



New Zealand Red Admiral

Vanessa gonerilla gonerilla

Description

The native Red Admiral that is only found in New Zealand. Despite the obvious similarity, it is a different species from the 'Red Admiral' (*Vanessa atalanta*) & 'Indian Red Admiral' (*Vanessa indica*) found in Europe, Asia & North America. The Maori name means *Red Cloak*. This is a long-lived butterfly that can have a lifespan of about 9 months for the over-wintering generation. It is expected that the lifespan is between 4 to 6 months for the summer generations. Between September & April, it can be seen in most of its life stages.

Ovum (Egg)

Laid individually on a Nettle leaf, generally near the stalk & fairly often on the side of one of the stinging hairs. Green in colour & barrel-shaped with 9 vertical ribs. They hatch in about 8 to 9 days. The larva eats a small hole near the top so it can get out, but will leave the rest of the shell behind.

Larvae

Black or reddish-brown. Green ventral surface & whitish spots with numerous setae. They are known to change colour when moulting to provide better camouflage with their immediate environment & lighting conditions. The larvae live about 4-6 weeks in summer & the winter generation hatch in June, pupating in mid-August. They have 5 instars:

1. 1st instar larvae are dull brown with small white flecks, simple setae & a black head. It takes about 10 days to grow to about 2.5mm.
2. 2nd instar develop a whitish lateral stripe that appears above the legs. The setae develop growing two or more branches. It grows to about 5mm before moulting.
3. 3rd instar larvae develop a more predominant lateral line & sub-dorsal lines begin to show. It will grow to about 10mm before moulting again.
4. 4th instar larvae have an increase in setae branching & numbers while growing to about 22mm.
5. 5th instar larvae get a green head & grow to about 36mm.



They live individually in a silken tent which it makes by attaching silken strands to curl the leaf slightly which it is presently eating until there's not much of the leaf left, at which point it moves onto another leaf & repeats the process. The colour changing & leaf-curling is for camouflage & protection from the elements & predators. However to us human's & probably some other predators their flimsy looking tents can be a give-away to their presence in the last 2 instars as they will chew part-way through the stem of the leaf to let it droop, before starting to eat the leaf from the tip. This is to stop the plant 'bleeding' sap & making feeding easier. It will make a flimsy tent with some silken strands to curl these leaves too. They also are more likely to feed in the open in the last 2 instars. They generally eat the leaves of the foodplants only. Before pupating, they spend up to 2 days head-down in a 'J' position on a leaf with their anal prolegs attached to a silken pad. Grows up to 40mm when fully grown.



Pupa

Mottled greyish-yellow to purple-brown with metallic golden spots depending on their immediate environment & lighting conditions to provide the best camouflage. The abdomen is lighter than the head, thorax & wings. Attached by cremaster to the foodplant or some nearby sheltered spot. Pupation lasts between 2 to 3 weeks in summer.





Imago

The imago has a 50-60mm wingspan. Male is smaller than female & has narrower red/orange bands. The depth of background colour on the underside of the wings varies considerably from brown to a paled fawn. The darker variation is the most common variety encountered. With time the red bands fades to an orange with age. It has a strong, short erratic flight that is usually started with a almost vertical climb, however they also have a direct flight at about 1-2 metres above the surface which is more used when crossing less favourable terrain like water. Prefers to rest in a head-down position & is often encountered sunbathing on walls & rocks especially in late summer. Can be seen feeding on sap from tree bark & quite often with Yellow Admirals on nectar plants like Buddleia. Over winter, Red Admirals go into a quiescence, so can be seen on warm winter days on winter flowers.



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Habitat

Primarily a forest Butterfly, but is seen in most types of habitat since it's foodplants grow in most habitats from the mountains to city gardens.

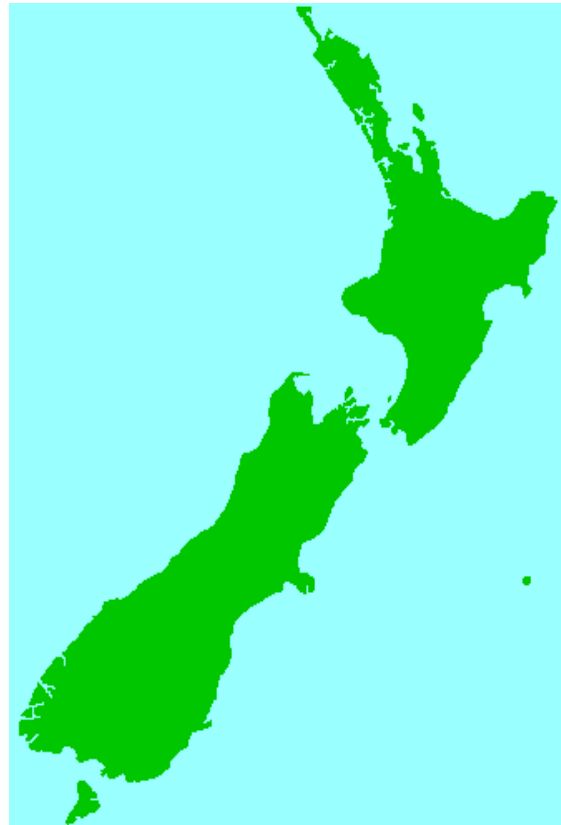
Food Plants

It's favourite is Perennial Nettle (*Urtica dioica*) & the native favourite is Nettle Tree - Onga Onga, (*Urtica ferox*), however it will feed on any of the Nettle species (*Urtica spp*). It weaves a silken shelter within the nettle to give it protection from predators & the weather.

Status

Common - Found nationwide where it has a supply of its foodplants. It has had a population drop off in the last few decades due to reduced numbers of Nettle Tree - Onga Onga (*Urtica ferox*) & since the introduction of the parasites (Ichneumon's & the wasp *Pteromalus Puparum*) to control the White Butterfly. However, the majority are probably lost to the self-introduced Australian Wasp, *Echthromorpha intricatoria*.

Distribution



Phenology

	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Adult	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Egg				Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Caterpillar	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Pupa			Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue

Similar Species

The Admiral larvae can be hard to tell apart, the two easiest ways in the field is that the Red Admiral has a narrower pale patch of colour on abdominal segments 4 & 6 then the Yellow Admiral. The second being that Yellow Admirals are rarely recorded on Nettle Tree - Onga Onga



(*Urtica ferox*) in the wild. An expert can also notice that the ratios of the setae compared to their bases are different in each species. The Pupae are equally hard to tell apart, but the Yellow Admiral is generally stouter & darker than the Red Admiral.

Sub-Species

There is a subspecies found in the Chatham Islands, (*Vanessa gonerilla ida*) which looks similar apart from a subtle difference in colour & shape of the hindwing. They have a wider red patch & more rounded hindwings than the mainland Red Admiral, which has scalloping indentations between the veins. They also have the occasional specimen with a pale underside. The larvae prefer to feed on Chatham Islands Nettle (*Urtica Australis*). The ovum, larvae & pupae are so similar to the mainland Red Admiral that no-one has so far been able to find any distinguishing features to set them apart, but then I'm not aware of any studies to try & determine if there is any distinguishing features between the two variations. It is suspected that this sub-species has evolved after the sea flooded the 'Chatham Island Rise' all those years ago. This would be in line with other plant & animal species on the Chatham Islands.



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