

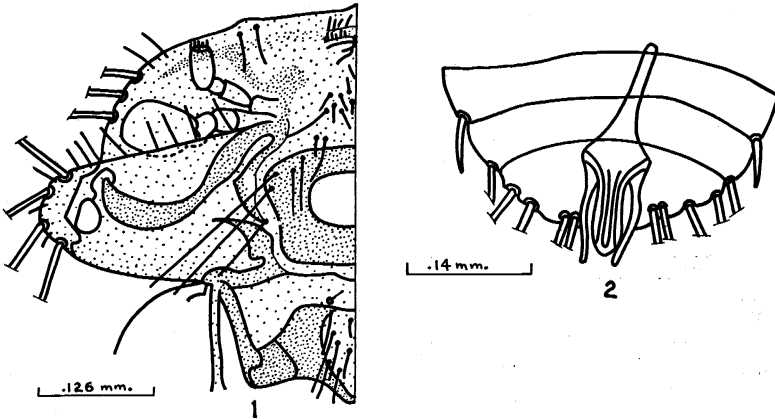
TWO NEW MALLOPHAGA

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Machaerilaemus complexus n. sp.

Female: The head is more than twice as broad as long. Figure 1 shows the ventral aspect of the head and prosternal plate. The cephalic margin is slightly angular. The sides are swollen and form a flap over the antennal fossa. The unpigmented eyes are prominent and without spines. The most remarkable feature is the gular plate. It lacks distinct caudally projecting spinous processes which are characteristic in all other species in this genus. On each side of the caudal margin of the



FIGS. 1 and 2. *Machaerilaemus complexus*.

Fig. 1, Forehead of female. Fig. 2, Caudal segments and genitalia of male.

gular plate is a heavily chitinated triangular area. The gular plate contains a very conspicuous oval opening. The palpi are four-segmented; the distal segment the longest; the third segment is about half as long as the first and second.

Prothorax: The prothorax is winged and has an interscapular bar (interscapularis) between the scapulars dorsad to the sternal plate. The claviculars are strongly formed and pass ventro-endocaudad to fuse with the lateral angles of the prosternum. The coxae of the first pair of legs are elongate; the femora are extremely large; the tibia are long and taper at the proximal end. The first segment of the tarsus of all three pairs of legs bears a flap-like process.

Meso and Metathorax: The meso- and metathorax viewed from the dorsal side resemble the abdominal segments.

Abdomen: The abdomen is widest at the fourth and fifth segments; is dark straw colored with transverse bands showing brown. The last segment is nearly rectangular and fringed with two kinds of setae, about 12 long ones, as long as the segment and about 24 shorter ones, scarcely half the length of the former.

Male: The male is much lighter in color and smaller than the female. Caudal segments including genitalia are shown in Figure 2.

Chaetotaxy: The forehead of the female (Figure 1) has three very long setae and caudad to the mandibles are nine short setae. The temporal angle has four very long setae and three short ones. The antennal fringe has eight short setae. The gular plate has eight setae, two very long ones and two short ones on each side, located near the laterocephalic margin. The poststernal plate has 14 setae, seven on each side. The mesosternal angle or plate has 12 setae, and the metasternal plate has 20 setae. Three or four short spines are present on each side of the abdominal sternal segments from 2-6 inclusive. The male has three short spines on the latero-ventral angle of the first abdominal segment and one or two similar spines from segments 2-7, inclusive.

TABLE I
MEASUREMENTS IN MM.

	MALE		FEMALE	
	<i>L</i>	<i>B</i>	<i>L</i>	<i>B</i>
Head.....	.196	.45	.21	.51
Prothorax.....	.14	.31	.14	.37
Mesothorax.....	.07	.35	.07	.45
Metathorax.....	.07	.35	.07	.49
Abdomen.....	.46	.40	.59	.59
Total.....	.936		1.08	

Type host, Spizella pusila pusila (Wils.), Field sparrow.

Type locality, Oak Lane Country Day School, Philadelphia, Pa.

Type slides, deposited in the Illinois State Natural History Survey, Urbana, Illinois. Holotype ♀, slide 13116; 3 paratype ♀, sls. 13117-13119, allotype ♂ and paratype ♂, sls. 13120.

Described from four females and two males taken Oct. 8, 1933, by R. O. Malcomson.

KEY TO SPECIES OF THE GENUS *MACHAERILAEMUS*
(Harrison)

- Gular plate irregular in shape, circular opening in center. Four caudally projecting spinose processes, caudal pair each with one long seta; cephalic pair each with two long setae..... *uricolis* Bedford
- Gular plate with circular opening in center; with two caudally projecting spinose processes; 6-7 setae on each side of the gular plate... *latifrons* Harrison
- Gular plate without circular opening in center; with two caudally projecting spinose processes; two long setae on each side of the gular plate, *maestum* Kellogg and Chapman
- Gular plate heart-shaped, with two caudally projecting spinose processes; 5-6 setae on each side of the gular plate..... *ploci* Bedford
- Gular plate quadrangular in shape, circular opening in the center; two caudally projecting spinose processes. Prothoracic sternal plate concave on the cephalic margin..... *laticorpus* Carriker
- Gular plate quadrangular in shape, with circular opening in the center. No distinct caudally projecting spinose processes present. Four setae on each side of the gular plate. Prothoracic sternal plate angular and hyaline in the median portion..... *complexus* n. sp.

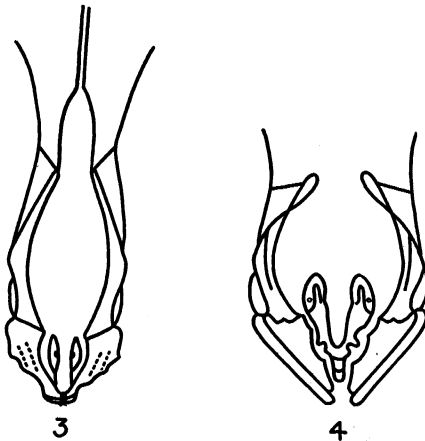


FIG. 3. *Columbicola extincta*, genitalia of male.

FIG. 4. *Columbicola columbae* Linn., genitalia of male.

Columbicola extincta n. sp.

Female: This species has all the characteristics of the genus *Columbicola* with exception that recurved setae are not present. The setal pit is present, but no setae were found on the fifteen specimens examined. The female of *extincta* n. sp. is smaller than the female of *C. columbae* Linn.

Male: The justification of placing this as a new species is the form of the genitalia, Figure 3, as compared to *C. columbae* Linn., Figure 4. The males of *C. extincta* n. sp. are longer than males of *C. columbae* Linn.

TABLE II
MEASUREMENTS IN MM.

	MALE		FEMALE	
	<i>L</i>	<i>B</i>	<i>L</i>	<i>B</i>
Head.....	.515	.28	.525	.287
Prothorax.....	.14	.21	.14	.189
Mesothorax.....	.077	.245	.08	.245
Metathorax.....	.175	.245	.08	.245
Abdomen.....	1.239	.44	1.40	.322
Total.....	2.146		2.225	

Dr. Ewing of the National Museum, Washington, D. C., suggested the name of *extinctus* which surely is a suitable one for the Passenger Pigeon is now extinct and probably has carried the parasite into extinction with it.

The Holotype male and Allotype female on the type slides were collected from the type host *Ectopistes migratorium* Linn., Passenger pigeon skin, which was taken by Prof. Frank Smith, Emeritus of the University of Illinois at the type locality, Urbana, Illinois, in 1895. Type slides deposited in the Illinois State Natural History Survey, Urbana, Illinois. The paratypes are in the U. S. National Museum collection and my own personal collection. Description was made from ten males and five females: holotype ♂, sl. 13121; allotype ♂, sl. 13122.

I am thankful to Dr. H. E. Ewing, of the U. S. National Museum, Washington, D. C., for checking this material.