

## Southern Blue

*Zizina oxleyi*

### Description

The native blue Butterfly, it has more rounded forewings than the Common Blue it also has darker zigzag band markings on the underside of the wings with a distinctive banded border. Will hybridise with the Common Blue as its technically a subspecies. Because of this its young stages are almost identical to the Common Blue apart from the pattern on the ovum being different once viewed under magnification & the larvae have a pinker lateral line. Has recorded parasitism by the *Pales tecta* tachinid.

### Ovum

Laid singularly on the underside of foodplant leaves, but can be laid on flowers & buds too. Initially pale green, later turning greenish-blue in colour & a flattened sphere shape which is pitted all over with white ridges. They hatch in about 4 to 6 days.

### Larvae

Upon hatching it's colourless, but it becomes green or pinkish once it starts eating (the green version is the most common). They have a brown to black head & pale lateral line. They have a double row of long curved setae along the dorsal ridge which become shorter with each instar. Its legs & head are covered by fleshy side flanges, which makes it appear to be head & leg-less. It has a slow gliding slug-like movement. The Southern Blue generally has a pinker lateral line, than the Common Blue, but this is not definitive. The location is the key to identification in this case (unless your in North Canterbury, when you may have to wait until the imago emerges). The larvae live about 5 weeks & have 4 instars. I assume it overwinters in the 3rd instar when the larvae move to a sheltered spot in tall vegetation near the base of the foodplant & either spend the winter in a quiescence or diapause. I suspect that it is most likely a quiescence meaning they continue feeding on warmer winter days. Feeding is recorded as resuming in early September when foodplant growth starts. These overwintering larvae go on to pupate in late September, early October. If the larvae runs out of food, then they can pupate successfully, resulting in smaller imagos. Others can become cannibalistic & eat smaller larvae, especially those that are moulting including those that are going into pupation. (This cannibalistic trait is something that many of the Lycaenidae species have). They have been known to have Ants attend to them, but this relationship is yet to be completely understood in New Zealand. Grows up to 14mm when fully grown.

### Pupa

Variable in colouration from cream through green to grey-brown in colouration with mottled dorsal & sub-dorsal lines to blend in with its surroundings. It has a rounded shape which is mostly smooth with a few short bristles. It is attached by a girdle & weak cremaster formed at or near ground level on a leaf or amongst loose debris. Pupation lasts between about 15 days pupation in summer, but can be up to a month in the spring. The pupa is about 7-8mm long.

### Imago

The imago has a 17-27mm wingspan, the average being 21mm. Their flight is generally weak, jerky & fluttering near ground, but can have strong flight if needed. However, their jerky flight can make them very hard to follow as they disappear into 'thin air'. They generally stay close to where the larval foodplants grow, but as these plants are so abundant in New Zealand this can still mean they cover a considerable distance. They often rest on vegetation or rocks with their wings closed on bright days, but will slightly open in a 'v' shape with its head away from the sun when it cools down. If in the same habitat, they can be seen flying with the Boulder Copper. Like most blue Butterflies, there is a sexual dimorphism which results in the males having stronger blue colouring with androconial scales & are about 2mm larger than females. The female is a duller grey, usually with only a few blue scales near the thorax. Both genders have silvery grey underside that has a dark zigzag bands on underside of wings & distinctive banded border. They lose their blue colouring & become greyer with age. They roost in grass head down with the forewings tucked under the hindwings, so can be easily disturbed in late evening around sunset.

### Male





Female



There are rumours of hybridisation between the Common & Southern Blue in North Canterbury & the Waiho Gorge, however out of the 3 studies that have tackled the subject, 2 (Gibbs 1980 & Gillespie 2010) suspect hybridisation does occur & 1 (Yago et al. 2008) says there is no evidence of hybridisation. Hybridisation in wild populations will be up for discussion until such time a full study is undertaken. I suspect that the Common Blue has displaced the Southern Blue in the north of the

South Island & parts of the North Island as there are 3 areas outside the 'normal' range of the Southern Blue (Central Plateau, Mount Robert & the Waiho Gorge) that they have being reported (none recently that I'm aware of).

**Habitat**

It prefers areas that have a varied habitat that includes shelter, food including nectar plants & stones for sunbathing. This means it can be found flying close to the ground over lawns, grasslands, roadsides & riverbeds up to 900m.

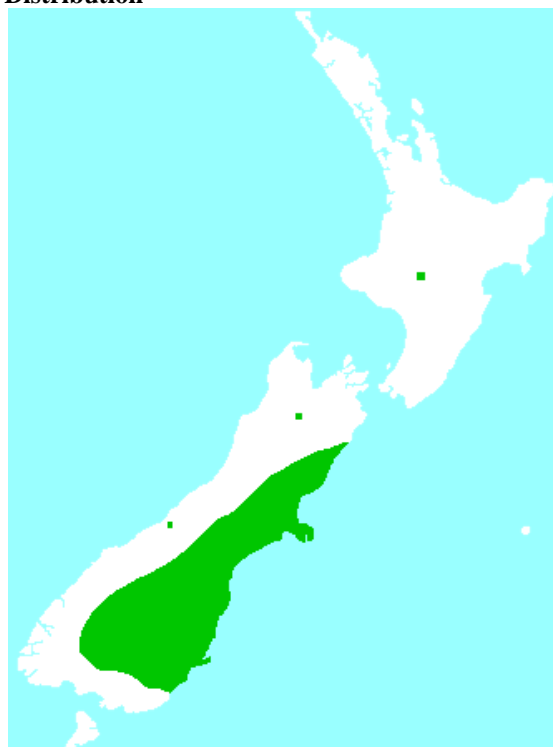
**Food Plants**

Natives include low-growing brooms (*Carmichaelia spp*) & Scree Pea (*Montigena novae-zelandiae*). But like the Common Blue, it also oviposits on low-growing plants from the Fabaceae family like Pink Clover (*Trifolium pratense*), White Clover (*Trifolium repens*), Hare's Foot clover (*Trifolium arvense*), Toothed Bur Clover (*Medicago polymorpha*), Bird's-foot Trefoil (*Lotus corniculatus*), Greater Bird's-foot Trefoil (*Lotus pedunculatus*) & Tree Lucerne (*Chamaecytisus palmensis*).

**Status**

Common East of the southern alps from North Canterbury to North Southland. There is odd populations on the Central Plateau, Mount Robert & the Waiho Gorge, which could mean that the Southern Blue has lost territory to the Common Blue since native Tussock predominant grasslands have being replaced with farm pasture.

**Distribution**





**Phenology**

This is based on the Common Blue, so may have some inaccuracies.

	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Adult						■	■	■	■	■	■	
Egg						■	■	■	■	■	■	
Caterpillar	■	■	■	■	■	■	■	■	■	■	■	■
Pupa					■	■	■	■	■	■	■	

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