

Life history notes on the Dingy Grass-skipper, *Toxidia peron* (Latreille, [1824]) Lepidoptera: Hesperiiidae – Wesley Jenkinson



In part due to recent DNA evidence, a new taxonomic arrangement by Andrew Atkins has moved the species *Toxidia peron* to *Signeta peron* (Atkins, 2012). This arrangement has not been followed in a current popular field guide (Braby, 2016).

This endemic skipper is frequently encountered along much of eastern Queensland including areas west of the Great Dividing Range south into Victoria.

In South-eastern Queensland this aptly named species is generally the most common skipper occurring in a varied range of habitats. The main preference is eucalypt open forest but can also be found in coastal heathland, dry vine forest, sclerophyll forest, woodland and suburban gardens where it is associated with tall grasses.

The adults can be confused with many of the ‘brown’ skippers. The broad black sex brand on the male helps to separate other male *Toxidia* spp. The females are rather similar to other *Toxidia* spp. but are larger in size. For observers with experience, the adults can be correctly identified in the field but it is preferable to retain voucher specimens where in doubt.

Within Queensland, individual specimens show little variation. The faint underside rings may be reduced to spots.

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 glades (where the host grasses are present), chasing off other males and typically returning to the same perching spot. The females also frequent the same areas looking for suitable ovipositing sites. The males hilltop and can perch up to several meters high on live vegetation, dead sticks and less frequently settle on rocks or bare ground. Both sexes are readily attracted to a wide range of small native and exotic flowers. Whilst feeding, the wings may be open or closed. During cloudy conditions, they settle on vegetation with the wings closed.

Wingspans for the pictured adult specimens are: males 28mm and females 30mm.





***Toxida peron* (Dingy Grass-skipper)**

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

At Beaudesert in South-eastern Queensland during September 2006, a female fluttered slowly around a patch of exotic Prairie Grass (*Bromus catharticus*, Poaceae) and briefly settled on a stem. She then walked a short distance and curled her abdomen to the underside of this leaf and laid a single egg. The wings remained closed while ovipositing occurred. This egg was collected and was successfully raised in captivity through to an adult on this host grass. This observation was at midday in warm sunny conditions. Eggs are generally laid below a grass leaf or occasionally on debris near the host plant. The females have a preference to oviposit in a cooler, protected, dappled sunlit area, below trees where soft tall grasses are growing.



The collected egg was 1mm wide x 0.7mm high, dome-shaped, 13 longitudinal ribs, cream colour when laid, with pinkish-red apex and mottled lateral band and markings appearing after 2 days.



Early instar with chewing next to shelter

The first instar larva emerged at dawn and soon consumed the eggshell. It later commenced constructing its shelter and was resting in it by 10.15am. Being on soft thin leafed grass, the shelter was formed by stitching a silken thread across a leaf and tensioning the silk to roll the leaf edges in towards the centre. The shelter was then later lined with silk and was slightly longer than the length of the larva. The shelter was formed approximately one third of the distance below the leaf apex. The early instar larva consumed a small section from the outer edge of the leaf, near the shelter at dusk. During the 1st or 2nd instar (time not noted) the leaf was folded over itself and the edges stitched together as per above image. The larger instar created another shelter with several leaves stitched together in a parallel formation to form a shelter along the bottom edge of the container which became the final shelter. It was observed feeding after dusk consuming a section of leaf starting from the outer edge.

On wide leafed mat rushes such as *Lomandra longifolia* the mature larvae form their shelters towards the base of two leaves, feeding above the shelter. While resting in the shelter the head was in an upright position. The larva completed five instars and attained a length of 30mm.





1st instar larva



2nd instar larva



3rd instar larva



4th instar larva



5th instar larva



Pupa

The pupa, measuring 18mm in length, was partially covered in a thin layer of white waxy powder. It was located in the final shelter and was attached with silk by the cremaster.

Egg duration was 11 days, larval duration was 83 days while pupal duration was 17 days.

Within the new boundary of the Scenic Rim Regional Shire south of Brisbane, I have records of adults from August through to June, being more numerous during spring, late summer and early autumn. In

this district, emergence periods indicate there are two main generations per year.

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

Photos Wesley Jenkinson

References:

Atkins, A. A list of butterflies (Papilionoidea) and skipper butterflies (Hesperioidae) found within a 10km diameter area centered on the village of Eudlo in the hinterland of the Sunshine Coast with a note on their migratory habits.

Metamorphosis Australia, Magazine of the Butterfly & Other Invertebrates Club 66: 4-11.



Braby, M. F. 2000. *Butterflies of Australia –their identification, biology and distribution*. vol 1. CSIRO Publishing, Melbourne.

Braby, M. F. 2016. *The complete field guide to Butterflies of Australia*. 2nd ed. CSIRO Publishing, Melbourne.

Rainforest regeneration helping butterflies and moths – Carol and Trevor Deane

We were interested to read Ross Kendall’s comment in the March issue reminding us that “the major goal of the club is concern for the maintenance and the restoration of habitats”. This is what we are aiming to do here on our 20-acre ex-cattle property on the Dorrigo Plateau, on the NSW Mid North Coast, a project we commenced in July 2005. With a deep passion for the environment, rainforest and lepidoptera in particular, it is proving the perfect retirement project for us.

Our undulating property, ranging between 790-840 metres above sea level, was previously part of a 300-acre property and had carried beef cattle on our two kikuyu paddocks for about 100 years. Approximately half of our 20 acres is remnant warm temperate and sub-tropical rainforest that has been logged. It is now protected by a Conservation Agreement.

In the second half of 2005, with the cattle gone, a few *Acacia melanoxylon* began to regenerate slowly in the thickening kikuyu but we quickly learned they needed

protection from wallabies. These young wattles (coupled with their resident ants) have encouraged Imperial Hairstreaks (*Jalmenus evagoras*) to breed here. Every few years the butterflies move their egg laying to newly emerging trees and we wonder where they will go when all our *A. melanoxylons* have grown too large?



Path through the plantings

