

Report of the NABA Names Committee

by Mike Caterino, Jeffrey Glassberg and John Heraty

The 2nd edition of the NABA Checklist and English Names of North American Butterflies was published in 2001, approximately 6 years after the publication of the first edition. It is our intention to publish a fully revised checklist on about that time schedule, that is, about every five to ten years. Because published information appears on a more or less continuing basis, we have decided to periodically publish update bulletins, providing the results of the Committee's deliberations with regard to specific publications that provide data arguing for a change in the status of a taxon on the NABA Checklist. During the preparation of the 2nd edition, the NABA Names Committee consisted of Brian Cassie, Jeffrey Glassberg, Ann Swengel and Guy Tudor. Subsequent to the publication of the 2nd edition, Ann Swengel has left the Committee to focus on the NABA Butterfly Count and Butterfly Gardens and Habitats Programs, and Michael Caterino and John Heraty have joined the NABA Names Committee.¹ Michael Caterino, John Heraty focus on the scientific nomenclature of butterflies while Brian Cassie, and Guy Tudor focus on the English names of butterflies.

It is important to bear in mind that the criterion for changing the status of a taxon on the NABA Checklist is different than the criterion employed by most taxonomists in their publications intended for a strictly scientific audience. In those publications, an author will often change the status of a taxon based upon a preponderance of the evidence. However, to change the status of a taxon on the NABA Checklist, we require compelling evidence that the previous status was incorrect, believing that

this leads to improved nomenclatural stability for the public without the sacrifice of scientific integrity. Please see the introduction to the 2nd edition (available at the NABA web site — go to "Other Publications" — or as a printed booklet) for a more thorough discussion of these issues.

The Committee has now considered recent publications by:

Austin, G.T. and Warren, A.D. 2001. Taxonomic notes on some neotropical skippers: *Pyrgus*, *Heliopyrgus*, and *Heliopetes*. *Dugesiana* 8: 1-13.

Burns, J.M. and Janzen, D.H. 2002. Biodiversity of Pyrrhopygine skipper butterflies in the area de Conservacion Guanacaste, Costa Rica. *J. Lep. Soc.* 55: 15-43.

Nice, C.C. and Shapiro, A.M. 2001. Population genetic evidence of restricted gene flow between host races in the butterfly genus *Mitoura*. *Ann. Entomol. Soc. Am.* 94: 257-267.

Wahlberg, N. and Zimmerman, M. 2000. Pattern of phylogenetic relationships among members of the tribe Melitaeini (Lepidoptera: Nymphalidae) inferred from mitochondrial DNA sequences. *Cladistics* 16: 347-363.

Austin, G.T. and Warren, A.D. 2001. Taxonomic notes on some neotropical skippers: *Pyrgus*, *Heliopyrgus*, and *Heliopetes*. *Dugesiana* 8: 1-13.

The authors re-elevate *Heliopyrgus* to generic status and place *domicella* and *sublinea*, which were placed in the genus *Heliopetes* on the NABA Checklist (and almost all other publications), into *Heliopyrgus*. In order to adopt a generic change, we generally require published data that strongly argues that the



Checkered-Skippers and White-Skippers are closely related. From top to bottom: White Checkered-Skipper (*Pyrgus albescens*), Erichson's White-Skipper (*Heliopetes domicella*), East-Mexican White-Skipper (*Heliopetes sublinea*) and Laviana White-Skipper (*Heliopetes laviana*).

current generic placement creates a paraphyletic genus and that the suggested change leads to a monophyletic genus or genera. This study is principally a qualitative analysis of genitalic and wing variation. The authors do not explicitly define the phylogenetic hypotheses that they are testing (in essence, that the three species they placed in *Heliopyrgus* [*domicella*, *americanus*, *sublinea*] constitute a monophyletic group, and that recognizing *Heliopyrgus* as a genus would not make either *Heliopetes* or *Pyrgus* paraphyletic). A more structured analysis of the problem would be required to justify these changes. Even if the proposed restructuring as *Pyrgus*, *Heliopyrgus*, and *Heliopetes* does result in monophyletic genera, it is not clear, given the relatively small number of species in this group, that such an arrangement would be superior to placing all species in this group in the genus *Pyrgus*.

Burns, J.M. and Janzen, D.H. 2002. Biodiversity of Pyrrhopygine skipper butterflies in the area de Conservacion Guanacaste, Costa Rica. *J. Lep. Soc.* 55: 15-43.

This paper is a powerful, and beautiful, tour de force describing the caterpillars and life history of firetips in Costa Rica. In a coda, the authors elevate the one subspecies of *Pyrrhopyge araxes* in the United States (and extreme northern Mexico), *P.a. arizonae*, to species level. The authors provide data showing that there are subtle genitalic and wing phenotype differences between *arizonae* and the nominate subspecies, found farther to the south. The authors characterize the southern distributional limit of *arizonae* as 'uncertain'. Their southernmost samples of *arizonae* were from southern Tamaulipas, while northernmost samples of the nominate subspecies were from the vicinity of Mexico City. However, other

workers are aware of populations in the area between *arizonae* and *araxes* as defined by Burns and Janzen. We believe that until these intervening populations can be studied, it is premature to change the status of *Pyrrhopyge araxes arizonae* on the NABA Checklist.

Nice, C.C. and Shapiro, A.M. 2001. Population genetic evidence of restricted gene flow between host races in the butterfly genus *Mitoura*. *Ann. Entomol. Soc. Am.* 94: 257-267.

The authors of this valuable study have called attention to an interesting possible case of speciation in action. However, their data are unanimous in supporting the hypothesis that speciation has not yet occurred (allowing that other markers may yet provide a different view). Although the authors treat them as full species, and advocate no particular taxonomic action, maintaining the current NABA status of *muiri*, *nelsoni* and *thornei* as subspecies of *Callophrys gryneus* is consistent with the situation they have illuminated.

Wahlberg, N. and Zimmermann, M. 2000. Pattern of phylogenetic relationships among members of the tribe Melitaeini (Lepidoptera: Nymphalidae) inferred from mitochondrial DNA sequences. *Cladistics* 16: 347-363.

The authors sequenced and compared segments of mitochondrial DNA from members of the Melitaeini. Their choice of the 16S and cytochrome oxidase I genes are appropriate to the questions they pose, and observed levels of variations fall well within informative ranges. The demotion of *Thessalia* to a synonym of *Chlosyne* is well-justified by their results. The support values for relevant branches within this cluster are not incontrovertible (we would have liked to see better support within the individual gene trees), but the combined evidence tree is well resolved, and seems robust. The species heretofore placed in the genus *Thessalia* on the NABA Checklist had been placed in the genus *Chlosyne* by some authors (see, e.g., Scott, 1986) so that our placing them in *Chlosyne* does not create new taxonomic combinations.

The authors also demonstrate that the

species usually placed in *Anthanassa* form a monophyletic group and recommend elevating this taxon to genus status. Although the Committee is strongly leaning in that direction, we believe that the data, especially concerning the monophyly of other related taxa in the *Phyciodes* group that would be affected by this decision, aren't yet as thorough as we'd like to recognize *Anthanassa* as a genus, therefore we maintain status quo.

Conclusions

Species placed in the genus *Thessalia* are now placed in the genus *Chlosyne*. There are no changes to the status of the genera *Heliopetes* and *Anthonassa* nor to the species *Callophrys gryneus* and *Pyrrhopyge araxes*.

Literature Cited

Scott, J.A. 1986. *The Butterflies of North America*. Stanford University Press: Stanford, California.

1. Current members of the NABA Names Committee and their backgrounds are as follows.

Brian Cassie is NABA Director, a founder of the NABA-Massachusetts Butterfly Club, and the author of many butterfly and natural history books.

Michael Caterino holds a Ph.D. in Entomology from the University of California, Berkeley and is the Schlinger Foundation Curator of Entomology at the Santa Barbara Museum of Natural History. His studies range from phylogenetics of swallowtail butterflies to the systematics and conservation of beetles.

Jeffrey Glassberg holds a Ph.D. in biology from Rice University and is a NABA Director. He is the author of the *Butterflies through Binoculars* series of field guides and of numerous scientific publications.

John Heraty holds a Ph.D. from Texas A&M University and is Associate Professor in the Department of Entomology at the University of California at Riverside. His studies are on the morphological and molecular systematics of Chalcidoidea (Hymenoptera).

Guy Tudor is a NABA Director, president of the New York City Butterfly Club, co-author of numerous books about neotropical birds which established English and scientific names for neotropical birds, and is the co-author of a forthcoming book about butterflies (in preparation). 



Jeffrey Glassberg (2)



The Committee demoted Thessalia, which had heretofore included the southwestern beauties, theona, chinati, cyneas, fulvia and leanira, to a synonym of Chlosyne. Now, only Chlosyne have white spots in the middle of their head (although not all Chlosyne sport this feature). Top: Theona Checkerspot. Oct. 22, 2002. San Ygnacio, Zapata Co. TX. Bottom: Definite Patch (Chlosyne definita). Oct. 24, 2002 Loma Alta, Cameron Co. TX.