

FAUNA BURUANA.

LEPIDOPTERA, Fam. *Grypocera* (Hesperiidae).

By

Colonel W. H. EVANS. D.S.O., F.Z.S., F.E.S.

In *Novitates Zoologicae* Vol. VII. 1900. pp. 83—86 there appeared a list of the *Hesperiidae* of Buru written by Mr. HOLLAND of Boston, U.S.A.; 18 species were recorded and have been included in this paper so as to present as complete a list as possible.

The nomenclature and order followed is that adopted by the author in his papers in the *Journal of the Bombay Natural History Society* on „The Identification of Indian Butterflies”.

A great deal more Hesperiid material is required from the Moluccan and New Guinea areas before the distribution and variation of the several species occurring there can be satisfactorily worked out. Mr. TOXOPEUS' collection will assist materially towards the eventual result, more especially since he has generously permitted the author to retain the more important specimens, which will in due course be deposited in the British Museum.

1. *Hasora discolor*, FD. W.E.M. 1859. 2 ♂ (Mnges'Waen, 30/1/22, Wa'Temun 22/2/22). Not recorded by HOLLAND. The type was described from Amboina. The butterfly occurs in New Guinea and North Australia.
2. *Hasora moestissima*, MAB. E.F. 1876. 1 ♂ (Wa'Tawa 23/9/21). HOLLAND records a pair of what he calls *Hasora proximata*, STGR. Iris. 1889 (Philippines). I think that STAUDINGER's *proximata*, which he describes as having an apical spot on the forewing in what is presumably the male, is really BUTLER's *vitta* (T.E.S. 1870), which doubtfully extends beyond the range N. India to Celebes. SEMPER, however, in Rh. Phil. 1892, recorded 3 *Hasora*'s from the Philippines belonging to the group with no brand on the forewing above and a white band on the hindwing below; these are *proximata*, *vitta* and *moestissima*. Until the type of *vitta* was discovered in the British Museum by RILEY a short time ago, its identity was in doubt, since no mention was made in the description of the apical white spot; it is now recognised as being the same as PLÖTZ' *chabrona* (S.E.Z. 1884) and what SEMPER called *proximata*. Probably SEMPER's *vitta* was ELWES' *proxissima* (T.E.S. 1897), which flies from Siam to the Philippines. Though

I have never seen *moestissima*, I regard it as the nymotypical form (from N. Celebes) of a species, which is called *coulteri* W.M. (J.A.S.B. 1886) in N. E. India, *palinda*, SWIN. (A.M.N.H. 1905) in Java, *minsona*, SWIN. (A.M.N.H. 1907) in Borneo, *pathana*, FRUH. (Iris 1911) in the Philippines and very probably *postfasciata*, ROTHS. (Report B. O. U. expedition, 1916) in New Guinea, as well as *haslia*, SWIN. (A. M. N. H. 1899) in N. Australia and Dampier.

TOXOPEUS' specimen is exactly similar in colour and markings as well as in genitalia to *palinda*, but it is larger and lacks the male brand of 3 longitudinal streaks on the fore wing; whether *moestissima* has this brand, I cannot say, but the obsolescence of the brand is not necessarily a specific distinction. I have what obviously appears to be the female of TOXOPEUS' specimen from Amboina; it resembles a female I have of *coulteri*, but is larger. FELDER (R.N. 1867) described *boisduvali* from Amboina; it is a true *Hasora*, judging by the type at Tring, and not a *Parnara* as stated by FRUHSTORFER (Iris 1911); it resembles *palinda*, but has a transverse continuous brand on the forewing in the male. TOXOPEUS' specimen will probably have to be given a name in due course, but before doing so I should like to see *moestissima*.

3. *Hasora thridas*, BSD. Voy. Ast. 1832. Recorded by HOLLAND, but not obtained by TOXOPEUS. It is a not uncommon Moluccan species, having been described from Buru by BOISDUVAL and again by PLÖTZ (S.E.Z. 1884) under the name *ribbei*.
4. *Hasora celaenus*, CR. Pap. Exot. 1782. 5 pairs. (Wa' Temun, 22/2/22; Ehu, 20/9/21; Tifu 18/3/21; Na' Besi, 18/3/22; Wai Eno, 24/4/21; Rana, 18/5/21). Recorded by HOLLAND as very common. It is a common species, described from Amboina and extending to New Guinea and N. Australia.
5. *Hasora hurama*, BUT. T.E.S. 1870. 1 ♂, 6 ♀. (Leksula, 19/3/21 and 5/9/9/21; Air Berboenji, 7/3/22. Recorded by HOLLAND. The butterfly flies in Celebes, Moluccas, New Guinea and N. Australia. The nymotypical form was described from Australia. The Moluccan race was described by FRUHSTORFER (Iris 1911) as *vivapama*.
6. *Hasora alexis*, FAB. Syst. Ent. 1773. 2 ♂. (Tifu, 17 & 21/3/21). Not recorded by HOLLAND. *Alexis* flies from India to Australia. The nymotypical form was described from India. The Moluccan race was described by PLÖTZ (S.E.Z. 1884) as *contempta*.
7. *Hasora taminatus*, HÜB. Zutr. Ex. Schm. 1818. 1 ♂ & 1 ♀. (Mnges' Waen, 31/1/22; Larva in "Bedoeri", 9/3/22). Recorded by HOLLAND as *chromus malayana*. In J.B.N.H.S. 1926 I have assigned the name *taminatus* to the species which for many years was known

- as *chromus*, CR. (Pap. Exot. 1782), until AURIVILLIUS (Ent. Tidsk., 1897) discovered that the type of *chromus* was referable to *alexis* and introduced in its place the name *butleri*. *H. malayana*, FELDER, (W.E.M. 1860) was described from Malacca, but I have come to the conclusion that it really came from the Andamans. Nymotypical *taminatus* was described from Surinam an obviously incorrect locality; I have assigned S. India as the habitat. The Moluccan race is *amboinensis*, SWIN. A.M.N.H. 1919.
8. *Allora doleschalli*, FD. S.A.W. 1861. 15 ♂ & 2 ♀. (Leksula, 7/12/21, Mnges'Waen, 30/4/22; Wa'Temun, 8/2/22; Fakal, 23/10/21; Rana, 10/5/21; Nal'Besi, 11/5 & 28/6/21; Wa'Katin, 5/6/21; Wa' Fehat, 7/7/21). HOLLAND records „a few good specimens”. The species flies in the Moluccas, New Guinea and N. Australia. It was described from Amboina and the Buru form does not seem to differ.
 9. *Casyapa corvus*, FD. S.W.M. 1860. 2 ♂ & 3 ♀. [Nal'besi (Leksoela), 20/1/22; Wa'Bohi, 23/1/22; Eho, 20/30/9/21 & 3/3/22]. Recorded by HOLLAND as very common. It is a Moluccan and New Guinea butterfly. It was described from Amboina and FRUHSTORFER has (Iris 1911) given the name *aristippus* to the Buru race with what appears to be very little justification.
 10. *Tagiades japetus*, CR. Pap. exot. 1782. 7 ♂ & 2 ♀. (Nal'besi, 20/5/21; Mefa, 7/9/21; Wa'Katin, 21/4/21; Air Berboenji, 23/5/21; Wai'Eno, -/4/21; Leksula, -/7/21). *Japetus* flies from Java to Australia in numerous forms, the nymotypical race coming from Java. The Buru race has been described by FRUHSTORFER (Iris 1910) as *buruanus*. Recorded by HOLLAND.
 11. *Tagiades trebellius*, HOPF. S.E.Z. 1884. 7 ♂ & 3 ♀. (Rana, 5/5/21; Leksula, 2/8/21, 5/-12/9/21, 8/12/21; Wa'msisi, 27/10/21). *Trebellius* flies under varying forms from the Philippines to the Moluccas and New Guinea, the nymotypical form coming from N. Celebes. The Buru race has been called *pentaja* by FRUHSTORFER in Iris 1910. HOLLAND records 1 ♂ as *martinus*, PL. (J.N.V., 1884) the Amboina race.
 12. *Notocrypta feisthamelii*, BSD. Voy. Astrol. 1832. 4 ♂ & 2 ♀. (Fat'Koton, 2/3/21, 1470 metres; Mnges'Waen, 30 & 31/1/22; En'Biloro, 1/2/22; Rana, 12/2/22). Recorded by Holland. The insect flies from India to Australia and the nymotypical form comes from the Moluccas.
 13. *Hyaotis monteithii*, WM. J.A.S.B. 1886. HOLLAND records a male under the name *Sepa noctis*, STGR. Iris. 1889, which constitutes, as far as I know, the only record for a member of this genus occurring east of the Philippines.

14. *Padraona sunias*, FD. S.A.K. 1870, 4 ♂ & 10 ♀. (Fakal, -/2/22; Wa'Tawa, 18/9/21; Wa'Temun, 3/2/22; Leksula, -/6/21, 31/12/21, 6/1/22; Wai Eno, -/4/21; Tifu, 17/12/21; Mnges'Waen, 29 & 31/1/22). It is recorded by HOLLAND somewhat doubtfully, in deference to ELWES (T.E.S. 1897), under the name *dara*, KOLL. (HÜG., Kashmir, 1848), but *dara*, though similar in appearance has very different genitalia. The genus is a very confusing one and the species can only be determined satisfactorily by an examination of the genitalia. *P. sunias* was described from Amboina; it appears to range from India and China to at least the Moluccas.
15. *Arrhenes marnas* FD. S.A.W. 1860. 2 ♂ & 1 ♀. (Leksula, 8/12/21; Wa'Katin, 24/3/21). Not recorded by HOLLAND. The insect was described from Amboina and extends from the Moluccas to New Guinea and North Australia.
16. *Telicota augias*, L., Syst. Ent., 1767. 3 ♂. (Mnges'Waen, 29/1/22 and 23/3/21). Three poor males recorded by HOLLAND. The insect was described from the Indian Region and flies practically unchanged from India to Australia.
17. *Telicota eurotas*, FD., S.A.W., 1860. 2 ♂. (Mnges'Waen, 30/1/22). Not recorded by HOLLAND. This is the insect described by SWINHOE as *ternatensis* in A.M.N.H. 1902 and figured by him in T.E.S., 1908. I have seen the type of *eurotas* at Tring and consider that *ternatensis* is a synonym. It is quite distinct internally and sufficiently distinct externally from *pythias* and *augias* which fly with it. *T. eurotas* was described from Amboina and probably occurs in New Guinea and Australia.
18. *Telicota pythias*, MAB., P.N., 1878. 2 ♂ & 1 ♀. (Mnges'Waen, 30/1/22). Recorded by HOLLAND as apparently scarce. This is the insect usually known under the name *bambusae*, M. P.Z.S., 1878, from India, but = MABILLES' *pythias* described from Java has 17 days priority. It flies from India to Australia and the Buru race should probably stand under the name *moseleyi*, BUTL., A.M.N.H., 1884, described from Key Islands.
19. *Telicota prusias*, FD., S.A.W., 1861. 4 ♂ & 4 ♀. (Wa'Tina, 14/1/22; Wa'Bohi, 3/3/22; Rana, 9/5/21; Leksula, 5/1/22; Mnges'Waen, 29/1/22). HOLLAND records 3 specimens and notes that the Buru form is notably darker on the underside than specimens coming from Amboina and Batchian, agreeing in this with specimens coming from New Guinea and N. Australia. Nymotypical *prusias* comes from the S. Philippines and the insect occurs from Borneo to the Moluccas and New Guinea. HOLLAND's mention of N. Australia is the only record I know of from that locality, though doubtless it occurs; it is not mentioned by

WATERHOUSE and LYELL in the Butterflies of Australia, 1914. The Batchian form has been called *batchiana*, SWIN., A.M:N.H., 1905 and the Dutch New Guinea form *tenebricosa*, MAB., WYT. Gen. Ins., 1904; the Buru form will doubtless have to be given a name in due course when material from various localities can be reviewed together.

20. *Telicota augiades*, FD., S.A.W., 1860. 1 pair. (Mnges'Waen, 30/1/22; Leksula, 15/3/22).
21. *Telicota chrysozona*, PL., S.E.Z., 1883. 1 ♂. (Leksula, -/6/21). HOLLAND records a good series of males but no females of *Telicota palmarum*, M. (P.Z.S. 1878). *Palmarum* is an Indian species occurring as far east as Borneo and possibly further; the tegumen in the male ends in a trident and is very distinctive. Now TOXOPEUS has certainly obtained two species judging by the genitalia which are distinct but do not at all resemble *palmarum*. TOXOPEUS' darker specimen agrees very well with *augiades*, which was described from Amboina (type at Tring) and which is very probably conspecific with *sperthias*, FD., V.Z.G., 1862, described from N. Australia; FRUHSTORFER in Iris 1911 says that only a single male of *augiades* is known. TOXOPEUS' paler species agrees with SWINHÖE's figure in T.E.S. 1908 of *chrysozona* described from the Philippines. A great deal more material is necessary from the Moluccan and Papuan areas to determine the identity of the named forms of this group.
22. *Baoris mathias*, FAB. Ent. Syst. Supp. 1778. 1 ♂ & 5 ♀. (Air Berboenji, 7/3/22; Wa'Kasi, 22/12/21; Wai Eno, -/4/22). HOLLAND records a few specimens. *Mathias* was described from the Indian region and ranges from India to Australia. The Buru specimens are rather larger than Indian forms and should probably be known by the name *ceramica*, PL., S.E.Z., 1886, from Ceram.
23. *Baoris philippina*, H-S., Prod. Syst. Lep., 1869. 4 ♂ & 2 ♀. (Nal' Besi, 3/7/21; Wai Eno, -/4/21; Wa' Tawa, 28/9/21; Leksula, 9/10/21). HOLLAND records a good lot of specimens, mostly males. *Philippina* was described from the Philippines and flies from India to the Moluccas. The Buru form should probably be called *larika*, PAG., J.N.V., 1884, described from Amboina.
24. *Baoris bipunctata*, ELWES, T.Z.S., 1897. 1 ♂. (Central Buru, -/2/22). Not recorded by HOLLAND. This is a rare species described from Batchian. FRUHSTORFER calls the Buru form *sidata* in Iris 1911. It is possible that *contigualis*, ROTHS., Report of B.O.U. expedition to New Guinea, 1916, is conspecific, though a good deal larger.