The First Prefectural Biodiversity Strategy of Chiba "Handing down the Riches of Biodiversity to Our Children"

The first Prefectural Biodiversity Strategy of Chiba

~working with Citizens for the Creation and Promotion of the strategy~

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Biodiversity Supports Our Everyday Life

Most of the things in our everyday life, such as food, clothes, medicines, cosmetics, and housing materials, come from living organisms. Living things all have their place in ecosystem, which cleans our air and water, prevents disaster and flooding, and regulates our environment so that we can live comfortably. The diversity of living things also provide us with beautiful landscapes and opportunities for recreation. Moreover, people have come to develop a variety of local foods and cultures from the living things and ecosystems which are unique to their region.

The various kinds of life interconnecting in rich biodiversity supports our everyday life in many ways.

We Are Losing Our Biodiversity

Being located on the eastern fringe of the Asian continent, Chiba prefecture is a highly diverse area with both warm and cold oceanic currents off its coast, while its forests range from evergreen broadleaved forest to deciduous broadleaved forest. This area includes the northern limit of reef-building coral as well as the southernmost spawning point for chum salmon in the western Pacific. Throughout Chiba's history, such rich biodiversity has been the foundation on which local human life depends; people gradually developed sustainable rural landscapes, "Satoyama," and "Satoumi," through the maintenance within the livelihoods of local people engaged in forming, forestry, and fishery.

However, some of the habitats in Chiba, such as forests, farmlands, and tidelands, have suffered considerable deterioration in biodiversity due to urbanization and environmental pollution related to industrialization. In addition to these, the abandonment and consequent devastation of Satoyama and Satoumi, invasion of alien species, and global warming, present real threats to biodiversity.

Eighty-seven animal and plant species have already gone extinct in Chiba prefecture. 767 of 1609 native plant species and 210 of 540 native animal species are listed on Chiba's "Red List".

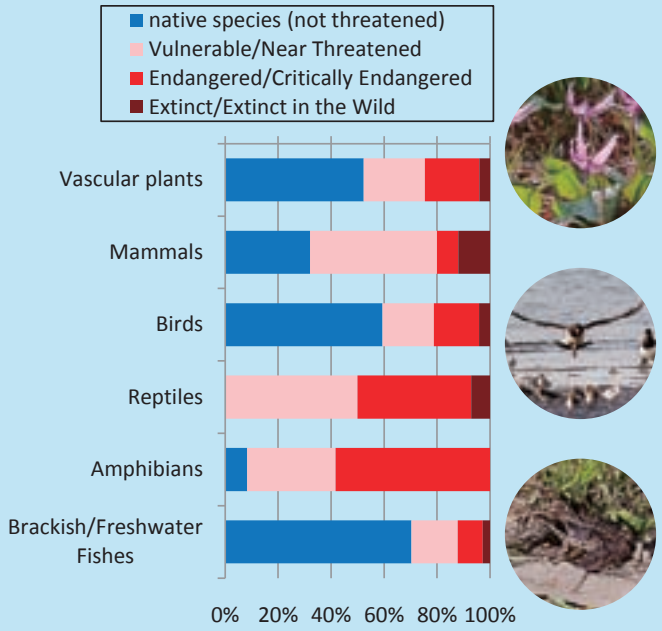


Fig. 1 The ratios of threatened species to total native species in Chiba prefecture. Photos. above: *Erythronium japonicum*; middle: *Haematopus ostralegus*; below: *Rana japonica*

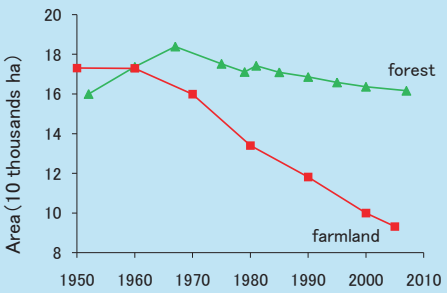


Fig. 2 The habitats of plants and animals have been decreased due to the decrements of forest and farmland.

Photo Sandpit in Chiba prefecture

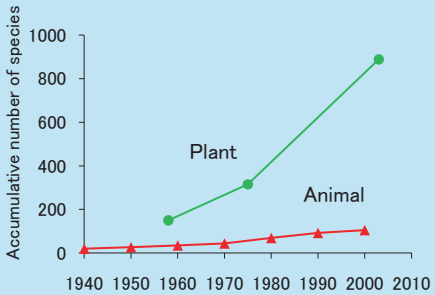


Fig. 3 Alien plants and animal species have been increasing, especially since 1970's.

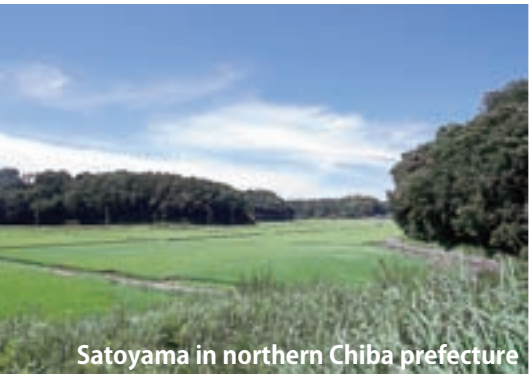
Photo Invasive alien species "Raccoon (*Procyon lotor*)"

What kinds of problems will the loss of biodiversity cause? For species directly related to industrial activities, it is easy to find the effects of extinction in our everyday life. However it seems difficult for the species with indirect relations to industry. The extinction of a species is equal to the loss of a treasure of technologies that could potentially be developed in the future. Living organisms are all interrelated through predator-prey relationships, pollination, and so on. Thus, the extinction of a single species affects all related species and may lead to negative effects on the ecosystem. As a result, our lives are influenced by decreases in water retention ability of the forests and the disappearance of beautiful landscapes and local culture, and so on.

Once a species has gone completely extinct it is impossible to recover. The loss of biodiversity not only negatively affects our lives today but also deprives our children of the potential benefits.

In order to aim for a sustainable society, it is high time to change our society through the conservation and sustainable use of biodiversity.


Umegase ravine


Satoyama in northern Chiba prefecture

With the Citizen's Help: Making the 1st Pr

The 1st Prefectural Biodiversity Strategy of Chiba was established on March 26th, 2008, with the help of Chiba's citizens, experts, and the prefectural government.

A Biodiversity Group was set up in the Nature Conservation Division, Environmental and Community Affairs Department, on September 1st, 2006, to start making the strategy. From October to December, 20 town-meetings were held throughout the prefecture. All meetings were planed by an executive committee, organizing the volunteer citizens. On December 23rd, the final town-meeting was held, which focused on biodiversity issues throughout the prefecture. The citizen's great enthusiasm took the town-meetings forward to the next step. The "Citizen's Conference on Biodiversity, Chiba" was established in May 2007, as an organization for the citizens to play an independent role in the making of the strategy. The Citizen's Conference included 32 sectional meetings, where citizens with a diverse sense of values discussed issues of biodiversity in Chiba prefecture. In October 2007, a proposal document compiled by the Citizen's Conference and one written by an expert committee were simultaneously handed to the governor of Chiba. This was certainly the

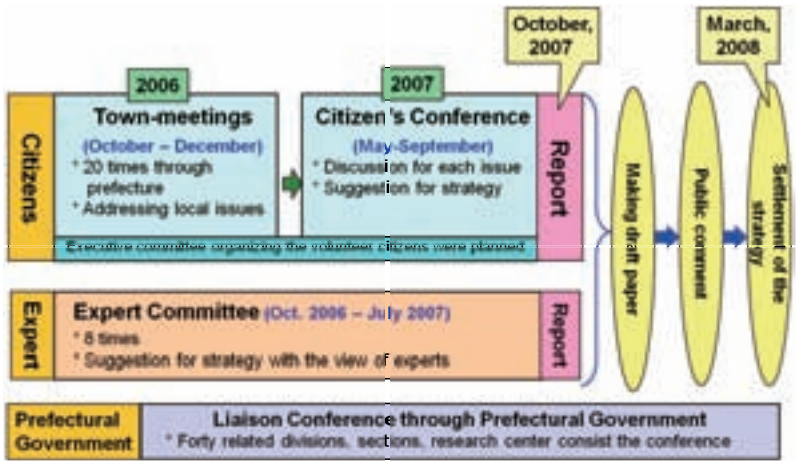


Fig. 4 The making process of the 1st prefectural strategy


Byoubugaura cliff


Ooyama senmaida, terraced paddy


Oriental stork (*Ciconia boyciana*)

refectural Biodiversity Strategy of Chiba

first step in the cooperation among citizens, NPOs, experts, and government, which is the aim of the strategy.

- Town-meetings and the Citizens' Conference added a new viewpoint and local information to the strategy. The greatest accomplishment of the strategy-making process is that all members involved in the process have improved their awareness of biodiversity and become key players in the conservation of biodiversity in each area.

- With the concept of "Handing down the Riches of Biodiversity to Our Children", the strategy outlines the prefectural government's initiatives regarding conservation and sustainable use of biodiversity by listing more than 200 of its projects. The Chiba Biodiversity Center was established on April 1st, 2008, for the promotion of the strategy.

- The strategy will be reviewed and revised every five years with the cooperation of various citizens and organizations.

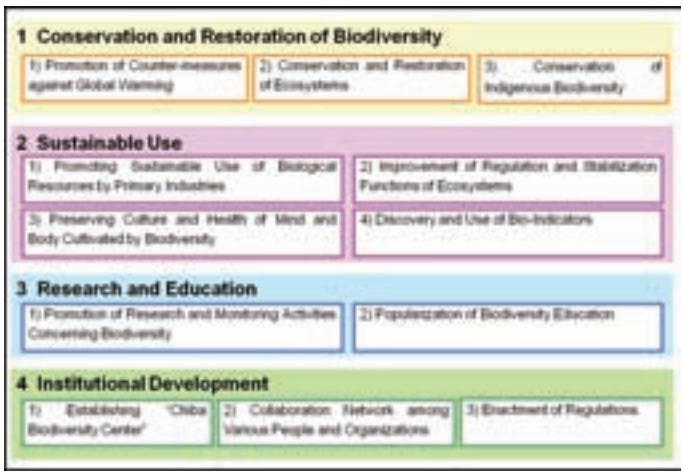


Fig. 5 The framework of the 1st prefectural strategy


Sawara town

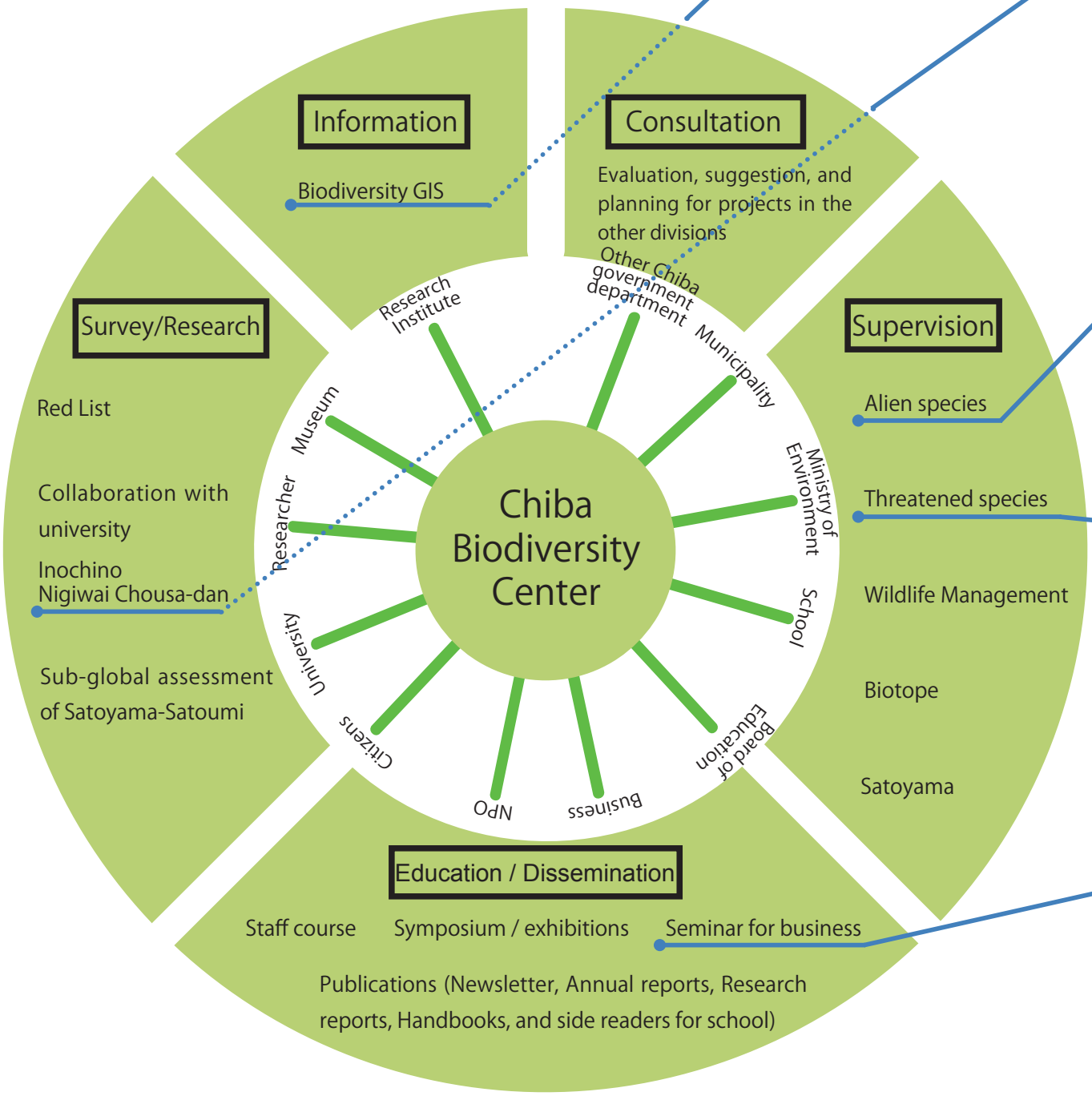

Lake Inba

The activities of Chiba Biodiversity Center

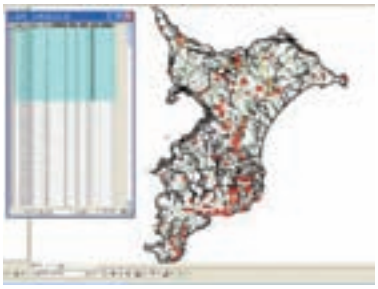
The Chiba Biodiversity Center was established as a branch of the Nature Conservation Division, Environmental and Community Affairs Department on April 1st, 2008. The center consists of the staff from the Nature Conservation Division, Agriculture, Forestry and Fisheries Department, and the Natural History Museum and Institute, Chiba.

The center holds various activities for the conservation of biodiversity. The activities are grouped into five functions: 1) Collection, Management, and Provision of information, 2) Survey / Research, 3) Consultation, 4) Education / Dissemination, 5) Supervision. These activities of the center are carried out with the cooperation of citizens, NPOs, local governments, business operators, and researchers.

The function and activities of Chiba Biodiversity Center



Biodiversity GIS (Collection, Management, and Provision of Information)



Information for biodiversity conservation is being collected and managed by the center. Most of the data are obtained from the specimen data of Natural History Museum and Institute, Chiba (ca. 270,000) and scientific journals and reports (ca. 150,000). GIS (Geographic Information System) is used to map and analyze spatial distribution of species living in Chiba prefecture whether they are endangered or alien. Results of the analysis or distribution maps are used as important references especially in determining measures to conserve biodiversity or editing list of red data species.

Inochinonigiwai Chousa-dan (Biodiversity monitoring by citizens)

The "Inochinonigiwai Chousa-dan" started in July of 2008 in order to monitor the changes of biodiversity in Chiba Prefecture by tracking the distribution of domestic and alien species, and so on. As of October 2010, 560 citizen operators were giving us more than 300 reports per month. The Nigiwai newsletter, forums, and training courses are prepared for citizen operators to improve their skills and keep them in communciation.

* URL: http://www.bdcchiba.jp/monitor/index.html

Management of Alien Species (Mitigation of Invasive Alien Species)

At present, 25 invasive alien species have been identified and recorded in Chiba Prefecture by the Invasive Alien Species Act. Mitigation plans have already been made by the prefectural government for the invasive species which require more urgent attention, such as the Rhesus monkey (*Macaca mulatta*), Raccoon (*Procyon lotor*), Reeves's muntjac (*Muntiacus reevesi*), Snapping turtle (*Chelydra serpentine*), and Alligatorweed (*Alternanthera philoxeroides*). The center conducts snapping turtle mitigation activities, and also cooperates with and supports other groups in their mitigation activities, field surveys, interviews, and swift actions.

Management of Threatened Species (Endangered Species Recovery Program)

Conservation councils for Diving Beetles (*Dytiscus sharpi sharpi*) and Japanese White Pine (*Pinus parviflora*), both endangered species on Red List, Chiba, were established in 2008. The council consists of the local governments, NPOs, and experts, and examines the recovery plan for each species, which were set in March, 2010. These plans will serve as models for the making of recovery plans for other endangered species.

Biodiversity Seminars for the Business Sector (Cooperation with Business Sector)

The Biodiversity Seminar Series for the Business Sector started in 2009 to teach businesses about biodiversity and starting conservation practices. In the seminar, experts and progressive companies talk about the advantages and disadvantages of biodiversity conservation for the business sector, the risk of biodiversity loss, case studies, and so on. Not only has the number of participants in the seminars been increasing, but the center is continuing to deepen the cooperation with the business sector.

Declaration of Citizens for Biodiversity Conservation

Citizens declared way of conserving biodiversity at several events in June, 2010. Nearly 5,700 declarations were gathered two ways:

1) Declaration by Ohajiki: Citizens chose what they wanted to do or were already doing from 8 options by using Ohajiki.
2) Declaration by Origami: Citizens made Origami animals and plants and wrote their declarations on them.

Declaration 1 (1,014 votes)
"to reduce the number of plastic bags by carrying reusable shopping bags"

In Japan, each person uses around 300 plastic bags each year. A lot of oil is consumed in the making of plastic bags and they do not decompose in the soil well. They also emit CO2 if burned. Reducing waste from plastic bags saves resources and helps counter global warming. Moreover, it leads to the conservation of biodiversity.

Reducing plastic bag waste is easy for anyone to try.

Declaration 2 (872 votes)
"to select locally grown foods to decrease the burden on nature"

Agriculture, forestry and fishery are deeply related to biodiversity. The Satoyama and Satoumi have been supporting and nurturing local life and culture with their rich biodiversity for a very long time. However, a decrease in local farming has resulted in the abandonment and consequent devastation of Satoyama and Satoumi.

Eating local food supports local agriculture, forestry and fishery, conserving biodiversity and local culture. Selecting local foods also saves the energy required to import food from abroad.

Selecting local grown food is easy to try in everyday life.

Other declarations

To eat seasonal foods (783 votes)
To select goods with eco-labels which promote sustainable use (708 votes)
Follow the rules and enjoy nature (628 votes)
To decrease wasteful energy and resource consumption (603 votes)
To take care of pets until they die (554 votes)
To make opportunities for interaction with nature (519 votes)

A variety of declarations were written on the Origami plants and animals. Thank you everyone for your cooperation.

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