

## World Heritage Sites

### Protected Areas and World Heritage



## SHIRAKAMI-SANCHI JAPAN

*This remote and trackless site in the mountains of northern Honshu, includes the last virgin remains of the cool-temperate Japanese beech forest that once covered the hills and mountain slopes of northern Japan. The black bear, the serow and 84 species of birds are found in this forest.*

### COUNTRY

Japan

### NAME

Shirakami-Sanchi

### NATURAL WORLD HERITAGE SITE

1993: Inscribed on the World Heritage List under Natural Criterion ix.

### STATEMENT OF OUTSTANDING UNIVERSAL VALUE [pending]

### IUCN MANAGEMENT CATEGORY

Ib Wilderness Area

### BIOGEOGRAPHICAL PROVINCE

Oriental Deciduous Forest (2.15.05)

### GEOGRAPHICAL LOCATION

In far northwestern Honshu in northern Japan, on the border between Aomori and Akita prefectures 15 km inland from the Sea of Japan between 40° 22' to 40° 32'N and 140° 02' to 140° 12'E.

### DATES AND HISTORY OF ESTABLISHMENT

1975: Tsugaru Quasi-National Park established; this is a narrow strip in the north forming part of a Natural Park Special Protection Zone;

1990: A Forest Ecosystem Reserve, with core and buffer zones, established across the whole area under the Nature Conservation Law;

1992: Almost the whole National Forest area plus Tsugaru Quasi-National Park and two prefectural parks gazetted as a Nature Conservation Area.

### LAND TENURE

Government, in Aomori and Akita prefectures. Managed by the Ministry of the Environment (ME), in cooperation with the Forestry Agency and the Governors of the two local Prefectures.

### AREA

10,139 ha core area with an undesignated buffer zone of 6,832 ha.

### ALTITUDE

300m to 1,243m (Mt. Mukai-shirakami).

## PHYSICAL FEATURES

The remote Shirakami Mountains are a vast forested wilderness of steep hills with summits between 1,000 and 1,200m. More than half of the area is composed of deep interlaced valleys with over 30 degree slopes. They extend over 450 sq. km and are mainly granite with sedimentary and intrusive rocks which were rapidly uplifted during the Quaternary, resulting in a dynamic landscape with numerous faults and waterfalls. Many streams have their sources within the area and it is an important water catchment area.

## CLIMATE

This is a moist cool temperate climate with heavy snow during the winter due to the proximity of the Sea of Japan and cold air masses that move in from Siberia.

## VEGETATION

The site comprises the last remaining large stand of Japanese (Seibold's) beech forest *Fagus crenata* virtually unaffected by man (Tagawa & Yoda, 1985). Seibold's beech formed the typical temperate climax forest of Japan. Having escaped glaciation and established itself over 8,000 years ago the forest has an undisturbed native flora of more than 500 plant species, of which 108 have specially protected status. This figure is not high compared with other Japanese mountain areas, but does include many species characteristic of Japan, and its alpine and subalpine zones. *Silene aomoriensis* is endemic to the area. Threatened and semi-endemic relict species present include *Ranzania japonica*, *Hylotelephium tsugaruense*, *Cerastium arvense* var. *ovatum*, *Poa ogamontana*, *Padicularis nipponica* and numerous orchids: *Calanthe discolor*, *C. nipponica*, *Cypripedium yatabeanum*, *Gymnadenia fujisanensis*, *Orchis graminifolia* and *Tipularia japonica*. Japanese clethra *Clethra barbinervis* and anise magnolia *Magnolia salicifolia* are common decorative understory trees.

## FAUNA

14 of the 16 medium to large mammals of the Tohoku region of northern Honshu exist in the area, except for two species (*Sus scrofa* and *Cervus nippon*) restricted by the heavy snowfalls. Japanese serow *Capricornis crispus* is a Special Natural Monument species. Japanese macaque ('snow monkey') *Macaca fuscata* (1996 EN: 2,000) are found and the Asiatic black bear *Ursus thibetanus* (VU), hunted elsewhere, is common. Also present are Japanese hare *Lepus brachyurus angustidens*, Japanese squirrel *Sciurus lis*, Japanese flying squirrel *Pteromys momonga*, Japanese giant flying squirrel *Petaurista leucogenys*, Japanese dormouse *Glirulus japonicus*, raccoon dog *Nyctereutes procyonoides*, Japanese fox *Vulpes vulpes japonica*, Japanese marten *Martes melampus*, ermine *Mustela ermina*, Siberian weasel *M. sibirica* and Eurasian badger *Mele mele*.

The 84 bird species currently identified in the core zone include one pair of Japanese golden eagles *Aquila chrysaetos japonica*, three nesting pairs of black woodpecker *Dryocopus martius*, both of which are designated as Natural Monument and Special Bird species due to their rarity, one pair of mountain hawk-eagle *Nisaetus nipalensis orientalis*, also a Special Bird species and the rare harlequin duck *Histrionicus histrionicus*. Other characteristic species of these well watered woods are the mandarin duck *Aix galericulata*, eastern broadbilled roller *Eurystomus orientalis*, spotted nutcracker *Nucifraga caryocatactes* and brown dipper *Cinclus pallasii*. Seven species of reptile and nine amphibians have been recorded. The insect fauna is particularly rich, over 2,000 species having been recorded in the area, many of them at the northern or southernmost limits of their range (ME, *in litt.*, 2003).

## CONSERVATION VALUE

The site is the last and largest area of Siebold's beech forest in East Asia to remain unaffected by man, together with its associated flora. Almost no logging has been carried out in the area due to its remoteness and steep slopes. The site lies within a Conservation International-designated Conservation Hotspot.

## CULTURAL HERITAGE

An ancient traditional culture of woodcutters, charcoal burners, hunters and gatherers has survived in the forests. A group of hunters known as *matagi* hunt bears with special techniques and ritual ceremonies (Tagawa & Yoda, 1985).

## **LOCAL HUMAN POPULATION**

There are no residents in the core or buffer zones, but the Reserve is surrounded by several small communities. Mining of precious metals was formerly practised. Local people use the area for subsistence collection of edible mushrooms, herbs and bamboo and for regulated hunting and fishing.

## **VISITORS AND VISITOR FACILITIES**

There are no roads or man made structures within the site but several trails have been developed. But in 1998 the Fujisato World Heritage Conservation Center was built beside the site as a visitor and information centre. Each year some 3000 people climb Mount Huatsumori, and approximately 50,000 visit the Anmon Falls in the buffer zone (ME, *in litt.*, 2003).

## **SCIENTIFIC RESEARCH AND FACILITIES**

Researchers from local colleges and universities have long conducted studies of vegetation and wildlife in the area, but much about the region remains unknown and a long-term monitoring program is projected to build up a reliable information base. In 1997 the Shirakami-sanchi Nishimeya World Heritage Conservation Center was built as a base research station (ME, *in litt.*, 2003).

## **MANAGEMENT**

The World Heritage site is zoned into core and buffer areas. The core area is strictly protected as a 9,844 hectare Special Zone/Wildlife Protection Zone in the Nature Conservation Area, in the Quasi-National Park as a 344 hectare Special Protection Zone and as a 10,139 hectare Preservation Area in the Forest Ecosystem Reserve which contains the other areas. The responsibility for enforcing protection rests with Ministry of the Environment, the Forestry Agency and the prefectural governors. Within either zone activities which threaten conservation such as construction, collection of animals or plants, mining and logging are not permitted and entry is regulated by the Ministry of the Environment.

Buffer areas which also include prefectural parks are managed for recreation and education as well as conservation. Patrolling is done to enforce the regulations. A management plan was prepared in 1995. To promote more effective collaboration between the various agencies for the management of the site, a World Heritage Area Liaison Committee was established. Since 2000 the Committee has encouraged cooperation with the local municipalities and related organisations to the same end (ME, *in litt.*, 2003).

## **MANAGEMENT CONSTRAINTS**

Black bears migrate outside the area and many are trapped and shot in the surrounding orchard farms. The area is regularly overflowed by low-flying jets from a nearby military base. A project to build Seisyu forest road, between Aomori and Akita prefectures was prepared in 1981 by the Forestry Agency. But the plan was opposed by local NGOs following fears that the construction could cause landslides, unusual water shortages, floods and snowslides. As a result the plan was halted (Tagawa & Yoda, 1985).

## **STAFF**

Representatives of the Ministry of the Environment work at each of the World Heritage Conservation Centers. Forestry and Environment agency staff, volunteer staff and Nature Conservation Leaders sent from the prefectures periodically visit the area on foot (ME, *in litt.*, 2003).

## **BUDGET**

The formal budget is attached to research expenses and patrolling (ME, *in litt.*, 2003).

## **LOCAL ADDRESSES**

The Director, Tohoku Regional Conservation Office, 3-2-3, Honchou, Aoba-ku, Sendai-shi, Miyagi Prefecture, Japan.

The Director, World Heritage Conservation Center (Fujisato), 63, Satokuri, Fujikoto, Fujisato-machi, Yamamoto-gun, Akita Prefecture, Japan.

The Director, World Heritage Conservation Center (Nishimeya), 61-1 Kanda, Tashiro, Nishimeya-mura, Nakatsugaru-gun, Aomori Prefecture, Japan.

## **REFERENCES**

The principal source for the above information was the original nomination for World Heritage status.

Anon (1992). *World Heritage List Nomination Japan Shirakami-Sanchi (Shirakami-Mountains)*. Environment Agency, Agency for Cultural Affairs, Forestry Agency, Government of Japan. 32 pp.

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Tagawa, H. & Yoda, K. (1985). *A Case Study in the Biosphere on Yakushima Island*. Report on special Grant-in-Aid "Environmental Sciences" by the Ministry of Education, Science & Culture. 17 pp.

**DATE**

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