

A NEW SPECIES OF *HAEMATOMYZUS* (MALLOPHAGA:
HAEMATOMYZIDAE) OFF THE BUSH PIG, *POTAMOCHOERUS*
PORCUS, FROM ETHIOPIA, WITH COMMENTS
ON LICE FOUND ON PIGS

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Abstract.—A new species, *Haematomyzus porci*, is described and illustrated for specimens taken off the Bush Pig, *Potamochoerus porcus*, in Ethiopia; this represents the third species described in this genus. The known data of lice found on the eight species of pigs are also summarized.

Key Words: Mallophaga, *Haematomyzus*, *Haematopinus*, Suidae

Only two species of *Haematomyzus* Piaget have been described to date: *H. elephantis* Piaget from the African Elephant, *Loxodonta africana* (Blumenbach), and the Asiatic Elephant, *Elephas maximus* Linnaeus, and *H. hopkinsi* Clay from the Wart Hog, *Phacochoerus aethiopicus* (Pallas), in Kenya and Uganda. When Piaget (1869) described *H. elephantis*, he established *Haematomyzus* as a genus of Anoplura. Subsequently, Enderlein (1904) erected the family Haematomyzidae in the order Anoplura for this species. Ferris (1931) published results of a detailed study of the anatomy of *H. elephantis*, concluding that it had "biting mouth-parts" and should be in the order Mallophaga; he, therefore, described the suborder Rhynchophthirina for the family Haematomyzidae. External morphology features found only in the genus *Haematomyzus* are illustrated in Figs. 1-3; these include the prolonged mouthparts which are mandibulate and have no piercing mechanism, the thorax which is different in shape from any known in the Anoplura or other Mallophaga genera, and the legs which are distinct from those found on any Ano-

plura or other Mallophaga species. Clay (1963) examined four hypotheses as to the host for the original ancestral stock which resulted in the genus *Haematomyzus* and could not conclude which was most probable, the Wart Hog or the African Elephant.

We recently received a series of *Haematomyzus* collected from the Bush Pig in Ethiopia; these lice represent a third species of this group of Mallophaga. All measurements are in millimeters. Details common to *Haematomyzus* species will not be repeated here, since Ferris (1931) and Clay (1963) have adequately treated them.

Haematomyzus porci Emerson and Price,
NEW SPECIES
Figs. 1-3

Type host: *Potamochoerus porcus* (Linnaeus) [Artiodactyla: Suidae].

Male.—As in Fig. 1. Each abdominal pleuron II with 2 dorsal medial setae consisting of short fine seta and longer thicker seta; dorsal posterior seta on pleuron III 0.03 mm long. Dorsal abdomen with 5 clear circular areas on each side encompassing medium seta in each; additional minute setae

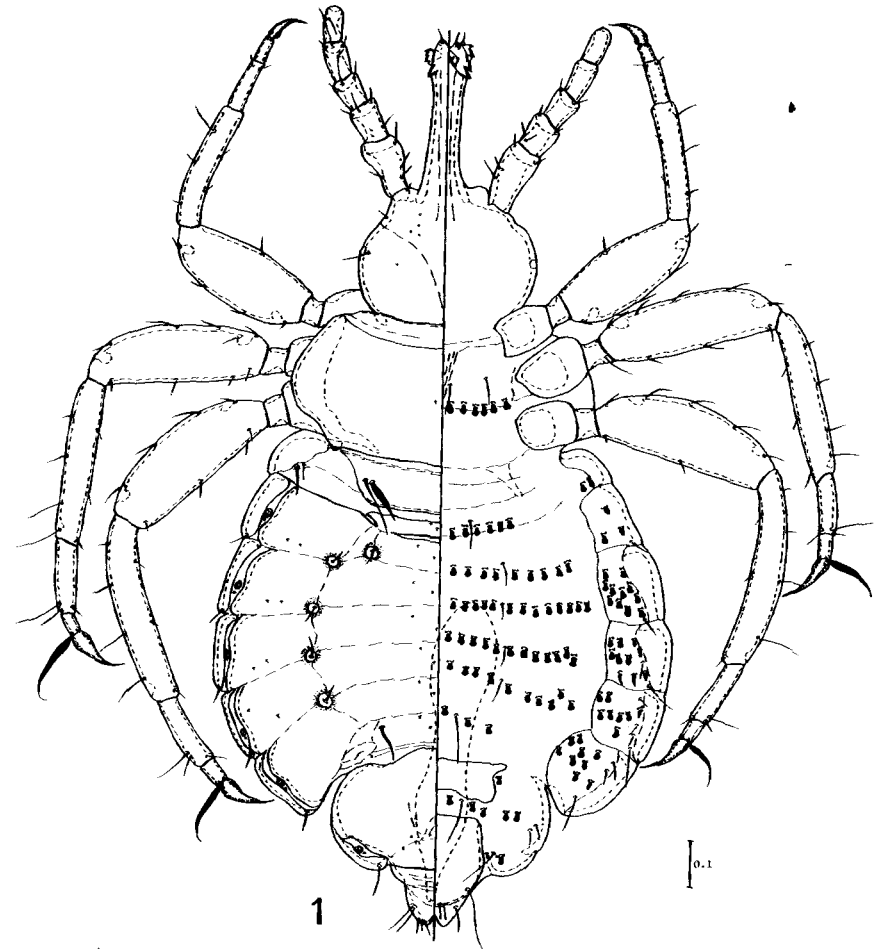
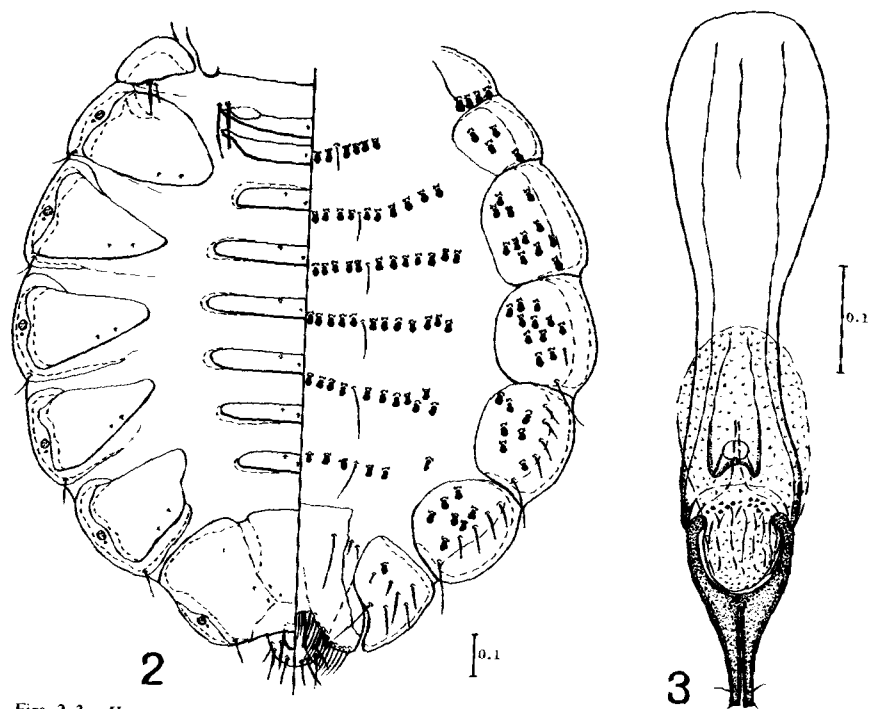


Fig. 1. *Haematomyzus porci*, male, dorsal (left)-ventral (right) view. Scale line = 0.1 mm.

lateral and medial to these. Abdominal sterna II-VII each with 2 unmodified setae and following number of stout modified setae: II, 12; III, 20; IV-V, 25; VI, 20; VII, 7. Genitalia (Fig. 3) with long prominent rounded basal plate, closely apposed parameres with truncate apices each bearing 2 setae, and with spinose sac and associated structures as shown. Dimensions: head

width, 0.43 mm; head length (including proboscis), 0.65 mm; proboscis length, 0.38 mm; pterothorax width, 0.68 mm; abdomen width (at V), 1.02 mm; total length, 1.95 mm; genitalia length, 0.65 mm; genitalia width, 0.11 mm.

Female.—Head and thorax as for male (Fig. 1). Abdomen as in Fig. 2. Width of 8 median tergal plates, respectively, from an-



Figs. 2-3. *Haematomyzus porci*. 2, Female abdomen, dorsal (left)-ventral (right) view. 3, Male genitalia, dorsal view. Scale lines = 0.1 mm.

terior to posterior: 0.31-0.33 mm, 0.39-0.40 mm, 0.35-0.36 mm, 0.46 mm, 0.47-0.49 mm, 0.44-0.47 mm, 0.36-0.41 mm, and 0.28-0.31 mm. Abdominal sterna II-VII each with 2 unmodified setae and following number of stout modified setae: II, 12-13; III, 20-22; IV, 25; V, 22-26; VI, 22; VII, 11. Dimensions: head width, 0.40-0.43 mm; head length (including proboscis), 0.66-0.71 mm; proboscis length, 0.42-0.43 mm; pterothorax width, 0.68 mm; abdomen width (at V), 1.37-1.40 mm; total length, 2.30-2.34 mm.

Discussion. — Clay (1963) provides excellent features for distinguishing *H. hopkinsi* from *H. elephantis*. *Haematomyzus porci* is

morphologically closer to the former, differing from *H. elephantis* in many of the same ways as does *H. hopkinsi*. The principal feature separating *H. porci* from *H. hopkinsi* is the presence of 5 pairs of clear circular areas, each surrounding a medium seta, on the male dorsal abdomen as opposed to only 4 pairs of such areas on *H. hopkinsi* (lacking the medioanterior pair) and none on *H. elephantis*. The separation of *H. porci* is further supported by the dorsal posterior seta on male pleuron III only a third the length of that of *H. hopkinsi*, the female with a tendency for 1-5 fewer modified setae on each of abdominal sternites II-VII, and smaller female dimensions for

the pterothorax width (0.68 mm vs 0.73-0.76 mm) and total length (2.30-2.34 mm vs 2.42-2.52 mm).

Material examined. — Holotype ♂ from *Potamochoerus porcus* collected on July 16, 1964, near Addis Ababa, Ethiopia, by C. T. O'Connor; in the collection of Oklahoma State University, Stillwater. Paratypes: 7 ♀, same data as holotype; distributed among Oklahoma State University, University of Minnesota, Field Museum of Natural History, and U.S. National Museum of Natural History.

LICE FOUND ON PIGS

Most mammalogists place the eight species of living pigs into five genera (Nowak and Paradiso 1983). The known data of the lice on these eight species of pigs are summarized here.

The genus *Sus* contains *S. scrofa* Linnaeus, the Wild Boar, found originally in Europe, parts of Asia, and North Africa, but now widely introduced by man. The louse found on this host is *Haematopinus apri* Goureaux, a species of sucking louse in the order Anoplura which has been reviewed by Ferris (1951). The domestic pig is also included in *S. scrofa*; domestic pigs, however, have a different anopluran louse, *Haematopinus suis* (Linnaeus). We have not been able to obtain lice off *S. salvanius* (Hodgson), the Pigmy Hog, *S. barbatus* Muller, the Bearded Pig, or *S. verrucosus* Muller and Schlegel, the Javan Pig, but we suspect that the lice of these south Asian pigs will also be species of *Haematopinus*.

The remaining four genera of pigs each contains a single species: *Babyrousa babyrussa* (Linnaeus), the Babirusa, is found in the Celebes and probably has a species of sucking louse; *Phacochoerus aethiopicus*, the Wart Hog, is found in Africa and has *Haematomyzus hopkinsi*, a species of chewing louse, as well as a sucking louse, *Haematopinus phacochoeri* Enderlein; *Potamochoerus porcus*, the Bush Pig, is found in

Africa and Madagascar and has both *Haematomyzus porci*, the new species of chewing louse described here, and *Haematopinus latus* Neumann, a sucking louse; *Hylochoerus meinertzhageni* Thomas, the Giant Forest Hog, is found in Liberia, southwestern Ethiopia, and northern Tanzania and has the sucking louse *Haematopinus meinertzhageni* Werneck, described by Werneck (1952) subsequent to the review by Ferris (1951).

A key to separate these three species of *Haematomyzus* is as follows:

1. Male dorsal abdomen lacking clear circular areas each surrounding medium seta; female dorsal last abdominal segment with both short and medium setae *elephantis*
- Male dorsal abdomen with 4-5 pairs of clear circular areas each surrounding medium seta (Fig. 1); female dorsal last abdominal segment with all setae similar, of medium length (Fig. 2) 2
2. Male dorsal abdomen with 4 pairs of clear circular areas each surrounding medium seta and posterior seta of pleurite III over 0.08 long; female with pterothorax width over 0.72 *hopkinsi*
- Male dorsal abdomen with 5 pairs of clear circular areas each surrounding medium seta and posterior seta of pleurite III less than 0.06 long; female with pterothorax width less than 0.70 *porci*

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