

## CORRESPONDENCE

### Oops, I got it wrong (or so it seems!)

There was a considerable response to my suggestion in the last issue of *Antenna* (37/4) that the photographs (printed again here for those who may not have seen them originally) were of a Satyrid, possibly *Erebia*.



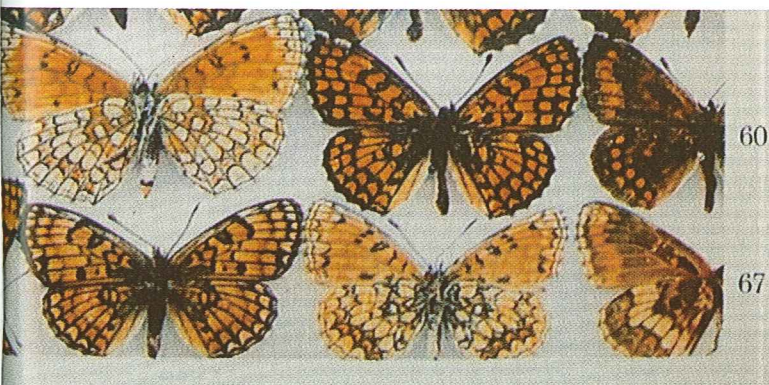
There was a spread of opinion as to its identity, but all were united in the view that it was not a Satyrid!!

I'm very grateful to all who took the trouble to contact me, either directly, or via the Editorial team, and I have been greatly enlightened by their views and suggestions.

Almost all were of the view that it was an extremely melanic small Nymphalid, although Emilio Balletto suggested *Hamearis lucina*. Mark Young suggested a 'small Fritillary', and Owen Lewis and Martin Ebejer narrowed it down to *Melitaea*, while Tony Irwin suggested *Melicta varia* or *athalia*.

Most people however, suggested an aberrant form of *Melicta athalia* including; Chris Luckens, Ken Willmott, Tony Pickles, and Art Shapiro. Mike Percival and Willy dePrins went to considerable trouble to point me toward Figures 60 & 67 on Plate 44 in Vol 4 of Verity's famous book, which I reproduce here:

I am extremely grateful to Paola Tozzi and her assistant Raphaela in the Zoology library at the University of Florence for allowing me access to it.



Figures 60 & 67 on the extreme right are labelled by Verity as '*forma cymothoe* (Bert)' but are of two separate specimens from different localities.

Roger Payne referred me to some excellent pictures, also labelled '*ab cymothoe*', Marc Heath (marcheathwildlife photography.zenfolio.com) on [www.ukbutterflies.com](http://www.ukbutterflies.com), which I reproduce here by kind permission, and I am grateful to Peter Eeles for putting us in contact.

Mike Percival and John Tennent both suggested that the specimens I photographed near Arezzo were also *ab cymothoe* and I agree that there is some resemblance although I think that the Arezzo examples are more extreme aberrations, though on the same general theme. I rather agree with Jim Reid that they represent a new and unnamed aberration for which the name *ab stercoratae* might be appropriate, after the little valley where I found them.



In summary, I have no doubt that all those correspondents who suggested that 'my' butterfly was an aberrant *Melicta athalia* were absolutely correct, but it disturbs me slightly that so much of the identification is based on the argument that 'A' looks like a picture of 'B' shown by 'X' who said it was *Melicta athalia ab...*, and that much of the original identification was based on the circumstantial evidence of a few individuals found flying amongst a large population of normal individuals of a readily identifiable species. I rather agree with Karl Bailey who suggested that a more definite identification could be achieved by breeding from the aberrants and seeing what turns up, as it were! Unfortunately such an exercise is quite beyond my competence and inclination!

To be fair Martin Ebejer attempted a little more rigour by pointing out that the chequered fringes, the banded antennae and the cream post-discal band are not features found in *Erebia*, but I would just point out that they are all found in some members of the genus, and I also thought that my photo showed at least some suggestion of the swollen veins at the base of the forewing.

The really rigorous evidence however, was provided by the aforementioned Karl Bailey, who told me that he has consistently produced these aberrants in captive populations of *M. athalia* by temperature stressing the pupa, whether high or low, I am not entirely sure. Unfortunately, he has not so far been able to provide me with pictures of the resulting aberrations. I gather that he has published extensively on this matter and I tried to read one of his papers, but found it a bit impenetrable (sorry Karl – this says more about me than about you!). Nevertheless I bow to his extensive expertise on this matter.

So, the winner is. . . *Melicta athalia celadussa ab cymothoe (stercoratae?)*

John Firth  
Cortona, Italy, March 2014

### In response to John Firth, *Antenna* 37(4) pp. 198-200

Sir,

My copy of *Antenna* dropped on the mat this morning with some fine photographs of European butterflies taken by J. Firth in central Italy. The final two pictures, which the author thought to be a satyrine, possibly of the genus *Erebia*, or even a new species, depict an extreme aberration of one of the common *Melitaea* butterflies (Nymphalidae), probably *M. athalia*. Nice pictures though!

John Tennent

Sir,

With regard to the images on page 200 of *Antenna* 37(4), I would suggest to John that these may represent a (slightly aberrant) female of *Melitaea varia* Meyer-Dür, 1851. This species is known from the central Apennines in Umbria and may well extend into eastern Tuscany at elevations above 1200m. The underside markings on the forewing are aberrant discally by elongation, but the hind wing looks fairly typical. I have not seen images of females from Italy, but some of this sex from Alpine France and Switzerland are dark above with

very reduced orange patterning. See page 507 of Tshikolovets, 2011, Butterflies of Europe and the Mediterranean Area.

An alternative is *Melitaea athalia*, especially if the photo was taken at a location significantly lower than 1200m. If it is from higher elevation then further determination would probably need a specimen, dissecting kit and a microscope rather than a photo.

Regards, Alan Cassidy MRES

Dear Mr Firth,

I was interested to read your paper in the last *Antenna* (Vol 37(4)). You ask for ideas on the species illustrated in figures 7 & 8. This is not an *Erebia* as you suggest, but a melanic aberration of a fritillary. These aberrations occur in many fritillaries and in the most extreme

cases the species is sometimes not immediately apparent. It is thus helpful to know what species it was flying with.

I think your photos are of *ab. cymothoe* Bertolini of the Heath Fritillary *Melitaea athalia* Rottemburg. This aberration is illustrated on plate 31 in *Aberrations of British Butterflies* by A.D.A. Russwurm (1978) and earlier on plate 5 in *Varieties of British Butterflies* by F.W. Frohawk (1936), under the name *ab. navarina* Selys-Long, an earlier name for this aberration.

*Ab. cymothoe* certainly occurs in Italy as Verity has photos of two specimens in his *Le Farfalle Diurne D'Italia*, vol.4, (1950), tavola 44, figures 60 & 67.

I hope that this is helpful.

Yours, Mike Perceval

## Merfield, Goodall and chimpanzee tools

Prof. Loxdale's recent and illuminating article on Frederick Merfield makes several contentious assertions regarding his standing in primatology. Each of these points needs some clarification or correction.

For example, he asks, "But is it *actually* true that Jane Goodall was the first to observe chimpanzees fashioning tools...?" He goes on to state, "So I would boldly assert that it was Fred Merfield, rather than Jane Goodall, who was in fact the first to observe and record the use of tools by chimpanzees." (Presumably, he means chimpanzees in nature, as published accounts of tool-using captive chimpanzees appeared much earlier.)

Goodall (1964) was the first to publish findings on wild chimpanzees *making* and using tools, in her case, as noted by Loxdale, for acquiring subterranean termites (*Macrotermes* spp.) by 'fishing' them out of their mounds. However, previous published accounts of wild chimpanzees *using* tools appeared earlier (e.g. Savage & Wyman, 1844; Beatty, 1951). None of these previous reports (including Merfield's) mentioned raw materials being *modified* to produce tools. (This distinction between making *versus* using is important: Many creatures, including ants and wasps, use found objects as tools, but many fewer taxa make them, Shumaker *et al.*, 2011.) Thus, Goodall's position as the first to report tool manufacture seems secure.

Prof. Loxdale goes on to lament that "Nevertheless, he [Merfield] seems to have been largely overlooked for this discovery." On the contrary, Goodall has always cited Merfield's report, starting with her initial article in 1964, as well as in her *magnum opus*, *The Chimpanzees of Gombe* (1986, Cambridge University Press). Similarly, reviews of animal, and especially primate, technology continue to cite Merfield (e.g., McGrew, 1992; Shumaker *et al.*, 2011). Thus, Merfield has not been overlooked.

So, why has Merfield not achieved comparable fame? Perhaps because he published only an anecdote, that is, a one-off, minimal description. Goodall, on the other hand, published a series of quantitative, detailed analyses of chimpanzee tool use, based on decades of careful observation. (This distinction is not trivial: Sarringhaus *et al.*, 2005, showed that while many anecdotes turn out to be prescient, others never recur.) Thus, Goodall has been rightly recognised as the authority, scientifically.

Finally, in case anyone wonders about Merfield's report of chimpanzees using tools to extract honey from the underground hives of bees (presumably *Meloponini*) being replicated, the answer is yes. First reported by Goodall (1970)!

### References

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- Sarringhaus, L.A., McGrew, W.C. & Marchant, L.F. (2005) Misuse of anecdotes in primatology: lessons from citation analysis. *American Journal of Primatology* 65: 283-288.
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William C. McGrew

## Reply from Hugh Loxdale

Professor McGrew is undoubtedly right in some of the things he says, but I would like to point out that my article was essentially about the Merfields (Fred, Hilda and children) and their life and times in the Cameroons and interest in insects, with many specimens sent back to the UK, including to the NHM (then British Museum (Natural History)) in London. I am of course an entomologist not a primatologist/anthropologist, and whether the tools the chimps used in the Fred Merfield observation were fashioned or not (I presume the Professor means stripped of accompanying foliage to make a long, flexible probe) I cannot say, but the fact remains that Jane Goodall, born in 1934, was only a small infant when Merfield made his observations in, I presume, circa 1936 or thereabouts. And there I rest my case. My comments are not meant to be a put-down of Jane Goodall; I am sure she, a Dame and all, is famous enough to withstand any such comments. But I do feel Merfield should get more claim to fame than he has

received so far. That is all I wished to state... briefly. He may be known in the scientific circles that Prof. McGrew moves in and it may be true that he (Merfield) is cited by Goodall in her book *The Chimpanzees of Gombe*, but Merfield has undoubtedly been eclipsed by her! His pioneering observation still has merit and whilst he was not studying chimps (or even gorillas) in a long-term scientific way, he did observe something in the wild that had hitherto been largely unreported to the scientific community at that time, and was indeed very important. It is also worth noting that there were very few such intelligent naturalists/zoologists wandering around the forests of West and Central Africa, let alone trained anthropologists, in the time period we are speaking of (i.e. the early 20th C.)... and even today, as we know, such forests are potentially very dangerous places, both in terms of dangerous wildlife and more especially dangerous human beings, e.g. guerrillas in the Congo.