

## Notes on some Indonesian Lycaenidae

by

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The following Indonesian Lycaenidae in my collection — now in the Natuurhistorisch Museum at Rotterdam — gave me so many difficulties that it is perhaps of interest to other entomologists to mention them.

*Arhopala camdana arjuna*, nov. subsp. (fig. 1 ♂, 2 ♀, 3 ♂ underside).

Several years ago I received from Mr. A. M. R. WEGNER, then director of the Museum Zoologicum Bogoriense at Bogor (Indonesia) an old collection of Javanese lycaenids in a rather poor condition, and in it specimens to which even TOXOPEUS had given his energies in vain. Thus I found a couple of an *Arhopala* species, captured by Mrs. WALSH in June 1940 near Soebah, a rather obscure locality. Fortunately, TOXOPEUS had added "between Pekalongan and Semarang", i.e. the north coast of Central Java. Furthermore he had written on the envelope "arjuna in litt.". I received further data on this species when the late Prof. W. ROEPKE showed me TOXOPEUS's own copy of his list of the Javanese Lycaenidae (1929), brought up to date with annotations made in later years. On p. 219 I found inserted under the genus *Amblypodia* Horsf. between the numbers 17 and 18 the new number 17-bis, *arjuna* Tox. i.l. with the observation "a very rare species from coastal areas, known from Noesa Kembangan (DRESCHER) and Kangean (WALSH)". Noesa Kembangan is an island near the southern coast of Central Java, the Kangean islands are situated east of Madura. Thus TOXOPEUS already knew this species, when he received the above-mentioned specimens from Soebah. His specimens from Noesa Kembangan are probably in the Museum Zoologicum Bogoriense, and as to the specimens from the Kangean islands I refer to what is said hereafter about the subspecies from these islands.

EVANS (1957) divided the *Arhopala* group of Lycaenidae into several genera and as a result the name *Narathura* Moore, 1878, was applied to a vast majority of the members of the *Arhopala* group. His genus *Narathura* was split up into several groups and subgroups, and by making use of his paper I found my specimens belonged to the *antihelus* group (*camdeo* subgroup). J. N. ELIOT (1963) studied the Malayan members of the *Arhopala* group again and, in my opinion, correctly rejected the genera of EVANS, with the exception of *Flos* Doherty, 1889, as the differences are at most of only subgeneric nature. So all the members of EVANS's *Arhopala* group, except those belonging to *Flos* Doherty, were united under the name *Arhopala* Boisduval, 1832. ELIOT also divided this genus into several groups of species and with his paper in hand I again came to the *camdeo* group. Owing to the paucity in collections of the members of this group it was impossible to trace the species name of my specimens, and only with the indispensable assistance of Lt.Col. J. N. ELIOT, Taunton (Somerset), who made a profound study of the collections of the British Museum (Natural History), I am authorized to say, that we have to do with a new subspecies of *Arhopala camdana* Corb., 1941. CORBET described the nominate subspecies as *Arhopala camdeo camdana*, and in 1946 gave a figure of the female underside on plate 1, fig. 6.



Fig. 1-3. *Arhopala camdana arjuna* nov. subsp. 1. ♂; 2. ♀; 3. ♂, underside. Fig. 4-6. *Arhopala camdana kangeana* nov. subsp. 4. ♂; 5. ♀; 6. ♂, underside. All figures slightly enlarged.

A figure of the underside of a male is to be found on plate 29, fig. 2 in ELIOT (1963).

After comparison in the British Museum (Natural History) Lt.Col. ELIOT says: "In the male the ground colour of the upperside is paler than *A. c. camdana* Corb. resembling *A. dispar* Riley & Godfr. but without a whitish patch at end cell of the forewing. Underside not very different to *camdana* but the markings contrast better. In the female the ground colour of the upperside is considerably paler than in *camdana* and a little paler than in females of *camdana fracta* Evans from Assam and Tenasserim in the national collection. Borders intermediate between this female and that of *A. c. camdana*. Underside rather close to *fracta* females, differing from

*camdana* in having a faint purplish tinge with more contrasted markings".

It is with pleasure that I am able to maintain for this subspecies the in litteris name, which TOXOPEUS already bestowed upon it. So this Javanese subspecies is named *Arhopala camdana arjuna* nov. subsp.

Holotype, ♂, Soebah, June 1940 (Mrs. WALSH legit) in Natuurhistorisch Museum at Rotterdam.

Allotype, ♀, Soebah, June 1940 (Mrs. WALSH legit) in Natuurhistorisch Museum at Rotterdam.

*Arhopala camdana kangeana*, nov. subsp. (fig. 4 ♂, 5 ♀, 6 ♂ underside).

As mentioned above TOXOPEUS received his *arjuna* also from the Kangean islands. I found a couple in the collection Mr. WEGNER sent to me. This is a distinct subspecies as Lt.Col. ELIOT tells me. The male differs from all other forms in the complex in that the ground colour becomes more violet towards the wing margins. In this respect it recalls the very closely allied and also extremely difficult *camdeo opalina* complex and *A. anarte* Hew. The underside has a more purplish ground colour with more strongly contrasted markings, showing an approach to the typical *A. camdana fracta* Evans from the Karen Hills (Mid-Burma).

Holotype, ♂, Petapan (Kangean isl.), 20 September 1954 (KALIS legit) in Natuurhistorisch Museum at Rotterdam.

Allotype, ♀, Petapan (Kangean isl.), 19 September 1954 (WEGNER legit) in Natuurhistorisch Museum at Rotterdam.

*Arhopala opalina frubstorferi* Rüb., 1897.

EVANS (1957, p. 92) in his catalogue of the *Arhopala* group mentions this subspecies from Mid and South Burma and Sumatra. Though he refers to the figure in PIEPERS & SNELLEN (1918, plate 24, fig. 108) where this species has been erroneously named *aedias* Hew., he did not believe in the locality Java.

TOXOPEUS (1929, p. 219) records under No. 17 *Amblypodia camdeo* (?) Moore referring to the above-mentioned fig. 108 in PIEPERS & SNELLEN's book. In his later annotations he changed the name correctly in *A. frubstorferi* Rüb. "a very rare species, only 2 females known and a male seen by me in September 1941 near Tjirangang (Tjandjoer) in West Java". This confirms the opinion, which Lt.Col. ELIOT gave me by letter, believing EVANS was wrong in discounting the Javanese origin of *frubstorferi*.

*Arhopala myrzala cardinaali*, nov. subsp. (fig. 7 ♀, 8 ♀, 9 ♂ underside; fig. 10 *Arb. myrzala lammas* Corb., ♂, und., Malaya).

This is a distinct subspecies from Billiton. The specimens of this island are at once recognizable on the underside of the male by the lilac-whitish apical patch of the forewing, which colour occurs also on the hindwing distad of the postdiscal spot 5, 6, and 7, and the end-cell spot. The female has only the apical patch at the underside of the forewing. Named after Mr. H. CARDINAAL, who did so much useful work in collecting butterflies in this island.

Holotype, ♂, Ajer Nunsang (E. Billiton), 29 January 1951 (H. CARDINAAL legit).

Allotype, ♀, Gng. Soloemar (E. Billiton), 9 March 1951, (H. CARDINAAL legit).

Both in the collection of the Natuurhistorisch Museum at Rotterdam.

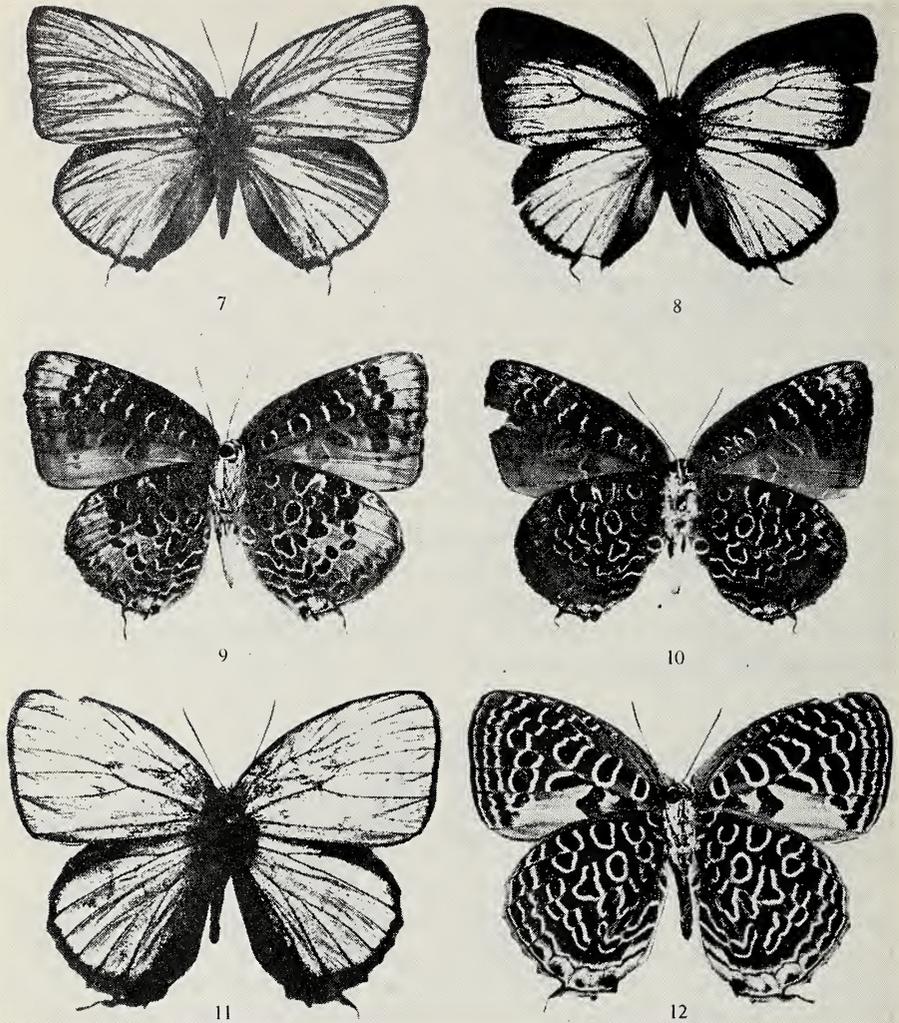


Fig. 7-9. *Arhopala myrzala cardinaali* nov. subsp. 7. ♂; 8. ♀; 9. ♂, underside. Fig. 10. *Arhopala myrzala lammas* Corbet. ♂, underside. Fig. 11, 12. *Arhopala straatmani* nov. spec. 11. ♂; 12. ♂, underside. All figures slightly enlarged.

*Arhopala straatmani*, nov. spec. (fig. 11 ♂, 12 ♂ und.).

A large species (24 mm from base to apex forewing). The upperside has a beautiful shining dark blue colour. Black border forewing nearly 1 mm, hindwing 1 mm, 2 mm along costa and dorsum of hindwing. The underside brown-greyish with dark brown spots each with a light grey border. Belongs to the *aedias* sub-group of EVANS (1957), p. 92.

According to Mr. G. E. TITE, British Museum (Natural History), this species is not present in the national collection.

Named after my friend Raymond STRAATMAN, a successful collector in the Indonesian and Pacific regions during many years.

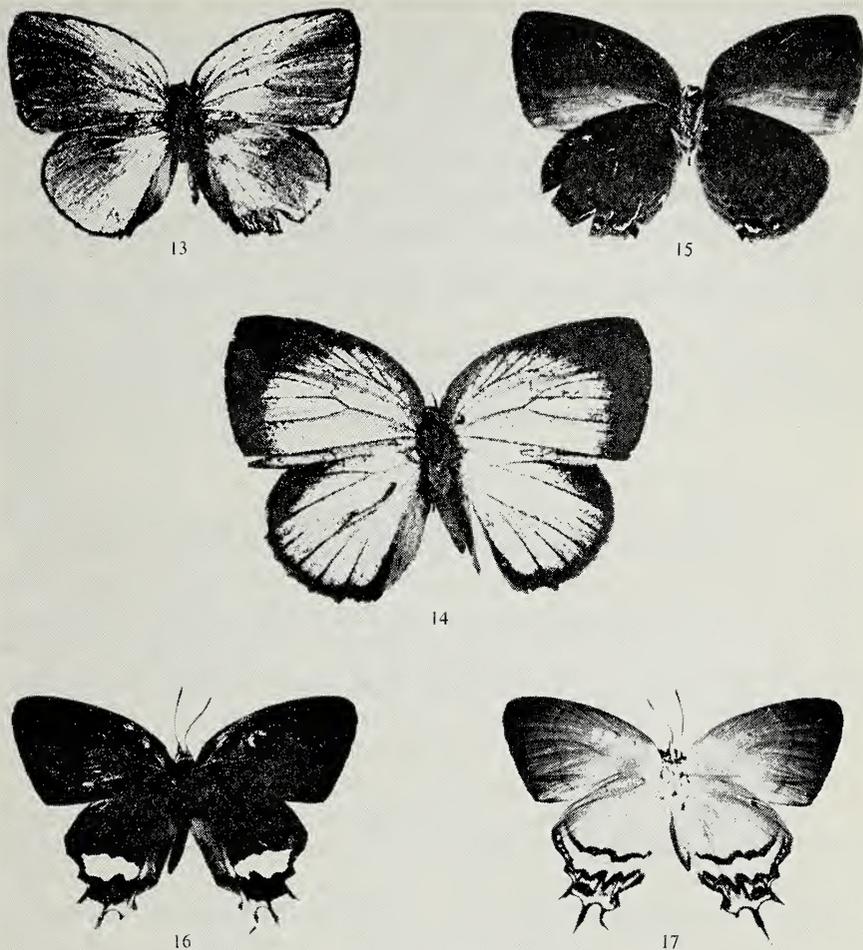


Fig. 13-15. *Arhopala moolaiana javana* nov. subsp. 13. ♂; 14. ♀; 15. ♂, underside.  
Fig. 16, 17. *Drupadia johorensis* Cowan. 16 ♂; 17. ♂, underside. All figures  $\times 1.4$ .

Holotype, ♂, Lambarese, 100 km north of Palopo (Central Celebes), 12 July 1966 (R. STRAATMAN legit).

Paratype, ♂ of the same locality, 8 June 1966 (R. STRAATMAN legit).

Both in the collection of the Natuurhistorisch Museum at Rotterdam.

*Arhopala moolaiana javana* nov. subsp. (fig. 13 ♂, 14 ♀, 15 ♂ und.).

EVANS (1957, p. 97) mentions a specimen from "Java" of *Arhopala moolaiana maya* Evans, 1932, the subspecies from Mergui, Victoria Point and Peninsular Siam. As EVANS doubted the locality Java, it is interesting that I found a male and a female from West-Java in the above mentioned collection of Mr. A. M. R. WEGNER. Lt.Col. ELIOT was kind enough to compare these specimens with the series

in the national collection. "The Javanese specimens are very close to the subsp. *maya* Evans but in both sexes the blue colour is slightly paler and less opaque. In addition the Javanese female has a slightly more violet tinge than the female of the subsp. *maya* Evans. In the collection of the British Museum (Natural History) is a single male, ex FELDER collection, labelled Java, which apart from its normal size, does not differ from your small male. I think the Javanese form might just be worth describing as a distinct subspecies".

Holotype, ♂, Oedjoeng Genteng (West-Java), May 1939 (Mrs. M. E. WALSH legit).

Allotype, ♀, Oedjoeng Genteng (West-Java), May 1939 (Mrs. M. E. WALSH legit).

Both in the collection of the Natuurhistorisch Museum at Rotterdam.

Paratypes, a ♂ and a ♀ from W. Java (Zandbaai) 1893 and 1894 resp. in the collection of the Rijksmuseum van Nat. Hist. at Leiden.

*Arhopala alaconia alaconia* Hew., 1869.

I already possessed a female of this species, received from R. STRAATMAN who caught it near Meulaboh (W.-Atjeh). Working on the STRAATMAN collection in the Rijksmuseum van Natuurlijke Historie at Leiden I found another female, caught 11 June 1948 by the same collector near Laut Tador, N.E. Sumatra. The Sumatran specimens are identical with the nominate form from Borneo. This is a very rare species in Sumatra and not present from there in the collection of the British Museum (Natural History).

*Drupadia johorensis* Cowan, 1958 (fig. 16 ♂, 17 ♂ und.).

In the STRAATMAN collection in the Rijksmuseum van Natuurlijke Historie at Leiden I found a male of this very rare species, caught near Meulaboh (W.-Atjeh) on 17 January 1954.

I sent it for review to Lt.Col. C. F. COWAN, Berkhamsted (Herts.), the wellknown specialist on the *Drupadia* group of Lycaenidae, who told me that it is the first Sumatran specimen of his *Drupadia* ("Marmessus") *johorensis* Cowan (1958), a rare species from Malaya, erroneously mentioned by CORBET & PENDLEBURY (1958), p. 348, as *Ritra cinesia cinesoides* De Nic.

In COWAN's paper (1958), owing to a misunderstanding of the editor, this species is mentioned as *Marmessus* "new species" but on the accompanying plate 4, fig. 1 and 2, the name *johorensis* was inserted fortunately and this name has been saved.

ACKNOWLEDGEMENTS. It appears from this paper that the author is much indebted especially to Lt.Col. J. N. ELIOT, Taunton, but also to Mr. G. E. TITE, Tring, and Lt.Col. C. F. COWAN, Berkhamsted. Without their help it would not have been possible to solve the problems. I also wish to thank Prof. Dr. L. D. BRONGERSMA and Dr. A. DIAKONOFF, respectively Director and Keeper of the Museum van Natuurlijke Historie at Leiden for permitting me to study the butterflies, which Mr. R. STRAATMAN collected in North-Sumatra.

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## Macrolepidoptera in Midden-Limburg in 1968

door

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Hoewel de vangsten in 1968 niet zo opvallend goed waren, zijn er natuurlijk toch wel enkele soorten bij, die het vermelden waard zijn.

*Harpyia bicuspis* Borkhausen. Meinweg en Lomm, drie exemplaren in juni; Vlodrop, twee exemplaren op 5 juli.

*Hybocampa milhauseri* Fabricius. Meinweg, 3 mei, één exemplaar.

*Leucodonta bicoloria* Den. & Schiff. Meinweg, 27 mei, één exemplaar, 30 juni zes stuks; Lomm, 18 juni en 1 juli telkens twee exemplaren.

*Odontosia carmelita* Esper. Tegelen, 20 en 29.IV, Meinweg, twee op 3.V, Vlodrop 10 van 16-19.IV.

*Orgyia ericae* Germar. Tegelen, 10.VIII één exemplaar op licht.

*Lymantria monacha* L. Meinweg, acht exemplaren in juli.

*Poecilocampa populi* L. Lomm, 9 november zeven ♂♂.

*Malacosoma castrensis* L. Op 26 mei werden te Horn 40 jonge rupsen gevonden.

Van 23 juli tot 12 augustus leverden deze 29 ♂♂ op en van 6 tot 11.VIII 10 ♀♀.

*Macrothylacia rubi* L. Een ♀ van Meinweg, 27 mei, waarvan de linker vleugels licht bruin en de rechter vleugels donker bruin gekleurd zijn.

*Dendrolimus pini* L. Meinweg, 30.VI één ♂.

*Epicnaptera tremulifolia* Hübner. Meinweg, 3 mei één ♂.

*Odonestis pruni* L. Belfeld, 5.VIII één ♂.

*Endromis versicolora* L. Vlodrop, 16 april één ♀ en 18 april één ♂.

*Tethea fluctuosa* Hübner. Vlodrop, 27 mei twee en 5 juli drie exemplaren; Meinweg, 23.VII één exemplaar.

*Pelosia obtusa* Herrich-Schäffer. Vlodrop, 5 juli één exemplaar.

*Sciapteron tabaniformis* Rottemburg. Steijl, 25 juni een vlinder uit een gevonden rups.