

Coexistence with Biological Diversity



Torii Toshio, Director General of the Nature Conservation Bureau, Ministry of the Environment

these climates and geographical conditions, Japan has a natural environment rich in biological diversity. There are over 90,000 species already known in Japan. If unknown species are also included, the total number is estimated at 300,000. The Japanese archipelago is separated from the Eurasian continent by sea, so one distinct feature of the environment is a large number of endemic species that only live in Japan. For example, around 80% of amphibians and around 40% of land mammals are endemic. By international standards, this is a very high proportion. The famous Japanese monkeys that soak themselves in snowy hot springs are also an endemic species, and Japan is the only developed country where wild monkeys live.

AT the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10) held in Nagoya, Aichi Prefecture in 2010, a global vision of biological diversity towards a world “Living in Harmony with Nature” was decided. We asked Torii Toshio, Director General of the Nature Conservation Bureau, Ministry of the Environment, about Japan’s biological diversity and how it is being conserved.

Please tell us about the general characteristics of Japan’s natural world and biological diversity.

The Japanese archipelago extends a great distance north to south from subarctic Hokkaido to the subtropical Nansei Islands and Ogasawara Islands. It also has a complex variety of geographical features, varies greatly in height above sea level, and has considerable rainfall and snowfall. Due to

What kind of lifestyles have Japanese people had in this rich natural environment?

Although rice has been farmed in Japan from long ago, because there is little flat land, people also lived close to the forests and did other farming. They acquired household fuel, building materials, food and other materials needed for daily life from nearby forests. These areas where people live in close communication with nature are known by the Japanese word *satoyama*. There are also living things in these *satoyama* that rely on the actions of humans to stay alive. For example, the endangered Asian fawnlily lives in forests that are thinned by humans, allowing sunlight to enter in the early spring. There are also many species living in ponds of water for agricultural use, including dragonflies and other insects, frogs and other amphibians, and species of fish. In pastureland, such as the Aso area of Kumamoto Prefecture, each early spring locals set fire to the fields

in a process of controlled burning. This controlled burning prevents pastureland from being taken over by shrubs and trees, and also happens to create an environment in which endemic species such as butterflies and wildflowers can live.

It is said that these precious environments are facing crises due to various kinds of change. Please tell us the specifics of these crises that Japan faces.

According to the National Biodiversity Strategy of Japan 2012-2020, formulated in 2012, Japan's biological diversity is facing four crises. The first is a crisis caused by human activities, including development. Due to land reclamation and other development, or overexploitation for ornamental or commercial use, reduction in the number of living creatures, extinctions, and deterioration of living environments are progressing. The second is a crisis caused by reduced human activities. Due to a lack of available workers caused by population decrease, decreasing birthrate and aging population, the balance of ecosystems is being destroyed by insufficient maintenance in satoyama. The third is a crisis caused by artificially introduced factors. Ecosystems are disturbed by the spread of invasive alien species that prey on native species or interbreed with them. Lastly, the fourth is a crisis caused by changes in the global environment. Changes in the environment such as global warming lead to increased risk of extinction in vulnerable flora and fauna such as corals and alpine plants.

What kind of work is being done to prevent Japan's distinctive biological diversity being lost?

In order to reach the Aichi Biodiversity Targets that were decided ten years ago at COP10 as targets by 2020 with the aim of conserving biological diversity, Japan has formulated the National Biodiversity Strategy I mentioned earlier and is doing various things. For example, it is promoting

measures to conserve biological diversity and endangered species through existing laws such as the Natural Parks Law and the Law for the Conservation of Endangered Species of Wild Fauna and Flora. In 2019, the Nature Conservation Law was revised to make the seabed of deep ocean regions, with their precious ecologies and biological resources, into conserved areas.

Overseas meanwhile, Japan is promoting the Satoyama Initiative that it proposed at COP10. Via this initiative, Japan is working with the United Nations, NGOs and other organizations to support projects in some areas of developing countries that have made use of blessings of nature in a sustainable way while conserving the natural environment and developing new sources of income for locals, such as ecotourism and the manufacture of value added commodities that use local products.

It's important to know where and what kind of biological diversity exists in order to conserve it. What kind of places are you thinking of in Japan?

Japan has thirty-four national parks and there is a diversity of living creatures in all these parks. For example, the Shiretoko National Park in Hokkaido has large birds and mammals that are unusual in other regions, such as Steller's sea eagles, brown bears and killer whales. We can also see the coexistence of people and nature in Japan's national parks. One of Japan's most famous shrines, Ise Jingu, is located amid dense forest in the Ise-Shima National Park, Mie Prefecture. In Western Japan, the Setonaikai National Park spans eleven prefectures and has distinctive views of lush green islands floating in the sea and terraced fields that make use of steep slopes running down to the coast. I'd like people to enjoy these scenes of intertwined nature and human life offered by the national parks in Japan. 🗼

Interview by SAWAJI OSAMU
