

A case of wound myiasis in the nightjar.

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On 7. IX. 1958 at about 12 noon in the parish Bromarf in S. W. Finland, the author observed a specimen of the nightjar (*Caprimulgus europaeus* L.) resting on a small road. The bird had obviously been injured by a car during the preceding night, as its right wing was broken and in it was a slightly bleeding wound about 1.5 cm long. The bird was alive, however, and tried to fly away, but could only flutter to a height of about 0.5 m. When the writer was at a distance of about 0.5—2 m from the nightjar it opened its mouth and wheezed quietly. The bird was killed mechanically and after this it was observed that the wound was inhabited by fly maggots 4—5 mm long. The maggots had thus lived in the open wound of a living bird and this was thus a case of wound myiasis.

The dead bird, weighing 55 g, was immediately placed in a jar, the bottom of which was covered with wet sand and mosses (*Pleurozium schreberi*). The jar was carefully closed with double batiste and placed in a cage so that it was completely protected against any visits from flies which oviposit in carcasses. The jar was kept at outdoor temperature until 19. X, on which day it was brought indoors and kept at a constant temperature of 18—20° C. On 20. X. fly maggots about 1 cm long were observed creeping in the jar in search of pupation sites. The first fly emerged on 7. XI. and was a male of *Lucilia richardsi* Collin (*Diptera Calliphoridae*). In field conditions it would without doubt have been impossible for the fly to emerge until after the winter. Two additional males of the same species emerged on 13. XI. and 14. XI. They lived in the cage 18 and 23 days with sucrose, the mummified nightjar and water as sources of nourishment.

Lucilia richardsi is a species whose biology is unknown and which has only rarely been observed in Finland. In this country it occurs only south of latitude 62° 30' (NUORTEVA 1959 a). By using traps baited with raw fish the writer has collected flies of the genus *Lucilia* at a distance of about 1.5 km from the place where the nightjar in question was detected. At the end of August and beginning of September, 1363 specimens of the genus *Lucilia* were collected and determined (NUORTEVA 1959 b) but this material comprised only 1 spe-

cimen of *Lucilia richardsi*. The fact that it was this rare species which had oviposited in the wound of the nightjar in question seems to indicate that *Lucilia richardsi* is attracted to open wounds more strongly than the very abundant species of this genus (*Lucilia illustris* Meig. and *L. caesar* L.).

The attraction of blowflies to open wounds for oviposition and the resultant disease named wound myiasis are comparatively common phenomena in many countries. But GRAGG and COLE (1956) have shown experimentally that great racial differences exist in the ovipositional behaviour of blowflies. Thus, although it has been known that some species of *Lucilia* (especially the species *L. sericata* Meig.) oviposit in open wounds of terrestrial vertebrates in many countries of Europe, it has been uncertain whether *Lucilias* will visit wounds in Finland in the same way. The present observation seems to show that they will. As far as the writer is aware, in no case of wound myiasis previously observed in Finland has the fly species involved been determined. The present observation is of special interest because the hypothesis has been advanced that the transmission of poliomyelitis viruses to human wounds by flies would cause the paralytic form of poliomyelitis more readily than transmission of the viruses via the food (NUORTEVA 1959 a).

Summary: A case of wound myiasis caused by the blowfly *Lucilia richardsi* Collin in the nightjar in S. W. Finland in September, 1958, is described and the significance of the observation is briefly discussed.

References: CRAGG, J. B. and COLE, P. 1956 Laboratory studies on the chemosensory reactions of blowflies. *Ann. Appl. Biol.* 44, p. 478—491. — NUORTEVA, P. 1959 a, Studies on the significance of flies in the transmission of poliomyelitis. I. The occurrence of the *Lucilia* species (Dipt. Calliphoridae) in relation to the occurrence of poliomyelitis in Finland. *Ann. Entomol. Fenn.* 25, p. 1—24. — 1959 b. Studies on the significance of flies in the transmission of poliomyelitis III. The composition of the blowfly fauna and the activity of these flies in relation to the weather at the epidemic season of poliomyelitis in South Finland. *Ibid.* (in the press).

Selostus: **Haavamyiasis-tapaus kehrääjällä.** Tekijä ilmoittaa todenneensa tapauksen, jossa elävällä kehrääjällä oli haavassaan kehittymässä kärpästoukkia. Kasvatuksen avulla todettiin toukkien olevan lajia *Lucilia richardsi* Collin (Diptera, Calliphoridae), jonka elämäntavat ovat tieteelle tuntemattomat ja joka esiintyy harvinaisena maamme eteläosissa. Tapauksella on yleisempää

mielenkiintoa sikäli, että *Lucilia*-suvun raatokärpästen on epäilty aiheuttavan paljon paralyyttistä muotoa levittämällä k.o. sairauden aiheuttavia viruksia haavoihin. Varhemmin ei ole ollut varmaa tietoa siitä, käyvätkö maassamme esiintyvät *Lucilia*-suvun kärpäset avoimilla haavoilla munimassa tai munintaa yrittämässä.

Über die Lautäusserungen und die Bedeutung der Lautsignale des erwachsenen Waldkauzes (*Strix aluco*) auf Grund experimenteller Untersuchungen.

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Wenn der Phonetiker die Lautäusserungen des Menschen analysiert, untersucht er die mit dem Magnetophon wiederholten Sätze oder Wörter entweder nur mit dem Gehör oder sowohl mit dem Gehör als mit der Sonagraphenmethode. Bei meinen Untersuchungen über die Lautsignale des Waldkauzes habe ich beide Methoden benutzt, doch werden nachfolgend nur einige vermittels der ersteren Methode erzielte Ergebnisse vorgelegt.

Ich benutzte ein Bandmagnetophon ähnlich wie SAUER (1954) bei seinen Untersuchungen an der Dorngrasmücke (*Sylvia communis*). Während der Stimmaufnahmen wurde schon der Versuch gemacht, die verschiedenen Signale durch Beobachtung des gleichzeitigen Benehmens der Eulen zu deuten. Die registrierten Signale wurden dann denselben Eulen, den Bewohnern anderer Reviere (hauptsächlich in Helsinki und Lohja, Süd-Finnland) und gefangenen Eulen im Tiergarten Korkeasaari (Helsinki) vorgespielt. Die Aufnahmen und das Vorspielen wurden in verschiedenen Jahreszeiten vorgenommen.

Von den verschiedenen Aufzeichnungsmethoden der Lautsignale der Vögel mögen hier nur die von MARLER (1956) u.a. gebrauchte Sonagraphenmethode, die Oscillographenmethode von SCHMIDT und die Notenaufzeichnungsmethode STADLERS und seiner Mitarbeiter (1930, 1932) erwähnt werden. Die Aufzeichnungsmethode von GENGLER (1907), SAUER (1954) und MOYNIHAN (1958) macht auch die Intonation und den Silbenrhythmus analysierbar, die genauere Un-