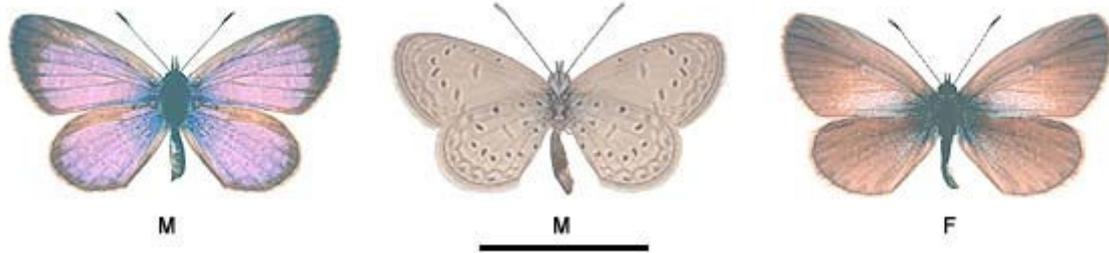


SOUTH AUSTRALIAN BUTTERFLIES

Data Sheet

Zizula hylax attenuata (Lucas) (Tiny Grass-blue)



Interesting aspects: One of the smallest butterflies to occur in Australia, if not in the world. Due to the sometimes short periods of rain for the flowering of its hostplants, the larval stage duration of the butterfly is often very rapid and incomplete, producing butterflies of variable size and some of these small butterflies can have a wing expanse less than 10 mm. The extent of the blue areas in the wings of the female is variable, and sometimes it is nearly absent.

It belongs to a group of very similar species that range through much of the Eastern Hemisphere. This butterfly may even be holotropical as a very similar species occurs in the Americas. The flight is weak and fluttery, with the butterflies flying close to the ground, usually near their host plants. Interestingly, when at rest this butterfly moves its hindwings sideways rather than alternately up and down in a scissor-like motion that most other Lycaenid butterflies use, and this feature can be used to distinguish it from a similar small species *Zizeeria karsandra*. Otherwise this species differs from *Z. karsandra* by not having a black spot inside the discal cell of the forewing underside. Large specimens of *Z. hylax* may be confused with the larger *Z. labradus*, but the former differs by having black markings on the wing undersides but which are brown in *Z. labradus*.

The butterfly has not yet been recorded from South Australia, but has been reported to occur in the adjacent area of Alice Springs immediately to the north of S.A. Its *Dipteracanthus* hostplants occur along the Cooper and Finke River systems in the Far North of S.A. and it is possible the butterfly will eventually be found in those areas after either good inland rains or after ephemeral flood waters have receded. Due to its small size it is easily overlooked in the field.

Life History

Larval food-host: In Australia, the preferred hostplants occur in the Acanthaceae family, but they also use a small legume (Fabaceae) in adjacent Papua New Guinea. Those hostplants suitable for South Australian conditions include *Dipteracanthus australasicus* and **Ruellia* sp (tropical types) (Acanthaceae). Overseas the hostplants can include **Mimosa* (sensitive plant) (Mimosaceae), **Oxalis corniculata* (Oxalidaceae), and **Tribulus* (caltrops) (Zygophyllaceae). The latter two plants are locally common inland species where water is available. Another Acanthaceae plant that grows in similar habitat

to *Dipteracanthus* is *Rostellularia*, and this plant may also eventually be found to be a hostplant. The larvae eat the young fruit or immature seeds within developing seed pods.

Larval attendant ant: Larvae are usually not attended by ants, but may occur in association with small black ants.

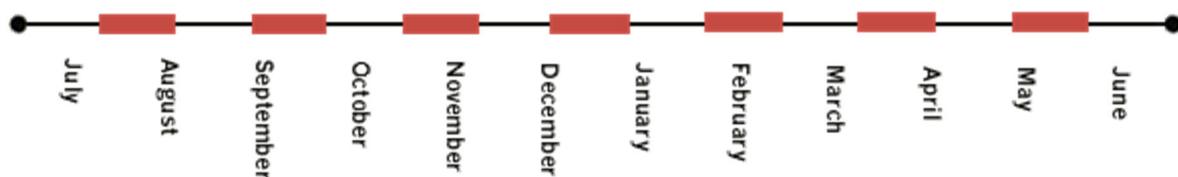
Eggs: Very small, white, hemispherical, strongly flattened top and bottom, slightly depressed on top with a small darker central micropylar area. Ornamented with a coarsely reticulated pattern on the side, which becomes finer on top. The reticulation facets are generally of hexagonal pattern on the sides, but become irregular shaped on top. Eggs are laid singly on the buds and calyx portion of the flowers of the host plants. Eggs hatch in about 5 days.

Larvae: The mature larvae are about 7-8 mm long, onisciform (slatery shaped) with an indistinct longitudinal dorsal furrow. The body has some short lateral and dorsal hairs, and is covered in numerous, minute secondary setae that impart a scabrous appearance to the larvae. The posterior dorso-lateral organs are well developed. In Australia the reported body colour is pale green, with an intermittent red longitudinal dorsal line edged white or pink, and a pink dorsal patch behind the head. The posterior end has a red lateral line. In other countries the larvae can be entirely green.

Larvae feed openly during the day. The presence of larvae on the host plants is readily discernible by tiny holes in the buds and seed pods. The larval period can be about a week in hot areas.

Pupae: Long cylindrical, rounded anteriorly, abdomen elongate, posteriorly rounded, about 6 mm long, mostly smooth but with numerous short colourless hairs covering the dorsal surface. Pale green coloured with a darker dorsal line, and there is a dorsal pair of black spots located at the anterior end of the abdomen. Attached by anal hooks and a central girdle, usually to some silk secured green part of the host plant. The pupal period can be as short as 8 days, but the pupa probably has the ability to aestivate to adjust to the seasonal growth of its host plants.

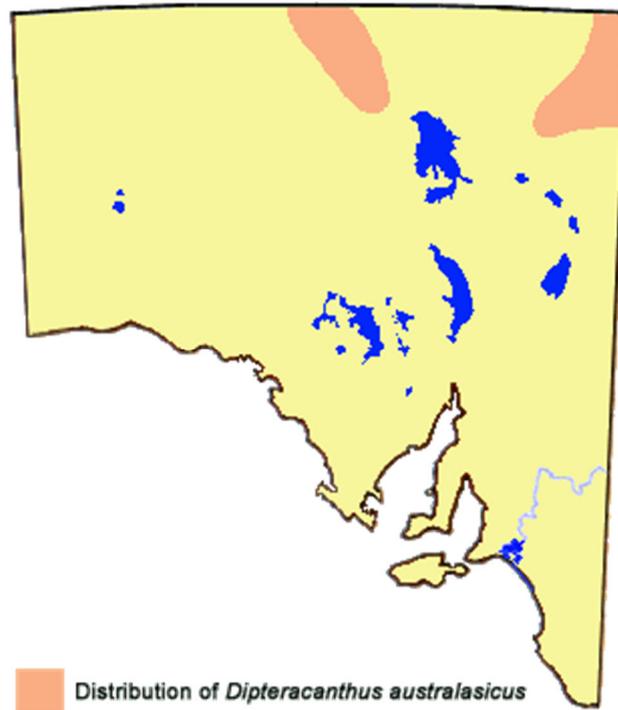
Flight period: In tropical areas the butterfly has been recorded flying throughout the year, but its main flight generally corresponds to the flowering of its preferred hostplants. In the southern parts of its range it tends to be more common during autumn. A brood can be completed in three weeks. It has not been reported how it overwinters or what it does when the hostplants stop flowering.



Distribution: The butterfly normally occurs in the moist tropical and subtropical areas, wherever its hostplants occur in adequate density. It may be partly nomadic (typical of the Polyommata group of lycaenids) during seasons of good monsoon rain and is reported to

occur in the Alice Springs area of Central Australia although that report requires further confirmation.

The butterfly has not yet been recorded from South Australia. Its *Dipteracanthus* host plants occur along the Cooper and Finke Rivers floodplain systems in the Far North of S.A. and there is a faint possibility that small semi-resident populations of the butterfly may eventually be found in those areas after either good inland rains or after ephemeral flood waters have receded. Breeding stocks would be expected to be replenished from interstate, with the butterflies following the major creek-lines down into South Australia.



Habitat: Its known Australian hostplants are tropical to subtropical perennial types that usually occur in wetland or floodplain areas, or areas with assured intermittent rain.

Conservation Status: Locally common in breeding areas.

Threats: No major threats.

Conservation Strategy: None required.

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