Outdoor Persistence Throughout the Year of Monomorium pharaonis (Hymenoptera: Formicidae)*

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The occurrence of Monomorium pharaonis (Linnaeus 1758) in Czechoslovakia was observed on a refuse dump near Česke Budějovice, Czechoslovakia. The persistence of the species throughout the year is due to favourable temperature conditions created by decaying of the waste materials in the dump.

Keywords: Pharaon’s ant, refuse dump, outdoor persistence, synanthropy.

1 Introduction

In recent years a rapid spread of Pharaon’s ant, Monomorium pharaonis (Linnaeus 1758), has been observed in the temperate zone of Europe.

The distribution of these thermophilic ants is promoted by the extensive installation of central heating, especially in public buildings. The ant is now widespread to such extent that its original source cannot be precisely determined. Most authorities [Lauterer 1971, etc] report that the species originated from the Indo-Oriental region. In Europe its natural distribution is confined to the southernmost regions. Since temperatures (T)\(^1\) near freezing point or below are not tolerated by this species it disappears from time to time even in these warm regions [Atanasov 1965]. Colonies can survive at a T of 5 °C for several days. On the other hand high T are well tolerated and the optimum T of this species are rather high — about 30 °C [Lauterer 1971].

With regard to the above mentioned ecological requirements, mainly those of environmental T, the outdoor occurrence of this species has hitherto not been recorded at least in the cooler parts of Europe.

2 Materials and Methods

Our study was carried out in the dump area of domestic refuse between 1981-05 and 1984-03. The 4 ha dump is situated on the site of an old brickworks, about 1.5 km W’ of the town of Česke Budějovice. It has been used as a dump for 25 years.


\(^1\) temperature(s); in further text: T