

A faint, stylized map of New Zealand is centered in the background of the slide.

Lepidoptera
**Butterflies and Moths
of New Zealand**

Monarch Butterfly NZ Trust

www.monarch.org.nz

The slide features a decorative border composed of green ferns, pink flowers, and several monarch butterflies in various poses, including one with its wings spread wide.

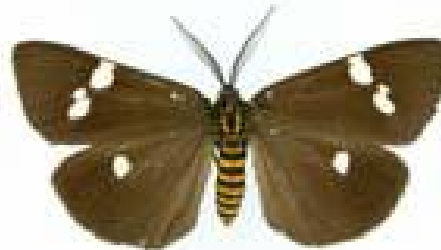
Lepidoptera

- Butterflies and moths belong to the Order of Insects called Lepidoptera (scaly winged).
- The wings are covered with tiny scales of differing colours to give us the patterns we see.

Butterflies



Moths



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Differences between Butterflies and Moths

- Antennae (feelers)
 - All butterflies have club-like (clavate) antennae, but most moths don't – they have simple or feathery (pectinate) antennae.
- Generally when it rests, a butterfly holds its wings over its back, exposing its body, whereas most moths rest with wings folded over their bodies.
- Most butterflies fly by day, and most moths by night. A common exception to this is the black and white Magpie Moth, the larvae of which are so fond of Cineraria.



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Terminology

Endemic:

Organisms that are native and can be found ONLY in that location. An example of organisms that are endemic to NZ is Rauparaha's Copper (*Lycaena rauparaha*).

Native or indigenous:

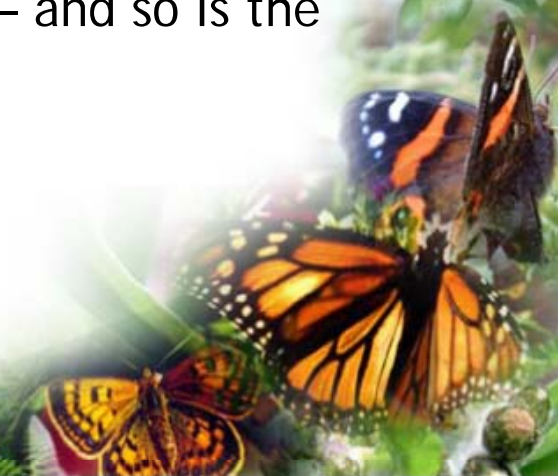
Organisms brought to a location without the help of man, such as by wind, wave and or birds. The Monarch butterfly (*Danaus plexippus*) is an example – it is believed to have flown/been blown here.

Introduced or alien:

Organisms that did not arrive in that location naturally, but by artificial means. The White butterfly is a classic example – and so is the Painted Apple Moth.

Diurnal:

Flying during the day



A decorative border surrounds the central text and map. It features green fern fronds, clusters of purple flowers, and several monarch butterflies with their characteristic orange and black wings. The background is a soft, white-to-green gradient.

Butterflies of New Zealand



www.monarch.org.nz

Monarch

Danaus plexippus

Established in NZ in mid 1800s.
Adults overwinter (sometimes in swarms)
and may be active throughout the year.
100mm wingspan.



Kahuku / pepe ariki



Larva



Pupa

Foodplants of Larvae



Gomphocarpus fruticosus



Asclepias curassavica

and other milkweeds e.g. swan plant (*Asclepiadiaceae*)

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Located in
New Zealand



Red Admiral

Vanessa gonerilla gonerilla

A common, widespread endemic butterfly with a related species in the Chatham Islands. Adults over-winter, and thus can be seen throughout the year in gardens, open country and forest. Another species, *Vanessa gonerilla ida* is endemic to the Chatham Islands. Distinguished by the lack of scalloping around wings and blurred markings on the underside of hindwings. 55mm wingspan.



Kahukura / pepehura

Foodplants of Larvae



Stinging Nettle
Urtica ferox



Stinging Nettle
U. incisa

Located in
New Zealand

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Yellow Admiral

Vanessa itea

Australasian. Like the Red Admiral, adults overwinter and can be seen all year round. 50mm wingspan.



Kahukowhai



Larva



Pupa

Foodplants of Larvae



Stinging Nettle
Urtica ferox



Stinging Nettle
U. incisa

Located in
New Zealand

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Cabbage White

Pieris rapae rapae

This easily recognised butterfly was accidentally introduced into NZ in 1930. 45mm wingspan.



Larva

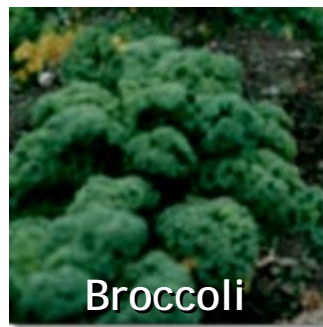


Pupa

Foodplants of Larvae



Cabbage



Broccoli

and other *Brassicaceae*, also garden plants like alyssum and nasturtium

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Located in
New Zealand



Common Copper

Lycaena salustius

This common endemic species occurs in open country from sea level to 2000m. The male is distinguished from other *Lycaena* species by the double black line along the wing veins. Usually occurs October to April. 30mm wingspan.



Pepe parariki

Foodplants of Larvae



Muehlenbeckia
species



Pohuehue
Muehlenbeckia
species

Located in
New Zealand

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Glade Copper

Lycaena feredayi

This endemic butterfly is found around forest margins and in open, but sheltered, areas. Diagnosed from other *Lycaena* species by a brown patch on an otherwise yellow underside of the hindwing (entirely brown in some Southland populations). Usually appears November to April. 30mm wingspan.



Foodplants of Larvae



Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Rauparaha's Copper

Lycaena rauparaha

An endemic species complex of at least two species. The North Island one is common around the coast year-round, and has yellow undersides to the hindwing. The South Island one occurs only north of Canterbury/Westland, seen between October-April, and has brown undersides to the hindwing. Male has narrow single black lines along the wing veins.



Foodplants of Larvae



*Muehlenbeckia
complexa*

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Forest Ringlet

Dodonidia helmsii

An elusive endemic species occurring in forest glades. Usually from December to February, but can be as early as October. 50mm wingspan.



Pupa

Foodplants of Larvae



Forest Tussock
Chionochloa



Sedge
Gahnia

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Boulder Butterfly

Lycaena boldenarum boldenarum

This endemic butterfly occurs in open, stony places (usually riverbeds), from sea level to 2000m. Usually appears October to April. 20mm wingspan.



Foodplants of Larvae



*Muehlenbeckia
auxillaris*

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Common Blue

Zizina labradus

A common Australasian butterfly found in open, grassy places as far south as West Coast/North Canterbury. Usually appears October to May. 25mm wingspan.



Pepe aouri



Larva

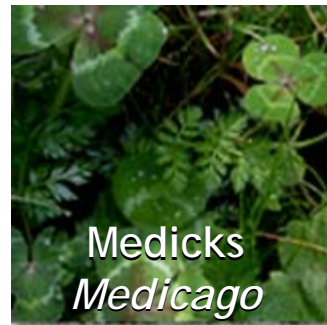


Pupa

Foodplants of Larvae



Clovers
Trifolium



Medicks
Medicago

and trefoils (*Lotus*)

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Long-Tailed Blue

Lampides boeticus

A widespread cosmopolitan species first recorded in NZ in 1965. Flies throughout the year. 30mm wingspan.



Larva



Pupa

Foodplants of Larvae



Gorse
Ulex

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Southern Blue

Zizina oxleyi

An endemic species distinguished from the Common Blue by its more strongly-marked underside. Mostly Canterbury/Otago. Usually November to April. 25mm wingspan.



Foodplants of Larvae



Clovers
Trifolium



Native brooms
Carmichaelia

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Butler's Ringlet

Erebiola butleri

An endemic butterfly, occurring in sub-alpine tussock and shrubland along the main dividing range of the Southern Alps, 1000-1800m, in January to March. 40mm wingspan.



Foodplants of Larvae



Snow Tussock
Chionochloa

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Black Mountain Ringlet

Percnodaimon merula

An endemic alpine butterfly found on the rocky slopes of the South Island mountains 1200-2500m. Usually occurs December to March. 50mm wingspan.



Foodplants of Larvae



Poa Colensoi

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Common Tussock Butterfly

Argyrophenga antipodum

A common butterfly occurring from sea-level to 2000m. Distinguished from Eastern Tussock Butterfly by a silver margin to the underside of the hindwing. Female much paler than male. Occurs October to March. 45mm wingspan.



Foodplants of Larvae



Located in
New Zealand

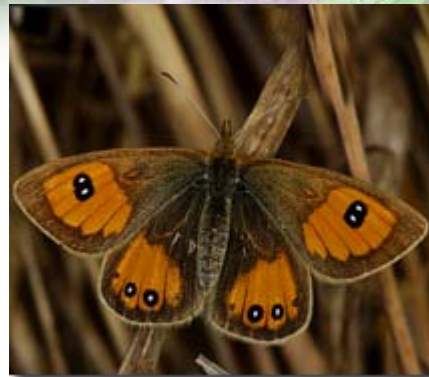


Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Eastern Tussock Butterfly

Argyrophenga janitae

A montane to sub-alpine butterfly, 500-1800m. Is easily distinguished from *Argyrophenga antipodum* by the male and female's identical orange colouring. Occurs October to March. 40mm wingspan.



Foodplants of Larvae



Snow Tussock
Chionochloa

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Nelson Tussock Butterfly

Argyrophenga harrisi

This butterfly is known only from the northwest Nelson ranges to Lewis Pass. May fly with *Argyrophenga janitae*, from which it is distinguished by its smaller colour patches and the presence of a silver marginal line around the wings on the underside. Sub-alpine to alpine, 800-1800m. Occurs in January and February. 45mm wingspan.



Foodplants of Larvae



Snow Tussock
Chionochloa

Located in
New Zealand



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Monarch Butterfly NZ Trust

A light green, torn-edge map of Australia is centered on the page. The text "Visitors from Australia" is overlaid on the map in a dark red, serif font.

**Visitors from
Australia**

www.monarch.org.nz

Painted Lady

Vanessa kershawi

A frequent visitor from Australia, arriving September to October and often breeding during summer, but not persisting. 50mm wingspan.



Pepe parahua



Larva

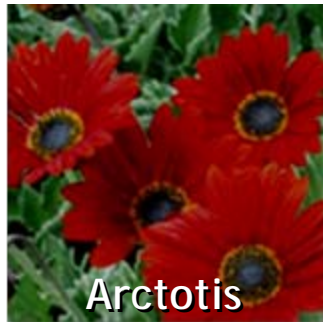


Pupa

Foodplants of Larvae



Everlasting Daisy



Arctotis

and others



Visitor from Australia

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Meadow Argus

Junonia villida calybe

A rare visitor from Australia. Appears almost anywhere during September to April, but is not known to breed in NZ. 50mm wingspan.



Larva



Pupa

Foodplants of Larvae



Gentianaceae



Portulacaceae

and others



Visitor from
Australia

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Lesser Wanderer

Danaus chrysippus petilia

A rare visitor from Australia during January to April. Known to breed temporarily in NZ but not persisting. 70mm wingspan.



Larva



Pupa

Foodplants of Larvae



Gomphocarpus fruticosus



Asclepias curassavica

and other milkweeds e.g.
swan plant



Visitor from
Australia

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Evening Brown

Melanitis leda bankia

This very rare visitor from Australia flies at dusk and is attracted to house lights, an unusual characteristic for a butterfly. Only two have been collected (April and May). 70mm wingspan.



Foodplants of Larvae



Goodenia



Scaevola



Visitor from
Australia

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Lemon Migrant

Catopsilia pomona pomona

Very rare visitor from Australia. One collected in Auckland in 1870s.
60mm wingspan.



Foodplants of Larvae



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Blue Moon

Hypolimnasia bolina nerina

A rare visitor from Australia, but occurs in considerable numbers in some years, usually March to May. 80mm wingspan.



Foodplants of Larvae



Portulaca



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Blue Tiger

Tirumala hamatus hamatus

A very rare visitor from Australia, but has occurred in considerable numbers in one year, all in western areas. 75mm wingspan



Foodplants of Larvae



*Secamone
elliptica*



Visitor from
Australia

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Monarch Butterfly NZ Trust

**Moths of
New Zealand**

www.monarch.org.nz



Gum Emperor Moth

Opodiphthera eucalypti

Of Australian origin. Nocturnal, adults are unable to feed so their life span is limited to only a few weeks. At present in warmer areas of country only. November and December. 100mm wingspan.



Larva



Pupa

Foodplants of Larvae



Pepper Tree



Eucalyptus

New Zealand Locations



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Cinnabar Moth

Tyria jacobaeae

A diurnal species, introduced for the biological control of Ragwort. Has only one generation per year. From October onwards. 30mm wingspan.



Larva

Foodplants of Larvae



Ragwort
*Senecio
jacobaea*

New Zealand
Locations



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Magpie Moth

Nyctemera annulata

A diurnal moth, often mistaken for a butterfly. Endemic, adults emerge between September and April. 45mm wingspan.



Foodplants of Larvae



and Groundsels Senecio, Brachyglottis repanda, and lettuce

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

New Zealand Locations



Magpie Moth

Nyctemera amica

Self-introduced, from eastern Australia.
Adults emerge between September and April. 45mm wingspan.



Foodplants of Larvae



and Groundsels Senecio, *Brachyglottis repanda*, and lettuce

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

New Zealand Locations



Puriri Moth

Aenetus virescens

Large nocturnal moth, endemic to NZ, North Island only. Our largest moth. Caterpillars may live up to seven years feeding on the wood of puriri trees and other species. Adults don't feed, and may only live two days. Occurs September to November. 95mm wingspan.



Larva

Foodplants of Larvae



Puriri



Putaputaweta

and maire, manuka, wineberry, southern beech, oak and apple

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research



Anuhe / pepetuna

New Zealand Locations



Convolvulus Hawk Moth

Agrius convolvuli

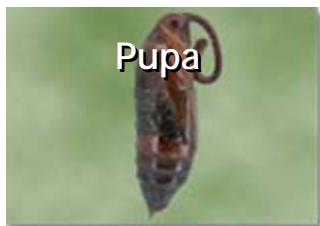
Large nocturnal moth, endemic to NZ. Larvae are large, distinctive caterpillars with horn which pupate in the ground. Also called Kumara moth or Sphinx moth. Body length 42mm



Hihue



Larva



Pupa

Foodplants of Larvae



Kumara



Convolvulus
Calystegia

New Zealand Locations



Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

Common Bag Moth

Liothula omnivora

Nocturnal moth, endemic to NZ. Caterpillar forms in a tough cylindrical bag and attaches to plants. When fully grown the larva secures the bag and pupates. Adult female is flightless, grublike and lives within bag. Male is fully winged. 30mm wingspan.



Kopi / Pu a raukatauri



Foodplants of Larvae



and maire, manuka, wineberry, southern beech, oak and apple

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

New Zealand Locations



Owl Moth

Dasypodia cymatodes

Large nocturnal moth from Australia. Two similar species: *D. cymatodes*, usually north of Nelson; *D. selenophora* found throughout New Zealand but commoner in South Island. Pupation is under bark of Wattles. 70mm wingspan.



Purere parangunu / Parikori taua



Foodplants of Larvae



and maire, manuka, wineberry, southern beech, oak and apple

Scientific data courtesy of the Entomological Society of New Zealand
Additional Images courtesy of Manaaki Whenua, Landcare Research

New Zealand Locations

(wherever wattles are found)



Monarch Butterfly NZ Trust



Credits

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Reed NZ Nature series – Butterflies and Moths of NZ by

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Entomological Society of New Zealand

Manaaki Whenua, Landcare Research



*PowerPoint design by Vicky Steele
Monarch Butterfly NZ Trust*

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