



Citrus aphids – Brown citrus aphid *Toxoptera citricida*, Black citrus aphid *T. aurantii* – on citrus. The image is of *T. aurantii*, but nobody would know, as the only easy way to tell them apart is by counting the number of hairs on the little knob that sticks out from the middle of the back end (cauda). One species has less than 20 and the other about 30 hairs. Did I just say “easy way”?

Photo Lyle Buss, University of Florida

Our thanks go to the various photographers who allowed us to use their images.



Cotton aphid, *Aphis gossypii* – on melons and many weeds. *Image* – The image shows the colour variation seen in this species.

Photo Magnus Gammelgaard

Some aphids are very serious pests of Australian agriculture. A new one (the Russian wheat aphid) was found for the first time only in May, this year. At present it is only in South Australia, Victoria and New South Wales but will eventually invade all states and pose a significant problem for wheat and barley production.

Life history notes on the Large Purple Line-blue, *Nacaduba berenice berenice* (Herrich-Schaffer, 1869) Lepidoptera:

Lycaenidae – Wesley Jenkinson



The Large Purple Line-blue is encountered sporadically, southwards from north-eastern Queensland, both coastally and west of the Great Dividing Range. It continues through central and south-eastern Queensland into central and southern coastal New South Wales.

This species preferred habitats are tropical, subtropical, littoral rainforests and dry vine scrub. It is also commonly found in urban gardens in south-eastern Queensland where host trees have been planted. This species can be very common seasonally, particularly in littoral rainforest.



Males fly around the canopy where they typically settle on outer foliage of trees with heads angled slightly downwards and wings closed, deflecting the sunlight. They are territorial and chase off rival males and other small lycaenids. Females are often observed flying in dappled sunlight within forested areas looking for sheltered host trees. During extremely hot weather the adults frequently settle within a couple of metres of the ground on trees and shrubs in forest understorey. They feed from a wide variety of small exotic and native flowers. While feeding, the wings remain closed and occasionally the hind wings are slightly alternated up and down.

There are a few line-blues and other small lycaenids that are rather similar in appearance. In comparison with similar species, the adults of this species should be able to be separated by the slightly larger size, the rather uniform underside pattern and the presence of the hindwing tails. Voucher specimens may be required to identify runt sized specimens or worn specimens with the hindwing tails missing.

The sexes can be identified by the upperside wing colouration, males being lilac and females having bright blue metallic scales with varying extent on the forewing.

The adults show variations between summer and winter forms. Both sexes vary between the seasons with the underside black tornal spot larger in the summer form and reduced or absent in the winter form. In addition the females' bright blue coloration on the upperside is reduced and can be slightly darker in the summer form. Intermediate forms occur in spring and particularly autumn.

Wingspans for the pictured males are 24mm and 25mm for the females.



Nacaduba berenice berenice (Large Purple Line-blue)

Images left to right: male, female, male underside, female underside (summer specimens)



Nacaduba berenice berenice (Large Purple Line-blue)

Images left to right: male, female, male underside, female underside (winter specimens)



The larvae of this species have been recorded by various authors feeding on the flower buds and young shoots of various trees in the families, Proteaceae, Sapindaceae, and Ulmaceae (Braby, 2000; Moss, 2010).

During October in 2005 a female was observed ovipositing on a young flower bud of a Tuckeroo Tree (*Cupaniopsis anacardioides*) a known host. She typically flew slowly throughout the host tree branches and settled in a sheltered position. She then walked around for a short period and curled her abdomen onto the bud, then laid a single egg. This egg was kept for life history studies. Females oviposit from mid-morning to mid-afternoon in sunny conditions.

The larva raised in captivity did not consume the eggshell after emergence. The highly camouflaged larva rested and fed openly during daylight hours on fresh leaf buds and flower buds of the host plant. Under natural conditions the larvae are occasionally attended by small ants from various families. The larva attained a length of 11mm and completed five instars.



The egg was white, mandarin shaped with small rounded raised projections, approximately 0.3mm high x 0.5mm wide.

Freshly laid egg



1st instar larva



2nd instar larva



3rd instar larva above



4th instar larva left



5th instar larva lateral view



Pupa



The pupa, measuring 8mm in length, was located below a leaf of the host plant. It was attached with silk by the cremaster and a central girdle.

The total time from egg to adult was 25 days, with egg duration of 6 days, larval duration of 12 days and pupal duration of 7 days.



Images from left to right show two larvae attended by small black ants, a single larva attended by two green-head ants (*Rhytidoponera* sp.) and a pre pupa.

Within the boundary of the Scenic Rim Regional Shire south of Brisbane I have adult records for all months of the year. In this region records indicate there are several generations annually. Most likely dependant on rainfall, the adults are common in summer and autumn and less numerous in late winter and spring.

I would like to thank John Moss for commenting on the manuscript.

Photos Wesley Jenkinson

References:

Braby, M.F., 2000. Butterflies of Australia – Their Identification, Biology and Distribution. vol 2. CSIRO Publishing.

Moss, J.T. 2010. Butterfly Host Plants of south-east Queensland and northern New South Wales. 3rd edition, BOIC.

An update on the Club Website – www.boic.org.au – *Ross Kendall*

Since the release of the club’s mistletoe book in April, I have been able to devote more time to our website and I invite members to have a browse.

One new feature is a “Moth Photo Gallery” page, which currently has information and images of over 100 species of Crambid moths. This information and the images come from extensive work by Peter Hendry and Graham McDonald over several years. I have to admit that I have paid little attention to these rather small moths in the past but, having now seen them “close up”, I realise that many of them are quite beautiful. Peter and Graham have done a great job with “light trapping”, photography and painstaking identification – more to come!

There is much more that can be added to the moth page as the Crambid family is just one of many families of moths.

