



# Over-wintering

Monarchs from around North America migrate thousands of kilometres to spend the winter in spectacular clusters on trees in California or in Mexico's cloudbelt forests. A study in New Zealand during the 1960s and 1970s tagged 6500 butterflies, of which 1011 were recovered. Only 28 butterflies



flew more than 20 km and no pattern of migration was found. In Christchurch, the butterflies don't seem to go far afield and, as the weather gets colder, they head for local parks and gardens (see the map overleaf). During late autumn and early winter, you can sometimes see thousands of butterflies on one tree.

Little is known about monarch over-wintering behaviour in New Zealand, but it appears that they only form over-wintering clusters in areas where the temperature regularly falls below 10 °C. On warm winter days the butterflies will fly from their clusters to feed on nectar. This is the best time to find the clusters - look for large numbers flying around a tree.

## Breeding

You can easily observe the development of monarch butterflies close up in your own garden. The caterpillars feed on the leaves of swan plants (*Asclepias* species), which are commonly available from garden centres. Plants kept out in the open will usually attract monarchs so no special effort is required to obtain eggs. Often, so many caterpillars develop on a plant that they strip the plant of leaves. If this happens, you can keep nearly mature caterpillars alive by feeding them pumpkin flesh. Mature caterpillars develop into pupae by hanging from a twig as they shed their skin, so it is important to provide twigs for caterpillars fed on pumpkin.



### Acknowledgements

We would like to thank the many people who phoned in to tell us the location of monarch clusters.

This pamphlet was prepared by  
Steve Pawson and Dr Lisa Berndt, design by Joanne Schaab.

### Links and References

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[www.kidzone.ws/animals/monarch\\_butterfly.htm](http://www.kidzone.ws/animals/monarch_butterfly.htm)  
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<http://monarchlab.org/research/PNE/pne.html>  
[www.newzealandbutterflies.org.nz](http://www.newzealandbutterflies.org.nz)

### Photo credits

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# MONARCH Butterflies

Where do they go in winter?



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# Introduction

Have you ever looked up into a tree in winter and been amazed to see hundreds of monarch butterflies hanging from the leaves in big clusters? This wonderful sight sparked our curiosity and led us to investigate this phenomenon in Christchurch. A note in The Press (May 2003) led to many people calling up with reports of this clustering behaviour in parks around the city. At some of these sites butterflies have been seen year after year on the same trees. In this pamphlet we share what little is known about this behaviour, and how you can see it for yourself.

Originally from America, the monarch butterfly (*Danaus plexippus*) has spread both naturally and by human intervention throughout the Pacific, Australia, parts of Southeast Asia, and to islands in the Atlantic. It is not known how monarchs first arrived in New Zealand but they have been here since at least the mid 1870s. They have been in Christchurch for many years and it seems that their numbers are increasing, although very little research has been done on them here.



Adult



egg



1st Instar



2nd / 3rd Instar



4th / 5th Instar



Pupa





# St James Park



St James Park in the heart of Papanui is probably the best location to see over-wintering monarch butterflies. On a warm sunny late autumn or early winter's day head to the children's play ground and look into the largely leafless old trees. There you will see monarchs clustering together often holding on to the remaining leaves for support. It's a great spot for a picnic beneath the trees with monarchs fluttering in the air above.

## Legend

-  Sightings of over-wintering monarchs
-  Parks
-  Major Roads
-  Suburbs
-  Feature Parks

# Abberley Park

Walk in the main entrance in Abberley Crescent and continue past the building on your left. Take the right hand fork in the path and look into the tops of the trees on the sunny side. You can often see monarchs clustering in there thousands; however, look closely as they are easily missed amongst the leaves of these evergreen trees. Best time to view these would be from April until June.



# Where to find them over winter...

This map of Christchurch shows the locations where monarch over-wintering clusters have been sighted. St James Park, Abberley Park and Ruru Lawn Cemetery are highlighted as monarch clusters have been seen there on a regular basis.

For further information on Christchurch parks or locations shown on this map contact:  
Greenspace, Christchurch City Council, P.O. Box 237, Christchurch. Phone: 941 8640  
Fax: 941 8267 Email: [leisureandparks@ccc.govt.nz](mailto:leisureandparks@ccc.govt.nz)  
<http://www.ccc.govt.nz/parks/theenvironment/monarch.asp>

# Ruru Lawn Cemetery

At the end of Raymond Rd the lawn cemetery meets the Cypress Garden Reserve. At this junction there is a row of large conifers and eucalypts. Over-wintering spots can shift over the years so take your time and walk around the park looking high in the trees in sheltered sunny spots. On a warm sunny day monarchs will give away their location as they fly short distances from the roost in search of nectar.

