

Maggot infestation of Nestling Linnets (*Carduelis cannabina* (L.)) and Chaffinches (*Fringilla coelebs* L.).

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(Med et dansk resumé: Maddikeangreb på unger af Tornirisk (*Carduelis cannabina* (L.)) og Bogfinke (*Fringilla coelebs* L.).

While rearing nestlings of Linnet and Chaffinch it happened to me on two occasions that a nest with young of each of the two species in question was infested with maggots. In the first case in 1953 it was a nest of the Linnet containing 4 nestlings 6 days old. The nest with the young was removed from its natural site and placed in a little box. The nestlings were fed with a pair of tweezers when gaping for food. The next day I could see that the young were not doing well as in other cases in which I had reared Linnet nestlings. Early in the morning the following day one of the nestlings was lying dead in the nest, one was sitting in the nest and two were lying outside the nest. I had never before seen Linnet nestlings of this age showing any tendency to leave the nest. By examining the dead young I noticed 4 maggots attached to its ventral side. Then I also examined the live young sitting in the nest which also proved to have 4 maggots each. When I picked out the young, the maggots fell down and disappeared rapidly in the nest material in the bottom of the nest. The dead young as well as the three live ones had several minute lacerations on their ventral sides. The three young were placed in the nest again and some hours later they were found dead. Unfortunately the nest containing a lot of maggots was thrown away before the maggots had been counted and identified.

In June 1956 I took a chaffinch-nest containing 5 nestlings. When I picked up the young, each of them appeared to have 3-5 maggots adhering to their ventral sides on the naked part between the two ventral tracts of young feathers. The maggots were difficult to remove as they had thrust their anterior end into the skin of the nestlings. Their anterior end is modified to form a sucker with hooks in the centre. When they fell

down they moved into the bottom layers of the nest materials. The nestlings appeared healthy with only minute lacerations on the ventral side to indicate feeding by the maggots. In order that the young might do well I placed them in an artificial nest in a flower-pot.

The chaffinch-nest was torn into pieces and the nest materials were examined for maggots. 155 maggots were found lying singly or in clusters among the nest materials consisting of moss and horse hairs. Dr. G. LARSSON has identified them as maggots of the genus *Protocalliphora*. Some of the maggots were placed in a glass with some nest material, but they have not yet hatched 5 months later.

In both cases the maggots were only attached to the ventral side of the nestlings and were not to be found in the ears, nostrils, and legs as known from the literature (OWEN 1954).

According to ROTHSCHILD & CLAY (1952) the adult bird-bottle flies feed on nectar and lay eggs in birds' nests, and when the larvae hatch they attach themselves to nestlings and suck their blood. When fully grown the larvae pupate in the bottom of the nest, and the flies emerge in about 10 days.

Attack by maggots of *Protocalliphora* are mentioned in the literature mostly in ornithological papers, not so much in entomological works. There are comparatively few records of the occurrence of maggots in the nests of European birds. In America there are many references in the literature. The readers are especially referred to the recent review of OWEN (l. c.) and the book by ROTHSCHILD & CLAY (l. c.).

The larvae sometimes kill the nestlings, but at other times apparently do them no harm. In many cases where mortality has been recorded, OWEN (l. c.) and LACK (1954) think that other factors such as food shortage might have been involved. OWEN further suggests that as the parasites depend on living birds their hosts will die only in exceptional cases. But still I think that the attacks of maggots might affect the size of the broods. Further observations about nests infested with maggots is required.

DANSK RESUMÉ

Maddikeangreb på unger af Tornirisk (*Carduelis cannabina* (L.)) og Bogfinke (*Fringilla coelebs* L.).

. Ved kunstig opmadning af fugleunger blev der opdaget maddiker i en tornirisk-rede med 4 unger og en bogfinke-rede med 5 unger. Disse maddiker, der er larver af spyfluen *Protocalliphora*, sad fast på ungernes bug og sugede blod. Inde i redematerialet var der en mængde maddiker, i bogfinke-reden var der således 155.

Alle torniriskungerne døde dagen efter, at reden var blevet fundet. Bogfinkeungerne klarede sig sikkert kun, fordi de blev flyttet over i en kunstig rede.

Maddikeangreb på fugleunger er sikkert mere almindeligt end man tror. Det ville være meget interessant at få undersøgt maddikeangrebs eventuelle indflydelse på antallet af fugleunger. Ringmærkere, der får så mange fugleunger i hænderne, kan gøre en indsats her ved at have opmærksomheden henvendt på forekomst af maddiker på fugleunger.

References.

- LACK, D. 1954: The Natural Regulation of Animal Numbers. – Oxford.
OWEN, D. T. 1954: *Protocalliphora* in Bird's Nests. *Brit. Birds* **47**,
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ROTHSCHILD, M. & CLAY, TH. 1952: Fleas, Flukes and Cuckoos. – London.