

Life history notes on the Black-ringed Ochre, *Trapezites petalia* (Hewitson, 1868) Lepidoptera: Hesperiiidae – Wesley Jenkinson

This endemic skipper previously known as the Common White-spot Skipper has been recorded sporadically from coastal and subcoastal areas from northern Queensland to southern New South Wales including areas west of the Great Dividing Range in southern Queensland. The infilled map range in Braby 2000 has been extended in Braby 2016 to incorporate a continuous distribution range in north-eastern New South Wales. This assumes new intervening data and resembles the range-fill maps of its NSW distribution in the 1972 and 1981 publications of Butterflies of



Australia by Common and Waterhouse.

In south-eastern Queensland this species is located chiefly in drier open forest and woodland where host plants are established. Within this region the adults can be seasonally locally common.

Adults could be confused with the rarely seen Yellow Ochre or Rare White-spot Skipper (*Trapezites lutea*) which has the hindwing underside white spot with black ring reduced, and the Small Orange Ochre or Orange White-spot Skipper (*T. heteromacula*) from northern Queensland which has two additional subterminal spots on the hindwing underside.



Adult flight is very rapid. While basking they typically settle in a ‘skipper’ pose with their wings open, facing towards the sun, revealing the upper side markings. Males can be observed strongly defending open sunny grassy glades (where the host plants are present), chasing off other males in rapid flight. They typically return to the same perching spot on grass stems or low vegetation, usually within two meters of

ground level. The females also frequent the same areas along gullies looking for suitable ovipositing sites. Males appear territorial, often very rapidly chasing rival males and returning to the same perching site (A.F. Atkins in Braby 2000). They hilltop from mid-late morning to mid-afternoon, generally in a leeward area just below a hilltop summit away from any gusty wind. Both sexes are readily attracted to a wide range of small native and exotic flowers. Whilst feeding the wings may be open or closed.





Within Queensland, individual specimens show very minimal variation in the size of the pale-yellow and pale-orange markings on the upperside of the wings. The sexes are very similar in appearance, females can be identified by having more rounded wing termens and a slightly wider abdomen.

Wingspans for the pictured adult specimens are: males 29mm and females 29mm.



***Trapezites petalia* (Black-ringed Ochre)**

Images left to right: male, female, male underside, female underside

This skipper is known to utilise three *Lomandra* species listed by various authors in Braby 2000. These include *L. filiformis*, *L. longifolia* and *L. multiflora*. No additional *Lomandra* species have been included in Moss 2019. Further observation may possibly extend this list to other *Lomandra* species. *L. multiflora* has been observed to be the preferred host plant in general (P. Valentine, A.F. Atkins in Braby 2000) and is one of four smaller leaved Mat Rushes in SEQ near where John Moss and I have encountered the butterfly; the others being *L. confertifolia*, *L. filiformis* and *L. laxa*.

A female collected from near Beaudesert in early March 2018 was kept in captivity and laid several eggs. The eggs were laid singly on leaves of a *Lomandra* species supplied. Egg laying was not observed; however, they are usually laid singly near the base of a leaf of the larval food plant, (A.F. Atkins in Braby 2000). One larva was successfully raised on a known [Waterhouse, 1932] host plant, Long-leaved Mat Rush (*Lomandra longifolia*) which resulted in a little smaller than average size adult male, suggesting that this may not be a preferred host plant.





A freshly laid egg



4-day old egg

Eggs were 0.9mm wide x 0.8mm high, dome shaped, 18 longitudinal ribs, white when laid, with top half appearing reddish brown and the base a dull cream colour after 3 days.

The first instar larvae emerged at dawn and soon consumed their eggshells. Early instar larvae consumed small sections from the outer edge of the leaf, creating a 'V' shaped chewing above their silk lined shelters [see above image]. Larvae fed during dawn and dusk chewing from the outer edge of the leaves (similarly described by A. F. Atkins in Braby 2000). Several shelters were created as larvae grew. These were formed in between host leaves towards the base of the host plant. Pupation occurred in the final shelter in a leaf placed next to its previous shelter.



Typical chewing from a young larva

One larva completed five instars and attained a length of to 22mm, resulting in a smaller than average adult male. Average size larvae are 25 – 30mm long (Braby 2000).



1st instar larva



2nd instar larva



3rd instar larva



4th instar larva



5th instar larva



Pupa with discarded skin and head capsule



5th instar head capsule



The small pupa, measuring 15mm in length, was located in the final shelter. Average size pupae are 18 – 20mm long (Braby 2000).

The life cycle recorded during autumn and winter was less than 5 months, egg duration was 8 days, larval duration was 111 days while pupal duration was 26 days. The adult hatched in captivity during mid-winter without any form of heating. Under natural conditions the adult probably would have emerged at a later date early in spring. A second larva raised to final instar in the same conditions, during the same period, had a longer larval duration lasting a further 26 days but failed to pupate.



Within the new boundary of the Scenic Rim Regional Shire south of Brisbane, I have adult records from September to December and February to May, indicating that there are two generations per year in this region.

Andrew Atkins, in his landmark monograph on the Trapezitine skippers, in the *Biology of Australian Butterflies*, provided further information on this

relatively common but rarely observed smaller species. The description was accompanied by Andrew's own detailed line drawings of male and female genitalia, larval head, pupa and pupal cap, with comparisons to another 16 of the (now) 18 Australian species. The most recently described of this genus, *T. atkinsoni* from southern WA, was first identified by Andrew and its naming is a fitting tribute to the Australian who did so much pioneering work on this iconic subfamily of endemic hesperiids.

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