

Origins of Ryukyu Island Chain

During the glacial periods, as sea levels rose and fell according to the changing climate, the Ryukyu Islands were repeatedly connected to and then separated from the Asian mainland. As a result of this unique geological history, many of the plant species on the islands originated on the mainland, but developed independently into unique flora during the long periods of separation. In the Ryukyu chain there are about 1,600 types of vascular plants, including ferns. This small group of southern islands supports, on average, forty to fifty times as many species per square kilometer as do the main islands of Japan.

Threat of Extinction

These small islands, surrounded by large expanses of ocean, can support only small areas of habitat, and a limited number of individual plants for each species. The islands' botanical diversity is thus highly vulnerable to disturbances in the local ecosystems. Of the total confirmed number of vascular plant species, roughly seven hundred are either extinct or endangered, because of disturbance of their natural habitats by human development, harvesting by collectors, and competition from invasive alien species.