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RALLICOLA DECKERI N. SP. (PHTHIRAPTERA: PHILOPTERIDAE) FROM RUDDY WOODCREEPERS *DENDROCINCLA HOMOCHROA* (PASSERIFORMES: FURNARIIDAE) COLLECTED IN CAMPECHE, MEXICO

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ABSTRACT: A new species of *Rallicola* Johnston and Harrison (Phthiraptera: Philopteridae) is described from lice collected from a series of Ruddy Woodcreepers *Dendrocincla homochroa* (Aves: Dendrocolaptinae) in Campeche, Mexico. *Rallicola deckeri* is easily recognized by the unique shape of the mesosome in the male and by the pattern of divided sternites on the female.

Rallicola is one of the more widespread genera of chewing lice, being commonly recorded from the Rallidae (Gruiformes) as well as the Furnariidae (Passeriformes). Price and Clayton (1993) reviewed the species of *Rallicola* found on the woodcreepers (Furnariidae: Dendrocolaptinae), recognizing 16 species, and providing a key to their identification. During a recent collecting trip to Campeche, Mexico, specimens of a new species were collected off of the Ruddy Woodcreeper *Dendrocincla homochroa*. Host classification follows Sibley and Monroe (1990).

MATERIALS AND METHODS

Two separate methods were used to collect lice. One Ruddy Woodcreeper was killed and then exposed to ethyl acetate fumes in a chamber for several minutes to kill its ectoparasites. The feathers were then vigorously ruffled over a large sheet of paper allowing the lice to be collected as they fell off. The 3 remaining birds were dusted with pyrethrin flea powder and placed in a paper bag for 20–30 min. Following fumigation, all birds were held over a large sheet of paper while their feathers were thoroughly ruffled before being released. Lice removed from the paper were stored in vials of 95% ethyl alcohol and later mounted on microslides for taxonomic study. The lice were examined with a compound microscope equiped with both phase-contrast and differential interference contrast capabilities. All taxonomic decisions were based solely on louse morphology, with no a priori consideration of host relationships. All measurements are in millimeters, with the mean in parentheses following the range. Eight males and 7 females were examined.

DESCRIPTION

Rallicola deckeri n. sp.
(Figs. 1–3)

Male (Fig. 1): Head broadly triangular with shallow medioanterior concavity. Dorsal anterior head plate longer than wide, with distinct depression at anterior end. Ocular seta short, with 3 equally short marginal setae, single long temporal seta; 2 short setae on dorsal posterior margin. Pigmented gular plate round with small projection on anterior edge. Conus well developed. Each side of pronotum with pair of small setae near medioanterior margin; single seta at lateroposterior corner. Metanotum with cluster of 4 setae along lateroposterior margin; medium outermost seta 0.11–0.13 (0.115), short seta 0.010–0.015 (0.013), longer seta 0.13–0.20 (0.169), very long seta 0.31–0.51 (0.385). Medioposterior margin with 2 setae, 0.36–0.47 (0.423) lateral, 0.15–0.21 (0.178) medial. Abdomen with tergal plate II (first apparent tergum) medially divided; remaining tergal plates undivided. Two median marginal setae on tergites II–VIII; short lateral marginal seta on VII mediad of spiracle. Without setae on lateral body margin of segment II; single short lateral seta on III; short, medium setae on lateral body margin of IV; 2 long lateral setae on V; 3 long setae on lateral margins of VI, VII; 4 setae (1 short, 1 medium, 2 long) on VIII. Sternal plates undivided. Sternite II (first apparent sternite) through VI with pair of median marginal setae; additional seta approximately midway between median marginal setae, lateral body margin on VI. Subgenital plate with sternite VII partially fused to VIII. Six long setae on terminal segment. Genitalia (Fig. 2) parameres well developed, swollen basally, narrowing at tip, with small fine terminal setae. Mesosome squarish, with broadly rounded posterior portion; 2 small arms on either side of anterior portion. Basal plate elongate with rounded anterior end. Temporal width 0.42–0.44 (0.425); head length 0.45–0.47 (0.452); dorsal anterior plate length 0.09–0.10 (0.098); prothorax width 0.23–0.25 (0.242); metathorax width 0.33–0.36 (0.345); abdomen width at segment V 0.42–0.48 (0.449); total length 1.39–1.50 (1.469); genitalia length 0.27–0.29 (0.281); paramere length 0.10–0.12 (0.107); genitalia width (measured across posterior portion of basal plate), 0.08–0.09 (0.084).

Female (Fig. 3): Much like male, differing mainly in size, composition of sternal plates, terminal abdominal structure. Lateral portions of sternite III with partial division; sternites IV–VII fully divided. Sternite VII fused to VIII forming large subgenital plate. Single medium seta between lateral, medial portions of segment VI. Rarely, setae between lateral and medial segments of IV and V. Three lateral setae on VII, 1 on lateroposterior margin attached to subgenital plate, 1 between lateral and medial segments, 1 on lateral segment. Concave lateral margins of subgenital plate with 4 small setae; convex posterior edge with 19–20 short submarginal spiniform setae, 15–19 short fine marginal setae. Both sides of ventral terminalia with 2 prominent heavy setae laterad to 6–8 short setae. Spermatheca (not illustrated) round with a central hole (doughnut shaped). Temporal width 0.44–0.46 (0.450); head length 0.47–0.49 (0.477); dorsal anterior plate length 0.10–0.11 (0.104); prothorax width 0.25–0.26 (0.254); metathorax width 0.35–0.37 (0.356); abdomen width at segment V 0.49–0.52 (0.508); total length 1.62–1.79 (1.701); spermatheca width, 0.04.

Taxonomic summary

Type host: Dendrocincla homochroa Sclater, University of Kansas Natural History Museum 89391.

Type locality: Campeche, Mexico.

Specimens deposited: Holotype (male), paratype (associated female) deposited in the National Museum of Natural History, Washington, D.C. Four paratypes (2 males, 2 females) deposited in the K. C. Emerson Collection, Oklahoma State University, Stillwater, Oklahoma. Four paratypes (2 males, 2 females) deposited in The Natural History Museum, London, U.K. The remaining paratypes (3 males, 2 females) are being held in the Price Institute of Phthirapteran Research, University of Utah, Salt Lake City, Utah.

Etymology: This species is named for Lee A. Decker, in appreciation of his many years of excellence and dedication in the field of secondary science education.

DISCUSSION

In the key to the species of *Rallicola* from woodcreepers (Price and Clayton, 1993), *R. deckeri* keys to couplets 14–15,

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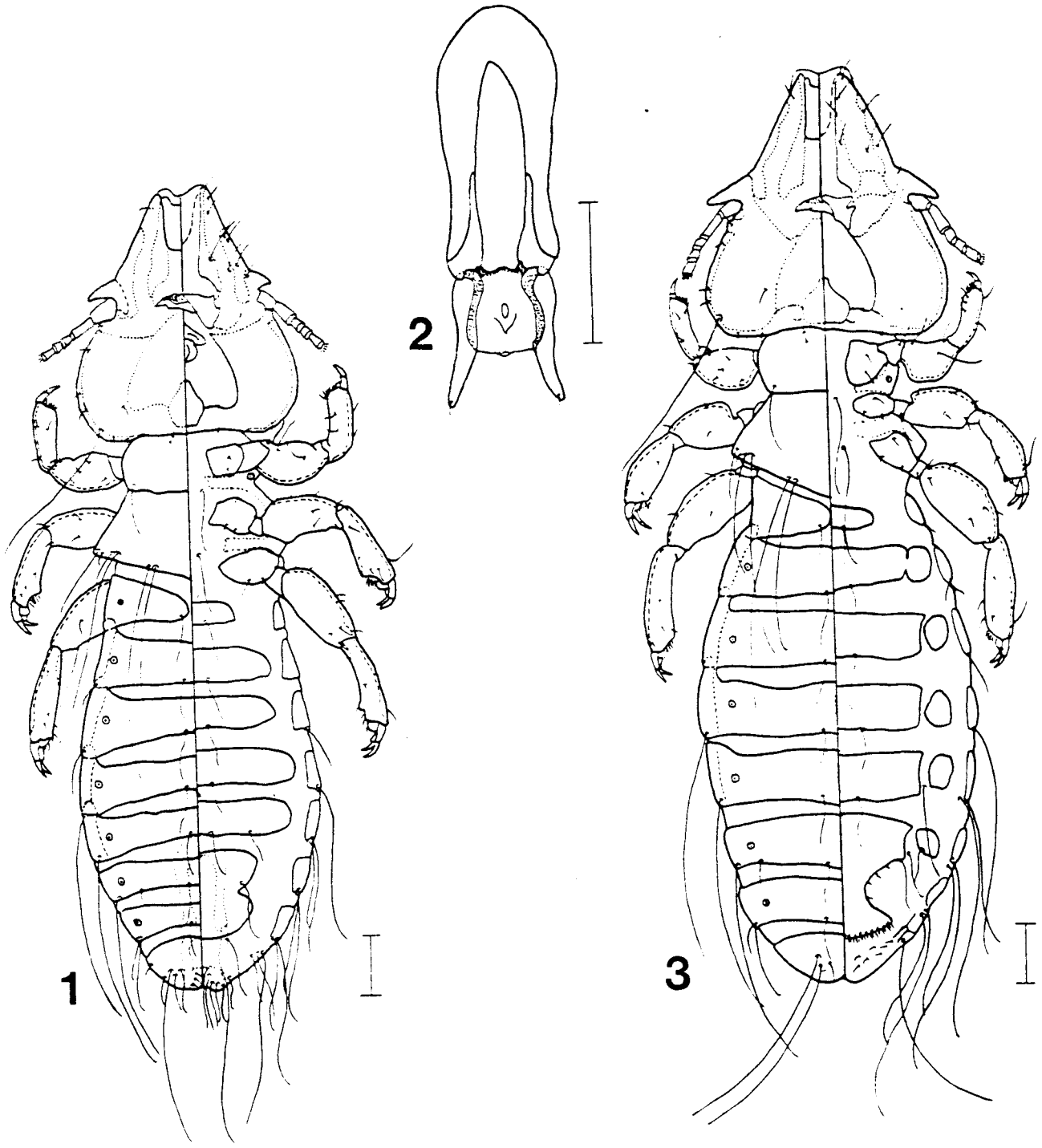

FIGURES 1–3. *Rallicola deckeri* n. sp. **1.** Dorsoventral view of male. **2.** Male genitalia. **3.** Dorsoventral view of female. Scale bars, 0.1 mm.

coming closest to matching the description of *Rallicola fuliginosa* (Carriker, 1963). *Rallicola deckeri* differs from *R. fuliginosa* in several important features. The most obvious distinguishing feature is the large square mesosome of the *R. deckeri* male, not found among other woodcreeper *Rallicola*. All other woodcreeper *Rallicola* have an inverted triangular mesosome. Both sexes of *R. deckeri* have a shorter average total body length than *R. fuliginosa*; however, males consistently demonstrate longer parameres and a greater genitalia width. Whereas *R. fuliginosa* females regularly show mediolateral setae on sternites IV and V, only 1 of the 8 female *R. deckeri* showed this feature. The median margins of the lateral portions of the divided sternites are rather pointed in *R. fuliginosa* but are rounded in *R. deckeri*. *Rallicola deckeri* may also be separated from *Rallicola cephalosa* (Carriker, 1944) by *R. deckeri*'s longer head, and in females, the existence of divided

sternites. Both sexes of *R. deckeri* are longer than *Rallicola harveyi* Price and Clayton, 1993, and show fairly deep dorsoanterior head plate concavities, compared to the shallow depressions of *R. harveyi*.

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