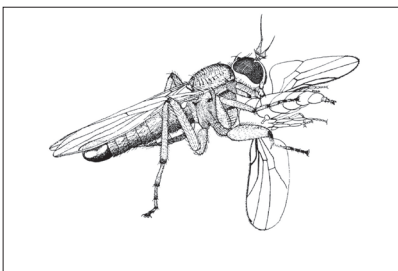


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Short note – Kurzmitteilung
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Behaviour – Verhalten

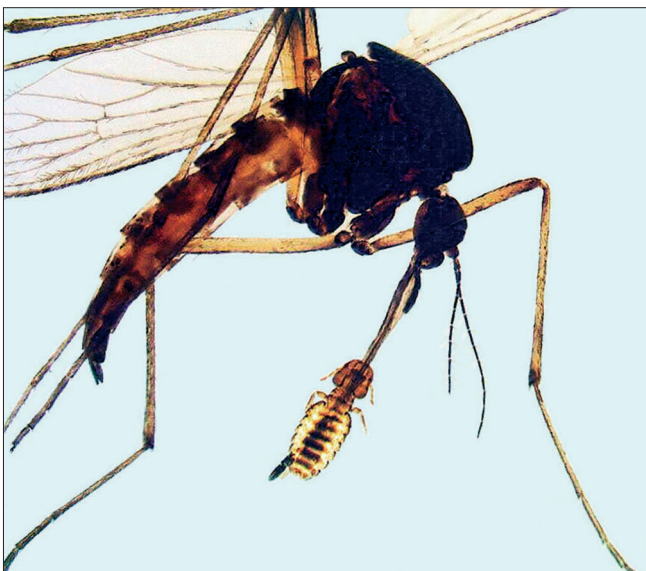
**New record of a chewing louse on a species of
Ochlerotatus LYNCH-ARRIBÁLZAGA (Diptera: Culicidae)**

[Neuer Fund eines Mallophagen an einer Art von
Ochlerotatus LYNCH-ARRIBÁLZAGA (Diptera: Culicidae)]

by

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On 13th May 2013 a female mosquito of *Ochlerotatus* spec. was caught while it attacked a human at Serwest (near Chorin, 52°56'26"N 13°56'34"E, federal state Brandenburg, Germany). Attached to the mosquito was a 3rd instar of the chewing louse *Damalina (Cervicola) meyeri* (TASCHENBERG, 1882) (Ischnocera: Bovicolidae) (Figs 1, 2). This chewing louse clung with its mandibles and fore legs to the host's proboscis (Fig. 3).

Phoresy – using other animals for transport to new hosts or habitats – is widespread behaviour among chewing lice, mostly involving hippoboscid flies (Diptera: Hippoboscidae). Not less than 405 cases

Fig. 1: *Damalina meyeri* (TASCHENBERG) on *Ochlerotatus* spec.



2 **3** **Figs 2, 3:** *Damalina meyeri* (TASCHENBERG) on *Ochlerotatus* spec. – **2:** Habitus of *D. meyeri*, dorsal view. – **3:** Details of head and thorax of *D. meyeri*, ventral view (mandible and fore leg arrowed).

of phoresy between chewing lice and bird-adapted hippoboscids were found in literature by KEIRANS (1975). Only a few cases of phoresy involving mosquitoes have so far been reported. All European records involved the roe deer parasite *Damalina meyeri* (PEUS 1933, EICHLER 1944, MINÁR 1966, NIELSEN 1990). It was found on different *Ochlerotatus* species attached either to the proboscis [5 records in PEUS (1933), EICHLER (1944), NIELSEN (1990), and present] or to the legs [7 cases recorded by MINÁR (1966)]. These different points of attachment and the fact that *D. meyeri* is also reported from the blood-feeding muscid fly *Haematobosca stimulans* (MEIGEN, 1824) (EICHLER 1944) and the hippoboscid fly *Lipoptena cervi* (LINNAEUS, 1758) (BÜTTIKER & ČERNÝ 1974) leads to the conclusion that phoretic behaviour of *D. meyeri* is not specialised and the selection of the carrier seems to be a result of chance.

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Dr Doreen WERNER (Müncheberg, Germany) kindly determined the slide-mounted mosquito as far as possible. Thanks also to Andrew D. LISTON (Müncheberg, Germany) and Dr Dieter KÖHLER (Berlin, Germany), who proof-read the manuscript.

Literature

- BÜTTIKER, W. & ČERNÝ, V. (1974): Phoresie bei Hippobosciden (Diptera) von Säugetieren und Vögeln in der Schweiz. – *Mitteilungen der schweizerischen Entomologischen Gesellschaft* 47: 319–326.
- EICHLER, W. (1944): Untersuchung zur Epidemiologie der Außenparasiten. V. Übertragungsmöglichkeiten für flugunfähige Ektoparasiten. – *Archiv für wissenschaftliche und praktische Tierheilkunde* 79: 309–319.
- KEIRANS, J. E. (1975): Records of phoretic attachment of Mallophaga (Insecta: Phthiraptera) on Insects other than Hippoboscidae. – *Journal of Medical Entomology* 12: 476.

- MINÁR, J. (1966): Phoresia of *Damalinia (C.) meyeri* (Mallophaga) and *Lamprochernes nodosus* (Pseudoscorpiones) on Mosquitoes *Aedes sticticus* (Culicidae). – *Folia Parasitologica* **13**: 270–273.
- NIELSEN, B. O. (1990): Phoresy of *Cervicola meyeri* (TASCHENB.) on *Aedes communis* (DEG.). – *Entomologiske Meddelelser* **58**: 43–45.
- PEUS, F. (1933): Transport von Mallophagen durch Stechmücken. – *Zeitschrift für Parasitenkunde* **5**: 740–741.

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