

abundant than I had found it at Parknasilla, Kerry, in 1930. Of the other Satyrids *Pararge aegeria egerides* Stgr. occurred frequently in suitable localities, and was last seen in the park at Ballylickey during the first week of October. *P. megera* was rare in early May at Ballylickey, and usually in bad order. The only second brood example was flying on the steep slopes at Mizen Head on August 17. *Eumenis semele* appeared frequent on the hill-sides wherever there were outcrops of rock from the peat. I took a fine female at Killarney near the Upper Lake on July 29, a fair way inland. The form in S.W. Cork as in Kerry has very warmly coloured bands on the upperside, and the hind wings are uniformly dark in the specimens which I have examined. The local form, though larger than the form Verity has named r. *scota*, agrees in other respects with his description thereof. *Aphantopus hyperantus* occurred in abundance at Muckcross, Killarney, and was locally frequent at Ballylickey. The rather small specimens resembled Scottish and north English specimens in the duller and less yellowish ground-colour of the underside. Large specimens of *Coenonympha tullia tullia* were to be found in no great number at Derrycunihy, near the Upper Lake, Killarney, on June 24 and 30 and July 2. I have not found it near Bantry yet. *C. pamphilus* was not rare at Clooncoose, Clare, on June 1. I was surprised not to find it near Bantry. Mr. F. Winder, who kindly helped me to look for various doubtfully Irish species at Killarney, came across it occasionally on Mangerton and the Purple Mountain where, as on Carrantual and Beankeragh, he searched assiduously but in vain for *Erebria epiphron*. He found *C. tullia* frequent but in bad order in the Mullaghanattin mountain country, 9-10 miles W.S.W. of the western end of the Upper Lake of Killarney.

I found *Leptidea sinapis juvernica* Williams at Glen na smole (*alias* Boher na Breena) near Dublin on May 25, at Clooncoose in fair numbers on June 1, and at a new locality near Corofin, Co. Clare, on May 31. A few specimens lingered near Killarney at the end of June. *A. euphrosyne* occurred at Clooncoose on June 1. *Argynnis paphia* was infrequent at Killarney and rare at Ballylickey this year. I saw no *Euphydryas aurinia* and *A. aglaia*, nor did I find anything to support Birchall's statement that *Melitaea athalia* occurred at Killarney. If he really took it there it is surprising that none of his specimens has been found in any collection. I was equally unsuccessful in a search for *Ochlodes venata* in the Kenmare demesne, Killarney, where Watts reported it over two generations ago. The only "skipper" I have found in Ireland is *Erynnis tages*, which was frequent at Clooncoose, and which I had formerly taken at Cratloe Wood, co. Clare, a little north of Limerick. Beating for larvae of *Thecla betulae* at Killarney brought me nothing. Against these failures I found that in this part of Eire *Celastrina argiolus* has a second brood, thus confirming a previous record for S. Cork (Glanmire) in 1942 and 1943 by the Rev. J. W. T. Tuckey (*The Irish Naturalists' Journal*, 8: 183).—PHILIP P. GRAVES, F.R.E.S.; Ballylickey House, near Bantry.

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## NOTES ON MALLOPHAGAN NOMENCLATURE. II.

BY G. H. E. HOPKINS, M.A., F.R.E.S.\*

*Selection of Genotypes.*

IN a previous instalment of these notes (Hopkins, 1947) I have shown that several changes in the accepted application of Nitzsch's generic names will be necessary unless a successful application for partial suspension of the Rules is made to the International Committee on Zoological Nomenclature. As the whole of the inconvenience thus caused would have been avoided if authors who have attempted to select genotypes for Nitzsch's genera had read with sufficient care both the International Rules of Zoological Nomenclature and Nitzsch's paper of 1818, I may perhaps be forgiven for discussing the various ways in which rejection or misreading of the Rules is introducing yet more chaos into the already chaotic nomenclature of the Mallophaga, together with examples of the results produced.

It is obviously the belief of many authors that when describing a new genus they ought to select as genotype the earliest-described of the species they refer to the genus. There is no such rule, nor even recommendation. On the contrary, in the recommendations published to guide selection of a genotype by subsequent designation it is laid down that (other things being equal) preference should be given to "the best described, best figured, best known or most easily obtainable species, or to one of which a type specimen can be obtained," and it is obvious that this recommendation applies equally to the case of a new genus. Acceptance of the imaginary principle that the earliest-described (and usually worst described) species should be made the genotype may easily result in such absurdities as the selection as genotype of a species which does not conform to the generic description. Carriker, for instance (1936, p. 159), in erecting the genus *Tinamicola*, chose *Goniocotes rotundatus* Rudow as genotype in preference to either of two species which were much better described by Piaget and to his own new species, *T. latithorax*. This could only have been to conform to the imaginary principle I have mentioned, for *G. rotundatus* Rudow was by far the worst-described of the four species and its identity was in dispute (see Hopkins, 1941, pp. 45-48). Obviously Carriker's

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best course would have been to choose as genotype his own new species, *Tinamicola latithorax*, and he would doubtless have done this if he had not wrongly thought himself compelled to choose the earliest-described species.

A somewhat similar error, which may have exactly similar results, is the quotation of a genotype under what is believed to be its earliest name instead of under a name which quite certainly belongs to the species meant. I have already dealt (Hopkins, 1947) with the results which this practice has produced in the case of the genotype of *Harrisoniella*. In this instance Bedford accepted an erroneous synonymy given by Harrison (1916), who, in turn, took it from the nineteenth century authors. But these latter authors cared little about synonymy and were extremely careless about it, so it is most unsafe to accept their statements. The whole difficulty could have been avoided by specifying as genotype *Lipeurus ferox* Giebel or (better still) "*Lipeurus ferox* Giebel as described and figured by Taschenberg 1882," thus avoiding any doubt as to the identity of the insect concerned.

#### *What is a Genotype?*

In instances such as that of *Harrisoniella* (in which the name used to specify the genotype applies to a species which does not conform to the description of the genus), which is the genotype—the species which the author had before him or the species he thought he had? To me it seems perfectly obvious that a genotype in zoology is an animal and not its name (how would one set about writing a generic description of a name?) and that the genotype of *Harrisoniella* (for instance) is not the name *Pediculus* or *Esthiop-terum* or *Harrisoniella diomedae*, but the species represented by one of the specimens labelled thus in Bedford's collection. In fact I would not have thought it necessary to discuss the point at all but for the existence (see Riley, 1941) of authors who consider that the name is the genotype, even in the face of conclusive proof that the name has been misapplied. If their view is to prevail, then *Harrisoniella* has as genotype a species which does not fit the generic description and therefore does not belong to the genus—and I wish them joy of the problem.

#### *The Principle of Priority as Applied to Authors' Names.*

In his various works on Mallophaga, Kéler takes up the attitude that a *nomen nudum* published by Nitzsch in 1818 should take precedence over names published later with valid descriptions, and even appears to consider that names given by authors who did not specialize on Mallophaga should be rejected for that reason, and

certainly that the quality of the work should be taken into account.\* In other words, he advocates rejection of the Rules of Zoological Nomenclature when they conflict with his personal opinions, and therefore proposes complete anarchy, for who is to decide how many papers on a group make an author a specialist,† or whether any given author's work is good or bad? Kéler's own descriptions, considered excellent to-day, might be thought grossly inadequate a century hence. Fortunately Kéler's anarchistic views stand no chance of general acceptance, and the vast majority of zoologists will be content to try to obtain the agreed alteration of such of the Rules as they dislike rather than to indulge in unilateral repudiation of them. But there is a very general tendency (for which Harrison's paper of 1916 is mainly responsible) to attribute the authorship of names to their inventor, regardless of whether he published them validly. The Rules are perfectly clear on this point, for Article 25 states "The valid name of a genus or species can be only that name under which it was first designated on the conditions: (a) That this name was published and accompanied by an indication, or a definition, or a description, and (b) That the author has applied the principles of binary nomenclature." The author of a name, therefore, is not the inventor of it, but the first person to publish it "accompanied by an indication, or a definition, or a description," because prior to such publication the name has no validity. On the point of whether a host-name constitutes an "indication" I consulted Dr. K. Jordan, President of the International Commission on Zoological Nomenclature, who informs me that it does not; moreover, it is only commonsense that it should not, for we now know that several species of one genus may occur normally on the same host, to say nothing of the possibility of straggling. All this will appear very trivial to opponents of the strict application of priority (among whom I was numbered until I started to delve deeper into the nomenclature of Mallophaga), but let us examine an example: *Nirmus cingulatus* first appeared in print as a *nomen nudum* (Burmeister, 1838, p. 428); it was then described by Denny (1842, p. 146); Giebel (1874, p. 165) published Nitzsch's manuscript description and figure, and pointed out considerable discrepancies between Denny's figure and that of Nitzsch; Harrison (1916, p. 110) attributed the authorship to "Nitzsch in Denny," while all earlier authors attributed it to Nitzsch. The real author is Denny, who was the first to publish a description, and the facts that a description existed in manuscript long before

\* Kéler (1938, p. 447) mentions, apparently as a reason for rejecting a name given by Gervais, that "Gervais befasste sich niemals speziell mit Mallophagen."

† Nitzsch only published one, though his manuscripts were subsequently published by Giebel.

Denny wrote and that the name was chosen by Nitzsch have absolutely no relevance.\* The importance of the authorship becomes evident at once if we assume what is very probable, that the discrepancies pointed out by Giebel indicate that Nitzsch's material and that of Denny were not the same species. If Nitzsch were to be regarded as the author, his drawing and description would have to be our guide as to the identity of the species and the type would have to be sought in the Halle collection; as Denny is the author, it is his drawing and description which we must use, and the type is in the British Museum. A second example (even more definite) of the importance of the authorship of a name as affecting the identity of the species to which the name refers is dealt with separately below.

*The Author and Host of Nirmus fuscus.*

*Nirmus fuscus*, now known as *Degeeriella* (*s.str.*) *fusca*, is usually ascribed either to Nitzsch or to "Nitzsch in Denny"; the name is commonly applied to a group of species occurring on Falconiformes, but as careful examination shows that this group contains many species it is very necessary to discover who is the author of the name, and therefore what is the species concerned.† The case of *fuscus* is an unusually good example of the absolute necessity of strict application of the International Rules of Zoological Nomenclature, because the species described by Denny, for instance, is unquestionably different from that described in Nitzsch's manuscript, later published by Giebel.

*Nirmus fuscus* first appeared in print in Denny's monograph (Denny, 1842, pp. 49, 119, pl. 9, fig. 8), the name (but not the description) being borrowed from Nitzsch's manuscript. On p. 49 there is a brief diagnosis, the name is without a query, and the hosts are given as *Circus rufus* and *Milvus iclinus*, but in the full description (pp. 118, 119) Denny carefully inserts a query after the name, both in the heading and in his reference to Nitzsch's manuscript; he also makes it clear that his description and figure refer to material from *Circus rufus*, now known as *Circus ae. aeruginosus* (Linn.). Being in some doubt whether Denny's insertion of a query before the name rendered it still a *nomen nudum*, I consulted Dr. Jordan, who kindly informs me: "*Nirmus fuscus* was first validly published by Denny on p. 49. On a later page he expressed

\* Denny's description is, of course, quite independent. If he had published Nitzsch's manuscript description the author would have been Nitzsch.

† Eichler, for instance (1940, p. 101) makes "*Nirmus fuscus* Nitzsch in Denny" the genotype of his new genus *Kélerinirmus* (a synonym of *Degeeriella s.str.*), yet regards *Buteo buteo* as the type-host of the species, although Denny had no material from this host.

by a question-mark a doubt if his *fuscus* was the same as what Nitzsch had intended validly to publish under that name, but never did. The question marks do not refer to a *species* doubtful to Denny, but referred to an invalid name which had no existence in nomenclature. The question-marks, therefore, refer to something outside nomenclature and are of no nomenclatorial value or significance; their significance is historical and in history of no value either, as a *nomen nudum* has no definite meaning." In these circumstances it is beyond doubt that Denny is the author of *Nirmus fuscus* and the species to which the name must be applied is the one from *Circus ae. aeruginosus* which Denny described.

It is convenient next to follow the name as used in Nitzsch's manuscript. Giebel (1861) mentioned the name, with exceedingly brief descriptions, that on p. 523 being of material from *Aquila naevia*, which is described only by comparison with material from *Buteo vulgaris*, the latter only described (p. 525) by comparison with *Nirmus rufus*. Since *Nirmus rufus* had been validly described, Giebel's comparisons constitute valid publication of *Nirmus fuscus*, but *N. fuscus* as used by Giebel in 1861 is preoccupied by *N. fuscus* Denny 1842. It is quite clear from the wording of Giebel's 1861 paper that he regarded *Buteo vulgaris* (= *Buteo buteo*) as the type-host of the species. Finally (1874, p. 123, pl. 8, fig. 2) he published Nitzsch's description and figure of the species, the hosts being the same as in 1861. Incidentally, there is another *Nirmus fuscus* (Giebel, 1866, p. 371), probably a *lapsus calami* for *fissus*, but published in perfectly valid form; this has nothing to do with either of the species under discussion, being a wader-parasite, while the others belong to *Degeeriella s.str.* and occur on hawks.

Going back to Giebel's descriptions published in 1861, Giebel states (p. 515) that his work is a compilation from Nitzsch's manuscripts, so that the name *Nirmus fuscus* as used in Giebel's paper is correctly attributed to Nitzsch.

The fact that *Degeeriella fusca* (Denny) is the valid name for the species found on *Circus ae. aeruginosus* (Linn.) leaves the species on *Buteo buteo*, which usually goes under the name *Degeeriella fusca* (Nitzsch) without a valid name. None of the descriptions and figures of it are sufficiently accurate for certainty as to the species meant, but it is easily separated from *D. fusca* (Denny) by the fact that in both sexes only the first abdominal tergal plate has its anterior margin incised in the middle line, whereas in *fusca* the first two tergal plates are incised. I name it ***Degeeriella giebeli*** sp. nov. The male type and female allotype (which will be presented to the British Museum) are from *Buteo b. buteo* (Linn.), from Fulton Park, Resthorpe, Cheshire, England, 28.x.1930; the paratypes (eleven males and eleven females) are from the same host, locality and date,

and from the same host-form from Resnik, Boograd, Jugoslavia, 2.ii.1935, London Zoo, 10.xi.1936, and Killwangen, Switzerland, 26.iv.1944.

*What Standing have nomina nuda?*

It is clear from various items in the notes above (as, of course, from the Rules on which they are based) what a *nomen nudum* is, but it may be as well to summarize: A *nomen nudum* is a name published without "an indication, or a definition or a description"; an "indication" is normally a reference to a previous description or figure (but a queried reference does not constitute an indication) and I am unable to think of any other sort of indication which would be valid; the name of the host is not an indication, any more than the mention of a locality would be in the case of a free-living insect; the fact that the description may be extremely inadequate is irrelevant,\* so that even a few words of useless description attached to a name are sufficient to save it from being a *nomen nudum*.

It is most clearly laid down in the International Rules of Zoological Nomenclature that *nomina nuda* have no standing in nomenclature. The fact that certain authors reject such rules as do not please them would not have made it necessary to discuss this point, because their anarchistic views are clear from their writings and will never gain general acceptance. But unfortunately Harrison (1916) adopted an incorrect attitude towards *nomina nuda*, his paper is still our chief authority for Mallophagan nomenclature, and his error is leading astray many authors who are anxious to reduce chaos to order in the only way it can be done—by strict application of the Rules subject to such exceptions as are authorized by the proper authority. The error to which I refer is not the fact that Harrison dismissed as *nomina nuda* a number of names which are actually valid (the reverse is also true in a few instances), but that he took the incorrect view that a *nomen nudum* could invalidate the subsequent use of the same name, by constituting it a homonym.

A single example will serve: On p. 64 Harrison states correctly that *Laemobothrion gracile* "Nitzsch in Giebel" 1861 is a *nomen nudum*, takes the view that it invalidates *L. gracile* Giebel 1874, and renames the latter *L. gracilentum*. The name *Laemobothrion gracile* Nitzsch 1861, being a *nomen nudum*, cannot affect the validity of *L. gracile* Giebel, 1874, and Harrison's action in renaming the latter was entirely unnecessary.

\* And must necessarily be so, because who is to decide what constitutes an adequate description?

REFERENCES.

- BURMEISTER, H. (1838), *Handbuch der Entomologie*, 2: 418-433.  
 CARRIKER, M. A. (1936), "Studies in Neotropical Mallophaga. I. Lice of the Tinamous," *Proc. Acad. nat. Sci. Philad.*, 88: 45-218.  
 DENNY, H. (1942), *Monographia Anoplurorum Britanniae*.  
 EICHLER, W. (1940), "Notulae Mallophagologicae. iv. Neue Gattungen und höhere Einheiten von Kletterfederlinge," *Zool. Anz.*, 130: 97-103.  
 GIEBEL, C. G. (1861), "Die Federlinge der Raubvogel aus Chr. L. Nitzsch's handschriftlichen Nachlass zusammengestellt," *Z. ges. NatWiss.*, 17: 515-529.  
 Idem (1866), "Die im zoologischen Museum der Universität Halle aufgestellten Epizoen nach den Wohnthieren geordnet," *ibid.*, 19: 289-319.  
 Idem (1874), *Insecta Epizoa*.  
 HARRISON, L. (1916), "The Genera and Species of Mallophaga," *Parasitology*, 9: 1-154.  
 HOPKINS, G. H. E. (1941), "Stray Notes on Mallophaga. 3," *Ann. Mag. nat. Hist.* (11), 7: 35-50.  
 Idem (1946), "Notes on *Harrisoniella* (Mallophaga), with Special Reference to the Genotype," *Entom.*, 79: 4-7.  
 Idem (1947), "Notes on Mallophagan Nomenclature. I," *Entom.*, 80: 14-19.  
 KÉLER, S. (1938), "Baustoffe zu einer Monographie der Mallophagen, 1 Teil: Überfamilie Trichodectoidea," *Nova Acta Leop.-Carol.* (n.s.), 5: 385-467.  
 PIAGET, E. (1880), *Les Pédiculines*.  
 RILEY, N. D. (1941), "Misidentified Genotypes," *Entom.*, 74: 196-197.

GONEPTERYX RHAMNI VISITING BLUE AND RED FLOWERS.—To the observations on the flowers visited by this species (*Entom.*, 79: 19, 117, 134, 269), I should like to add the following: Last May I saw on two occasions several males at rest on and feeding at the flowers of the wild hyacinth in sheltered dells near Dorking. I have a faint impression of having seen the same thing at one of these two spots five years ago. In August of last year I was walking along a row of runner beans in flower in the same locality when I put up from the red blossoms several of this species. I have a distinct recollection of the males, but am unable to say now whether any females were also present.—J. F. D. FRAZER; 53, Cathcart Road, S.W.10, January 11, 1947.

COURTSHIP IN *AGLAIS URTICAE*.—On July 3, 1946, I noticed a number of pairs of *Aglais urticae* on the peas in the vegetable garden, between 6 and 6.30 p.m. One insect would approach another from behind, and drum on its hind wings with its antennae. After a rest, the rear insect would then bang together the knobs of its antennae with a force sufficient to make quite a detectable sound.—A. E. SHAW; 196, Studley Road, Redditch.

A CANNIBAL *LITHOSIA LURIDEOLA* LARVA.—A most peculiar entomological happening last year was the fact that I bred out a normal *Lithosia lurideola* which spent its larval existence within the unfortunate body of a larva of *Polygonia c-album*, acting in exactly the same way that an ichneumon larva behaves.—GUY A. FORD (Rev.); Balsham Rectory, Balsham, Cambs.