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## ***Formica glauca* RUSKY, 1895 (Hymenoptera, Formicidae) in Poland**

**Abstract:** Data are presented on the occurrence of *Formica glauca* RUSKY in Puszcza Białowieska (the Białowieska Forest), the only known locality (with the only known nest) of this steppe ant species in Poland.

**Key words:** ants, *Formica glauca*, Poland.

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*Formica (Serviformica) glauca* RUSKY, 1895 of the *F. rufibarbis* group is a steppe ant species, which, in ecological categories, is classified as an oligotope of dry grassy habitats. Its range covers the forest-steppe and steppe zone in Eurasia (in the east it reaches the region of the Lake Baykal) where *F. glauca* is one of the commonest ant species of the genus *Formica* L., and also Asia Minor, Crimea, Caucasia and the mountains and oases of Central Asia; in Europe, the northern limit of its compact range runs through Bulgaria, Ukraine and the southern part of Russia (Fig. 1) (DLUSSKY 1967, DLUSSKY et al. 1990, ATANASSOV, DLUSSKY 1992). In Central Europe, some separate sites of *F. glauca* are known from Germany to 53°N; the species is locally reported there in highly xerothermal grasslands (SEIFERT 1996). One nest of *F. glauca* has also been found in Poland, in Puszcza Białowieska (the Białowieska Forest), and this has provided the basis for inclusion of the species in Wykaz Zwierząt Polski (List of the Animals of Poland) (CZECHOWSKI, CZECHOWSKA 1997) and in Wykaz Zwierząt Puszczy Białowieskiej (List of the Animals of the Białowieska Forest) (CZECHOWSKI, DYACHENKO 2000). More detailed data on this record are given below.

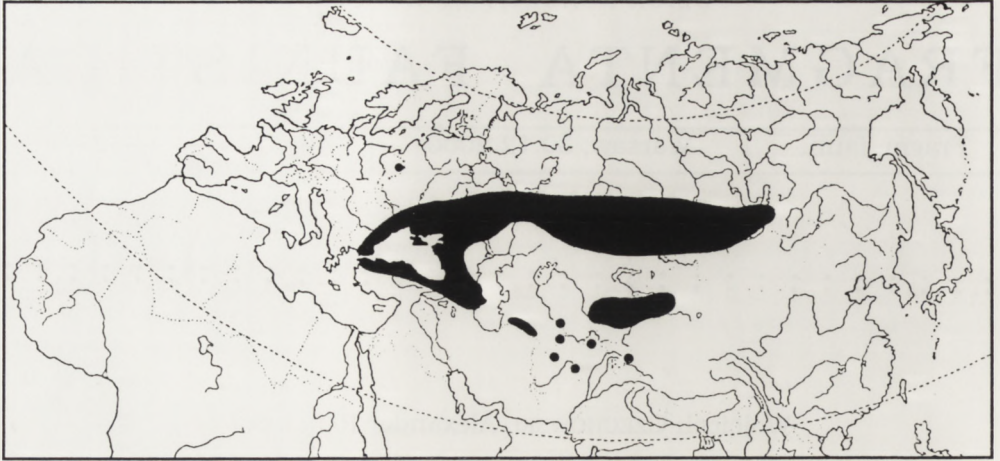


Fig. 1. Distribution of *Formica glauca* in the Palearctic (sites in Germany are omitted).

The colony of *F. glauca* in Puszcza Białowieska (N-E Poland) is situated not far from the village of Topiło near Orzeszkowo (forest inspectorate Hajnówka, forest district Starzyna, forest division 632; 52°38'N, 23°31'E, UTM FD74), outside the National Park. It was discovered in 1992 and has been inspected



Fig. 2. Habitat of *Formica glauca* in Puszcza Białowieska (location of the nest is marked with an arrow) (photo W. Czechowski).

annually since then (last time in 2000). The nest (with a soil mound typical of this group of species) is at the edge of an oak wood in a dry grassy ecotone belt of south-western exposure. The ecotone, which is becoming overgrown with young birches, pines and aspens (Fig. 2), is here over a dozen metres wide and is separated by a gravel road from a vast glade, so prolonged insolation of the nest is possible. In August 2000, the size of the *F. glauca* mound was approximately: Ø 50 cm, h 30 cm.

*F. glauca* is closely related to the Euro-Caucasian species *F. cunicularia* LATR., a polytope of open areas, and until quite recently it was considered its subspecies (*F. cunicularia glauca* RUZSKY, 1895) (DLUSSKY 1965); SEIFERT (1996) has raised it to species status. In Poland, *F. cunicularia* is a common species, also recorded from Puszcza Białowieska (CZECHOWSKI, ROTKIEWICZ 1997). Ecologically, *F. glauca* ants are far more xerophilous while morphologically these two forms differ in colouration and body build: in *F. glauca* the thorax is uniformly yellow-reddish (in *F. cunicularia* it generally is distinctly darkish) and the entire body is larger, more massive. One more species related to *F. glauca*, with ecological requirements similar to those of the latter, is *F. rufibarbis* F., also an oligotope of dry grassy habitats; this is a Euro-Siberian ant, fairly common in Poland, yet not recorded from Puszcza Białowieska. *F. glauca* was first described as its variety, *F. rufibarbis* var. *glauca* RUZSKY, 1895 (see CZECHOWSKI et al. 2001).

## REFERENCES

- ATANASSOV N., DLUSSKY G. M. 1992. Fauna na B'lgariya. 22. *Hymenoptera, Formicidae*. Sofia, 310 pp.
- CZECHOWSKI W., CZECHOWSKA W. 1997. *Formicidae*. In: Wykaz Zwierząt Polski (ed. J. RAZOWSKI). Kraków, pp. 50–56.
- CZECHOWSKI W., DYACHENKO 2000. Mrówki (*Formicidae*). In: Wykaz Zwierząt Puszczy Białowieskiej (ed. J. GUTOWSKI). Białowieża (in press).
- CZECHOWSKI W., RADCHENKO A., CZECHOWSKA W. 2001. The ants (*Hymenoptera, Formicidae*) of Poland. Warszawa (in press).
- CZECHOWSKI W., ROTKIEWICZ W. 1997. Relations between *Formica sanguinea* LATR. and *Formica cinerea cinerea* MAYR (*Hymenoptera, Formicidae*). Ann. zool., Warszawa, 47: 469–478.
- DLUSSKY G. M. 1965. Ants of the genus *Formica* of Mongolia and North-East Tibet. Ann. zool., Warszawa, 23: 15–43.
- DLUSSKY G. M. 1967. Murav'i roda Formika. Moskva, 236 pp.
- DLUSSKY G. M., SOYUNOV O. S., ZABESIN S. I. 1990. Murav'i Turkmenistana. Ashkhabad, 273 pp.
- SEIFERT B. 1996. Ameisen: beobachten, bestimmen. Berlin, 352 pp.

## STRESZCZENIE

[Tytuł: *Formica glauca* RUZSKY, 1895 (*Hymenoptera, Formicidae*) w Polsce]

W Puszczy Białowieskiej w pobliżu wsi Topiło (poza obszarem Parku Narodowego) znajduje się jedyne znane do tej pory w Polsce stanowisko (z jedynym znanym dotychczas gniazdem) *Formica glauca* RUZSKY – stepowej mrówki, której zwarty areal gatunkowy obejmuje strefę stepów i lasostepów Eurazji.