



# JAPAN WILDLIFE RESEARCH CENTER





## Who we are ...

The Japanese archipelago extends 3,000 km from south to north and has a wide range of biomes, including subtropical forests and coniferous forests as well as alpine forests. This means that the Japanese islands are blessed with some of the richest in the world. In recent years, however, animal and plant species endemic to Japan have been lost gradually, and feeding damage to agricultural and forest products by wild animals is increasing. Such losses and damage are caused by the competitive relationships between people and nature owing to rapid economic growth and intensive land use.

The study of wild animals/plants, which is founded on taxonomy, ecology and other biological fields, has been developed as part of natural history, with the aim of understanding nature from various standpoints. Wildlife management, which has been developed in the context of applied science and is expected to progress worldwide, aims to understand the roles of wild animals/plants in ecosystems and to find ways to protect or control them.

The Japan Wildlife Research Center (JWRC) was established in 1978 with the aim of studying how to build harmonious relationships between human society and nature from the scientific and policymaking standpoints. As a pioneer in this area of study, the JWRC has been conducting various surveys and researches on terrestrial areas, such as “satochi-satoyama” landscapes created through the sustainable use of natural resources and primeval forests, inland water areas such as lakes, rivers and marshes, and neritic zones such as tidal flats and coral reefs in and outside Japan. We also contribute to human resource development and international cooperation for environmental conservation.

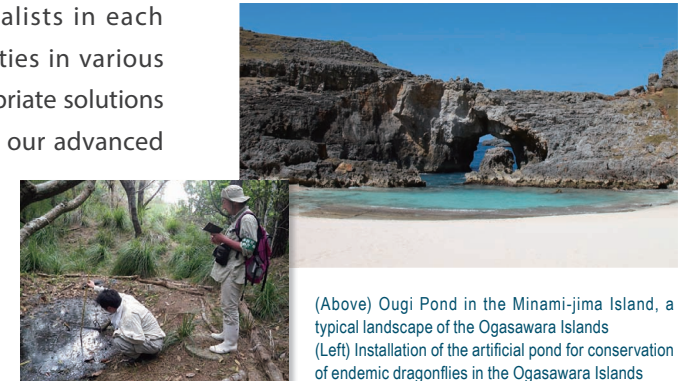


(From the left) Primrose (*Primula sieboldii*) / *Idea leuconoe*, the large size danaid butterfly distributed in the Nansei Islands / Steller's Sea Eagle (*Haliaeetus pelagicus*) / *Lomatogonium carinthiacum*, the threatened alpine plant in Japan / Shiretoko Peninsula, the World Natural Heritage site / Semifossils of *Mandarina* in the Ogasawara Islands

## Our Activities

### Field Research for Environmental Conservation

Since its establishment in 1978, JWRC research specialists in each taxonomic group have been conducting research activities in various fields from terrestrial to neritic waters and providing appropriate solutions to all kinds of issues on the nature conservation by using our advanced technology and experience. We also propose conservation measures for existing protected areas such as national parks, and support activities needed for the designation and management of globally prioritized areas such as the World Natural Heritage sites and Ramsar sites in Japan.



(Above) Ougi Pond in the Minami-jima Island, a typical landscape of the Ogasawara Islands  
(Left) Installation of the artificial pond for conservation of endemic dragonflies in the Ogasawara Islands

### Wildlife Management, Endangered Species Conservation, and Alien Species Control

We contribute to the wildlife management, especially the Programmes for the Restoration of Natural Habitats and the Maintenance of Viable Populations, by enabling the breeding of endangered species and managing their habitats. We also take measures to control alien species based on scientific evaluations with innovative technologies.



Capture of snapping turtle (*Chelydra serpentina*), an invasive alien species

### Surveys on the Development of Infrastructure for Environmental Conservation and the Formulation of Action Plans

In order to contribute to the conservation strategies of national and local governments, the JWRC makes science-based proposals that are appropriate for the current conditions in their jurisdictions, by utilizing the data and knowledge that we have accumulated through various activities as well as our network of researchers.



Expert meeting

### Raising Public Awareness about Conservation of the Natural Environment

We publish our research results to feed back to society and share the knowledge and findings obtained from our activities with people in and outside Japan. We also contribute to society by disseminating knowledge about the natural environment, offering our expertise in planning and editing publications, and planning and supervising various exhibitions and TV programs.



(Left) Socio-ecological production landscapes in Asia  
(Center) Coral Reefs of Japan  
(Right) Biodiversity of Japan

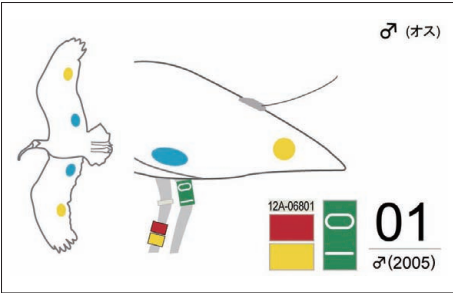


# Wildlife Management

## Endangered Species Conservation



Since 1984, the JWRC has been conducting population surveys of the Tsushima leopard cat (*Prionailurus bengalensis euptilura*), a threatened species, in order to understand its distribution, population density, etc. We also conduct programs to breed rare species in captivity and re-introduce captivity-bred animals to the wild. As part of the process of the project for the re-introduction of the Japanese crested ibis (*Nipponia nippon*), we conduct surveys on potential habitats before releasing the birds, and monitoring on breeding after their release. In addition, we conduct activities to conserve and propagate threatened land snail species inhabiting the Ogasawara Islands, a World Natural Heritage site.



(Above) Japanese crested ibis (*Nipponia nippon*)  
(Left) Marking Japanese crested ibis, with putting on leg bands and coloring on wings, and occasionally putting on radio transmitters for monitoring after release

Tsushima leopard cat  
(*Prionailurus bengalensis euptilura*)



## Alien Species Control

The mongoose (*Herpestes auropunctatus*) was introduced to the Amami Oshima Islands in 1979, in order to remove the venomous snake (*Trimeresurus flavoviridis*). However, the mongooses have preyed on the Amami spiny rat (*Tokudaia osimensis*), which is endemic to Amami Oshima, on the verge of extinction. The JWRC launched a program to remove the mongooses in 1996 and has achieved substantial success by improving traps, introducing search dogs, etc.



Mongoose (*Herpestes auropunctatus*)

## Controlling Wildlife Damage

Since the end of the 1990s, there have been reports of damage caused by the sika deer (*Cervus nippon*) on vegetation in alpine and subalpine zones. Over the following decades, the damaged area has rapidly expanded and the damage become serious. The JWRC conducts population surveys of sika deer in relation to its harmful impact on vegetation, to propose effective control measures in various endangered environments.



Sika deer (*Cervus nippon*)

# Biodiversity Conservation

## Field Survey

The JWRC conducts field surveys on the natural environment in terrestrial areas, neritic waters, rivers, lakes as well as on islands, and accumulates data on wide range of species, including plants, small invertebrates, fish, amphibians, reptiles, birds, small mammals and large mammals. The collected information is used for local environmental conservation, with special focus on conservation of rare species, alien species control, and wildlife damage control.

Extermination of alien fish species by using artificial spawning bed



## Ecosystem Monitoring

In order to detect changes in ecosystems, such as a decrease in the number of species, and to take prompt and appropriate conservation measures, the JWRC continues long-term monitoring surveys in alpine zones, forests, coral reefs and other ecosystems and accumulates information about the natural environment. The findings have been used for making conservation measures by the Ministry of the Environment.

Coral reef monitoring in the Sekisei lagoon, Okinawa prefecture



# Prompt Responses to Crises

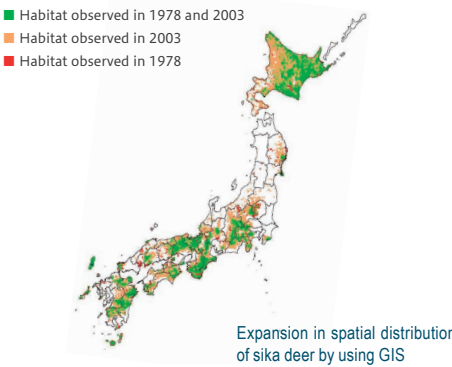


We have conducted surveys on wild birds in areas around the places where avian influenza has been detected, to check whether they were infected. Our emergency surveys were done in 2004 when avian influenza broke out in Japan for the first time in 79 years, and in December 2010 when avian influenza broke out in the Izumi region in Kagoshima prefecture, the wintering area of migratory birds such as the hooded crane (*Grus monacha*) and the white-necked crane (*Grus vipio*).

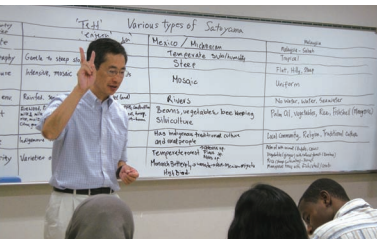
Hooded crane (*Grus monacha*) and white-necked crane (*Grus vipio*)

# Support on Policy-making for Biodiversity Conservation

The National Biodiversity Strategy of Japan for appropriate biodiversity conservation policies was formulated in 1995 and revised in 2002, 2007 and 2010, based on fully understanding of the trend of biodiversity conditions. The JWRC provided data on land use, priority areas, wildlife species, and social and economic conditions for the formulation of the strategy. We also contribute to the formulation of the Japan Biodiversity Outlook (JBO) with the results of our biodiversity assessments in maps using geographic information systems (GISs). In addition, we assisted the formulation of the Marine Biodiversity Conservation Strategy by clarifying the characteristics of marine areas around Japan to take appropriate measures in the areas.



# Global Collaboration



Lecture on the utilization of secondary nature (Satoyama) to trainees from overseas countries

The JWRC invites trainees from overseas countries and provides them with lectures and practices on the development of biological information management systems, the conservation of coral reefs, and the collaborative management of protected areas, etc, by using the environmental conservation techniques and technologies that we have accumulated. We also conduct overseas training programs in Palau and Indonesia. In addition, we dispatch experts to overseas countries, to provide the technical assistance in environmental conservation and surveys.



## Albania

We have sent an expert to the JICA project for conservation and sustainable use of the Divjake-Karavasta National Park in Albania in order to support the establishment of a system to conserve the National Park by taking advantage of our experience in national park management.

Field visit to the Divjake-Karavasta National Park, Albania



## Mekong Basin, Indochina

We surveyed the wild biological resources sold on the markets as foodstuffs ("mizube-no-sachi") such as aquatic insects, other small aquatic animals, land insects, and aquatic and terrestrial plants, in order to ascertain the level of diversity of the species used as food in the region and to understand how important the "mizube-no-sachi" is in people's lives.

Local market in Laos



## Indonesia

With the aim of achieving the conservation and sustainable use of biological diversity, we have rendered assistance in formulating national park management plans, strengthening survey and monitoring skills for endangered species, and implementing environmental education and ecotourism.

Jungle trekking on an elephant, Eco-Tourism in Indonesia



## Global efforts

The staff on the JWRC attends international conventions and contribute decision making on policies, and also disseminate international community at these meetings for the Convention the Convention on International of Wild Fauna and Flora (CITES), of International Importance (Ramsar Convention), and the Protection of the Heritage (World Heritage

attends international to the Japanese government's environmental conservation Japanese activities with the meetings. We have attended on Biological Diversity (CBD), Trade in Endangered Species the Convention on Wetlands Especially as Waterfowl Habitat the Convention Concerning World Cultural and Natural Convention).



10th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10) held in Nagaya, 2010

## The United States

In order to find good examples of "secondary nature" landscape (satoyama) which has been managed through the sustainable use of natural resources in various parts of the world, we conducted surveys on rice paddy field in Louisiana in the United States, farm lands in the Misiones province in Argentina and in the east Queensland in Australia, horticultural land in the Solomon Islands, etc.



Paddy fields in Louisiana, USA, in which crawfish (*Procambarus clarkii*) are cultivated



## Palau

As a member organization of the Project, "Sustainable Management of Coral Reef and Island Ecosystems: Responding to the Threat of Climate Change", implemented since 2013 by the University of the Ryukyus and others, our staff conduct capacity-building program and provide policy recommendations in order to contribute to the promotion of marine protected areas.



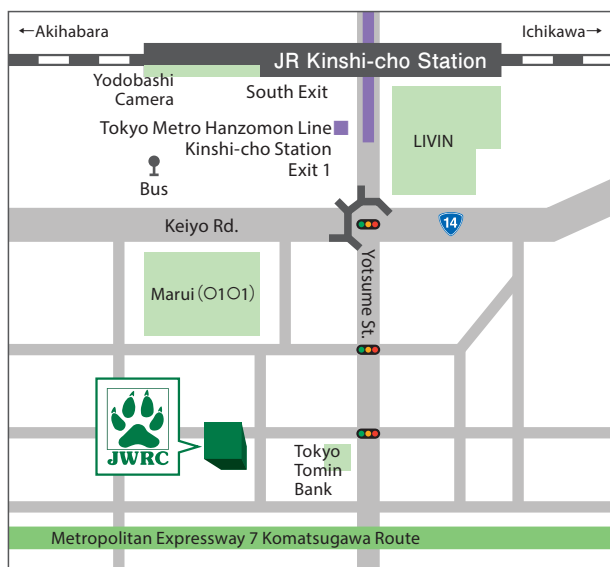
Coral reefs in Palau

## Argentina

We conduct the JICA-funded program to promote the sustainable use of natural resources, including palo santo (*Bulnesia sarmientoi*), endemic tree species in the Chaco region for improving the livelihood of local residents. In this program, we also support environmental education for school children.



(Above) Palo santo tree  
(Left) Environmental education for school students



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