

If one was to add the Crambid types noted as collected from Brisbane to the above list and for that matter those from Stradbroke Island, being an island in Moreton Bay, the list would increase to 60 with 21 being synonyms. But this would add more authors and collectors and one could add to this article ad infinitum, or just add the 6 degrees of separation concept to Diggles and you have the man who invented Phonography (shorthand) Isaac Pitman, Diggles' second wife's mother's sister's husband. But I digress.

For more on Silvester Diggles and the History of the Queensland Museum, I recommend the following reads:

Silvester Diggles a Queensland naturalist one hundred years ago. Qld Nat, 17: 15-25

by Elizabeth N. Marks

http://www.serf.qut.edu.au/downloads/collections/en_marks/silvester_diggles.pdf

and

A TIME FOR A MUSEUM The History of the Queensland Museum 1862-1986,
Memoirs of the Queensland Museum V24

<http://ia700301.us.archive.org/20/items/MemoirsQueensla00Quee/MemoirsQueensla00Quee.pdf>

other references

Gordh G. and Headrick D. 2011, *A Dictionary of Entomology 2nd Edition* CSIRO Publishing

wikipedia: [http://en.wikipedia.org/wiki/Francis_Walker_\(entomologist\)](http://en.wikipedia.org/wiki/Francis_Walker_(entomologist))

and http://en.wikipedia.org/wiki/Moreton_Bay

PS. The name Morton's Bay was given by Captain Cook when he passed the area on 15 May 1770, honouring Lord Morton, president of the Royal Society. The spelling Moreton was an error in the first published account of Cook's voyage.

Butterfly Observations in Bundanoon NSW – Alan Hyman

Bundanoon is a picturesque small town with a population of approx. 2,500, located about halfway between Sydney and Canberra in the Southern Highlands of New South Wales. About 50 km inland from the coast, the town is perched on the north-western edge of the 192,353 hectare Morton National Park at an altitude of about 670 metres (or 2205 feet as noted on the historic railway station sign). To the east and south stretch the eucalypt forests and rugged, dissected plateau of the Park, while to the north and west are pastoral properties with remnant native vegetation cover. Winters are cold, summers warm to hot, with annual rainfall averaging approximately 1000mm and everything is sometimes magically cocooned in an atmospheric fog. Many residents have established cool climate plantings with exotics and there are several wetlands which, together with the surrounding rural and natural areas, provide a variety of vegetated environments.

Readers who like a change from the usual scientific content may leisurely enjoy my anecdotal notes on the butterflies of this region. Of the 416 butterfly species recorded for Australia (Braby 2004), I've noted about 55 species from Bundanoon and its





Buchanan's Lookout, Morton National Park
Bundanoon Creek Gorge (left)



Typical road through eucalypt forest,
Bundanoon Section Morton National Park

immediate surrounds. I say 'about' because all these observations are my own (and hence subject to correction, additional notation or comment by other persons) and include a number of Hesperidae and other species seen but not as yet identified. The count also compares a little unfavourably with the 65 species recorded by Dr. S. Brown in 'The Gib' 2006 for Mt. Gibraltar – an 863m bluff between Mittagong and Bowral, located 25 km to the north-east. Nevertheless, the observations below should serve as a reasonably valid baseline for further assessment as they have been carried out during more than 12 years of town and bushwalking, bush regeneration activities and gardening – and I am unaware of any similar local survey. All five major Australian families are represented in the district.

Five species of Swallowtail (Papilionidae) are recorded although only one, the Macleay's Swallowtail (*Graphium macleayanum*) could be called reasonably common. Its distinctive triangular shape with black, white and deep emerald green colouration render it easily recognizable as it momentarily alights on a spray of buddleia or sweeps across a park gorge. Its coastal cousin the Blue Triangle (*Graphium sarpedon*) is seldom encountered, as is the Small Citrus butterfly (*Papilio anactus*) but the dimorphic Orchard Swallowtail (*Papilio aegaeus*) is not uncommon at times, the large black males especially often drawing attention as they erratically flap through the garden. During the summer of 2010-2011, I saw my first Chequered Swallowtail (*Papilio demoleus*) arrive here. Unusual weather conditions had obviously triggered a broader than usual migration and I saw several dozen specimens over a period of some weeks. Apart from a few individuals noted again in December 2012, these are the only encounters I have had in the area with this handsome insect.

The Whites and Yellows (Pieridae) are represented by ten species whose relative abundance varies enormously. The Cabbage White (*Pieris rapae*) for example, is very common in town and rural areas and perhaps even more so, the Caper White (*Belenois java*) during its occasional periods of summer migration. Three Jezebels are known for certain, the Black Jezebel (*Delias nigrina*) being the most common of the trio. Prominent in flight, the dark under surfaces and contrasting light upper sides (especially on the males) flash with a stroboscopic appearance in the sunlight. The



Wood White (*D. aganippe*) occurs in small numbers in favourable seasons and occasionally, the odd Imperial White (*D. harpalyce*). These are both ‘stand-out’ species, unmistakable (even at a distance) with their soaring flight and glorious red and yellow adornments to the undersides. There was a tentative sighting of a possible fourth species, the Yellow-spotted Jezebel (*D. nysa*). This specimen, which had uniform mid-brown colouration with yellow spots under its hindwings, may however have been a female ‘dark-form’ Caper White (*B. java*). During an extraordinary migration in December 2003 the Lemon Migrant (*Catopsilia pomona*) and the Common Albatross (*Appias paulina*) arrived together in large numbers, an event not repeated since, although the latter species sometimes makes a rare visit. Sporadic sightings of the Small Grass Yellow (*Eurema smilax*), a couple of probable Common Grass Yellows (*Eurema hecabe*) and a few Narrow-winged Pearl Whites (*Elodina padusa*) are the other species recognized.



Caper White (*Belenois java*)



Black Jezebel (*Delias nigrina*)



Wood White (*D. aganippe*)



Common Albatross (*Appias paulina*)



There are about twenty species of Nymphalidae recorded. The subfamily Satyrinae is well represented with twelve species, including no less than five examples of the genus *Heteronympha*. Individual species occur in overlapping succession from mid-spring, commencing with the aptly (if unimaginatively) named Common Brown (*H. merope*). This is arguably the most abundant butterfly in the district, being seen from late October (when there are predominantly males around) to late April when there are still a few female stragglers. In February, the Spotted Browns (*H. paradelpha*) appear although, while common enough, not in the numbers of the previous species. In some years the Shouldered Brown (*H. penelope*) is evident and finally the Banks' Brown (*H. banksii*) emerges – with its distinctive purplish suffusion under the hindwings – continuing through until well after Easter. The fifth species is the beautiful dimorphic Wonder Brown (*H. mirifica*) which, owing to its more secretive habits, is not normally seen with others in the genus. I have only encountered it on a handful of occasions – a tawny-orange male plus a few chocolate and cream females at odd times in our garden and several in the adjacent National Park – but I suspect that it may be more prevalent in the Park's rainforest gullies.



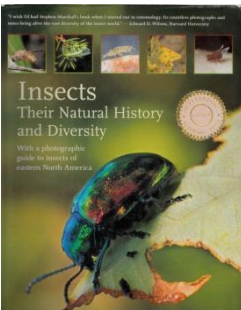
Common Brown (*Heteronympha merope*)



Shouldered Brown (*H. penelope*)

Ed.: Unfortunately I have to stop this article here but it will continue in the next issue.
 Photos Alan Hyman

BOOK REVIEWS



Insects: Their Natural History and Diversity, with a photographic guide to insects of eastern North America

Author: Stephen A. Marshall

Reviewed by Irene Denton

Book first released 2006. My copy is Third printing, 2009.

Publisher: Firefly Books.

732 pages of nearly A4 size (21.5cm x 28cm); over 4000 photos; hardback.

First of all, a little of my background. I've been a bushwalker since my teens, but it wasn't until 1985 that I took up a more detailed study of nature

