

FLEAS INFESTING NESTS OF PASSER MONTANUS AND SOME OTHER BIRDS

In the years 1973-1974 studies were carried out in south Moravia on nidicolous parasites of 40 bird species, primarily passerines. Out of 175 nests investigated 68 were infested with fleas. The nests were transported to laboratory in linen or polyethylene bags and processed by standard method within one week.

The collection also contained fleas found in tree hollows (101 fleas), on birds (1 flea) and free on the ground (1). A total of 2,170 fleas belonging to the following 14 species was found. (See Table 1). *Ceratophyllus borealis* Roth., *C. fringillae* (Walker), *C. gallinae* (Schr.), *C. garei* Roth., *C. hirundinis* (Curt.), *C. pullatus* J. et R., *C. rusticus* Wagn., *C. styx* *styx* Roth., *C. tribuloides* Jord., *C. vagabundus* *insularis* Roth., *Dasypyllus gallinulae* *gallinulae* (Dale), *Nosopsyllus fasciatus* (Bose), *Monopsyllus sciurorum* *sciurorum* (Schr.) and *Spilopsyllus cuniculi* (Dale).

More than one third of material investigated belonged to the nests of *Passer montanus* (L.). Apart from *C. gallinae*, *C. fringillae*, *C. garei* and *M. sciurorum*, 1 specimen of *Ceratophyllus tribuloides* (Sokolnice, 30. 8. 1973) was found, so far known in this country only from east Slovakia. In two nests of *Passer montanus*, containing mouse faeces, *C. gallinae* and the flea of synanthropic rodents *Nosopsyllus fasciatus* were present. *N. fasciatus* was evidently transported to the nests of tree sparrows by mice (*Apodemus*) that climb to the nest boxes of the birds and occupy them from time to time.

Thirty nine passerines out of 108 regularly or rarely nesting songbirds in this country have not been so far examined on the occurrence of fleas. The following bird species were identified in our collection as flea hosts new for Czechoslovakia:

Monticola saxatilis (L.)

While regularly nesting in Slovakia, in Moravia it is rarely found in four localities (O. Ferianc, Stavovce Slovenska III., 1965). *Ceratophyllus borealis* and *Dasypyllus gallinulae* are well known fleas of this bird species. We found 1 ♂ *Ceratophyllus garei* in the remnants of previously well used nest of *M. saxatilis* situated in a recess in Pavlovské vrchy Mts., 31. 3. 1974.

In the same locality, free on the ground we found a specimen of *Ceratophyllus borealis*, so far known in this country in the High Tatras and Krkonoše Mts. (B. Rosický, Blechy - Aphanaptera, Fauna ČSR 10, 1957).

Aegithalos caudatus (L.)

A rather abundant species in dry biotopes, building eggshaped nests with a side opening. 1 ♀ *Dasypyllus gallinulae* (Brno, 6. 6. 1973, lgt. J. Vlk) was found in one nest, also recorded in nests of long-tailed tits by other authors.

Panurus biarmicus (L.)

It is rarely nesting among reeds of south-west Slovakia and south Moravia. 2 ♂ and 2 ♀ *Ceratophyllus garei* were found in a nest among reeds of the fishpond Vrkoč (Pohořelice, 15. 6. 1961).

Emberiza schoeniclus (L.)

1 ♂ *Ceratophyllus garei* was found on the body of this bird trapped in net near the fishpond Nesy (4. 8. 1973, lgt. M. Konečný).

Cinclus cinclus (L.)

Six nests were examined and in one of them 1 ♂ *Dasypyllus gallinulae* (Sloup - Ostrov, 16. 6. 1973) was found. The same flea species was found on a dipper in the Polish Tatras (K. Bartkowska, Fragm. faunistica 19: 227 to 283, 1973).

No fleas were found in nests of the following 22 bird species: *Merops apiaster* (7 nests), *Muscicapa striata* (3), *Ficedula parva*, *Sylvia borin*, *S. atricapilla*, *Hippolais icterina*, *Phylloscopus collybita*, *Turdus viscivorus*, *Prunella modularis*, *Troglodytes troglodytes*, *Lanius minor*, *L. senator*, *Carduelis chloris*, *Lullula arborea* (1 nest respectively), *Turdus philomelos*, *T. merula*, *Serinus serinus* (2 nests respectively), *Remiz pendulinus* (4), *Corvus frugilegus* (10), *Fringilla coelebs* (3), *Passer domesticus* (3), *Phoenicurus ochruros* (5).

J. RYBA and F. BALÁT

Institute of Parasitology, Czechoslovak Academy of Sciences, Prague and Institute of Vertebrate Zoology, Czechoslovak Academy of Sciences, Brno, ČSSR

Table 1. Fleas from nests 1) of birds nesting in tree-crowns, hollows (nest boxes) and shrubberies 2) of birds nesting on the ground (water) or immediately above the ground (water), 3) of *Delichon urbica*, 4) of *Riparia riparia*