Note on *Mimacraea gelinia* (Oberthür, 1893), with the description of a new subspecies (Lepidoptera: Lycaenidae)

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Summary

A new subspecies of *M. gelinia* from southern Tanzania, *M. gelinia georgia* ssp. nov., and the female of *M. gelinia nguru* Kielland are described.

Mimacraea gelinia was described after a male from the Usambaras, in NE Tanzania. Almost one century later, Kielland (1986) described the subspecies *nguru*, based on a single male collected in the eponymous mountains. In the revision of the genus *Mimacraea* (Libert, 2000: 51), four males of *M. gelinia* collected in the Uzungwa mountains (southern Tanzania) were tentatively attributed to this subspecies, but the author underlined several differences between these males and the holotype of *M. g. nguru*.

Since the revision was published, more specimens of *M. gelinia* have been collected by ABRI[1] collectors in both the Nguru and Uzungwa mountains. These new specimens allow better characterization of subspecies *nguru*, especially thanks to the discovery of the female, and show that the Uzungwa males represent a distinct subspecies, which is described here as *M. gelinia georgia*[2] ssp. nov.; the female of this subspecies is still unknown.

All three subspecies are clearly orophilic; many examples of such allopatric subspeciation are known in Tanzania (see fig. 1. page 21, map showing the distribution of the three subspecies).

Depositories of material

ABRI – African Butterfly Research Institute, Nairobi, Kenya
BMNH – The Natural History Museum, London, U.K.

[1] – African Butterfly Research Institute, in Nairobi.

[2] – The name *georgia* can be found in a checklist of the Butterflies of the Udzungwa National Park, together with an illustration of the butterfly, but the authors (C. Congdon and I. Bampton) did not designate an holotype and did not really describe the subspecies; the name *georgia* must therefore be considered as a manuscript one. Besides, this list can be found on the internet, but has not been published elsewhere.

Mimacraea gelinia nguru Kielland, 1986 (plate 1, figs 3 & 4)
Mimacraea gelinia nguru Kielland, 1986. – New and little known butterflies from Tanzania (Lepidoptera: Lycaenidae and Riodinidae). *Lambillonea* **86**(11-12): 148 (male, illustrated; also in Kielland, 1990); neallotype designated below.

Holotype: male, Maskati, Nguru mts, 1700 m, Tanzanie, 21-III-1984 (I. Kielland) (BMNH) [examined].

Neallotype: female, Nguru mts, Tanzania, iii.2003 (ABRI coll.), Nairobi.

Material examined

Only the male holotype was known when the revision by Libert (2000) was published; there are now 18 males and 10 females in ABRI, all collected in Tanzania, in two close localities of the Nguru mountains (Maskati and Mkombola).

Description

Forewing length: males, 26 to 33 mm (n = 18), females, 27 to 30 mm (n = 10). The recently collected males slightly differ from the holotype: on the forewings, the orange discal area is more extended (but remains smaller than in *M. g. gelinia*); as a consequence, the white spot in space 2 is closer to this orange area. While this spot is well separated from the orange area in the holotype and a few other males, a narrow orange «bridge» forms a junction between the orange area and the white spot in most of the other male specimens. Most males also have a minute but distinct black notch at the end of the cell (this character is better seen on the underside), but it is always much smaller than in the two other subspecies.

The pattern of the females is very similar, except that the discal areas are yellow instead of orange, an important difference to the nominate subspecies, the females of which are almost identical to males. In addition, the yellow area is smaller than in males, which results in 1) its complete separation from the white spots in spaces 2 and 3 of forewing, and 2) a wider black margin on the hind wings. The black spots on the underside of the hind wings can be seen through the wings.

Mimacraea gelinia georgia ssp. nov. (plate 1, fig. 2)
= *Mimacraea gelinia nguru* Kielland, 1986, *s.* Libert, 2000, *partim* (pl. VI).

The new subspecies is named in honour of Mr Harrison Ford for his great support to wildlife conservation in the Eastern Arc Mountains of Tanzania; the butterfly is given the name of his daughter.

Twelve males have been found at the type-locality, above Sanje; the female of this subspecies is still unknown.

Holotype: male, Uzungwa mountains, 1130 m, Tanzania, 12.iii.2000 (ABRI coll.); ABRI, Nairobi.

Description (males)

Forewing length: 31 to 35 mm ($n = 12$).

As in subspecies *nguru*, the white on recto is brighter, and the orange is more red than in the nominate subspecies, which results in a greater contrast.

The apical white band on the forewings is similar to that in *M. g. nguru*, more developed than in *M. g. gelinia* (the spots being almost twice as large). The white spots in spaces 2 and 3 are also larger than in *M. g. gelinia*, but smaller than in *M. g. nguru* (about 1,5 and 2 mm instead of 3 and 4 mm, respectively); the white is not as pure as in the apical spots: it is slighty yellowish, but less so than in *M. g. gelinia*.

The orange discal area of the forewings is larger than in *M. g. nguru*, more or less as in *M. g. gelinia*. In space 1, the black margin is wider than in the two other subspecies. In spaces 2 and 3, the extension of the orange discal area is variable, and so is, consequently, the distance between the orange and the white spots: next to the orange area in three males, slightly separated from it in the others (but connected as in *M. g. nguru* in two specimens); there is even some orange in the white spots of two or three males. At the base of space 4, the orange is as extended as in *M. g. gelinia*, about twice as much as in *M. g. nguru*; sometimes, there is even some orange in space 5, just beyond the cell; at the end of the cell, the black notch is also as in *M. g. gelinia*, and deeper black than in *M. g. nguru*.

On the underside of the hind wings, the red intraneural markings are similar to *M. g. nguru*, and much wider than in *M. g. gelinia*.

Discussion

It can be seen that the new subspecies is phenotypically somewhat intermediate between subspecies *gelinia* and *nguru*, whereas, geographically speaking, subspecies *nguru* is found between *g. gelinia* and *g. georgia*. There is no doubt that three different taxa are involved; their geographical distribution is also shown in the map. It is sad to report that the site in the Nguru Mtns (Mkombola) no longer exists, as the forest has been felled for farmland. Despite several further visits over recent years no further specimens have been observed.

References

KIELLAND, I. 1990. – *Butterflies of Tanzania*. Hill House, Melbourne, 363 p., 68 pl.

LIBERT, M. 1990. – *Révision du genre* Mimacraea *Butler, avec description de quatre nouvelles espèces et trois nouvelles sous-espèces* (*Lepidoptera Lycaenidae*). ABRI – *Lambillionea*, 72 p., 7 pl.

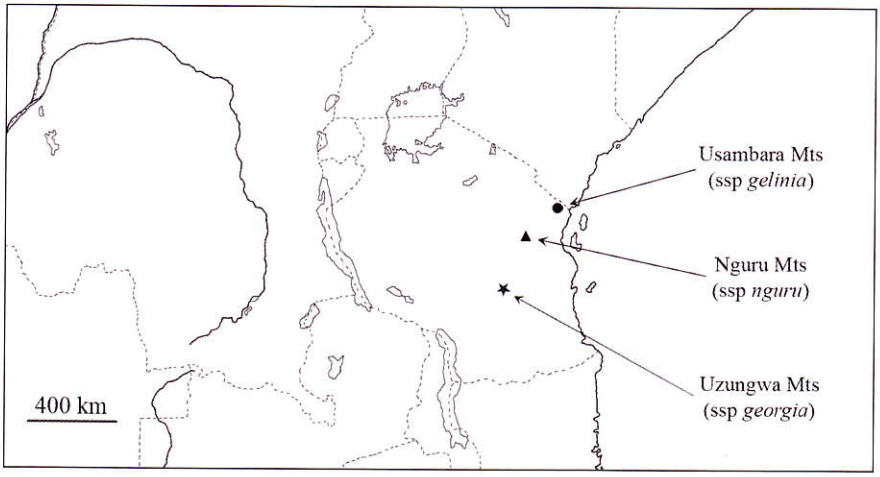

Fig. 1 . Map showing the distribution of the three subspecies

Fig. 1. *Mimacraea gelinia gelinia* ♂ (Ambangulu, Tanzania), R & V

● Fig. 2. *M. g. georgia*, HT ♂, R & V

Fig. 3. *M. g. nguru* ♂ (Maskati, Nguru Mts, Tanzania), R & V

● Fig. 4. *M. g. nguru*, neAT ♀, R & V