Common Blue

Zizina otis labradus

Description

This is probably our most common Butterfly, but its small size & flight close to the ground means it is probably the most overlooked Butterfly too. It also occurs in Australia, Norfolk Island, Loyalty Islands, Lord Howe Island, New Caledonia & the Cook Islands. It is suspected that it has being blown to New Zealand from Australia for a long time, but once Europeans cleared the extensive forests, it allowed the Common Blue to establish in New Zealand with the farm pasture. This means it is sometimes considered a pest species as one trail recorded over 300 larvae per square metre on drought-prone pasture. This substantially reduces pasture production due to defoliation of Trefoil's (Lotus spp). It hybridises with the Southern Blue which is technically a subspecies. Because of this its young stages are almost identical to the Southern Blue apart from the pattern on the ovum being different once viewed under magnification & the larvae of the Southern Blue generally have a pinker lateral line, but this is not definitive. It is one of the few New Zealand butterflies that doesn't appear to have any parasites, however this maybe due to their foodplants having cyanide or that none have being noticed yet. However the Southern Blue has had a recording of a Pales tecta tachinid.

Ovum (Egg)

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. It's 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. It is almost identical to the Southern Blue, which generally has a pinker lateral line, 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, however 5 instars have being recorded in Australia.

1st instar larvae only chew partway through the leaf & prefer the flower petals. They take about 5 days until their first moult. 2nd instar develops the ability to chew all the way through the leaf, but seldom choose to, instead leaving a 'windowed' leaf with the veins showing. They have a pale lateral stripe. It takes about 6 days to the next moult. 3rd instar larvae develop a darker green dorsal line & faint diagonal markings. It takes a further 7-10 days until its next moult when it's about 9mm long. 4th instar larvae become velvety green with a darker dorsal line & a cream coloured lateral stripe. This instar lasts about 17 days.

From the above timings, 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 being known to have Ants attend to them, but this relationship is yet to be completely understood in New Zealand. Larvae of the Long-tailed Blue are often found on the same foodplant, however the Long-tailed Blue eat the flower & seed pods so do not provide competition for food. Grows up to 15mm 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 9mm long.

Imago

The imago has a 20-27mm wingspan, the average being 24mm. 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. I've observed on cloudy days that they will

generally rest with their wings in the 'v' position. If in the same habitat, they can seen flying with 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 4mm larger then females. The female is a duller grey, usually with only a few blue scales near the thorax. Both genders have silvery grey underside that are dotted with brown & white spots which are variable. 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

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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 1000m.

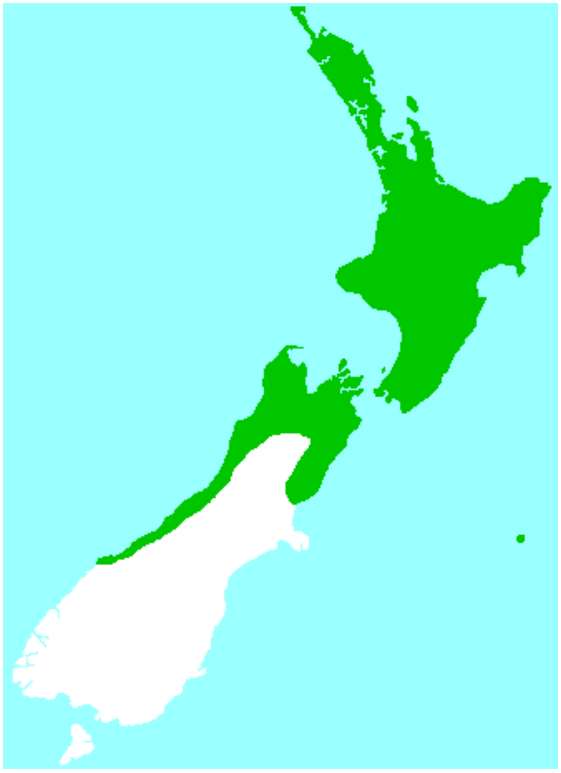
Food Plants

Like the Southern Blue, it also oviposits on low-growing plants from the Fabaceae family like Pink Clover (Trifolium pratense), White Clover

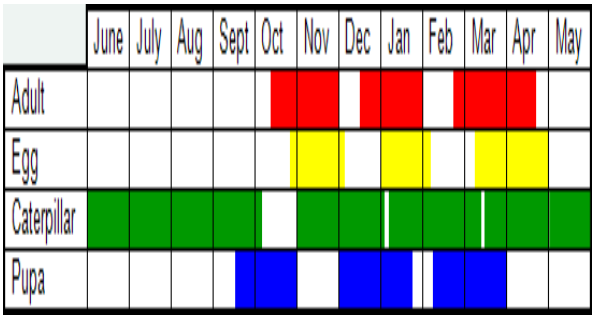
(Trifolium repens), Hare's Foot clover (Trifolium arvense), Toothed Bur Clover (Medicago polymorpha), Bird's-foot Trefoil (Lotus corniculatus), Greater Bird's-foot Trefoil (Lotus pedunculatus), & Tree Lucerne (Chamaecytisus palmensis). Sometimes recorded on Pea (Pisum sativum) & Broad Bean (Vicia faba).

Status
Widespread Found in all of the North Island, Chatham Islands, Nelson, Marlborough, Westland & North Canterbury. It can become very common in some localities. It becomes more plentiful in late summer once numbers have built up throughout the summer.

Distribution



Phenology



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