

NOTES AND DESCRIPTIONS OF AFRICAN LICE (ANOPLURA)

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Amongst African specimens submitted to me for identification by Dr. F. Zumpt of the South African Institute for Medical Research and Dr. R. L. Wenzel of the Chicago Natural History Museum, were representatives of two interesting anopluran species. One of them is new to science and the other was known previously only from the female. Descriptions and illustrations of these species follow.

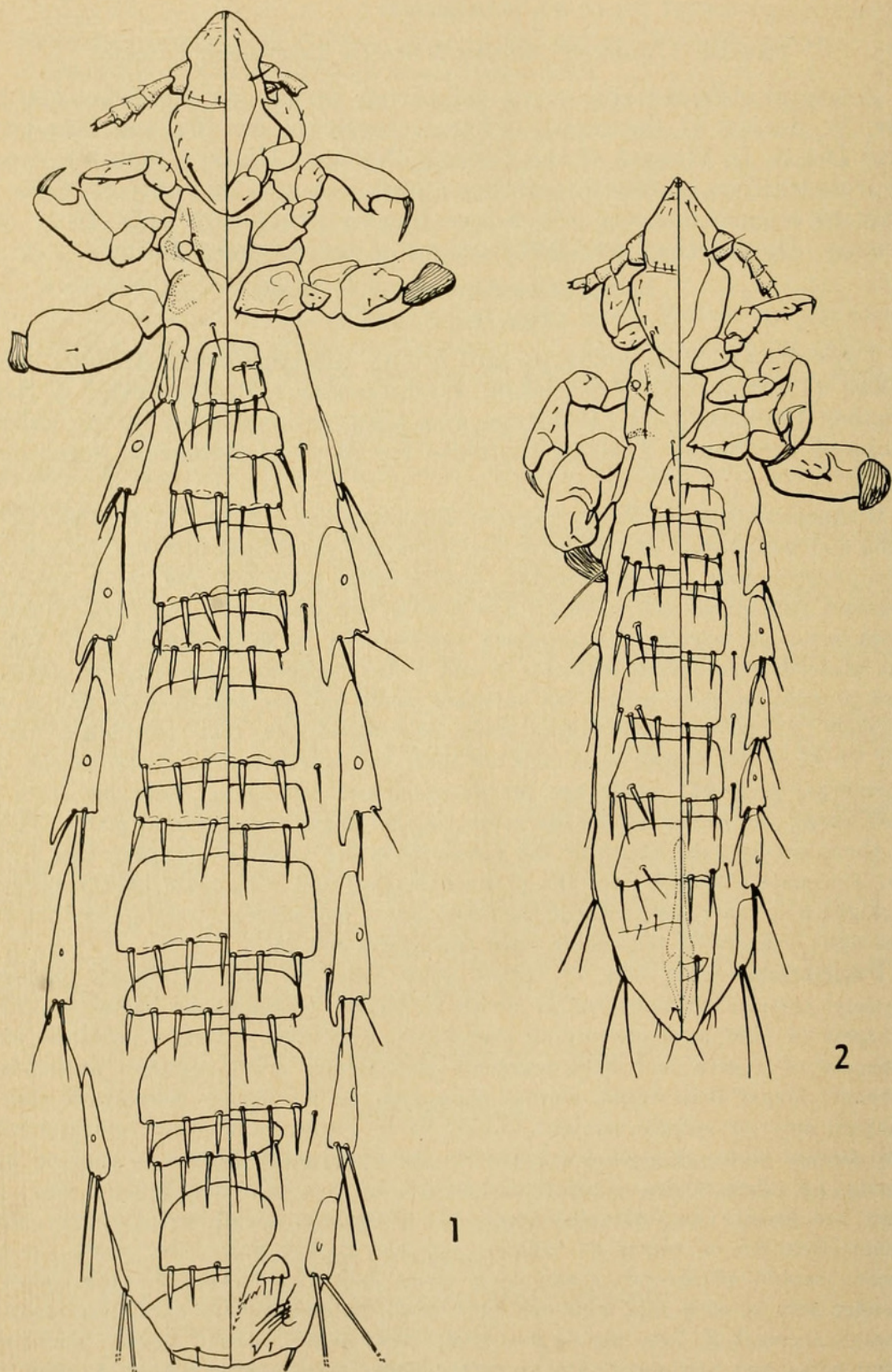
***Polyplax meridionalis*, new species**

(Figs. 1-3, 5, and 7)

Type data.—Male holotype and female allotype from *Acomys cahirinus* (Desmarest), Franciston, Bechuanaland Protectorate, 4 September 1958, BP2/58. Holotype and allotype deposited in the collections of the South African Institute for Medical Research, Johannesburg.

Diagnosis.—Close to *P. oxyrrhyncha* Cummings but differing in the male genitalia and the setation and shape of the abdominal paratergal plates of both sexes. Like *oxyrrhyncha*, *P. meridionalis*, new species, male has the third antennal segment unmodified and sterna 2 and 3 with two plates and two rows of setae. Both sexes of *meridionalis* approach *oxyrrhyncha* in their slender body form; the sensoria of antennal segments 4 and 5 are contiguous, the head is elongate and produced acutely before the antennal bases, and the postantennal angles are marked. *P. meridionalis* differs from *oxyrrhyncha* in that paratergal plates III-VI have the apical setae shorter than the corresponding plate except for paratergal plate III which has the dorsal apical seta longer than the plate in both sexes, and in the female the ventral apical angle of paratergal plates III-VI is about one-half the length of the apical setae and is scaly (compare figs. 3 and 4). The male genitalia have the parameres long, and with their lateral margins straight and convergent toward the acute apex, not convex laterally, so that the aedeagus is narrowly triangular (compare figs. 5 and 6).

Description.—**Male** (fig. 2). *Head* about twice as long as broad, produced acutely anterior to insertion of antennal bases; postantennal angles marked; margins of hind head converging posteriorly, somewhat convex. Antennae with sensoria of fourth and fifth segments contiguous; third segment unmodified. *Thorax*: longer than broad, sternal plate (fig. 7, ♀) weakly sclerotized, shield-shaped, anterior margin straight. *Legs*: as in genus. *Abdomen*: ventrally with two sternal plates on segments 2 and 3; one broad sternal plate on each of segments 4-8, these plates more than one-half as long (in longitudinal axis) as they are broad (in horizontal axis), the plates not emarginate between setal bases. Setation of venter as follows: segment 2, first plate—five short, slender setae; second plate—two stout, long setae medially, flanked by one shorter, slender seta on each side, plus one very small, oblique seta at each posteroapical angle; segment 3, first plate—five long, stout setae; second plate—four long, stout setae and one small seta at each posteroapical angle; plates of segments 4-6 as second plate of segment 3; segment 7 plate with four long, stout setae; segment 8 plate with two long, median setae. One seta laterally off plate on



Polyplax meridionalis, new species. Fig. 1, female allotype; fig. 2, male holotype.

both sides on segments 3-7. Dorsally segments 2-8 each with one tergal plate which occupies most of segment; plates not emarginate between setal bases. Typical segment with plate bearing seven to nine stout, long setae; third or fourth seta from lateral plate margin on each side submarginal and at angle to other setae. Paratergal plates III-VI with ventroapical angle produced into short, acute, scaly lobe. Pairs of apical setae not as long as plate bearing them except dorsal apical seta of plate III which is longer than plate. Spiracles not particularly large, plates VII and VIII with usual long setae. *Genitalia* (fig. 5): basal plate narrowed anteriorly, longer than aedeagus proper. Parameres with lateral margins straight, converging apically, pseudopenis enclosed by parameres, extending beyond their apices.

Female (fig. 1). *Head, thorax, and legs* as in male except for usual sexual differences. *Abdomen*: ventrally segments 2-7 each with two plates, anterior plate of segments 4-7 twice as long as posterior plate of these segments (measured in longitudinal axis), plates not posteriorly emarginate between setal bases though lines of heavier sclerotization suggest this condition. Typical sternal plates bearing five or six setae, more lateral setae short, stout, and sword-like. At times these setae flanked laterally by one small, slender seta on each side. One seta off plates laterally on each side on segments 4-7. Dorsally tergal plates and setae are similar but there are seven to nine stout, sword-like, apical setae on each plate and no setae occur off the plates. Paratergal plates (fig. 3) as in male except ventral apical angle of plates III-VI is produced into longer point. *Genitalia*: margin of vulva apically angled, fimbriate. Lateral setigerous lobes of eighth segment ("gonopods") triangular in outline, each bearing one long lateral seta and two short, more median, setae.

Lengths.—Male, 1.2 mm.; female, 2.0 mm.

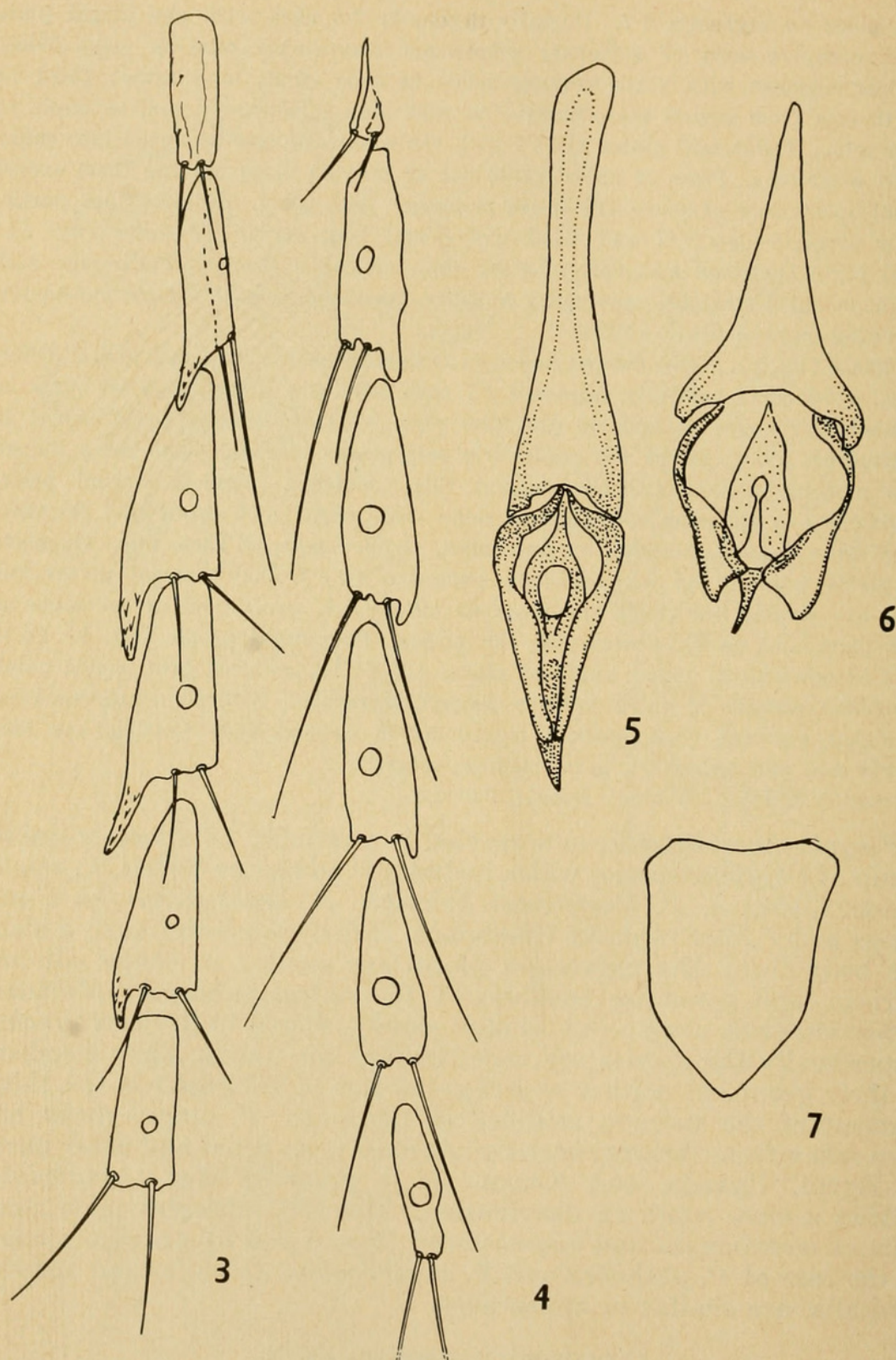
Polyplax meridionalis, new species, is a member of a loosely-linked group of *Polyplax* species which includes *P. phthisica* Ferris, *P. smallwoodae* Johnson, *P. hoogstraali* Johnson, *P. brachyrrhyncha* Cummings and *P. oxyrrhyncha* Cummings. All these species have a slender body form, the paratergal plates are similar in shape, all are African, and parasitize members of the rodent subfamily Murinae. *P. meridionalis*, new species, is most closely related to *P. oxyrrhyncha*. Superficially the species are very similar, but unlike other members of their group, in neither *oxyrrhyncha* nor *meridionalis* is the third segment of the antenna modified in the male. *P. oxyrrhyncha* has been taken from various species of *Acomys* from Sinai and other parts of Egypt, Uganda, and Kenya. It is probable that *meridionalis* follows a more southern distribution. The very different male genitalia of *meridionalis* and *oxyrrhyncha* (figs. 5 and 6) are reminiscent of the case of *P. phthisica* and *P. smallwoodae* which, except for the genitalia, are similar in appearance,

***Lemurphthirus stigmatosus* Ferris**

(Figs. 8 and 9)

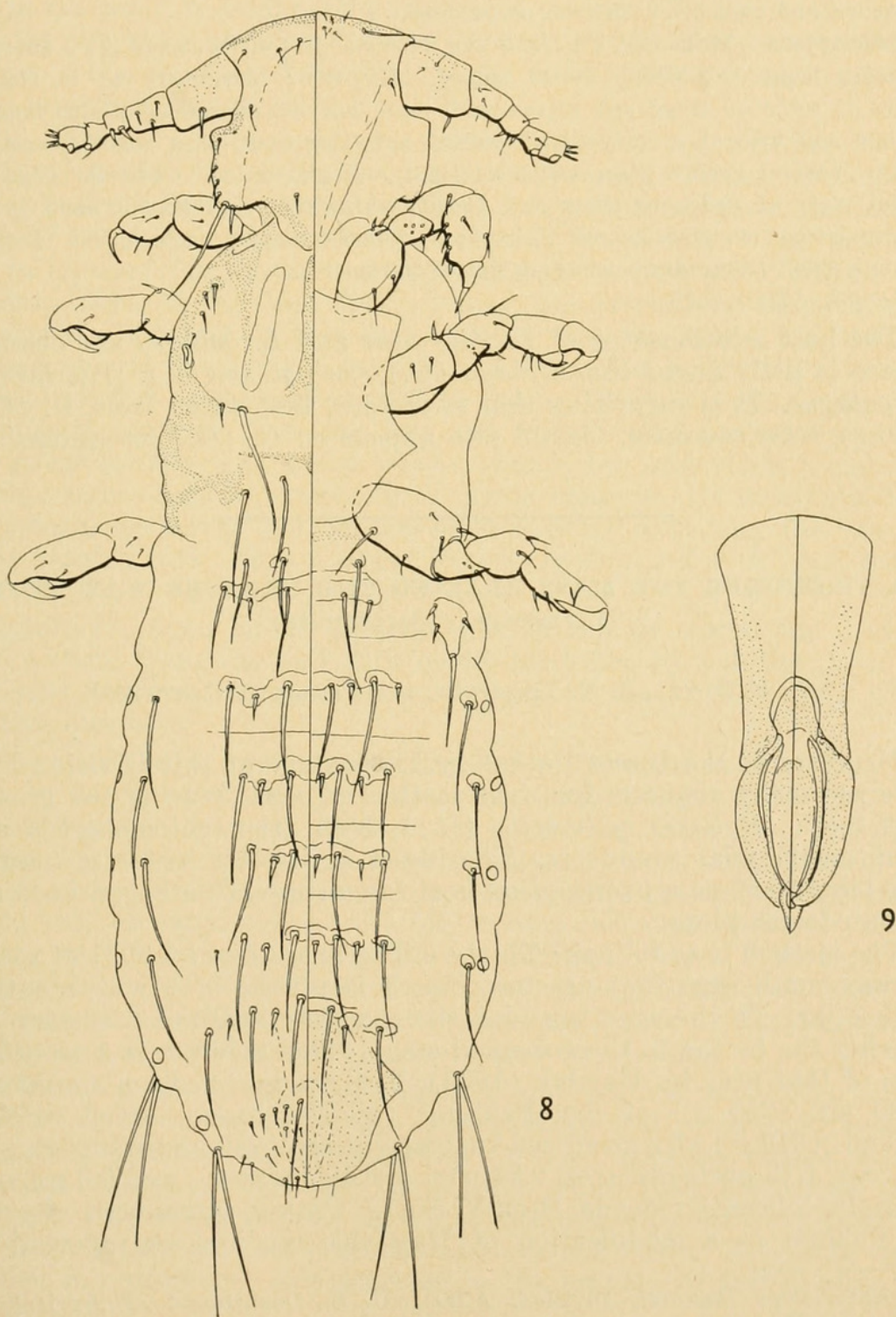
Lemurphthirus stigmatosus Ferris, 1954, Ann. Natal Mus., 13:92, figs. 1a-f.

This species was described by Ferris from female and nymphal specimens collected from *Galago (Otolemur) crassicaudatus*, near



Polyplax meridionalis, new species: Fig. 3, paratergal plates II-VII, female allotype; fig. 5, genitalia, male holotype; fig. 7, thoracic sternal plate, female allotype. *P. oxyrrhyncha* Cummings: Fig. 4, paratergal plates II-VII, female from *Acomys dimidiatus*, Sinai; fig. 6, genitalia, male from *Acomys dimidiatus*, Sinai.

Pietermaritzburg, Natal. During the Conover Angola Expedition, Gerd Heinrich collected both male and female specimens of *L. stigmatosus* from *Galago (Galago) senegalensis*, from Huila, Angola, 1954. Diagnosis, description and figures of the male follow.



Lemurphthirus stigmatosus Ferris. Fig. 8, male from *Galago senegalensis*, Angola; fig. 9, genitalia, male.

Diagnosis.—Like the female, male *stigmaeus* may be distinguished from *verruculosus* Ward in that the thoracic sternal plate does not have a narrow, median, anterior prolongation. The large spiracles of *stigmaeus* separate both sexes from *galagus* Bedford. In addition, male *stigmaeus* has the parameres of the aedeagus curved and narrowed apically (fig. 9) rather than having the apices divergent, flattened and truncate as is true of *galagus*.

Description.—**Male** (fig. 8). *Head* and *thorax* as in female except third antennal segment bears two short, dorsal spines. *Abdomen*: chaetotaxy as in female. Rows of setae on terga and sterna with more heavily sclerotized plates than in female and ventral setae near abdominal spiracles each on a small sclerotized plate. Ventral genital plate well-sclerotized and pigmented. *Genitalia* (fig. 9): Basal plate of aedeagus short and broad; parameres with broadly and evenly convex lateral margins, narrow throughout, with convergent acute apices. Pseudo-penis a small triangular sclerite at tips of parameres.

Length.—Male, 1.25 mm.

The host relationships of *L. stigmaeus* and *L. galagus* are obscure. There is little doubt that *Galago* (*G.*) *senegalensis* is a true host of *L. galagus*. It is surprising that *stigmaeus*, first taken from *G. (Otolemur) crassicaudatus*, should also appear on *G. (G.) senegalensis*.

A TECHNIQUE FOR MASS REARING THE GREATER WAX MOTH

(LEPIDOPTERA: GALLERIIDAE)

S. R. DUTKY, J. V. THOMPSON, and GEORGE E. CANTWELL¹

Members of the Insect Pathology Laboratory of this Division have received many requests for their method of mass rearing the greater wax moth (*Galleria mellonella* (L.)), both from entomologists and from commercial producers. The insect in its last instar is used in this laboratory as a propagation host for an insect pathogen bacteria-nematode complex.

The method is as follows: Thirty milligrams (about 1,000) of greater wax moth eggs that are near hatch is placed in a wide-mouthed gallon jar. To the eggs is added the complete medium necessary for rearing the larvae to the cocooned stage. This medium is a modification of that used by Haydak (1936). The rearing medium consists of 1200 ml. (255 g.) of dry Pablum² (Mead-Johnson mixed cereal), 240 ml. (319 g.) of a sterilized sucrose-glycerol-water mixture (1 part sucrose, 1.19 parts glycerol, 0.94 part distilled water), and 0.6 ml. of a vitamin mixture (Meads Deca-Vi-Sol).² Patton introduced the use of Pablum as a modification of Haydak's medium as reported by

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² Mention of these proprietary products does not necessarily imply their endorsement by the U. S. Department of Agriculture.



Johnson, Phyllis Truth. 1962. "Notes and descriptions of African lice."
Proceedings of the Entomological Society of Washington 64, 51–56.

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