

**Figure 5.** Some of the invertebrates on display in the Rainforest section of the Wild State exhibition. Photo N. Starick.



### **What else we do**

QM Entomology staff curate and preserve the insect collection, and produce displays. We also conduct research, both taxonomic and ecological; produce publications, webpages, and factsheets; supervise students; answer enquiries and carry out identifications.

We also provide access to the collection: through loans of specimens to scientists (16,500 specimens in 2016); digitally through the QM website, Atlas of Living Australia (nearly 253,000 specimen records), and images; physical access to researchers, students, artists, writers, photographers, journalists, teachers, naturalists and environmental groups; and through talks and lectures.

\*\*\*\*\*

### **New Observations of the Pale Ciliate-blue butterfly, *Anthene lycanoides godeffroyi* (Semper)– John T Moss**

Since January 2015 there have been a number of reports of observations of the Pale Ciliate-blue lycaenid butterfly in southeast Queensland. Common and Waterhouse (1981) reported their distribution as the Top End of the Northern Territory and from Cape York to Townsville. Braby (2000) extended this east coast distribution further south to Cannonvale near Proserpine. Dunn (2008) later reported a sighting of a



female at Tannum Sands (near Gladstone) in January 2002, but as the butterfly evaded capture its identification was not confirmed.

The butterfly is polyphagic and Braby (2000) lists a number of host plants in seven or eight families. So far in southeast Queensland it has only been reported feeding on plants in the families Mimosaceae and Caesalpiniaceae. Several people including Amelia Pasieczny (2015), Ross Kendall and myself have observed them using *Senna gaudichaudii* (Caesalpiniaceae) in our Brisbane and Redlands gardens. Wesley Jenkinson noted that in his Beaudesert garden they utilised both *Albizia lebbek* (Mimosaceae) and *Cassia fistula* (Caesalpiniaceae) [Jenkinson, 2017]; but since then he found two final instar larvae of the butterfly, attended by several small black ants, on a *Senna surattensis* shrub in his garden. These pupated and emerged successfully as adult butterflies. Mayo (2015) was the first to report the butterfly in this region (from three locations on the Sunshine Coast). One of these observations was in association with the exotic *Albizia julibrissin*.

For the 3 years from the 24<sup>th</sup> December 2015, Wesley (pers comm) has regularly observed adult butterflies in his garden from late December through to early March and recently on 18<sup>th</sup> April 2018 (new record) . He also observed a specimen on the 5<sup>th</sup> May 2017 in the Brisbane suburb of Marsden. These records and the following observations show that the butterfly is likely to have at least two generations a year in southeast Queensland.

Recently (first week of May 2018), here in the Redlands, I noted the butterfly flying around exotic *Calliandra* species (Mimosaceae) both in my garden and that of Lois Hughes. Lois also has a large *Senna gaudichaudii* shrub near the former, so it is likely that the butterfly will be using both species. Braby (2000) lists all these as recorded host plants. The butterflies observed were fresh females, so it is assumed they are breeding locally in our gardens.

With the exception of one observation, so far only females have been collected or observed in this region, which makes some sense as they were on or near their host plants. Another reason that females are reported is that they are more noticeable and recognisable, particularly in bright sunlight, due to the small pale patch on their forewing upperside, which transmits light through to their underside. This is clearly seen when observed side on with wings closed [see photo herein].

Braby (2000) states that the butterfly is usually attended, in a facultative myrmecophilous (loose) association, by a number of ant species, or sometimes is unattended. The related Dark Ciliate-blue (*A. seltuttus*) is obligate myrmecophilous, meaning it has a tight relationship with its ant companion, the Green Tree-Ant (*Oecophylla smaragdina*), and is unlikely to function without its presence [for more details see Eastwood and Fraser, 1999]. As these ants currently only occur along the Queensland coast south to the Gladstone region, this is thought to limit the spread of this butterfly.





*Anthene lycaenoides* (Pale Ciliate-blue)  
Male



*Anthene lycaenoides* (Pale Ciliate-blue)  
Female

It now appears that *Anthene lycaenoides* has established itself in southeast Queensland and is currently known to feed on at least 6 plant species in the two families Caesalpinaceae and Mimosaceae. No doubt further observations will reveal other plant species in these and other genera as listed in Braby (2000) and field guides. It remains to be seen what species of ants it becomes associated with in this region.

#### Acknowledgements:

Wesley Jenkinson supplied the two butterfly images from photos taken in his Beaudesert garden and kindly provided details of his more recent personal observations of the butterfly. Kelvyn Dunn offered some useful comments.

#### References:

- Braby, M.F. 2000. *Butterflies of Australia: their identification, biology and distribution*. CSIRO Publishing, Collingwood Vic.
- Dunn, K.L. 2008. New and interesting spatial and temporal butterfly records from eastern Australia. *Victorian Entomologist* **38** (3): 36-45.
- Eastwood, R.G. and Fraser, A., 1999. Associations between lycaenid butterflies and ants in Australia. *Australian Journal of Ecology* **24**: 503-537.
- Jenkinson, W. 2017. Life history notes on the Pale Ciliate-Blue, *Anthene lycaenoides* (C. Felder, 1860) Lepidoptera: Lycaenidae. *Metamorphosis Australia* issue 84: 6-9.
- Mayo, R. 2015. Interesting new locations for *Anthene lycaenoides godeffroyi* (Semper) in southern Queensland. *Entomological Society of Queensland News Bulletin* **42**(10): 189.
- Pasieczny, A. 2015. Pale Ciliated Blue (*Anthene lycaenoides*). *Metamorphosis Australia* issue 79: 37-38.

\*\*\*\*\*

