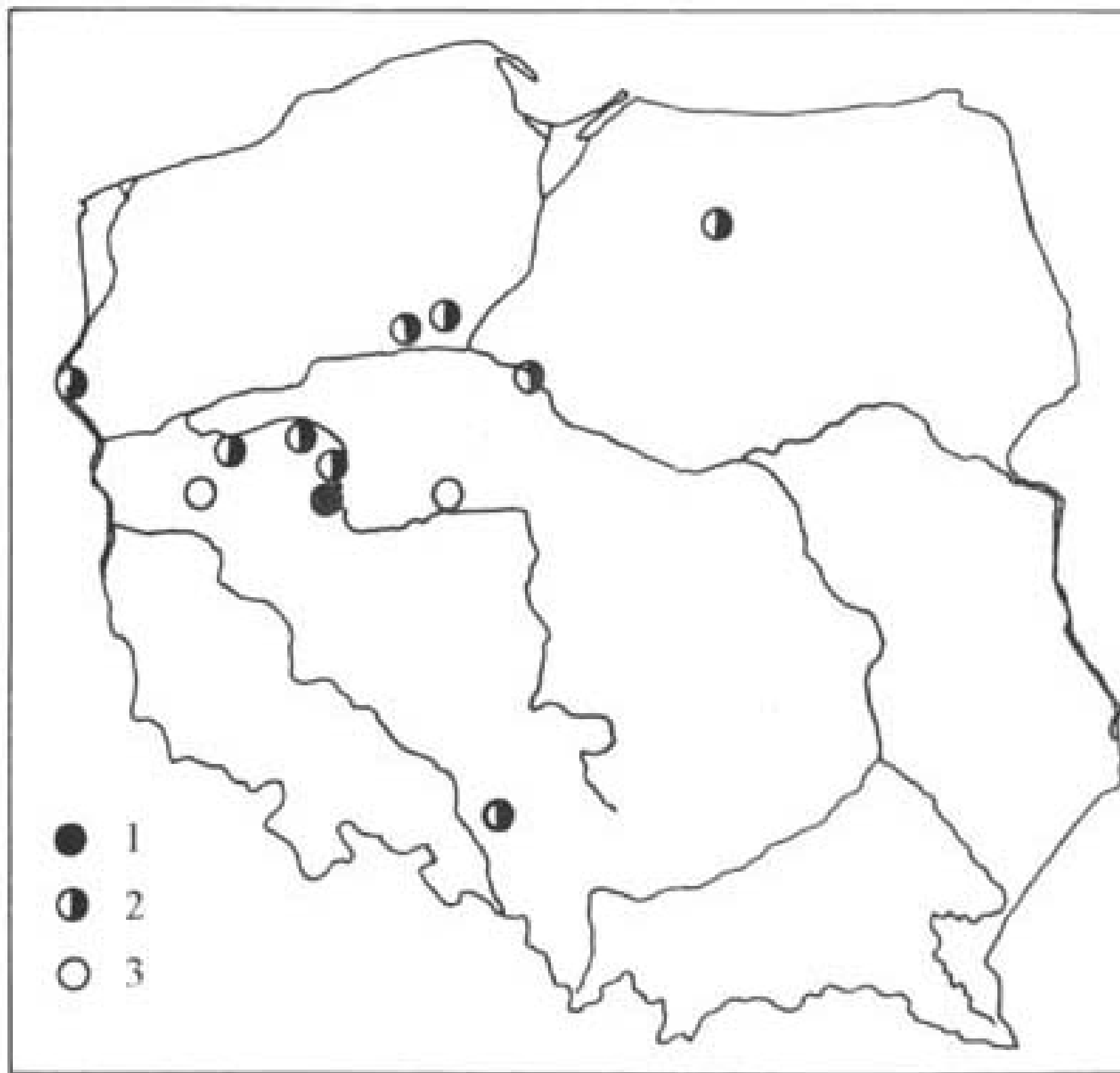


Fig. 1. Distribution of *Geastrum melanocephalum* in Poland: 1 – new locality, 2 – localities known from the literature, 3 – unpublished localities confirmed by herbarium specimens

The species is fairly well known from different countries of Central and Eastern Europe, but considered as rather rare and interesting fungus occurring on fertile soils in warm places under deciduous trees (S k i r g i e ł ł o 1976), in shady gardens and deciduous forests as well as on dunes (J ü l i c h 1984). The geographical distribution of *Geastrum melanocephalum* in Europe shows that this species may represent the continental element with a centre of occurrence in the pontic-pannonian province (C e l i Ń s k i and F i l i p e k 1958).

A new locality of *Geastrum melanocephalum* was found in November 1996 in Puszczykowo, about 15 km S from Poznań, in an old garden by the Słoneczna Street. Three fruit-bodies were growing on a rich humus soil, between fallen leaves, near a rotting log of *Populus italica*, in a shady place under the trees of *Robinia pseudoacacia*, *Tilia cordata*, *Acer platanoides* and shrubs of *Philadelphus coronarius*. A sparse herb layer was represented only by *Chelidonium majus*, *Moehringia trinervia*, *Urtica dioica*, *Viola odorata* and seedlings of *Acer platanoides*. In May 1996, *Morchella esculenta* Pers. ex Amans var. *umbrina* Boud., the fungal species protected by law was also recorded in this locality.

The fruit-bodies of *Geastrum melanocephalum* found in Puszczykowo were fully developed (Fig. 2). Their naked exposed gleba, composed of dark brown downy capillitium and spores, was almost sessile with a conical apex, 1.5-2.0 cm in diameter. Endoperidium adherent to exoperidium or surrounding gleba like a collar, exoperidium divided into 5-7 stellate dehisces and recurvate segments, 8-10 cm in diameter, fruit-bodies 5-7 cm high. Spores round, verrucose, 4.5-5.0 μm in diameter, brown. Capillitium thick-walled, 5-7 μm wide, dark brown. Two specimens were collected and deposited in the herbarium of macrofungi POZM.

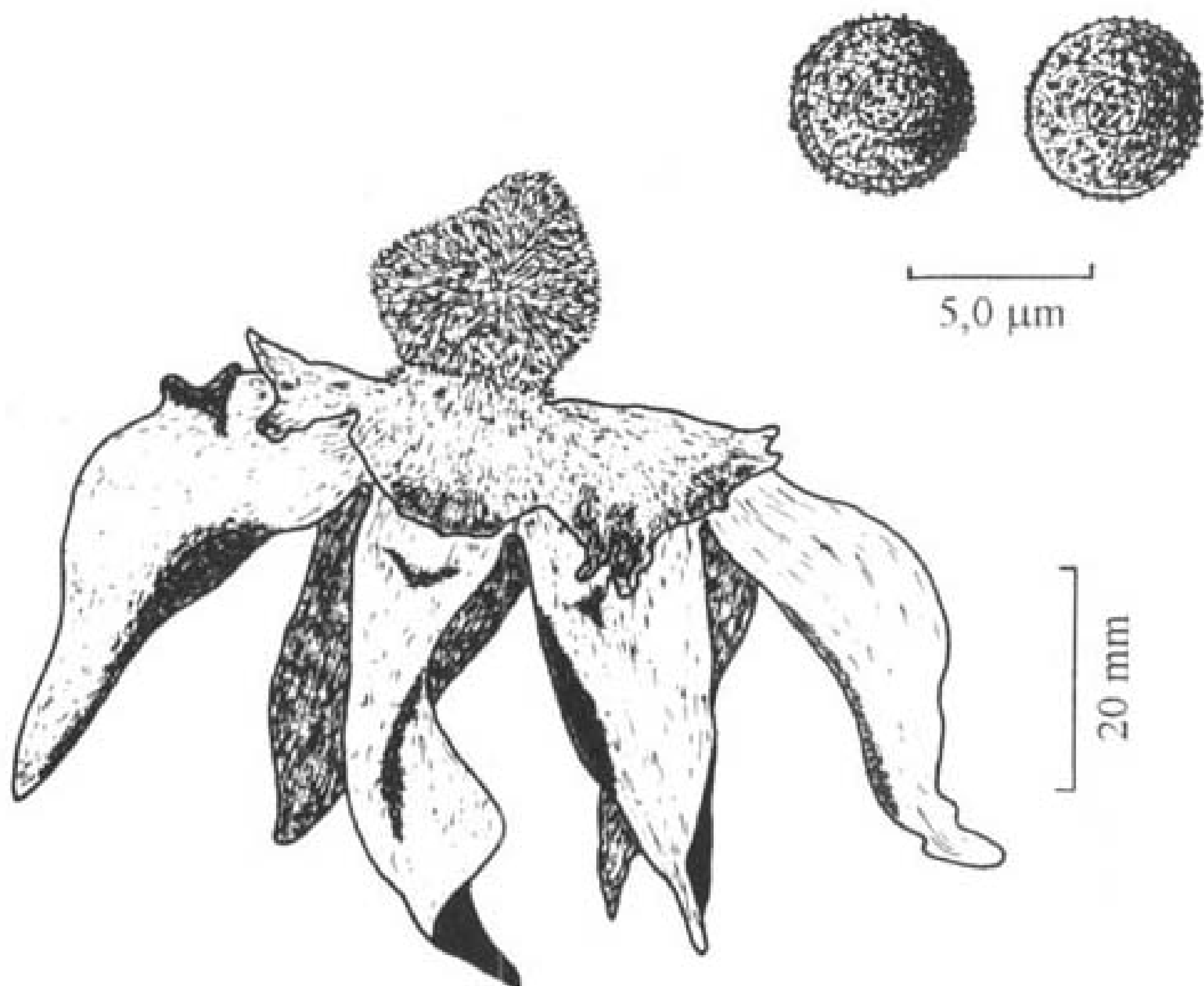


Fig. 2. Fruit-body and spores of *Geastrum melanocephalum* from Puszczykowo near Poznań (drawn by K. Szambelańczyk)

Geastrum melanocephalum has been placed in the Red List of Threatened Macrofungi in Poland in the category of taxa in danger of extinction (Wojewoda and Ławrynowicz 1992).

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Nowe stanowisko *Geastrum melanocephalum* w okolicy Poznania

Streszczenie

Opisano nowe stanowisko bardzo rzadkiego w Polsce gwiazdosza czarnogłowego. Trzy owocniki tego grzyba znaleziono w listopadzie 1996 roku w starym ogrodzie w Puszczykowie około 15 km na południe od Poznania. Przedstawiono charakterystykę cech makroskopowych i mikroskopowych znalezionych owocników oraz rozmieszczenie *Geastrum melanocephalum* w Polsce. Każde stanowisko omawianego gatunku, zamieszczonego na czerwonej liście grzybów wielkoowocnikowych zagrożonych w Polsce w kategorii gatunków wymierających, wymaga odnotowania i zabezpieczenia przed zniszczeniem.