## Origins of the Ogasawara Islands

Unlike the Ryukyus, the Ogasawara Islands were never part of a continent, but were uplifted independently from the sea bottom. For that reason, the flora on these oceanic islands are all descendants of seeds or spores that arrived by chance and managed to survive and adapt to the islands' soil and climate. In fact, seeds or spores could have arrived in these islands in many different ways. For example, they may have drifted onto shore or floated in on driftwood carried by ocean currents. Lighter seeds and spores, such as those of orchids, ferns, and mosses, may have been blown in by the wind. In some cases the seeds or spores may even have been trapped in the feathers of birds.

Isolated from the continent and the main Japanese islands, once they arrived and settled in the Ogasawara islands these plants developed independently, creating a unique flora, in the same way as the Hawaiian and Galapagos Islands are also isolated oceanic islands with their own unique flora. Over 40 percent of the more than four hundred plants on the Ogasawara Islands are endemic (found only here) to this ecosystem. The percentage for trees is closer to 70 percent.

## Threat of Extinction

Just as with the Ryukyu Islands, the Ogasawara Islands face disruption of their natural environment and the resultant loss of biodiversity. Of the more than four hundred confirmed varieties of vascular plants, over one hundred thirty are either extinct or seriously endangered, while for sixteen more plants there is not enough data to accurately assess their status.

## Countermeasures Against the Loss of Botanical Diversity

The Ogasawara Islands are taking steps to stem this loss of botanical diversity. Researchers are working to better understand the unique ecological factors involved in the way these plants grow and reproduce on the islands. This information will hopefully help protect some of the endangered species. It is also necessary to prevent loss of plants and disruption of habitats due to the depredations of feral goats and invasive alien rats.