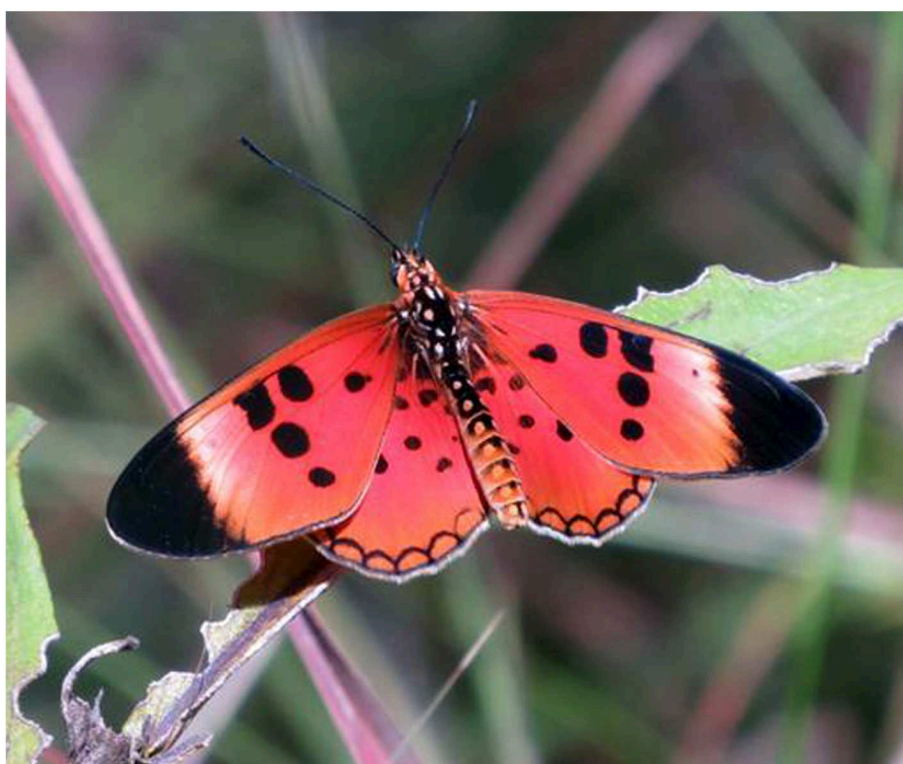


ACRAEA RESEARCH

No. 2



Acraea bellona male, Angola - A. Gardiner, 2023.

D. Bernaud editions, France

***Acraea* research No. 2**

A publication entitled "***Acraeinae research n° 1***" was published in October 2021. It gave us the opportunity to describe new species, to take stock of the status of a few little known taxa and to present some first stages so far unknown. We announced that this publication would be followed by others, not periodically, but with a view to publish the results of researches on *Acraea* such as new field information or description of new taxa. Through these publications these new data are presented to the entomologists. We also aim at publishing photos of live *Acraea* which are little known. We take this opportunity to thank A. Gardiner for the photo of *Acraea bellona* appearing on the cover.

The classification of *Acraea* is constantly challenged due to the results of molecular analyses and articles by Williams & Henning (2023). We decided to call this new publication "***Acraea research***" and not "***Acraeinae research***" (indeed we must take act that *Acraea* today represent the Acraeini tribe, which we are not challenging). A contrario, we do not consider valid the new genera names created by Williams & Henning, such names being based on incomplete molecular information (not all the species have been sequenced), on analyses occasionally based on misidentified specimens (we rarely see the photos of the sequenced specimens), and with algorithms which are not made public and which therefore can be modified any time.

No technical control is possible. The trees showing the molecular divergences which were obtained do not, in our opinion, represent cladistic trees (they should at least be based on the comparison of the entire genome and some authors have already pointed out the contradictions found from one molecular site to the other). Moreover J. Pierre, the creator of the present classification of the *Acraea*, has demonstrated through innovative works (analysis of the claws, the grooves and the sub-papillary glands) and bringing together all the *Acraea* under one single genus *Acraea* (1985, 1986, 1987 and more recently 2022), that this group of butterflies presented a very homogeneous habitus, that it was very difficult to visually identify genera, and that the allocation of genera names to his groups (often based on genitalia differences) could only render the identification of the genus of a taxon very tricky. Unfortunately it is always possible to describe as many genera names as one wishes (they are only artificial constructions aiming at making identification easy and not difficult!), even going as far as creating a genus for each species (nothing prevents the creation of a monospecific genus for *perenna* and another for *rogersi*, which would actually be more justifiable than classifying them in the genera created by Williams & Henning). The principle of nomenclatural stability should incite authors to be more cautious. We refer the reader to our comments on this classification in our recent book : "*Biogeography and zones of endemism of Afrotropical Acraea* Vol I : pp. 48-57".

This second publication presents nomenclatural novelties : it shows a beautiful new taxon from Angola (***A. gardineri***), it rehabilitates a subspecies (***A. burni meyerana***), it modifies the status of other taxa (***A. bonasia alicia*** nov. stat., ***A. macaria carpenteri*** nov. stat., ***A. rabbaie*** = ***A. perlucida*** nov. syn., ***A. ochracea*** = ***A. dondoensis*** nov. syn., ***A. silvicola*** = ***A. acuta*** nov. syn.) and it describes a new form (***A. bonasia*** f. ***alicioides***). It includes the works of A. Gardiner (field research in Angola and Mozambique), of S. Collins (Kenya breedings), of D. Bernaud & A. Gardiner (field trips in Zambia and South Africa), of D. Bernaud & J.P. Lequeux (Uganda breedings).

We are very grateful to all the entomologists who provided the information necessary for the publication of these results and Berlin Museum (MND) who provided type specimens.

J.P. Lequeux and A. Gardiner are warmly thanked for the traductions of the articles which were initially in french.

Recent *Acraea* records in Angola.

Description of a new species : *Acraea gardineri* Bernaud, 2024.

Re-instatement of the subspecies *Acraea burni meyerana* Ackery, 1995.

Description of some populations from Angola.

(Lepidoptera Nymphalidae)

A. Gardiner & D. Bernaud.

Summary : the entomological travels of A. Gardiner in Angola have delivered new data on the *Acraea*. Description of a new species : *Acraea gardineri*. Re-instatement of the subspecies *Acraea burni meyerana*, confirmation of the status of *Acraea violarum anchietai*, discovery of populations of *Acraea omrora omrora*.

Keywords : *Acraea gardineri*, *Acraea burni meyerana*, *Acraea violarum anchietai*, *Acraea omrora omrora*.

Description of a new species of *Acraea* from Angola :

***Acraea gardineri* Bernaud.**

During trips made in May 2023 and April 2024 to west-central Angola, A. Gardiner, Shabani Ndarama and Jonathan Francis discovered a new species of the *Lycoa* group in the mountains near Cruzamento-Kassonge.

Systematic : *Acraea gardineri*, Bernaud (nov. species).

Holotype : near Cruzamento-Kassonge 11°50'S 15°21'E, Cuanza Sul district, Angola, 05/13/2023, altitude 1.500 m. Imago size : 46-50 mm. Photograph on next page.

Allotype : a female from the same locality.

Paratypes : 6 males from the same locality.

Diagnosis : detailed description.

Medium-sized species (46 mm to 50 mm) of the *Lycoa* group reminiscent of *A. toruna*, but whose designs are quite distinct.

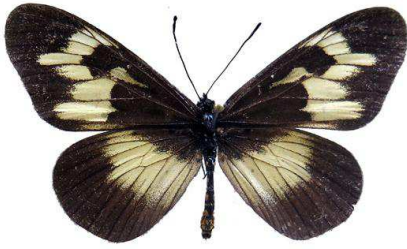
Male. Forewing : they have a pale yellow apical and discal band which descends towards the anal margin in the shape of a “Z” as in *toruna*. However, the shape of this band differs notably from that of *toruna* by numerous details, and in particular, by the existence, in most specimens, of a yellow spot in the cell, along its posterior edge, shaped like a point towards the interior (spot totally absent in *toruna*), and which gives a checkerboard appearance to the forewing. In *toruna* the apical band is often broken up into several spots separated by the ocher color background, in *gardineri* this band is continuous for most of the specimens collected (one specimen presents a black sub-apical band which joins the margin and which cuts the light band into two parts). The spots in spaces 3, 2 and 1 are notably larger and elongated than in *toruna*, which reduces the black basal zone accordingly. The light yellow spot in space 1 is elongated, from the middle of the wing to the margin, leaving only a very thin black margin.

Hindwing : they are of the *Lycoa* group, and have a light yellow discal band, this strip making a clearly visible notch at its marginal edge in space 3. It is very narrow at the costal edge (unlike that of *toruna*) and widens towards the anal edge. Black marginal interveins hardly penetrate the discal band.

On the underside of the wings, the basal spots of the hind wings are clearly visible, and different from those of *toruna*. In particular, the cell spot is clearly visible and more marginal than that of *toruna*.

Space 7 presents a basal spot which does not exist in *toruna*.

Female: the only female collected has an identical design to the male, but the light areas are instead a deep ochre color. It is slightly larger than the male.



Acraea gardineri ♂ **holotype** R, Cruzamento-Kassonge, Angola 5/2023, Gardiner, Francis & Ndarama.



Acraea gardineri ♂ **holotype** V, Cruzamento-Kassonge, Angola 5/2023, Gardiner, Francis & Ndarama.



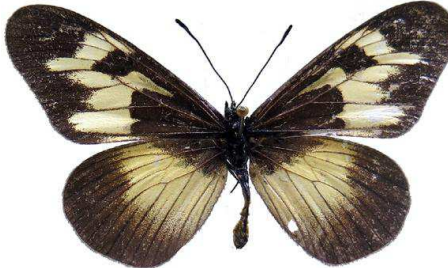
Acraea gardineri ♀ **allotype** R, Cruzamento-Kassonge, Angola 5/2024 Gardiner & Ndarama.



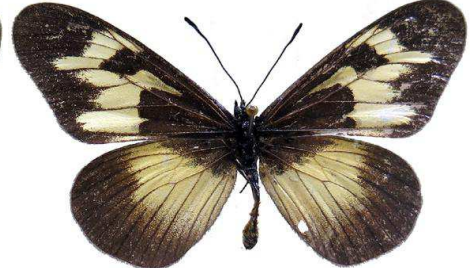
Acraea gardineri ♀ **allotype** V, Cruzamento-Kassonge, Angola 5/2024 Gardiner & Ndarama.



Acraea gardineri ♂ paratype R, Cruzamento-Kassonge, Angola 5/2023 Gardiner & Ndarama.



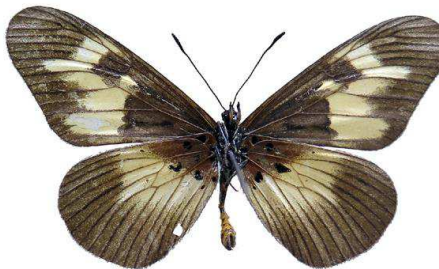
Acraea gardineri ♂ paratype R, Cruzamento-Kassonge, Angola 5/2023 Gardiner & Ndarama.



Acraea gardineri ♂ paratype R, Cruzamento-Kassonge, Angola 5/2023 Gardiner & Ndarama.



Acraea gardineri ♂ paratype V, Cruzamento-Kassonge, Angola 5/2023 Gardiner & Ndarama.



Acraea gardineri ♂ paratype V, Cruzamento-Kassonge, Angola 5/2023 Gardiner & Ndarama.



Acraea gardineri ♂ paratype V, Cruzamento-Kassonge, Angola 5/2023 Gardiner & Ndarama.

Derivatio nominis : the species is named after its discoverer Alan Gardiner.

Ethology and biology : it is typically a mountain species. By analogy with the species of the group, the *gardineri* caterpillar must consume an Urticacea. No breeding could be carried out during the collections.

Genitalia.

The genitalia of the male *gardineri* was compared to those of *johnstoni* and *toruna*.



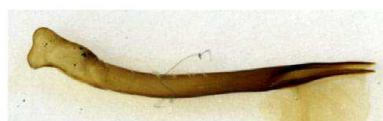
johnstoni G 263



uncus



toruna G 287



gardineri G 288



uncus

The male genitalia are similar to those of *johnstoni* and *toruna*. However, differences are clearly visible. In particular the uncus is short and pointed, while for the other two species it is long, spatular and has a slight fork at its end. The tegumen has a different shape, being longer and wider. The internal indentation of the valve is significantly more pronounced. The penis is very curved.

Geographic distribution.

Acraea toruna is confined to mountain ranges of the endemism zone of the Albertine Rift (lepidochorion 9, in reference to the work of Bernaud, 2023).

Acraea gardineri is in an area where only *lycoa* was known so far.



A. gardineri is known from west-central Angola (red diamond symbol). The only *lycoa* species in its group was collected in Angola (yellow diamonds symbols). *A. johnstoni* is not known from Angola (white diamonds symbols). *A. toruna* is not found throughout this area.

Discussion : *A. gardineri* is clearly distinct from the other species of the *Lycoa* group, related to *toruna* by habitus and mountain character. The existence of this completely unknown species in central Angola, shows that this country has been insufficiently explored to date.