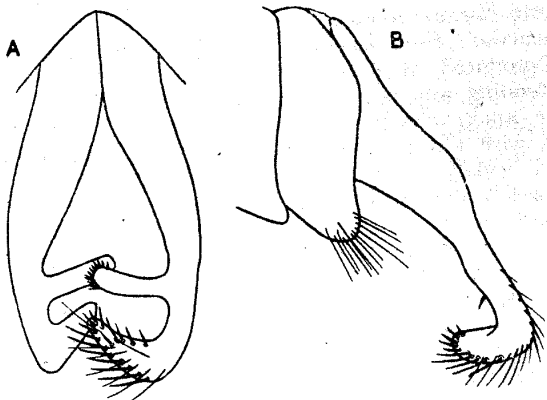


Deleproctophylla bleusei, sp. n. (Fig. 11.)

The following description is based on specimens in the McLachlan collection labelled *Theleproctophylla bleusei* McL. I have however been unable to trace any publication of the specific name.

♂.—Head yellowish, face densely clothed with yellowish hairs, except behind the antennæ, where they are fuscous. Antennæ brownish, basal segment yellowish in front, second segment dark brownish, the following eight or nine segments yellowish beneath, club largely yellowish.

Fig. 11.

*Deleproctophylla bleusei*, sp. n., ♂.

A, anal appendages from behind; B, from side.

Thorax dark testaceous, marked with brownish or piceous above. Legs testaceous, tibiæ of median and posterior pairs with a transverse brownish band exteriorly in basal half. Abdomen testaceous, with a median longitudinal brownish line above. Anal appendages testaceous and light brown, long, rather slender. From the side they taper to about midway and thence are parallel-sided to the apex, which is bent downwards and inwards at right angles and armed with stout black bristles. From above, the usual branch is seen at about three-quarters of the

distance from the base. It is as long as the inturned apex, slender, only slightly clavate, and carries a few black bristles. Lower lateral angles of ninth tergite short and blunt. Wings hyaline, pterostigma yellow, posterior wing with a small brownish cloud behind pterostigma. There is a small brownish area at the base of both wings. Venation brownish, except Sc. and R., the pterostigmatic cross-veins and the veins in the anal area, which are yellow. The costal cross-veins are brown, except at the junction with Sc.

♀.—Coloured much as in male, larger.

Length of body, ♂ 15–18 mm.; ♀ 17 mm.

Length of anterior wing, ♂ 17–18 mm.; ♀ 22 mm.

ALGERIA: Oran, Méchéria, vii. 1896 (*L. Bleuse*), 2 ♂, 1 ♀. Daya, 1 ♂.

A ♂ from Méchéria has been selected as holotype.

In wing markings, *D. bleusei* is intermediate between *D. australis* F., and *D. variegata* Klug. The wings are however rather narrower and more acute than in either of these species or in *D. gelini* Nav. The ♂ appendages are more slender than in *D. gelini* (from Morocco) or *D. variegata*, and more closely approach those of *D. australis*. Both the branch and the apex are more slender than in that species, and the lateral angle of the ninth tergite is less produced. In the wings, apart from the shape, the entirely yellow subcosta is distinctive; in *australis* and *variegata*, this vein is marked with brownish at the bases of the costal cross-veins.

II.—Stray Notes on Mallophaga—IX.

By G. H. E. HOPKINS, M.A.

[Plates I–III.]

56. *The various Identities of Docophorus auratus.*

The name *Docophorus auratus* made its first appearance in print when Nitzsch (1818, p. 290) mentioned it as a *nomen nudum* in his list of the subgenus *Docophorus* of *Phlopterus*, but it first acquired a nomenclatorial existence when De Haan applied the name *Phlopterus (Docophorus) auratus* "Nitzsch" to the description and figure of Lyonet's "Pou de bécasse de mer" (Lyonet and De

Haan, 1829, pp. 272, 310, pl. 13, fig. 9). Although De Haan attributed the name to Nitzsch he is himself its author, because this was the first occasion on which it had been attached to a description. Burmeister (1838) also described a *Docophorus auratus*, and Denny (1842, pp. 43, 78, pl. 4, fig. 6), Giebel (1874), Piaget (1880) and Séguy (1944) have all described species purporting to be *Docophorus auratus* Nitzsch. It was early recognized that *auratus* De Haan and *auratus* Burmeister were not the same, and Harrison (1916, p. 88) listed both (attributing both to wrong authors), but failed to note the obvious fact that the later name is preoccupied. Actually the position is still more complicated, the name *Docophorus auratus* covering at least three species.

No very serious attempt to identify *Philopterus* (*Docophorus*) *auratus* De Haan appears to have been made. Denny (1842, p. 79) suggested that it might be *Nirmus* (now *Quadriceps*) *sellatus* and Harrison (1916, p. 109) listed it as an earlier name for *Q. longicollis* (Rudow), but both these suggestions are certainly wrong. Lyonet's description is too brief to be very helpful, but his figure is very good and represents an obvious female *Quadriceps*. I have compared his figure with material from *Hæmatopus ostralegus* and find that there is excellent agreement; moreover, Miss Clay and I have independently compared the figure with material from all other likely European hosts of *Quadriceps* and find that it does not agree with any of them. To clinch the matter I wrote to Monsieur de J. Berlioz of the Muséum National d'Histoire Naturelle, at Paris, who kindly informs me that, although "bécasse de mer" is a somewhat vague term and is used for several members of the group Limicolæ, it is applied "plus particulièrement . . . à l'Huitrier (*Hæmatopus ostralegus*)". Since the specimens I used for comparison with Lyonet's figure had been compared by Miss Clay and Dr. Kéler respectively with the types of *Nirmus hæmatopi* Denny and *N. ochropygos* Nitzsch and had been found to agree with both (Hopkins, 1942, p. 114), there can be no doubt that both of these names are synonyms of *Quadriceps auratus* (De Haan). If obtained in France, as one must assume that it was, Lyonet's bird could have been either *Hæmatopus o. ostralegus* Linn. or (if obtained in winter) *H. ostralegus occidentalis* Neumann.

Lyonet's specimens (the cotypes of *Philopterus auratus* De Haan) having been lost*, I erect as neotype a female and as allotype a male (Pl. I. figs. 1, 2) from *Hæmatopus ostralegus occidentalis* Neumann, Morecambe Bay, Lancashire, England, 29. x. 1935, G. H. E. Hopkins; these have been presented to the British Museum. 102 male and 157 female neoparatypes from *Hæmatopus o. ostralegus* and *H. o. occidentalis* from various localities in the British Isles.

Docophorus auratus Burmeister nec De Haan was described very briefly (Burmeister, 1838, p. 426) from material collected from *Scolopax rusticola*, the specimens probably being cotypes of Nitzsch's *nomen nudum*. Denny (1842, pp. 43, 78, pl. 4, fig. 6) doubtfully identified as Burmeister's species a nymph which appears to be conspecific with it, and Giebel (1874, p. 11, figs 2 and 6) published good figures (probably taken from Nitzsch's manuscript) of both sexes. I have seen a large number of specimens of both sexes of a louse from *Scolopax r. rusticola* which agrees excellently with the figures published by Giebel, and which turns out to be a member of the genus *Cummingsiella*. The species has never had a valid name and I name it *Cummingsiella aurea*. There is considerable variation in head-proportions within the series but I think it merely individual; in the male holotype (Pl. I. fig. 3) the head is 0.59 mm. long and 0.56 mm. broad and in the female allotype (Pl. I. fig. 4) it is 0.66 mm. long and 0.63 mm. broad, these specimens being broad-headed, like the figures published by Giebel. The holotype and allotype are from *Scolopax r. rusticola* Linn. from Ross-shire, Scotland, and are in the Meinertzhagen collection (slide no. 490); 65 male and 76 female paratypes of both sexes are from the same host, from England, Wales, Scotland, Ireland, Estonia and Hungary.

The misgivings of Mjöberg (1910, p. 121) about the identity of the species (also from *Scolopax rusticola*) described and figured by Piaget (1880, p. 78, pl. 5, fig. 8) as *Docophorus auratus* N. are fully justified, for although Piaget's material included *Cummingsiella aurea* his figure agrees well with specimens of a *Sæmundssonina* which occurs on *Scolopax r. rusticola*, and does not agree with

* Information kindly supplied by Monsieur Eugène Séguy.

the *Cummingsiella*. Miss Clay has kindly compared my specimens with Piaget's material in the British Museum and finds that a male and a female mounted on slide 997 of the Piaget collection agree with my specimens, while a female on slide 978 is *Cummingsiella aurea*. I select as lectotype of *Docophorus auratus* Piaget, 1880, nec De Haan, 1829 (nor Burmeister, 1838) the male on slide 977 in the British Museum and as allotype the female on the same slide, and I rename the species *Sæmundssonina clayi*.

A form figured by Séguy (1944, p. 216, figs. 312, 313) is from *Capella media*. This form, of which I have seen a few specimens, is extremely similar to *Sæmundssonina clayi*, but may prove to be subspecifically distinct.

57. The Identity of *Docophorus ambiguus* Burmeister.

Burmeister (1838, p. 426) very briefly described *Docophorus ambiguus* from material obtained from *Scelopax* (now *Capella*) *gallinago*. Giebel (1861, p. 314) renamed it *Docophorus amphibolus* for no apparent reason, but neither he nor any subsequent author whose work is known to me ever mentioned it again except that Harrison (1916, p. 87) listed it in *Philopterus* with *amphibolus* as a synonym. No attempt to identify the species has ever been made so far as I know, and (the types being lost) Burmeister's description is our only guide to its identity.

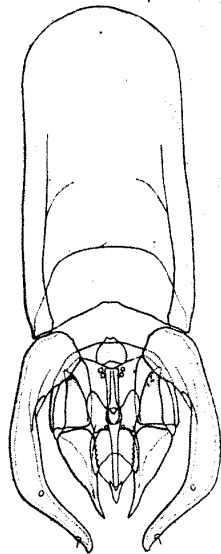
Waterston (1912, p. 62) described a *Docophorus nirmoides* var. *major* (nec *Docophorus major* Kellogg, 1896) from a male and two females collected from *Gallinago caelestis* Frenzel (= *Capella gallinago*) at Northmavine, Shetland, during the first week of September 1911, by Mr. R. H. MacNair. In the Waterston collection in the British Museum there are three slides labelled *D. major* Waterston, containing a male and two females from the type host and locality and obtained by Mr. MacNair, but labelled 31. viii. 1911, not "first week in September". In spite of this trivial discrepancy I do not think there is the slightest doubt that these specimens are Waterston's types, and I select the male (slide no. 308) as lectotype of *Docophorus nirmoides* var. *major* Waterston. These specimens agree perfectly with Burmeister's very brief description of *Docophorus ambiguus*.

Another name to be considered in this connection is *Docophorus nirmoides* Piaget (1880, p. 104, pl. 9, fig. 2), placed as a synonym of *major* Waterston by Harrison (1916). There are no specimens so labelled in the Piaget collection, but there is a slide (no. 656) containing a specimen supposedly from *Numenius arquatus*, in addition to others from another host and therefore not part of Piaget's type-series; all these specimens are the same as *Docophorus major* Waterston and they agree with Piaget's description and figure except in the shape of the temples, which are much too square and prominent in the figure. But this is a common fault in Piaget's drawings; the specimens he called *Lipeurus pullatus* N. and *Docophorus elongatus* are in the collection and both show exactly the same difference from Piaget's drawing as does slide no. 656, from the figure of *D. nirmoides*. Unfortunately this slide has been remounted and the original label cannot be found; the present modern label bears the name "*Docophorus Nirmus pseudonirmus* N.", which is probably a copy of what Piaget wrote on the original label. This name is almost certainly accounted for by the facts that on p. 105, Piaget's remarks suggest that he was only prevented from determining his specimens of *nirmoides* as *pseudonirmus* by the vagueness of the description of the latter, and that on p. 178, he remarks that he does not see why *pseudonirmus* should remain in *Nirmus*. I have no real doubt that the specimen on slide 656 is one of Piaget's original series of *nirmoides*, that when he decided it could not be identified as *pseudonirmus* he did not trouble to relabel it, and that Fate, by making it the sole survivor of the original series, has selected it as the lectotype. But to avoid all doubt I select this specimen as neotype of *Docophorus nirmoides* Piaget.

Docophorus ambiguus Burmeister, *D. amphibolus* Giebel, *D. nirmoides* Piaget and *D. nirmoides* var. *major* Waterston are, therefore, all different names for the same species. Although entirely nirmoid in facies, the species seems to be quite certainly a *Cummingsiella*; in particular the male genitalia (fig. 1) are of exactly the same rather characteristic type as in *Cummingsiella aurea*, and the resemblance to *aurea* is such that I think the two species to be very closely related in spite of their strikingly different appearance.

The types of *Docophorus ambiguus* having been lost, I erect as neotype of *Cummingsiella ambigua* (Burmeister) a male (Pl. II. fig. 5) from *Capella g. gallinago* (Linn.) from Cornwall (Meinertzhagen coll. slide no. 15695) and

Fig. 1.

Male genitalia of *Cummingsiella ambigua* (Burmeister).

as neallotype a female (Pl. II. fig. 6) on the same slide; 12 male and 27 female neoparatypes from the same host-form, England, Scotland, Ireland and Estonia.

The existence of species of *Cummingsiella* that are so nirmoid is of considerable interest, and it seems improbable that *Quadriceps* can now be separated from *Cummingsiella*.

58. The Identity of *Nirmus pseudonirmus* Nitzsch, 1874.

My enquiry into the various identities of *Docophorus curvatus* led me to examine the descriptions of various

other *Ischnocera* which are recorded from Charadriiformes and whose identity is not well established. Among these is *Nirmus pseudonirmus* Nitzsch, first mentioned by Giebel in 1866 (p. 375) as a *nomen nudum* and described in 1874 (p. 167). The host was *Numenius arquata* and the fact that Nitzsch obtained the louse "in vielen Exemplaren" is a strong indication that the host-record is correct, yet (in spite of a detailed and accurate description) subsequent authors, with one exception, have been content to quote the description published by Giebel, without considering it applicable to any of their material. The exception is T. Müller (1927), but it is not possible to tell what insect he had because, although on p. 15 he claimed to have collected several specimens from Brachvogel (= *Numenius arquata*) the rather unsatisfactory photograph he published (plate, fig. 8) shows a male *Brælia* of the type found on the genus *Corvus*.

The failure of earlier authors to identify *pseudonirmus* is probably due to the inclusion of this strongly philopteroid species in *Nirmus*, for comparison of the description with *Ischnocera* from *Numenius arquata* shows very good agreement with *Cummingsiella testudinaria* (Denny), which was described as a *Docophorus* and not removed from that genus until 1916. *Nirmus pseudonirmus* Nitzsch, 1874, is, therefore, a synonym of *Cummingsiella testudinaria* (Denny) 1842.

59. The Host of *Sæmundssonina platygaster* (Denny).

Denny (1842, pp. 44, 83, pl. 2, fig. 5) described his *Docophorus platygaster*, giving *Uria troile* as the sole host on p. 44, and adding *Charadrius morinellus* and *C. hiaticula* on p. 84; he evidently felt some doubt about the host, because he did not give the louse an English name like "Louse of the Guillemot" as was his usual custom. Giebel (1874, p. 102) and Piaget (1880, p. 83) both thought that Denny's species might be the same as *D. semivittatus* Giebel, from *Charadrius morinellus*, but had misgivings because of the crudity of Denny's figure, and Harrison (1916, p. 102) went further by sinking *semivittatus* to *platygaster*. But Thompson (1936, p. 78) designated *Uria troile* as type-host of Denny's species, stating at the same time that the types are lost.

This has raised the whole question of the designation of type-hosts and has led to the discovery that there is no means, under the International Rules of Zoological Nomenclature of restricting an originally-composite species short of selecting a lectotype. Such designations as those made by Thompson have, therefore, no validity though they should naturally be given most favourable consideration when a lectotype is selected.

In this particular instance Thompson's designation is definitely incorrect. The cotypes of *platygaster* are not lost, as stated by Thompson, but are in the British Museum, though without labels indicating their status. I have recently had an opportunity of examining them and Giebel and Piaget were perfectly correct in considering *platygaster* to be a plover-parasite and not an auk-louse. The series consists of seven specimens mounted singly on slides, of which three are labelled as being from *Uria troile* and the other four have no host-record. One of those without host-record is a very young nymph; the others are all females of the genus *Sæmundssonina* and of the type found on plovers. None resemble auk-parasites. The specimens are presumably from the plovers mentioned by Denny, but females in this group are extremely difficult to separate and I consider that a closer identification of *platygaster* and the selection of a lectotype for the species should await a revision of the group. In the meantime *Sæmundssonina semivittata* (Giebel) should provisionally be regarded as a good species.

60. *The Identity of Docophorus dilatatus Rudow.*

Merisuo (1945, p. 104) notes that the characters quoted by Piaget from Giebel's description of *Docophorus eurygaster* agree well with *Craspedorrhynchus buteolagopi* Merisuo, but prefers to describe the species as new, rather than to apply to it the name given by Giebel, on the grounds that the description is insufficient, in the absence of a figure, to convey certainty as to the identity of the species meant. He rightly does not use the name *Docophorus dilatatus* Rudow because he has not seen the description, and he does not seem to have considered in this connection *Docophorus taurocephalus* Kellogg, which is from *Archibuteo* (now *Buteo*) *lagopus sancti-johannis*,

whereas *dilatatus*, *eurygaster* and *buteolagopi* are from *Buteo l. lagopus*.

The Halle collection, containing the types of species described by Nitzsch, Burmeister, Giebel and Taschenberg, was mostly destroyed during the late war*, and Rudow's types perished long ago, so we must endeavour to interpret the names given by these authors by applying them to species which agree with the original description (or do not disagree beyond the limits of likely errors of observation) and are from the original host-form. Such interpretations should be firmly established, when possible, by the erection of neotypes.

I do not possess any specimens of *Craspedorrhynchus* from *Buteo l. lagopus*, but a pair from *Buteo lagopus sancti-johannis* agree excellently with Merisuo's beautiful photomicrographs and I have used these specimens for comparison with the descriptions of Rudow, Giebel and Kellogg.

The description (Rudow, 1869, p. 14) of *Docophorus dilatatus* is, as usual with this author, too brief and undiagnostic to be of much use, but it agrees in all important respects except the alleged size (which is meaningless; see Hopkins, 1940, p. 418) with my specimens, as also does the description of *eurygaster* (Giebel, 1874, p. 69). I am less sure with regard to *taurocephalus* because there are serious discrepancies between the figure and the description (Kellogg, 1896, p. 471, pl. 65, fig. 1), Kellogg giving (*e. g.*) identical measurements for the length and breadth of the head in each sex, whereas in the drawing the head is distinctly longer than broad (about as 1.0 : 0.9); in the description there is no marked difference from my specimens, but if the drawing is accurate (which seems very unlikely) *taurocephalus* is distinct.

Docophorus eurygaster Giebel, 1874, and *Craspedorrhynchus buteolagopi* Merisuo, 1945, are both synonyms of *Craspedorrhynchus dilatatus* (Rudow) 1869, of which *Docophorus taurocephalus* Kellogg, 1896, is also probably a synonym. The types of *Docophorus dilatatus* Rudow having been lost, I select as neotype the male type of

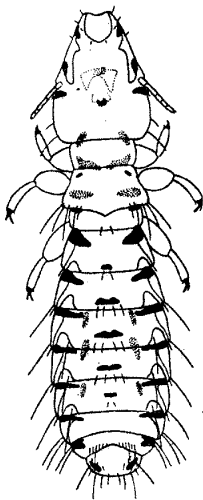
* Only the species worked out by Kéler in "Baustoffe zu einer Monographie der Mallophagen", parts I. and II. survive.

Craspedorrhynchus buteolagopi Merisuo, and as neallotype the female type of Merisuo's species.

61. The Identity of *Nirmus lingulatus* Waterston.

Nirmus punctatus lingulatus was described (Waterston, 1914, p. 285) from material obtained from *Larus* [*novæ-hollandiæ*] *hartlarubi* Bruch. The insect has never been figured as far as I am aware, and the type is in the South African Museum, Cape Town, and not readily accessible

Fig. 2.



The male type of *Quadriceps lingulatus* (Waterston).

to most students of lice. Among some papers belonging to the late Mr. G. A. H. Bedford that were handed over to me after his death, I found a drawing (fig. 2) labelled in his handwriting "*Degeeriella punctata* var. *lingulata* Waterst. ♂ (type). Differs from *punctata* in having the spots on the head, metanotum and tergites i, viii and ix darker and slightly larger and they are black instead of

brown. Lateral spots on tergites ii-vii also slightly larger".

N. lingulatus belongs to *Kaemiginirmus* Eichler, but this group of species merges imperceptibly into *Quadriceps* Clay and Meinertzhagen, from which it cannot be separated. *Quadriceps lingulatus* (Waterston) seems to me to be sufficiently distinct from *Q. punctatus* (Burmeister) to be provisionally given specific rank.

62. The Identities of some species of *Craspedorrhynchus*.

Harrison (1916, p. 92) gave as host-record for *Craspedorrhynchus cornutus* (Piaget) "*Falco bidentatus*, *Pernis apivorus*", and Eichler (1944, p. 71) has designated *Pernis apivorus* as type host of the species. Both these authors call *melittoscopus* "Nitzsch in Giebel, 1861", a *nomen nudum*, as it is*, but fail to note that *Docophorus melittoscopus* Nitzsch was fully described later (Giebel, 1874, p. 71). Eichler (1944, p. 71) and Merisuo (1945, p. 102, figs 2 a, 3 a) have both redescribed the *Craspedorrhynchus* of *Pernis apivorus* as *C. cornutus* Piag.

Actually, Piaget never had any material of a *Craspedorrhynchus* from *Pernis apivorus*. What he wrote (1880, p. 21) about his *Docophorus pachypus* var. *cornuta* (so far as it concerns the host) is: "Je crois cette variété identique avec le *melittoscopus* de N. (Giebel, p. 71) provenant d'un *Pernis apivorus*. La mienne provient d'un *Falco bidentatus*". It is, therefore, evident that he had material only from *Falco* (now *Harpagus*) *bidentatus*, so to accept (without examination of the type) Piaget's assumption that his material might be the same as that from *Pernis apivorus* and to use the name *cornutus* for the latter species would be quite unjustified even if the name *melittoscopus* had not six years' priority.

Because of Piaget's methods the search for the type of var. *cornuta* was attended with some difficulty and uncertainty. The variety does not appear in the collection under that name, but there is a single specimen (slide no. 1027) from "*Buteo bidentatus*" and labelled "*Docophorus gonorrhynchus*". This links up with the fact that var. *cornuta* nowhere appears in Piaget's host-list (1880,

* Giebel states that it differs strikingly from *platystomus* by the shape of the head, but does not indicate the nature of the difference.

pp. 681-696) under that name, but on p. 683 he gives under "*Falco (Spilornis) bidentatus*" an entry "*D. gonorhynchus* var. 20" which must refer to var. *cornuta* because there is nothing else on pp. 20-21 (or elsewhere in *Les Pédiculines*) to which it could refer. The fact that on the slide the host is called *Buteo* is doubtless accounted for by the fact that in 1871 *Buteo bidentatus* appears (p. 125) among the hosts of the species Piaget there calls *Docophorus platystomus* Burm., the figure of which is the one that he published in 1880 as pl. 1, fig. 1. There is nothing in Piaget's very inadequate description that is inconsistent with the suggestion that the specimen on slide 1027 is the type of *cornuta*, and I am convinced that it is, in fact, the type. There are many other instances in which Piaget left what is obviously type-material of forms described by him labelled with a name other than that he gave it. The specimen on slide 1027 is presumably the holotype of *Docophorus pachypus* var. *cornuta* Piaget, but to remove any doubt I select it as lectotypé. It is not in the least like the species described by Eichler and Merisuo and figured by the latter under the name *Craspedorrhynchus cornutus*, though it does belong to the genus *Craspedorrhynchus*.

The *Craspedorrhynchus* found on *Pernis apivorus*, on the other hand, agrees perfectly with Merisuo's beautiful photomicrographs and also with the description published by Giebel in 1874, and with a tracing of Nitzsch's unpublished drawing of *melittoscopus*, made by Miss Clay. There is no doubt whatever that this species must be known as *Craspedorrhynchus melittoscopus* (Nitzsch). As the types are lost I designate as neotype male and neallotype female of *C. melittoscopus* a pair of specimens from *Pernis apivorus* (Linn.), Rovereto, Italy, June 1938, C. Conci; these specimens have been presented to the British Museum. Neoparatypes: three males and two females (in my own collection) with the same data as the neotypes, and two males and a female (in the Meinertzhagen collection) from *Pernis apivorus*, Finland (slide no. 11109).

The final question with which I wish to deal in this note is the identity of *Craspedorrhynchus macrocephalus* as redescribed by Piaget, together with some points arising from this. The description of *Craspedorrhynchus macrocephalus* (Nitzsch) was published by Giebel (1874, p. 73),

the host being *Haliastur albicilla* (Linn.); he also published in the same work (p. 71) the description of *C. pachypus* (Giebel) from *Falco pondicerianus*, now known as *Haliastur indus* (Boddaert). Piaget (1880, p. 21) discussed *C. pachypus* without having seen it, his description being merely a translation of parts of that given by Giebel; he also (p. 22, pl. 1, fig. 1c) described and figured "*D. macrocephalus* N.", his host-record being "sur un *Haliastur indus*, aussi sur un *Haliaëtus albicilla*". But it is quite evident that the latter host is mere quotation from Giebel, for Piaget's collection contains no material from *H. albicilla*, either in London or (according to the list published by Thompson) at Leyden. Comparison of Piaget's figure of the male subgenital plate with Merisuo's photograph (his fig. 3f) of this structure in *Craspedorrhynchus macrocephalus* (Nitzsch) from the type-host of the latter suggested very strongly that Piaget's species was different, and I have now had the opportunity to confirm this by examination of Piaget's material, for his "*macrocephalus*" is undoubtedly not the species described by Nitzsch under the same name. Piaget's specimens agree fairly well with Giebel's description of *pachypus*, from the same host, but there are certain discrepancies and (in view of the frequency of errors about the host of Piaget's material) I dare not designate any of Piaget's specimens as neotypes of *C. pachypus* without having seen definitely authentic material from *Haliastur indus*. If, as I believe, these specimens are *pachypus*, Giebel's supposed difference in shape between the abdomens of the two sexes is illusory (probably due to distortion of dried specimens) for the shape of the abdomen of Piaget's male agrees well with Giebel's description, but that of the female is quite normal for the genus and not at all as described by Giebel. The figure of "*Philopterus macrocephalus* (Nitzsch)" published by Séguy (1944, p. 207, fig. 302) is copied from Piaget's and also represents the species that I believe to be *pachypus*. The last species involved in this complex of misdeterminations is "*Philopterus pachypus* (Giebel)" of Séguy (1944, p. 208, figs. 304, 305). This is from *Milvus migrans*, and (so far as can be told from the unsatisfactory figures) is not *pachypus* if my determination of Piaget's specimens is correct. There is a probability that Séguy's specimens are *Craspedorrhynchus spathulatus* (Giebel), which is also from *Milvus migrans*.

63. *The Identity of Philopterus grammicus Gervais.*

Because writers on Mallophaga often accept, without checking, the statements of others with regard to works that are not easy to obtain, the case of *P. grammicus* is of some interest as an instance of the amount of reliance to be placed on such statements, although no important change in accepted nomenclature is involved.

Giebel (1874, p. 175) gives "*Philopterus grammicus* Autor" as a synonym of *Nirmus eugrammicus* "Nitzsch" and also (*l. c.*, p. 176) mentions "*Philopterus grammicus* Gervais" as a synonym of *Nirmus punctatus* "Nitzsch" from *Larus ridibundus*. Piaget (1880, p. 706) mentions *grammicus* in his index as a synonym of a *Nirmus punctatus* dealt with on p. 185, but this is an entirely different *punctatus*, from *Charadrius morinellus*. After this it is hardly a surprise to find that Harrison (1916, p. 114), mentioning *grammica* Gervais as a synonym of "*punctata* Nitzsch", gives the host-record as "*Tringa* spp."

Actually, *Philopterus grammicus* was proposed by Gervais (1844, p. 350) without any independent description or figure (though with the host-record *Larus ridibundus*) as a *nomen novum* for "*Nirm. eugrammicus*, Burm. *Handb.*, *loco cit.*, p. 428, non *Phil. engramm.* Nitzsch". The name was doubly unnecessary; not only was *Philopterus eugrammicus* Nitzsch, 1818, a *nomen nudum*, so that *eugrammicus* Burmeister would in any case be valid, but also comparison of Burmeister's description with Nitzsch's drawings, published by Giebel in 1874, shows that the two authors undoubtedly described the same insect under the name *eugrammicus*.

Philopterus grammicus Gervais is an absolute synonym of *Quadriceps eugrammicus* (Burmeister). Since there is no "indication" other than the reference to Burmeister's description, the type-host of *grammicus* is necessarily that of *eugrammicus*, which is *Larus minutus*, and the host-record given by Gervais is quite irrelevant.

64. *The Author and Date of the Genus Gonocephalus.*

Gonocephalus has undergone such strange treatment by authors that it is necessary to discuss it at some length.

Harrison (1916, p. 21) ascribed the name to "Lyonet (De Haan), *Mem. Mus.*, xviii. 1829, p. 268", and stated the type to be *G. chelicornis* Nitzsch. It is, therefore, somewhat surprising to find that *Gonocephalus* is nowhere mentioned in the work quoted by Harrison. No Latin names whatever occur on the page that Harrison mentioned, but in the "Explication des planches", by De Haan, there appears (p. 309, under Planche iv) the entry "Fig. 6. *Philopterus (Goniodes) chelicornis* ? Nitzsch . . . Pou du coq de bruyère, Lyonet, pag. 268". This must be the reference intended by Harrison, because it is the only place in the work where *chelicornis* is mentioned, but I do not know whence he acquired the erroneous idea that either Lyonet or De Haan referred the species to *Gonocephalus*. Giebel (1861, p. 306) mentioned *Gonocephalus chelicornis* without a word of description and gave a reference to this mention in 1874 (p. 196), but to the best of my knowledge these are the only occasions on which the name *Gonocephalus* appeared in print until 1937.

Kéler (1937 a, pp. 130, 131) described *Gonocephalus* and designated *Goniodes chelicornis* Nitzsch as genotype; as usual in Kéler's work, priority is ignored (especially if it is unfavourable to Nitzsch) and in this case the species he undoubtedly means is *Goniodes chelicornis* Denny, 1842, *nec* Children, 1836. Kéler admitted that he had not seen the work of Lyonet and De Haan, stated that Nitzsch used *gonocephalus* in his manuscript only in an adjectival sense and not as a generic name, yet insisted that the authorship of *Gonocephalus* as a generic name must be attributed to Nitzsch, stating "Nach Artikel 21 der Intern. Reg. d. Zool. Nomenkl. muss Nitzsch als Autor des Namen gelten, weil Lyonet, welcher 1789 starb, nur französische Namen benutzte und De Haan setzte die lateinische Namen in die Erklärung der Tafeln in Anlehnung an Nitzsch". Kéler's statement shows complete misapprehension of the actual provisions of the article he quotes, which (before the amendment that made the designation of a genotype obligatory as from January 1st, 1931) read as follows:—"The author of a scientific name is that person who first publishes the name in connection with an indication, a definition or a description, unless it is clear from the contents of the publication that some other person is responsible for said name and its

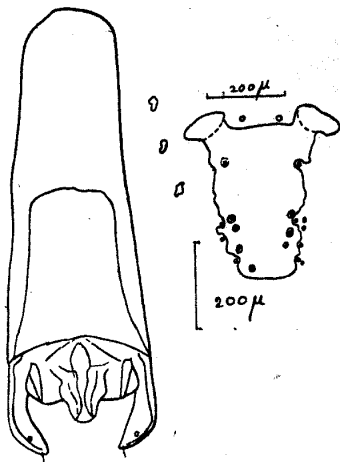
indication, definition, or description" (the italics are mine). As neither Nitzsch nor Lyonet nor De Haan published the name at all, Giebel published it only as a *nomen nudum*, and Kéler's description (unlike the name *Gonocephalus*) is not borrowed from either Nitzsch or Giebel but is his own, Kéler himself is the first author to publish the name in a form recognized by the Rules of Zoological Nomenclature, and the correct name of the genus is *Gonocephalus* Kéler, 1937.

I do not think *Gonocephalus* separable from *Goniodes*.

65. *Craspedorrhynchus spathulatus* (Giebel).

The destruction of the greater part of the Halle collection has made every scrap of evidence as to the identity of the species contained in it of special importance.

Fig. 3.



Male genitalia and subgenital plate of *Craspedorrhynchus spathulatus* (Giebel).

Just before the war Dr. Kéler sent me a drawing of the male genitalia and subgenital plate of *Craspedorrhynchus spathulatus* (Giebel), which I reproduce here (fig. 3) with his kind permission. He is anxious that it should be

stated that the drawing was not originally prepared for publication and is somewhat rougher than would have been the case if he had intended to publish it.

66. *Two supposed Names of Trichodectidae.*

Werneck (1947) draws attention to the names *alba* Piaget and *hamadryas* Fahrenholz, both of which he considers to have been set up in the genus *Trichodectes*. I think that neither of these names has any existence in nomenclature.

Trichodectes hamadryas was mentioned (Fahrenholz, 1921, p. 363) without any description, as a parasite of *Papio hamadryas*. Kéler (1941) placed it as a synonym of *Cervicola tibialis* (Piaget) and stated "Nach brieflicher Mitteilung von Herrn Senator a.D. Fahrenholz hatte sich diese Art als *tibialis* (Piaget) entpuppt". Werneck (1947, p. 408), discussing the name *hamadryas*, came to the conclusion that when Fahrenholz identified it with *tibialis* it ceased to be a *nomen nudum* and "se tornou nome ocupado, sinônimo doutro que sobre ele tem prioridade. Este último, porém, não é *tibialis* e sim *meyeri*". He goes on to state that this is established by the fact that specimens sent to him by Fahrenholz as *hamadryas* are *meyeri*,* but the identity of Fahrenholz's material has no relevance to the question because there is certainly no such species as *Trichodectes hamadryas* Fahrenholz, since *nomina nuda* have no existence in nomenclature. It is arguable that there is a *Cervicola hamadryas* Kéler, 1941, but if there is I do not know what it is: *tibialis* "Piaget" as described by Kéler is invariably *meyeri*, so *hamadryas* Kéler (if it exists) could be regarded as a *nomen novum* for either *meyeri* or *tibialis*, but it seems to me that Kéler's statement about *hamadryas* does not give the name any standing and that it remains a *nomen nudum*. The whole trouble, of course, arises from the pernicious practice of certain authors of publishing *nomina nuda* as if with the intention of thus snatching priority. Such publication can only have this effect if it improperly deters other authors from publishing their own names and descriptions of the organisms concerned, because the rules most wisely place *nomina nuda* entirely outside the scope of nomenclature, and the only effect of the practice (which it is impossible to condemn too strongly) is to

produce still worse confusion in the already chaotic nomenclature of the Mallophaga.

The other name mentioned by Werneck (pp. 406, 407) is *alba*, which he considers that Piaget proposed as a variety of *tibialis*. Although Piaget's statement is admittedly ambiguous, I do not agree with my friend Dr. Werneck's reading of it. What Piaget actually wrote (1880, p. 400) is "sur un Cervus dama. Les parasites de la variété *alba* avaient l'abdomen blanchâtre. Aussi sur un Cervus capreolus du Jard. Zool. de Rotterdam". It seems to me that Piaget's statement is that specimens from an albino *Dama dama* had a whitish abdomen, and that the name *alba* does not refer to the lice but to the deer. I cannot claim the fact that there are no specimens labelled *T. tibialis* var. *alba* in the Piaget collection as confirmation of my belief, because Piaget so often did not label his specimens with varietal names, but the fact that there are specimens labelled as being from "*Cervus dama* var. *alba*" (see Thompson, 1938, p. 493) is highly significant. In the absence of conclusive evidence to the contrary I intend to consider the reference by Piaget to *alba* as being a host-record and not the name of a parasite.

67. The Iconography of

Colpocephalum appendiculatum Nitzsch.

Eichler (1947, pp. 10, 11) mentions Piaget's statement that there must have been a mistake over the insects depicted in *Insecta epizoa*, pl. 14, figs. 5 and 6, because the two insects are both females and of totally different types; he finds himself unable to solve the problem, but notes that his female agrees well with fig. 6 of the plate, while his male does not agree with fig. 5.

The explanation of the muddle is extraordinarily simple: that Giebel (1874, p. 269) gave wrong references to the figures, the correct references being given in his "Erläuterung der Tafeln". Consultation of the latter shows that figs. 6 and 7 on plate 14 are female and male respectively of *Colpocephalum appendiculatum*, whereas fig. 5 is *Actornithophilus ochraceus*.

68. The Identity of *Liotheum punctatum* Gervais.

No serious attempt seems ever to have been made to identify *Liotheum punctatum* Gervais, of which the

description was published in Gay (1849, p. 104). Piaget (1880, p. 582) gave a French translation of the description, referring the species to *Læmbothrion*, and all subsequent authors who have mentioned the name have followed him in this erroneous identification.

The entire original description is as follows:—"L. ovatum; thorace immaculato; abdomine luteolo, lineis brunneis transversalibus omnino notato. Cuerpo oval; obtuso; cabeza grande, estendida por los lados, y con manchas cerca de los ojos; tórax llano y de un flavo muy claro; abdómen del mismo color, pero enteramente cubierto de gruesas listas morenas y horizontales. Vive sobre los Halcones, y creemos haberia hallado en el Condor".

Piaget's comments on the uselessness of such vague descriptions are perfectly justified, yet this one is quite sufficient to show that the insect is not a *Læmbothrion* but a member of the Menoponidæ. There is, however, another clue to the identity of the species: the plates in Gay's work are not numbered, but on the one called "Araneidæ Anoplureos y Tisanureos no. 1", two species referred to *Liotheum* are depicted, fig. 10 being a *Læmbothrion* that Gervais calls *Liotheum giganteum* Nitzsch., and fig. 11 a Menoponid that he calls *Liotheum quadripustulatum* Den. In the text, also (p. 104) there are two species referred to *Liotheum*, these being *L. giganteum* and *L. punctatum*, neither of them ascribed to any author. The inference that *punctatum* of the text and *quadripustulatum* of the plate are possibly the same is slightly strengthened by the fact that (as noted by Piaget) there is nothing in the description that gives any hint as to why Gervais called the species *punctatum*, and it becomes nearly a certainty when we note that the description of *punctatum* applies in every detail to fig. 11 on the plate. At the very least the probability is amply sufficient to make it legitimate for us to use the figure in trying to identify the insect.

Actually the figure is quite good, and enables the genus to be identified with certainty: it represents a female *Falcophilus*, a genus (apparently inseparable from *Cuculiphilus*) that does occur on South American Falconiformes. Unfortunately the absence of a proper host-record renders a closer identification of *Cuculiphilus punctatus* (Gervais) impossible unless the type should survive.

69. *The Identity of Pediculus tinnunculi Latreille.*

Harrison (1916, p. 105) mentions a *Philoaterus tinnunculi* Guérin, giving the host as *Falco tinnunculus*. In Guérin's Encyc. Meth., pl. 254, fig. 1 is an inaccurate figure of a *Craspedorrhynchus* and is merely labelled "Le P. des Faucons", but in the list of plates on p. 128 of part 24, which is stated to be by Latreille, is the reference:—

"Planche 254.

1. *Pediculus tinnunculi* Lin. Gmel.

Nota—Figure copiée d'Albin, Aran—tab. 43."

The figure in Albin's *Natural history of spiders and other curious insects* (1736), which is the book referred to by many early authors as "Albin Aran.", is in turn copied from the right hand lower figure of Redi's plate 1 (Redi, 1668). It is particularly to be noted that all three of the figures on Redi's plate 1 are copied on Albin's plate 43, and that although Hooke* calls them "The Louse of the Buzzard", "of the Falcon" and "of the Sparrow Hawk" respectively, Redi calls all three of them "Pollini dell' astore", so that Hooke's host-attributions are purely fanciful.

The host of *Craspedorrhynchus tinnunculi* (Latreille) is not *Falco tinnunculus*, but "astore", which is the Italian vernacular name for *Accipiter gentilis* (Linn.). Not only is *Pediculus tinnunculi* Latreille a misdetermination of *P. tinnunculi* Linn., and the name preoccupied, but it is also a synonym of *Craspedorrhynchus hæmatopus* (Scopoli), from the same host.

70. *The Identity of*

Ornithobius hexophthalmus (Nitzsch).

Ornithobius hexophthalmus was described (Nitzsch in Giebel, 1861 a, p. 528), as a *Lipeurus*, from specimens of both sexes supposed to have been found on *Strix nyctea*, the specimens being possibly stragglers but much more probably merely mislabelled. They were figured by Taschenberg (1882, pl. 7, fig. 2), and Kéler (1937 b, pp. 313, 322) examined the types and placed *hexophthalmus*

* The section on lice in Albin's book is by Hooke.

as a synonym of *O. gonioplurus* Denny. The material used by Kéler to represent *gonioplurus* had been determined by Waterston and was from *Branta leucopsis*, collected by Sindalsen on 1. v. 1921 and 2. vi. 1921. But examination of material from *Branta canadensis* and *B. leucopsis* shows that the forms found on these two hosts are not the same, the specimens from the former being *Ornithobius gonioplurus* Denny and those from the latter being *O. klinkowstræmi* Mjöberg, though the differences between these two forms are not very conspicuous. As the material used by Kéler for comparison with the types of *hexophthalmus* was from *Branta leucopsis* it is a fair assumption that it was *klinkowstræmi* and not *gonioplurus*, but the loss of the types of *hexophthalmus* makes it specially desirable to strengthen this assumption as much as possible, Taschenberg's figures not being detailed enough for certainty in distinguishing two very closely allied forms. I therefore asked Miss Clay to examine the British Museum collection and see if any of the material that Waterston determined as *gonioplurus* remained available, and to which species it belongs.

Miss Clay kindly informs me that she finds in the collection a male from *B. canadensis* correctly labelled by Waterston as *O. gonioplurus* and another male, from *B. leucopsis*, similarly determined by Waterston, but belonging to the form normally found on *B. leucopsis*, i. e. *Ornithobius klinkowstræmi*. It is, therefore, clear that Waterston did not notice the differences between these two very similar forms. Moreover, the male from *Branta leucopsis* was collected in Greenland on 1. v. 1921 by Sindalsen, so that it evidently belongs to the same lot as was used by Kéler for comparison with the types of *hexophthalmus*.

Assuming, as we must, that Kéler would have noticed the differences between the two forms, then *Ornithobius hexophthalmus* (Nitzsch) 1861, is not a synonym of *O. gonioplurus* Denny, 1842, but an earlier name for *O. klinkowstræmi* Mjöberg, 1910, which it must replace. Its true host is *Branta leucopsis*.

71. *The Host of Nirmus lineolatus Nitzsch, 1866.*

Quadriceps lineolatus (Nitzsch) 1866, has been quite well figured and its generic position is not in doubt. The only

debatable point is as to which of the several forms of *Quadriceps* occurring on gulls should bear the name, and this is due to the regrettable practice of the older authors (unfortunately not yet entirely abandoned) of describing a species from material obtained from diverse hosts without indicating a type or even a type-host. Certain modern authors deal with this sort of difficulty by regarding the first host mentioned by the describer as being the type-host, but this is only permissible in the absence of any other indication, and the present case exemplifies very well the difficulty sometimes encountered in trying to decide which host actually is the first mentioned.

The name *Nirmus lineolatus* was never published by Nitzsch, but was published three times by Giebel, in 1861 (pp. 315, 316, as a *nomen nudum*) from *Larus argentatus*, *L. tridactylus*, *L. canus* and *L. glaucus*, in 1866 (p. 376) from *Larus tridactylus*, *L. canus* and *L. glaucus*, and in 1874 (p. 177) from *Larus canus*, *argentatus*, *glaucus* and *tridactylus*. As the name is ascribed by Giebel to Nitzsch we cannot altogether ignore the 1861 mention as an indication of the species to which Nitzsch's description applied, and it will be noted that the hosts are in a different order on every occasion the name is mentioned. Fortunately there is in this case a far better indication of the species meant than could be obtained from the order of the names of the hosts: Giebel (1874, pl. 4, figs. 5-8) published Nitzsch's drawings of specimens from *L. canus* (fig. 5), *L. argentatus* (fig. 6) and *L. tridactylus* (figs. 7, 8). The description fits figs. 7 and 8, and does not fit the other figures, though I do not imply that the differences shown are necessarily constant.

The type-host of *Quadriceps lineolatus* (Nitzsch) is, therefore, *Rissa t. tridactyla* (Linn.).

72. A new Name for *Nirmus punctulatus* Giebel, 1874.

Giebel (1874, p. 156) described a species from *Charadrius morinellus* as *Nirmus punctulatus*, and then (p. 301), having realized that this name had already been used by Burmeister in 1838, renamed the species *Nirmus punctulatus*. He overlooked the fact that he had himself used the latter name (1866, p. 377) for a species from Lachmöwe

(=*Larus ridibundus*) that is probably the same as *Quadriceps punctulatus* (Burmeister) and is certainly not the same as *Q. punctulatus* (Giebel) 1874.

The species from *Charadrius morinellus* is, therefore, still without a valid name and I rename it *Quadriceps punctifer*.

73. The Host of *Colpocephalum flavescens* (De Haan).

Eichler (1941, p. 93, footnote) designates *Halizætus albicilla* (Linn.) as type-host ("Kennwirt") of "*Neocolpocephalum flavescens* Nitzsch" and states that Nitzsch's specimens from this host thus become the types. Actually there is, as stated above (note 59), no means of limiting the application of a name other than the selection of a lectotype or the erection of a neotype. But there is another reason why Eichler's action is ineffective in this instance, this being that the name was first validly used, in the form *Liotherum (Colpocephalum) flavescens*, by de Haan (Lyonet and De Haan, 1829, p. 262, pl. 12, figs. 1-3), so that the types never were in the Nitzsch collection but are the lost specimens of Lyonet. Lyonet's host was, however, "un aigle", and there is nothing to hinder our assuming that the bird was *H. albicilla* and much in favour of this course.

The types of *Colpocephalum flavescens* (de Haan) being lost, I designate as neotype a male (Pl. II, fig. 7) and as neallotype a female (Pl. II, fig. 8) from *Halizætus albicilla* (Linn.), Norfolk, England, - iii. 1908, Gunton. These specimens, together with a male neoparatype with the same data, belong to the British Museum; a second male neoparatype, from the same host in Hungary, belongs to the Meinertzhagen collection.

74. A new Species of *Quadriceps* from a Tern.

For some years I have had in my collection a male and two females of a *Quadriceps*, from *Sterna paradisæa*, which I noted was near *Q. sellatus* (Burm.) but separable by the presence in both sexes of a conspicuous pigmented mesosternal plate that is only present in the male of *sellatus*. I recently received from Mr. Charles M. Remington of Harvard University a number of *Mallophaga* from

Sterna paradisæa for determination; they included a series of the new *Quadriceps*, and these and further specimens lent to me by Miss Clay have shown that the difference I originally noted is constant and that there are other constant differences between the two species.

Quadriceps houri, sp. n. (Pl. III. figs. 9, 10) differs from *Q. sellatus* (Pl. III. figs. 11, 12) in both sexes by its much shorter head (index) 1.08 in male and 1.13 in female) and in the female by the presence of a very distinct pigmented mesosternal plate such as is found only in the male of *sellatus* and by the much deeper tergal plates of of the abdomen (that of the third segment about 4 times as wide as deep in *houri* and about 4½ times in *sellatus*).

Female holotype, male allotype and 1 male paratype from *Sterna paradisæa* Pontoppidan, Reykjavik, Iceland, 23. viii. 1934, G. Timmermann. Three male and eleven female paratypes from the same host-form, Machias Seal Island, New Brunswick, Canada, 10 and 25. vii. 1947, O. Hawksley; Estonia, -. viii. 1934, Meinertzhagen collection slide 1500; E. Greenland, -. v. 1937, Meinertzhagen coll., slide 10662; and one male paratype from a skin of *Sterna v. vittata* Gmelin, Gough Island, Meinertzhagen coll., slide 16669. The types have been presented to the British Museum.

The types of *Quadriceps sellatus* (Burmeister) having been lost, I designate as neotype male and neallotype female of this species the specimens shown in the photographs, which are from *Sterna h. hirundo* Linn. from Estonia, and as neoparatypes 30 males and 32 females from the Orkney Isles, Shetland Isles, Cornwall, Sweden, Estonia and Syria. The types and most of the paratypes are in the Meinertzhagen collection.

The occurrence of *Quadriceps houri* on *Sterna vittata* will, if confirmed, be of considerable interest, because Miss Clay has shown in a paper in the press that *Sterna vittata* and *S. paradisæa* also have a *Sæmundssonina* in common, whereas the *Sæmundssonina* of *Sterna hirundo*, like its *Quadriceps*, is different.

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EXPLANATION OF THE PLATES.

PLATE I.

- Figs. 1, 2. Male neallotype and female neotype of *Quadriceps auratus* (De Haan).
- Figs. 3, 4. Male holotype and female allotype of *Cummingsiella aurea* Hopkins.

PLATE II.

- Figs. 5, 6. Neotype male and neallotype female of *Cummingsiella ambigua* (Burmeister).
- Figs. 7, 8. Neotype male and neallotype female of *Colpocephalum flavescens* (de Haan).

PLATE III.

- Figs. 9, 10. Male allotype and female holotype of *Quadriceps houri* Hopkins.
- Figs. 11, 12. Neotype male and neallotype female of *Quadriceps sellatus* (Burmeister).

III.—Some New Hesperiidæ (Lepidoptera) from Africa.
By W. H. EVANS, Honorary Associate British Museum
(Natural History).

[Plate IV.]

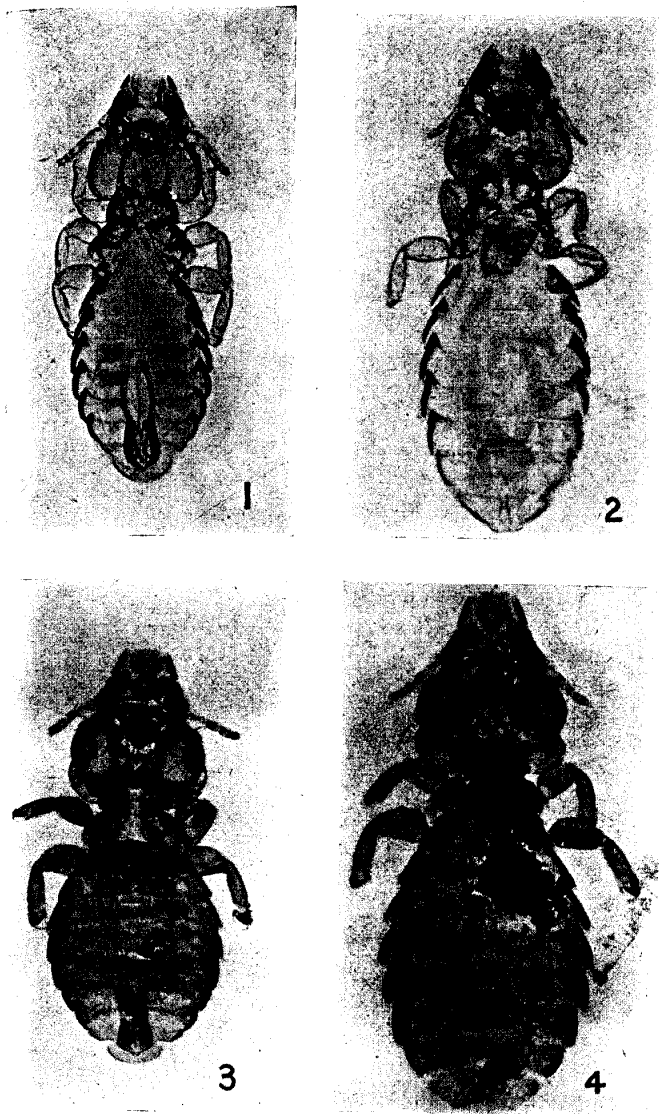
Celsænorrhinus kimboza nov. (Pl. IV. fig. 1.)

♂, Kimboza Forest, Uluguru Mts. Tanganyika, September, 1947 (*T. H. E. Jackson*): type B.M.

Nearest to *zangua* and *ambra* Evans, 1937.

Above, black: central hyaline band on fore wing compact, pale yellow in ♂, white in ♀: a dot in space 4 in ♀. Hind wing plain.

Below, as above: basal two thirds of space 1a on fore wing whitish and the dorsum paler brown on hind wing.

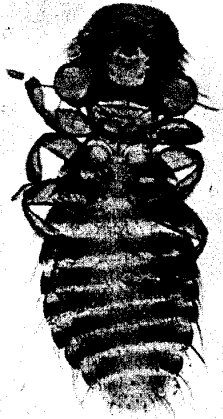




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7



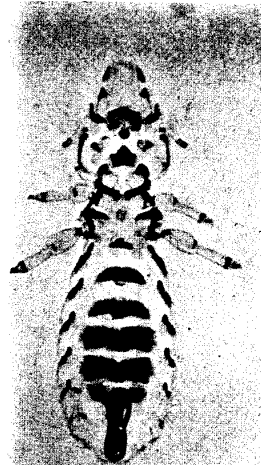
8



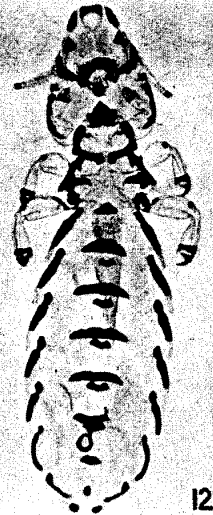
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