Chris. With best wishes Malcolm

RECORDS OF ECTOPARASITIC INSECTS FROM THE COLLARED DOVE *STREPTOPELIA DECAOCTO* (FRIVALDSKY) (AVES: COLUMBIDAE) WITH THREE SPECIES OF PHTHIRAPTERA NEW TO THE BRITISH LIST

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The Collared Dove, *Streptopelia decaocto* (Frivaldsky), is thought to have originated in India with a range extending as far west as Turkey (Coombs *et al.*, 1981). Interest in this species has centred around a remarkable expansion of this range, its arrival in Britain being recorded in 1952, with the first breeding pair recorded in 1955 (Nowak & Nowak, 1962; Hudson, 1965; 1972). On arrival in Britain, this species was specially protected under the 'Protection of Birds Act, 1954', but with continued expansion of both range and population it was transferred to Schedule 2 for England and Wales in 1977. Common Bird Census figures obtained from the British Trust for Ornithology indicate that *S. decaocto* continues to increase in number faster than any other recorded species in Britain. It is this rapid expansion of range, together with a large population increase, that offers the opportunity to look more specifically at the ectoparasitic insects carried by this bird to Britain.

This study was undertaken between September and February over two winters (1980–1982) at Dishley Grange Farm, Loughborough, Leicestershire (SK/513 212). During these winter periods the population of *S. decaocto* increased, attracted to the site by an accessible grain store. Numbers were monitored and a sample of 95 birds was caught using a modified crow trap (Dudley, 1980) and mist nests. As the ectoparasite data formed only part of a wider study involving biometrics and age determination of *S. decaocto*, it was important not to have mortalities amongst the bird population due to sampling methods. The method of de-parasitising the bird chosen was a simplified Fair Isle Apparatus (Williamson, 1954).

Birds were placed in the Fair Isle Apparatus for 20 minutes, this period having been determined by a series of time-curve experiments. This was not, however, followed up by a total skin digest to ensure total parasitic extraction, as suggested by some authors. Once the birds had been removed from the Fair Isle Apparatus, an inspection of the head was carried out and the plumage brushed for loosely attached ectoparasites or casuals. The insects were then stored in 70% ethyl alcohol.

Species	Location of records	Present study
Hohorstiella modesta Ansari, 1941	India, Czechoslovakia, central Europe	—
Hohorstiella sp. (not *modesta*)	Czechoslovakia	—
**Bonomiella concii* Eichler, 1947	Scotland, central & southern Europe	14 ♀ from 10 hosts.
**Columbicola columbae bacillus* Giebel, 1866	Israel	700 specimens from 63 hosts. Sex ratio, 1 ♂: 1.15 ♀. 52, 1st instar; 54, 2nd instar; 75, 3rd instar; 519 adults.
Columbicola claviformis Denny, 1842	Reading (England)	—
**Coloceras piageti* Johnston & Harrison, 1912	Rumania	66 adults from 20 hosts. Sex ratio, 1 ♂: 1.54 ♀. Nymphs not counted.
Turturicola salimali Clay & Meinertzhagen, 1937	India	—
**Nitzschiella hilli* Bedford, 1920	Israel	30 specimens from 19 hosts. Sex ratio, 1 ♂: 2.75 ♀. Nymphs not counted.

(after Dyrez, 1956; Nowak & Nowak, 1962; McClure & Ratanaworabhan, 1970; Serban, 1970; Zlotorzycka, 1972; 1976.)
* indicates species collected in present study.

Table 1. Phthiraptera (Mallophaga) recorded from *S. decaocto*.

The seasonal effect indicated in the methodology is due to the opportunistic nature of the birds' behaviour in that numbers only aggregated at this open-grain site during the winter months (maximum = 120/day). During the summer period a small resident population of >10 birds was maintained. It was only with the availability of larger numbers that capture of this cautious bird became possible.

Existing information of the ectoparasitic fauna of *S. decaocto* is limited and only available from a sparse literature together with the reference collection of the British Museum (Natural History), London. The principal group of insects found was the order Phthiraptera (Mallophaga), of which *Columbicola columbae bacillus* Giebel, 1866, *Coloceras piageti* Johnston & Harrison, 1912, and *Nitzschiella hilli* Bedford, 1920 were found to be new to the British list. The results are summarised in Table 1.

1 ♀ *Ceratophyllus gallinae* Schrank, 1803 (Siphonaptera) was also collected, this appearing to be the first record of this order on *S. decaocto* in Britain (R. S. George, pers. comm.).

Limothrips denticornis Haliday, 1836 (Thysanoptera) (7 specimens from 4 hosts) and *Psychoda* sp. (Diptera) (1 ♀) were also collected but can be regarded as casuals.

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NOTES AND OBSERVATIONS

An apparent expansion of the known range of *Conocephalus discolor* (Thunberg) (Orthoptera: Tettigoniidae) into the New Forest and heathlands of east Dorset

The Long-winged Cone-head Bush Cricket has been recorded from isolated colonies on the Dorset coast for several decades but remained undetected inland in the county until the summer of 1983. Then, during visits to a number of heathland sites by R. McGibbon and J. White of the Nature Conservancy Council, the bush cricket was discovered at Horton Common, SU 075072; Upton Heath SY 985941 and Ferndown Common SZ 070997, as well as in a site on the Purbeck coast, SZ 012768.

Even more dramatic has been the discovery of the species in 43 new sites to date, within the boundaries of the New Forest and environs by A. and N. Welstead. These discoveries were made during the course of the first three months of their survey of New Forest Orthoptera on a 1 km^2 basis. Prior to their survey the bush cricket had been found in only four sites within the New Forest boundary. The earliest was in the 1 km square SZ 3698 in September 1977 by A. Bolton. In September 1981 a second site was located by R. S. Cropper at Hinton Admiral, SZ 205949. Three further sites were discovered in August 1982: at SU 368045 by R. Williams, SU 357046 and on the other side of the Forest at Vales Moor, SU 198021, by M. Davies.

During July-September 1983 the Welsteads conducted their 1 km^2 Orthoptera survey outwards from Hythe and soon found that there were colonies of *C. discolor* throughout the south-eastern sector of the New Forest, certainly as far west as Frame Heath Inclosure, SU 3403. The Welsteads and I also located the species at Wilverley Walk, SZ 2499 and SU 2400 in September. Extra-macropterous individuals were present in a number of the sites including Wilverley Walk and Vales Moor.