



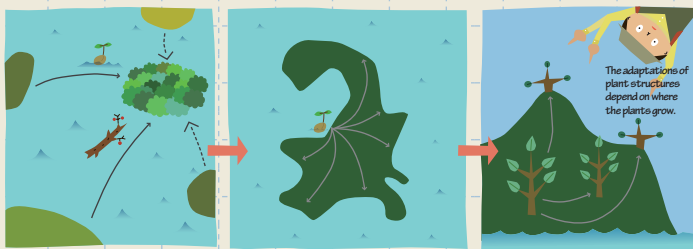
Chichijima Island

Natural Heritage Guide



Value of Chichijima Island as a World Natural Heritage site

Ecosystem: notable example of biological evolutionary process



Many plants of Ogasawara originate in Southeast Asia and Okinawa.

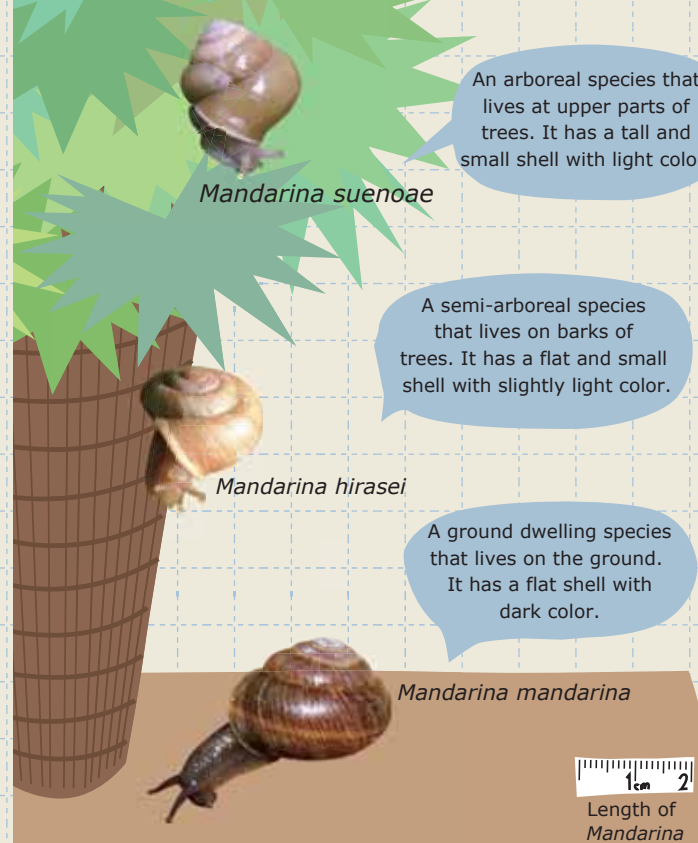
Plants spread across various areas on the island.

Their structures evolved to suit the environment.

In the Ogasawara Islands, we can find numbers of endemic species that have evolved into various forms in small islands isolated by the sea. The ongoing evolutionary processes of animals and plants can be witnessed here.

Land Snails

Among the various animals and plants found in Ogasawara, snails are a representative group of animals that have attained diverse evolution. At least 90% of the snails are endemic species. In particular, snails belonging to the *Mandarina* genus have differentiated into various shapes and colors as a result of evolutionary processes to adapt to specific habitats, such as trees and the ground.

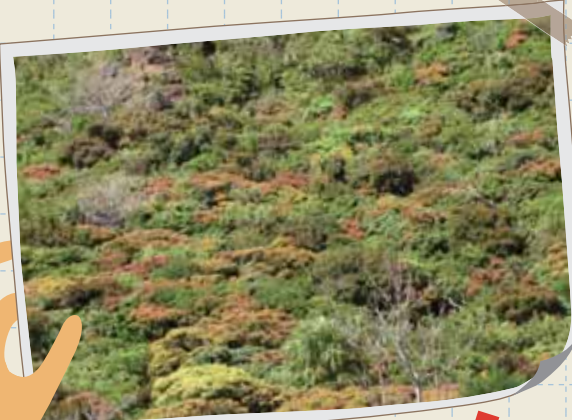


An arboreal species that lives at upper parts of trees. It has a tall and small shell with light color.

A semi-arboreal species that lives on barks of trees. It has a flat and small shell with slightly light color.

A ground dwelling species that lives on the ground. It has a flat shell with dark color.

Length of *Mandarina*



Sclerophyllous scrub

Forest of relatively short trees distributed in the northeastern and southwestern parts of Chichijima Island. The forest consists of many endemic plants that have evolved to tolerate the dry weather. 80% of trees growing here are endemic species.



Callicarpa glabra



Callicarpa parvifolia

Callicarpa parvifolia (endemic species) which grows in dryer environment than *C. glabra* (also endemic species) has smaller and thicker leaves.

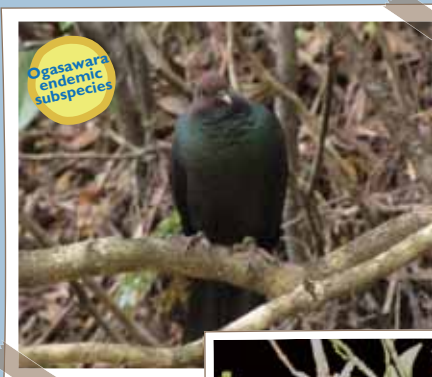
Reasons for Ogasawara being inscribed as a World Natural Heritage site

As a result of unique evolution in small islands isolated by the sea, a large number of endemic creatures and their ecosystems can be observed in Ogasawara. This was valued highly and these islands were designated as a World Natural Heritage site in June 2011.



Animals & Plants

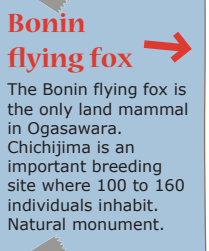
In the Ogasawara Islands, a large number of endemic species are distributed in small islands. Chichijima Island is an important breeding site for the Bonin flying fox and the endemic subspecies of Japanese wood-pigeon.



Ogasawara endemic subspecies

Japanese wood-pigeon

It is a type of pigeon with a purplish-red colored head. Chichijima Island is an important breeding site. Natural monument.



Bonin flying fox

The Bonin flying fox is the only land mammal in Ogasawara. Chichijima is an important breeding site where 100 to 160 individuals inhabit. Natural monument.



Ogasawara endemic species

Meimuna boninensis

It is the only cicada living on the Ogasawara Islands and comes out in autumn. Natural monument.



Ogasawara endemic species

Rhododendron boninense

It grows only on Chichijima Island. Only one strain of this plant grows in the wild.



Chichijima Island endemic species

Changing ecosystem

The original ecosystem of Ogasawara is changing because of the impact of animals and plants brought in by people (alien species).



The original ecosystem of Ogasawara before humans and alien organisms arrived:

The changing ecosystem of Ogasawara after humans and alien organisms arrived:

Various measures taken to restore the original ecosystem of Ogasawara.

See next page for details.

Map of the Chichijima Island Natural Heritage



Rules to protect the natural environment of Ogasawara

To prevent invasions of alien species:

Wrong? Please do not bring in plants, animals, soil, or seedlings with soil.

Seeds and small insects may live in the soil.

Stop!

おがさわら丸 Ogasawara Maru

To prevent the spread of alien species:

Brush off all traces of soil when you go out.

Some seeds can stick to your clothes. Insects. Soil. Do not roll up your pants. Check the soles of your shoes.

To protect the home of endemic species:

Follow the designated route.

Forests are home to many different living things.

A unique landscape formed by limestone can be observed around Minamijima Island. In particular, the landscape called "submerged karst", the karst formation of eroded limestone sunk in the ocean, is beautiful scenery.

Minamijima Island

Submerged karst topography

Measures against black rats

You must be accompanied by a guide to land.

Anijima Island

Measures against *Casuarina equisetifolium*

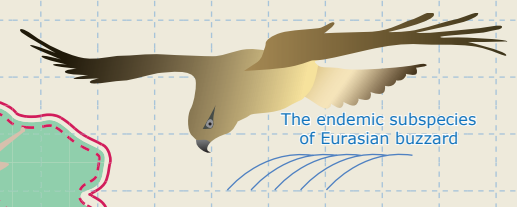
Measures against feral goats

Measures against black rats

Sclerophyllous scrub

Boninagron ezoin

Land snails



Ogasawara Village Tourist Association

Visitor Center

Anole Trap

Measures against green anoles

Sclerophyllous scrub

Land snails

Japanese wood-pigeon sanctuary

In order to protect suitable breeding sites for the endemic subspecies of Japanese wood-pigeon, a protected area has been set up at Higashidaira. You must be accompanied by a guide to enter the forest.

Cleaning the soles of shoes

Measures against feral goats

Measures against wild cats

Sclerophyllous scrub

Measures against *Casuarina equisetifolium*

Land snails

Fences for wild cas/feral goats

Japanese Wood-pigeon

For information about guided tours:

Ogasawara Village Tourist Association (B-ship)

+81 (0)4998 2 2587

Open: 365 days

8:00~12:00, 13:30~17:00

For more information:

Ogasawara Visitor Center

+81 (0)4998 2 3001

Open: during times the Ogasawara Maru is in port (Open every day during tourist season)

8:30~17:00

Predatory flatworm

The predatory flatworm eats land snails. The flatworms, its eggs and other alien species can be spread when they stick to the soles of shoes. To prevent such spread from Chichijima Island, people traveling by the Hahajima Maru boat are asked to wash the soles of their shoes on mats soaked with seawater that are placed in front of the passenger waiting area on Chichijima Island and at the disembarking zone on Hahajima Island.

Actions to recover the original ecosystem of Ogasawara

Feral goats

Goats eat rare endemic plants and trample native vegetation. To eliminate them, fences to separate them have been set up and guns are used as a control method.

Wild cats

"Mew!"

Fences have been set up around Higashidaira to protect the Japanese wood-pigeon from attacks by wild cats. In addition, wild cats are captured throughout Chichijima by using basket traps.

Green anoles

Green anoles live only on Chichijima and Hahajima Islands, where people live. Traps are set around the ports to prevent green anoles from spreading across to the satellite islands.

Casuarina

In forests, fallen leaves of *Casuarina* cover the ground and prevent other plants from germinating and growing. To restore the forests to their original condition, *Casuarina* trees are eliminated by using chemicals and others.

Black rats

Black rats eat seabirds, plants, snails, and many other organisms. Rat poison that almost does not affect other animals is used to kill them.