# Moths And Butterflies Australasia Inc.

Newsletter 1 March 2022

## Contents



## Editorial

Welcome to the first newsletter of Moths and Butterflies Australasia Inc. As with most societies, this newsletter exists to serve the members, and I hope to see many interesting and varied submissions that reflect this. With MABA being a new society there will be scope for discussion about the content of this newsletter, but initial conversations and emails between council members have resulted in what you see in front of you. I've deliberately included subject areas in this newsletter for which we have not yet received content. This is to alert members of the communication potential here and a prompt for members to submit articles for the next newsletter. Please feel free to contact me or other council members if you have further questions and constructive criticism of the format, and please direct any submissions to me via email editor@maba.org.au.

David Britton

## President's Report

Growing up my interest in science was catalysed by reading about the great natural history adventures of remarkable and resilient women and men in the 17th, 18th, 19th and 20th centuries – think Maria Sibylla Merian, Alexander von Humboldt, Joseph Banks, Alfred Russel Wallace, Joseph Hooker, Henry Walter Bates, Ernest Shackleton and Lucy Evelyn Cheesman. I

*Moths and Butterflies Australasia is an incorporated association. The society operates on a not-for-profit basis with a charitable purpose. The purpose of the society is to encourage interest in the scientific study, research and conservation of moths and butterflies (Lepidoptera) in the Australasian Region.*
*The Newsletter of Moths and Butterflies Australasia promotes the objectives of the Society by publishing a range of items such as natural history observations, field trip reports, notes on upcoming and past events, book reviews, requests for information or specimens, business activities of the society, and other newsworthy items as deemed appropriate by the Editor. Material submitted should be responsible and original. Statements and opinions expressed are the responsibility of the author and do not necessarily reflect the policies of the Society. The Newsletter does not constitute a publication for taxonomic purposes; articles involving nomenclatural acts (i.e., new scientific names and type designations) or taxonomic opinions (e.g., synonymies, revised status, and new combinations) will not be accepted. Authors are encouraged to ensure that the nomenclature adopted follow standard national checklists, such as the Australian Faunal Directory. Contributions and enquiries for the newsletter should be addressed to editor@maba.org.au.*

was also captivated by the fact that there were individuals who were excited about sorting out the detail, whose legacy was not so much in the broad sweep of mountain ranges, forests, plains, and ice floes, but rather in knowing more than anyone about a thin slice of life, such as like moths, or mites, or mites that live on moths.

In years distant past, the distinction between professional and amateur science was blurred, and I think this was for the better. Through much of the last 20th century though an unhealthy divide has developed between "proper" professional scientists and the "amateurs" upon whom they often look down. In my life I have attempted to straddle both worlds, working as a "professional" medical researcher by day, and a "rank amateur" entomologist by night. I have come to appreciate that there is much more that unites professional and amateur than divides. The spark of an idea that ignites our thought, the fun of planning an experiment or a trip, the joy of discovering or understanding something that no-one else has seen, the collegiality and friendship of collaboration, the buzz of communicating results to interested colleagues and the wider community. To put it briefly, we share the knowledge that science is fun!

The 2020s have seen a renaissance in citizen science. With resources like eBird, iNaturalist and with platforms like Instagram, has there ever been a more democratic opportunity to add to knowledge, whether as an observer of life or as a curator of observations? The 2020s are also a golden age of professional science, with the intertwining of morphology, imaging and digitizing, ecology, behaviour, and DNA sequence data, to name a few.

Butterflies and moths have always been the poster children of the natural world, capturing the public imagination in ways that perhaps silverfish and thrips do not. With this profile, those of us with an interest in moths and butterflies have a special responsibility, a responsibility that I hope over the next few years, MABA can help us all discharge.

The trick to capitalizing on this moment in time is to bring together citizen and professional scientist, to span generations, and to unite all those who are excited about moths and butterflies. This will surely allow us to do science that is more than the sum of the parts, energising our community and inspiring our elected representatives to engage in the fun of science, the beauty of science and ultimately in the importance of science. With so many global challenges that rely on science, we have the opportunity as members of MABA to contribute in a small but important way to making science front and centre in our national conversations. As inaugural President of MABA, my request of you is to get active, contribute as you can, share your enthusiasm generously, treat each other with respect and, in doing so, have fun.

Doug Hilton

## Feature Articles

### MABA: the need and vision for a regional Lepidoptera society

Thirty-five years ago, in April 1987, as a new kid on the block and fresh out of university, I became embroiled in a local conservation campaign to protect a threatened butterfly near Melbourne. It was the Eltham Copper, a form of the Fiery Copper, *Paralucia pyrodiscus* (Braby 1987). The campaign was unusual in

***The Eltham copper* Paralucia pyrodiscus. *Photo: M.F. Braby***

many respects. It was novel in that butterflies (and other insects for that matter) in Australia had not previously attracted much public interest in conservation; and it created a political storm, receiving massive media attention that transcended

both local and state levels of government. It also exposed substantial gaps in scientific knowledge of our invertebrate fauna, knowledge so urgently needed to underpin effective conservation management.

A flurry of interest in butterfly conservation soon followed. Nadolny (1987) published a report on the conservation of rainforest butterflies in New South Wales. Professor Roger Kitching appeared on the ABC National Radio environmental science program 'Earthworm' on 3rd June 1987 and gave an entertaining and enlightening talk about endangered butterflies, with special focus on the conservation of the Bathurst or Purple Copper *Paralucia spinifera* (see Kitching & Baker 1990; Baker *et al.* 1993). In July 1987, Professor Tim New published a small fund-raising booklet on butterfly conservation that placed the Eltham Copper in a broader international context (New 1987). In the following year a conservation report on threatened butterflies in Tasmania appeared (Prince 1988b, a), Hill and Michaelis (1988) published a seminal report on insect conservation throughout the country, and a management plan for the Eltham Copper was released (Vaughan 1988). A conservation management plan for the threatened Altona Skipper or Yellow Sedge-skipper *Hesperilla flavescens* soon followed (Crosby 1990), and in 1992 the first steps were undertaken to reverse the decline of the Richmond Birdwing *Ornithoptera richmondia* in south-eastern Queensland and north-eastern New South Wales, led by Dr Don Sands (Brown 1993; Sands *et al.* 1997).

Suddenly there seemed to be a lot of activity, and insect/butterfly conservation was becoming mainstream. But who were these people? Apart from Tim New (my mentor and Honours supervisor at La Trobe University) I did not know anyone outside Victoria. Wouldn't it be great if there was an easier way of finding out who these researchers were and what projects they were working on? Perhaps a specialist insect conservation society, or a butterfly conservation society, or even a general Lepidoptera society could help? The internet did not exist then, but several states in Australia had entomological societies and there was of course the Australian Entomological Society to which I had just joined in 1986. But it was hard to find information, and from my perspective as a young 'outsider', it was difficult to gauge what was going on. There seemed to be no coordination or communication between the various players.

So, how does one bring people with an interest in Lepidoptera together? Most countries in the Northern Hemisphere have well-established specialist Lepidoptera societies, and of course there is the international Lepidopterist's Society, which has its headquarters in the USA, but there is no national or regional Lepidoptera society here in Australia, New Zealand, and the nearby islands in Oceania and Melanesia. There are three local groups that are going very well, the Butterfly and Other Invertebrates Club (BOIC) established in 1994 and based in Brisbane, Butterfly Conservation South Australia (BCSA) established in 1998 and based in Adelaide to promote conservation of butterflies and their habitats in South Australia, and the Moths and Butterflies of New Zealand Trust (MBNZT) established in 2005 which has its main focus on the Monarch *Danaus plexippus* as an ambassador to promote the importance of insects. In addition to these important local societies, other lepidopterists were members of the Entomological Society of New Zealand formed in 1951, the Australian Entomological Society formed in 1965 (Fletcher & Monteith 2016) and/or state-based entomological societies (e.g., Entomological Society of New South Wales established in 1862, Society For Insect Studies (NSW) established in 1989, Entomological Society of Queensland established in 1923, Entomological Society of Victoria established in 1927, and Western Australian Insect Study Group established in 1989). But we still lacked a forum that could bring people together with similar interests in moths and butterflies at a broader regional scale (i.e., Australia, New Zealand, and the south-west Pacific).

In 1999, I was fortunate to spend two years in the USA on a Fulbright fellowship, based at Harvard University, Massachusetts. During my last year in 2001, my supervisor Professor Naomi Pierce drove me to Yale University, Connecticut to meet her long-time mentor and PhD supervisor the late Professor Charles Remington. Charles and the late Harry Clench established The Lepidopterist's Society in 1947 when they were students. I asked Charles "how did you set up the society?" His reply was surprisingly simple. Charles said he and Harry just sent out letters to as many people they knew who were interested in moths

and butterflies. The letter explained that they wanted to promote the scientific study of Lepidoptera by: (1) distributing a periodical on Lepidoptera, and (2) facilitating the exchange of specimens and ideas between professionals and amateurs. He said the response was "Amazing. The word quickly spread and before we knew it, we had hundreds of people across Canada and the United States wanting to join". Hmm, I thought to myself, that doesn't sound too hard, perhaps we can do something similar here down under. There is certainly a growing interest in Australian insects, moths and butterflies included.

Soon after I returned to Australia (in late 2001), the Australian National Insect Collection (ANIC) started to run national workshops on moths. The Lepidoptera collection in the ANIC is without question the most comprehensive and well curated collection of Australian Lepidoptera in the world. The workshops were informal meetings run by our Patrons, Marianne Horak and Ted Edwards. The first event was held in 2003 and there have now been nine meetings in total. Each meeting is held biennially in odd years. Because of space constraints only about 35–40 participants can attend these meetings, so they have been by invitation only. The 10th meeting was due to be held in August 2021 but was postponed to February 2022 due to COVID-19 restrictions. These workshops have been hugely successful, forging networks and linkages between workers who otherwise may never have met each other, and upskilling their level of expertise. Marianne and Ted, both long retired from CSIRO, cannot keep running these events forever. Moreover, in 2023/24 the ANIC will be relocated to a new museum facility where it will not be possible to run such events under the current format. The success of these workshops, the potential restrictions on running them in the future, and the obvious need for ongoing communication and collaboration between lepidopterists highlights the immediate need for a national or regional Lepidoptera society.

On 25th October 2019 a small group of us got together in Canberra for a 'brain-storming event' to flesh out ideas of how such a Lepidoptera society could be run in Australia. At the end of the meeting, we all agreed there was a critical need for such a society. In a nutshell, we came up with the following visions that would underpin the society.

The society would provide a forum to unite people with similar interests (in moths and butterflies) at a regional level and appeal to a wide range of interest groups (e.g., photographers, conservationists, citizen scientists), not just taxonomists and ecologists. Much of the current expertise (and the major national collection) is geographically centred in Canberra. Given the size of the Australian continent and the distribution of lepidopterists across the Australasian region there is a critical need for broader linkages of expertise across Australia, New Zealand, and to nearby nations such as Papua New Guinea. The forum should lead to increased connectivity between various people, research institutions and non-government organizations, facilitating networks between experts, promoting collaboration, and avoiding duplication of work. The society would aim to provide better coordination nationally and regionally, bringing together members from some of the smaller geographically based specialist groups (e.g., BOIC, BCSA and MBNZT and other societies).

***The purple copper* Paralucia spinifera*. Photo: M.F. Braby***

The society would aim to create an environment that: (1) encourages young people (the next generation) to become interested in and stimulated by moths and butterflies, recognising that we have an ageing (and declining) population of experts; (2) mentors the next generation and others, with the expectation that some of these people will go on to become expert taxonomists or field ecologists/biologists (possibly even professional lepidopterists); (3) provides older generation lepidopterists with exposure to new

approaches and technologies, and new modes of communication; and (4) embraces and promotes diversity.

The society would develop a well-structured platform (website) that aggregates or links information together from other websites, for example, of particular species and possibly the Butterflies Australia database. Such a website would provide better access to scientific information and knowledge on moths and butterflies. It would also identify knowledge gaps for further research (e.g., pure research – identifying poorly known taxonomic groups in need of revision; and applied research – conservation, pest or biosecurity status of species).

It was recognised that the society has an important role in education by assisting the general public, industry and other stakeholders with species level identifications (e.g., from images) or providing information on species. The development of tools for identification of images on the internet (e.g., of live adults and larvae) was seen as an important resource and an adjunct to the CSIRO Moths On-Line, which features relatively few species of museum specimens.

The society would advocate and lobby (in partnership with Taxonomy Australia) for more resources for specialist positions in Lepidoptera (especially in systematics and biodiversity discovery) at museums, universities and other government institutions, recognising that there are very few professional Lepidopterists currently employed in Australia and elsewhere.

The society would provide a forum for publishing natural history observations and new discoveries (e.g., life histories, linking caterpillars to adults, behaviour). Such publications would take the form of an electronic newsletter, with links to Facebook, Instagram, and Twitter.

So, there you are. During the past two years a small dedicated team have got together to serve on the Council, settled on a name – Moths and Butterflies Australasia Inc. (MABA) – drafted the constitution, which includes the purpose and aims of MABA, registered the society as an incorporated association (through Access Canberra), successfully applied for an ABN, successfully applied for charitable status through the Australian Charities and Not-for-profits Commission (ACNC), developed a website, logo and newsletter. Later this year we will apply for tax deductable gift recipient status through the Register of Environmental Organisations and develop a biodiversity fund to support the conservation of moths and butterflies and their habitats for the purpose of advancing the health of the natural environment. In future, we hope to support scientific research and conservation projects, and manage taxonomic and spatial data that could be used in various ways, for example, for policy and advocacy on matters relating to biodiversity, land use, conservation of threatened species, biosecurity, and management of pest species.

Michael F. Braby
The Australian National University &
The Australian National Insect Collection

**Acknowledgements**

I am most grateful to David Britton for his editorial suggestions and comments on a draft of this essay. Suzi Bond, David Britton, Cathy Byrne, Bobbie Hitchcock, Chris Sanderson and Andreas Zwick are thanked for the initial 'brain-storming' meeting held in 2019 that sowed the initial seeds and ideas of MABA. Doug Hilton, Axel Kallies, Tony Moore, Julie Morgan and Robert Hoare are also thanked for developing the aims and vision of MABA.

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## Obituary Philip Francis Sawyer

Philip Francis Sawyer

23 March 1935 - 14 October 2020.

Our father Phil Sawyer was born in Terang, Victoria the second son of Edward James Sawyer and Annie McKellar (nee Creed). Philip attended Framlingham Primary School and Warrnambool High School and initially worked in the ES & A Bank in South Yarra. In 1953-54 he attended Geelong Teachers College. While teaching at Terang Primary he met Marina Olga Pappas at a country dance at Yarrawonga and they married in December 1958 and then moved to Mepunga East. Their first three daughters were born at Yarrawonga; Anne-Maree in 1962, De'Arne in 1963 and Bronwyn in 1965. The other two girls, Francine and Phillipa were born later in New Guinea.

***Phil Sawyer***

Phillip became interested in butterflies in the early 1960s when he first caught a butterfly in Bendigo and his interest was further sparked when he completed a unit in Zoology as part of his Bachelor of Education.

In 1968 Phillip took his wife and the then three small children to Wabag in the Enga Province, north-western Papua New Guinea. Phillip took up a position in the primary school there and developed a great love for the people and the country. His interest in butterflies and insects became a hobby and a passion whilst in Papua New Guinea and he spent many of his weekends pursuing this; along with one or all of his

three older daughters who were equally passionate collectors. Many a happy family outing was a picnic out in the remote forest, butterfly nets in tow. Anne-Maree remembers: "I sometimes went with them. I collected butterflies, too, and sometimes took seedlings growing beside the creek at Gabensis for the little section of garden I tended in Lae – one ended up growing into the tree that the jewel butterflies laid their eggs on (i.e. their food plant) and grew as high as our two-storey house after two years! And another was a food plant for another butterfly. There were a number of butterfly breeding endeavours over the years – it was always very exciting when a butterfly emerged from the pupa and we had a perfect specimen".

The family moved on to further teaching positions, Wapenamanda (Enga Province), Magitu (Eastern Highlands), Lae (Morobe Province), and Alotou (Milne Bay Province). As a school inspector Philip spent three years in Lae, flying out to very remote provinces to inspect primary schools. He rarely missed an opportunity to add to his butterfly and insect collection when travelling to these remote places.

He finally returned to Victoria in 1976 eventually settling in Sunbury in Melbourne for the next 43 years. Phillip's love of PNG and its people never left him, and he returned in 1995 to take up a position for two years with Foreign Aid Abroad at the Kokopo Teacher's College in Rabaul.

One of the most memorable butterfly expeditions for Phillip was on 19th January 1975 near Lae, when his nine-year-old daughter, Bronwyn, discovered a pair of birdwing butterflies mating. She was familiar with the species and knew that this was actually two different species mating and therefore most unusual. After initially doubting Bronwyn's observation, Phillip finally caught the female after chasing it up and down an embankment for thirty minutes. This was the first and only recorded, natural, intergeneric pairing between *Ornithoptera priamus* and *Troides oblongomaculatus*. The resulting eggs fortunately managed to produce two butterflies (one of which was then lodged with the ANIC in recognition of its scientific interest). Don Sands and Phillip wrote a paper about the hybrid butterfly.

One of his favourite places was Kassam Pass, which connects the Markham Valley to the Highlands region in the Eastern Highlands. He often reminisces with passion about this area as being one of the best places to catch *Delias*. During Phillip's time in the Eastern Highlands he caught a new species, *Delias sawyeri*. If you ask him what his favourite butterfly group is, he would always say it was the *Delias*. Phillip collected and collaborated with a number of renowned butterfly collectors while he was in PNG and formed lasting friendships with many of them. Don Sands and Ray Straatman are two which come to mind. He stayed in communication with many of them after he returned to Australia. He was one of the first members of the Goonawarra Golf Club and played there every Saturday for as long as his health allowed. Here, he twice achieved a hole-in-one. During his retirement Phillip spent many hours on his butterflies and insects, painting with oils, playing golf and reading.

Bronwyn Sawyer, De'Arne Priest and Anne-Maree Sawyer

**A great collecting companion**

I had the pleasure of meeting Philip Sawyer in Lae in 1972, soon after my entomological posting to Papua New Guinea. Phil was then a school inspector, and he and Marina kindly introduced me and Susan to the wonderful life in PNG, and life in the township of Lae. Despite our regular and violent earthquakes, steamy hot days with evening storms, and flooding of the nearby river, the Sawyers managed to convince us of many enjoyable challenges with living in the real tropics of PNG!

Phil and I were interested in butterflies, and he was welcome company when we were out on collecting trips, enjoying the tropical species I had never seen before, often in rainforest patches not far from Lae township. Many small, interesting species were new to us, and were seen at almost every spot we visited. We saw huge and spectacular birdwing butterflies, colourful *Delias* spp. and fast flying nymphalids. We had favourite localities where we collected perfect males of *Delias*, some rare *Graphium* (e.g. *G. codrus*) and many Blues (Lycaenidae) when they rested on moist sand seeking nutrients. Sometimes it was a risky business for us when clambering over large boulders

in the middle of fast running streams or jumping over slippery rocks after spotting rare jewels (*Hypochrysops* spp.) imbibing nutrients.

Out and west from Lae our favourite collecting spots included the swampy areas approaching the Markham Bridge and where it crossed the river. Other places always rich with butterflies were further along the road towards Bulolo and upwards near Gabensis on timber tracks that ascended steeply into the Rawlinson Range, or east from Lae towards Hobu and edging the Busu River. One day I received an exciting call from Phil to say he and his daughter Bronwyn had seen and collected a pair of mating swallowtails near the Markham Bridge and although the female was a typical New Guinea birdwing (*Ornithoptera priamus poseidon*), the male partner firmly in cop., was a black and yellow *Troides oblongomaculatus papuensis*!! Phil asked me what he thought should be done with the live pair – could the mated female be coaxed to lay eggs and if so, could her off-spring be reared and produce hybrids that could be compared with the parents - both different species? Phil then set up a cage and induced the female to lay 9 eggs. Some eggs hatched and Phil soon reared two hybrid birdwings that appeared closest to *Troides* males but had reduced areas of yellow on the hindwing. One of these specimens was lodged in the ANIC and we published the results of the interesting observation and experiments that followed (Sands DPA and Sawyer PF. 1977, *J. Aust ent. Soc* **16:** 81-82).

***The natural hybrid between* Ornithoptera priamus *and* Troides oblongomaculatus**

Phil was a generous person with his specimens, and on several occasions if I longingly admired his catch, Phil would give me specimens after I had assured him they would end up in the ANIC!! We miss our friend Phil and recall the days and especially his company when he introduced us to many beautiful places in PNG. His collection of specimens will add substantial value to important PNG butterfly records held in the ANIC.

Don Sands OAM

**Phil's wonderful collection**

The Sawyer collection consists of nine cabinets with 90 drawers altogether, principally of New Guinean butterflies. There are 69 drawers of butterflies, 15 drawers of beetles, three drawers of orthopteroids and three of miscellaneous other insects. There are 2465 butterflies and moths and 1146 beetles. The butterflies include 12 drawers of *Delias* totalling 590 specimens. The collection is in excellent condition.

Phil's collection is a most valuable accession for the ANIC.

There are several highlights. On the basis of Phillip's observations and rearing, Ray Straatman artificially paired a male *Troides oblongomaculatus papuensis* with a female *Ornithoptera priamus poseidon*) and some of these progeny ended up in ANIC via Don Sands with the female parent of the cross. There are also specimens of *Philiris* (Lycaenidae) which Don Sands is anxious to examine when the COVID-19 restrictions are lifted. There are also two *Artipe grandis* (Lycaenidae) not previously represented in ANIC. There are more exciting species and further gems will undoubtedly appear as the collection is examined more closely.

The Lepidopterists at ANIC earnestly thank Phil and his family for this wonderful donation which, when added to the Brandt, Gerrits and Gotts collections, significantly increases our ability to support scientific work on New Guinean butterflies.

Ted Edwards, ANIC

*The foregoing notes were edited and put together by Ted Edwards who wishes to thank all contributors and offer sincere condolences to Phil's family. Sadly Phil's wife also passed away in November 2021, and all at ANIC offer his family their sincere condolences.*

## Events

### Recent Presentations

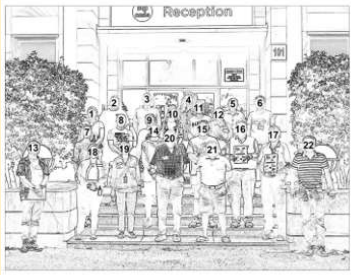
Nothing submitted for this newsletter but if members are aware of presentations that might be of interest, or are planning to give a presentation, please let the editor know.

### Meetings and Conferences

**The 10th ANIC Moth Meeting**

The 10th ANIC Moth Meeting was held in Canberra from 5-6 February 2022. Issues with COVID 19 meant that only a small group attended, but it was a great pleasure to see old friends again. The Lepidoptera collection in the ANIC hall came alive with a group of knowledgeable and excited Lepidoptera fans. You Ning Su excelled himself with the group picture where everybody is duly identified.

**10th ANIC Moth meeting 5-6 Feb 2022**


1 Pleines, Thekla
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### Field Trip Reports

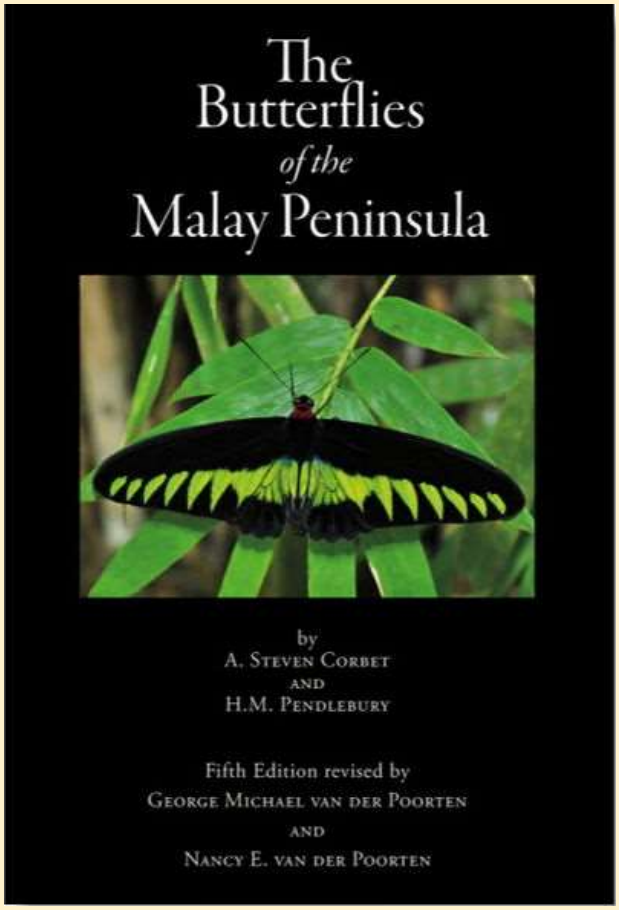
Been somewhere interesting? Please let the editor and the membership know about it.

## Book Reviews

### The Butterflies of the Malay Peninsula.

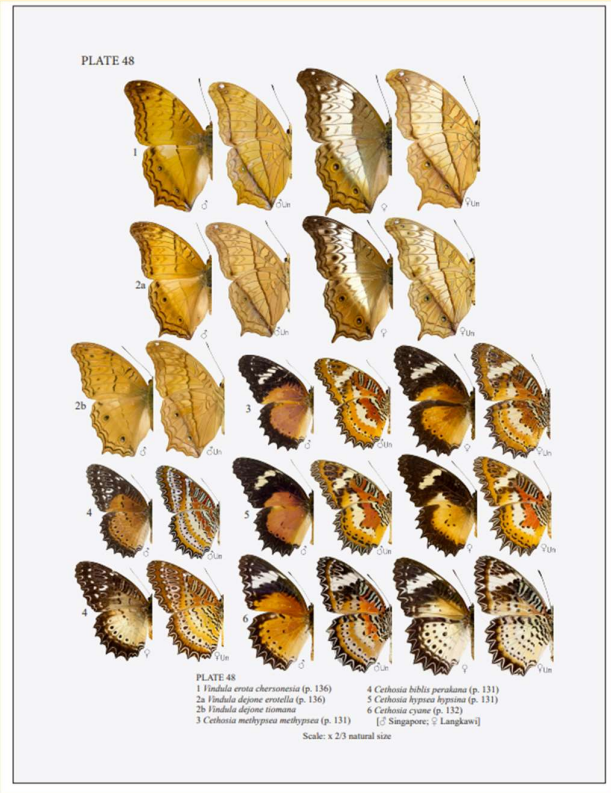
A. Steven Corbet and H.M. Pendlebury. Fifth Edition revised by George Michael van der Poorten and Nancy E. van der Poorten. Malaysian Nature Society, Kuala Lumpur. 2020. xiv+492 pp, 138 pl; hardback; 19.8 cm x 25.8 cm. ISBN 978-983-44886-3-5. Price £65.

The Malay Peninsula includes the countries of southern Thailand, western Malaysia and Singapore in South-East Asia. It is located just north of the equator, lying to the south of Thailand at its northern end and at its southern end almost touching the Indonesian island of Sumatra, where it is separated by the Straits of Malacca.




The Malaysian Nature Society have had a long tradition of making works on the natural history and biodiversity of the Malay Peninsula available to the public. They first published "The Butterflies of the Malay Peninsula" more than 80 years ago in 1934, which was followed by a 2nd Edition in 1956. The last two editions were revised by John N. Eliot (3rd Edition in 1978, 4th Edition in 1992) and have long been out of print. It is therefore heartening to see this classic work fully revised again. The 5th edition has been revised by the van der Poorten's, substantially updating the text of previous editions with new information on distribution, life histories and larval food plants. The taxonomy and nomenclature of each species has been updated, and the text and relevant keys have been revised with newly published information. Additionally, the layout has been modernized for improved readability. Moreover, the previous colour plates depicting adults of museum specimens have been completely replaced by an exquisite set of new photographs.

The long history of collection and study of butterflies of the southern Malay Peninsula can be traced back to 1751 and has resulted in a fauna that is now exceptionally well inventoried. This relatively small area supports a staggering 1,051 species of butterflies, of which 17 (1.6%) are endemic to the peninsula. The most species rich groups are the subfamilies Theclinae (Lycaenidae) and Hesperiinae (Hesperiidae), with 233 and 188 species respectively. The theclines are dominated by the tribe Arhopalini with 113 species, most of which belong to the speciose genus *Arhopala*. Four major floristic zones are recognised on the peninsula – coastal mangroves, lowland secondary forest, lowland primary forest (between 0–750 m), and montane primary forest (750–1500 m). Secondary forest comprises cleared areas in various states of ecological succession. Although this habitat is important for many butterflies (c. 120 species) most species occur in lowland primary forest. The authors claim that it takes at least 250 years before secondary forest reverts to primary forest, highlighting the importance of maintaining




***Sample plate from Butterflies of Malay Peninsula 5th Edition***

large tracts of primary forest for biodiversity conservation.

The 17 endemic species consist mainly of lycaenids (11 species) and a few hesperiids and one pierid, *Ixias alticola*. The endemics occur either in lowland or highland (montane) areas and are considered rare, often known only from a single type specimen. Of the 10 species of *Delias* recorded from the Malay Peninsula most are restricted to the montane forest zone. Differentiation within species on the peninsular is not particularly pronounced, but *Delias georgina* is of particular interest. Four subspecies of this butterfly


***Sample plate from Butterflies of the Malay Peninsula 5th ed.***

have been recognised from the peninsula, with three of these endemic to isolated mountains: *D. georgina keda* (Kedah Peak), *D. georgina tahanica* (Gunong Tahan), and *D. georgina orphne* (Mt Ophir). The other subspecies, *D. georgina zenobia*, is more widely distributed, but is restricted to the highlands of the Main Range.

The book is organised into 16 chapters with the introductory chapters (Ch 1–10) dealing with morphology, life histories, nomenclature and classification, geographical distribution and biogeography, wing pattern and variation, speciation, population size, history of collecting, and methods of collection and study. A key to identify families is provided. The remaining chapters (Ch 11–16) are the species treatments and make up the bulk of the book, with a single chapter devoted to each of the six families. Apart from the Hesperiidae, which are treated last, the order of families follows modern classification according to phylogenetic relationships. A series of detailed Appendices then follow, which provide a checklist of species, species omitted and those with questionable records, species endemic to the Malay Peninsula, notes on taxonomy and distribution, the numerical composition of species and subspecies in each family, subfamily and tribe, and comments on erroneous records of larval food plants. The text concludes with an extensive bibliography, acknowledgements and three indices (general, common names and scientific names).

The last 166 pages of the book are devoted to the figures and colour plates. The black and white figures (25 pages) portray more than 450 clear line drawings of genitalia to aid in taxonomic identification. The colour plates comprise a completely new set of 132 plates illustrating every species reliably recorded from the area, showing a half image of the dorsal and ventral surfaces of both males and females. There is also a smaller set of six colour plates illustrating the immature stages of selected species, representing each butterfly subfamily. The new colour plates are an outstanding feature of this edition. Endless hours have been spent photographing and editing thousands of images, all based on specimens preserved in the Lee Kong Chian Natural History Museum in Singapore, the Natural History Museum in London, England, and a few private collections.

As with any book of this magnitude, errors are inevitable. Many of the errors in the book concern the colour plates, and the authors have prepared a Corrigenda, which can be accessed from the Moths of Borneo website https://www.mothsofborneo.com/, or from the Lepodon Books website http://www.lepodonbooks.com/TheButterfliesOfTheMalayPeninsula_5thEdition.html. Some of the errors in the colour plates concern identification of sex,

which have arisen due to mislabelling or naming the images with the wrong sex.

These issues are relatively minor considering the excellent presentation of 30 years of new information that the authors have painstakingly accrued for this impressive, revised edition. If you love butterflies generally, have a professional or amateur interest in the scientific study of butterflies, or want to learn more about the butterfly fauna of the Oriental region then this book is definitely for you!

Michael F. Braby
The Australian National University &
The Australian National Insect Collection

## Recent Publications

*A Look at Books with 'Uncle Wattleberry'*

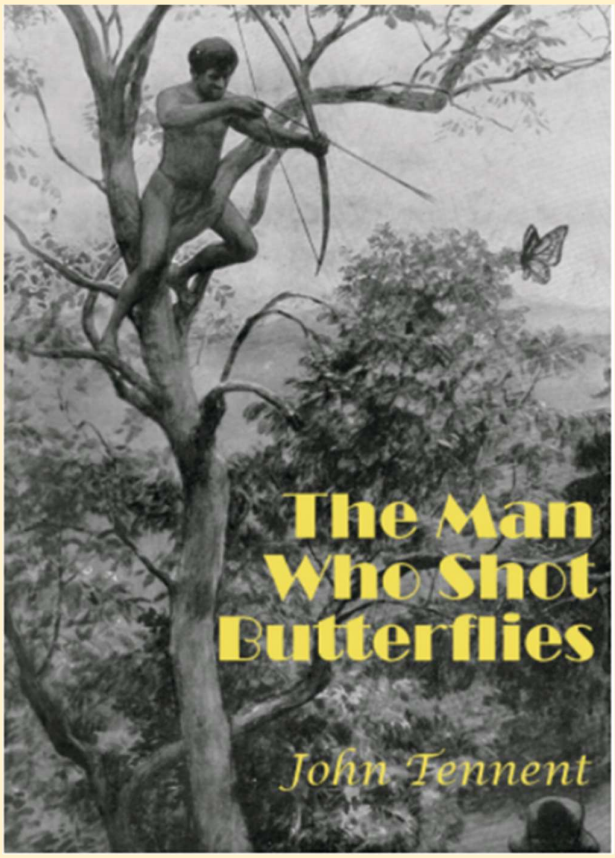
### The Man who shot Butterflies.

John Tennent. Storm Entomological Publications, Oxfordshire, England, 2021. pp. 1-603. Hardcover ISBN 9780954204525. Price UK£89 (it is subsidised by the author). Cost of freight from UK (DHL) UK£53.04. Available from the author's site at www.johntennent.co.uk> shop. This site permits online ordering. This book is not to be found in other bookshops, either physical or on-line.

This is a blockbuster of a book. It is a heavy tome of long, dogged scholarship and delicious detail which takes A.S. Meek from the shadows to the limelight, not always to his credit.

The man who shot butterflies – Albert Stewart Meek – was one of the last great collectors of natural history specimens, literally thousands of which were new to science. Sponsored by Walter Rothschild and curators at Rothschild's private museum at Tring, Meek was one of the most successful southwest Pacific explorers and adventurers of his time: a period of history when many missionaries, traders and gold miners died from fever or were killed and eaten by cannibals.

A highly focused but modest man, Meek suffered unimaginable physical hardships in reaching parts of New Guinea and the Solomon Islands where no-one had been before. More than 100 of the undescribed species he collected now bear his name. He was one of natural history's most successful explorers, discovering the world's largest butterfly and many other birdwing butterflies as well as numerous birds and other creatures. Whilst others talked about their plans to travel to obscure and remote places, Meek actually did it … and then went the extra mile.




Little was generally known about Meek's adventures or his private life. Until now! With a particular interest in the history of discovery, John Tennent describes events Meek experienced in both their historical context and from personal experience. Over two decades of his own research, Tennent stayed some three years in the forests of New Guinea and the Solomons in places Meek had visited a century before. This definitive and unique biography of Meek has a substantial autobiographical element. It draws freely on 500 pages of Meek's letters written to Tring curators archived in the Natural History Museum in London, as well as Meek's personal photograph album now in the care of Sir David Attenborough.

In summary, this outstanding book covers the physical, intellectual and private life of a truly remarkable man, whose courage, endurance, organisational abilities and foibles combined to leave a unique and lasting legacy in the museums of the world. More than the numerous and diverse

specimens – but inevitably because of them and the work Tring curators did with them – Meek helped to

Chapter 10 (1904-1905)

News regarding the collection of *Ornithoptera chimaera* was recorded in *A Naturalist in Cannibal Land*:

*A Naturalist in Cannibal Land* (pp. 142-143):

"... A fine discovery of that sort stirs the heart of a collector. He forgets hardships and troubles, and remembers only that he has given something to science, taken from Nature one more of her secrets. "A little secret!" some may say, but naturalists do not think so. To see this insect in flight was fine. The hind-wings are (when the insect is alive or fresh) almost a transparent gold, but I notice after it has been dried that the transparency somewhat disappears. I saw one flying about four or five hundred feet above the ground, and the gold hind- wings were so conspicuous that it looked to have brilliant yellow tails. But I noticed that in old specimens, along the fore margin of the fore-wing the gold turns to bluish green, on account of sun or weather".

Fig. 10.6: upper and under surfaces of male *O. chimaera*, collected by Meek in the Aroa River area between November 1904 and February 1905 (natural size)

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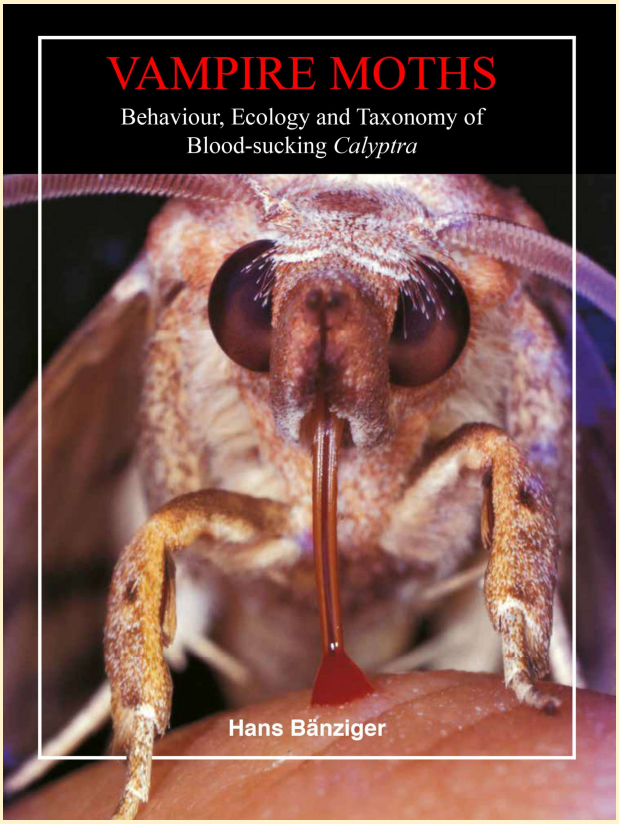
***Excerpt regarding Meek's collection of* Ornithoptera chimaera**

bequeath an understanding of the natural world that approaches the contribution of the founding fathers of biogeography. But this isn't a dusty story about the past: it is an inspiration to all of us who are interested in adventure and what it is possible to achieve. To never give up. At last Albert Stewart Meek has a fitting monument in this book.

*The Man who Shot Butterflies* is published in a limited print-run of only 500 copies – 603 pages with numerous colour pictures illustrating many of the butterflies, birds, beetles, shells, reptiles and other animals he collected. It chronicles Meek's pioneering life and adventures, incorporating a substantial volume of previously unpublished information relating to subjects including his discovery of the remarkable (now extinct) Choiseul Pigeon, *Microgoura meeki*; and the acknowledged largest butterfly in the world, *Ornithoptera alexandrae*. Many of Meek's discoveries are illustrated in colour.

This is an unashamed copy of the author's blurb. The author knows best what his book contains.




Vampire Moths. Behaviour, Ecology and Taxonomy of Blood-sucking *Calyptra*.
Hans Bänziger. Natural History Publications (Borneo), 2021. Hardcover. ISBN 9789838121996. Available from www.nhpborneo.com for RM 250.00 or Pemberley Books www.pemberleybooks.com UK £69. NB. At the time of writing this title was out of stock even with the publishers.

The erebid genus *Calyptra* is widespread throughout southeast Asia with 17 species recognized in this work. This genus and its habit of sucking blood and tears has been part of a life-time's study of fruit and flesh piercing and tear drinking moths by Dr Bänziger, based in Thailand.

This book is bountifully illustrated in colour, not just with moths, but all aspects of their biology. Readers bored with TV scenes of COVID vaccination after vaccination can try a variation here with gory details of skin piercing moths. The book deals in great detail with the taxonomy of the 17 species and then goes on

to provide exhaustive detail of their biology, ethology and ecology including species with confirmed skin-piercing and blood-sucking habits, feeding mechanisms, attacks on animals, preferred hosts, feeding on humans, fruit-piercing habits, immature stages and food plants and more aspects of their biology. The potential of *Calyptra* for transmitting pathogens is discussed but only in relation to *Pteropus* bats (flying foxes) which carry Nipah virus. The transmission of COVID-19 virus is mentioned but only in this context. The *Rhinolophus* bats (horseshoe bats) which are now known to be the carriers of the COVID-19 virus (COVID-19 is the illness caused by the virus SARS-CoV-2) are mentioned in the text only in terms of these bats feeding on moths.

From an Australian perspective, *Calyptra minuticornis novaepommeraniae* is found in New Guinea, the Top End of the Northern Territory and eastern Australia where it is found in rainforest as far south as Bawley Point in southern NSW. This moth has not been recorded as tear-sucking or skin-piercing but the nominate subspecies, which occurs in southeast Asia, has. This has led Bänziger to a very careful examination of the taxonomic status of *novaepommeraniae* with the result that it is retained as a subspecies and there is some speculation as to why it foregoes mammal-fluid feeding.

This is a book of astounding depth and exquisite detail. It is laden with excellent images. The cover says it all.

Iconotypes. A Compendium of Butterflies and Moths. Richard I. Vane-Wright (Ed.).

The UK edition: Thames and Hudson. pp. 688. Hardcover. 16 November 2021. ISBN 978-0500024324, softcover 4 November 2021. ISBN 978-0500024324. In Australia it is available from Abbeys Bookshop in Sydney for $AUD 130, www.abbeys.com.au and from https://www.amazon.com.au/ and from the UK from www.bookdepository.co.uk for $AUD 122 with no postal cost or https://thamesandhudson.com/books for £65 and other bookstores and with an unpredictable exchange rate.

The USA edition: University of California Press. pp. 688. Hardcover. 16 November 2021 ISBN 978-0520386501 available from https://www.amazon.com.au/ and https://www.ucpress.edu/books.

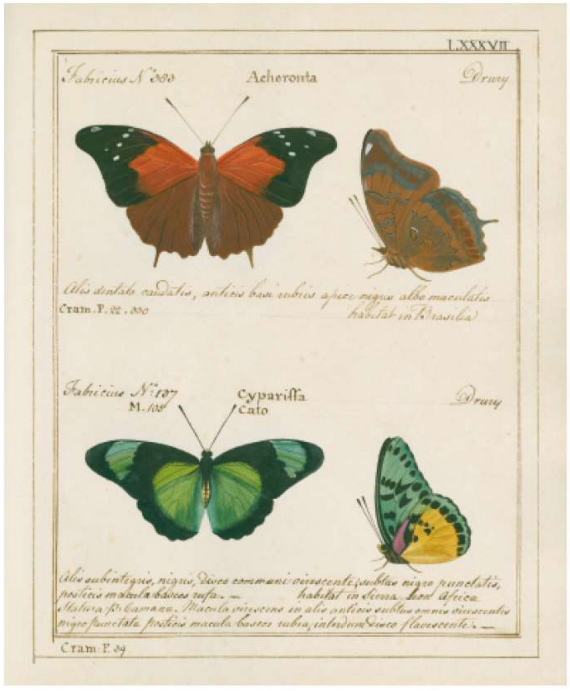
Prepared in partnership with the Oxford University Museum of Natural History (formerly Oxford University Museum) and the Natural History Museum, London.

The bibliographic details given above are not entirely consistent across websites, both UK and USA publishers fail to mention a softcover edition but it is listed by Amazon.

This book is dubbed as “Jones’s Icones complete” or “An enhanced facsimile”. It is a gallery from end to end of the most glorious butterfly illustrations, page after page, section by section, grouped by their geographic region of origin.

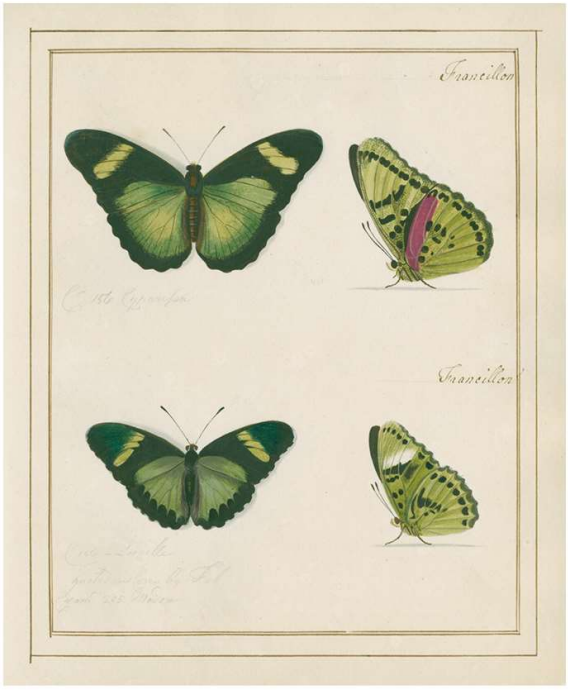
around life-size. These paintings are now held in the Oxford University Museum of Natural History.

With a 1790s plus date Jones had access to the collection of butterflies which Sir Joseph Banks brought back from New Zealand and the eastern coast of Australia and many of these species are depicted. The Australian specimens in the Banks Collection were named by J.C. Fabricius in 1775 but apparently others besides Banks collected some butterflies in Australia and these were to be found in several other collections. In 1793 Fabricius again visited London and he described some New Zealand and Australian butterflies, not always from the specimens themselves, but from the illustrations in Jones’s




*Pl.* LXXXVII. '*Acheronta*'
*Ref.* J. C. Fabricius, *Spec. insect.* (1781); No. 383
*Co.* Dru Drury
*La.* Southern USA to Mexico, Caribbean & South America
*Id.* *Historis acheronta* (Fabricius, 1775)

*Pl.* LXXXVII. '*Cyparissa*' / '*Cato*'
*Ref.* J. C. Fabricius, *Spec. insect.* (1781); No. 137 / J. C. Fabricius, *Mant. insect.* (1787); No. 105
*Co.* Dru Drury
*La.* Africa
*Id.* *Euphaedra cyparissa* (Cramer, 1775)




*Pl.* LXXXVIII. Unnamed
*Ref.* —
*Co.* John Francillon
*La.* Africa
*Id.* *Euphaedra* cf. *gausape* (Butler, 1866)

*Pl.* LXXXVIII. Unnamed
*Ref.* —
*Co.* John Francillon
*La.* Africa
*Id.* *Euphaedra* cf. *afzelii* (Felder & Felder, 1867)

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ICONES VOLUME V | 449

***Examples of the plate reproduction from Jones's Icones as presented in “Iconotypes”***

Let me explain. William Jones of Chelsea in London was a wealthy wine merchant who conceived the project of painting all the different butterflies he could access in London in the period 1790s to early 1800s (he died in 1818) eventually numbering some 1300 illustrations each in colour, exquisite detail and

Icones. This is why the paintings are called “Iconotypes”; they are the originals from which Fabricius described species. Because of their importance to taxonomy, Jones’s Icones have had a lively life in the taxonomic literature, and they have been made available to students in several forms in

the past. For example, the CSIRO Black Mt library holds a full set of coloured photographs taken by the Oxford University Museum when the Icones were rebound about 30 years ago. But this book is the first colour printed version of the total number. The book is enhanced by much background information including chapters on such subjects as: "The early study of Lepidoptera" by Alberto Zilli, "The art of painting butterflies" by Stephanie Jovanovic-Kruspel, plate and "The decline of Lepidoptera around the Globe" by Francisco Sánchez-Bayo, as well as comprehensive information on Jones himself, his paintings and their significance. Outside the main sections containing the paintings, images of the paintings are reworked in several different ways to facilitate the reader in finding a desired image.

Australian butterfly students will be familiar with some of the background to Jones's Icones through the insights given by G.A. Waterhouse following his visit to London in 1936 and which were included in his address to the Australian and New Zealand Association for the Advancement of Science, vol. 23, in Auckland in 1937 and his remarks in a paper on the binding of the Icones published in 1938.

So far as I am aware no acute taxonomic problems arise from Jones's Icones in the Australian butterflies but this cannot be said of the New Zealand butterflies where *Lycaena salustius* was described by Fabricius in 1793 but distinguishing it from some similar species may be more subtle than the detail in the art-work allows. Thus there is doubt about the correct use of Fabricius's name, *salustius*, and as this is the oldest name for any of this group of NZ copper butterflies, there is a skeleton in the cupboard which is best ignored and the current usage accepted.

Is this an "art book" with a serious taxonomic side? Or is it a taxonomic book masquerading as an "art book"? Maybe it is both depending on your outlook. I'll leave you to decide.

## Online

Butterflies Australia (https://butterflies.org.au) is a citizen science project that aims to get everybody looking at butterflies and recording their sightings. Launched in late 2019, the project has now accumulated 17,000 data points from all over Australia and territories.

Data can be collected via a free phone app (iOS and Android) and a website that will let you send your sightings in either as a structured survey or ad hoc observations. The apps include a free digital field guide.

GET IT ON Google Play  Download on the App Store

## Research

### Call for Collaboration

Got a moth or butterfly research project that would benefit from collaboration with other members or their contacts? Want to borrow specimens or source data? Contact the editor to put in your request here.

### Requests for Information

Here's another opportunity to draw on the collective knowledge of the Australasian moth and butterfly community. Got a photograph of a mystery specimen for identification, or a handwritten label that needs deciphering? Contact the editor with your query.

### New Projects

Let the community know about your new project by promoting it in the newsletter

# Members

## New Members

A space where new MABA members can be listed.

## Member Profiles

An opportunity to introduce yourself with a profile picture and a short paragraph about yourself and your interests.

## Your Council and Society

### Patrons

**Marianne Horak**

***Marianne in the ANIC collection***

Dr Marianne Horak is an Honorary Fellow at the Australian National Insect Collection, Canberra. After completing her PhD degree in Switzerland she joined the ANIC in 1982 to study the taxonomy and biology of Southern Hemisphere moths, particularly Tortricidae, but also the subfamily Phycitinae of the family Pyralidae and to address other major problems in the Australian Microlepidoptera, including Oecophoridae and Bucculatricidae.

Earlier she spent two years in New Zealand (1967–1969) and two years at Bulolo in Papua New Guinea (1971–1973). Her PhD work on Tortricidae culminated in landmark findings on the phylogeny of the family, and the structures that are important in its taxonomy. She then embarked on a series of revisions of the Australasian Tortricidae. In 2001, she became head of the Lepidoptera unit at the ANIC, a position which she held until retirement in 2010. She has continued as Chief Editor of the *Monographs on Australian Lepidoptera* series, played a leading role in the establishment of the website, *Australian Moths Online*, and instituted the regular "Moth Weekend" workshops. She also established the Australian Lepidoptera Endowment Fund to facilitate studies of Lepidoptera in the ANIC. In 2008, Marianne won the inaugural J.O. Westwood Medal for the comprehensive work *Olethreutine Moths of Australian (Lepidoptera: Tortricidae),* which was published in 2006. In 2019, Marianne was awarded the Karl Jordan Medal by the Lepidopterists' Society, and thus gained the distinct honour of being the first woman to receive this prestigious international award. Marianne fully embraces the concept that one can achieve more by encouraging others than one can by working alone.

**Edward "Ted" Edwards**

***Ted with the Karl Jordan medal***

Ted is an Honorary Fellow and former curator of Lepidoptera at the Australian National Insect Collection, Canberra, He joined the ANIC in 1970 and retired in 2000. He then became a Post-retirement Fellow and then an Honorary Fellow, a role in which he is still active. In today's scientific world of narrow specialisation, Ted Edwards has maintained a broad interest across all families of Lepidoptera in the fields of taxonomy, biogeography, conservation, literature

and natural history for over 50 years. During this period he has described species in twelve lepidopterous families and been author or co-author of more than 150 papers and articles ranging from book reviews, obituaries, literature analyses, bibliographies, popular articles on biology to scientific papers, book chapters and books. He has long acted as an elder statesman and mentor, and his extensive field experience, curation of the Lepidoptera collection in the ANIC over many decades, intimate knowledge of the scientific literature and accumulated wisdom form the basis for almost all studies of Australian Lepidoptera, enabling researchers as well as amateur biologists throughout the world to easily

*Ted pinning micros in the Border Ranges*

access the available knowledge of a unique fauna.

He was made a Member of the Order of Australia for services to entomological science in 2012 and in 2015 he was the recipient of the prestigious Karl Jordan Medal, an international award presented by the Lepidopterists' Society. His major contributions include the series of 39 chapters in the *Checklist of the Lepidoptera of Australia* monograph published in 1996; the *Zoological Catalogue of Australia. 31.6. Lepidoptera: Hesperioidea, Papilionoidea* published in 2001; the Australian Moths Online website released in 2005; and the book *A Guide to Australian Moths* published in 2007. Ted's contribution comprises a legacy of original scientific knowledge and experience for both the Australian and international scientific community, as well as for dedicated amateurs.

## Council members and roles

**President: Doug Hilton**

*Doug*

Doug is based in Melbourne where he is a research scientist and Director of the Walter & Eliza Hall Institute of Medical Research. He studied first at Monash University (BSc) followed by BSc Hons. and a PhD at University of Melbourne. At the end of 1984 he undertook summer vacation work at ANU and fell in love with blood cells, later working as a research student in the Walter and Eliza Hall Institute, studying the hormones that regulate blood cell production. He hasn't worked on anything else in the last 35 years. He is fascinated by fundamental science, but also believes in the importance of translating discoveries into applications for the community that funds this research.

Doug's research career has received considerable recognition. He is a Fellow of the Australian Academy of Science, the Australian Academy of Technology and Engineering, and the Australian Academy of Health and Medical Sciences. In 2016 he was made an Officer of the Order of Australia for his services to medical research, in particular his advocacy for gender equality in science and commitment to supporting young researchers.

Doug developed an interest in Lepidoptera after discovering that he was not very good at relaxing. On family holidays he'd be itching to go back to the lab and do experiments. This was not a great recipe for marital happiness, so he needed to find something to do while camping in the bush. What better solution than study moths?

Doug has an interest in the monotrysian moth families, including the Heliozelidae and other Adeloidea, co-authoring papers on the phylogeny of the Heliozelidae. He has also co-authored on the discovery of a new family on moths on Kangaroo Island, and a revision of the Australian Cossinae and other small cossid moths.

He hopes that MABA will spark a renaissance in community interest in moths and butterflies, stimulate a diverse range of people to look at these amazing insects, and contribute to their study using citizen platforms like iNaturalist. Hopefully this will raise awareness among our elected representatives of the importance of protecting the environment and funding the study of the unique and fascinating animals and plants we have in Australia.

**Secretary: Michael F. Braby**

*Michael in the field at Davies Creek National Park, Queensland*

Dr Michael Braby is an Honorary Associate Professor in the Division of Ecology and Evolution at the Australian National University and a Visiting Scientist at the Australian National Insect Collection, Canberra. He developed an interest in the natural history of butterflies at the age of 16 whilst a high school student and has been hooked ever since! He is recognised nationally and internationally for his research on the biodiversity of butterflies—particularly their taxonomy, systematics, biogeography and conservation biology. His research aims to better understand and document the composition, biogeographic patterns and evolutionary history of butterflies and the underlying processes shaping their assembly on the Australian continent, as well as management actions needed for their conservation. Michael has a keen interest in the photography and life histories of butterflies and diurnal moths, and his reference collection of Australian butterflies (c. 10,000 specimens) was recently donated to the ANIC. He is the recipient of several awards, including the The Whitley Medal in 2001 by the Royal Zoological Society of New South Wales for the best book on the natural history of Australian animals (Butterflies of Australia: Their Identification, Biology and Distribution), the Whitley Award Certificate of Commendation in 2005 for the best book in the category of Field Guide (The Complete Field Guide to Butterflies of Australia). In 2011 he received the Hayashi Award from the Butterfly Society of Japan in recognition of outstanding contribution to the study of Lepidoptera through the publication of numerous books and research papers for both specialist and amateur lepidopterists. In 2012 he was awarded the Mackerras Medal in 2012 by the Australian Entomological Society for excellence in Entomology.

**Vice President: Axel Kallies**

*Axel*

Axel is a professor of molecular immunology at the Peter Doherty Institute for Infection and Immunity, University of Melbourne. Ever since he was a teenager he has been interested in moths, and has specialised

in the taxonomy, systematics and phylogeny of the superfamily Cossoidea, including Cossidae, Sesiidae, Brachodidae and Castniidae, describing more than 170 taxa mostly in these families. This includes moths from Europe, Africa, Asia, Oceania, and of course Australia. He is the author or co-author of over 80 scientific papers, including research articles on moth phylogeny, taxonomic descriptions and revisions, biology, faunal lists and new distributions.

Over the last 10 years, he has been working with a group of other Australian entomologists including Doug Hilton, Andy Young, Liz Milla and others on Australia's monotrysian moths, including Heliozelidae, Adelidae, Opostegidae and Hepialidae, and additional evolutionary primitive families of moths. Other groups of interest include families such as Zygaenidae, Cyclotornidae and Glyphipterigidae. Together with Peter Marriott, he is also part of the Moths of Victoria project team, documenting the faunistics and ecology of Victorian moths.

*Axel in the field in Western Australia*

**Treasurer: Tony Moore**

*Tony on his property at Port Macquarie*

Tony Moore is a veterinarian who worked after graduation in Australia in small animal practice during the 1980s, and then spent 17 years in the USA teaching veterinary oncology at Tufts University in Massachusetts. He left his position as Professor there to return to Australia in 2003, and co-direct a veterinary oncology consulting company. Although well published in the veterinary field, his interest in lepidoptera is primarily as a hobbyist, and he has collected butterflies since he was 12 years old. His academic career has allowed him to collect on all suitable continents and in such fabulous places as Sulawesi, Costa Rica and Madagascar. A more recent interest in moths has expanded his horizons (and number of cabinets) considerably. He and his wife live near Port Macquarie, on 25 acres recently designated as a Biodiversity Conservation Trust. Now semi-retired, he hopes to develop more dexterity and skills in the study of lepidoptera.

**Editor: David Britton**

***David at Encounter Bay, South Australia***

David works as an entomologist doing plant health surveillance in northern Australia. He is based in Cairns with the Northern Australia Quarantine Strategy, Department of Agriculture, Water and the Environment. He has been an entomologist for as long as he can remember and has diverse experience and interests which has covered physiology, behaviour, chemical and nutritional ecology, community ecology, conservation biology, insect life-histories, pest

surveillance and monitoring, and management of pest insects. Much of this has included Lepidoptera as the group of interest. His education included a series of degrees from University of Melbourne, La Trobe University, and the University of New England before he quite sensibly decided to part ways with the university system and get an actual job. This job was a long stint as entomology collection manager at the Australian Museum, and a shorter stint as the manager of the natural history collections at the same institution. He then decided on a change of scenery, heading north to his current location to work in a more tropical environment.

David amassed a private collection from around 1988 to 2015 of over 10,000 specimens, primarily Lepidoptera from south-eastern Australia, but also moths and butterflies from South Africa, Arizona and Papua New Guinea. This has been donated to the Australian Museum. While not claiming to have any major expertise with any group of Lepidoptera or indeed other groups of insects, he does have a fondness for the Lithosiini and a very broad knowledge of entomology in general.

**Public Officer: Julie Morgan**

***Julie enjoying the south coast bush***

Julie lives on the south coast of New South Wales on a property that she manages for conservation. Her curiosity about her environment led her to research the many aspects of the natural world that surrounded her. It began with birds, then butterflies, plants, frogs, mammals, other insects, and more. Julie's interest in moths started about twelve years ago when she began to photograph the many species that visited the outdoor lights at night. She found that identifying all the species was a challenge and was fortunate enough to be introduced to Ted Edwards who was very generous in sharing his knowledge of moths. She became fascinated with the wonderful variety in the moth world, from the stunning colours and patterns of emeralds, the various structures that case moths build, and the spectacle of ghost moths emerging after rain.

As Chair of the Eurobodalla Natural History Society, Julie encourages others to learn more about nature by leading field trips, writing newsletter articles and conducting talks. She believes that education is the

way to connect people to nature and an important component of conservation. Presentations on Lepidoptera are particularly popular, with people both surprised and delighted with the beauty and diversity of moths and butterflies around them. The interest created has resulted in reports of species not previously recorded in the region.

Julie believes Moths and Butterflies Australasia Inc. will bring together a diverse range of people interested in Lepidoptera, balancing a strong scientific foundation with a wider appeal for community and other interest groups. MABA will play an important role in education and conservation and will promote the documentation of new observations and discoveries.

**Councillor (conservation officer): Chris Sanderson**

*Chris photographing imperial hairstreaks*

Chris is based in Brisbane and is a reformed vertebrate ecologist who now spends most of his limited time in the field looking at butterflies. Currently working with the Queensland Government, his role is to provide habitat mapping and advice on fauna to legislators and decisionmakers within government. During his formative years, Chris was lucky to have a grandmother who was a passionate birdwatcher, a passion which appears to have rubbed off on him. This early love of birds turned into a love of butterflies, reptiles, mammals, frogs, orchids, dragonflies, and everything else that makes up the diversity of our natural world. Chris completed a dual degree in Science and Information Technology at the University of Queensland, before embarking on a career working in a diverse range of ecology related professions. He spent several years working for Birdlife Australia, particularly focusing on their citizen science activities (before people were calling it citizen science), which mostly consisted of convincing interested people to write down what birds they were seeing and send it to him. After this, he spent a long time working as an ecological consultant, where he spent most of his time writing down what animals he saw and sending that to other people. In 2012, Chris found a small orange butterfly near Darwin, which became a bigger deal than he expected, and eventually led to meeting Michael Braby and starting the Butterflies Australia project. Butterflies Australia is a citizen science project which established a nation-wide database for interested people to, you guessed it, write down what butterflies they see and send it to us! Chris is looking forwards to MABA continuing what was started with Butterflies Australia and growing the contribution of citizen science to the field of Lepidoptery.

**Councillor (media officer): Suzi Bond**

*Suzi with a saturniid in Ecuador*

Dr Suzi Bond is an ecologist working at the Australian Bureau of Statistics, where she is a specialist in biodiversity accounting. Suzi published the first field guide to the butterflies of the ACT in 2016, is a co-author on a forthcoming book on ACT moths due for publication in early 2022 and she has also published articles on birds and butterflies. Suzi leads a butterfly monitoring project in collaboration with citizen scientists and is a popular science communicator, conducting regular field surveys for butterflies and woodland birds as well as leading butterfly walks for the general public. She is an A-class bird bander, with experience handling a range of species from albatross to thornbills at multiple field sites across Australia. Suzi completed her PhD in Ecology at the Australian National University and is an honorary member of the Australian National Insect Collection at CSIRO, an honorary senior lecturer at the ANU's Fenner School of Environment and Society, and a butterfly moderator for Canberra Nature Map and Butterflies Australia.

**Councillor (education officer): Catherine Byrne**

*Cathy*

Cathy grew up in southern Tasmania, and as a child she used to love wandering around the bush, observing and collecting insects. She recalls always wanting to be an entomologist. She finally achieved that goal some decades after, raising a family of four kids along the way, and finishing a science degree followed by a PhD where she studied the systematics of native geometrid moths supervised by Peter McQuillan. Systematics had to take a back seat while she worked with Tasmanian Department of Agriculture on a project securing market access to Japan for locally grown cherries. This job gave her access to the Department's large and historical Tasmanian insect collection, which featured collections from such notable Australian entomologists as A.M. Lea and J.W. Evans, both who had worked in the same Department.

Working with collections has now become Cathy's job as Senior Curator of Zoology at the Tasmanian Museum and Art Gallery (TMAG) in Hobart. The curatorship position is a very diverse one, spanning collection and staff management, and public outreach and education. Curators are also expected to conduct systematic research, enabling Cathy to continue her productive and high-quality research on Australian Geometridae. Zoology at the TMAG has the very ambitious goal to have representatives every animal species in Tasmania held in the Museum collections. As part of achieving that goal the Museum conducts "Expeditions of Discovery" to remote and poorly collected areas of Tasmania almost every year. For Cathy this has resulted in finding many new lepidopteran species, faunal records and rarities, and much of Cathy's time is now spent preparing and identifying moth specimens from this field work. Cathy sees MABA as an association that can bring together everyone who is interested in our diverse and fascinating Lepidoptera, highlighting how important our fauna is globally, with its diversity and high level of endemicity. She hopes it will provide a platform for the sharing of knowledge on our moths and butterflies both locally and internationally.

**Councillor (New Zealand): Robert Hoare**

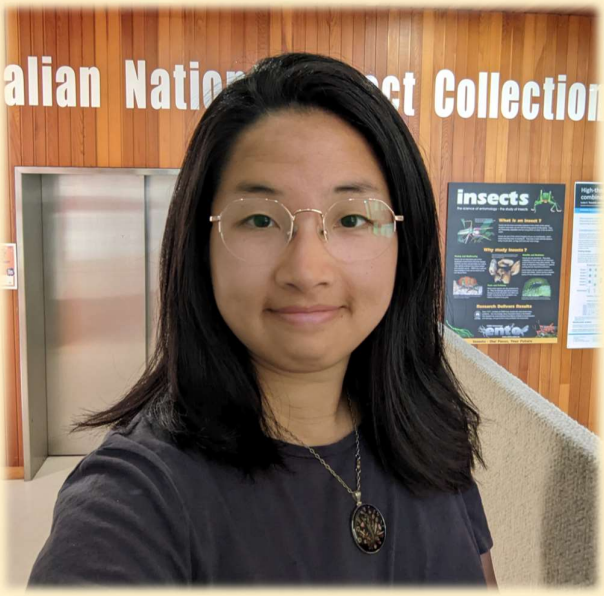
Robert was born in 1967 in Winchester, southern England. His father Ian is a keen amateur entomologist who made beautiful collections of butterflies and beetles; Robert first took an interest in Lepidoptera at the age of 6, when he remembers counting *Tyria jacobaeae* larvae on ragwort in Cornwall. After a classical education at Eton (1980-84) and Oxford (1985-89), he decided to pursue entomology more seriously, switching to biology and studying at Exeter University, where Robin Wootton was a lecturer. By this time his major focus of interest was Microlepidoptera. Attracted by realms with greater diversity and scope for discovery than post-Ice Age Britain, he moved to Australia in 1995 to pursue a

*Robert, our Aotearoa councillor*

PhD under Penny Gullan and Ebbe Nielsen, working on the tiny leaf-mining Nepticulidae. He took his current position in Auckland, New Zealand, at the New Zealand Arthropod Collection in 1998, after the retirement of John Dugdale, and since then has worked mainly on New Zealand Xyloryctidae and Noctuidae, but has now turned his attention to Tineoidea, especially the poorly known and bizarre Dryadaulidae. He retains a broad interest in all Lepidoptera families, though chiefly Microlepidoptera, and likes to rear through the early stages as much as possible. The strange and highly endemic New Zealand fauna is a source of constant fascination.

**Councillor (website officer): Ying Luo**

Ms Ying Luo is an early career entomologist working on her PhD on the systematics and biology of Australian Gracillariidae. She is based at the Australian National Insect Collection and The Australian National University. Her entomological exploits have taken her far and wide, from a research assistant position in Hong Kong to a project officer in Darwin with the Northern Australia Quarantine Strategy (Department of Agriculture, Water and the Environment). She described her first insect species at the age of 21 and since then has been looking for opportunities to describe even more. This desire led her to her current project which will involve an integrated taxonomic revision of the Australian Gracillariidae, a group of




*Ying at the ANIC*

micro-lepidopterans whose larvae are leaf miners. Due to the lack of previous experience in this area, she is keen to understand more about all leaf-mining Lepidoptera. Ying is passionate about the diversity of insects, diversity in science, and looks forward to being part of MABA.

**Councillor (fund raising officer): Vacant**

## Classifieds & Exchanges

### Equipment and books for sale

Advertising space is available here.

Note that the society does not support the trade or collection of moths and butterflies purely for commercial purposes except in cases of managed ranching, such as of threatened or iconic species by indigenous and other interested groups, and provided it is sustainable and/or has conservation benefits.

## The Logo

The MABA logo features the drepanid moth *Hypsidia erythropsalis* Rothschild, 1896 a brightly coloured species endemic to the Wet Tropics of north-eastern Queensland. It is restricted to tropical rainforest from Cooktown to Innisfail. Like many Australian Lepidoptera the larval food plants, life cycle and biology are unknown, highlighting the knowledge gaps and opportunities for field discovery that typify so much of our vast fauna.

***Sharyn***

The logo was designed by Ms Sharyn Wragg. Sharyn worked on Lepidoptera as an Honours student at the Australian National University (ANU), and as a technical officer in the Australian National Insect Collection, CSIRO. She currently works in IT at the ANU Research School of Biology, but enjoys engaging in art, graphic, illustration and photography projects that highlight the beauty and conservation value of the Australian biota and landscape

## About MABA

Website: www.maba.org.au

The MABA Constitution can be accessed from the website.

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