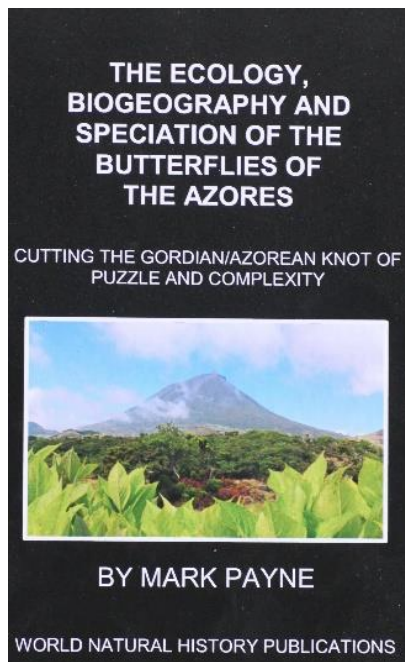


Book Review

The ecology, biogeography and speciation of the butterflies of the Azores, by Mark Payne. Hardback. World Natural History Publications, “The Lake District”, 2019, 370pp.



This is the second book in a planned series of numerous books covering all of the world's butterflies. It opens with a detailed and lengthy account of the author, his supposed achievements and future plans. A prominent acknowledgement to Martin Wiemers, a highly respected European entomologist, is out of date. Martin has disassociated himself from the books and withdrawn co-authorship of a proposed volume on Macaronesian endemic butterflies advertised in the book.

Following a misspelling of Alfred Russell [sic] Wallace's name in connection with a quote, there is a rambling list of the contents, which are largely copied from other's books and research papers, often inaccurately. Throughout the book, the largest city of the Azores, Ponta Delgada, is misspelled “Ponta Delgarda”. Tables figure prominently and are frequently either inaccurate or irrelevant. For example, Table 5 (p. 47), said to provide average monthly and annual precipitation in the Azores, doesn't. There is no annual rainfall and no figures for three months of the year; other tables include pre- and

post-monsoon larval instar duration and weight of larval faeces in laboratory rearing experiments in India!

Fourteen pages of pictures (pp. 28-41) present 28 “Azorean Landscapes”, none identified by island. There is every indication that the author has never been to the Azores, and it is probable that he has no idea which islands are depicted. Very many text citations are lacking from the references, and some are cited inaccurately. For example (Chapter five: flora, p. 46), he declares “Marsden & Wright (1971) made interesting notes on cloud cover at two different altitudes on Faial Island on 30 days of August 1965”. No, they didn't. Marsden & Wright were on São Jorge, not Faial and data were collated on undisclosed days “between July and September 1965”. Table 6 (p. 49) is taken from “Elias et al. (2016)”, which appears in the references with only four of the six authors and the wrong volume of the journal in which it was published (“48(2)” [sic: *recte* 46(2)]).

The author is swift to highlight trivial mistakes of others, overlooking – or perhaps being impervious to – his own failings. His own typographical errors (or ignorance) are numerous: “Pericalis [sic: *recte* *Pericallis*]” (p. 73); “Macronesian [sic: *recte* Macaronesian]” (p. 110); “Gomphocarpus [sic: *recte* *Gomphocarpus*]” (p. 114); “*Asclepias curassavica* [sic: *recte* *Asclepias curassavica*]” (p. 114); “Satyrid [sic: *recte* satyrine]” (pp. 118, 183 and elsewhere); “*Campoplex turniculus* [sic: *recte* *turdiculus*]” (p. 125); “Ichneumonmidae [sic: *recte*

Ichneumonidae]” (p. 134); “Occum’s [sic: *recte* Occam’s] Razor ...” (p. 184); “non-sequitur [sic: *recte* non-sequitur]” (p. 215); “*Urethesia* [sic: *recte* *Utetheisa*]” (p. 361) ... and so on.

More significant gaffes are many and varied. For example (p. 63): “The largest number of total taxa [sic] found were [sic] in [sic] São Miguel ...”. The reviewer suggests the author intended to say that the greatest number of taxa occur on São Miguel, but there are instances where his meaning is unclear and his clumsy syntax can be confusing. For example (p.224): “... males of *H.miguelensis* emerged, followed two days later by females of *H.azorina jorgense*. Pairings took place and over the course of the following few days 30 eggs were laid ...”. The prose is extraordinarily laboured on occasions: for example, rather than ‘significant’ we see “can be of not a little significance” (p. 275). The author’s ignorance is also exposed: unfamiliar with the useful term ‘monotypic’, he declares “*Lampides boeticus* constitutes a genus by itself ...” (p. 103). Throughout the book grammar and punctuation are poor, and there is a lack of important supporting information. For example, with spelling, punctuation and spacing reproduced here precisely (p.223: all square brackets are the reviewer’s): “It would appear that *Motacill* [sic: *recte* *Motacilla*] *cinera* [sic: *recte* *cinerea*] *patriciae* (Varie [sic: *recte* Vaurie] 1957) [the Azores Grey Wagtail] could use *H.azorina* as their diet includes insects. Predators [such] as *Lacerta*. spp. [a genus of lizards] do not occur in the habitats of the *H.azorina* complex ...”.

Chapter 10 (pp. 90-98) covers the study of butterflies in the Azores, which includes reproduction in full of many accounts published by previous visitors interspersed with extensive and gratuitous criticism. Butterfly accounts begin on p. 99. The first is *Lampides boeticus*, which includes lengthy passages copied from a paper by “Palem et al. (2015)”, spelled variously “Palem”, “Palim” (p. 101) or “Padem” (p. 103). The paper, absent from the references, relates to rearing *boeticus* in Andhra Pradesh, India, on a host-plant that apparently doesn’t occur in the Azores. This was an unsuitable paper to copy, since although Palem *et al.* believed they were dealing with *L. boeticus*, the 10 adults illustrating their work are *Euchrysops cnejus*, a species that occurs from India to the Pacific. This would have been spotted immediately by any schoolboy butterfly collector in Europe but, as the reviewer has remarked elsewhere in an assessment of the author’s Cape Verde book, his butterfly identification skills are hopeless.

Danaus plexippus follows (pp. 108-116) and includes the claim “... with its larvae feeding on *Asclepias G.fruticosus* [sic: ‘*Asclepias fruticosa*’ is an outdated name for *Gomphocarpus fruticosus*] (Neves et al, [sic] 2001) and *A.sericofera*. [sic: in addition to misspelling *sericifera*, the implication is that this is a species of *Asclepias*; it belongs to the genus *Araujia*]”. Following entries include *Danaus chrysippus* (p. 117): with a groundless statement that “It is felt that *D.chrysippus* could in due course establish a breeding colony in the Azores, given appropriate climatic conditions, but first migrant individuals would most likely be seen over a period of some years” and *Hypolimnna misippus* (pp. 120-121): “First noted in the Azores by the late Ronny Leestmans ... citing (incorrectly) Williams ... but without noting the island on which it was captured [sic]”. The reality is there was no island to record: Williams reported seeing *misippus* out at sea.

Vanessa atalanta occupies eight pages (pp. 122-130), mostly irrelevant to the Azores, including the bizarre statement that (p. 125): “Garcia-Barros et al [sic] (2013) reported that occasionally imagines are attacked and killed (and eaten) by the bee-killing Hymenopteran, *Merops apiaster*”. Since a ‘hymenopteran’ is a member of the insect order Hymenoptera, and *M. apiaster* is the European bee-eater (a passerine bird), the reviewer contacted Enrique Garcia-Barros (predictably, the text reference is not in the bibliography). The sentence is taken from p. 704 of Garcia-Barros’ multi-authored volume 37 of Fauna Ibérica (Lepidoptera, Papilionoidea): “It has occasionally been observed that adults are eaten by bee-eaters, *Merops apiaster* [translation]”. The author’s opinions illustrate a tenuous grasp on reality; for example, following discussion of temperature

development rates of *V. atalanta* published by others, he states (p. 126): “it would appear to this author that up to ten generations per annum could theoretically be feasible in Cabo Verde, while in the Canary Islands five generations each year could be feasible, in Madeira three or four, and in the Azores two or three”.

Colias croceus (pp. 141-152) is dealt with in detail; it comprises substantial data copied from other people’s research, interspersed with criticism of others which serve no purpose and reflect badly on the author. A detailed paragraph on the occurrence of *Colias hyale* (p. 153), mapped as occurring throughout São Miguel (it doesn’t occur in the Azores), wilfully misinterprets a note by Vieira and Constancia. *Pieris brassicae* (pp. 154-160) is a combination of the copied work of others, missing references, and condescendingly arrogant opinion: “Some pseudo-scientific observers consider [Azorean *brassicae*] to be a separate sub-species ...” (p. 154)). The author’s quintessential ignorance of entomological matters is confirmed in his reference to the “parasite[s] [sic: *recte* parasitoids]” *Cotesia glomeratus* and *Apanteles glomerata* in the same paragraph (p. 155) apparently without realising they are the same thing. He ends his treatment of *P. brassicae* with the note: “So extensive, not to say confusing, has been the nomenclature of this species in the Azores that it bears summarising here ...”. He then provides a woefully incomplete ‘list’ of previous authors using ‘*Pieris brassicae*’ (6: between 1860-1982); ‘*Pieris brassicae ab.chariclea*’ (1: 1905); ‘*Pieris brassicae brassicae*’ (1: 1961) and ‘*Pieris brassicae azorensis*’ (8: 1917-1993), indicating if anything (inclusion of ‘*P. brassicae*’ is meaningless in this context) that nomenclatural history of *brassicae* in the Azores is, as presented, very straightforward.

Pages 161-163 relate to “doubtful species” (sic: *recte* doubtful records; the species are not in doubt) and are followed by (pp. 164-175) illustrations of Azores butterflies, more than half the text references to which have the wrong page number. The bulk of these are taken from the website of Matt Rowlings (recorded as “Matt Rowlands [sic]” in the acknowledgements), who tells the reviewer he has never visited the Azores, raising the high probability that very few of the butterflies illustrated are actually from the islands. A double page spread (pp. 166-167) of *D. chrysippus* and *H. misippus*, neither of which occur in the Azores, is excessive, particularly as three male uppersides of *misippus* are much the same and were photographed in India. The six pictures of *P. brassicae* (p. 174) are without doubt not from the Azores and six undersides said to be of *C. hyale*, which has never occurred in the Azores, are impossible to identify.

A voluminous and subjective section on *Hipparchia* (pp. 176-261) includes long-winded polemic, which seems particularly out of place coming from an ‘author’ whose own knowledge of butterflies generally is minimal. Whilst the two species of *Hipparchia* on the Azores are more interesting than any other group of butterflies on the islands, the author’s treatment of the subject over 85 pages is, in the opinion of the reviewer, unscientific and substandard. It includes extensive passages from an unpublished work and two long muddled sections that appear to be different drafts of the same thing (pp. 214, 216). He declares (p. 242): “Plates ... show images of *Hipparchia* habitats in the Azores”. The seven pictures (pp. 258-261) do show *Hipparchia* habitat, although their geographical source is not recorded, possibly because the information was not known to the author. For the record, all were taken by Martin Wiemers on Terceira.

This is followed (pp. 275-280) by a section on ghost islands and ghost species, which include (p. 275) the unsupported “reasoned observation that an Azorean Vanessid [sic] butterfly from geological history, and which is now extinct ... may in fact have been the ancestor of *V. vulcania*”. A section titled “The Curious Case of *Vanessa Vulcania* [sic]” (pp. 281-298) presents pretentious views on a butterfly that does not and has never been suggested to occur on the Azores that include some very nice photographs of larvae and pupae (Mr Payne believes the singular of larvae is larvum) taken by ‘Rose-Marie Haccour’, not mentioned in the acknowledgments. The final

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chapter describes where to see butterflies on the Azores. It consists of rough outlines of each island with some localities vaguely marked and a plea: “for future editions of this book this author would welcome receiving details of readers’ own ideas concerning noteworthy localities ...”, no doubt necessitated by the author’s own lack of knowledge. There is no index.

There is no logic to the presentation of references (pp. 315-365) and both the purpose and process of presenting references in a scientific work clearly elude the author. Literally dozens of text references are absent, whilst a plethora of his own “publications”, mostly with the wrong date of publication (all are dated 2019 and so far as the reviewer is aware, in early January 2020, only three of almost 30 planned titles have seen the light of day) and incorrect page numbers are listed. The references are a chaotic muddle.

Fundamentally this book is a grimly unethical exercise in copying the work of others. The author has no background in science or Lepidoptera research and this is abundantly clear. In the opinion of the reviewer Mr Payne’s corrosive approach is unwelcome. The book is abysmal. It is not recommended.

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