

A NEW SPECIES OF *GONIODES* (MALLOPHAGA: PHILOPTERIDAE) FROM THE MALLEE FOWL (GALLIFORMES: MEGAPODIIDAE)¹

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Abstract. A new species, *Goniodes leipoae*, is described and illustrated from specimens taken off the Mallee Fowl, *Leipoa ocellata*, from South Australia.

In a comprehensive revision of the mallophagan genus *Goniodes* Nitzsch, Clay (1940) established species groups A through M and placed the species found on hosts of the galliform family Megapodiidae in species group M. She noted, "It is probable that new species will be found on the Megapodiidae, which will necessitate the further division of the group." Her prediction has proven true with our discovery of a new species of *Goniodes* represented in several series of Mallophaga taken from the Mallee Fowl and sent to us for study. It is our purpose here to describe and illustrate this new species.

***Goniodes leipoae* Emerson & Price, new species**

Fig. 1–5

Type-host: *Leipoa ocellata* Gould, the Mallee Fowl.

♂. As in Fig. 1. Antenna with enlarged basal segment and 4th segment attached at right angle to midportion of 3rd segment. Clavi large, well developed. Temples only slightly wider than preantennal region of forehead; preantennal head width 0.51–0.53 mm, temple width 0.55–0.56 mm. Head length 0.44–0.45 mm. Chaetotaxy of head as in Fig. 1. Pronotum with single long lateroposterior corner seta on each side; width 0.41–0.44 mm. Pteronotum with 8 long and 2 medium posteromarginal setae; width 0.63–0.65 mm. Large abdominal tergal plates on each side of segments II–VII; smaller on VIII–IX, with small additional median plate on each side of VIII and single median plate on IX; sculpturing of tergal plates much as in square shown for ♀ tergite VIII in Fig. 2. Pleural plates with prominent internal thickenings on segments III–VIII. Median sternal plates and elongate subgenital plate on each side (Fig. 1, 3). Chaetotaxy different for each abdominal segment (Fig. 1, 3). Terminal tergal plate with numerous setae on its surface. Abdominal width 1.04–1.11 mm. Total length 1.96–2.01 mm. Genitalia (Fig. 4) with very long slender parameres, continuous with prominent outer margin of basal plate; length 0.94–0.96 mm, width 0.17–0.18 mm.

♀. As in Fig. 2. Antenna filiform, basal segment not greatly enlarged. Clavi small. Temples greatly expanded, angular; preantennal head width 0.54–0.55 mm, temple width 0.79–0.81

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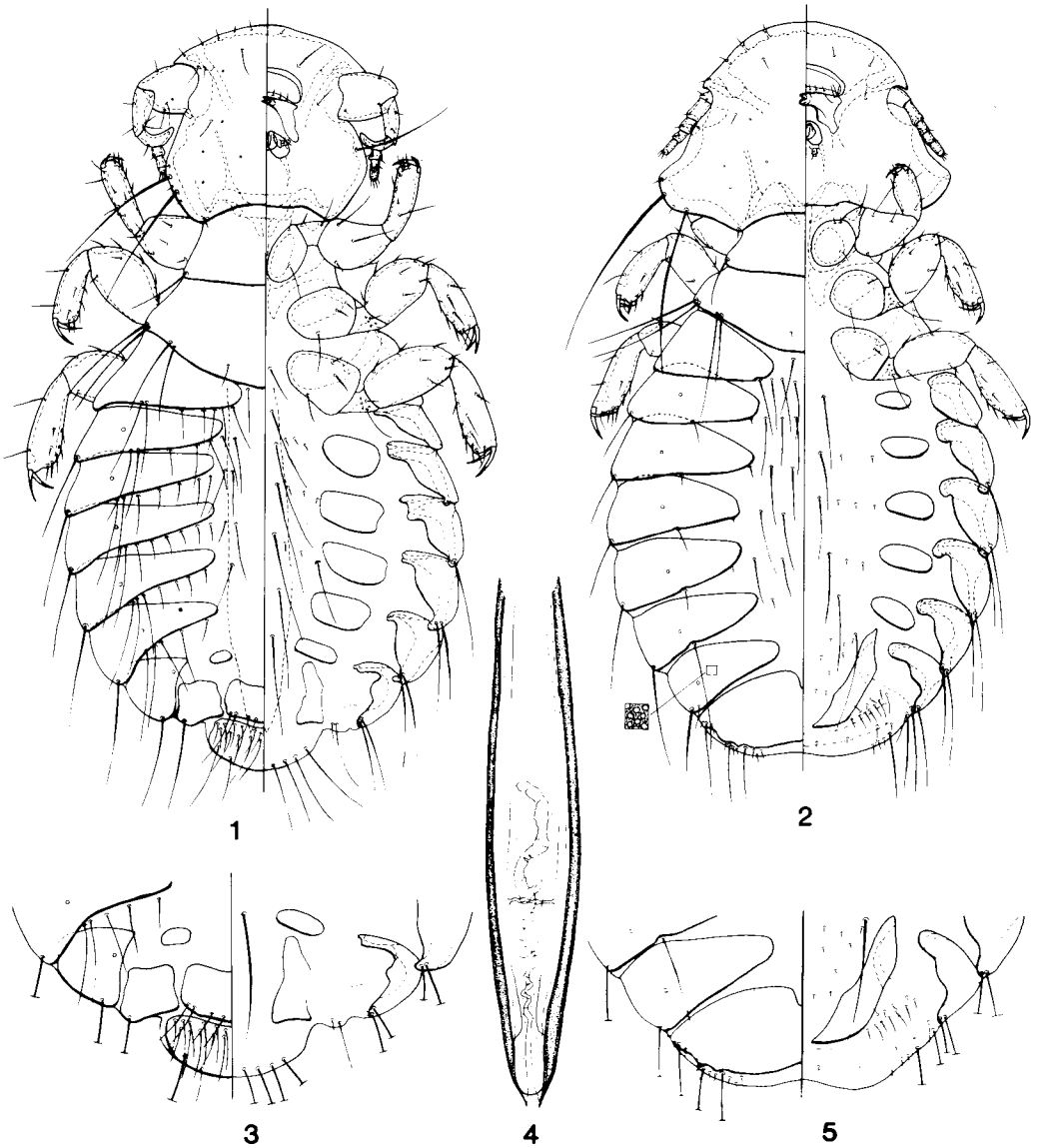


FIG. 1-5. *Goniodes leipoae*: 1, ♂ dorsal-ventral view; 2, ♀ dorsal-ventral view; 3, ♂ terminalia dorsal-ventral view; 4, ♂ genitalia; 5, ♀ terminalia dorsal-ventral view.

mm. Head length 0.50–0.51 mm. Chaetotaxy of head as in Fig. 2. Chaetotaxy of thorax essentially as for ♂; pronotal width 0.42–0.43 mm, pteronotal width 0.61–0.63 mm. Abdominal tergal plates on segments II–VII not as medially tapered as for ♂ and on VIII wider than for ♂; large undivided terminal tergal plate. Pleural plates on segments III–VIII as prominent as for ♂. Median sternal plates on each side somewhat smaller than for ♂, except for more elongate

subgenital plate (Fig. 2, 5). Chaetotaxy of abdomen, especially that associated with tergites and terminalia, different from ♂ (Fig. 2, 5). Abdominal width 1.04–1.09 mm. Total length 2.02–2.10 mm.

Holotype ♂, ex *L. ocellata*, which had died in Adelaide Zoo: SOUTH AUSTRALIA, Adelaide, 1983, deposited in the South Australian Museum. Paratypes, ex *L. ocellata*, 31♂, 16♀, same data as holotype; deposited in the South Australian Museum, Bishop Museum, United States National Museum of Natural History, University of Minnesota, Oklahoma State University, and British Museum (Natural History).

Remarks. *Goniodes leipoae*, obviously a member of the species group M of Clay (1940), has 3 features that are not typical of this group: temples of the male are not “widely expanded,” the male basal antennal segment is greatly enlarged, and the female does not have the “vulva with lateral concentration of hairs [setae] at corners” We prefer to modify the characterization of group M to include these features rather than to erect a new group for this new species. Size and structure of the male genitalia and the presence of the abdominal sternal plates for both sexes are also unique characters not shared with the other known species. However, we consider these to be of a specific nature that can be accommodated in the species group M even before expansion.

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LITERATURE CITED

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