

Conspicuous aberrations and gynandromorphs of some Greek and Turkish butterflies (Lepidoptera : Pieridae, Lycaenidae)

Alain Olivier, Dirk van der Poorten & Willy De Prins

Samenvatting. Opvallende aberraties en gynandromorfen van enkele Griekse en Turkse dagvlinders (Lepidoptera : Pieridae, Lycaenidae)
Drie opvallende gynandromorfen en 1 spectaculaire aberratie van 3 dagvlindersoorten (*Gonepteryx rhamni* (Linnaeus, 1758), *Polyommatus bellargus* (Rottemburg, 1775), *Tarucus balkanicus* (Freyer, [1844])) worden geïllustreerd en kort besproken.

Résumé. Aberrations et gynandromorphes remarquables de quelques papillons diurnes grecs et turcs (Lepidoptera : Pieridae, Lycaenidae)
Trois gynandromorphes remarquables et 1 aberration spectaculaire de trois espèces de papillons diurnes (*Gonepteryx rhamni* (Linnaeus, 1758), *Polyommatus bellargus* (Rottemburg, 1775), *Tarucus balkanicus* (Freyer, [1844])) sont illustrées et brièvement commentées.

Key words : gynandromorphism - aberration - *Gonepteryx rhamni* - *Polyommatus bellargus* - *Tarucus balkanicus*

Olivier A. : Luitenant Lippenslaan 43 bus 14, B-2140 Antwerpen.

van der Poorten, D. : Lanteemhofstraat 26, B-2140 Antwerpen.

De Prins, W. : Diksmuidelaan 176, B-2600 Antwerpen.

Over the years the three present authors collected some freaky butterfly specimens during several expeditions in Greece and Turkey. The most spectacular ones are briefly described here.

Gonepteryx rhamni (Linnaeus, 1758) (Plate 2, fig. 2)

Óros Helmós, Aroania Óri, Nómos Ahaía, Pelopónissos, Greece, 1200 m, 30.VI.1984, leg. A. Olivier. The left half of this gynandromorph is almost entirely female, with very slight and restricted male colouring on upperside hindwing. The right half is a - predominantly male - mosaic with clearly visible traces of female colouration, especially the upper half of the hindwing as well as along the costa and apex of the forewing. On the underside the elements of male colouration are more extended. It is noteworthy that the female half is slightly larger than the male half.

The genitalia of this specimen clearly show mainly male characters (fig. 1). The valvae, vinculum, saccus and aedeagus are well developed. The apex of the valva, however, is not short and abrupt, as in typical *rhamni*, but tapering and with a slender process as in *G. cleopatra* (Linnaeus, 1767). The dorsal parts of the genitalia, in normal males the tegumen and uncus, are represented by a pair of papillae anales with apophyses posteriores, both typical female structures.

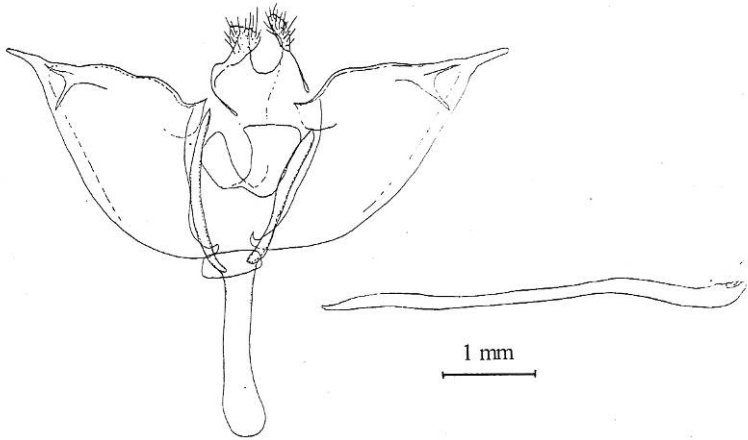


Fig. 1 : *Gonepteryx rhamni* (Linnaeus, 1758), genitalia, Óros Helmós, Aroania Óri, Nómos Ahaía, Pelopónissos, Greece, 1200 m, 30.VI.1984, leg. A. Olivier.

***Polyommatus bellargus* (Rottemburg, 1775) (Plate 2, fig. 3)**

10 km NE Çatak, province of Van, Turkey, 2000-2200 m, 28.VII.1993, leg. D. van der Poorten. This specimen is not a bilateral gynandromorph but a mosaic with the male elements better developed on the right side. On the underside the butterfly looks like a "normal" female.

The genitalia of the specimen represent mainly female characters (fig. 2). The papillae anales and apophyses posteriores are normally developed. The rest of the genitalia are very weakly chitinised and only three small plates, of which the origin and function are unknown, are visible.

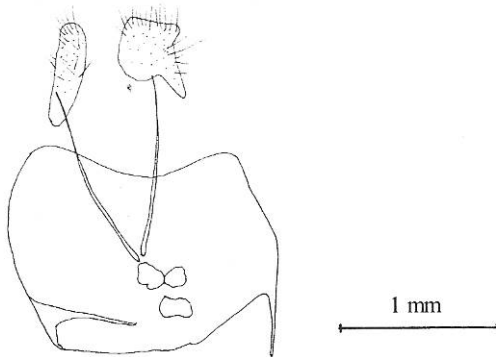


Fig. 2 : *Polyommatus bellargus* (Rottemburg, 1775), genitalia, 10 km NE Çatak, province of Van, Turkey, 2000-2200 m, 28.VII.1993, leg. D. van der Poorten.

***Tarucus balkanicus* (Freyer, [1844])** (Plate 2, fig. 4)

Óros Falakró, Nómos Dráma, Makedonía, Greece, 350 m, 28.VII.1986, leg. D. van der Poorten. On the upperside both left wings of this gynandromorph are entirely male (compare with a normal male specimen figured on fig. 6 of the same plate). The right half is almost entirely female (compare with fig. 7), except perhaps for the purplish basal suffusion extending well into the cell on the hindwing, which is probably a male character.

The genitalia of this specimen possess mainly characters of the male (fig. 3). The valvae and aedeagus are easily distinguishable. The dorsal elements of the genitalia however are strongly modified. A densely chitinised spine occupies the centre. Labides and falces are substituted by two chitinised structures of which one somewhat resembles one half of the papillae anales, a typical female structure.

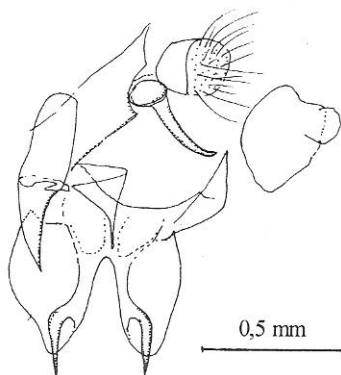


Fig. 3 : *Tarucus balkanicus* (Freyer, [1844]), genitalia, Óros Falakró, Nómos Dráma, Makedonía, Greece, 350 m, 28.VII.1986, leg. D. van der Poorten.

***Tarucus balkanicus* (Freyer, [1844])** (Plate 2, fig. 5)

Env. Kiliçkaya, 14-20 km SW Yusufeli, province of Artvin, Turkey, 1000 m, 19.VII.1993, leg. W. De Prins. We illustrate here the underside of this remarkable aberration because it is even more spectacular than the very peculiar upperside. On the underside, the markings on the forewings are totally modified, except for the submarginal row of contiguous spots. The basal, discal and postdiscal area is completely blackened except for a white circle around the discoidal spot and a white bar parallel and distad to it. The same pattern is repeated on the hindwings with the discoidal spot also surrounded by an even more extended white area. Here again the submarginal and marginal areas are of the normal configuration (compare with figure 8 illustrating a normal male specimen from the same area). On the upperside the postdiscal black spots are much extended, and merge into one another.