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# NEUE ENTOMOLOGISCHE NACHRICHTEN

aus dem Entomologischen Museum

Dr. Ulf Eitschberger

Beiträge zur Ökologie, Faunistik  
und Systematik von Lepidopteren

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HENK VAN MASTRIGT

*Delias*-studies

(Lepidoptera, Pieridae)

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***Delias-studies***

(Lepidoptera: Pieridae)

by

HENK VAN MASTRIGT

Vorwort von Dr. U. EITSCHBERGER	5
1. Review on "An illustrated list of the Genus <i>Delias</i> HÜBNER of the World" (Lepidoptera: Pieridae)	9
2. New species and subspecies of <i>Delias</i> HÜBNER, [1819] from the central mountain range of Irian Jaya, Indonesia (Lepidoptera: Pieridae)	21



## Vorwort

Wollte man die Schmetterlinge nach ihrer Schönheit wichten, dann stünden die meisten Vertreter der Gattung *Delias* HÜBNER mit ganz oben in der Schönheitsskala. Diese Arten sind jedoch nicht nur schön – sie sind auch unglaublich interessant, was deren Spezialisierung, Differenzierung und Verbreitung anbelangt. Leider ist jedoch von den meisten Taxa die Biologie noch unerforscht und völlig unbekannt, so daß zu deren Unterscheidung lediglich die phänotypischen wie morphologischen Studien übrig bleiben. Diesem zum Trotz tun die „Staatsvertreter“ weiterhin alles, um die letzten Naturräume und Naturreserven zu zerstören und prangern im gleichen Atemzug die Entomologen als die Verursacher des Artenschwunds an! Das veranlaßte diese „Menschen“ sogar dazu, sich, Dank staatlich verliehener Macht, sei es nun in zentralistischen Gesellschaften oder in Pseudodemokratien, über die Menschenwürde und die freie Entwicklung des Individuums, unter dem Verbot die freie Forschung ausüben zu können, mit Hilfe einer „Artenschutzgesetzgebung“ hinweg zu setzen.

Die Großgattung *Delias* HÜBNER ist in der indoaustralischen Region verbreitet, wobei alle Arten der „typischen“ *Delias* HBN. praktisch nur auf der Insel Neuguinea (Irian Jaya mit Papua Neu Guinea) und auf den dieser Insel vorgelagerten, kleineren Inseln vorkommen. Manche Arten sind auf der Hauptinsel weit verbreitet, andere in kleineren Populationen in disjunkten Arealen über die Insel verteilt, andere wiederum sind nur von einer einzigen Lokalität bisher bekannt geworden.

Ich persönlich bin sehr stolz, im Band 38 der NEN, die folgenden beiden Arbeiten von HENK VAN MASTRIGT veröffentlichten zu können. HENK VAN MASTRIGT, jetzt 50 Jahre alt, ein Mann des holländischen Franziskaner-Ordens und in dessen Diensten seit 1983 in Irian Jaya tätig, natürlich auch dort die *Delias* erforschend, habe ich quasi mit dem Nachlaß, bestehend aus der Literatur, der Korrespondenz und aller anderen Aufzeichnungen des verstorbenen Freundes Dr. EDUARD JOHANNES REISSINGER (EITSCHBERGER, 1991) erworben und zum Freund gewonnen.

Mir oblag es damals auch, HENK VAN MASTRIGT vom Tod des gemeinsamen Freundes zu benachrichtigen, hatten beide doch einige Jahre vor dessen Tod begonnen, bei *Delias* HBN. zu kooperieren. REISSINGER selbst hatte bereits damit begonnen, einen „Bildatlas“ der Gattung *Delias* s. l. zu erstellen, in dem alle verfügbaren Typen und Typoide aus staatlichen und privaten Sammlungen veröffentlicht werden sollten. Hierbei sollte die Großgattung *Delias* HBN. auch in kleinere Gattungen unterteilt werden. Mit HENK VAN MASTRIGTS und Dr. PETER KÜPPERS Hilfe hoffe ich, daß diese Arbeit REISSINGERS doch eines Tages veröffentlicht werden kann.

HENK VAN MASTRIGT weilte vom 17.–22.IX.1994 erstmals für wenige Tage bei mir und meiner Familie und arbeitet in meinem Museum. In dieser Zeit arbeiteten wir sehr intensiv und mit HENKS Hilfe konnte die *Delias*-Sammlung im EMEM fast vollständig geordnet und aufgebaut werden. Inzwischen konnte auch in diese Sammlung die bedeutende Sammlung von Dr. PETER KÜPPERS weitgehend mit eingegliedert werden und die dazugehörigen Tütenfalterbestände, zumeist aus dem Jahr 1976 aus Irian Jaya und PNG stammend, aufpräpariert und gleichfalls eingeordnet werden. Somit umfaßt die *Delias*-Sammlung des EMEM bereits über 100 Kästen, mit weit über 10.000 Belegtieren.

Den Abonnenten der NEN möchte ich an dieser Stelle ganz herzlich für die über jetzt nun schon viele Jahre gehende Treue danken und dafür, daß die NEN nur durch sie/Sie in weiteren 19 Bänden erscheinen konnte. Ich bin mir bewußt, daß einige mit manchen, in der NEN veröffentlichten Themen wenig anzufangen wissen, da diese nichts mit dem eigenen Interessensgebiet zu tun haben. Um so höher ist ihre/Ihre Opferbereitschaft einzuschätzen, etwas zu finanzieren, von dem für sie/Sie persönlich kaum ein persönlicher Nutzen herausspringt. Aber gerade diese Opferbereitschaft ist dringender denn je notwendig, um überhaupt noch die entomologische Forschung am Leben zu halten, wirken sich die verbrecherischen Gesetzgebungen doch heute bereits sehr drastisch im Mangel an Nachwuchskräften aus. Die Generation an „alten“ Entomologen vor mir stirbt jetzt langsam aus; für etliche von ihnen blieb mir schon die Pflicht auferlegt, einen Nachruf zu verfassen. Die Entomologen meiner Generation, und die um ein bis zwei Jahrzehnte jüngeren oder älteren Kollegen, wir stehen jetzt an der Front. Sollte es uns nicht gelingen, durch massiven Einsatz gemeinsam zu erreichen, daß die uns strangulierenden Gesetze geändert werden, dann wird es bald mit der Entomologie

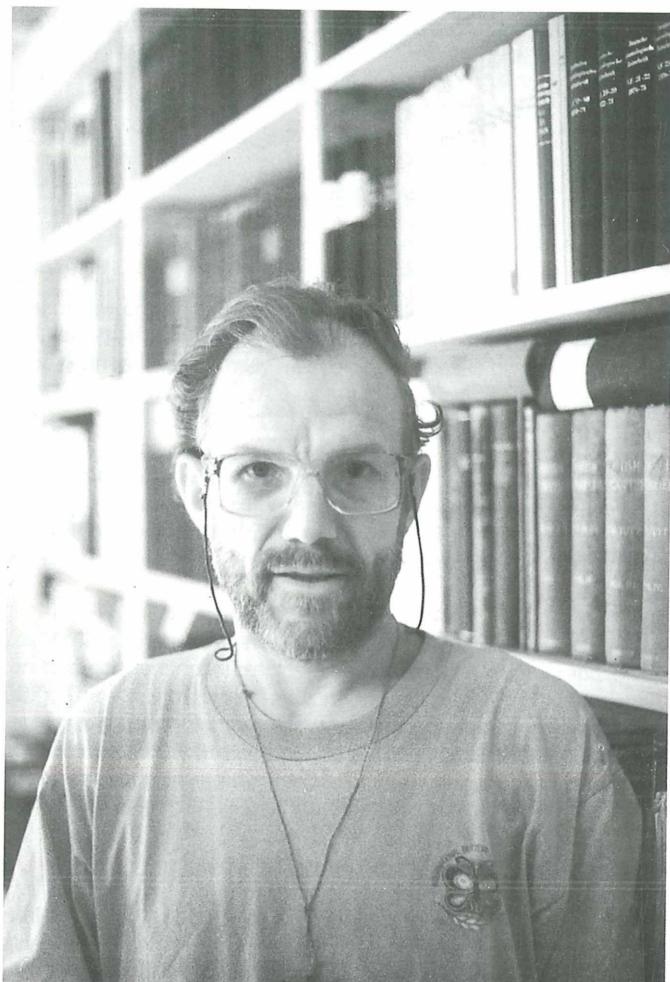
vorbei sein. Die staatlichen wie öffentlichen Sammlungen, jetzt bereits mit Personal weit unterbesetzt, werden alle zugrunde gehen. Und da aus der PC-Software, und Bücher werden dadurch jetzt schon unmodern, kaum Schmetterlinge, Käfer, Hummeln, Fliegen oder andere Kreaturen springen, wird sich in zwei bis drei Jahrzehnten kaum einer mehr an diese Geschöpfe erinnern. Die Lehrpläne an den Schulen und Universitäten sind ja bereits heute schon so insuffizient (es soll ja auch nur eine Negativselektion stattfinden), daß viele Schulkinder, nach der Farbe einer Kuh befragt, erklärten: „Die ist lila“, in Folge der Fernsehwerbung mit der lilafarbigen „Milka-Kuh“ (solche geistigen Krüppel heranzubilden und eine derartige Umfrage in Auftrag zu geben, ohne Scham dabei zu empfinden, kann sich nur Deutschland leisten). Durch die Unwissenheit, Dummheit und das Halbwissen (das noch schlimmer und gefährlicher ist als die Dummheit) wird die Intoleranz und Feindseligkeit, verbunden mit offenen Aggressionen, der Bevölkerung gegenüber den sammelnden Entomologen immer größer.

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ULF EITSCHBERGER, Marktleuthen, den 1.III.1996

-7-



HENK VAN MASTRIGT, am 20.IX.1994



# 1. Review on “An illustrated list of the Genus *Delias* HÜBNER of the World”

(Lepidoptera: Pieridae)

by

HENK VAN MASTRIGT

**Abstract:** A general review on “An illustrated list of the Genus *Delias* HÜBNER of the World” is given. More specific points, errors, misspellings and problems of synonyms are highlighted with particular reference to the New Guinea fauna. Finally a list of references is given to supplement the very brief bibliography provided in this work.

AKIRA YAGISHITA, SHOJI NAKANO & SADAYUKI MORITA (1993): An illustrated list of the Genus *Delias* HÜBNER of the World. Two volumes: a text volume, i–xvi, 1–384, paperback, Yen 2,000; an illustrated volume, i–xiv, 1–409, 1–vi; including 207 plates with 1612 pictures, and 39 figures, bound, Yen 16,000. Edited by YASUSUKE NISHIYAMA and published in Tokyo by Khepera Publishers at 30 December 1993.

The two volumes of “An illustrated list of the Genus *Delias* HÜBNER of the World” are the first comprehensive studies on this genus since TALBOT’s all-embracing “A Monograph of the Pierine Genus *Delias*” (1928–1937). The volume comprises a revised state of *Delias* taxonomy up to 1992, and includes a number of newly described taxa. However, non-Japanese lepidopterists will be frustrated by the entirely Japanese text; there are no brief English abstracts. Therefore, for most lepidopterists the utility of this work will lie in the many fine illustrations, the distribution maps, and the names, localities and dates (in Latin letters).

## General remarks

1. The production of the work in two volumes is very practical, allowing pictures and maps and text to be viewed adjacently.
2. The text is well-structured: following an introduction general review is provided view on species level (p. ix–xiii), repeated in the illustrated volume (p. v–ix). Pages 1 to 17 include all new descriptions of species and subspecies, followed by 48 figures (p. 22–27) of male genitalia to supplement the new descriptions. The systematic revision begins on page 29; the same systematic order is followed in the illustrated volume.
3. The large number of well-reproduced colour illustrations provides an almost comprehensive identification guide; (nearly) all subspecies are figured, not only upperside and underside of typical males and females, but also representatives of many varieties and forms. However, it is regrettable that the opportunity was not taken to preferentially illustrate type specimens to facilitate unequivocal identifications. A small number of rarer and less well-known species and subspecies are not illustrated.
4. The distribution maps with actual localities for each subspecies helpful especially with identification problems.
5. The classification into groups—as in TALBOT’s Monograph (1928–1937)—is the basis of this study, a formal that will be familiar to *Delias* workers. The *Delias* are divided in 22 groups with each group introduced by a general review.
6. At the subspecies level, treatment is less even-handed—some dubious subspecies are synonymized while others (to me, no less dubious) are newly described.
7. For many workers, the entire Japanese text is an insurmountable handicap.

8. Overall, the work would have benefited from a more thorough final edit—there are many mistakes in pictures, names, maps and spellings.

9. The localities mentioned are sometimes quite general (e. g. Irian Jaya, Genfrat Mountains) or inaccurate (e. g. Wamena or Nabire, which are non true localities, but the villages where material was obtained from collectors or dealers).

10. The use of a trinomial system, even when species are monotypic, can be confusing (and, by the way, is incorrect, too).

11. The list of references (p. 383–384) is far from complete, in no logical order and plagued by many mistakes. Most importantly, publications of TALBOT, FRUHSTORFER, JORDAN, RIBBE and JOICEY are missing, so that many articles cited in the text cannot be traced.

12. The index (illustrated part) includes 811 names: 22 group names (first letter capitalized); 213 species names (bold) and 213+363 subspecies names, with an entry for page and plate in the illustrated volume. Access to the text part is by group and species number obtained from the appropriate page of the illustrated volume.

It is a pity that invalid names and synonyms are not mentioned in the index. For instance the name “roepkei” has been proposed for three different taxa by various authors—*D. mira roepkei* SANLORD & BENNETT, 1953, *D. leucias roepkei* NIEUWENHUIS & HOWARTH, 1968 and *D. fascelis roepkei* SCHMITT, 1992. But the name *roepkei* does not occur in the index. *D. mira roepkei* is—because of misidentification—declared synonym of *D. mira excelsa*, under *D. nieuwenhuisi nieuwenhuisi* the taxon *leucias roepkei* appears as a junior homonym and under *D. fascelis ibelana* the taxon *fascelis roepkei* is cited again as a junior homonym.

The following comments are constrained by my own limitations and areas of specialization. As I do not understand Japanese I am largely dependent on information held in the illustrations, maps, names, divisions and so on. Only in a few cases was I able to obtain translations from Japanese colleagues. My specialization is on *Delias* from the mainland of Irian Jaya and Papua New Guinea (often called New Guinea); my comments are restricted to parts of the volumes concerned with this fauna.

## Synonyms

A. A number of other articles on *Delias* were published around the same time as YAGISHITA's study. These include:

= GERRITS, F. & H. VAN MASTRIGT [1993]: New results on *Delias* from the central Mountain range of Irian Jaya (Lepidoptera: Pieridae) – Treubia **30**(3)(1992): 381–402.

= MORINAKA, S., H. J. G. VAN MASTRIGT & A. SIBATANI (1993): A Study of the *Delias eichhornii*-complex from New Guinea Island (Lepidoptera: Pieridae) (I). – Bulletin of the Biogeographical Society of Japan **48**(1), July 31, 1993.

In the first article eight new species-group taxa from Irian Jaya were published. *Delias luctuosa gottsi*, *Delias callista callipuichra*, *Delias neeltje*, *Delias phippsi mulia*, *Delias pseudomarguerita*, *Delias virgo*, *Delias hemianops*, *Delias langda langda* and *Delias langda watlangku*. Two of those are also described by YAGISHITA – *Delias tessei mastrichti* YAGISHITA, 1993 is a junior synonym of *Delias virgo* GERRITS & VAN MASTRIGT, 1993 and *Delias clathrata sakumai* YAGISHITA, 1993 a junior synonym of *Delias neeltje* GERRITS & VAN MASTRIGT, 1993.

The second article does not cause any synonyms.

## B. Other Synonyms

= *D. iltis majai* YAGISHITA, 1993 is not an *iltis* RIBBE, 1900, but undoubtedly a *luctuosa* JORDAN, 1912: it is a junior synonym of (the variable) *D. luctuosa archboldi* ROEPKE, 1995. At most it might be a form or aberration.

= *D. luteola luteola* YAGISHITA, 1993 is a synonym of *D. callista callipareia* (f. ♂ *luteola*) ROEPKE, 1955.

### Misidentifications on the plates

Nearly all the figured specimens are "available material" from Japanese collections. Had the opportunity been taken to illustrate more original type material, a number of errors could have been avoided. For instance:

- = plate 37: 10, 12–15 is not *D. hypomelas lieftincki* ROEPKE, 1955, but another subspecies or variety.
- = plate 41: 3–4 is not *D. lecerfi cyclosticha* ROEPKE, 1955, but *D. microsticha* ROTHSCHILD, 1904 ssp.
- = plate 44: 7–8 is not *D. fascelis fascelis* JORDAN, 1912 (from Mt. Goliath), but *D. fascelis ibelana* ROEPKE, 1955 from the Baliem Valley.
- = plate 51: 1–2 is not *D. pheres* JORDAN, 1912 (from Mt. Goliath), but *D. approximata* JOICEY & TALBOT, 1922 from Ilaga.
- = plate 65: 3–4 is not *D. arabuana modioensis* MASTRIGT, [1988] from Weyland Mtns, but *Delias arabuana arabuana* ROEPKE, 1995 from more eastern areas.
- = plate 73: 3–8 is not *D. phippsi wisseli* ROEPKE, 1955 but *Delias phippsi mulia* GERRITS & MASTRIGT, 1993.
- = plate 75: 5–7 is not *D. leucias huonensis* TALBOT, 1928 (from Huon Bay area), but *D. leucias leucias* JORDAN, 1912.
- = plate 60: 1–2, 5 is not *D. nais nais* JORDAN, 1912 from Mt. Goliath area, but from Ilu and Wamena, 150–200 km more to the west.
- = plate 128: 1–4 is not *Delias mira excelsa* JORDAN, 1930, but *Delias mira roepkei* SANLORD & BENNETT, 1955.
- = plate 130: 5–8 is probably *Delias walshae*, but differs from the type-material from the Baliem Valley.

### Lack of pictures

It is regretable that a number of important taxa are not illustrated, notably *D. rileyi rileyi* JOICEY & TALBOT, 1922, *D. fascelis fascelis* JORDAN, 1912, *D. mira mira* ROTHSCHILD, 1904, *D. mira reversa* ROTHSCHILD, 1925, *D. mira excelsa* JORDAN, 1930, *D. klossi klossi* ROTHSCHILD, 1915, *D. mariae mariae* JOICEY & TALBOT, 1916, *D. mariae menoensis* JOICEY & TALBOT, 1922, *D. mariae boschmai* ROEPKE, 1995 and *D. meeki neagra* JORDAN, 1912.

### Misspellings

Here I will only mention misspellings of butterfly-names.

page (textbook)	misspelling in text	correction
ix	<i>eudidbolus</i>	<i>eudiabolus</i>
x	<i>leuctuosa</i>	<i>luctuosa</i>
25	<i>zebara</i>	<i>zebra</i>
69	<i>contoracta</i>	<i>contracta</i>
88	<i>vagelcopensis</i>	<i>vogelcopensis</i>
91	<i>robrustra</i>	<i>robustriata</i>
92	<i>hypomeras</i>	<i>hypomelas</i>
104	<i>okutanglap</i>	<i>oktanglap</i>
105	<i>citrone</i>	<i>citrona</i>
122	<i>hypyrerapproximata</i>	<i>hyperapproximata</i>
126	<i>heriophore</i>	<i>heliophora</i>
130	<i>gilliardi</i>	<i>gilliardi</i>
140	<i>bornemnni</i>	<i>bornemannii</i>

page (textbook)	misspelling in text	correction
149	<i>luctousa</i>	<i>luctuosa</i>
170	<i>nieuwenhuosi</i>	<i>nieuwenhuisi</i>
179	<i>hylandensis</i>	<i>highlandensis</i>
195	<i>ornythion</i>	<i>ornytion</i>
196	<i>knwlei</i>	<i>knowlei</i>
197	<i>abmisibulensis</i>	<i>abmisibilensis</i>
292	<i>iruma</i>	<i>irma</i>
 (illustrated book)		
121	<i>ericetorun</i>	<i>ericetorum</i>
122	<i>toxopei</i>	<i>toxopei</i>
	<i>Dellias</i>	<i>Delias</i>
125	<i>bornnemanni</i>	<i>bornemannii</i>
128	<i>wandammensae</i>	<i>wandammenensis</i>
131	<i>bornnemanni</i>	<i>bornemannii</i>
150	<i>nieuwenhuis</i>	<i>nieuwenhuisi</i>
191	<i>abmisibulensis</i>	<i>abmisibilensis</i>
271	<i>chrysanthemun</i>	<i>chrysanthemum</i>
i	<i>abmisibulensis</i>	<i>abmisibilensis</i>
ii	<i>ericetorun</i>	<i>ericetorum</i>

The species-group name “iver” on page ii and iii (of volume II) is a nomen nudum.

Finally, on one hand YAGISHITA's study solves problems, on the other hand it created a lot of new problems by doubtful decisions and revisions, which need further studies, for instance on *D. callista* with the new species *D. luteola*, on *D. nais* with the promotion of *denigrata* to species level; on *D. flavistriga* and *D. awongkor* with the new combinations *D. awongkor ilagaensis* and the new taxa *D. flavistriga shounan*; on the very close related taxa *D. weiskei*, *D. leucias*, *D. rosamontana* and *D. nieuwenhuisi*; on *D. isocharis* with the new taxa *D. paniaia paniaia* and *D. paniai strix*; on *D. klossi* and on the close related *D. meeki*, *D. niepelti* and *D. anamesa*.

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## 2. New species and subspecies of *Delias* HÜBNER, [1819] from the central mountain range of Irian Jaya, Indonesia

(Lepidoptera: Pieridae)

by

HENK VAN MASTRIGT

**Abstract:** Two new species and ten new subspecies of the genus *Delias* HÜBNER, [1819] from Irian Jaya, Indonesia are described. One subspecies is raised to species level and two subspecies are newly described. In addition, the females of three subspecies, previously only known from males, are described.

Since 1983 I have collected *Delias* butterflies extensively in the central mountain ranges of Irian Jaya (former Dutch New Guinea). Data from this material, together with the results of my recent studies of museum specimens, necessitates many modifications and additions to the most recent comprehensive revision of these butterflies, "An illustrated list of Genus *Delias* HÜBNER of the World" by YAGASHITA, NAKANO and MORITA (1993). This work represents the first all-embracing treatment of the genus, since TALBOT's "A Monograph of the Pierine Genus *Delias* 1–6" (1928–1937). D'ABRERA'S "Butterflies of the Australian Region together with Butterflies of the Oriental Region Part I", each provide useful guide, but are far from complete. O. YATA's study in E. TSUKADA's "Butterflies of the South East Asian Islands Vol. II" (2nd ed., translated into English) does not include the New Guinea (Irian Jaya and Papua New Guinea) *Delias* fauna.

This publication updates the above mentioned illustrated list, with respect to *Delias* from New Guinea and presents the description of two new species, *D. destrigata* and *D. fioretti*, both from Pass Valley, N. E. of the Baliem Valley and ten new subspecies, *D. albertisi putih*, *D. mira flabellula* from western Paniai, *D. abrophora bugebu* and *D. bobaga homeyo* from Homeyo, eastern Paniai, *D. nakanokeikoae jali* again from Pass Valley, *D. toxopei nipsan* from Nipsan, *D. fascelis korupun* from Korupun and from the Star Mountains *D. abrophora okbibab*, *D. iltis sibil* and *D. mira reissingeri*. In addition *D. callima telefominensis* YAGISHITA, 1993 is raised to species rank; new names are proposed for *D. fascelis roepkei* SCHMITT, 1992 (*D. fascelis amungme* nom. nov.) and *D. campbelli maria* TALBOT, 1937 (*D. campbelli cyclops* nom. nov.) and the females of *D. nieuwenhuisi poponga* MASTRIGT, 1990, *D. catisa catisa* JORDAN 1912 and *D. luctuosa kuning* MASTRIGT, 1990 are described for the first time.

### Depositories

The abbreviations given below have been used in the list of material and throughout the text.

- BT Private collection of BERNARD TURLIN, Andrésy, France  
EMEM Entomologisches Museum EITSCHBERGER, Marktleuthen, Deutschland.  
RMNH Nationaal Natuurhistorisch Museum (Rijksmuseum van Natuurlijke Historie), Leiden, Nederland  
GG Private collection of FRED GERRITS, Buderim, Australia  
HM Private collection of author, Sentani, Indonesia  
JL Private collection of JEAN-FRANÇOIS LABBÉ, Olivet, France  
MZB Museum Zoologicum Bogoriense, Bogor, Indonesia  
ZMA Instituut voor Systematiek en Populatiebiologie (Zoölogisch Museum) afdeling Entomologie, Amsterdam, The Netherlands

### ***Delias abrophora* ROEPKE, 1955**

#### Diagnosis

*Delias abrophora* ROEPKE, 1955 was originally described from the Paniai-lake area, as similar to *sagessa* FRUHSTORFER, 1910 "from which it differs by a remarkable reduction of the black areas on both wings, chiefly on underside where the white or yellowish areas are extended and the scarlet terminal spots are enlarged"

New material from Homeyo and from the Star Mountains leads to the recognition of two new subspecies, described here. The subspecies from Homeyo differs from the nominate race by having slightly more reduced black borders on upperside and underside of fore wing and the underside of the hind wing. The subspecies from the Star Mountains may be distinguished by the nearly white area on underside of the fore wing and the reduced size of the red spots in the black border on the underside of the hind wing.

### ***Delias abrophora bugebu* subspec. nov.**

(figs. 1, 2, 22, 23; map 1)

#### Types

Holotype ♂: "Irian Jaya, Homeyo, Sabisa, Kali Bayabu, 4.-9.V.1992", MZB.

Paratypes: same data, 14 ♂♂, HM; same data but, II.1992, 26 ♂♂, GG; 26.II.1992, 1 ♂, GG; 1.III.1992, 80 ♂♂, GG; 10 ♂♂, MZB; 8 ♂♂, ZMA; 5 ♂♂, EMEM; Homeyo, I.1991, 1 ♂, GG; Homeyo, Debabu, 9.V.1991, 2 ♂♂, GG; same data, but 10.V.1991, 13 ♂♂, GG; 24.V.1991, 2 ♂♂, GG; 30.VII.1991, 4 ♂♂, GG; I.1993, 1 ♂, GG; 31.X.1994, 1 ♂, HM; 18.III.1995, 1 ♂, 1 ♀, HM; Homeyo, Kali Bugebu, 16.III.1995, 1 ♂, ZMA; same data, but 13.III.1995, 24 ♂♂, HM.

#### Description

Male. Upperside of fore wing white with black border which is slightly serrate at inner edge in Cu1a and Cu1b and at least 2 mm from dc-bar. Upperside of hind wing translucent white; pattern of underside visible from above; with thin black border. Underside of fore wing creamy to beige with black proximal part; large black border with three yellow subapical spots followed by two or three yellow terminal ones reducing in size. Underside of hind wing at proximal part black. Median band yellow at proximal side and white at distal side, with large red spot from inside cell 3A to vein 1A+2A. Black border with five red spots (of which the third is smallest) and undulate at inner edge in Cu1a and Cu1b. Red spots sometimes surrounded by a thin yellow line. Length of fore wing: 19–22 mm.

Female. Upperside of fore wing creamy white with broad black border, reaching dc-bar. Upperside of hind wing translucent creamy white with slightly wider black border than in male, with at inner edge some black diffusion. Black border at underside fore comparable to that of upperside. Underside of hind wing as in male. Length of fore wing: 22 mm.

#### Derivation of name

"*bugebu*", a noun in apposition, is the name of the river where most of the type material was found. The population of this subspecies constitutes about 1/3 of all *Delias* occurring at the type locality.

### ***Delias abrophora okbibab* subspec. nov.**

(figs. 7, 28; map 1)

#### Types

Holotype ♂: "Irian Jaya, Sterrengeberge, Batimban, R. Okkim, 25.–27.II.1995, HENK VAN MASTRIGT", MZB.

Paratypes: idem, 5 ♂♂, HM; 2 ♂♂, EMEM; 2 ♂♂, ZMA; same data, but 16.–23.IV.1995, 2 ♂♂, MZB; 1 ♂, HM; Sterrengeberge, Abmisibil, R. Oktanglap 1920 m, 27.II.1989, HENK VAN MASTRIGT, 1 ♂, HM;

Pegunungan Bintang, Kecamatan Okbibab, Batimban, Kali Mong, 1.VI.1995, HENK VAN MASTRIGT, 7 ♂♂, HM; same data, but Kali Marki, 27.VII.1995, 1 ♂, HM; same data, but Ngorin, Kali Dau, 15.V.1995, 1 ♂, HM; 21.VII.1995, 2 ♂♂, HM; 13.–15.X.1995, 11 ♂♂, HM; Kali Okkim, 8.IV.1995, HENK VAN MASTRIGT, 2 ♂♂, GG; 2 ♂♂, HM.

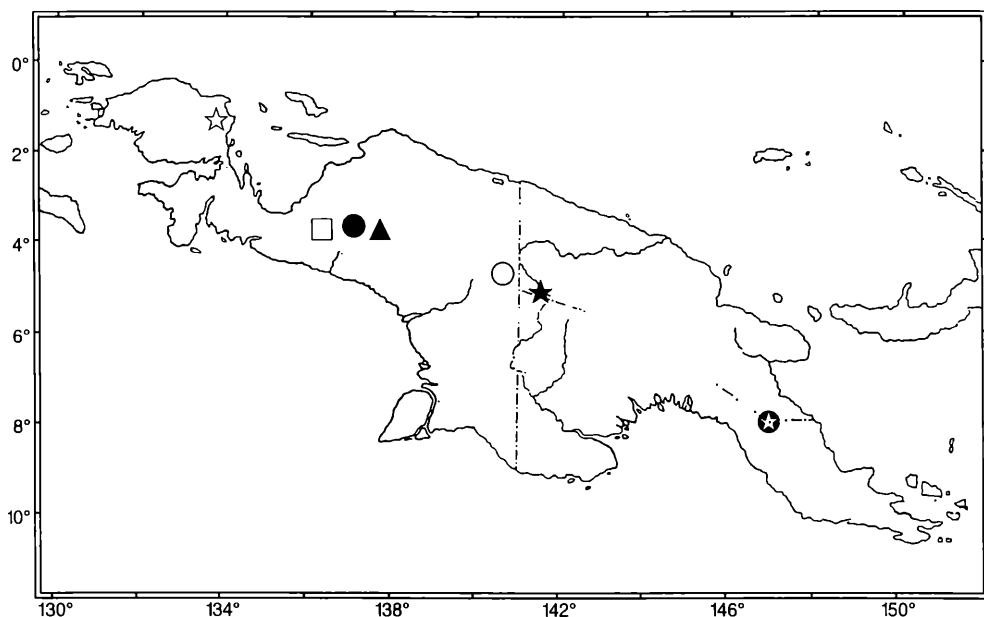
#### Description

Male. Upperside of fore wing white with black border which is slightly serrate at inner edge in Cu1a and Cu1b and at least 2 mm from dc-bar. Upperside of hind wing translucent white; pattern of underside visible from above; black border slightly broader than in other subspecies. Underside of fore wing white with some citron bloom in discal cell and with black inner part; large black border with three yellow subapical spots followed by one or two yellow terminal ones reducing in size; all spots are smaller than those in other subspecies. Underside of hind wing at proximal part black. Median band yellow at proximal side and white at distal side, with large red spot from inside cell 3A to vein 1A+2A. Black border with five red spots, (of which the third one is the smallest); however, all spots are smaller and more rounded like in *sagessa*. Length of fore wing: 20–22 mm.

Female. Unknown.

#### Derivation of name

"okbibab", an noun in apposition, is the name of the "kecamatan" where the type material is found.



Map 1: Distribution of *Delias abrophora* and closely related species and subspecies

- ☆ *Delias sagessa anjae* SCHRÖDER, 1977: Arfak Mountains (= *Delias dollyae* SCHMITT, 1992).
- ★ *Delias sagessa straatmani* SCHRÖDER, 1977: Telefomin, Star Mountains in western part of Papua New Guinea.
- *Delias sagessa sagessa* FRUHSTORFER, 1910: eastern part of Papua New Guinea.
- *Delias abrophora abrophora* ROEPKE, 1955: Paniai Lake area, also found in more western areas, as Mapia and Kamu.
- *Delias abrophora bugebu* subsp. nov.: Homeyo.
- *Delias abrophora okbibab* subsp. nov.: Okbibab, Star Mountains.
- ▲ *Delias sinak* MASTRIGT, 1990: Sinak.

### ***Delias destrigata* spec. nov.**

(figs. 3, 24; map 2)

#### Types

Holotype ♂: Irian Jaya Pass Valley 1850 m, River Ameagi, 13.X.1992, HENK VAN MASTRIGT, 1 ♂, HM.  
Paratype: same data as holotype, but River Bion, 2.VIII.1992, 1 ♂, HM.

#### Diagnosis

*Delias destrigata* may be distinguished from *Delias argentata* ROEPKE, 1955 by the absence of colourful streaks and a more reduced white area in the hind wing underside and by the poorly differentiated two or three yellow subapical spots on the fore wing underside.

#### Description

Male. Proximal half of fore wing upperside white. Upperside of hind wing translucent white with narrow black border, somewhat broader in cells Rs1 and M1. Proximal half of fore wing underside white. Discal cell with blackish diffusion. Median vein black. Black border with two v-shaped yellow subapical spots and sometimes a very small third one. Underside of hind wing silver white with a large black spot, extending from the discal cell and largely entering cells M1 and M2, sometimes touching the greyish subterminal band. This band is connected with the black vein tips, leaving four white spots; some of these spots sometimes have some yellow diffusion. In proximal part of the hind wing underside is blackish with a small yellow basal spot and sometimes a yellow spot in the centre of the discal cell. Length of wing: 22–23 mm.

Female. Unknown

#### Derivation of name

"destrigata", an adjective in apposition, is derived from Latin and means "without streaks", which is the characteristic feature of this species.

### ***Delias telefominensis* YAGISHITA, 1993 stat. nov.**

(figs. 4, 25; map 3)

#### Diagnosis

*Delias callima* ROTHSCILD & JORDAN, 1905 was originally described from material collected by A.S. MEEK at Owgarra and Aroa River, close to Port Moresby, South East Papua New Guinea. *Delias callima* *satura* JORDAN (1930b) was described from Herzog Mountains, west of Lae. YAGISHITA (1993) adds *Delias callima* *telefominensis* YAGISHITA, 1993 from Telefomin in the western part of Papua New Guinea, about 70 km from the Irian Jaya border. New material from Abmisibil, Star Mountains, Irian Jaya, about 100 km west of Telefomin, is very close to *D. c. telefominensis*. However, the female is so different from that of the nominate race, that *D. callima* *telefominensis* is raised to specific rank: *Delias telefominensis* YAGISHITA, 1993 stat. nov. The material from River Ameagi, Pass Valley, north east of the Baliem Valley, and about 150 km west of the Star Mountains, is here considered to be the same taxon.

#### Material examined

Holotype ♂: Telefomin, P.N.G. VIII.1968. Other material: Telefomin, VIII.1975, 1 ♂, GG; Nieuw Guinea, Ned. Exp. 1959, Sterren Gebergte, Ok Tenma 1500 m, 19.V.1959, 1 ♂, RMNH; Abmisibil, 1920 m, R. Oktanglap, 27.II.1989, HENK VAN MASTRIGT, 1 ♀, HM; Abmisibil, R. Okngupel, 9.X.1991, 1500 m, HENK VAN MASTRIGT, 1 ♂, HM; Pass Valley, R. Ameagi, 13.X.1992, 6 ♂♂, HM; 23.X.1992, 1 ♂, HM; 30.XI.1992, 2 ♂♂, HM; 2.XII.1992, 3 ♂♂, HM; 3.XII.1992, 5 ♂♂, HM; 3.VIII.1993, 5 ♂♂, HM; 3.VIII.1993, 3 ♂♂, HM; 2.XI.1993, 1 ♂, HM; 8.XI.1993, 3 ♂♂, HM; 5 ♂♂, MZB; 20.XI.1993, 3 ♂♂, HM; 21.I.1994, 1 ♂, HM; 9.–11.V.1995, 4 ♂♂, HM; 3 ♂♂, EMEM; 1 ♂, GG; 13.–15.VI.1995, 8 ♂♂, HM; 3 ♂♂, MZB; 3 ♂♂, GG; 18.–24.VII.1995, 10 ♂♂, HM; 24.VII.1994, 4 ♂♂, HM.

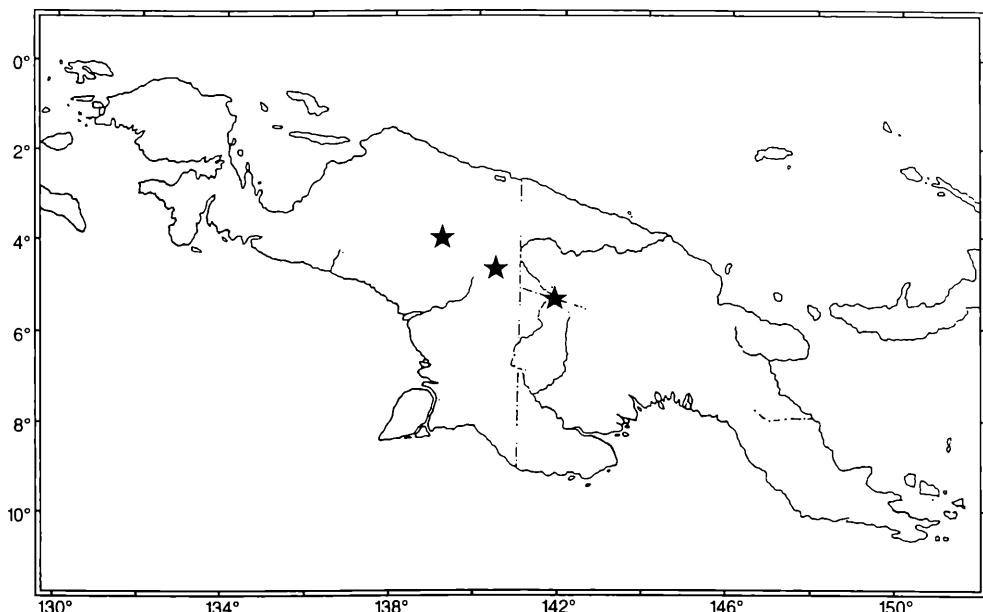


Map 2: Distribution of *D. destrigata* spec. nov.

#### Description

Male. Upperside of fore wing white with black costa and black border from R<sub>2</sub> to tornus, curved at inner edge. Upperside of hind wing white, but looks darker than fore wing because of dark underside. Between broad black border and white proximal area greyish diffusion. Underside of fore wing white; black border slightly broader than on upperside, with two small yellow subapical spots, sometimes followed by one or two comparable vague markings. Maroon brown of hind wing underside divided by black discal band and black veins. Costa, terminal border and anal area black. At base some yellow diffusion and a thin white streak. Black discal band with small white spot in M<sub>1</sub>. Length of fore wing: 24–28 mm.

Female. Upperside of fore wing with black along costa largely entering discal cell; much broader black border, reaching dc-bar, with three small yellow subapical spots. Upperside of hind wing divided in white proximal area with greyish diffusion and black distal area by an imaginary line from R<sub>s</sub> to 3A. Underside of fore wing white with black border as on upperside, but slightly reduced from M<sub>3</sub> toward the tornus, having narrow yellow subapical band divided by black veins. Underside of hind wing as in male; however white spot in M<sub>1</sub> somewhat larger and very reduced black discal band in Cu<sub>1a</sub> and Cu<sub>1b</sub>. Length of fore wing: 25 mm.



Map 3: Distribution of *D. telefominensis* YAGASHITA, 1993

### *Delias fascelis* JORDAN, 1912

#### Discussion

The taxonomic history of *Delias fascelis* JORDAN, 1912 subspecies, together with its relationship to *Delias citrona* JOICEY & TALBOT, 1922 is particularly complex.

JORDAN (1912) described *Delias fascelis* from Mt. Goliath. Although long considered as a subspecies of *cuningputi* (RIBBE, 1900), ORR & SIBATANI (1986) reinstated its original specific status. In the same study *Delias cuningputi ibelana* ROEPKE, 1955, was regarded as a subspecies of *Delias fascelis*. J. SCHMITT (1992) described two new subspecies, *Delias fascelis paniaia* from the Paniai Lake area and *Delias fascelis roepkei* from Tembagapura, at the south side of the Mount Jaya (former Carstensz Peak). As the name *roepkei* is preoccupied by *Delias mira roepkei* SANFORD & BENNETT, 1955, the replacement name *Delias fascelis amungme nom. nov.* is proposed here, to memorize the local people on which grounds this subspecies occurs.

For the present, the status of *Delias citrona* JOICEY & TALBOT, *D. fascelis paniaia* SCHMITT and *D. fascelis amungme* MASTRIGT remains unclear, but a new subspecies of this complex is described below from Korupun, on the southern side of the central mountain range between the Baliem Valley and Mount Goliath, and characterized by its yellow upperside.

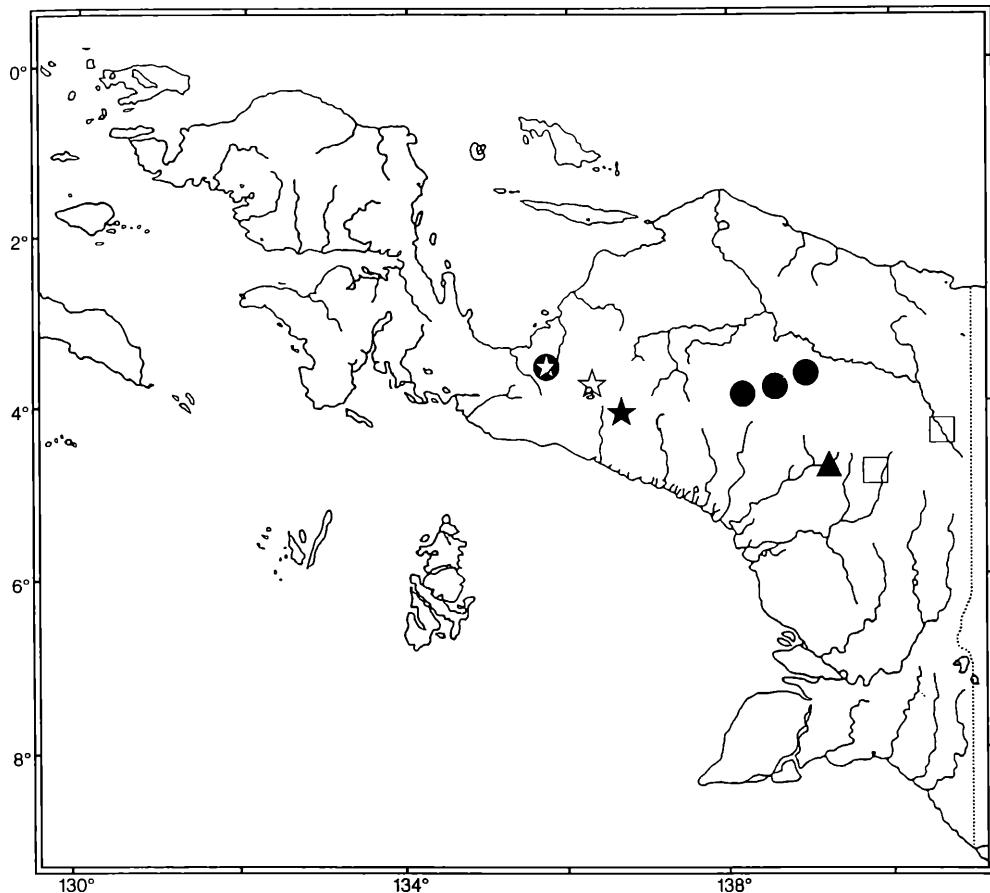
### *Delias fascelis korupun* subspec. nov.

(figs. 5, 6, 26, 27; map 4)

#### Types

Holotype ♂: "Korupun, R. Asso, 16.–21.VIII.1993", MZB.

Paratypes: idem, 1 ♂, HM; idem, but 31.III.–1.IV.1991, 3 ♂♂, HM; 19.IV.1991, 2 ♂♂, ZMA; 21.V.1991, 1 ♂, ZMA; 20.VI.1991, 1 ♂, ZMA; 30.X.–5.XI.1991, 1 ♀, HM; III.1991, 2 ♂♂, HM; 21.–25.IX.1992, 1 ♂,



Map 4: Distribution of *Delias fascalis* and closely related species and subspecies

- *Delias citrona* JOICEY & TALBOT, 1922: Weyland Mountains.
- ★ *Delias fascalis paniaia* SCHMITT, 1992: Paniai Lake area.
- ★ *Delias fascalis amungme* MASTRIGT nom. nov.: Tembagapura.
- *Delias fascalis ibelana* ROEPKE, 1955: Baliem Valley, Ibele Valley.
- ▲ *Delias fascalis korupun* subsp. nov.: Korupun.
- *Delias fascalis fascalis* JORDAN, 1912: Mount Goliath

HM; 1.-3.I.1992, 6 ♂♂, HM; 17.-18.II.1992, 1 ♂, HM; 6.-11.III.1992, 1 ♂, HM; 1.-2.VI.1992, 4 ♂♂, EMEM; 25.-30.I.1993, 1 ♂, HM; 5.-10.VII.1993, 2 ♂♂, HM; 13.-18.XII.1993, 1 ♂, HM; 6.-11.IX.1993, 1 ♂, 1 ♀, HM; 7.-12.II.1994, 1 ♂, HM; 24.-29.IV.1995, 14 ♂♂, HM; 12.-17.V.1995, 10 ♂♂, HM; 21.-26.VIII.1995, 4 ♂♂, HM; 18.-23.IX.1995, 44 ♂♂, 1 ♀, HM; R. Mulakik & Pelakik, 19.I.-9.II.1991, 4 ♂♂, HM; R. Weimin, 25.VIII.-17.IX.1992, 2 ♂♂, HM; 3.VI.1992, 3 ♂♂, HM; 26.-31.XII.1994, 6 ♂♂, HM; 20.-25.III.1995, 6 ♂♂, HM; 2 ♂♂, GG; 1.-6.V.1995, 12 ♂♂, HM; 24.-29.VI.1995, 22 ♂♂, HM; 9.-14.X.1995, 2 ♂♂, HM; R. Deisul, 9.-14.I.1995, 2 ♂♂, HM; R. Belaka, III.1991, 2 ♂♂, HM; Korupun 18.-22.IX.1992, 8 ♂♂, HM; Korupun, Yamin, R. Ausing, 2.-3.VII.1991, 1 ♂, HM; 4 ♂♂, ZMA; Ninya 139° 16', 4° 22', R. Wantek 2400 m, 1.-7.IX.1991, 5 ♂♂, HM; Sikama, R. Koluk, 20.I.-4.II.1992, 4 ♂♂, HM.

### Description

Male. Proximal part of fore wing upperside side yellow with some greyish diffusion; broad black border with curved inner edge from costa to middle of inner margin, having three very small triangular subapical spots and one terminal spot. Hind wing upperside yellow with some greyish diffusion at proximal part; broad black border with inner edge more or less straight from middle of costa to vein M3 at discal cell, further on curving down to tornus. Underside of fore wing grey to black with three yellow subapical and two yellow terminal spots and a very small yellowish spot at costa next to dc-bar. A triangular yellow area with base at inner margin, is very variable in size: from nearly absent to reaching discal cell. Underside of hind wing black, divided by an irregular, 0.5 (in M3) to 5 mm (in Cu1b) wide, curved white discal band. Inner black part with three small yellow spots: one in the base, one in Rs and one in discal cell. Discal band white toward the costa with yellow spot at M1 and yellow toward the outer margin. Black border with an undulate inner edge, having a subterminal row of six thin yellow lines; the 3rd to 5th ones—counting from apex to tornus—are connected with terminal border by thin yellow line ending in a slightly undulate white border; the 6th one is connected with yellow part of discal band. Length of fore wing: (21), 23–27 mm (average 25 mm)

Female. Upperside of fore wing proximally pale yellow with greyish diffusion filling whole discal cell; broad black border with vague inner edge from the middle of costa to inner margin close at tornus, having three small triangular subapical spots and one terminal spot. Upperside of hind wing translucent pale yellow with some greyish basal diffusion; broad black border with inner edge curved from Rs to tornus; about 6 mm wide along M2 and getting narrower to both sides. At outer edge very narrow greyish white border. On underside of fore wing large triangular light area creamy to pale yellow, entering discal cell and with grey diffusion at inner part. Three yellow subapical spots and two yellow terminal ones slightly larger than in male. Underside of hind wing as in male; however yellow sections of discal band paler and 6th subterminal line not connected with yellow section of discal band. Length of fore wing: 20–24 mm.

### Derivation of name

"korupun", a noun in apposition, is the name of the village in the area where this subspecies is found.

### *Delias toxopei* ROEPKE, 1955

#### Diagnosis

*Delias toxopei* ROEPKE, 1955 was originally described from the Ibele River and *Delias toxopei morosa* ROEPKE, 1955 from the Arabu River, near the Paniai Lake. This subspecies is also known from the more western Weyland Mountains. YAGISHITA (1993) described *Delias toxopei uranoi* from the Ilu-Mulia-IIaga area. The new subspecies described here occurs at Nipsan, 75 km east of the Ibele River, and is characterized by its reduced black border on the upperside of hind wing.

### *Delias toxopei nipsan* subsp. nov.

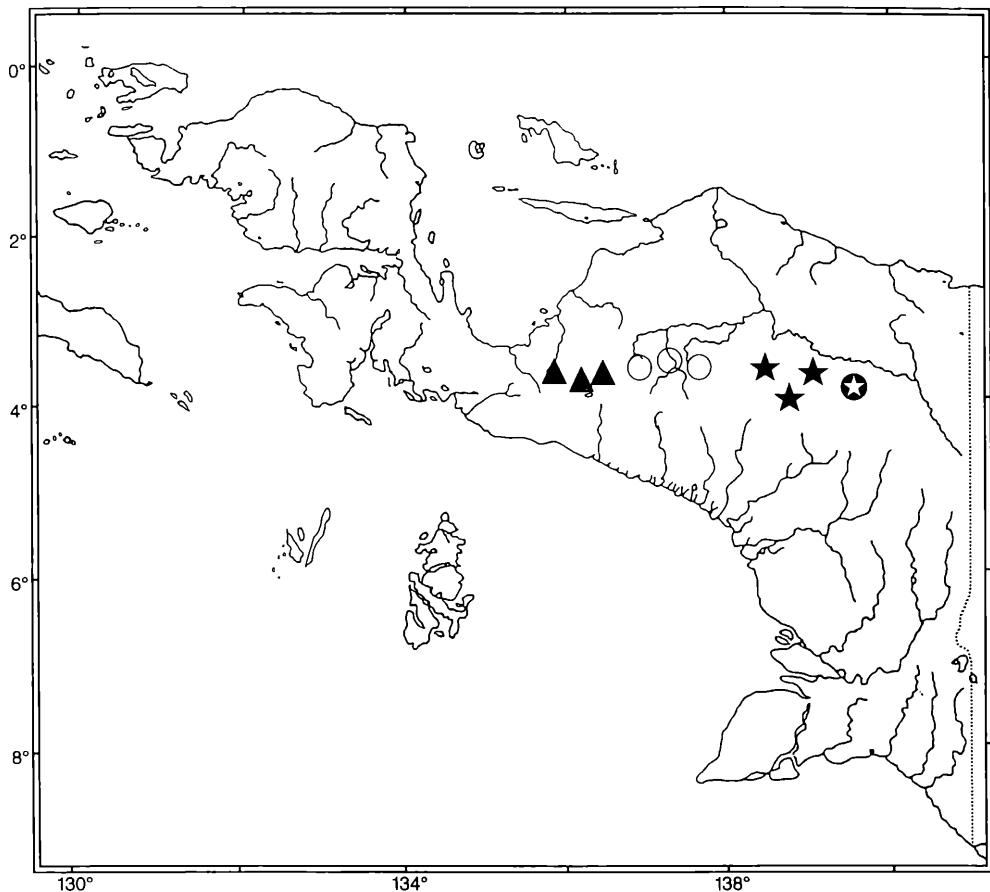
(figs. 8, 29; map 5)

#### Type

Holotype ♂: "Nipsan Walmak, R. Yango, 10.III.1994", HM.

### Description

Male. Upperside of fore wing black. Upperside of hind wing translucent white; pattern of underside partly visible. Costa basally white. Black terminal border from middle of costa to tornus broadest along vein M2 but does not reach discal cell, width of border along Cu1a only 2 mm reducing to A1+2A. From base some black diffusion filling inner part of Rs and discal cell, just entering Cu1b. Rs



Map 5: Distribution of *Delias toxopei* subspecies from west to east

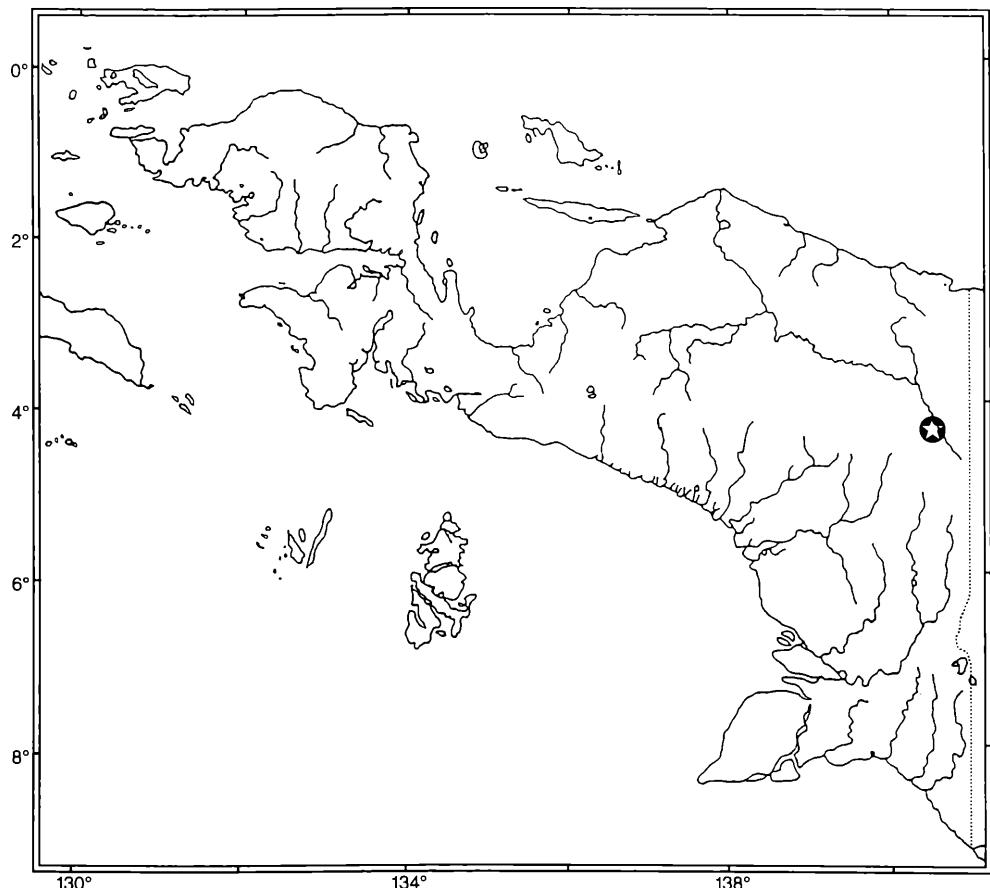
- ▲ *Delias toxopei morosa* ROEPKE, 1955: Weyland Mountains, Paniai Lake area.
- *Delias toxopei uranoi* YAGISHITA, 1993: Mulia-Ilu-IIaga area.
- ★ *Delias toxopei toxopei* ROEPKE, 1955: Baliem Valley.
- ✖ *Delias toxopei nipsan* subsp. nov.: Nipsan.

and anal area creamy. Underside of fore wing yellow with black costa; black border with three small yellow subapical and two terminal spots; second subapical spot partly white. Large dc-bar connected with black border, cutting off thin yellow irregular line from costa to middle of M3. Some black diffusion in discal cell along radius. Inner margin white. Underside of hind wing black with typical Z-shaped disk; basal half of costa and six terminal spots white; veins yellow to orange. Anal area with thin yellow streak along 1A+2A and grey diffusion along inner margin in 3A; small yellow spot in Cu1b.

Female. Unknown.

#### Derivation of name

"nipsan", a noun in apposition, is the name of the area where this subspecies is found.



Map 6: Distribution of *D. iltis sibil* subspec. nov.

#### *Delias iltis sibil* subspec. nov.

(figs. 9, 30; map 6)

#### Types

Holotype ♂: "Sterrengebergte, Abmisibil, R. Oktanglap 1880 m, 17 VII.1987, HENK VAN MASTRIGT", MZB.

Paratypes: same data, 1 ♂, HM; same data, but 22.X.1986, 1 ♂, HM; 1900 m, 11.IX.1985, 2 ♂♂, HM; 9.XI.1990, 1 ♂, HM; 1920 m, 15.IX.1985, 1 ♂, HM; 16.IX.1985, 1 ♂, HM; 11.IX.1990, 1 ♂, HM; same data, but R. Okbon, 9.XI.1990, 1 ♂, HM; 11.–12.XII.1990, 1 ♂, GG; 8.–13.XII.1991, 1 ♂, HM, 17.XI.1990, 2 ♂♂, HM; 19.–24.VIII.1992, 5 ♂♂, HM; 2.–3.VI.1995, 3 ♂♂, HM; 1.–5.VII.1995, 1 ♂, HM; 15.IX.1995, 1 ♂, HM; R. Okmik, 1.–5.V.1986, 1 ♂, HM; Abmisibil, 9.IX.1995, 1 ♂, HM; Batimban, R. Okkim, 20.III.1988, HENK VAN MASTRIGT, 1 ♂, HM; same data, but 20.XII.1990, 1 ♂, GG; 25.–27.VII.1991, 1 ♂, HM; 28.IX.1991, 1 ♂, EMEM; 13.–23.IV.1995, 1 ♂, R. Takpalngi, 26.IV.1995, 1 ♂, HM, same data, but 1.V.1995, 1 ♂, HM; R. Dau, 28.IV.1995, 1 ♂, HM; Puncak Lukon, 16.IV.1995, 1 ♂, HM; Kali Lukon, 2.VIII.1995, 2 ♂♂, HM; 4.XI.1995, 1 ♂, HM; Kali Mong, 18.VII.1995, 1 ♂, HM; 12.–

13.IX.1995, 2 ♂♂, HM; R. Palep, 18.X.1995, 1 ♂, HM; Bipban, R. Tapi, 30.X.1995, 1 ♂, HM; Silaka, 28.VII.1995, 1 ♂, HM; Kutmong, R. Bepkal, 6.X.1995, 1 ♂, HM; Kutmong, R. Tup, 22.VIII.1995, 1 ♂, HM; R. Okbetel, 31.VIII.1995, 1 ♂, HM; Okbetel, R. Ngupel, 6.X.1995, 1 ♂, HM.

#### Diagnosis

*Delias iltis* RIBBE, 1900 was originally described by from the Aroa River in South East Papua New Guinea. In 1937, TALBOT described *D. iltis leucotera*, collected by A. F. EICHHORN on the west side of Herzog Mountains, at Edie Creek. OKANO (1989) described *D. iltis pseudoiltis* from the Simbu province, PNG, regarded as synonymous with the nominate race by YAGISHITA (1993).

The locality of the here described new subspecies, is more than 300 km western of the Simbu Province. It is closest to *D. iltis iltis* Reb. in sharing a light area on underside of hind wing, but differs by its lighter anal area and its more obvious white anal veins.

N.B.. *Delias iltis majai* YAGISHITA, 1993 **syn. nov.** is a variant of the very variable *Delias luctuosa archboldi* ROEPKE, 1955.

#### Description

Male. Upperside of fore wing white with black costa, black dc-bar and black border with an irregular inner edge and two white subapical spots. Upperside of hind wing translucent white; pattern of underside partly visible from above; with thin undulate black border and black veinends. Underside of fore wing white; black border comparable to that of the upperside, with three subapical spots which are yellow inwardly and white outwardly, followed by two yellow terminal spots; dc-bar much broader than on upperside. Underside of hind wing with yellow basal spot. Black fascia distally bordered by red from costa in Rs to close to border in 1A+2A and surrounding a large light discal area which comprises discal cell and inner parts of cells Cu1b, Cu1a, M3, M2, M1 and Rs which is whitish with a creamy centre. Black fascia broadly connected with costal margin. Between red line and triangular black spots at veinends, six large white patches, separated by black vein-streaks. Anal area greyish white, with white scales predominant and few of black or yellow, and with one or two nearly white streaks. Length of fore wing: 26–29 mm.

Female. Unknown.

#### Derivation of name

"sibil", a noun in apposition, is the original name of the area where this subspecies is found.

#### *Delias albertisi putih* subsp. nov.

(figs. 10, 31; map 7)

*Delias albertisi albiplaga* JOICEY & TALBOT, 1922; YAGISHITA (1993b: Pl. 123, Figs. 7, 8 [misidentification]).

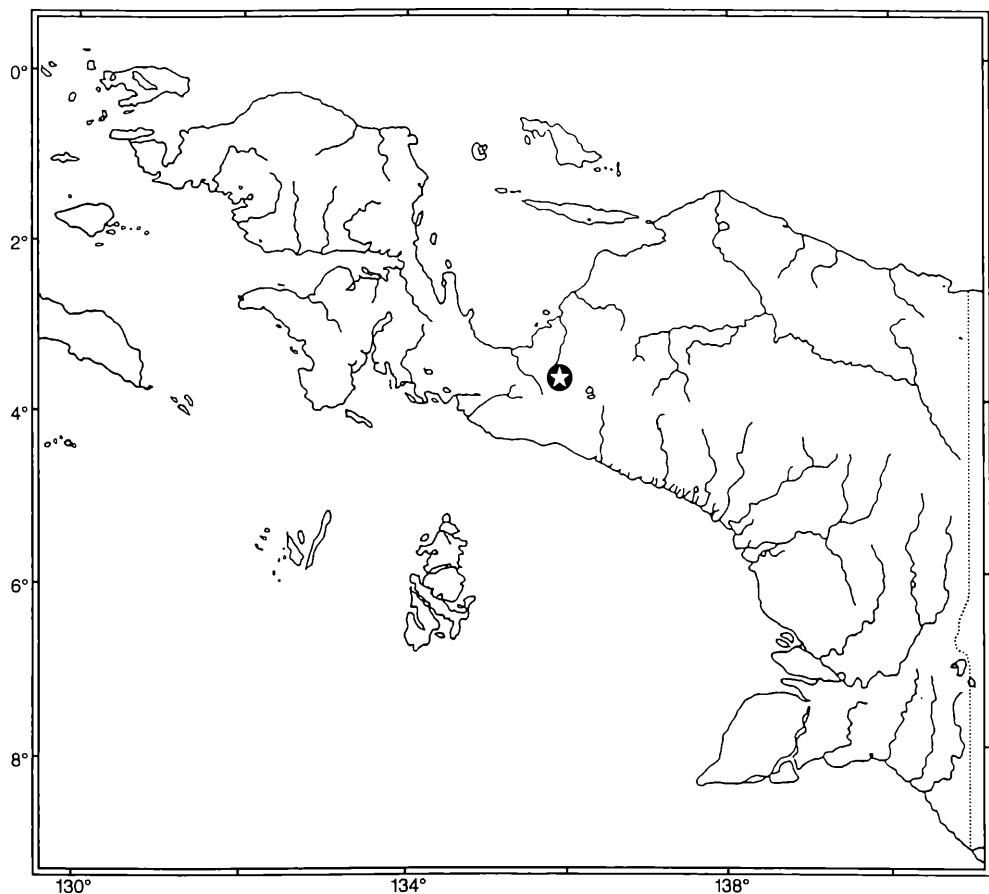
#### Types

Holotype ♂: "Kamu Valley, Mauwa R. Okeya, 18.III.1990, HM.

Paratypes: same data as holotype, but 25.III.1990, 1 ♂, GG; South of Weyland Mnts, 16.XI.1992, 1 ♂, JL; same data, but 16.XI.1993, 1 ♂, JL; 16.XI.1994, 1 ♂, JL; Modio, I.1993, 1 ♂, GG; Bomomani, I.–VI.1993, 1 ♂, JL.

#### Diagnosis

This new subspecies is closely related to *D. albertisi albiplaga* JOICEY & TALBOT, 1922, but differs on upperside of hind wing by its larger white area and on the underside of hind wing by a white area (instead of a orange one) surrounded by a less broad black band. It is wrongly pictured by YAGISHITA (1993b) as *D. albertisi albiplaga* JOICEY & TALBOT, 1922.



#### 7 Distribution of *D. albertisi putih* subspec. nov.

##### Description

**Male.** Upperside of fore wing black with two very small white subapical spots and one terminal spot. Upperside of hind wing white; broad black border from base to tornus with diffuse inner edge slightly entering discal cell. Underside of fore wing greyish black with yellow subapical band, divided by black veins, followed by one or two small terminal spots. Greyish triangular area with black veins broad at inner margin and narrowing toward the apex, not reaching yellow subapical band and not entering discal cell. Underside of hind wing black with white costa; large white oval spot from apex to subornal area with more or less round black patch at border of discal cell, M<sub>2</sub> and M<sub>3</sub>. A curved yellow band with some black diffusion from middle of costa to subbasal part of cell 3A. Large white oval spot sometimes with some orange diffusion in discal cell, M<sub>3</sub>, Cu<sub>1a</sub>, Cu<sub>1b</sub> and 1A+2A. Length of fore wing: 28 mm.

**Female.** Unknown.

##### Derivation of name

"putih", a adjective in apposition, is the Indonesian word for "white", after the large white spot on underside of hind wing.

***Delias bobaga homeyo* subspec. nov.**

(figs. 13, 34; map 8)

Types

Holotype ♂: "Kec. Homeyo, Sabisa, R. Bayabu, 26.II.1992", MZB.

Paratypes: same data, 1 ♂, HM; same data, but 1.III.1992, 2 ♂♂, GG; I.1993, 1 ♂, GG; II.1993, 2 ♂♂, HM; Kec. Homeyo, Debabu, 9.V.1991, 2 ♂♂, GG; same data, but 4.IX.1991, 1 ♂, GG; 22.X.1994, 2 ♂♂, HM; 7.X.1994, 1 ♂, HM; 31.X.1994, 2 ♂♂, HM; 5.XII.1994, 1 ♂, HM; 18.III.1995, 1 ♂, HM; Homeyo 4.IX.1991, 1 ♂, HM; Magoda 9, 1950 m, 18.XI.1995, 1 ♂, HM.

Diagnosis

Differs from the nominate subspecies by the underside of hind wing being creamy instead of yellow.

Description

Male. Upperside of fore wing white to creamy white with broad, black costal border, entering discal cell; black dc-bar. Black border, with two small white subapical spots and much broader at apex than at tornus, and with a strongly serrate inner edge; sometimes absorbing black dc-bar. Upperside of hind wing creamy white and translucent; narrow black border with undulate inner edge; pattern of underside entirely visible from above. Underside of fore wing milky white. Black border, more reduced than on upperside, with three orange subapical spots and a very vague terminal spot. Anterior part of discal cell black, and connected to black border along M<sub>2</sub>, separating a small, whitish spot. Underside of hind wing creamy with a black submarginal spot just outside discal cell. From middle of costa a broad, curved, black line extends through inner part of discal cell along yellow green anal area to the bottom of cell 1A+2A, where it is connected by thin black line to the broad, black border, from R<sub>s</sub> to 3A. Inner part of costa white. Base from creamy to yellow with small black triangle at inner part. Length of fore wing: 26–29 mm.

Female. Unknown.

Derivation of name

"homeyo" a noun in apposition, is the name of the "kecamatan" (district/municipality) where this species occurs.

***Delias fioretti* spec. nov.**

(figs. 11, 12, 32, 33; map 9)

Types

Holotype ♂: "Pass Valley, R. Bion, 17.VII.1992, HENK VAN MASTRIGT", MZB.

Paratypes. same data, but 1.IX.1992, 1 ♂, HM; 15.VII.1992, 1 ♂, HM; 13.XII.1992, 1 ♂, HM; R. Ibem, 21.II.1992, 1 ♀, HM; 4.VIII.1992, 1 ♂, HM; 5.VIII.1992, 1 ♂, HM.

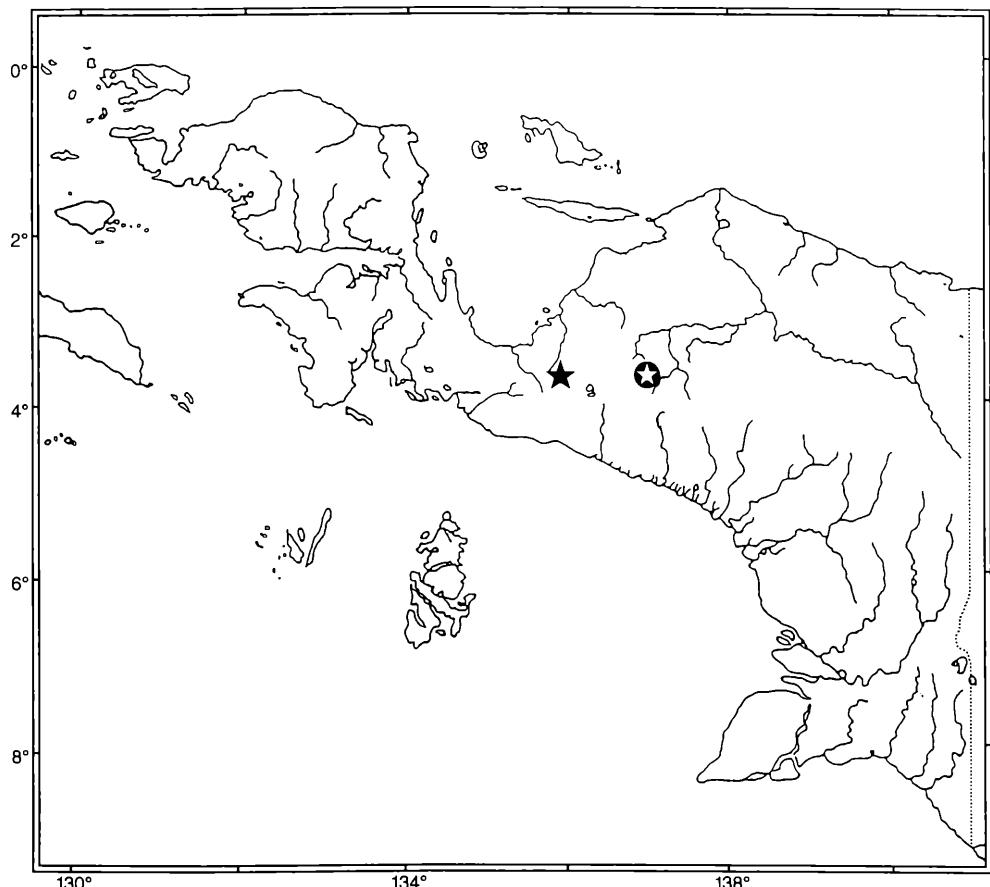
N.B.: River Ibem = River Bi = River Bik, a small branch of the River Bion = River Biong.

Diagnosis

This very attractive butterfly is undoubtedly a new species which is related to *hemianops* GERRITS & VAN MASTRIGT, 1993 and *walshae* ROEPKE, 1955, from which it differs by its characteristic fore wing pattern.

Description

Male. Upperside of fore wing white; base and discal cell black. Narrow black border from dc-bar to tornus with two vague white subapical spots. Veins between distal cell and terminal border black. Some black diffusion at edges of black areas and veins. Upperside of hind wing translucent white; a regular black border of 2 mm width runs from apex to tornus with some black diffusion at inner edge.



Map 8: Distribution of *Delias bobaga* subspec.

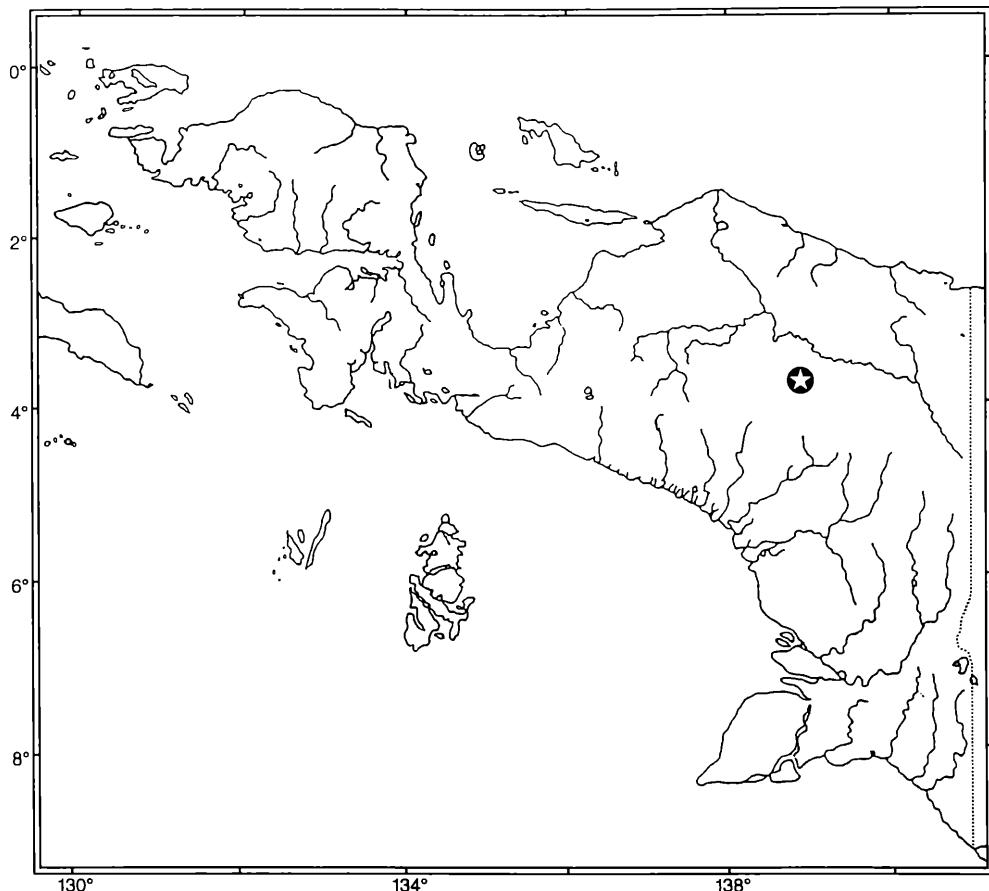
- ★ *Delias bobaga bobaga* MASTRIGT, 1990
- ◎ *Delias bobaga homeyo* subspec. nov.

Underside of fore wing white. Black terminal border slightly broader than on upperside and with an orange subapical band, followed by one separate orange terminal spot. Base black; discal cell as on upperside with some black diffusion close to dc-bar. Veins black. Underside of hind wing black basally and orange with white veins distally. Black border as on upperside. Border between black and orange area is more or less straight, from middle of costal margin to tornus, cutting off median part of discal cell. Some veins in orange area black at basal part. Length of fore wing: 26–28 mm.

Female. As male. However, black border on upperside of fore wing broader with three white subapical and two smaller terminal spots; upperside of hind wing with broader black border; on underside of fore wing black border somewhat broader in Cu1a and Cu1b, having a second orange terminal spot. Length of fore wing: 29 mm.

#### Derivation of name

“fioretti”, a noun in apposition, means little flowers and is borrowed from the title of a collection of essays about Saint Francis of Assisi and his first companions: “I Fioretti di San Francesco”



Map 9: Distribution of *Delias fioretti* spec. nov.

#### *Delias mira flabella* subsp. nov.

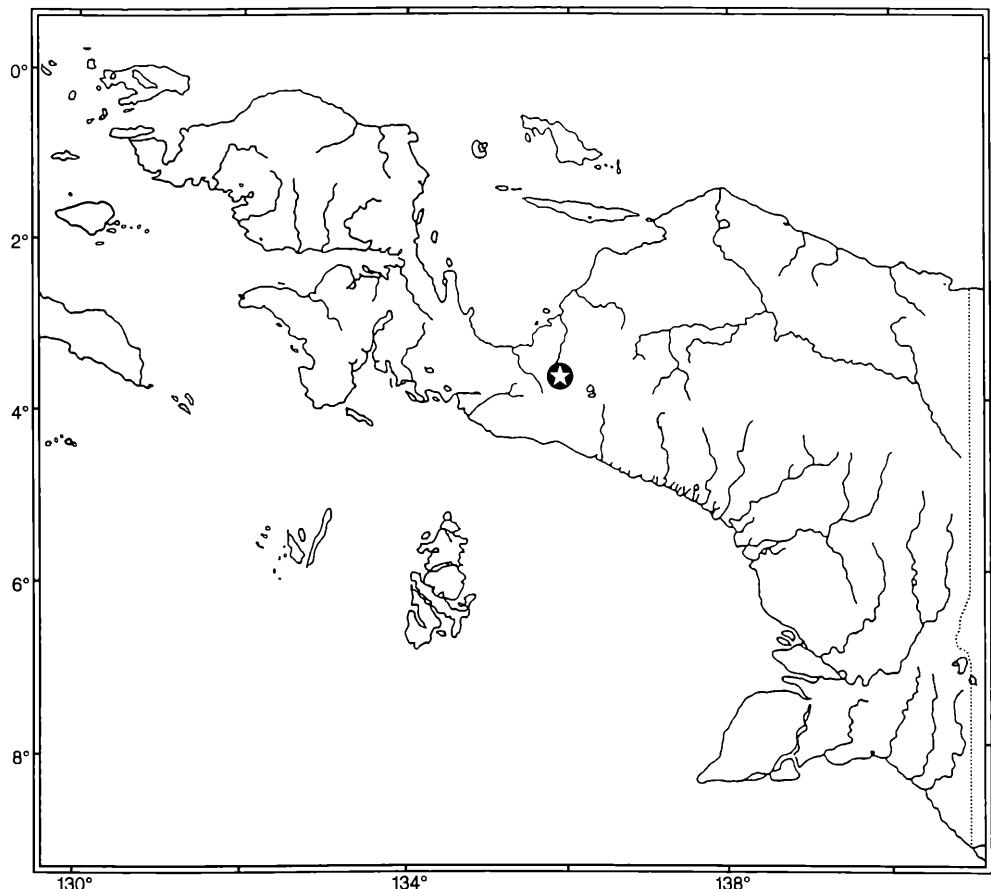
(figs. 14, 35; map 10)

##### Types

Holotype ♂: "N. E. Kamu / R. Tuka & Ekau 1700–1800 m / Ekamanida, 29.–30.X.1990", HM.  
 Paratypes: Moanemanzi, Idadagi, River Ode, 7.XII.1989, 1 ♂, GG; Modio, i.1992, 1 ♂, GG; Obano, Camp HO17, 3° 53' S 136° 11' E, 2250 m, 17.I. 1994, JEAN-FRANÇOIS LABBÉ, 1 ♀, JL; same data, but 29.I.1994, 3 ♂♂, JL; 25.II.1994, 1 ♀, JL; V.1994, 3 ♂♂, JL; 20.I.1995, 1 ♂, HM; 2300 m, I.1994, 2 ♂♂, BT; 8.II.1994, 1 ♂, HM; V.1994, 1 ♂, BT; V.1995, 2 ♂♂, HM; 2100 m, 4 ♂♂, HM; Obano N.E. Hogomuga, 1.VIII.1995, 1 ♂, HM; Magoda 9, 2000 m, 18.XI.1995, 1 HM.

##### Diagnosis

Differs from the nominate subspecies, by the more reduced white area on upperside of fore wing and larger white area on underside of hind wing, with brown to orange streaks from dark part into white area.

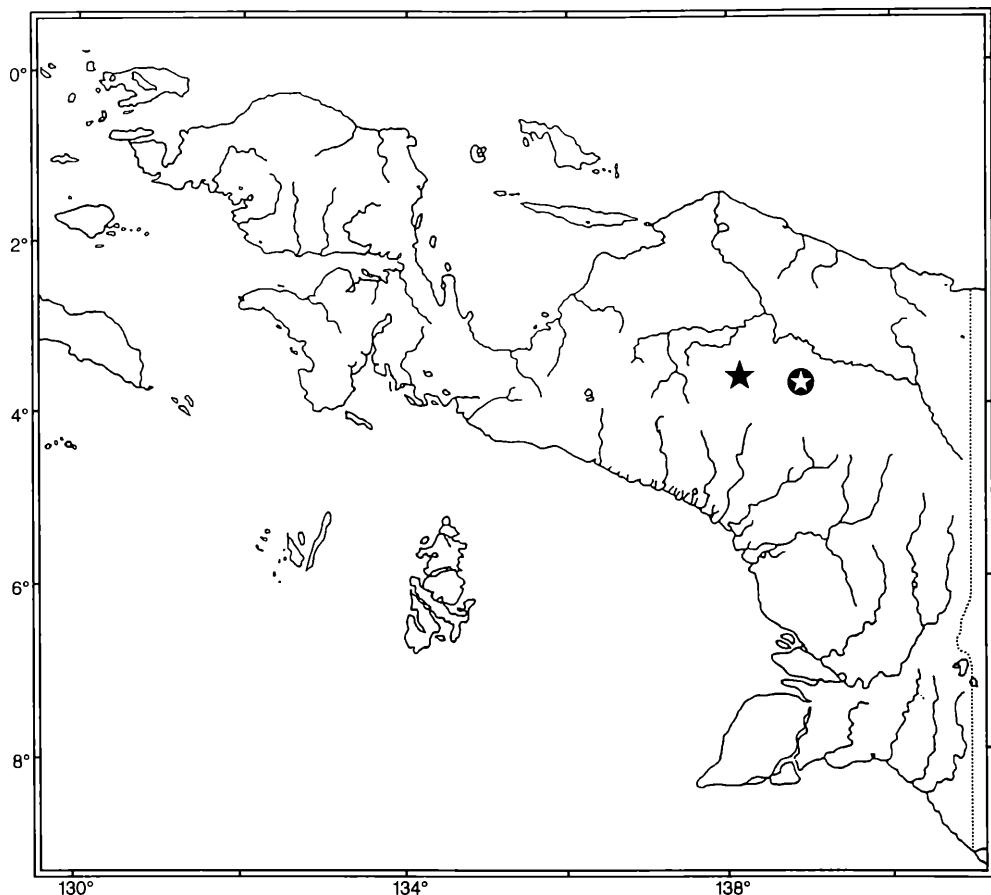


Map 10: Distribution of *Delias mira flabella* subspec. nov.

#### Description

**Male.** Upperside of fore wing black with black costal margin. Inner part about 1/3 creamy white with black diffusion in base. Upperside of hind wing creamy white with black border as in *D. mira hiemalis*. Underside of fore wing black with three orange to red subapical spots, followed by one large and two very small terminal spots; last one white. White to grey spot at R1. Post median area often totally black, sometimes with much black diffusion. 1A+2A white with some black diffusion. Underside of hind wing with base black up to Rs, including a dark red brown elongated spot, which is anteriorly narrowly white. At apical vein end of Rs small greyish white line with sometimes some orange brown diffusion. From apex to tornus runs a black border, with inner edge undulate from M2 to tornus. Large dark brown area separated from black border by white band from Rs to anal area, increasing in width, to over 6 mm in Cu1b. In the postmedian segment of each cell between apex and tornus a short orange to orange-brown streak, from inside brown area toward the termen, very variable in size (from only a few mm to nearly reaching black border). Length of fore wing: 27–29 mm.

**Female.** Wing pattern, both upperside and underside comparable to that of males. Upperside with slightly broader black borders; on upperside of fore wing one or two vague subapical spots. Upperside of hind wing with some yellow diffusion in anal area. Length of fore wing: 28–30 mm.



Map 11: Distribution of *Delias nakanokeikoae* subspec.

★ *Delias nakanokeikoae nakanokeikoae* YAGASHITA, 1993

◎ *Delias nakanokeikoae jali* subspec. nov.

#### Derivation of name

"flabella" is a noun in apposition, meaning "fan", because of the likeness of it on underside of hind wing.

#### *Delias nakanokeikoae jali* subspec. nov.

(figs. 15, 36; map 11)

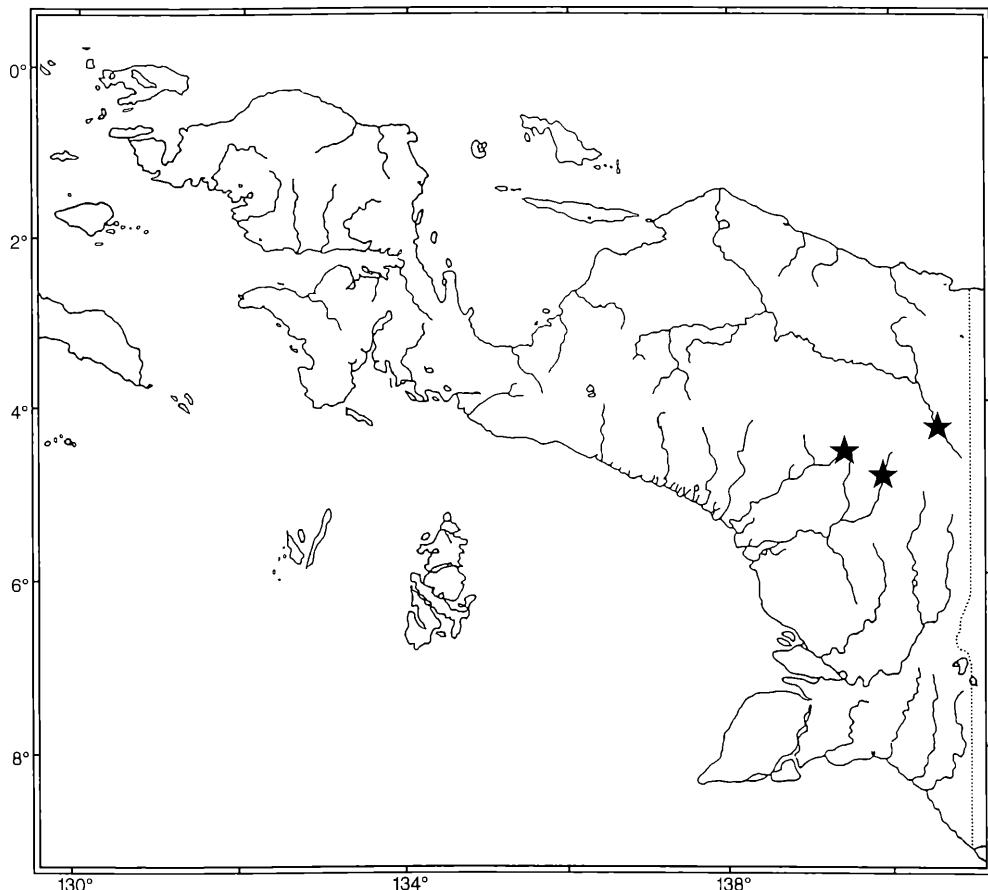
#### Types

Holotype ♂: Pass Valley, R. Ameagi, 13.X.1992, HM.

Paratype: Pass Valley km 55, R. Watlangku, 26.-31.IV.1992, 1 ♂, HM.

#### Diagnosis

Differs from the nominate subspecies from the Mulia-Ilu area in the variety in colour of underside of hind wing.



Map 12: Distribution of *Delias mira reissingeri* subspec. nov.

#### Description

**Male.** Upperside of fore wing greyish white with black costa and broad black border, having two or three very small, white subapical spots. Inner edge of black border curved from top of discal cell to inner margin, at about 4 mm from tornus. Median vein partly black. At base and at outer side of white area some black diffusion. Upperside of hind wing greyish white with some black diffusion at base and at inner edge of black border, which is about 5 mm wide at M1, getting narrower toward the apex and tornus. Underside of fore wing largely dark grey to black. Inner margin white and more to the centre some black diffusion. Black median vein and black outer parts of Cu1a and Cu1b visible. Underside of hind wing dark brown with some black diffusion. Veins white. Base black; long brown basal spot, bordered at costal side with thin white line and at underside by black streak widening to middle of costa. Between this black streak and black border a small white spot. Black border undulate at M2, and triangular at M3, Cu1a and Cu1b. Between dark brown area and black border a narrow white area, which is very narrow at costal margin, getting broader to tornus. This white area and the anal area have some yellowish brown and black diffusion. Length of fore wing: 28 mm.

**Female.** Unknown.

## Derivation of name

“jali”, a noun in apposition, is the name of a large tribe in the interior of Irian Jaya. The type locality is inside their territory.

### *Delias mira reissingeri* subsp. nov.

(figs. 16, 17, 37, 38; map 12)

#### Types

Holotype ♂: “Korupun 139° 38' River Asso, 30.III.–1.IV.1991, HENK VAN MASTRIGT”, MZB.  
 Paratypes: same data, 11 ♂♂, HM; same data, but III.1991, 4 ♂♂, 1 ♀, HM; 6 ♂♂, ZMA; 19.IV.1991, 1 ♂, HM; 20.V.1991, 1 ♂, ZMA; 21.VI.1991, 1 ♂, ZMA; 18.–22.IX.1991, 1 ♂, EMEM; 1.–3.I.1992, 1 ♂, HM; 1.–2.VI.1992, 6 ♂♂, 1 ♀, HM; 21.–25.IX.1992, 1 ♂, EMEM; 22.III.1993, 3 ♂♂, HM; 17.–24.IV.1993, 1 ♀, HM; 16.–21.VIII.1993, 1 ♂, HM; 6.–11.IX.1993, 1 ♂, HM; 8.–12.XI.1993, 1 ♀, HM; 1.–6.I.1994, 2 ♂♂, 3 ♀♀, HM; 24.–29.IV.1995, 21 ♂♂, HM; 12.–17.V.1995, 28 ♂♂, HM; 21.–26.VIII.1995, 10 ♂♂, HM; 18.–23.IX.1995, 16 ♂♂, HM; Silakma (Soba-Ninya), River Koluk, 2.I.–4.II.1992, 1 ♂, HM; 25.III.–9.IV.1992, 1 ♂, HM; Ninja, 139° 16', 4° 22', River Wantek, 2400 m, 1.–7.IX.1991, 1 ♂, HM; River Koluk, 17.–19.IX.1991, 1 ♂, HM; Korupun, River Mulakik & Pelakik, 19.I.–9.II.1991, HENK VAN MASTRIGT, 3 ♂♂, HM; same data, but River Weimin, 3.VI.1992, 5 ♂♂, HM; 26.–31.XII.1994, 4 ♂♂, HM; 20.–25.III.1995, 11 ♂♂, HM; 1.–6.V.1995, 16 ♂♂, HM; 24.–29.VI.1995, 28 ♂♂, HM; 9.–14.X.1995, 2 ♂♂, HM; R. Deisul, 9.–14.I.1995, 10 ♂♂, HM; Korupun, 30.IV.–11.V.1992, 8 ♂♂, HM; Yamin, River Ausing, 2–3.VII.1991, 2 ♂♂, ZMA; Langda, 1.–15.II.1991, HENK VAN MASTRIGT, 2 ♂, HM; same data, but River Bibwe, 30.XI.1988, 1 ♂, HM; 5.XII.1988, 1 ♂, HM; 17.–19.IV.1989, 1 ♂, HM; 20.–24.IV.1989, 1 ♂, HM; 9.–10.V.1989, 2 ♂, HM; Kerabuk, River Teri, 4.–20.VI.1992, 1 ♂, HM; Pegungan Bintang, Abmisibil, 9.IX.1995, HENK VAN MASTRIGT, 1 ♂, HM; same data, but River Okbon, 11.–14.II.1991, 3 ♂♂, HM; 20.III.1991, 1 ♂, HM; 21.–25.VI.1991, 2 ♂♂, HM; 11.–14.VII.1991, 1 ♂, GG; 19.–24.VIII.1992, 2 ♂♂, HM; 15.IX.1995, 1 ♂, HM; River Oktanglap, 12.IX.1985, 1 ♂, HM; 14.IX.1985, 1 ♂, HM; 22.X.1986, 1 ♂, HM; 18.VII.1987, 1 ♂, HM; River Okpeti, 18.IX.1991, 1 ♂, HM; Batimban, River Okkim, 11.–12.XII.1990, 1 ♂, HM; 11.–14.II.1991, 3 ♂♂, HM; 20.III.1991, 1 ♂, HM; 11.VIII.1991, 1 ♂, HM; 28.IX.1991, 2 ♂, GG; Gunung Lukon, 24.V.1991, 3 ♂, HM; River Lukon, 22.VII.1995, 1 ♂, HM; 28.VII.1995, 1 ♂, HM; River Takpalngi, 1.V.1995, 1 ♂, HM; Kutmong, R. Bapkal, 6.X.1995, 1 ♂, HM; Okbetel, R. Ngupel, 8.VIII.1994, 4 ♂♂, HM; R. Palep, 11.VIII.1995, 1 ♂, HM; R. Mong, 18.VII.1995, 2 ♂♂, HM; Kulempun, Sabin, R. Raleplina, 20.VII.1995, 2 ♂♂, HM; Kutmong, Okbetel, R. Tup, 18.VII.1995, 4 ♂♂, HM.

#### Diagnosis

This new subspecies from three different areas in the southern mountain range of Irian Jaya differs from *mira roepkei* SANFORD & BENNETT, 1955 by its more reduced light area at the terminal side of cells M3, Cu1a and Cu1b on the underside of hind wing, and differs from *D. mira michiae* NAKANO, 1994 by its black underside of fore wing.

#### Description

Male. Upperside of fore wing white with black costa and broad black border; with one to three very small, white subapical spots. Inner edge of black border slightly curved from inside discal cell to inner margin, at about 4 mm from tornus. Median vein partly black. At base some blue grey diffusion. Upperside of hind wing translucent white; pattern of underside partly visible from above. Some blue grey diffusion at base. Black border about 5 mm wide at M1, getting narrower to tornus and to apex where it suddenly ends. Underside of fore wing mainly black; some white confined to the inner margin; with three yellow orange subapical spots, followed by one poorly developed terminal spot of same colour. Underside of hind wing dark brown with black veins and sometimes a black spot in cell M1 and/or at border of bright area. Black basal and costal area includes pear-shaped yellow spot, bordering white costa. Between this black area and black border a small white spot. Black border at inner edge undulate to triangular. Creamy area in bottom of cells M3, Cu1a and Cu1b of variable

shape and sometimes connected with white spots at inner edge of black border in cells M2 and M1. Anal area with yellow and black diffusion. Length of fore wing: 24–28 mm.

Female. Upperside of fore wing black, except the inner part, including lower part of discal cell and half of inner margin, which is smudged white to grey. Border with three white subapical spots, followed by two terminal ones. Upperside of hind wing yellowish, with broader black border than the male. Underside of fore wing with some larger yellow subapical and terminal spots. One ♀ with a small white triangle along inner margin, having black veins. Length of fore wing: 26–28 mm.

#### Derivation of name

“reissingeri” is an adjective in apposition, in honour of the late Dr. EDUARD JOHANNES REISSINGER, of Kaufbeuren, Germany, with whom I was co-operating on a volume on *Delias* from Irian Jaya and Papua New Guinea and who died on July 16th, 1991.

#### *Delias campbelli cyclops* nom. nov.

*Delias campbelli maria* TOXOPEUS, 1937 was described from the Humboldt Bay district, 1.000 m. This species-group name is preoccupied by *Delias mariae* JOICEY & TALBOT, 1916. The replacement name *cyclops* is proposed here, after the Cyclops mountains at Sentani where this subspecies is found. ROEPKE following TOXOPEUS (ms.) wrongly associated *mariae* TOXOPEUS with *mariae* JOICEY & TALBOT, 1916, when including *D. mariae* JOICEY & TALBOT as a subspecies of *D. campbelli*.

Females of the following three subspecies are described here for the first time.

#### *Delias nieuwenhuysi poponga* MASTRIGT, 1990

(Tijdschrift voor Entomologie 133: 197–204)  
(figs. 18, 39)

#### Material examined

Pegungan Bintang, Batimban, River Okkim 11.XI.1990, HENK VAN MASTRIGT, 1 ♀, HM.

#### Description

Female. Upperside of fore wing creamy white with black costa. Narrow black border 10 mm wide along costa, 5 mm wide along vein M3 narrowing to 2.5 mm at tornus, with two white subapical spots. Inner edge undulate, slightly curved from R5 to tornus. Grey vein R2 connects border with discal cell, enclosing a small white spot. Upperside of hind wing translucent creamy white with a 2.5 mm wide black border, narrowing toward apex and tornus. Underside of fore wing yellow to orange yellow with black border as broad as on upperside, having four yellow subapical and two yellow terminal spots. Underside of hind wing as male. Length of fore wing: 22 mm

#### *Delias catisa catisa* JORDAN, 1912

(Novit. zool. 18(1911): 580–593)  
(figs. 19, 40)

#### Material examined

Sumtammon, 21.V.1991, HENK VAN MASTRIGT, 1 ♀, HM.

#### Description

Female. Upperside of fore wing creamy to yellowish white. Broad black border along costa and termen, largely entering discal cell, with two subapical and two postmedian spots; second one vague.

Inner edge of black border serrate. Under side of hind wing translucent creamy white with 1–2 mm wide black border from apex to cell M<sub>2</sub>, followed by two black large spots at veinends M<sub>3</sub> and Cu<sub>1a</sub> and a very small one at Cu<sub>1b</sub>. Underside of fore wing much as in male although suffused with deep yellow to orange, especially in submedian area. Underside of hind wing as in male. Length of fore wing: 24 mm.

### ***Delias luctuosa kuning* MASTRIGT, 1990**

(Tijdschrift voor Entomologie 133: 197–204)

(figs. 20, 21, 41, 42)

#### Material examined

Irian Jaya, Korupun, Kali Asso, 24.–29.IV.1993, HENK VAN MASTRIGT, 1 ♀, HM; Penunungan Bintang, Abmisibil, River Okbon, 2000 m, 11.–14.II.1991, HENK VAN MASTRIGT, 1 ♀, HM.

#### Discussion

*Delias luctuosa archboldi* ROEPKE, 1955 is described with two female forms: the common one with white uppersides and white underside of fore wing, and form *butyracea* with deep chrome yellow uppersides and sulphur yellow underside of fore wing. The females of *D. luctuosa kuning* MASTRIGT show comparable dimorphism.

#### Description

Female. Upperside of fore wing as in *D. luctuosa archboldi* ROEPKE, deep chrome yellow or white with some greyish diffusion. Underside of fore wing yellow. Subapical spots orange. Small spot between dc-bar and border yellow in white form and creamy in yellow form. Underside of hind wing typical *D. luctuosa*.

Length of fore wing: 28 mm (white form) and 30 mm (yellow form).

#### Acknowledgements

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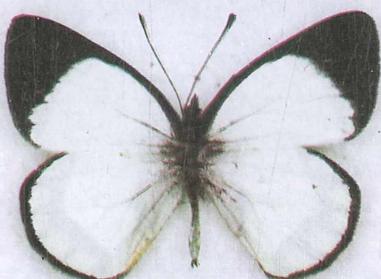
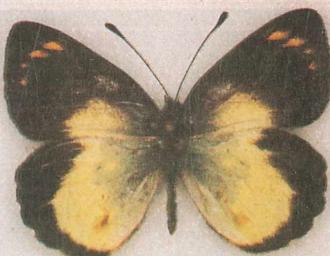
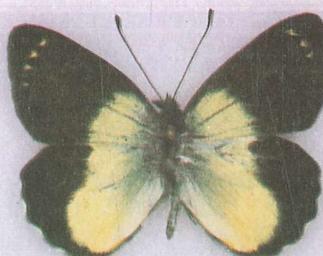
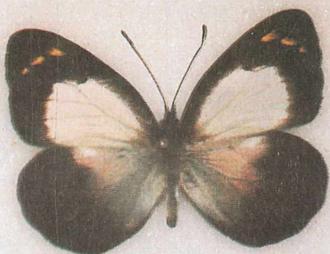
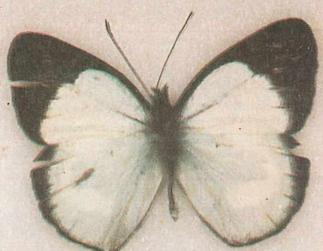
- 43 -

**Colour plates 1–6**

Colour plate 1

1. Upperside of *D. abrophora bugebu* subspec. nov. ♂ (holotype)
2. Upperside of *D. abrophora bugebu* subspec. nov. ♀ (paratype)
3. Upperside of *D. destrigata* spec. nov. ♂ (paratype)
4. Upperside of *D. telefominensis* YAGASHITA, 1993 stat. nov. ♀
5. Upperside of *D. fascelis korupun* subspec. nov. ♂ (holotype)
6. Upperside of *D. fascelis korupun* subspec. nov. ♀ (paratype)
7. Upperside of *D. abrophora okbibab* subspec. nov. ♂ (holotype)
8. Upperside of *D. toxopei nipsan* subspec. nov. ♂ (holotype)

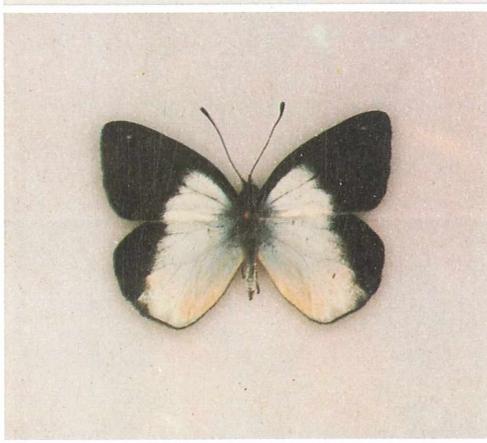
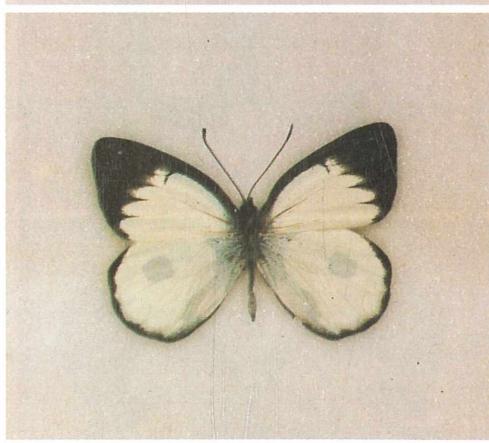
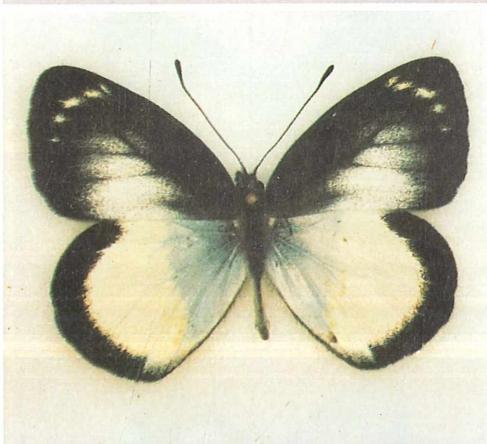
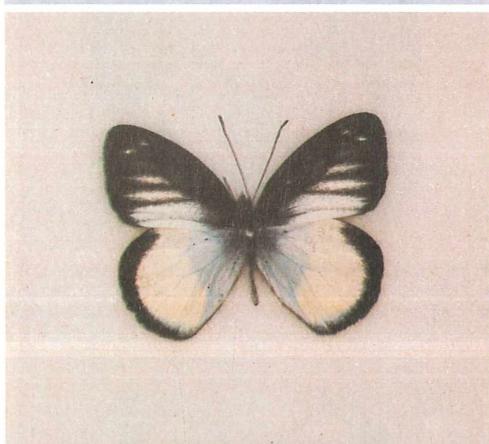
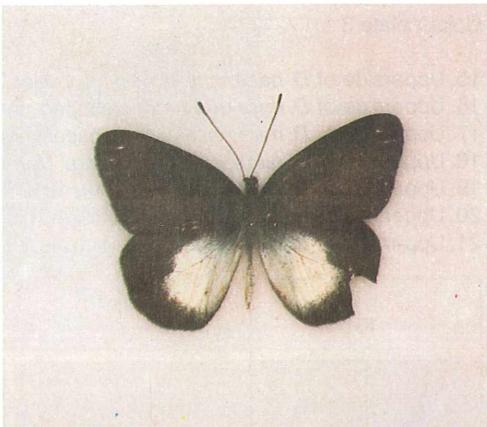
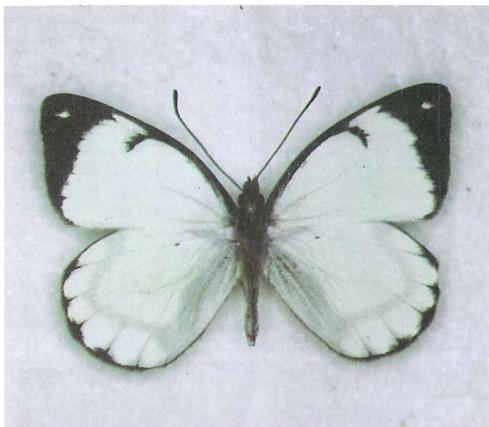
1	2
3	4
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Colour plate 2

9. Upperside of *D. iltis sibil* subspec. nov. ♂ (holotype)
10. Upperside of *D. albertisi putih* subspec. nov. ♂ (holotype)
11. Upperside of *D. fioretti* spec. nov. ♂ (holotype)
12. Upperside of *D. fioretti* spec. nov. ♀ (paratype)
13. Upperside of *D. bobaga homeyo* subspec. nov. ♂ (holotype)
14. Upperside of *D. mira flabella* subspec. nov. ♂ (paratype)

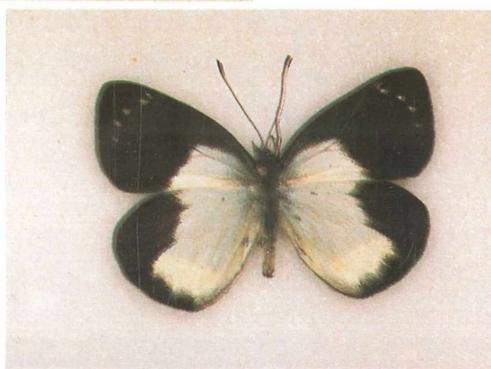
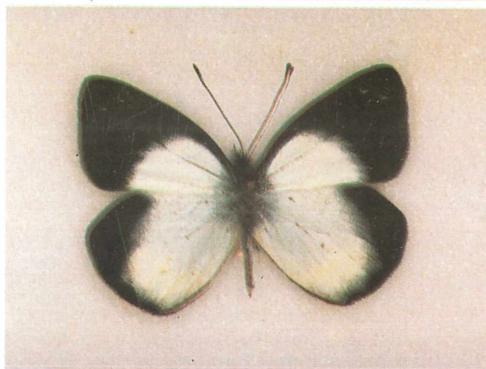
9	10
11	12
13	14



Colour plate 3

15. Upperside of *D. nakanokeikoae jali* subspec. nov. ♂ (paratype)
16. Upperside of *D. mira reissingeri* subspec. nov. ♂ (holotype)
17. Upperside of *D. mira reissingeri* subspec. nov. ♀ (paratype)
18. Upperside of *D. nieuwenhuisi poponga* MASTRIGT, 1990 ♀
19. Upperside of *D. catisa catisa* JORDAN, 1912 ♀
20. Upperside of *D. luctuosa kuning* MASTRIGT, 1990 ♀ (white form)
21. Upperside of *D. luctuosa kuning* MASTRIGT, 1990 ♀ (yellow form)

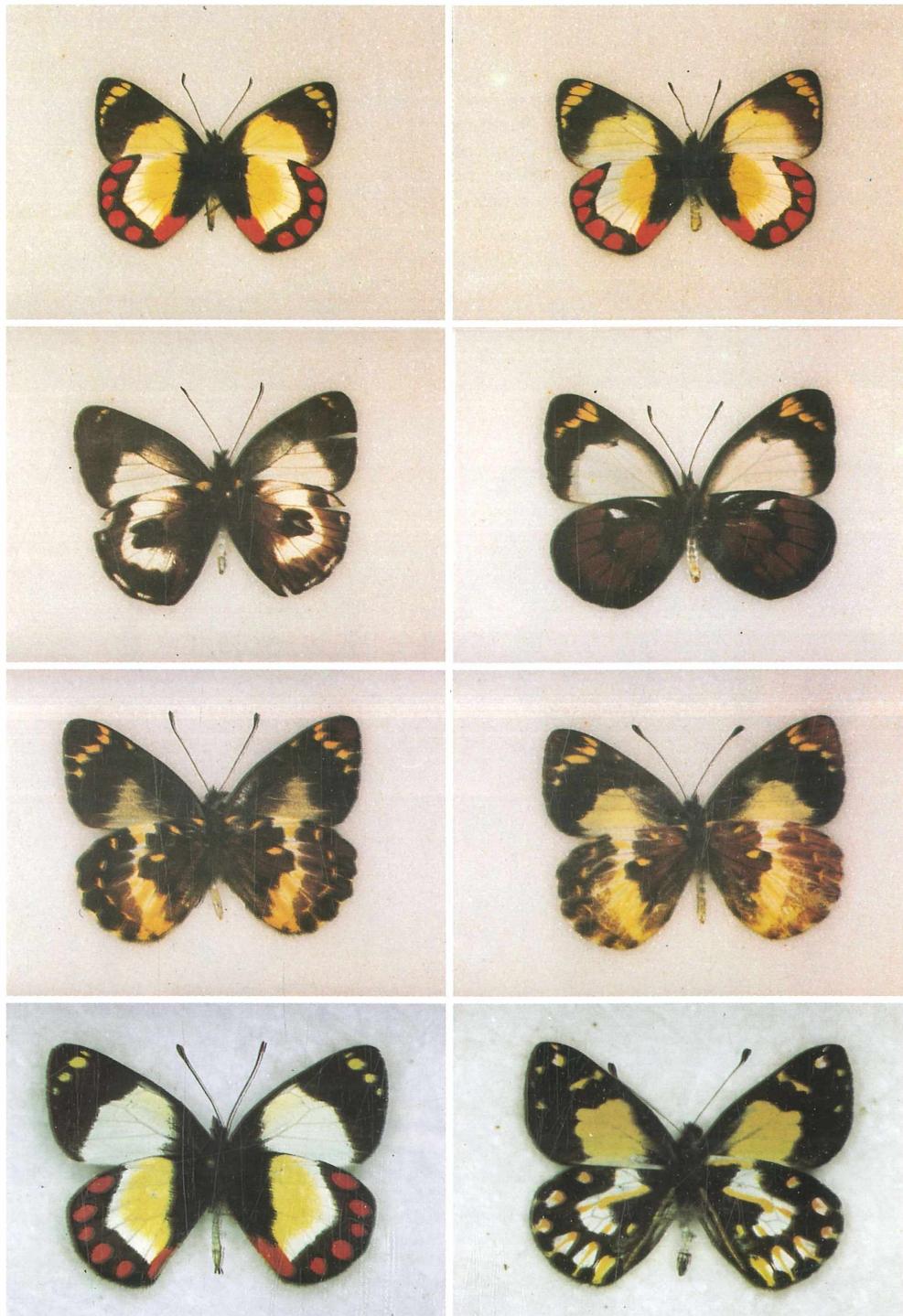
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16	17
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Colour plate 4

22. Underside of *D. abrophora bugebu* subsp. nov. ♂ (holotype)
23. Underside of *D. abrophora bugebu* subsp. nov. ♀ (paratype)
24. Underside of *D. destrigata* spec. nov. ♂ (paratype)
25. Underside of *D. teleforminensis* YAGASHITA, 1993 stat. nov. ♀
26. Underside of *D. fascelis korupun* subsp. nov. ♂ (holotype)
27. Underside of *D. fascelis korupun* subsp. nov. ♀ (paratype)
28. Underside of *D. abrophora okbibab* subsp. nov. ♂ (holotype)
29. Underside of *D. toxopei nipsan* subsp. nov. ♂ (holotype)

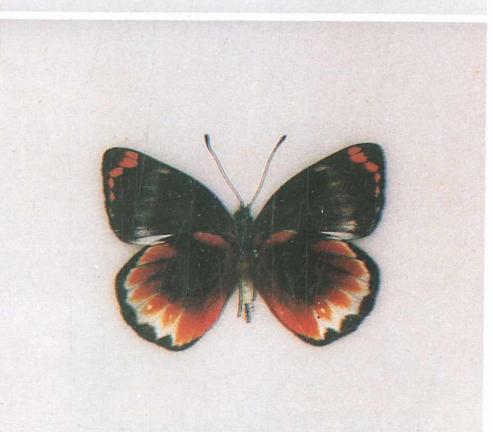
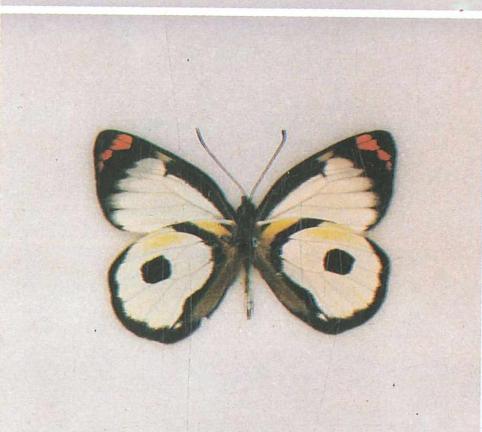
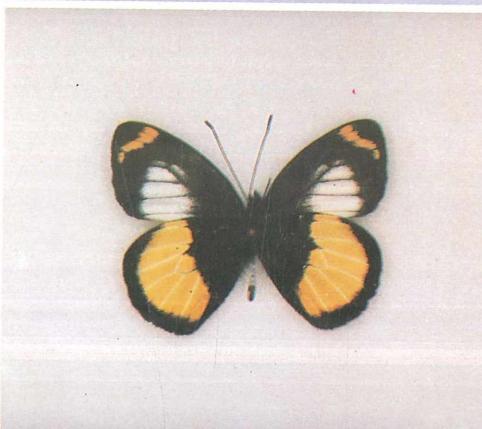
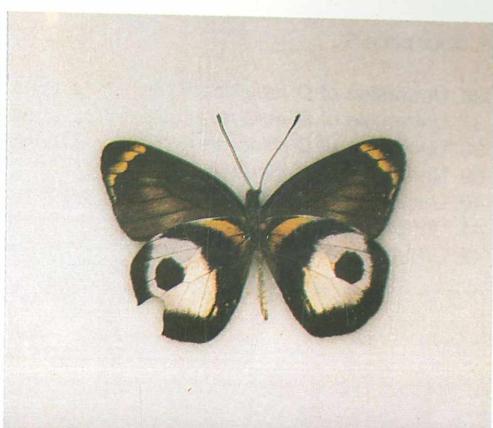
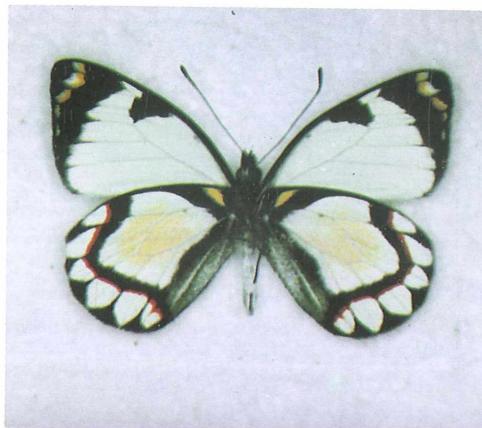
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Colour plate 5

30. Underside of *D. iltis sibil* subsp. nov. ♂ (holotype)
31. Underside of *D. albertisi putih* subsp. nov. ♂ (holotype)
32. Underside of *D. fioretti* spec. nov. ♂ (holotype)
33. Underside of *D. fioretti* spec. nov. ♀ (paratype)
34. Underside of *D. bobaga homeyo* subsp. nov. ♂ (holotype)
35. Underside of *D. mira flabella* subsp. nov. ♂ (paratype)

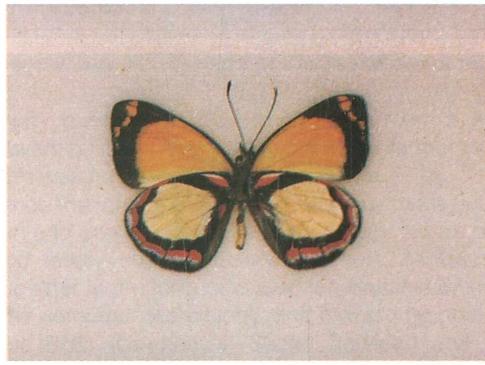
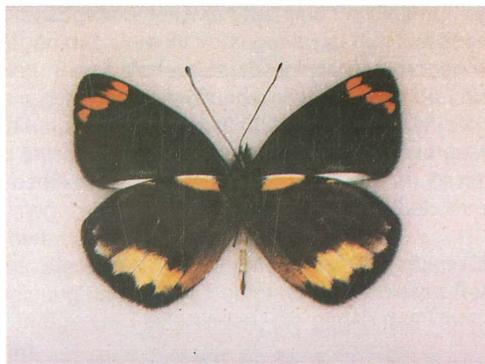
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Colour plate 6

36. Underside of *D. nakanokeikoa jali* subspec. nov. ♂ (paratype)
37. Underside of *D. mira reissingeri* subspec. nov. ♂ (holotype)
38. Underside of *D. mira reissingeri* subspec. nov. ♀ (paratype)
39. Underside of *D. nieuwenhuisi poponga* MASTRIGT, 1990 ♀
40. Underside of *D. catisa catisa* JORDAN, 1912 ♀
41. Underside of *D. luctuosa kuning* MASTRIGT, 1990 ♀ (white form)
42. Underside of *D. luctuosa kuning* MASTRIGT, 1990 ♀ (yellow form)

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37	38
39	40
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## **Demokratie in Deutschland oder Diktatur der Bürokraten**

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Aus diesem Grund veröffentliche ich obige Zeilen solange, bis man mir verbietet, meine Meinung über diese Demokratie und diesen Rechtsstaat zu äußern, oder bis sich couragierte, vermögende Leute finden, die gegen das Unrechtsgesetz ankämpfen bis es zurückgenommen wird.

## **Democracy in Germany or dictatorial beaurocracy**

Every publisher in Bavaria is made to give two free examples of each publication to the Bavarian State Library (Munich) and a further example to the German Library (Frankfurt/Main). This was just about acceptable for me.

Since the joining of East and West Germany, we now have two national libraries, one in Frankfurt and one in Leipzig. Now the library in Leipzig is to be additionally provided with one. This I find totally unacceptable and unjust. All German literary works could be quickly gathered together in the form of a "German National Bibliography". We live in the age of data processing and computer technology, and it would be possible to build up a data base from both libraries. The BND (Germany's "Secret Service") and the "STASI" (former East Germany's "Secret Service") do not exist side by side, or do they? Two Ministries of Defence also do not exist next to one another, so why two State Libraries? The State and politicians should be setting an example to the people, and yet all they seem to do is serve themselves.

Although we live in a state where the people has the rights, it is pointless to fight such injustice. Through the beaurocracy of our state and in our society, we must go from one stage to the next a bit like an obstacle course. Unless we have a good case it is pointless to spend appr. DM 10,000 required to get to the finish. The chance is there naturally for those with a good case and the finance, but who has this? Those that have the money would rarely attempt this anyway. Our democracy gives us the opportunity, but our beraucracy hinders our attempts.

On these grounds I'm publishing the above statement until someone refuses to let me speak my mind or until someone with the finance makes it possible to fight the injustice.



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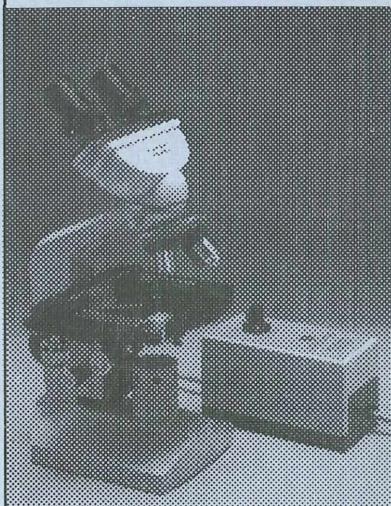


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