***Tinea translucens* MEYRICK, 1917 (Lepidoptera: Tineidae) – a clothes-moth species new to Poland**

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ABSTRACT. *Tinea translucens* has been recorded in Poland for the first time: there are four records from the south and west of the country. The distribution, biology and habitats of this moth are commented on. A differential diagnosis comparing this species with *Tinea pellionella* (only the genital characters of both sexes) is included.

KEY WORDS: Lepidoptera, Tineidae, *Tinea translucens*, *Tinea pellionella*, faunistics, biology, new record.

INTRODUCTION

To date seven species of the genus *Tinea* LINNAEUS, 1758 (Tineidae) are known from Poland (ŚLIWIŃSKI 2000): *Tinea pellionella* LINNAEUS, 1758, *T. dubiella* STANTON, 1859, *T. pallescentella* STANTON, 1851, *T. steueri* G. PETERSEN, 1966, *T. columbriella* WOCKE, 1877, *T. semifulvella* HAWORTH, 1828, and *T. trinotella* THUNBERG, 1794. All of them are keratophagous, i.e. the caterpillars feed on the keratin in animal hairs and bird feathers. Some also forage on the skin and desiccated muscle tissue of birds and mammals

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(ZAGULAJEV 1960, PETERSEN 1969). The moths *T. pellionella*, *T. dubiella*, *T. steueri*, *T. columbariella* and *T. translucens* are externally similar to one another (ROBINSON 1979). *Tinea translucens* MEYRICK 1917, the species described in this paper as new to Poland, most resembles *T. pellionella*.

The localities of *Tinea translucens* given below are in old, pre-war residential buildings. The moths from Częstochowa and Świebodzin were found in the vicinity of stuffed birds. The caterpillars probably live on dead birds and mammals in cellars and lofts. Further such localities in old buildings can be expected.

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DISTRIBUTION

Tinea translucens is a cosmopolitan species, occurring on all continents except Antarctica (ROBINSON 1979). It has been recorded in 22 European countries. Only in the northern part of Europe has it not yet been found: there are no records from any of the Scandinavian countries. It has been recorded in all the countries bordering on Poland except Belarus, from where no information is available on its occurrence (PETERSEN & GAEDIKE 1996, GAEDIKE 2013). The above European records in fact relate to just a few individuals. In areas of Germany adjacent to Poland it was found only in Saxony before 1980; it has not been recorded in either Brandenburg or Mecklenburg (GAEDIKE & HEINICKE 1999).

DIFFERENTIAL DIAGNOSIS

Tinea translucens is almost identical in appearance to *T. pellionella* (Figs 1, 2), so the two species cannot be distinguished on external features alone. Identification is only possible by an examination of the genitalia. The significant differences between *T. translucens* and *T. pellionella* in the male and female genitalia are given below.

Fig. 1-2. Adults. 1 – *Tinea translucens* MEYRICK, 1917, male (Częstochowa UTM: CB63 22.04.1993; ex l., leg. W. ZAJDA); 2 – *Tinea pellionella* LINNAEUS, 1758 (Wielowieś WU20, larva 5.01.2001; ex l. 24.03.2001, leg. M. MLECZAK). Photos M. MLECZAK.

Males (Figs 3-6):

The two large cornuti in *T. pellionella* are lancet-like, whereas in *T. translucens* they are distinctly blunter near the apex of the aedeagus (Figs 3-4). In *T. translucens* there is an apical group of small cornuti on the aedeagus, which are several times longer than the tiny cornuti in *pellionella* (Figs 5-6). The aedeagus in *T. pellionella* is curved banana-like and is no longer than the genitalia as a whole, whereas in *T. translucens* it is straight and longer than the genitalia as a whole. The top of valvae are more regularly rounded than those of *T. pellionella* (Figs 3-4).

Figs. 3-6. Male genitalia. 3 – *Tinea translucens* – general view (showing the tip of the aedeagus); 4 – *Tinea pellionella* – general view (showing the tip of the aedeagus); 5 – *Tinea translucens* – cornuti; 6 – *Tinea pellionella* – cornuti. Photos A. MALKIEWICZ, E. BARANIAK.

Females (Figs 7-9):

The most significant difference in the female genitalia is in the shape of the cleft in the eighth abdominal sternite. In females of *T. translucens* this cleft is deep, narrow and V-shaped (Fig. 7). In contrast, this cleft in females of *T. pellionella* is shallower, wider and U-shaped. The sclerotized part (antrum) of the ductus bursae in *T. translucens* is longer and narrower than in *T. pellionella* (Figs 7-8). The corpus bursae in *T. translucens* has two

conspicuous needle-shaped signa, each arising from one side of broad, blade-shaped base plate (Fig. 9).

Figs. 7-9. Female genitalia. 7 – *Tinea translucens* – ductus bursae with antrum; 8 – *Tinea pellionella* – ductus bursae with antrum; 9 – *Tinea translucens* – the shape of the signum. Photos E. BARANIAK (Figs 7, 9), A. PIWNIK (Fig. 8).

MATERIAL EXAMINED

***Tinea translucens* MEYRICK, 1917 [syn.: *T. metonella* PIERCE & METCALFE, 1934]
(Fig. 10)**

- Koźuchów (UTM: WT43) 10.05.1987, 1♂, leg. E. & S. FUGLEWICZ
- Częstochowa (UTM: CB63) 22.04.1993, 3♂♂, caterpillars foraging on stuffed birds, leg. W. ZAJDA
- Świebodzin (UTM: WT39) 3.08.1997, 7♂♂, 11♀♀, dead moths found in a bag containing stuffed birds, leg. M. MLECZAK

- Wrocław – Old Town (UTM: XS46) 10.06.2010, 1♀; 18.05.2012, 1♂, leg. X. DOBRZAŃSKI

Fig. 10. The distribution of the newly-discovered localities of *Tinea translucens* MEYRICK, 1917 in Poland.

***Tinea pellionella* LINNAEUS, 1758**

- Wielowieś (UTM: WU20) larva 5.01.2001, ex. larva 24.03.2001, 4♂, 2♀, bred from a nest of *Parus* sp., leg. M. MLECZAK
- Zakopane (UTM: DV26) 6.07.2001, 1♂, in a flat, leg. M. MLECZAK

- Leśna Góra (UTM: WT46) larva 15.06.2003, ex. larva 20.07.2003, 2♂♂, 8♀♀, bred from pellets of *Tyto alba* (SCOPOLI, 1769), leg. M. MLECZAK
- Gościkowo (UTM: WT39) 21.09.2000, 1♀, in a building, leg. M. MLECZAK
- Gościkowo (UTM: WT39) larva 10.02.1999, ex. larva 23.03.1999, 1♂, 1♀, from a nest of *Parus* sp., leg. M. MLECZAK
- Nowy Dworek (UTM: WT39) larva 4.10.2012, ex. larva 3.02.2013, 1♀, breeding No.300, from a dead shrew in the attic, leg. M. MLECZAK
- Pieski (UTM: WU20) 2.08.2005, 2♂♂, in a flat, leg. M. MLECZAK
- Owczary (UTM: VU71) 26.07.2001, 1♂, in a flat, leg. M. MLECZAK
- Lublinek – Ogródki (UTM: CC83) 26.06.2009, leg. S. SOBCHAK
- Osowa (UTM: FC70) 15.04.2002, 1♀, leg. M. HOŁOWIŃSKI
- Macoszyn (UTM: FB79) 10.07.2011, 1♀, 15.07.2011, 1♀, leg. M. HOŁOWIŃSKI
- Wrocław – Biskupin (UTM: XS46) 05.2001, 10-15.04.2004, 05.2012, 3♀♀, in a flat, leg. A. MALKIEWICZ
- Ruda Mińska (UTM: XT61) 1-15.07.1988, 1♂, in the building of the University of Wrocław's Ornithological Station., leg. A. MALKIEWICZ
- Góra (UTM: XT02) 18.03.2012, 1♀, in a flat, leg. A. MALKIEWICZ
- Kozuchów (UTM: WT43) 10.05.1987, 1♂, leg. E. & S. FUGLEWICZ

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