

Two extreme forms of *Pseudochazara amymone* (Lepidoptera: Nymphalidae, Satyrinae) from Albania

Sylvain Cuvelier, Roland De Mol & Morten Schneider Mølgaard

Abstract. Two extreme forms of *Pseudochazara amymone* (Brown, 1976) from Albania are compared with the material studied in a recent variability analysis (Cuvelier & Mølgaard 2015). The results show that *P. amymone* can even be more variable than previously estimated but the key characters of *P. amymone* identified in Cuvelier & Mølgaard (2015) hold even for such extreme specimens.

Samenvatting. Twee extreme vormen van *Pseudochazara amymone* (Brown, 1975) uit Albanië worden vergeleken met het materiaal uit een recente analyse over de variabiliteit (Cuvelier & Mølgaard 2015). Dit toont aan dat *P. amymone* zelfs nog meer variatie kan vertonen dan voorheen werd ingeschat maar de sleutelkenmerken bij de identificatie van *P. amymone*, bepaald in Cuvelier en Mølgaard (2015), blijven ook bij dergelijke extreme exemplaren geldig.

Résumé. Deux formes extrêmes de *Pseudochazara amymone* (Brown, 1976) d'Albanie sont comparées avec du matériel provenant d'une analyse récente de la variabilité (Cuvelier & Mølgaard 2015). Les résultats montrent que *P. amymone* peut montrer encore plus de variation que l'on avait estimé bien que les caractères déterminants pour *P. amymone* identifiés par Cuvelier & Mølgaard (2015) restent toujours valables pour ces exemplaires extrêmes.

Key words. *Pseudochazara amymone* – extreme form – Albania.

Cuvelier S.: Diamantstraat 4, B-8900 Ieper, Belgium. sylvain.cuvelier@pandora.be

De Mol R.: Georges Wibierdreef 10, B-9040 Sint Amandsberg, Belgium. demol.verlinden@gmail.com

Mølgaard M.: Gertrud Rasks Vej 86, DK-9210 Aalborg SØ, Denmark. msm2@stofanet.dk

Introduction

Brown's Grayling, *Pseudochazara amymone* (Brown, 1976) was discovered in NW Greece in 1975 and for many years it remained the most enigmatic taxon in Europe. Its description (Brown 1976) was based on four males only and despite many searches, as far as known to us, no other material has ever since been sampled from Greece. Recently *P. amymone* was discovered in SE Albania by Eckweiler (2012) and since then different entomologists have observed this species in additional Albanian localities (Verovnik *et al.* 2014; Gascoigne-Pees *et al.* 2014; Cuvelier & Mølgaard 2015).

In July 2014, Roland De Mol visited different localities in the province of Korçë (Albania) and also collected a short series of *P. amymone* in Gjergjeviçë, one of the recently discovered localities where *P. amymone* flies in sympatry with the similar *Pseudochazara mniszecchii tisiphone* (Brown, 1980). In a recent study (Cuvelier & Mølgaard 2015) the diagnostic features of *P. amymone* were assessed as well as the level of intraspecific variability. Two male specimens in the material of De Mol visually showed atypical phenotypes. It looked mandatory to test if this material could still be reliably distinguished based on the recently published diagnostic features (Cuvelier & Mølgaard 2015). The major differences of these two extreme forms are described and the two male butterflies are figured.

Comments

In the material sampled by De Mol two male specimens immediately attract the attention by the small size and the extreme coloration. For the first specimen (Fig. 1 a-b) all measurements fall in the low range of the

studied series of Albanian *P. amymone* males (Cuvelier & Mølgaard 2015) but the butterfly is not an outlier. However, the upperside of this butterfly is very dark and the hindwing postdiscal band is almost completely lacking orange markings. This is in strong contrast with the studied *P. amymone* males from Albania and even more with the Greek type specimen (Brown 1976). The key characters of *P. amymone* (Cuvelier & Mølgaard 2015) are present. The second specimen (Fig. 1 c–d) is extremely small and different measurements are totally out of the expected range. The length of the forewing (apex to point of attachment to thorax) is only 21.5 mm whereas in the studied series mean $\pm 2^*SD$ is 22,43–25,49 mm (Fig. 2a). The width of the submarginal band on the forewing across the centre of the ocellus in S2 is only 5,0 mm and in the studied series the mean $\pm 2^*SD$ is 5,63–7,36 mm (Fig. 2b). Even when correcting this width of the submarginal band on the upperside forewing for the total length of the forewing it remains an extremely low value of 23,26% versus mean $\pm 2^*SD$ of 23,53–30,69% (Fig. 2c). Also the width of the submarginal band on the hindwing along vein 3 (Fig. 2d) of 6,0 mm is in the lowest values of the studied material but after correction for the total length of the forewing this is no longer relevant for this parameter. The key characters of *P. amymone* (Cuvelier & Mølgaard 2015) are also present in this second specimen.

Conclusion

The diagnostic characters (Cuvelier & Mølgaard 2015) of such atypical *P. amymone* are present in both specimens and the determination of these two butterflies poses no problem.

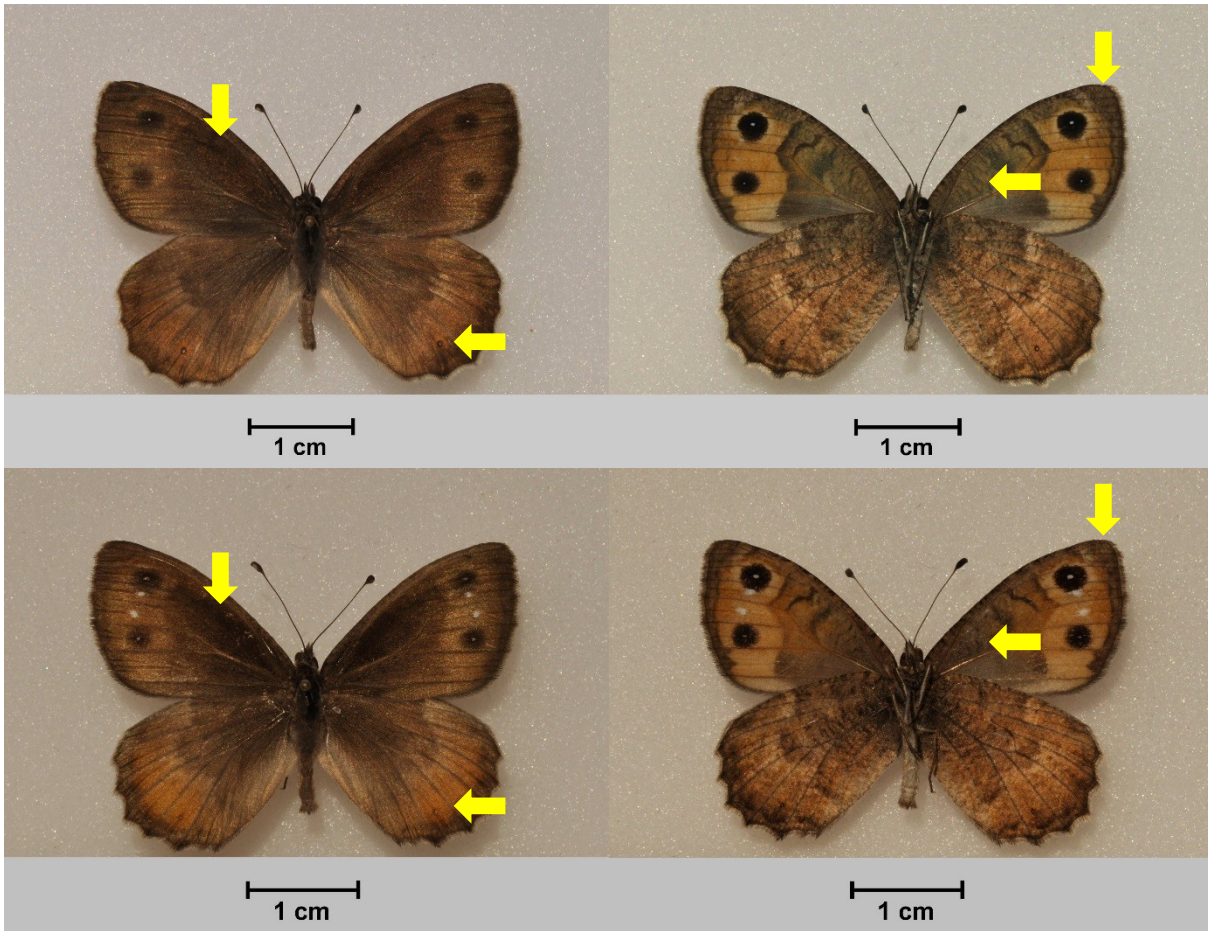


Fig. 1. Extreme forms of *Pseudochazara amydone*. **a-b** ♂ *P. amydone*, Albania, Gjergjeviçë, 15.vii.2014; **c-d** ♂ *P. amydone*, Albania, Gjergjeviçë, 16.vii.2014 (Leg. R. De Mol; Photos S. Cuvelier). The key characters are marked with yellow arrows.

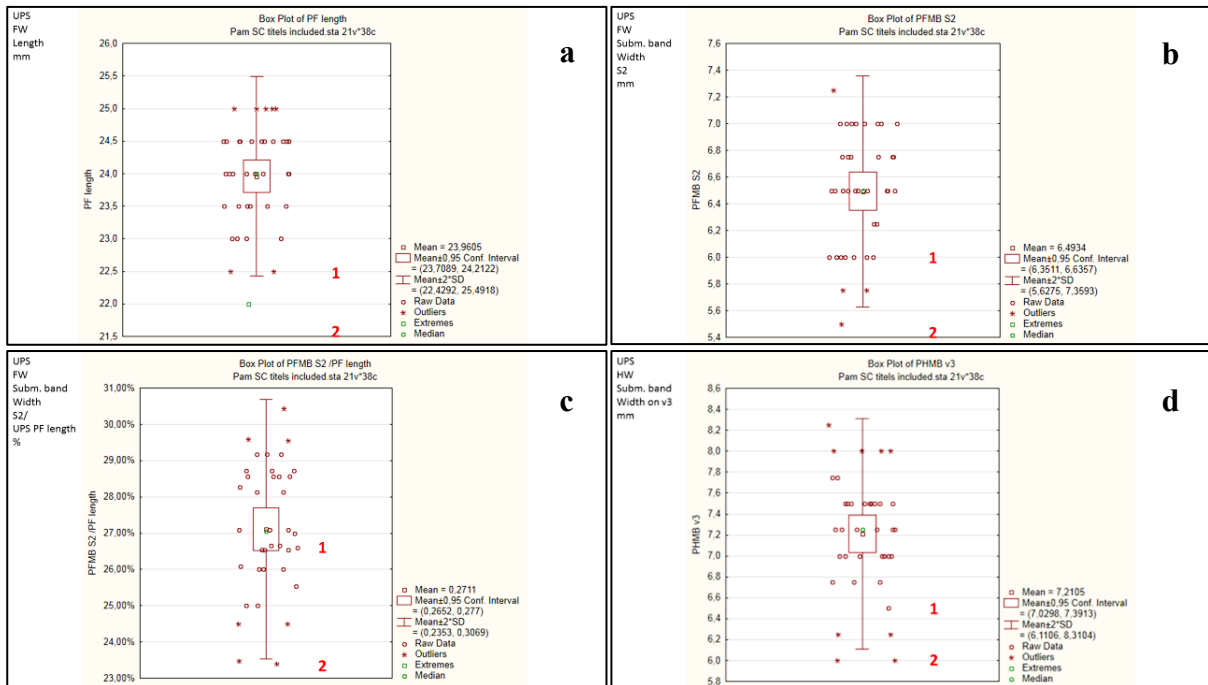


Fig. 2. Descriptive statistics (Boxplots) showing the differences of the two extreme forms when compared to the material analyzed by Cuvelier & Mølgaard (2015)

a.– Upperside forewing length; **b.**– Upperside forewing submarginal band width; **c.**– Upperside forewing submarginal band width corrected for upperside forewing length; **d.**– Upperside hindwing submarginal band width on vein 3.

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