

Shiretoko World Heritage Conservation Center

Opening hours: 8:30 – 17:30 (April 20 – October 20)
9:00 – 16:30 (October 21 – April 19)
Days closed: Every Tuesday (October 21 – April 19 only)
New Year's holiday
Address: 186-10 Utoronishi, Shari-cho, Shari-gun, Hokkaido
Telephone number: 0152-24-3255
<http://shiretoko-whcc.env.go.jp/english/>

Shirakami-Sanchi World Heritage Conservation Center

[Nishimeya]
Opening hours: 8:30 – 17:00
Days closed: Every weekend, national holiday, and New Year's holiday
Address: 61-1 Aza Kanda, Oaza Tashiro, Nishimeya-mura, Nakatsugaru-gun, Aomori
Telephone number: 0172-85-2622
<https://tohoku.env.go.jp/nature/shirakami-sanchi/>

[Fujisato]
Opening hours: 9:00 – 17:00 (March – November)
10:00 – 16:00 (December – February)
Days closed: Every Tuesday (March – November)
Every Monday and Tuesday (December – February)
* Following day if it is a national holiday
New Year's holiday
Address: 63 Fujikoto Satoguri, Fujisato-machi, Yamamoto-gun, Akita
Telephone number: 0185-79-3005
<http://www.shirakami-fujisatokan.jp/en>

Ogasawara World Heritage Conservation Center

Opening hours: 9:00 – 17:00 (while the ship is in port on Chichijima)
Days closed: While the ship is out of port
New Year's holiday
Address: Nishimachi, Chichijima, Ogasawara-mura, Tokyo
Telephone number: 04998-2-7174
<http://ogasawara-info.jp/en/>

Yakushima World Heritage Conservation Center

Opening hours: 9:00 – 17:00
Days closed: Every Saturday (December – February only)
New Year's holiday
Address: 2739-343 Ambomaedake, Yaku-cho, Kumage-gun, Kagoshima
Telephone number: 0997-46-2992
<https://www.env.go.jp/park/yakushima/ywhcc/english/eng.top/eng.index.htm>

Amami-Oshima World Heritage Conservation Center

Opening hours: 9:00 – 17:00
Days closed: Every Tuesday
New Year's holiday
Address: 467-1 Oaza Ishihara, Sumiyo-cho, Amami-shi, Kagoshima
Telephone number: 0997-69-2281
<https://amami-whcc.jp/>



Ministry of the Environment

March 2023
Published by:
Nature Conservation Bureau, Ministry of the Environment
1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8975
<http://www.env.go.jp/en/>
World Natural Heritage in Japan:
<http://www.env.go.jp/nature/isan/worldheritage/>

Edited by: Japan Wildlife Research Center
Design: artpost inc.

Photos: Kazuhiro Asuka, Satoshi Chiba, Seiya Kudo, Hiroshi Nagano, Ikuo Nakamura, Ayumu Maruta, Naonobu Minagawa, Keiji Miyakawa, Hidetaka Omori, Hiroshi Takahashi, Kanehiro Yamada, amanaimages Inc., Egyptology and Tourist Promotion Office of Embassy of Egypt, Japan Wildlife Research Center, PIXTA Inc. Shiretoko Rausu-cho Tourist Association, Shiretoko Shari-cho Tourist Association
Illustrations: Haruyoshi Kawai, Yoshitaka Minowa, Tadaaki Okata, Mari Otaguro, Toyomi Tanaka



Shiretoko
知床

Shirakami-Sanchi
白神山地

World Natural Heritage in Japan

Yakushima
屋久島

Ogasawara Islands
小笠原諸島

Amami-Oshima Island, Tokunoshima Island,
Northern part of Okinawa Island,
and Iriomote Island
奄美大島、徳之島、
沖縄島北部及び西表島



What is World Heritage?

Qu'est-ce que le Patrimoine Mondial ?



Shirakami-Sanchi (Aomori, Akita)

Area: Approx. 17,000 ha
Inscription: 1993

Yakushima (Kagoshima)

Area: Approx. 10,700 ha
Inscription: 1993



Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island (Kagoshima, Okinawa)

Area: Approx. 42,700 ha
Inscription: 2021

Shiretoko (Hokkaido)

Area: Approx. 71,100 ha
Inscription: 2005



Ogasawara Islands (Tokyo)

Area: Approx. 7,900 ha
Inscription: 2011



Treasures that should be passed down to future generations as irreplaceable assets shared by all humankind

Requirements for Inscription on the World Heritage List as a Natural Property

The Outstanding Universal Value of the property is evaluated in accordance with the following three conditions:

- 1 The property must meet more than one of the four evaluation criteria (see table below)
- 2 The property must fulfill the condition of integrity (e.g. include all the elements necessary to demonstrate outstanding universal value; contain adequate areas; show little influence of development; and maintain its primary natural value).
- 3 The property must be adequately protected and managed in order to maintain its outstanding universal value over the long term.

Those properties that fulfill the above conditions can be inscribed on the World Heritage List, as they are the only places in the world that have such significant value.

Criteria for World Heritage (natural property)

To be inscribed on the World Heritage List as a natural heritage, the property must meet one or more of the four criteria: natural beauty; geology and geomorphology; ecosystem; and biodiversity.

| | |
|----------------------------------|--|
| (vii) natural beauty | contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance Yakushima |
| (viii) geology and geomorphology | be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features |
| (ix) ecosystem | be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals Shiretoko Shirakami-Sanchi Ogasawara Islands Yakushima |
| (X) biodiversity | contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation. Shiretoko Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island |

Protection and Management of Natural World Heritage Properties in Japan

Natural World Heritage properties must be appropriately protected and managed to maintain their values into the future. For this reason, protection and management measures in accordance with the national laws and systems are taken on those properties, through the status of National Parks, Nature Conservation Areas, Forest Ecosystem Reserves, and/or Natural Monuments for which the government has the management responsibility.

Framework for Protection and Management of Natural World Heritage Properties in Japan

On the natural World Heritage properties, appropriate protection and management is necessary to be implemented on the basis of scientific knowledge and with close cooperation among relevant parties, including local organizations, academic experts, and government bodies that have jurisdiction over protection and management of the natural environment. For each World Heritage property, a Regional Liaison Committee and Scientific Committee are established and operate to develop a Management Plan and advance protection and management efforts for that property.

Structures pour la protection et la gestion des sites du Patrimoine naturel mondial

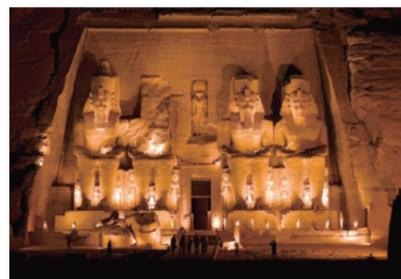
Sur les sites du Patrimoine naturel mondial, une protection et une gestion adéquates doivent être mises en oeuvre sur la base de connaissances scientifiques les plus récentes et dans le cadre d'une coopération étroite entre les différentes parties concernées (administrations ayant compétence sur la protection et la gestion des environnements naturels, organisations locales, experts académiques, etc.). Pour cela, un Comité de liaison régional et un Comité scientifique sont mis en place et gérés sur chaque site du patrimoine mondial afin d'élaborer le plan de gestion et de promouvoir les efforts de protection et de gestion du site.

| | |
|-----------------------------------|---|
| Regional Liaison Committee | The Regional Liaison Committee is comprised of the Ministry of the Environment, Forestry Agency, local governments and other relevant parties. The committee serves as a vehicle for liaison and coordination and consensus building for management of the World Heritage property. |
| Scientific Committee | The Scientific Committee is composed of experts in the natural and social sciences. On the basis of scientific knowledge, the committee provides the advice for appropriate protection and management of the property. |
| Management Plan | The Management Plan clearly lays out policies and structures promoting the application of various schemes for protection and management. The appropriate protection and management programs are promoted through close cooperation and consultation among relevant stakeholders. |

Origin of the World Heritage Convention

In the 1960s, as part of a plan to rescue historical monuments from the flooding produced by the construction of the Aswan High Dam on the Nile River, the United Nations Educational, Scientific and Cultural Organization (UNESCO) initiated an international safeguarding campaign to preserve the Nubian Monuments by dismantling and reassembling them. This action prompted the idea of protecting world cultural assets through international cooperation. In 1965, the United States of America suggested an international framework to support listing and protection of the world's superb natural and scenic areas and historic sites.

In the wake of such movements, the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention) was adopted at a UNESCO General Conference in November 1972. Japan became a party to the Convention in 1992.



The Abu Simbel temples

Outline of the World Heritage Convention

| | |
|--------------------------------|--|
| Official name | Convention Concerning the Protection of the World Cultural and Natural Heritage |
| Objectives | The World Heritage Convention aims to identify, protect, conserve, present and transmit to future generations cultural and natural areas around the world considered to be of outstanding value. The Convention also supports to establish systems for international cooperation. |
| Secretariat | UNESCO World Heritage Centre (Paris) |
| What is World Heritage? | World Heritage properties are the sites of Outstanding Universal Value (i.e. of particularly important value for all humankind) that are evaluated by the World Heritage Committee* as assets to be inscribed on the World Heritage List and be conserved into the future. There are natural properties, cultural properties, and mixed properties that have both natural and cultural values. |

* An intergovernmental body established under UNESCO, consisting of representatives of 21 countries elected from the State Parties. A Committee term is limited to a maximum of 6 years (some countries voluntarily shorten their terms to 4 years)

| | |
|---|------------------|
| State Parties: 194 countries | (as of Mar 2022) |
| Number of the World Heritage properties | |
| Total | 1154 (25) |
| Natural heritage | 218 (5) |
| Cultural heritage | 897 (20) |
| Mixed heritage | 39 (0) |
| * Figures in parentheses are numbers for Japan. | |

Process for the inscription of the properties on the World Heritage List



Shiretoko

The Shiretoko Peninsula is located in the northeastern part of Hokkaido, and contains sheer cliffs, wetlands and lakes, and steep mountains of about 1,500m formed by volcanic activity. The World Heritage property is an area of approximately 71,100 ha that includes Shiretoko Peninsula, from the central part to the Shiretoko Cape at the tip, and the surrounding ocean.

La péninsule de Shiretoko, située dans la partie nord-est de Hokkaido, se compose de montagnes escarpées d'environ 1.500 m dues à l'activité volcanique, de falaises abruptes, de marécages et de lacs. Le site inscrit au Patrimoine mondial est une zone d'environ 71.100 ha qui inclut la péninsule de Shiretoko, depuis sa partie centrale jusqu'au cap de Shiretoko, son extrémité, ainsi que la mer qui l'entoure.

Lake Rausu

This is the largest lake in the Shiretoko Peninsula. The deep primeval forests of Erman's birch and Sakhalin fir are dotted with wetlands and snow patches, with the various different alpine plants in each of the seasons. The Lake Rausu Route requires equipment and experience for mountain climbing.



Shiretoko Rausu Visitor Center

The Shiretoko Rausu Visitor Center serves as the gateway to the Rausu side, and displays and explains information related to nature, culture, and usage. It also serves as a central base for the Wildlife Protection Area and for wildlife research.



Shiretoko World Heritage Conservation Center

Shiretoko World Heritage Conservation Center shows the attractions of nature in Shiretoko, as well as instructs rules and manners for enjoying nature in Shiretoko through virtual experiences using tablets and hands-on displays of educational stuffed animals. It also provides real-time information and the latest information on management of the property. * Refer to the back cover



Shiretoko World Heritage Rusa Field House

The Shiretoko World Heritage Rusa Field House conveys the natural magnificence from the tip of the Shiretoko Peninsula, the connections between the marine and terrestrial ecosystems, and the value of the ocean at Shiretoko, which has been closely involved in the lives of the people there. It also provides lectures on rules and manners.



Whale watching

Mink whales, Baird's beaked whales, sperm whales, killer whales, Dall's porpoises, Pacific white-sided dolphins, and harbor porpoises are mainly observed here. The peak time to see mink and killer whales is around May/June, and sperm whales around August/September.



Salmonids

Large shoals of salmonids swim upstream along the rivers to spawn from the end of September until early November. They are characteristic species that link marine and terrestrial ecosystems.

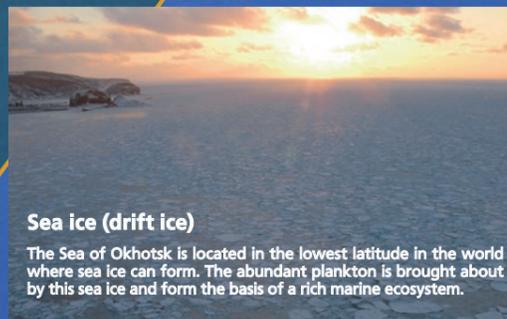


Steller sea lion

Herd of around 100 Steller sea lions which primarily consist of females migrate to the coastal waters of the Shiretoko Peninsula. They mate in the seas adjacent to Russia, and pregnant individuals come here to build up their nutritional reserves in order to give birth. In Shiretoko, they feed mainly on Walleye pollock.

Sea ice (drift ice)

The Sea of Okhotsk is located in the lowest latitude in the world where sea ice can form. The abundant plankton is brought out by this sea ice and form the basis of a rich marine ecosystem.



World Heritage property

- Area A: Area for strict protection
- Area B: Area for conservation and utilization

Rausu Town

Shari Town



Mt. Rausu

This is the main and the highest peak of the volcanic range on the Shiretoko Peninsula, 1,661 m in elevation. It is one of the 100 Famous Japanese Mountains. Adequate equipment and experience are essential for mountain climbing.



Furepe Falls

In this waterfall, underground water flows down from the fissures in a cliff that rises up vertically for approximately 100 m. It is locally known as "Maiden's Tears."



Sea cliffs

On the Shiretoko Peninsula, precipitous cliffs were formed through a combination of volcanic activity and marine erosion. On the western coastline on the Utoro side, a series of cliffs of up to 200 m, various different waterfalls, and uniquely shaped rocks can be seen.



Shiretoko Goko Lakes

Here visitors can see the beautiful scenery of five lakes surrounded by primeval forests dotting the landscape, with the Shiretoko mountain range and primeval forests reflected in the surfaces of the lakes. The periods in which Shiretoko Goko Lakes is open is divided up into two stages: the Bear Aware Season and Ecosystem Aware Season, with visitors being required to apply certain entry procedures or take a lecture depending on the time period to use walks on the ground. Visitors are allowed to freely stroll along the elevated boardwalk on which an electrified fence for repelling bears has been installed. See the Shiretoko Goko Lakes Field House website for details. (https://www.goko.go.jp/multilingual_eng/)



Mt. Iou

Along with Mt. Rausu, this is one of the active volcanoes on the Shiretoko Peninsula. It also is one of the rare volcanoes in the world that spews out large quantities of high purity dissolved sulfur. It has an elevation of 1,562 m.



Kamuiwakka Hot Falls

Since the water contains sulfur content, it carries the meaning "water of the gods (spirits)" in the Ainu language. The entire river is like a hot spring. Visitors can enjoy river trekking with the proper equipment.



Viola kitamiana

This species is distributed only on Shiretoko, Etorofu Island and Kunashiri Island. *Viola kitamiana* communities can be seen on the volcanic wilderness of Mt. Iou, Mt. Higashi, Mt. Chienbetsu, and Mt. Minami, as well as on the windswept wilderness in the saddle between Mt. Ornebetsu and Mt. Chinishibetsu.



Yezo sika

This is one of the subspecies of the sika deer that is widely distributed from Vietnam to Far East Asia. This subspecies is the largest of the sika deer. In recent years, the increased populations have been causing damage to the forests and grasslands.



Brown bear

The Shiretoko Peninsula is one of the world's highest density regions for brown bears. Since they can make use the bounty of the forests and the sea—including herbaceous plants from the coasts and high mountains, fruit and nuts from forests, and the salmonids that swim upstream—they have more than 90 varieties of food resources at their disposal.



Steller's sea eagle

This is a large eagle that only breeds in the far eastern areas of Russia. It is a rare species, with estimated about 5,000 individuals in the world. There are records of more than 2,000 wintering birds in the Shiretoko Peninsula. Red List of the Ministry of the Environment Threatened II (VU) *Species facing a growing risk of extinction



White-tailed eagle

The white-tailed eagle is distributed widely in northern Eurasia. Shiretoko is an important breeding site with ample food resources and has one of the highest nesting densities in the world. Red List of the Ministry of the Environment Threatened II (VU) *Species facing a growing risk of extinction



Blakiston's fish-owl

This is the world's largest owl. It is rare at the species level with only about 1,000 individuals in the world. There are about 165 birds living in Hokkaido, with about one-fourth of these inhabit the World Heritage property. Red List of the Ministry of the Environment Threatened IA (CR) *Species facing an extremely high risk of extinction in the near future



※ Caution: During the wintertime, the Trans-Shiretoko Highway is closed.

Shiretoko

Outstanding Universal Value / Valeur universelle exceptionnelle

✓ (ix) Ecosystem / Écosystème

Productive interaction between terrestrial and marine ecosystems with unique sea ice characteristics
Interaction productive entre les écosystèmes terrestres et marins sous l'effet des glaces marines

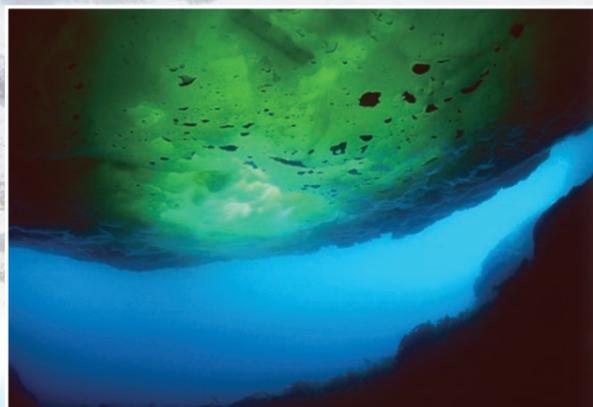
✓ (x) Biodiversity / Biodiversité

Important area for maintaining the biodiversity due to the fact that northern and southern species coexist, and as a result a wide range of fauna and flora that include many rare and endemic species live here

Région importante pour le maintien de la biodiversité du fait de la coexistence d'espèces septentrionales et méridionales, qui permet une grande variété au niveau de la faune et de la flore, avec en particulier des espèces rares et endémiques

The Sea Ice Sustains an Abundance of Life

The coastal areas of Shiretoko in the Sea of Okhotsk are located in the lowest latitude in the world where sea ice can form. The formation of sea ice promotes upwards and downwards convection in the ocean water by cooling the surface layer of ocean water, which raises the nutritive salts that accumulate at the lower levels of the sea up to the surface level. Once spring arrives, the surface layer is bathed in enough sunlight for photosynthesis, and phytoplankton proliferates explosively using nutritive salts. The vast quantities of plankton produced in this way form the starting point for the food chain that sustains the rich ecosystems of Shiretoko, linking the ocean, rivers and forests.



Sea ice seen from the bottom

Life Supported by Integrated Ecosystems of Ocean, Rivers, and Forests



The ocean of Shiretoko fosters marine life such as plankton, fish, seabirds, dolphins and whales. Salmonids such as chum salmon and pink salmon swim upstream from the ocean and serve as an important food source for brown bears and birds of prey. Fish that remain partially uneaten also provide food for animals like foxes, before finally being returned to the soil where they provide nourishment for the forests. In this manner, a dynamic food web encompassing the ocean, rivers, and land has been formed in Shiretoko. Moreover, at Shiretoko, northern and southern species coexist and intimately interact one another to form a rich ecosystem. It is also a crucial habitat for the survival of globally endangered birds, such as Blakiston's fish-owls, Steller's sea eagles, and white-tailed eagles.

Protection and Management of Shiretoko Protection du Patrimoine Naturel Mondial de Shiretoko

The World Heritage Committee has pointed out challenges confronting Shiretoko. These include countermeasures against Yezo sika (endemic subspecies of sika deer), tourism management, formulation of management plan for marine areas, and for salmon species to reduce impact by dams and develop countermeasures. The River Construction Advisory Committee, Marine Area Working Group (hereafter WG), Sika Deer and Terrestrial Ecosystem WG, Proper Use of Nature and Ecotourism review meetings, and others have been established under the Scientific Committee to address these issues.

Protected Areas in the Property

| | |
|----------------------------------|------------------|
| Shiretoko National Park | |
| Special Protection Zone : | 23,526 ha |
| Special Zone : | 15,110 ha |
| Onnebetsudake | |
| Wilderness Area : | 1,895 ha |

(Under jurisdiction of MOE)

Examples of Efforts / Exemples d'actions



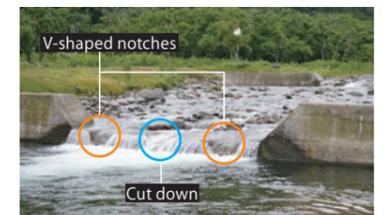
Countermeasures against Yezo Sika Mesures contre la prolifération des cerfs sika d'Hokkaido

In recent years, there has been a sharp increase in Yezo sika within the World Heritage property, leading to effects on the ecosystem that include changes to the vegetation. In order to mitigate their impact, the Ministry of the Environment and others from the national government, as well as the relevant local governments have been controlling the deer population by harvesting, based upon the Sika Deer Management Plan in the Shiretoko Peninsula and advice from the Sika Deer and Terrestrial Ecosystem WG. In areas where population control is being carried out, it has been confirmed that the vegetation is gradually recovering.



Balance between Maintaining Marine Biodiversity and Fisheries Activities Maintien de la biodiversité dans les zones marines, équilibre avec les activités de pêche

The Multiple Use Integrated Marine Management Plan, which aims to reconcile the conservation of ecosystems with a sustainable fisheries, was formulated in 2007 by the Ministry of the Environment and the Hokkaido Prefectural Government. Through this plan, "voluntary restrictions by fishery operators" were incorporated into the management of the World Heritage property and a management style was achieved that strikes a balance between maintaining marine biodiversity and fishing, which is a regular vocation in the region. This management style is highly appraised internationally as the "Shiretoko style," to be a new model for heritage site management techniques.



Improvement of river constructions

Improving River Constructions Amélioration des constructions fluviales

On some of Shiretoko's rivers, salmonids could not swim upstream to spawn because of check dams, weirs, and other artificially constructed structures (river constructions). Therefore, based on the recommendations of the River Construction Advisory Committee, improvement works were carried out such as by installing fishways for 13 river constructions for which improvements were deemed to be appropriate. As a result, the spawning ranges upstream of the constructions have expanded and the numbers of eggs produced have increased.



The Elevated Boardwalk and the Regulated Utilization Areas Passerelle surélevée, système de zone à utilisation régulée

The walkways at Shiretoko Goko Lakes has faced problem such as repeated closures due to frequent appearance of brown bears and the negative impact on vegetation resulting from visitor congestion. In order to resolve these issues, an elevated boardwalk that could be safely walked without the danger of coming into contact with brown bears was installed. In 2011, utilization management system was adopted pursuant to the Natural Parks Act. Visitors are required to apply for permission to go to the aboveground walkways during congested periods. Through these efforts, the impact on vegetation is reduced while also natural landscapes and biodiversity are maintained.



Shiretoko Ecotourism Strategy Stratégie ecotourisme de Shiretoko

In 2013, the Joint Committee on Appropriate Use and Ecotourism prepared the Shiretoko Ecotourism Strategy. It aims at sharing future objectives for promoting tourism to Shiretoko and methods for achieving this among all of the stakeholders. The Strategy invites anyone to freely offer proposals on new tourism uses and the establishment of new rules so that more open local initiatives will be promoted.

Shirakami-Sanchi

Shirakami-Sanchi is the general term for a mountainous region with elevations from approximately 200 m to 1,250 m that straddles the prefectural border between the southwestern part of Aomori Prefecture and the northwestern part of Akita Prefecture. The World Heritage property is an area of approximately 17,000 ha situated in the central part of Shirakami-Sanchi in which the immense beech forest has been remained in primeval state.

Shirakami-Sanchi est le terme générique utilisé pour désigner une région montagneuse avec des altitudes variant entre 200 et 1.250 m, qui s'étend de chaque côté de la limite départementale entre la partie sud-ouest du département d'Aomori et la partie nord-ouest du département d'Akita. Le site inscrit au Patrimoine mondial est une région d'environ 17.000 ha située dans la partie centrale de Shirakami-Sanchi, dans laquelle une immense forêt de hêtres est restée dans son état primitif.



Juniko Eco-Museum Center "Kokyokan"
Visitors can see high definition images related to nature and exhibitions like dioramas. Visitors can also experience nature from walkways and observation huts.



Juniko Lakes
There are 33 lakes and marshes in the western part of Shirakami-Sanchi on the Aomori Prefecture side. These were supposedly formed by a major earthquake and subsequent landslide that occurred in the early 1700s. Access roads are closed during winter.



Mt. Futatsumori
Visitors can get a commanding view of the World Heritage property from the peak of Mt. Futatsumori at an elevation of 1,086 m. It takes about an hour from the Futatsumori Mountain Trail Entrance (elevation of about 920 m, and has a parking lot and public toilets) to the summit.



Anmon Falls
Anmon Falls consist of Ichi-no-taki (42 m), Ni-no-taki (37 m), and San-no-taki (26 m) in this order from the top, with each one of these projecting a powerful image.

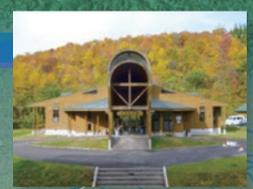


Black woodpecker
The black woodpecker is the largest woodpecker in Japan. The species inhabits Hokkaido and northern Honshu. It is designated as the national Natural Monument.
Red List of the Ministry of the Environment Threatened II (VU)
*Species facing a growing risk of extinction



Pseudolysimachion schmidtianum subsp. senanense var. shiragamiense
This is the only plant to carry "Shirakami" in its Japanese name. It is an endemic species that rarely grows along rocky areas and grasslands.

Kurokuma Falls
This waterfall has a drop of 85 m. It is counted among the 100 Famous Japanese Waterfalls, and is one of the largest in Aomori Prefecture. It is a roughly 15 minute walk from the parking lot.



Shirakami-Promenade Kuromori (Hall)
This is a general information and rest area that is furnished with an exhibition hall and a break room. It is the starting point for a walkway from which visitors can see a part of the Kuromori (Black Forest). The forest has been protected in order to ensure water for paddy fields since some hundreds years ago.



Tsugaru Pass
Tsugaru Pass is about a 20-minute climb by car from Anmon Ohashi Bridge on the Shirakami Line. Visitors here can look out over the mountain range of the World Heritage property. The Mother Tree, a giant tree with an estimated age of about 400 years, can be reached within a several hundred-meter walk from Tsugaru Pass.



Shirakami-Sanchi Visitor Center
The center provides detailed explanations of the beech forest at Shirakami-Sanchi. In the visual experience hall, visitors can see the four seasons at Shirakami-Sanchi through realistic and lifelike sounds and images on an enormous screen.



Beech forest
In snowy Shirakami-Sanchi, a pure forest of Siebold's beech that well withstands the snow has developed. The site of woods with straight grayish-white beech tree trunks lined up against forest floors covered with dwarf bamboo is a distinctive scene that can only be observed with the beech forests in East Asia. Siebold's beech trees are also known for their high water retention capacity and their importance as habitats for wildlife.



Shirakami-Sanchi World Heritage Conservation Center (Nishimeya)
The center displays materials related to Shirakami-Sanchi and photos of the living things, while also offering environmental education activities for children.
* Refer to the back cover



Japanese black bear
The Japanese black bear has a body length of 120-145 cm and weighs 70-120 kg. It is characterized by a white "crescent moon" on the chests, and is the largest land mammal in Honshu. While it is omnivorous, vegetable matter makes up a large portion of its diet.

Dakedai Education Forest
This is a natural forest consisting mainly of Siebold's beech that is optimally suited for a relaxing walk. Visitors can readily savor the atmosphere of the pristine beech forest of Shirakami-Sanchi alongside the forest roads. Some pathways paved with woodchips that incorporate universal design have been installed.



Sibatanozephyrus fujiisanus
This is a lycaenid butterfly whose wing surface has a beautiful metallic luster. Since its larvae only forage on the leaves of Siebold's beech, the species cannot be seen anywhere else besides beech forests.



Silene aomorensis
This is an endemic perennial on which lovely white flowers about 2 cm in diameter bloom around June. The species occurs on rocky areas.
Red List of the Ministry of the Environment Threatened II (VU)
*Species facing a growing risk of extinction



Golden eagle
The golden eagle is a massive eagle with a wingspan of more than 2 m. It inhabits mountainous regions and nests on sheer cliffs. The bird is one of Japan's Natural Monuments and a National Endangered Species of Wild Fauna and Flora.
Red List of the Ministry of the Environment Threatened IB (EN)
*Species facing a high risk of extinction in the near future



Shirakami-Sanchi World Heritage Conservation Center (Fujisato)
This facility displays materials related to the nature of Shirakami-Sanchi, offers a reading corner and space where visitors can relax while watching DVDs. There is a nature advisor to provide information to visitors, as well as organizing nature walks and environmental education activities for children.
*Refer to the back cover

World Heritage property
Area A: Area for strict protection
Area B: Area for conservation and utilization



Shirakami-Sanchi

Outstanding Universal Value / Valeur universelle exceptionnelle

✓ (ix) Ecosystem / Ecosystème

The largest primeval beech forest in East Asia which features rich biodiversity

La plus grande forêt primitive de hêtres d'Asie de l'Est, offrant une biodiversité remarquable

A Surviving Pristine Forest

Shirakami-Sanchi contains the largest primeval beech forest in East Asia, having been untouched by human development. Beech forests were once distributed in the area around the Arctic region when the Earth was warmer than it is now. They were home to a diverse array of vegetation including Siebold's beech, *Silene aomorensis*, and *Hylotelephium ussuriense* var. *tsugaruense*, which are said to be surviving remnants (relicts) from the ice age. During the ice age, the beech forests moved south in response to the cooling of the climate. In many parts of the world, including Europe, shrubs and herbaceous plants could not migrate southwards because they were hindered by mountains stretching from east to west. Only beech trees migrated south and established themselves in new areas, but this simplified the vegetation in beech forests. In Japan, however, there were no mountains to prevent the southern distribution of beech forests, so they migrated southwards, largely maintaining the species composition. As a result, the Shirakami-Sanchi has preserved a distinctive beech forest similar to those that existed around the Arctic region approximately 30 million years ago.



A Forest Museum

During the winter, Shirakami-Sanchi receives the damp air from the Sea of Japan, making the region extremely snowy by global standards. Vegetation that is reflective of the heavily snow-laden environments can be seen on the ground in the beech forests, as is represented by *Sasa kurilensis*. More than 540 species of plants grow here, including *Silene aomorensis* endemic to this region. Shirakami-Sanchi is also home to a diverse array of animals, which includes 35 species of mammals, 94 species of birds, and approximately 2,200 species of insects. These include rare birds like golden eagles and black woodpeckers, as well as Japanese serows and Japanese black bears. The beech forest of Shirakami-Sanchi can be described as a museum of forest ecosystems, based primarily on Siebold's beech, a species endemic to Japan.

Protection and Management of Shirakami-Sanchi Protection du Patrimoine Naturel Mondial de Shirakami-Sanchi

The primeval beech forest of the Shirakami-Sanchi World Heritage property is conserved through measures like patrols and management grounded in various laws, ordinances, and rules. At present, no significant problems have surfaced that would threaten its Outstanding Universal Value. However, ongoing monitoring of the natural environment is necessary since the possibility of challenges arising in the future has been pointed out, such as the impact of climate change. Government officials, experts, and local stakeholders are working together to promote conservation efforts.

Protected Areas in the Property

Shirakami-Sanchi Nature Conservation Area : 14,043 ha

(Under jurisdiction of MOE)

Examples of Efforts / Exemples d'actions



Patrols Patrouilles

Rangers from the Ministry of the Environment and other personnel from government agencies, staff hired by the agencies, and volunteers periodically carry out patrols to ensure that the World Heritage property is being properly conserved. The patrols prevent entry to core area in which trespassing is restricted, felling of and damage to trees, illegal harvest of plants, poaching of fish in no-fishing areas, disposal of trash, and open bonfires. In addition, they educate visitors about etiquette and provide instruction on procedures for visiting the mountains. Joint patrols undertaken by assembling persons involved together are carried out several times a year organized by the Shirakami-Sanchi World Heritage Area Liaison Committee.



Promoting Ecotourism Promotion de l'écotourisme

In 2011, a committee was launched to promote ecotourism in Shirakami-Sanchi. The committee carries out activities to discover local resources such as by asking local people about how they have interacted with nature in Shirakami-Sanchi since the past and conducting questionnaires related to historical culture, foods, and nature that the people can appeal, value, and look on with pride. This is done with the goal of having local residents, local stakeholders, and others come together to work to address ecotourism in the World Heritage property and its surrounding regions. Promoting ecotourism will convey to tourists the appeal inherent in the local area, get them to understand its value and importance, and thereby lead to conservation.



Monitoring Monitoring

It is essential to detect early on potential effects of global warming and air pollution on the beech forest that is so important to the Shirakami-Sanchi World Heritage property. Ongoing monitoring activities are being carried out to watch over the changes at Shirakami-Sanchi by incorporating natural scientific content like climate and vegetation, and social scientific content like the number of visitors to the mountains.

Since a range of resources is required in order to continue with the surveys, they are carried out via coordination with the public, students, researchers, and government agencies.

Programs for Experiencing Nature Programmes de découverte de la nature

There are programs in World Heritage property to teach children about the wonders of nature and connections between humans and nature by having them experience nature.

With the programs, the children go out into nature together with experts of the rivers and mountains who have actually lived by receiving the bounty of nature in Shirakami-Sanchi. The kids hear talks about the traditional dietary culture and hunting from *Matagi*, Japanese traditional game hunter, and are taught knowledge on fishing from river fishermen. Programs are also held for children to learn about the wonders of nature together with rangers from the Ministry of the Environment through forest patrols and surveys of living creatures. Environmental education is promoted in a way that uses Shirakami-Sanchi as living teaching materials.



Learning wisdom of *Matagi*

Ogasawara Islands

The Ogasawara Islands are located about 1,000 km away from Tokyo to the south. They consist of about 30 islands of varying sizes that are surrounded by vertical cliffs and sea whose azure blue color is referred to as "Bonin Blue". The World Heritage property encompasses the Mukojima Island Group, the Chichijima Island Group, the Hahajima Island Group, Kita-iwoto Island, Minami-iwoto Island, and Nishinoshima Island, which has a total area of roughly 7,900 ha. For Chichijima and Hahajima Islands, a boundary that excludes settlements and some of the peripheral ocean areas surrounding them constitute the bounds of the World Heritage property.

*The Ogasawara Islands did not have any permanent residents until 1830, and so they were referred to as uninhabited islands (Bonin Islands).

L'archipel d'Ogasawara se situe à environ 1.000 km au sud de Tokyo. Il consiste en une trentaine d'îles de tailles variées entourées de falaises abruptes et d'une mer d'un bleu azur qui est parfois appelé aussi « bleu Bonin ». Le site inscrit sur la liste du patrimoine mondial comprend les chapelets d'îles de Mukojima, Chichijima et Hahajima ainsi que les îles de Kita-iwoto, Minami-iwoto et Nishinoshima. L'ensemble a une superficie d'environ 7.900 ha. En ce qui concerne les îles de Chichijima et Hahajima, le périmètre concerné exclut les zones habitées, mais inclut une partie des eaux environnantes.

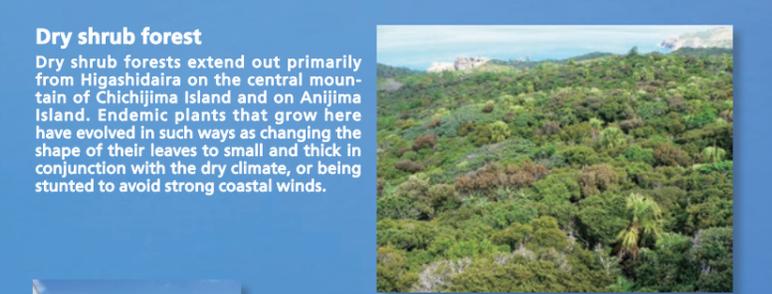


Bonin flying fox

This is the only endemic mammal of the Ogasawara Islands and belongs to Pteropodidae family. The species has been confirmed on Chichijima Island, Hahajima Island, and the Kazan Island Group. It is designated a national Natural Monument. Red List of the Ministry of the Environment Threatened IB (EN) *Species facing a high risk of extinction in the near future



< Ogasawara Islands > (Ogasawara Village)



Dry shrub forest

Dry shrub forests extend out primarily from Higashidaira on the central mountain of Chichijima Island and on Anijima Island. Endemic plants that grow here have evolved in such ways as changing the shape of their leaves to small and thick in conjunction with the dry climate, or being stunted to avoid strong coastal winds.



Ogasawara Visitor Center

This is a facility that introduces visitors to history and culture, with its primary focus on the nature in Ogasawara. It offers exhibitions and explanations related to the unique historical path the region has tread as a whaling base and an occupied territory, as well as on the rare plants and animals like the endemic species that can only be found in Ogasawara.



Nagasaki Observation Platform

Visitors can look out over the Anijima Strait where an azure blue sea called "Bonin Blue" stretches out, as well as Anijima Island and more.



Boninite

This is a unique type of rock that is only generated in the early stage after the onset of oceanic plate subduction. It is named after "Bonin Islands", where the rock is exposed in the largest quantities in the world.



Nummulite

This is a fossil of a unicellular organism, a large benthic foraminifera. It is named after its shape that resembles a coin.



Dendrocacalia crepidifolia

This species in the Asteraceae family is endemic to the Hahajima Island Group and grows to a height of 4-5 m. It is believed to have evolved from an herbal plant into a woody plant over the course of speciation. Red List of the Ministry of the Environment Threatened II (VU) *Species facing a growing risk of extinction

Mukohjima Island



Hirajima Island



Anejima Island



Bonin white-eye

This is an endemic land bird that is endemic of the Ogasawara Islands, inhabiting only three islands: Hahajima, Mukohjima, and Imotojima islands. With few competitors and predators, this bird uses various different places within the forests. Red List of the Ministry of the Environment Threatened IB (EN) *Species facing a high risk of extinction in the near future



Fences to prevent incursion of alien species

Fences to prevent invasion by green anoles, which prey on rare insects such as *Celastrina ogasawaraisensis*, have been installed at Shinyuhigaoka on Hahajima Island, and capturing anoles using adhesive traps within the fence is underway. At Minamizaki on Hahajima Island, where there is a breeding ground for seabirds such as the brown booby, fences have been installed to prevent feral cats from entering the area.

Meijima Island



Imotojima Island



Land snail

More than 90% of about 100 indigenous species of land snails are endemic to Ogasawara. New species still continue to be discovered to this day, which was one of the key evidences to be inscribed on the World Heritage List.



Subtropical rainforest

Subtropical rainforests are thought to have been widespread when the Ogasawara Islands were uninhabited. They have declined as a result of development, and now they can only be seen in humid environments in certain areas on Hahajima Island. Tall forest where the trees reach 20 m can be seen with its canopy comprised of plants like *Elaeocarpus photiniaefolius* as well as *Planchonella obovata*. *Morus boninensis*, which has currently become a rare species because it was used as lumber, can also be seen.



Whale watching

More than 23 species of dolphins and whales have been confirmed in the adjacent waters. Humpback whales can be observed here from winter until spring, while dolphin species and sperm whales can be observed year round.



Submerged karst (Minamijima Island)

Across the entirety of Minamijima Island and Sekimon on Hahajima Island, visitors can see a karst landscape in which limestone has undergone erosion and weathering. The vicinity surrounding Minamijima Island is a unique location in Japan where a submerged karst landscape can be observed.



Columba janthina nitens

This is an endemic subspecies of Japanese wood pigeon, found in the inner forests of the Ogasawara Islands. Their numbers had once decreased due to predation by feral cats, but have been on the rise as a result of countermeasures against feral cats and other conservation activities. The pigeon is designated as Natural Monument in Japan. Red List of the Ministry of the Environment Threatened IA (CR) *Species facing an extremely high risk of extinction in the very near future



Ogasawara World Conservation Heritage Center

The Center is the base for management of the Ogasawara Islands as a World Heritage, introducing the values and efforts through exhibitions. Captive breeding of rare land snails and tiger beetles are also conducted in the center. *Refer to the back cover

Ogasawara Islands

Outstanding Universal Value / Valeur universelle exceptionnelle

✓ (ix) Ecosystem / Ecosystème

Remarkably high rate of endemic species and ongoing evolutionary process on the oceanic islands*

*Oceanic islands: Islands that have never been connected to a continent

Taux remarquablement élevé d'espèces endémiques, et processus d'évolution en cours sur ces îles océaniques*

*Îles océaniques : îles qui n'ont jamais été reliées au continent

A Treasure Trove of Endemic Species

The Ogasawara Islands are located about 1,000 km away from Tokyo to the south. They consist of islands that are surrounded by vertical cliffs and ocean whose beautiful color is referred to as "Bonin Blue".

Since the islands have never bordered a continent in their history, the wildlife species found in Ogasawara are the descendents of animals and plants that arrived there by chance. Some were carried by birds or the wind, while others were washed up by ocean currents or clung to driftwood. Those species have survived by adapting themselves to the environment of the islands. They then became established on the islands and evolved in their own unique ways in a long period of time within an environment far separated from the mainland. As a result, this led to the occurrence of many endemic species which are not to be seen anywhere else, such as *Melastoma tetramerum* and *Hemicordulia ogasawarensis*. Roughly 40% of the vascular plants, about 25% of the insects, and more than 90% of the land snails (roughly 100 species) are endemic to Ogasawara.

Ongoing Evolutionary Process

The evolutionary process on the Ogasawara Islands is presently ongoing. The land snails and plants in particular have repeatedly undergone speciation by changing their morphology in accordance with their environment. This type of evolutionary process is called "adaptive radiation."

What is more, important examples that suggest mechanisms whereby species adapting from the ocean to the land can also be observed. As an example, *Stenomelania boninensis* is thought to have expanded their habitats in coastal to brackish water and then on to purely freshwater environments.



Green anole (alien species)



Diverse land snails

Protection and Management of the Ogasawara Islands Protection du Patrimoine Naturel Mondial de Îles d'Ogasawara

Protected Areas in the Property

| | |
|--------------------------------|----------|
| Ogasawara National Park | |
| Special Protection Zone : | 4,934 ha |
| Special Zone : | 996 ha |
| Minami-iwoto Wilderness Area : | 355 ha |

(Under jurisdiction of MOE)

The Ecosystem Conservation Action Plan, which denotes a specific plan of action for resolving ecosystem-related challenges on the Ogasawara Islands, was prepared by the national government, the Tokyo Metropolitan Government, and Ogasawara Village. On the basis of this plan, protection and management efforts are being promoted.

The large number of endemic species on the Ogasawara Islands is highly evaluated internationally. Yet many of those do not know how to protect themselves from the species artificially introduced to Ogasawara later on. The endemic species are being preyed upon by the alien species and deprived of the areas where they live, so their numbers are plunging precipitously. In order to preserve the Outstanding Universal Value of the Ogasawara Islands, it is extremely important that countermeasures be taken against alien species and that the protection of endemic species and other rare species be promoted. In line with the advice of the Scientific Committee, adaptive management is carried out that evaluates the current situation by considering the interaction of wildlife and accordingly adjusting countermeasures.

Examples of Efforts / Exemples d'actions



Green anole (alien species)

Countermeasures against Alien Species for the Restoration of Native Vegetation

Mesures contre les espèces végétales exotiques pour la restauration de la végétation indigène

Countermeasures against Alien Plant Species

Mesures contre les espèces végétales exotiques

The proliferation of alien plant species like sheoak, white leadtree, and Bishop wood inhibits native plant growth by altering the forest interior, including blocking out sunlight and breezes. These alien plant species also affect the habitat of endemic insect species—for example, by blocking sunlight and generating leaf litter. Efforts are being made to eradicate alien plants such as by injecting chemicals into tree trunks.



Sheoak (alien species)



Feeding damage on land snails by rats

Measures to Conserve Endemic Land Snails

Mesures pour la protection des espèces endémiques d'escargots terrestres

Endemic land snails inhabiting the Ogasawara Islands are under threat of extinction due to predation by alien rodent species such as the black rat and alien planarian species. Various measures have been taken to prevent land snails from becoming extinct, including the use of rodenticide to eradicate black rats and installation of enclosures to prevent incursion by planarians, as well as informing visitors and islanders about shoe sole washing to prevent the spread of planarians.

In addition, the Ministry of the Environment has been rearing land snails at indoor and outdoor captive facilities on Chichijima Island since 2011 as an ex-situ conservation measure. In 2020, an ex-situ population of land snails (*Mandarina chichijimana* and *M. hirasei*) were released into the wild on Tatsumijima Island, an island belonging to Chichijima Island.



Mud washing mats



Fence across the island to prevent spreading of green anoles



Fence to prevent feral goats

Yakushima

Yakushima is situated between the East China Sea and the Pacific Ocean about 60 km to the south of the southernmost tip of the main island of Kyushu. A mountain range, of which Mt. Miyanoura-dake (1,936 m) is the highest peak, is located in the center of the island. On the mountainsides, numerous rivers have carved deep valleys as they flow downward. In its warm and rainy climate, the annual precipitation is more than 4,000 mm in the plains and more than 10,000 mm at the summits. The World Heritage property is an area of approximately 10,700 ha that extends from the central part of Yakushima to the coastal areas to the west.

Yakushima est situé à environ 60 km au sud de l'extrémité sud de l'île de Kyushu, entre la Mer de Chine orientale et l'Océan Pacifique. Une chaîne de montagnes culminant à 1,936 m (Mt Miyanoura-dake) occupe le centre de l'île. Sur les flancs de ces montagnes s'écoulent de nombreuses rivières qui ont creusé des vallées profondes. Le climat est chaud et pluvieux, et on dit que les précipitations annuelles dépassent 4.000 mm dans les plaines et 10.000 mm dans les zones montagneuses. Le site inscrit au patrimoine mondial est une zone d'environ 10.700 ha qui s'étend de la partie centrale de l'île aux zones côtières situées à l'ouest.

 World Heritage property



Ohko-no-taki Falls

This is the largest waterfall on Yakushima, with an enormous volume of water stirringly falling down the 88 m drop. It has been selected as one of 100 Famous Japanese Waterfalls.



Yaku-sika

This is an endemic subspecies of sika deer. It is found throughout the island. The distribution ranges from the evergreen forest close to human habitations to the areas around 1,600 m in elevation.



Yakushima macaque

This is an endemic subspecies of the Japanese macaque. Smaller than the Japanese macaques on the mainland, it has a dark greyish-brown body and is covered in long, coarse fur. The macaques inhabit nearly every part of the island, but mainly move between the coastal areas and the evergreen forest belt found around about 800 m in elevation.

Western area

The western area of Yakushima is included in the World Heritage property from the coastline, and shows a vertical distribution of vegetation, which was highly valued when the island was inscribed as a World Heritage property. The primeval warm-temperate evergreen forest stretching for 600 ha is one of the largest in Japan.



Hananoego and Kohanoego

These are high moors situated at an elevation of roughly 1,600 m in the center of Yakushima and it is an area of the southernmost high moors in Japan. Sphagnum moss grows over its entire surface, and the alpine plants and rows of white Yakusugi trees around its periphery present a beautiful spectacle.



Jomon-sugi Cedar

At present this is the largest confirmed Yakusugi tree. The primeval cedar forest that includes the Jomon-sugi Cedar has been designated as Special Natural Monument in Japan. The round trip to the Jomon-sugi Cedar from the Arakawa Trail Entrance takes 9-10 hours. This tree has a trunk circumference of 16.4 m and a height of 25.3 m, as well as an estimated age of more than 2,700 years.



Yakushima Environmental and Cultural Village Center

The center introduces Yakushima's nature and the lifestyles of people through the use of models, panels, videos images, and displays of genuine articles.



Daio-sugi Cedar

This enormous tree was believed to be the largest Yakusugi tree until people found the Jomon-sugi Cedar. As such, it was given the name Daio-sugi, which means great king cedar. This tree has a trunk circumference of 11.1 m and a height of 24.7 m, as well as an estimated age of more than 3,000 years.



Shiratani Unsuiyko Ravine

This is a recreational forest from which visitors can appreciate the moss-covered primeval forest along the mountain stream. Walking courses have been set up here to observe mountain streams, pristine forest, and Yayoi-sugi Cedar that is roughly 3,000 years old.



Wilson's Stump

At 13.8 m in circumference, this is the largest stump in Yakushima. It is claimed that the tree was felled roughly 400 years ago. Inside there is a cavity of about 16.5 m² from which a spring wells up. It was named after Dr. Wilson, who made the world aware of Yakusugi trees.



Kigen-sugi Cedar

More than 10 species of plants, including rhododendrons, Japanese rowans, wheel trees, and hinoki cypresses grow by adhering to the Kigen-sugi Cedar. This tree has a trunk circumference of 8.1 m and a height of 19.5 m, as well as an estimated age of more than 3,000 years.



Dwarf Bamboo Grassland

Above the cedar forest extends the dwarf bamboo Grassland Zone dominated by endemic *Pseudasasa owatarii*. Plant communities of evergreen and deciduous shrubs like Yakushima rhododendron, Japanese sapphireberry, and Japanese andromedas are scattered.



Yakushima World Heritage Conservation Center

In 2014, the center was renovated to exhibit attractions of World Heritage and National Park.
*Refer to the back cover



Yakusugi Museum

This facility introduces people to Yakushima and Yakusugi trees. It displays items like a Yakusugi tree that is 1,660 years old, a chain saw with a total span of 2 m that was used for felling cedar trees, and a gigantic branch from the Jomon-sugi Cedar that snapped from accumulated snow.



Yakusugi Cedar Land

Visitors can enjoy Yakushima's primeval forest, which includes Yakusugi trees that are thousands of years old. Four walking routes have been built and visitors can observe the 1,800 year old Buddha-sugi Cedar and other large trees, as well as tree stumps and the traces from people checking out wood grains from the domain duties era. They can also take a pleasant walk through the woods while enjoying the clear streams.



Senpiro-no-taki Falls

This is a spectacular waterfall with a drop of 60 m. The Tainoko River carved through the enormous granite bedrock in the foothills of Mt. Mochomou-dake to form a massive V-shaped valley.



Toroki-no-taki Falls

Here the Tainoko River forms a waterfall that flows directly into the ocean. Such waterfalls are extremely rare, and there are only few locations throughout the entire country, including this waterfall.



Chrysozephyrus ataxus yakushimaensis

This is a representative lycaenid butterfly of Yakushima. It is endemic subspecies of *Chrysozephyrus ataxus* that inhabit Honshu, Shikoku and Kyushu islands. It is characterized by lack of the tail protuberances at the hind wings. Its larvae feed on the leaves of Japanese evergreen oak and the Japanese willowleaf oak.

* The "trunk circumference" refers to the length measured at a height of approximately 1.3m above the ground.

Yakushima

Outstanding Universal Value / Valeur universelle exceptionnelle

✓ (vii) Natural beauty / Beauté naturelle

Landscape dominated by natural forests of enormous Japanese cedars called “Yakusugi”
Paysage dominé par des forêts naturelles d'énormes cèdres Yakusugi

✓ (ix) Ecosystem / Ecosystème

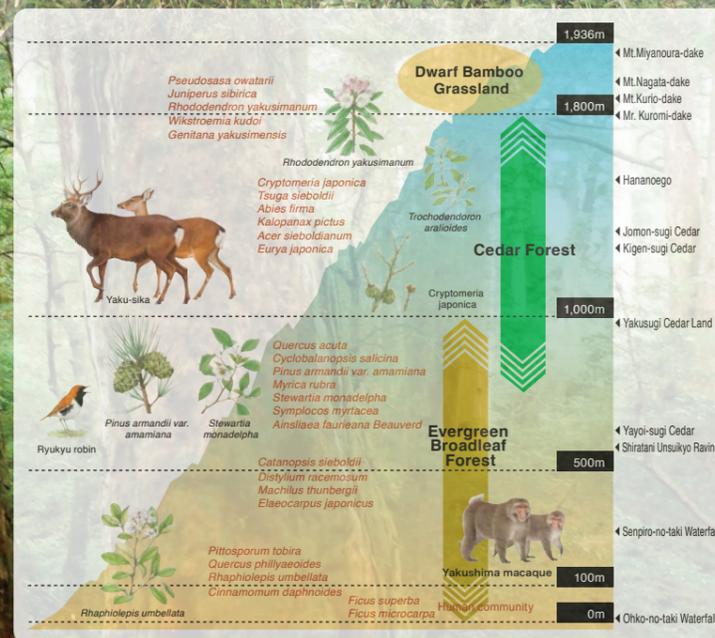
Island ecosystem that exhibits the conspicuous vertical plant distribution
Ecosystème insulaire présentant une répartition verticale des végétaux

From Subtropical to Subalpine Zones

Despite the fact that Yakushima is situated to the south of the Japanese Archipelago, visitors here can see natural vegetation of Japan—which stretches from north to south—on this single island because it contains mountains of about 2,000 m in elevation. The vegetation in Japan is reflected in miniature along a vertical distribution, ranging from coastal vegetation with subtropical elements such as *Ficus superba* var. *japonica*, to evergreen broadleaved forest such as *Catanopsis sieboldii*, to Japanese cedar forest, to cold-temperate bamboo grassland and high moor near the mountain peaks, and to subalpine scrub forest, as elevation increases. A great variety of plants can be observed, including *Gentiana yakushimensis* that is endemic to Yakushima, Japanese cedar at its southern limit in Yakushima, and *Caesalpinia crista* at its northern limit.

A Rain-Shrouded Island

Yakushima is an island with so much rain that it is often described as “rainy 35 days a month”. It has high levels of humidity and receives more than 8,000 mm in annual precipitation, which is nearly five times the average for Japan and nearly 10 times worldwide. While Japanese cedar is thought to live about 800 years at most, the cedar trees in Yakushima grow incredibly slowly owing to nutritionally-poor soil. For this reason, they have extremely precise tree rings, contain a great deal of resin, and are resistant to rotting. Many of these cedar trees live more than 1,000 years here to be called “Yakusugi”. Together with the mountain stream vegetation like *Ainsliaea faurieana* and epiphytes that are adapted to the highly humid environment, the old Yakusugi trees present distinctive forest scenery which can not be seen anywhere else in the world.



Protection and Management of Yakushima Protection du Patrimoine Naturel Mondial de Yakushima

In Yakushima, people have received the rich bounty from the mountains and the seas, revere nature, and have coexisted with nature without damaging it. Since prior to inscription on the World Heritage List, these sorts of local ways rooted in the lifestyle and culture unique to Yakushima have been compiled into the Yakushima Environmental Culture Village Concept, and have been shared by local residents, experts, and government agencies.

Following its inscription, the property has faced challenges like the impacts on the natural environment associated with increasing tourists and mountain climbers, as well as damage from Yaku-sika (endemic subspecies of sika deer), browsing on vegetation. Efforts to tackle these issues are being promoted in the aim of striking a balance between environmental protection and local development.

Protected Areas in the Property

| | |
|------------------------------------|-----------------|
| Yakushima National Park | |
| Special Protection Zone : | 7,419 ha |
| Special Zone : | 2,109 ha |
| Yakushika Wilderness Area : | 1,219 ha |

(Under jurisdiction of MOE)

Examples of Efforts / Exemples d'actions



Climbing trail (former tram route for logging)

Promoting Appropriate Use such as Measures concerning Mountain Climbers toward the Jomon-sugi Cedar Promotion de l'utilisation adéquate, à commencer par les mesures relatives à la randonnée vers le cèdre Jomon-sugi

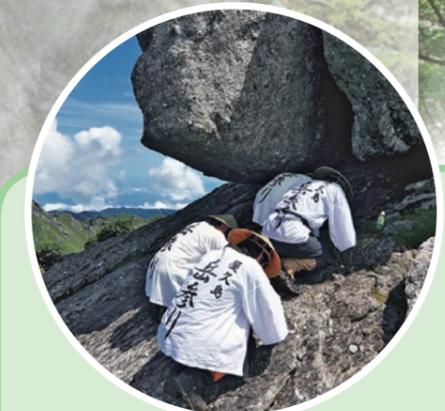
Since a high-speed boat connecting the Kyushu mainland with Yakushima put into commission in 1989, the number of visitors entering the island has surged rapidly, with this trend continuing on after its inscription as well. In 2000 there were about 160,000 mountain climbers. The number then peaked at about 330,000 in 2008, and has remained at about 200,000 in recent years. As the increase in the number of users has brought about problems like the erosion of mountain trails, the Ministry of the Environment and other relevant government agencies, with the cooperation of local stakeholders, are working on environmental conservation measures aimed at providing a high-quality user experience and avoiding or reducing the impact on the natural environment caused by intensive use. These measures include maintaining facilities like mountain trails and toilets, introducing portable toilets, imposing restrictions against bringing personal vehicles, and running mountain buses.

Also, the Yakushima Association for the Promotion of Ecotourism was launched. It has been promoting ecotours that give visitors a real feel for the old lifestyles and traditions that still remain in the settlements on the island, in addition to tours in the mountain areas where use is concentrated. The association is further developing an overall concept that outlines the rules and natural resources for implementing ecotourism on Yakushima.

Measures against Yaku-sika Mesures contre les cerfs sika

It has been said that on Yakushima there are 20,000 people, 20,000 monkeys, and 20,000 deer, with the Yaku-sika beloved as a representative wildlife of the island. For unknown reasons, the number of deer captured from about 1967 onward had declined, and as a request from the local residents, conservation measures were started that restricted their capture in 1971. After that the deer population recovered, but this led to agricultural and forestry damage. There is also growing concern about the impact of deer on forest vegetation, due to the increasing feeding damage by deer on rare and endemic plants even in the World Heritage property and its environs.

Therefore, Yaku-sika Working Group was established under the Scientific Committee for the Yakushima World Heritage property in 2010 to promote countermeasures through the combined efforts of the relevant government agencies and experts. In FY2011, Yakushima Ecosystem Maintenance and Recovery Project Plan, and Kagoshima Prefecture Protection and Management Plan for Category 2 Specified Wildlife (Yaku-sika Deer) were developed. Based on these plans and the Yakushima World Heritage Area Management Plan, deer population control is being promoted to ensure an appropriate density for the protection and management of the World Heritage property, and to maintain and restore the ecosystem through vegetation protection and other measures.



Yakushima Mountain Worship and Mountain Pilgrimages Les pèlerinages de montagne de Yakushima

The traditional ritual of mountain pilgrimages to Yakushima has existed since long ago, with this having been passed down to the present. Mountains in the World Heritage property such as Mt. Miyanoura-dake, Mt. Nagata-dake, Mt. Kurio-dake, Mt. Tachu-dake, and Mt. Aiko-dake are the focus of these mountain pilgrimages. People pay homage at small stone shrines erected at the summits, and pray to cast away misfortune and for peace and plentiful harvests. On Yakushima the mountains that can be seen from the villages are called maedake, or front-facing mountains, while those mountains towering in the interior that cannot be seen from the villages are called okudake, or inner mountains. A sense of reverence for okudake, where unremitting nature unfolds and humans cannot easily approach, nurtured the mountain pilgrimage tradition.

The local residents strive to coexist with nature under these values and principles of honoring nature. This should be kept in mind as the fundamental mindset for conserving the natural environment of the Yakushima World Heritage property. In the Yakushima World Heritage Area Management Plan, conservation and management measures are based upon the values and principles of the local residents.



Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island

The World Heritage property consists of four regions on Amami-Oshima Island, Tokunoshima Island in Kagoshima Prefecture, Northern part of Okinawa Island, and Iriomote Island in Okinawa Prefecture, covering a land area of approximately 42,700 ha. These islands are part of the Ryukyu Chain, which is located at the southern tip of the Japanese archipelago. Influenced by the Kuroshio current and subtropical high-pressure, the islands have a warm and humid subtropical climate, and are largely covered with evergreen broadleaved rainforests. This makes the area a globally rare place where rainforests develop in a subtropical zone.

Les sites enregistrés au patrimoine mondial s'étendent sur une superficie totale de 42 700 hectares et comprennent quatre zones sur l'île Amami-Oshima et l'île Tokunoshima (deux sites) dans le département de Kagoshima, et sur l'île Iriomote et la partie nord de l'île Okinawa dans le département d'Okinawa. La région fait partie des îles Ryukyu, situées dans le sud de l'archipel nippon. La proximité du courant marin Kuroshio et les hautes pressions subtropicales produisent un climat chaud et humide. Les îles sont quasiment recouvertes de forêts tropicales humides à feuillage persistant. La présence de ce type de végétation dans une zone subtropicale est rare et fait la grande particularité de la région.



Evergreen broadleaved forests

The dominant natural vegetation of the property. The periodic disturbances caused by frequent typhoons and complex landform help create a variety of habitats that support high biodiversity.

Cloud forests

Mt. Yuwandake (694 m) on Amami-Oshima Island, the highest peak in the property, Mt. Inokawadake (645 m) on Tokunoshima Island, Mt. Yonahadake (503 m) on Okinawa Island, and Mt. Komidake (497 m) on Iriomote Island constitute cloud belts, where sunlight is limited and air humidity is high, forming forests filled with bryophytes, epiphytic and ground orchids, and fern plants.

Mountain stream zone

At the upstream and mid-stream, riverbeds and riverbanks are flooded periodically due to frequent rainfall. In this kind of environment, there are plants called "rheophytes" that have adapted to the unusual environment where they are exposed to torrents during heavy rainfalls and dried during the low-water period. Such plants include many endemic and endangered species of the Ryukyu Chain.

Mangrove forests

In Japan, mangrove forests covering large areas can be seen only in the Ryukyu Chain. Among them, the mangrove forest at the mouth of the Sumiyo River on Amami-Oshima Island is the most northern. On Iriomote Island, mangrove forests are found at the mouths of the Nakama River, the Urauchi River, and the Shira River, etc.



World Heritage property
Buffer zone

*Categories on the Red List of the Ministry of the Environment (MOE)
 - **Threatened IA (CR):** Species facing an extremely high risk of extinction in the near future
 - **Threatened IB (EN):** Species facing a high risk of extinction in the near future
 - **Threatened II (VU):** Species facing a growing risk of extinction



Neolucanus protogenetivus protogenetivus

This species is endemic to Amami-Oshima and Tokunoshima Islands. In the Ryukyu Chain, stag beetles of the genus *Neolucanus* have speciated into 4 species and 2 subspecies, including *N. okinawanus* on Okinawa Island and *N. insulicola* and *N. insularis* on Iriomote Island.

Threatened II (VU)



Amami jay

This jay is endemic to Amami-Oshima Island and its neighboring isolated islands. It is smaller than a dove, and has beautiful deep purplish-blue feathers. The black-headed jay, which is distributed in the Himalayas, is its closest relative.



Amami Ishikawa's frog

This species is endemic to Amami-Oshima Island. With golden spots scattered over its green back, it is often described as the most beautiful frog in Japan. This frog and the closely related Okinawa Ishikawa's frog, which is found only in the northern part of Okinawa Island, were previously considered the same species, but are now known to be separate species.

Threatened IB (EN)

Tokunoshima Island



Banded ground gecko

This species is endemic to Tokunoshima Island. Its sister species, Kuroiwa's ground gecko which speciated from the same lineage, is found on Okinawa Island.

Threatened IB (EN)



Amami rabbit

This species is endemic to Amami-Oshima Island and Tokunoshima Island. It is the only species in its genus, with no close relatives anywhere in the world. It has distinctive small ears and eyes, and is thought to be one of the most primitive extant rabbits.

Threatened IB (EN)



Ryukyu long-haired rat

This species is endemic to Amami-Oshima Island and Tokunoshima Island and Okinawa Island. It is the largest of Japan's native rodents and, as its name suggests, has long bristles reaching up to 6 cm on its body surface. It is nocturnal and lives primarily in trees.

Threatened IB (EN)



Yellow-margined box turtle

This subspecies is endemic to Ishigaki and Iriomote islands. It has been designated as a Natural Monument. It mainly lives on the forest floor in humid evergreen forests.

Threatened II (VU)

Iriomote Island



Iriomote cat

Crested serpent eagle

This species is widely distributed throughout India, Indochina, Taiwan, and South Asia. In Japan, endemic subspecies occur on Ishigaki and Iriomote islands. It feeds on a wide variety of prey including frogs, snakes, rats, and crabs. On Iriomote Island, it is an apex predator along with the Iriomote cat.

Threatened IA (CR)



Solenogyne mikadoi

This species is endemic to 4 islands containing the property. It occurs in mountain streams and their neighboring rocky stretches and cliffs. The plant is 3-5 cm tall and produces small flowers about 1.5 mm in diameter.

Threatened II (VU)



Okinawa rail

This rail, the only flightless bird in Japan, is endemic to northern Okinawa Island. Captive breeding is taking place under the Protection and Recovery Program based on the Act on Conservation of Endangered Species of Wild Fauna and Flora.

Threatened IA (CR)



Yanbaru long-armed scarab beetle

This species is endemic to northern Okinawa Island. It is the largest beetle in Japan, measuring 5 to 6 cm in length. It occurs in natural forests where large-diameter trees grow.

Threatened IB (EN)



Dendrobium okinawense

This orchid is endemic to northern Okinawa Island. It grows on large trees such as *Distylium racemosum* and blooms from winter to spring.

Threatened IB (EN)

Northern part of Okinawa Island



Okinawa Rail Ecological Exhibition Learning Facility

The facility exhibits living Okinawa rail to raise public awareness for protection activities.



Wildlife Conservation Center

The centers have been established on Amami-Oshima Island, northern Okinawa Island, and Iriomote Island by the Ministry of the Environment. They serve as bases for exhibiting materials related to wildlife unique to the region, providing visitors with explanations and public education, implementing the Protection and Recovery Program of National Endangered Species, and conducting surveys and research.

Amami-Oshima World Heritage Conservation Center

This is an exhibition space where visitors can experience the forests and creatures on Amami-Oshima Island as if they were actually walking in the field, as well as an exhibition corner on the efforts and rules to protect the nature. The center is a base for the promotion of appropriate use and conservation of Amami-Oshima National Park.

*Refer to the back cover

Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island

Outstanding Universal Value / Valeur universelle exceptionnelle

✓ (x) Biodiversity / Biodiversité

An important area for biodiversity conservation, with many internationally rare endemic species due to unique biological evolution reflecting the process of formation of the islands

Une région importante pour la protection de la biodiversité qui comprend de nombreuses espèces endémiques rares dans le monde, et où l'évolution biologique unique reflète le processus de formation des îles

Rich biodiversity

Although the area of the World Heritage property covers less than 0.5% of Japan's land area, it supports a large proportion of the fauna and flora in Japan. For example, there are 1,819 vascular plants that account for 26% of the total vascular plant species in Japan, about 740 terrestrial and inland water vertebrates (57%), and about 6,150 insects (21%).

The fauna and flora of the property include 95 globally threatened species listed in the IUCN Red List and more than 540 threatened species listed in the Red List of the Ministry of the Environment, Japan. In addition, many endemic species which are only found here are distributed. In particular, a high rate of endemism is observed for terrestrial mammals (62%), terrestrial reptiles (64%), and amphibians (86%), and all of the freshwater crab species of Potamonidae are endemic to the area. The area is therefore extremely important for biodiversity conservation.

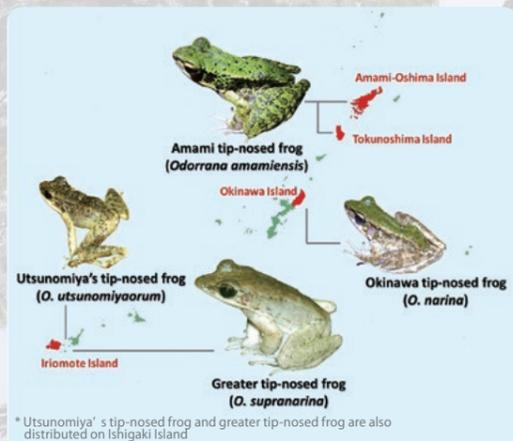
Unique biological evolution reflecting the process of formation of the islands

The species richness, and large number and high proportion of threatened species and endemic species, are all interrelated and have resulted from the geological history of the Ryukyu Chain. The Ryukyu Chain was once an eastern margin of the Eurasian Continent, but tectonic movements caused separation from the Continent, forming an archipelago of small islands. The terrestrial species there became isolated on small islands and went through unique processes of evolution. For this reason, many examples of endemic species in this area are clearly shown in non-flying terrestrial vertebrate groups and plants that were not able to cross the straits with ease.

Among the endemic species, "relict endemic species" and "new endemic species" are representative of the biological evolutionary processes that reflect the formation of the islands. The Ryukyu long-haired rat and Amami rabbit are representative of relict endemic species that were once widely distributed on the Continent and other areas, but were isolated to the islands of the Ryukyu Chain and have survived, retaining their ancient forms, even after their ancestor species on the Continent became extinct. New endemic species, on the other hand, are those that have evolved to adapt to their respective island environments, such as ground geckos and tip-nosed frogs.



Amami violet (*Viola amamiana*)
Listed in both the IUCN and Ministry of the Environment Red List



* Utsunomiya's tip-nosed frog and greater tip-nosed frog are also distributed on Ishigaki Island
Speciation of tip-nosed frogs to each island

Protection and Management of Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island

Protection du Patrimoine Naturel Mondial de Île Amami-Oshima, île Tokunoshima, partie nord de l'île d'Okinawa et île d'Iriomote

The four islands containing the World Heritage property are inhabited, and the places for residents' lives are close to the habitats of wildlife. To enable the coexistence of protection of the property and the people's livelihoods, the buffer zones were set up. This property is the only natural heritage site in Japan where a buffer zone has been established.

In addition, Surrounding Conservation Areas encompassing the property and the buffer zones are designated to implement a broader range of conservation and management measures necessary for addressing threats to the property such as invasive alien species and illegal collection of rare species.

Under the Comprehensive Management Plan that encompasses the entire four islands covering these different management zones, many stakeholders are working together to ensure effective management.

Protected Areas in the Property

| | |
|--|------------------------------------|
| Amamigunto National Park | Special Protection Zone : 5,094 ha |
| | Special Zone : 9,061 ha |
| Yambaru National Park | Special Protection Zone : 2,949 ha |
| | Special Zone : 4,772 ha |
| Iriomote-Ishigaki National Park | Special Protection Zone : 4,624 ha |
| | Special Zone : 16,198 ha |

(Under jurisdiction of MOE)

Examples of Efforts / Exemples d'actions



Mongoose busters Chasseurs de mangoustes

On Amami-Oshima Island and northern Okinawa Island, teams of about 30 people called "mongoose busters" are organized. They capture and monitor alien mongooses systematically using detection dogs. As a result of these efforts, not a single animal was captured on Amami-Oshima Island in FY2019 and FY 2020, suggesting that the situation is close to eradication. In northern Okinawa Island, fences have been installed to prevent mongooses from invading from the central and southern parts of the island, where the animal is densely distributed.

Proper keeping of pet cats Surveillance des chats domestiques

Predation of rare species by cats has been confirmed in the property. There is also concern about the impact of disease transmission to rare species. To address this issue, all 4 regions have enacted ordinances on the proper keeping of pet cats to promote microchipping of owner information and ensure that cats are kept indoors.

Roadkill countermeasures Mesures contre la mortalité des animaux sur la route

In order to tackle roadkills of rare wildlife species such as the Amami rabbit, Okinawa rail, and Iriomote cat, signs to warn about frequent accidents and fences to prevent road intrusion have been installed. Also, traffic accident prevention campaigns are conducted for residents and tourists.



Tourism management Gestion du tourisme

All 4 regions have developed tourism master plans and basic visitor management plans that set out rules of use and promote appropriate tourism use. In Iriomote Island, the Taketomi Town Tourist Guide Ordinance enforced in April 2020 makes it mandatory to obtain a license and attend a training course to conduct a nature tourism guide business. Licensed guides have knowledge about the natural environment and fulfil a range of other requirements, such as water rescue certification.



Forest road patrols by local stakeholders

Patrouilles sur les routes forestières par des organisations locales

In northern Okinawa Island, the Ministry of the Environment, Okinawa Prefecture, Kunigami Village Forestry Association, and local people work together to patrol forest roads in order to monitor the use of forest roads and prevent illegal collection of wildlife. They also disseminate information on various laws and regulations relating to the prevention of illegal collection. Since 2018, a cooperation system with police officers has been in place and joint patrols have been carried out to detect poachers.



Promotion of public awareness by private sectors

Sensibilisation du public par le secteur privé

In 2019, in order to promote the inscription of this property, the natural World Heritage promotion joint consortiums were established in both Kagoshima and Okinawa prefectures, consisting of more than 30 private companies and organizations in each prefecture. These consortiums currently conduct activities such as public awareness promotion and protection of rare species and the natural environment in cooperation with government agencies. They also contribute to local communities through the use of the natural environment and works to promote local development.