

A probable case of hybridization between *Hipparchia semele* and *Hipparchia blachieri* from Italy (Lepidoptera: Nymphalidae, Satyrinae)

John G. Coutsis

Abstract. The presence in Calabria, Italy, of probable hybrids between *Hipparchia semele* (Linnaeus, 1758) and *Hipparchia blachieri* (Fruhstorfer, 1908) is presented on the basis of findings in the male genitalia. The need for further research on the subject is discussed.

Samenvatting. Een mogelijk geval van hybridisatie tussen *Hipparchia semele* en *Hipparchia blachieri* in Italië (Lepidoptera: Nymphalidae, Satyrinae) Aan de hand van morfologische verschillen in de mannelijke genitalia worden enkele mogelijke hybriden tussen *Hipparchia semele* (Linnaeus, 1758) en *Hipparchia blachieri* (Fruhstorfer, 1908) uit Calabrië (Italië) besproken. De noodzaak voor verder onderzoek naar dit fenomeen wordt duidelijk gemaakt.

Résumé. Un cas probable d'hybridation entre *Hipparchia semele* et *Hipparchia blachieri* en Italie (Lepidoptera: Nymphalidae, Satyrinae)

La présence en Calabre (Italie) des hybrides probables entre *Hipparchia semele* (Linnaeus, 1758) et *Hipparchia blachieri* (Fruhstorfer, 1908) est mentionnée, en se basant sur des différences dans les génitalia mâles. La nécessité d'une étude plus approfondie de ce phénomène est discutée.

Key words: Italy – Calabria – Nymphalidae – Satyrinae – Hybridization – *Hipparchia semele* – *Hipparchia blachieri* – Genitalia.

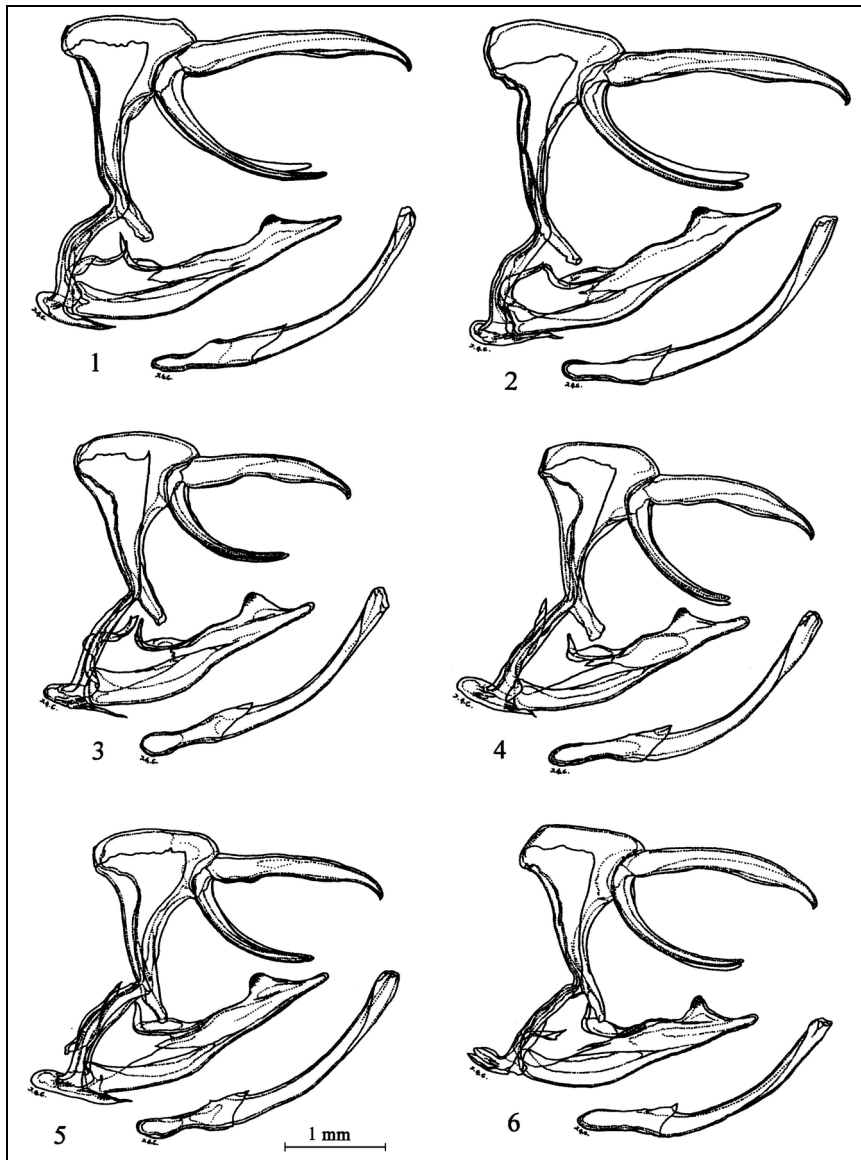
Coutsis, J. G.: 4 Glykonos Street, GR-10675 Athens, Greece. kouts@otenet.gr

Introduction

In 1996 I was given by Alain Olivier of Belgium the abdomens of a large number of male *Hipparchia* butterflies from Italy, belonging to the *semele*-group, in order to have their genitalia checked and eventually drawn. These butterflies were all captured by Alain himself and represented only part of his more general investigation of the *semele*-group of butterflies of the Palaearctic region as a whole. Unfortunately this project never materialized, as a few years later Alain diverted his interests away from the study of Lepidoptera. Fortunately I kept copies of the genital drawings of all specimens involved, and as one of the findings turned out to be of interest, I thought it appropriate to present it for publication, acknowledging at the same time that most, if not all the credit rightfully belongs to Alain Olivier himself.

Material from Calabria, Italy

Among the genitalia studied and drawn, 24 belong to specimens from Calabria, 16 of which were recorded on 22–24.vii.1995 on Aspromonte, and the rest, 8 in all, on 26–28.vii.1995 in Cerenza, La Sila, Cosenza Province, at an altitude of 600–650 m. In the first locality 13 specimens were found to belong to *Hipparchia semele* (Linnaeus, 1758) (two specimens are figured: figs 1 & 2), and 2 to *Hipparchia blachieri* (Fruhstorfer, 1908).



Figs 1–6. Side view of left side of male genitalic armature of *semele* species-group taxa from Calabria, Italy; left valva omitted and aedeagus separated. **1, 2.**– *Hipparchia semele* (Linnaeus, 1758), 20 km W of San Luca, Aspromonte, Province of Reggio, 1450–1500 m, 24.vii.1995; **3, 4.**– *Hipparchia blachieri* (Fruhstorfer, 1908); **5, 6.**– Probable hybrids between *semele* and *blachieri*. **3–6.** Cerenzia, La Sila, Province of Cosenza, 600–650 m. **3, 4, 5.** 26.vii.1995. **6.** 28.vii.1995.

In the second locality 6 specimens were found to belong to *blachieri* (two specimens are figured: figs 3 & 4), while 2 had genitalia that are intermediate in characters between those of *blachieri* and those of *semele* (figs 5 & 6), expressed by the length and, or, shape of the uncus. Differences of this kind usually are suggestive of hybridization.

Discussion

This hypothesis, if eventually genetically proven, will refer to the first ever recorded case of hybridization between these two species, as well as between any two of the species belonging to the *semele*-group. In Greece, for instance, where the closely allied to *blachieri*, *Hipparchia senthes* (Fruhstorfer, 1908), is syntopic and synchronous both with *Hipparchia volgensis* (Mazochin-Porshnjakov, 1952), *Hipparchia pellucida* (Stauder, 1924) as well as with *Hipparchia mersina* (Staudinger, 1871), there is no visible sign of hybridization between the former and any single one of the others, and there certainly is no sign of hybridization between the syntopic and synchronous *pellucida* and *mersina*. This whole issue requires further investigation both quantitatively, geographically, as well as through DNA sequencing, in order to confirm hybridization, and to see whether this is but a rare exception to the rule, or whether it is a well established condition in certain localities. It certainly would also be valuable to do more thorough collecting in the areas involved here, in order to establish whether or not *semele* may still be present in places which the probable hybrid inhabits, and in which the latter was so far found to co-exist only with *blachieri*.
