



Kagoshima
International
Conference
on World Natural Heritage
(KICWNH)

NEWSLETTER

Vol. 8 / March 2005

Greetings from the Governor

I would like to express my heartfelt condolences to the victims of the Great Earthquake and Tsunami Disaster of December, 2004 off the coast of Sumatra. I sincerely hope that early restoration efforts will be made and that the pain and suffering of the victims will soon be healed.

In previous issues of this newsletter, (No. 6 and 7), we informed you that the Amami Islands have become Japan's natural site candidate for nomination to the World Heritage List. The Kagoshima Prefectural Government is making efforts to ensure the Amami Islands' registration to the World Heritage List is successful.

Approximately 130,000 people live on Amami Oshima and its neighboring islands. We are now challenging a totally new theme; how to preserve rare, wild, flora and fauna and the rich eco-systems that can be seen within the proximity of human living areas. Although it is a tough challenge we are determined to strive towards the realization of a society where people and nature can live in harmony together striving towards the fair utilization of the natural environment.

This issue features coral reefs, one of the great natural aspects of Amami and a major contributor towards registration as a World Heritage Site.

Lastly, I look forward to seeing you in October at this year's International Conference on World Natural Heritage in Aomori Prefecture.

Yuichiro Ito
Governor of Kagoshima Prefecture

Shirakami Sanchi in Winter



An ice pillar in Shirakami

Aomori Prefecture had its heaviest snow falls in 20 years this winter causing frequent cancellations of rail and air services and terrible road and traffic conditions. Shirakami Sanchi is known for its heavy snow but how much snow did we get this winter? One method for checking the snow level is by observing the height of the moss growth on the trunks of beech trees after the snow melts. It is also said that the praying mantis is able to forecast the snowfall of the coming winter by either laying their eggs on tree branches or grass stems.

We are curious to see if their forecast of heavy snow was accurate this time.

In Nisimeya village, the February practice of reading good and bad omens through icicle formations exists. If the Niogataki waterfall freezes, creating wonderful ice pillars, it is said there will be a good harvest.

During such a severe winter, the animals of Shirakami forest sit motionless, waiting for spring. Spring in Shirakami is a wonderful season and a time when people realize the grandeur of life.

The Shirakami Sanchi International Conference on World Natural Heritage (SICWNH) will be held in October when the brilliant colors of Shirakami Sanchi's foliage are in full show. We look forward to your visit.

The Second International Conference on World Natural Heritage (SICWNH)

The Asian and Pacific International Conference in the Shirakami-Sanchi for nature conservation and regional/community development based on the concept of the harmonious coexistence of nature and human beings

October 15th to 17th, 2005

Aomori Prefecture, Japan

SICWNH Organizing Committee
Natural Resources and Conservation Division,
Aomori Prefectural Government
<http://www.sicwnh.com/>



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Yakushima NOW

Instructor's report
New challenge

Instructor's report

Instructors, supporting environmental education in Yakushima through the Yakushima Nature Experience Seminars, are working on making programs unique to the southern island of Yakushima. This issue introduces the prawns of Yakushima.

Let's play in the river (prawn catching)

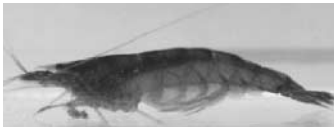
The rivers of Yakushima, known for their crystal clear, plentiful waters, are the perfect setting for a playful excursion. Exploring the different rivers here provides us with the perfect opportunity to meet various living creatures such as fish, and crabs, and especially, prawns.

This issue introduces some of the river prawns native to Yakushima. In Yakushima's rivers, one can find many prawns swimming and hiding, however when you hear the word "prawn," perhaps your mouth waters at the thought of fried prawns or of the prawns served at Sushi restaurants. Most prawns used in cooking are of the saltwater variety or are cultured on farms.



Macrobrachium nipponense

What kinds of prawns live in the rivers of Yakushima? Let's catch some now, and find out. On cold days, it can be a little uncomfortable entering the river water, but it does make catching the prawns rather easy. Nets, or traps made from recycled plastic bottles will allow us to catch many of them. There is also a traditional way of catching prawns known as bush-wood fishing. With this method, bundles of cedar leaves are anchored to the river bottom and after a few days the fisherman will return to the bundles to collect the prawns hiding under them. If the river is shallow enough, prawns can be caught simply by using your hands. If you look closely, you may notice that the prawns have a great variety of shapes and sizes. Yakushima's fresh-water prawns are most often of two varieties, *Macrobrachium nipponense* and *Paratya compressa compressa*. Some freshwater prawns like *Macrobrachium lar Fabricius* can grow as large as 25 cm (9.8 in) from claw to tail. *Paratya compressa compressa* are beautifully colored and are enjoyed as an ornamental crustacean in home aquariums.



Paratya compressa compressa

Most of the river prawns of Yakushima undergo an amphidromous migration, meaning that immediately after birth, the newly hatched prawns migrate from the fresh water of the river to the salt water of the sea. During a zoeal (larval) period, the prawns, known as plankton, spend their time in the sea feeding on plankton. After shedding a number of times, they return to the fresh waters of the rivers once again.

Currently, river prawn populations throughout Japan are declining, due mainly to the construction of concrete revetments and from pollution from urban waste water and agricultural chemicals. The fact that many prawns live in the rivers of Yakushima bears testament to the favorable environment of both the rivers and the sea. During summer, we can see children swimming, jumping and playing in rivers. We want to preserve rivers where children can safely enjoy themselves and in which many creatures can live.

The river prawns here are safe to eat thanks in part to the cleanliness of the river water of Yakushima. Large sized freshwater prawns are tasty when deep fried. The small *Paratya compressa compressa* can also be enjoyed deep-fried with a little bit of salt sprinkled over them. Or, try them batter dipped and fried with mixed vegetables, on a bed of noodles. Since

they are freshwater prawns though, we do not recommend eating them raw.

Unfortunately, river prawns will die unless they live in water with some salinity during the zoeal period (except for *Palaemon paucidens*), which is a condition that is somewhat difficult to reproduce.

Koji Ishibashi

Instructor,

Yakushima Environmental and Cultural Learning Center

Towards the installation of the Environmental Preservation Council Support Fund System, and the Guide Accreditation and Registration System in Yakushima:

Background

In 2003, the total number of visitors to Yakushima exceeded 300,000, a 1.5 times increase from 1993, the registration year as a World Natural Heritage Site. In 2002, more than 100,000 people had visited Yakusugi Land, 60,000 had visited Shiratani Unsui Ravine, and over 50,000 visitors climbed to see Jomon-sugi cedar and also climbed Mt. Miyanoura. During both the Golden Week holiday period and summer holidays, over 600 visitors climbed to see the Jomon-sugi cedar and its vicinity each day, which caused the negative impact from the over use of this mountain area to become a concern.

During the symposium to commemorate the 10th anniversary of Yakushima's designation as a World Natural Heritage Site, which was held in October, topics such as registration systems for guides, how to proceed with ecotourism, an environmental ticketing system, and how to collect funds for environmental cooperation were discussed. Subsequently, we were able to see a more concrete strategy with regards to the future initiatives that Yakushima must consider.

Using this discussion as a starting point, consideration for installing the Environmental Preservation Council Support Fund System (admission fees for entrance to the mountains) and the Guide Accreditation and Registration System are as follows:

1. Environmental Preservation Council Support Fund System

Due to the increasing numbers of tourists visiting Yakushima, there is a greater need to solve such problems as guidance for visitors; proper maintenance of mountain paths, shelters and restroom facilities; and effective measures to preserve the natural environment.

In order to maintain restroom facilities in mountain areas and to protect the natural environment of Yakushima, efforts are being made to realize the introduction of the Environmental Preservation Council Support Fund System. Specific considerations concerning use, budget, target people and billing methods are being made by an intensive working group of the Yakushima Mountain Area Utilization Council which is composed of national, prefectural and two local town governments, and related organizations.

Currently, based on those considerations, final arrangements are being coordinated with concerned bodies such as the Forestry Agency and the Environmental Ministry. This system will be utilized from FY 2005 if all goes smoothly.

2. Guide Accreditation and Registration System

Proposals for implementing the Guide Accreditation and Registration System of Yakushima, are summarized in the October 2003, publication "Guideline and proposals for

promoting eco-tourism in Yakushima" by the Yakushima Eco-Tourism Support Council, which consists of the Yakushima Environmental Culture Foundation; the Yakushima Tourism Association; guide related organizations; and national, prefectural and both local town governments. As noted in the aforementioned symposium, the issue on eco-tour guides requires an urgent solution for Yakushima.

Yakushima was selected as a model district for the promotion of ecotourism by the Ministry of the Environment. The Yakushima District Ecotourism Promotion Council was established in September 2004 as the promotion body of this

model enterprise. Currently, in a workshop composed of both towns in Yakushima, as well as eco-tour guides, the Environmental Ministry, and foundations for the Guide Registration and Accreditation System, deliberations are being made in regards to the specific scope of guiding, and its systems and operation methods. System evaluation will begin in 2005 with full implementation scheduled by 2006.

As Kagoshima Prefecture is one of the members of the council, we are delighted to provide our support and cooperation for the early realization of the system.

Amami Oshima, candidate for World Natural Heritage Site

Corals in Amami



The Amami islands, situated in the middle of the Ryukyu archipelago are surrounded by diverse coral reefs that are home for over 200 different varieties of coral. In the inner pond of the reef (called *Ino* in Japanese) a dendritic coral community spreads. Reef edges,

covered with hard corallum, provide strong protection against the crashing waves. On reef slopes, table corals overlap creating unique coral reef landscapes.

On the coast, plants of *Pandanus tectorius Soland* and Beach Naupaka (*Scaevola frutescens*) grow thickly. On crushed coral beaches, Loggerhead and Marine turtles come to lay their eggs between May and July.

The people of Amami have long enjoyed the blessings from coral reefs since olden days. These include; 1. fish that live in the coral reefs such as the Japanese parrotfish (*Calotomus japonicus*), Pearl-spot chromis (*Chromis notata notata*), and the Sea bass (*Serranidae*); 2. crustacea such as the Japanese Spiny Lobster (*Panulirus japonicus*), and the Scaly Slipper Lobster *Scyllarides squamosus*; 3. shell-fish such as the Silver-Mouth Turban (*Turbo argyrostomus Linnaeus*) and Turbo Marmoratus (*Lunaticus marmorata*); 4. octopus such as Cyane's Octopus (*Callistoctopus cyanea*) and Octopus oliveri; 5. squid such as the Giant Cuttlefish (*Sepia latimanus*) and Bigfin Squid (*Sepioteuthis lessoniana*); and 6. sea urchins such as Linnaeus (*Achaeus japonicus*). In addition to seafood, wreckage, called *yurimun*, has been used as a gift from Neriyakanaya, the land of fertility. Even today, local people continue to use traditional fishing styles like skin diving, drive-in fishing, and *Izari* fishing, a style of fishing where people catch shellfish and octopus at dried up reefs during low tide. Recently, there have also been many tourists visiting and enjoying such activities as scuba diving and sea kayaking, which proves the increasing value of coral reefs as a tourism resource.

On the other hand, bioturbation of coral reefs has become a problem. Due to the development and outflow of red soil, coral reefs have been decreasing. Moreover, frequent mass occurrences of crown-of-thorns starfish have also damaged the coral reefs. In the summer of 1998, a large scale "coral bleaching" killed most of the *Acropora spp.* coral species in the reef flats. Even more devastating is the population explosion of crown-of-thorns starfish which began in 2001. In the Amami islands, approximately 1.6 million crown-of-thorns starfish have been exterminated in the past 30 years. However this extermination has not helped to preserve coral reefs over wide areas. After the recent review of the extermination methods, there have been endeavors to preserve coral reefs by conducting a more intensive program of crown-of-thorns starfish extermination at important coral reef protection areas, which has been established with due consideration to the entire coral reef and tourism resources.

Efforts towards the registration of the Amami Islands for World Natural Heritage

Introduction

Amami Gunto Quasi-National Park was established in February 1974, mainly because of the sub-tropical landscape of its coastal areas. Comprised of Amami Oshima, Kikaijima, Tokunoshima, Okinoerabu-jima and Yoronjima, the park is located at the southern end of Kagoshima Prefecture.

The recommendations for marine parks, made at the first World Park Congress held in Seattle in 1962, were the key factor behind the park's establishment. The recommendation states that, "The ocean and lives produced there are as valuable as those of the land. The pressures, caused by population increases, have been gradually affecting the ocean. The establishment of marine parks and/or protected areas should be considered for the protection of the living places of the ocean." This was agreed to by all participating nations. In Japan, based on this recommendation, the then Ministry of Welfare began preparations for the establishment of marine parks. Amami Gunto was listed as one of the promising candidates.

In response to this, the Kagoshima Prefectural Government conducted investigations under the assumption that Amami would be designated. In 1965, academic research was consigned to Dr. Takeshi Tamura, chairperson of the Marine Parks Study Committee of the Nature Conservation Society of Japan, and in 1966, academic studies of islands other than Amami Oshima were conducted by Kagoshima University. In summary, "A Basic survey of the Planned Area for Amami Gunto Natural Park" was conducted by the Marine Park Center. It was followed by the 1969 "Amami Gunto Natural Park Plan Survey" which was conducted to determine the provisional specific area.

Coastal landscape with coral reef as a core was highly valued

The report, "A Basic Survey of the Planned Area for Amami Gunto Natural Park," states:

...the eminent feature of the landscape of Amami Gunto is coral reef. Above all, the fringing reef coasts between the Ayamaru Cape on eastern Kasari Peninsula and Wano on Amami Oshima, and the eastern coast of Tokunoshima between Kaminomine and Kametoku excel both in their reef's quality and quantity. The barrier reef of Yoronjima and the elevated coral reef of Hyakunodai are noteworthy. Regarding the topography, the series of limestone caves of coral rag on Okinoerabu Island is unique.

In "A Basic Survey of the Planned Area for Amami Gunto Natural Park," published the following year, Dr. Tsuyoshi Tamura comments:

There is enough attraction from the perspective of tourism.

In particular, oddly-shaped coral reef landscapes along the coasts and in the water, karstic landscape spreading on The Ryukyu limestone plateau, underground limestone caves, and dynamic sea cliffs that are washed by Kuroshio, (Japanese currents), are especially impressive. These landscapes are quite unique and unparalleled by others. Moreover they are all outstanding, and therefore they have a great potential to be ranked at the level of a national park."

Based on these assessments, the area was designated as a semi-national park in 1974 after undergoing thorough discussions with national and local municipal governments. A total of 8 points (5 in Amami Oshima, 1 in Tokunoshima and 2 in Yoronjima) were designated as marine parks. Because of mountains with sub-tropical broad-leaf trees, as seen in Amami Oshima and Tokunoshima, Mt. Yuwan and Mt. Inokawa were designated as special protection areas. Mangroves in Sumiyoson on Amami Oshima, then the largest in Japan, were also designated as special protection area.

The Amami Islands have become Japan's Natural Site Candidate for nomination to the World Heritage List

Thirty years after its designation as a quasi-national park, Kagoshima Prefectural Government is now comprehensively reviewing the situation. This is due to the fact that the Ryukyu Islands, together with the Shiretoko lands and the Bonin Islands were selected as candidates for inclusion on the World Heritage List by the Review Committee on Natural Site Candidates for nomination to the World Heritage List in May, 2003.

The Amami Islands have sub-tropical evergreen broad-leaf forests which are unparalleled anywhere else in the world, and also has many endemic species and relicts exclusive to Amami such as Amami Rabbits (*Pentalagus furnessi*) and the Great Scaly thrush (*Zoothera dauma major*). The coral reefs of Amami are the northern limit for these various endemic species' habitats. These are just a few of the factors that are highly valued by the review committee.

At the time of designation as a quasi-national park, the

main focus was on the coast lines of the Amami islands. That focus has shifted and it is now the natural environment of the forests and the wild animals that live there that are highly valued this time.

According to the red data book of Kagoshima Prefecture, 309 species of fauna and 913 species of flora have been selected as endangered species (type I and II) in the Prefecture. More than 50% of fauna and about 20% of flora of such threatened species are to be found on the Amami Islands. As is obvious from these facts, the Amami Islands are home to rare wild flora and fauna. The natural environment that support them are extremely vital to them. However, the importance has not been well recognized resulting in the limited protection of the inland area, an issue noted by the review committee.

Regional Survey of Important Ecosystems in Amami Islands

The detailed surveys on species, their habitats, population of rare wild flora and fauna have not been sufficient. Therefore, with subsidies from the Ministry of the Environment, Kagoshima Prefecture has been conducting a regional survey of important ecosystems on the Amami Islands (2003-2005). Investigations of the current status of flora and fauna including their habitations are being implemented. In addition, an academic council of experts and a council made up of local intellectuals were both established in order to gather advice and suggestions on how to best protect these particular areas. The results of the survey of existing circumstances are widely disclosed. Open lectures on the nature of Amami have also been conducted for the benefit of local citizens. This helps increase their awareness of natural protection.

Based on the results of this survey, Kagoshima Prefecture, in collaboration with national and municipal governments and the Okinawa Prefectural government, will make our utmost efforts to realize sufficient protection measures are established by designating protected areas such as national parks, in order to become eligible for World Natural Heritage List registration. Local people in the Amami Islands are once again seeking ways to live in harmony with nature. Their steps towards the dream of World Natural Heritage designation have just begun.

Feedback from Yakushima correspondents and newsletter members

- I will treasure nature while keeping a feeling of reverence for nature. M.S. male, Hokkaido

- I found the different mosses a very interesting aspect of the nature of Yakushima. T.S. female, Tokyo

- Coming in touch with the nature of Yakushima greatly moved me. I truly felt that we have to continue to protect this nature. I would like to come back again. T.K. male, Fukushima Prefecture

- Its an island where one can feel the cycle of life. K. H. Female, Fukuoka Prefecture

- Letter from Mr. P.K. Mahanta, former Chief Minister of Assam, India

I was very happy and acquired good knowledge about World Natural Heritage by attending the Kagoshima International Conference on World Natural Heritage (KICWNH) in May, 2000. I agree with the point you have given on stressing for more protection and preservation of the Natural Heritage sites of the world. I hope the initiative you have taken for protection and preservation of the World Natural Heritage is a good instance for the other people of different countries.

- Letter from Piet Alexander Tallo, SH, Governor of East Nusa Tenggara, Indonesia

Firstly, thank you for your letter and your endeavors to preserve the global environment. The second thing is about the Shiarakami-Sanchi International Conference on World Natural Heritage (SICWNH). I think it is important for us to be supportive of this program, and others, who care about the environment.

Editor's notes

The evergreen broad-leaf forests of the Amami islands were featured again in this issue. These forests are not only beautiful, but produce no noise or air pollution and provide us with oxygen to breathe. Oxygen production, water purification, pollutant filtration, and soil erosion prevention are important roles of a healthy ecosystem. World-wide biodiversity brings us uncountable benefits. We must learn more about global warming and earthquake occurrences from the earth. However, in our hurried lives, we often overlook what the earth may be trying to tell us. The theme of the Second International Conference on World Natural Heritage is "The Grand Circulation of Life - A look at Ourselves in Nature". It is hoped that this conference will provide a step towards encouraging this communication.

This issue will be the last newsletter to be published by Kagoshima Prefecture. You will receive information about the Second International Conference on World Natural Heritage from Aomori Prefecture. Thank you very much for reading the newsletter.

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