

ABROCOMOPHAGIDAE (MALLOPHAGA: AMBLYCERA),
A NEW FAMILY FROM CHILE

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ABSTRACT

A new mallophagon family, Abrocomophagidae, is erected for *Abrocomophaga chilensis*, new genus and new species, from a Rat Chinchilla, *Abrocoma bennetti* Waterhouse, from Chile.

A long series of Mallophaga from a Rat Chinchilla, *Abrocoma bennetti* Waterhouse, collected in Chile represents a new species which is unplaceable in any presently known family or genus. It is our purpose to describe and illustrate this species and to erect a new family and genus for it. Clay (1970) recently reviewed the families of amblyceran Mallophaga and terminologies in so far as possible conform to those utilized by her.

ABROCOMOPHAGIDAE Emerson and Price, new family

TYPE-GENUS: *Abrocomophaga* Emerson and Price, new genus.

DESCRIPTION: Head triangular; maxillary palpi 2-segmented; antennae 4-segmented, exposed, with third segment pedunculate and fused with fourth to form club. Prothorax with pair of spiracles; meso- and metanotum not fused. With 2 large thoracic sternal plates, anterior plate apparently representing fused pro- and mesosternal plates. Legs of almost equal size, each with normal-size single claw. Femora without combs or patches of setae. Abdominal segments III-VII each with pair of spiracles; no spiracles on VIII. Male genitalia symmetrical.

DIAGNOSIS: Amblyceran Mallophaga separable from all others by having a single unmodified tarsal claw on each leg and only 5 pairs of abdominal spiracles. The following key provides additional data for separation of the families of Mallophaga.

KEY TO SUBORDERS OF MALLOPHAGA AND FAMILIES OF AMBLYCERA

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|--|---------------------|
| 1. Maxillary palpi absent; third antennal segment not pedunculate | 2 |
| 1'. Maxillary palpi present; third antennal segment pedunculate | |
| (Suborder Amblycera) | 3 |
| 2. Mandibles at end of long proboscisSuborder Rhynchophthirina | |
| 2'. Mandibles not at end of long proboscis | Suborder Ischnocera |
| 3. Legs II and III with 2 tarsal claws each | 4 |
| 3'. Legs II and III with only 1 tarsal claw each | 8 |
| 4. With 5 pairs of abdominal spiracles (limited to segments III-VII) | Trimenoponidae |
| 4'. With 6 pairs of abdominal spiracles (on segments III-VIII) | 5 |

5. Meso- and metanotum separate 6
 5'. Meso- and metanotum fused 7
6. Tergum I fused with metanotum Boopidae
 6'. Tergum I not fused with metanotum Menoponidae
7. Tergum I fused with metanotum Ricinidae
 7'. Tergum I not fused with metanotum Laemobothriidae
8. Leg I without tarsal claw Gyropidae (Gliricolinae)
 8'. Leg I with tarsal claw or claws 9
9. With 5 pairs of abdominal spiracles (limited to segments III-VII) Abrocomophagidae
 9'. With 6 pairs of abdominal spiracles (on segments III-VIII) 10
10. All legs with simple unmodified claw Gyropidae (Protogyropinae)
 10'. Leg I with modified tarsal claw, legs II-III often with enlarged claw Gyropidae (Gyropinae)

Abrocomophaga Emerson and Price, new genus

TYPE-SPECIES: *Abrocomophaga chilensis* Emerson and Price, new species.

DESCRIPTION: Head triangular; width across temples equal to or greater than length. Maxillary palpi short, 2-segmented. Antennae 4-segmented, exposed, with third segment pedunculate and fused with fourth to form club. Prothorax semicircular, much wider than long; with pair of spiracles. Meso- and metanotum not fused; with pterothorax rectangular, wider than long. With 2 large thoracic sternal plates, anterior plate apparently representing fused pro- and mesosternal plates. Legs of almost equal size, each with normal-size single claw. Femora without combs or patches of setae. Abdomen long and slender, segment I short, segments II-VIII of approximately equal length. Segments III-VII each with pair of spiracles; no spiracles on VIII. Male genitalia symmetrical, of general type as in Fig. 3 and 4.

Abrocomophaga chilensis Emerson and Price, new species

TYPE-HOST: *Abrocoma bennetti* Waterhouse.

DESCRIPTION: Male external morphology and chaetotaxy as in Fig. 5. Head with numerous medium-length setae on dorsal and ventral surfaces; mandibles small. Setal counts below represent median followed by range in parentheses. Pronotum with 14 setae; fused pro- and mesosternal plate with 6 (5-6) anterior setae, 8 (8-9) posterior setae. Metanotum with 10 setae, including 6 longer median setae and each side laterally with 1 long, 1 short seta; metasternal plate with 13 (12-14) setae. Abdominal tergal setae: I, 4; II, 6 (6-8); III, 8 (8-10); IV, 11 (10-12); V, 12 (11-13); VI, 13 (12-13); VII, 11 (10-12); VIII, 8 (7-9). Terga III-VII each with small median sclerite; V-VIII each with median pair of shorter setae recessed posteriorly to principal row. Each of pleura II-VIII posteriorly with 1 very long and 1 adjacent short seta. Last tergum with 2 short, 1 very long seta on

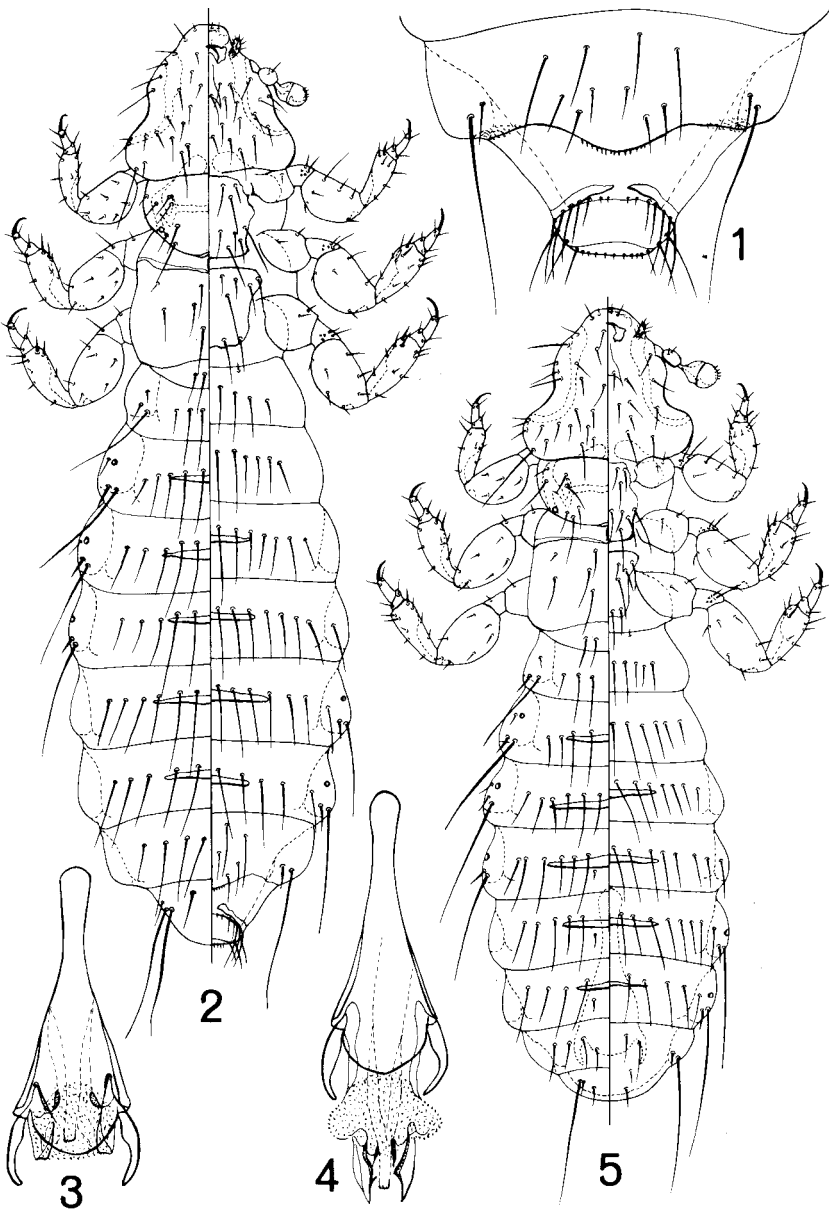


Fig. 1-5, *Abrocomophaga chilensis*, n. sp.: 1. Ventral female terminalia; 2. Female; 3. Male genitalia; 4. Male genitalia with extruded sac; 5. Male.

each side. Abdominal sternal setae: II, 8 (7-9); III, 11 (10-12); IV, 12 (12-15); V, 13 (12-14); VI, 12 (11-13); VII, 10 (9-11). Sterna IV-VII each with small median sclerite. Subgenital plate with 8 (7-8) medium to short median setae. Genitalia (Fig. 3) with prominent inwardly curved parameres, with extruded spiculate sac and associated sclerites as in Fig. 4. Total length of holotype 0.95 mm, paratypes 0.94-0.98 mm.

Female external morphology and chaetotaxy as in Fig. 2. Head and thorax as for male, abdomen differing as follows. Tergal setae: IV, 10 (9-11); V, 12 (11-12); VI, 12 (10-13). All setae on terga V-VIII aligned in row, without median pair of shorter setae recessed posteriorly. Last tergum with 2 very long setae on each side, in addition to 2 shorter setae. Sternal setae: II, 8 (8-10); III, 11 (10-13); IV, 12 (11-13); V, 13 (11-14); VII, 9 (8-11). Ventral terminalia as in Fig. 1; subgenital plate with convex posterior margin bearing median fringe of spicules and with 10 (9-11) medioanterior setae; anal fringe ventrally of 5 + 5 longer lateral setae separated by few minute median setae, dorsally of 3 + 3 longer lateral setae separated by more numerous minute median setae. Total length of allotype 1.11 mm, paratypes 1.08-1.14 mm.

TYPE-MATERIAL: Holotype male, allotype female, and large number of paratypes of both sexes collected off *Abrocoma bennetti*, November 2, 1974, at Til, Til, Santiago, Chile, by Robert E. Martin. The holotype, allotype, and some paratypes will be deposited in the U. S. National Museum; paratypes will be deposited in other major collections.

LITERATURE CITED

CLAY, T. 1970. The Amblycera (Phthiraptera: Insecta). Bull. Brit. Mus. (Nat. Hist.), Ent. 25 (3): 73-98.