

Executive Summary

State Party

Japan

State, Province or Region

Kagoshima Prefecture and Okinawa Prefecture

Name of Property

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

Geographical Coordinates to the Nearest Second

Latitude/longitude of each component part of the nominated property

| ID | Name of the component parts | | District | Coordinates of the central point | Area of nominated component of the property (ha) | Area of the buffer zone (ha) | Map No. (Annex 6-1) |
|---|---------------------------------|-----|----------------------|---------------------------------------|--|------------------------------|----------------------------------|
| 1 | Amami-Oshima Island | | Kagoshima Prefecture | N28° 16' 44.969" E129° 22' 41.886" | 11,640 | 14,505 | AMA_1 AMA_2 AMA_3 AMA_4 |
| Amami-Oshima Island area (ha) | | | | | 11,640 | 14,505 | |
| 2 | Tokunoshima Island | (a) | Kagoshima Prefecture | N27° 45' 48.136" E128° 58' 01.962" | 1,724 | 1,813 | TOK_2 |
| 3 | | (b) | | N27° 51' 56.053" E128° 55' 33.394" | 791 | 999 | TOK_1 |
| Tokunoshima Island area (ha) | | | | | 2,515 | 2,812 | |
| 4 | Northern part of Okinawa Island | | Okinawa Prefecture | N26° 43' 29.212" E128° 13' 12.382" | 7,721 | 3,398 | NPO_1 NPO_2 |
| Northern part of Okinawa Island area (ha) | | | | | 7,721 | 3,398 | |
| 5 | Iriomote Island | | Okinawa Prefecture | N24° 19' 34.257" E123° 48' 31.486" | 20,822 | 3,594 | IRI_1 IRI_2 IRI_3 |
| Iriomote Island area (ha) | | | | | 20,822 | 3,594 | |
| Total area (ha) | | | | | 42,698 | 24,309 | |

Textual Description of the Boundaries

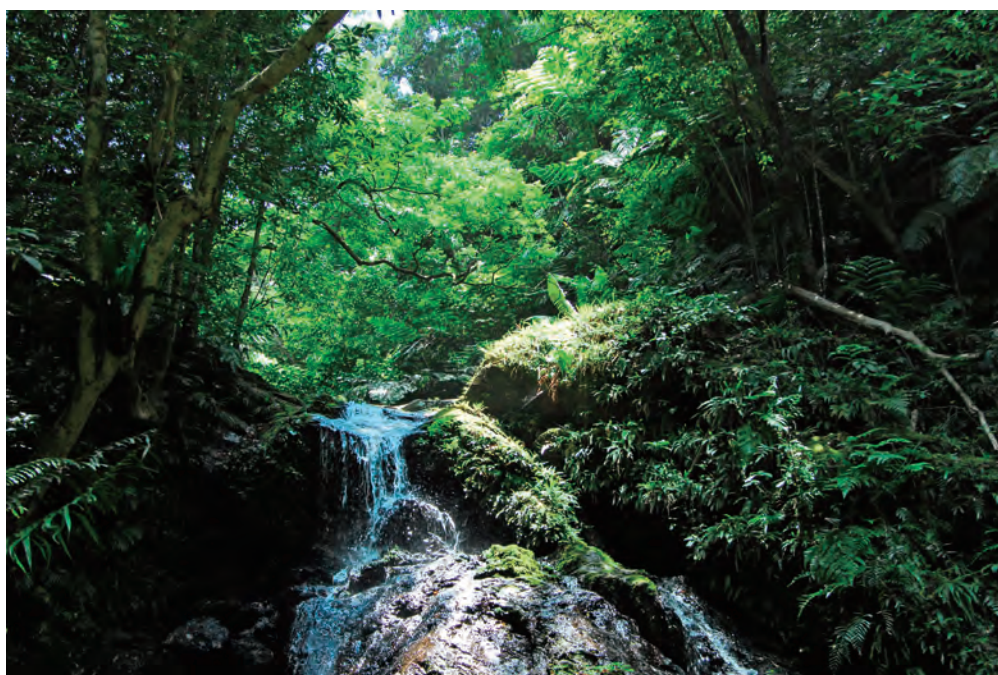
The nominated property is part of the Ryukyu Chain scattered in an arc, about 1,200 km long, lying in the ocean between the south end of Kyushu of the Japanese Archipelago and Taiwan. It is a serial property consisting of five component parts on four islands: Amami-Oshima Island, Tokunoshima Island, Okinawa Island (in the Central Ryukyus), and Iriomote Island (in the South Ryukyus).

Based on scientific examination, the nominated property which demonstrates Outstanding Universal Value (OUV) for inscription on the World Heritage List is to be limited only to these four islands.

The nominated property is part of the areas strictly protected as the Special Protection Zones or the Class I

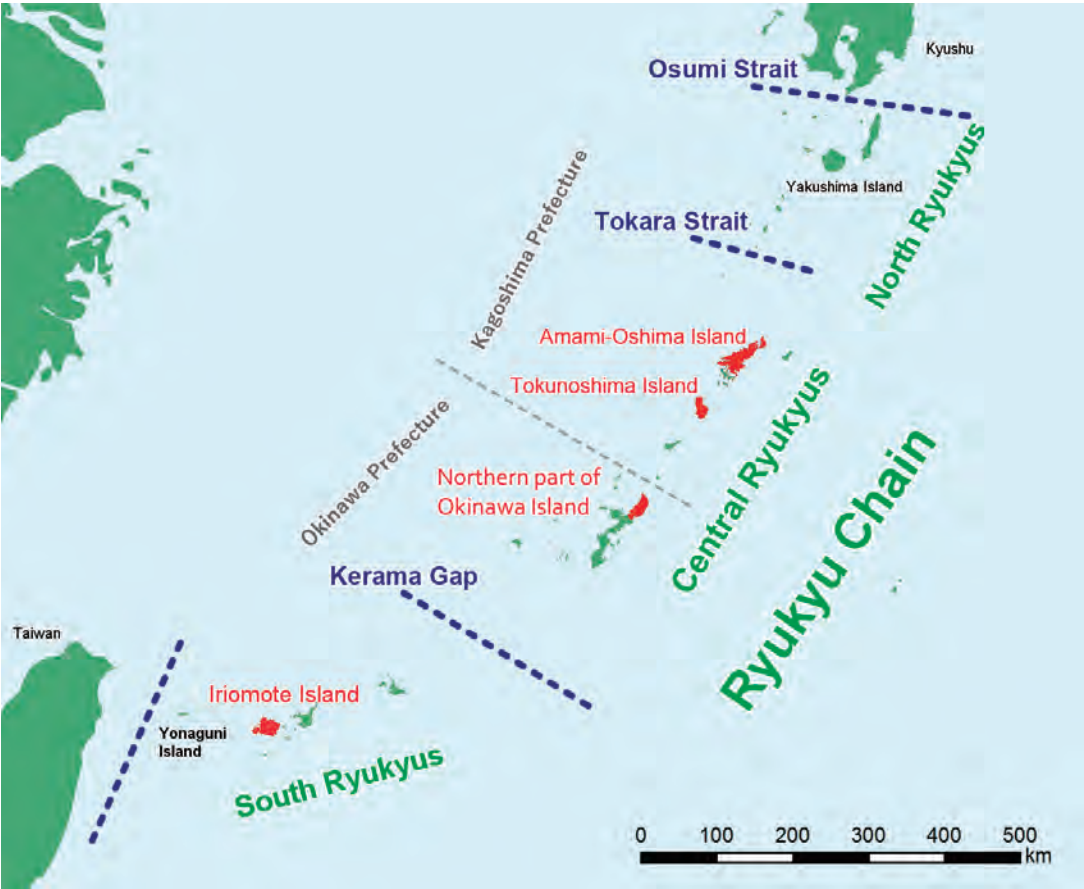
Special Zones in the Amamigunto National Park, Yambaru National Park, and Iriomote-Ishigaki National Park and/or the Preservation Zones in the Amamigunto Forest Ecosystem Reserve, Yambaru Forest Ecosystem Reserve and Iriomote Forest Ecosystem Reserve. The nominated property also includes small areas of Class II Special Zone of National Park and/or Conservation and Utilization Zone of Forest Ecosystem Reserve, however, these areas are planned to be upgraded to Class I Special Zone by the end of JFY2019 after the necessary procedures based on relevant laws and regulations, and landowners and stakeholders have already agreed to treat these lands as Class I Special Zone (see Chapter 5, Tables 5-2-1 to 5-2-4, Table 5-3-1, and Table 5-4).

The buffer zones are mainly parts of the areas protected as the Class II Special Zone of the above national parks and/or the Conservation and Utilization Zone of the above Forest Ecosystem Reserves. Further, in some parts of the buffer zones, there are three types of area as follows: 1) Special Protection zones or Class I Special Zones of national parks that are not adjacent to the nominated area; 2) the areas adjacent to the nominated area belonging to the National Forest, public land or the Class III Special Zone of national park, where it is agreed to conduct sustainable forest operations considering biodiversity; 3) Ordinary Zone of national park surrounded by the nominated area and being considered as focused area for conservation activities including countermeasures against invasive alien species (Tables 5-3-2 to 5-3-3).



Mountain stream zone with many endemic and threatened species, Northern part of Okinawa Island
(Photo: MOEJ)

Regional classification of the Ryukyu Chain including the nominated property

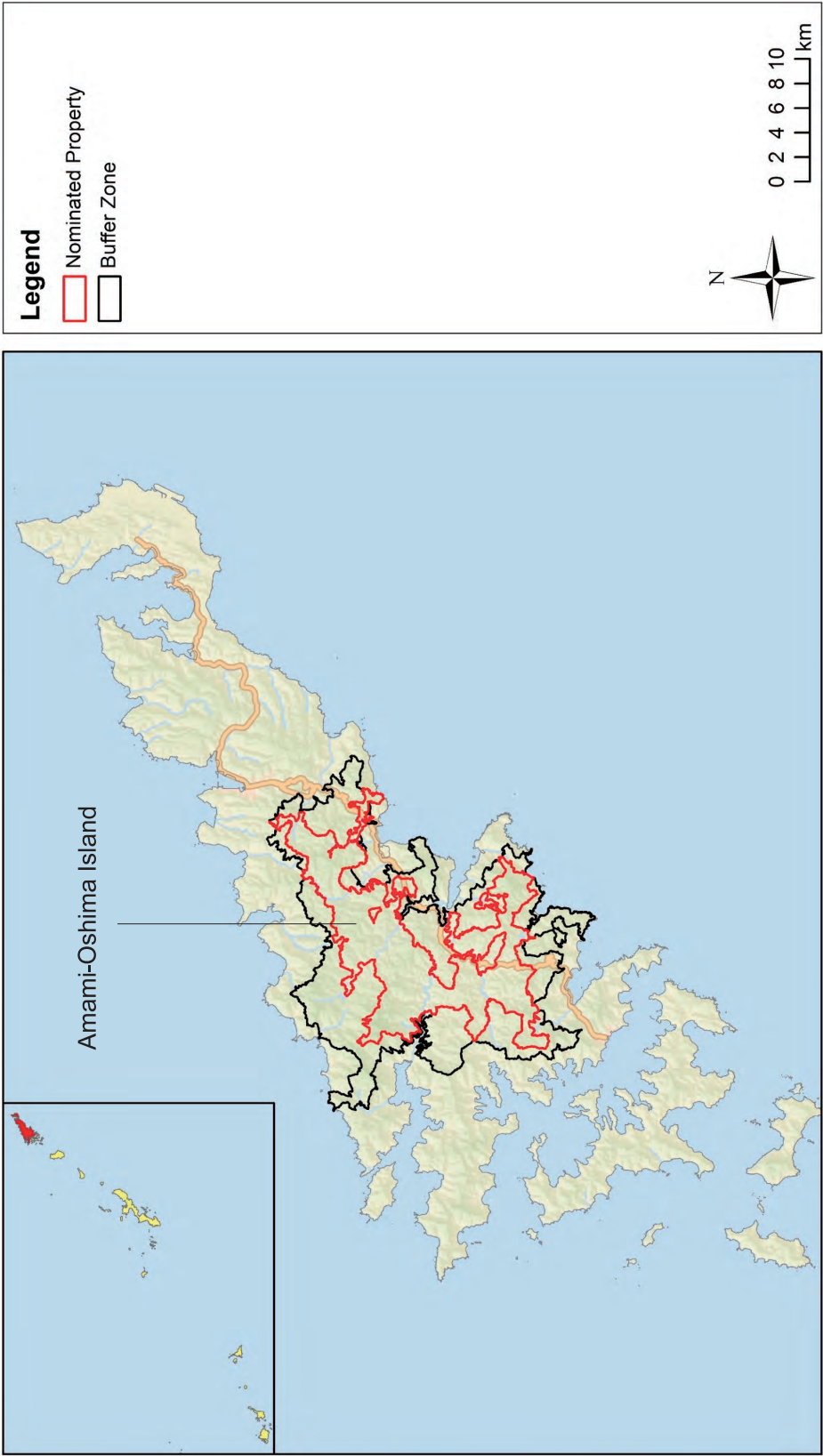


Regional classification of the Ryukyu Chain including the nominated property

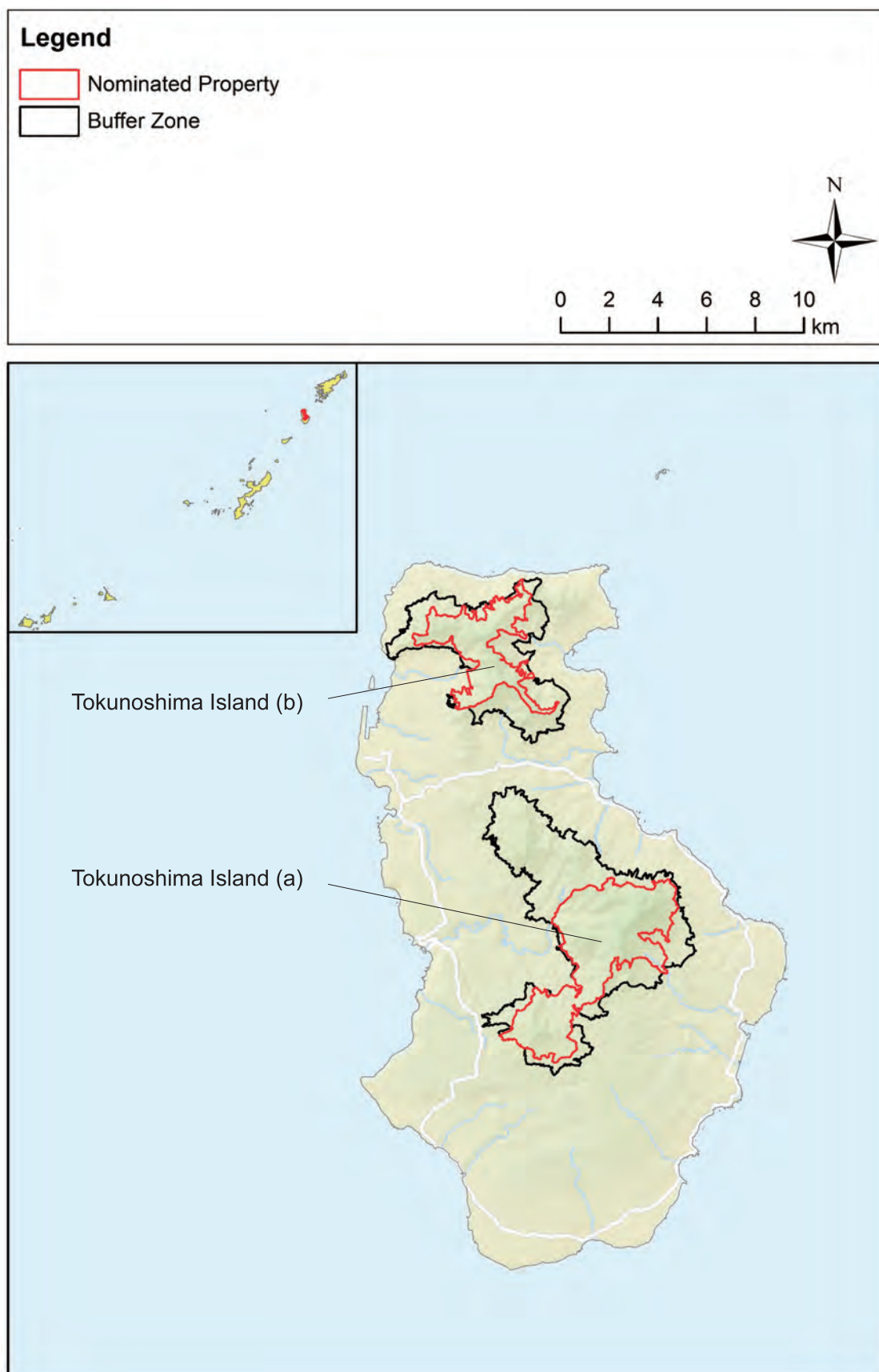


Subtropical rainforest, Amami-Oshima Island (Photo: MOEJ)

Maps Showing the Boundaries of the Nominated Property and Buffer Zones



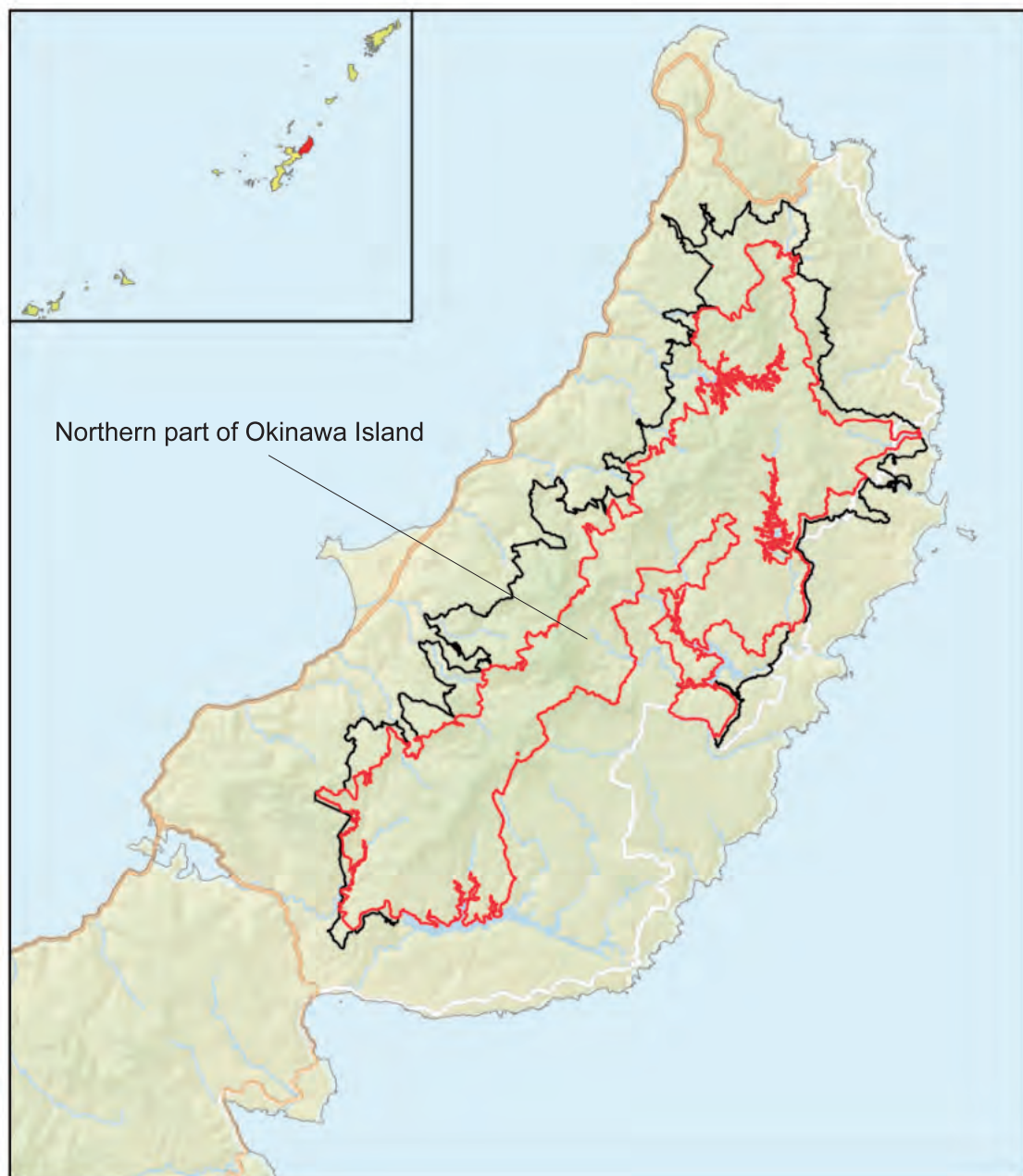
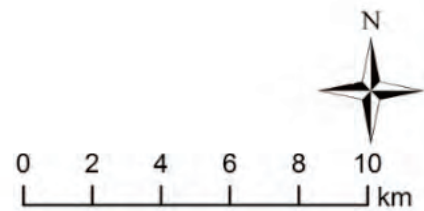
Boundary of the nominated property (Amami-Oshima Island)



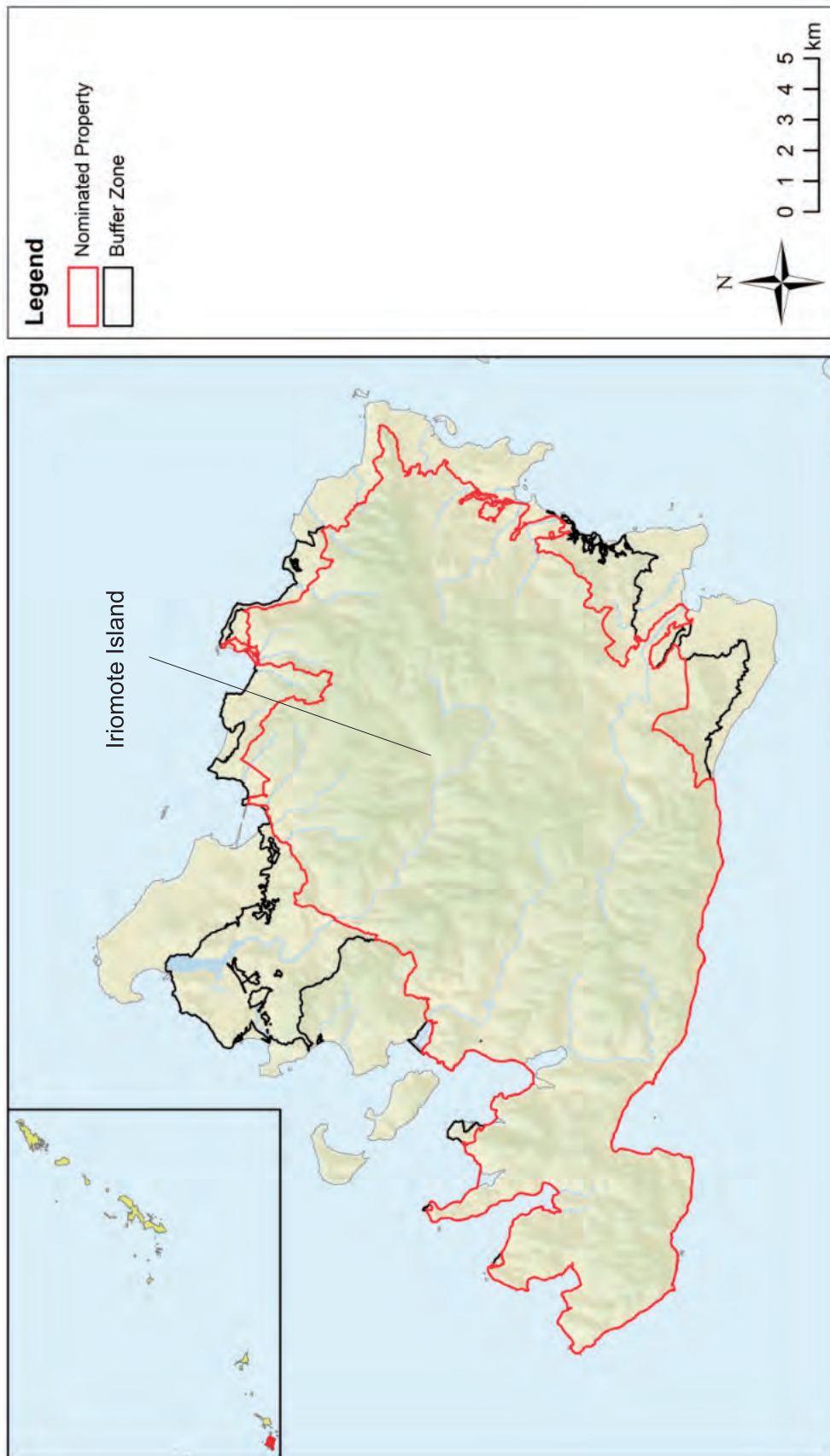
Boundary of the nominated property (Tokunoshima Island)

Legend

- Nominated Property
- Buffer Zone



Boundary of the nominated property (Northern part of Okinawa Island)

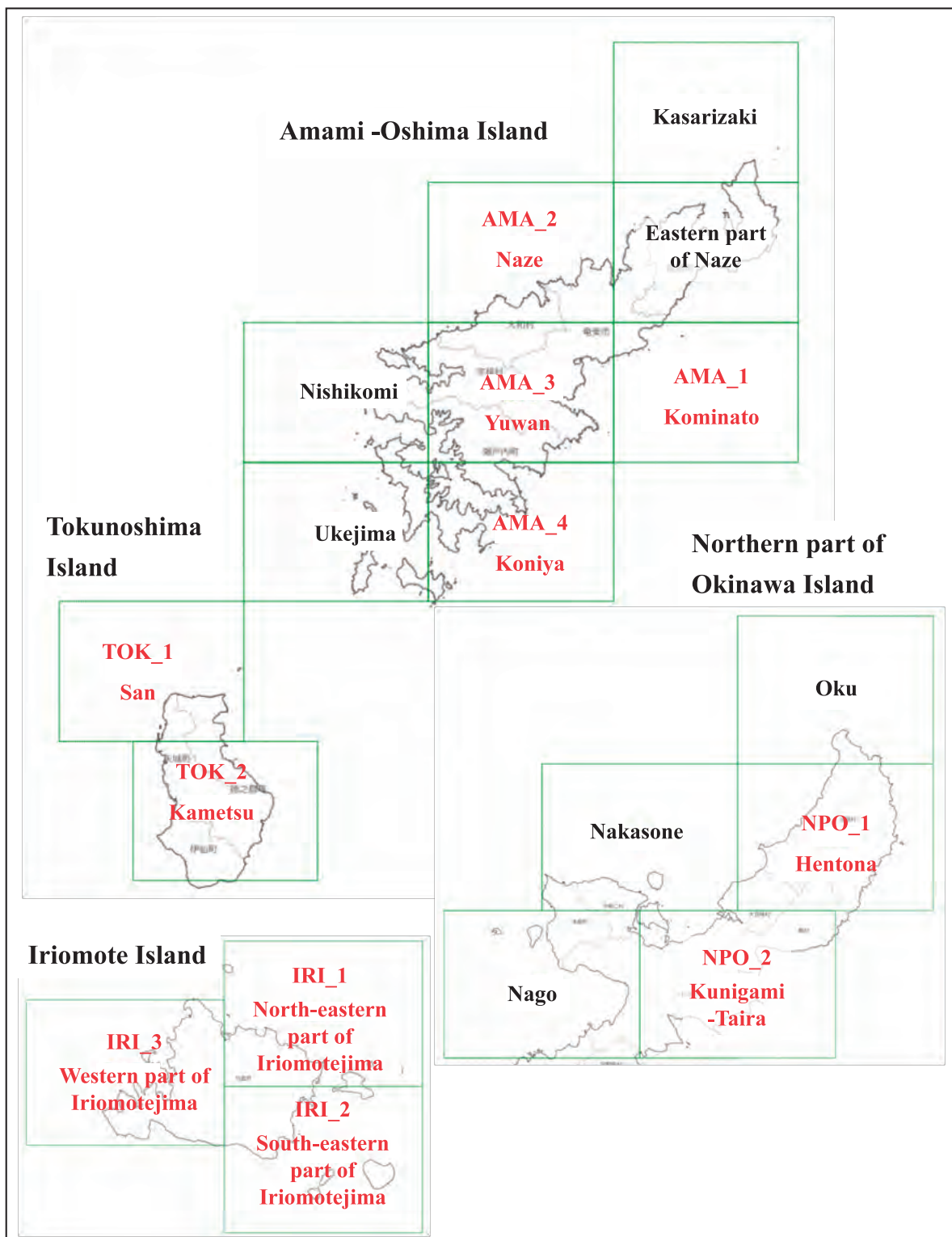


Boundary of the nominated property (Iriomote Island)

Boundaries of 1:50,000 topographical maps including the nominated property and buffer zones

(Source: Geospatial Information Authority of Japan)

Red letters indicate the map numbers and names in which the nominated property is included.

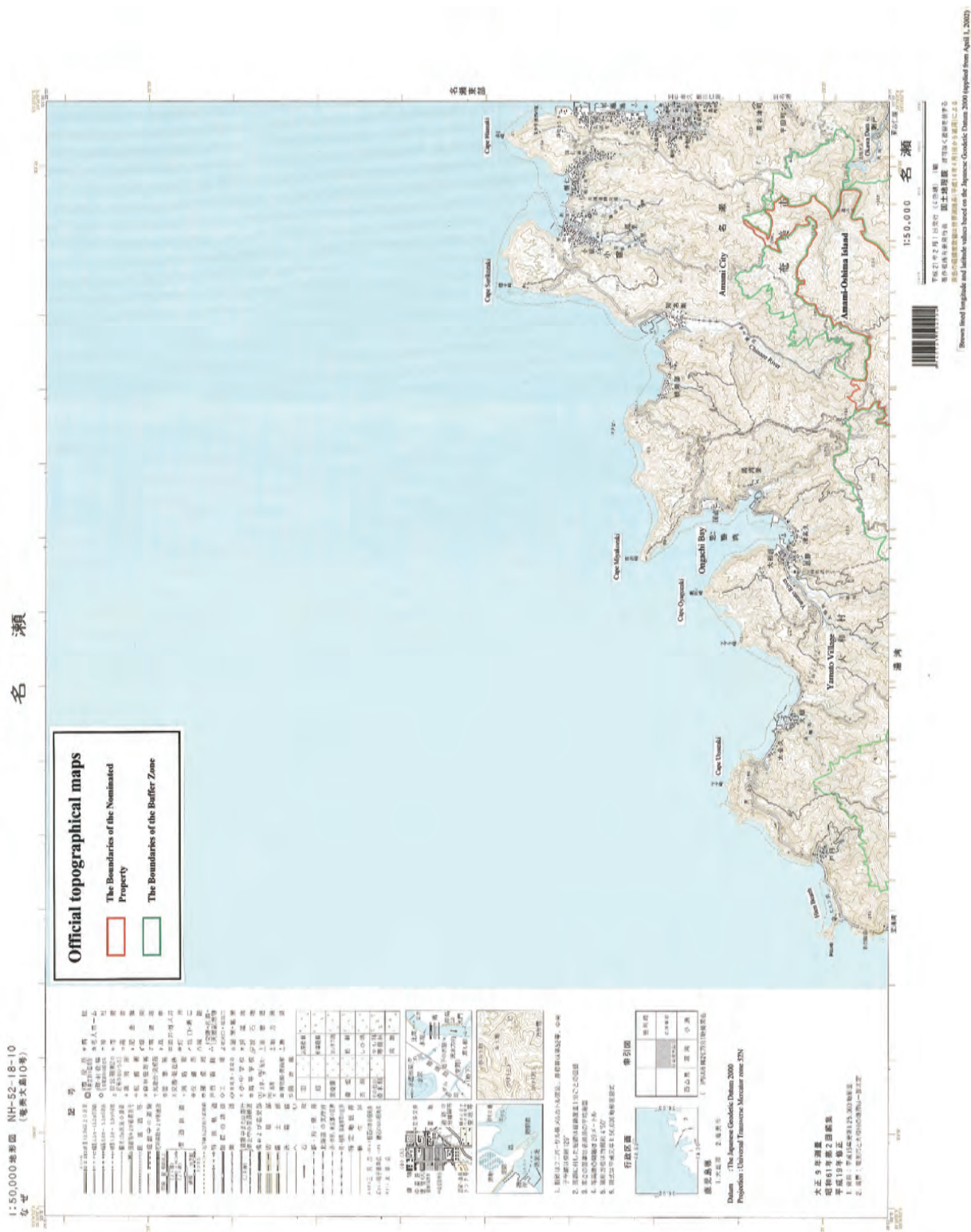


6-1.AMA_1. Kominato (Amami-Oshima Island)



AMA_2 Naze (Amami-Oshima Island)

6-1. AMA 2. Naze (Amami-Oshima Island)



6-1. AMA 3. Yuwan (Amami-Oshima Island)



6-1. AMA 4. Koniya (Amami-Oshima Island)



6-1. TOK_1. San (Tokunoshima Island)



6-1. TOK_2. Kametsu (Tokunoshima Island)



6-1.NPO_1. Hentona (Northern part of Okinawa Island)

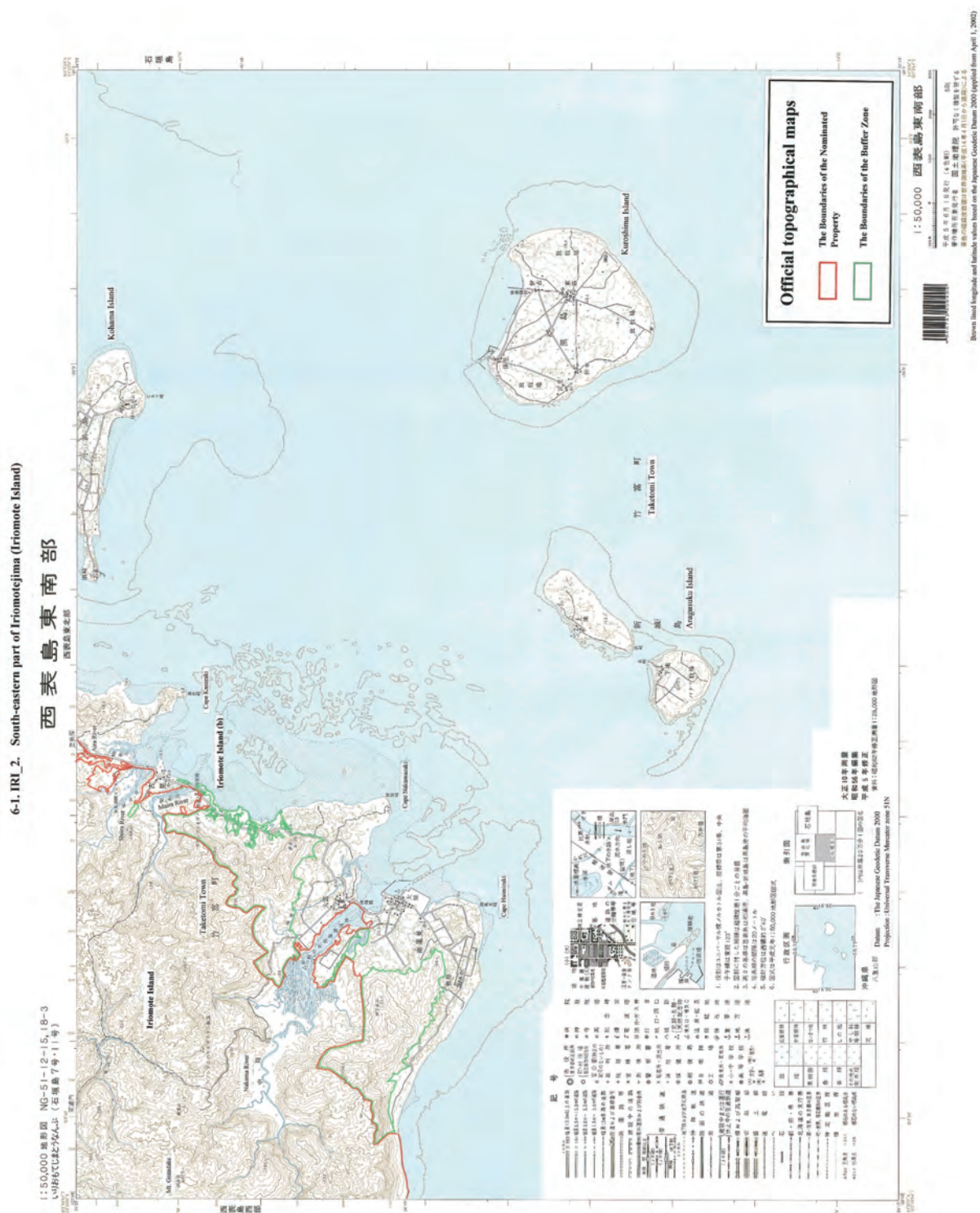


6-1. NPO_2. Kunigami-Taira (Northern part of Okinawa Island)



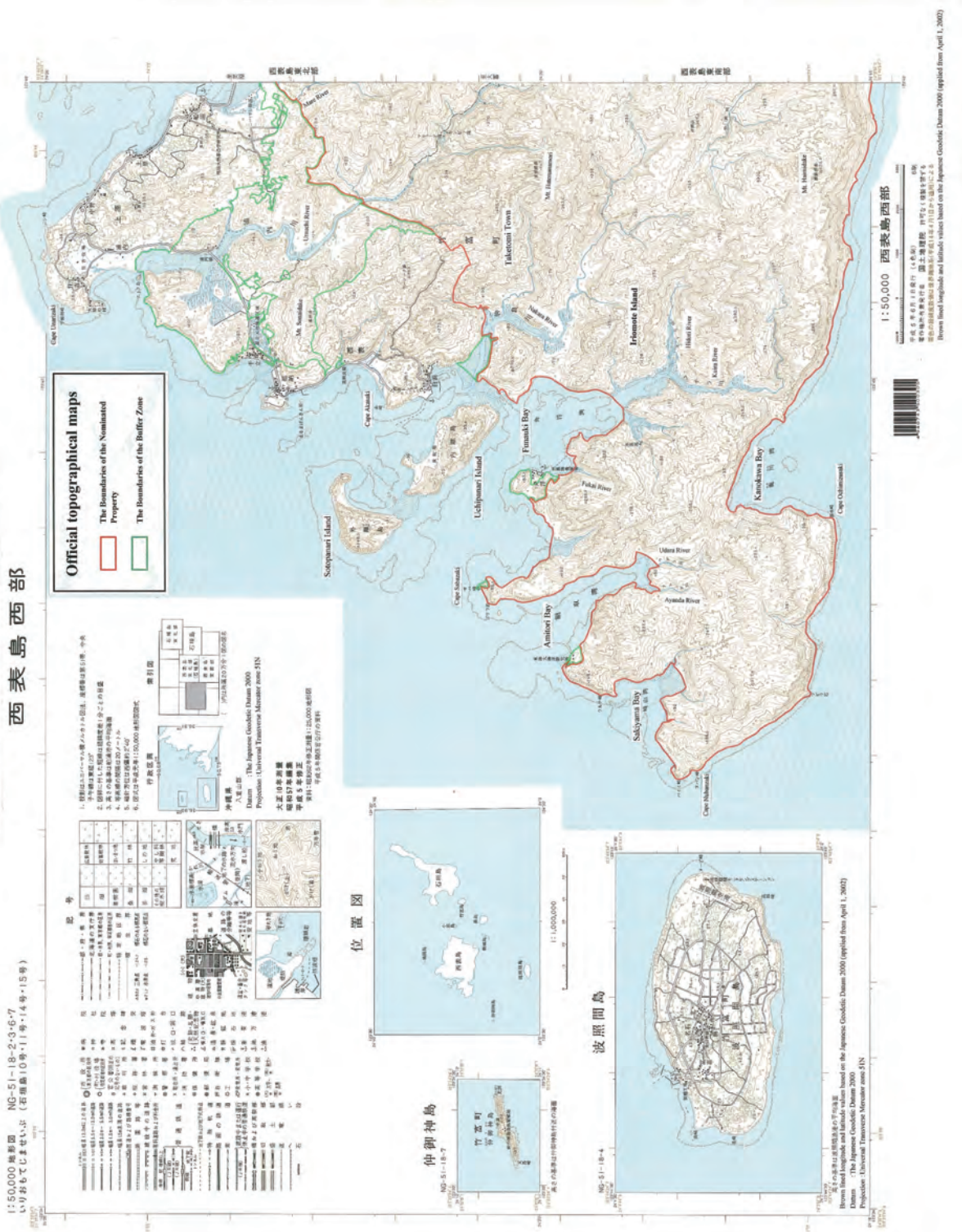
IRI_1 North-eastern part of Iriomotejima (Iriomote Island)

IRI_2 South-eastern part of Iriomotejima (Iriomote Island)



IRI_3 Western part of Iriomotejima (Iriomote Island)

6-1. IRI_3. Western part of Iriomotejima (Iriomote Island)



Criteria Under Which Property Is Nominated

Criterion (x): to 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.

Draft Statement of Outstanding Universal Value

a) Brief synthesis

The nominated property is a terrestrial serial site covering 42,698 ha comprised of five component parts in four regions, Amami-Oshima Island, Tokunoshima Island, and the Northern part of Okinawa Island in the Central Ryukyus, and Iriomote Island in the South Ryukyus. The islands of the Central and South Ryukyus are members of the Ryukyu Chain at the southern tip of the Japanese archipelago. Influenced by the Kuroshio Current and the subtropical high-pressure system, the nominated property has a warm and humid subtropical climate and is covered mainly with evergreen broadleaved subtropical rainforests.

The nominated property is the best representative of the Central and South Ryukyus that contain the richest biota in Japan, one of the world's biodiversity hotspots. The nominated property has a large number of species in many taxonomic groups. The property also supports many threatened species and species endemic to the Central and South Ryukyus, and the proportions of those species are high. Further, various examples of evolution of endemic species, especially many examples of relict and/or evolutionarily distinct species, are found in the nominated property.

These features of the biodiversity of the nominated property are all interrelated and derived from the geological history of the Central and South Ryukyus as continental islands. Reflecting its long history of separation and isolation, the terrestrial creatures went through various evolutionary processes and formed unique biota, as observed in many examples of endemic species in non-flying terrestrial vertebrate groups and plants. Also, the Central and South Ryukyus have differences in their patterns of speciation and endemism.

Thus, the nominated property is of overall high global irreplaceability for the protection of unique terrestrial species including many endemic and globally threatened species, and contains the most important and significant natural habitats for *in-situ* conservation of the unique and rich biodiversity of the Central and South Ryukyus.

b) Justification for criteria

Criterion (x)

The four regions containing the nominated property, which together cover less than 0.5% of Japan's land area, support a large proportion of the fauna and flora in Japan. For example, there are 1,819 vascular plants, 21 terrestrial mammals, 394 birds, 36 terrestrial reptiles and 21 amphibians. As a whole, around 57% of the terrestrial vertebrates of the Biodiversity Hotspot of Japan, including 44% of species endemic to Japan as well as 36% of globally threatened vertebrates in Japan, are living in the four regions containing the nominated property. The number and proportion of threatened species are also large in the nominated property, including 95 globally threatened species.

Among those species listed on IUCN Red List of Threatened Species, the Amami rabbit (*Pentalagus furnessi*) lives on Amami-Oshima and Tokunoshima Islands and is the only species in its genus, with no close relatives anywhere in the world. Okinawa rail (*Gallirallus okinawae*), which lives in the Northern part of the Okinawa Island, is one of the non-flying rails that are known to be vulnerable to extinction. Spiny rats form an endemic genus consisting of three species (*Tokudaiada osimensis*, *T. tokunoshimensis*, *T. muenninki*) endemic to each of the three regions of the nominated property in the Central Ryukyus. Iriomote cat (*Prionailurus bengalensis iriomotensis*) only inhabits Iriomote Island, “the world’s smallest island where wildcats live”.

Also, there are abundant examples of diverse speciation and endemic species in the nominated property. For example, 188 species of vascular plants and 1,607 insect species are endemic. Especially, rates of endemism among terrestrial mammals (62%), terrestrial reptiles (64%), amphibians (86%), and inland water crabs (100%) are high. Among these endemic species in the nominated property, there are as many as 20 species identified as Evolutionarily Distinct and Globally Endangered (EDGE) species, including the Okinawa spiny rat (*Tokudaia muenninki*), Ryukyu black-breasted leaf turtle (*Geoemyda japonica*), and Kuroiwa’s ground gecko (*Goniurosaurus splendens*) that are ranked in the Top 100 EDGE species.

The species richness, large number and high proportion of threatened species and endemic species, and diverse examples of speciation and unique evolution, are all interrelated and have resulted from the geological history of the Central and South Ryukyus that formed as continental islands. The Ryukyu Chain was part of the Eurasian Continent until the middle Miocene, but it became separated and formed an archipelago of small islands through the development of the Okinawa Trough and three deep straits. The terrestrial creatures there became isolated on small islands and went through the unique processes of evolution. For this reason, in the Central and South Ryukyus, many examples of endemic species are clearly shown in non-flying terrestrial vertebrate groups and plants that were not able to cross the straits with ease.

c) Statement of integrity

The nominated property includes all the elements necessary to express its Outstanding Universal Value as a serial nomination, is of adequate size to ensure the complete representation of its biodiversity values, and does not suffer from adverse effects of development or neglect.

The four regions containing the nominated property consist of mountains and hills and have the intact and contiguous subtropical rainforests with old trees that secure particularly stable habitats for approximately 90% of native species, endemic species and globally threatened species of the Central and South Ryukyus.

The five component parts of the nominated property have substantial size of the intact subtropical forests and other habitats, and form core areas that contain the most important actual and potential distributional areas of endemic species and threatened species that are key attributes expressing the Outstanding Universal Value of this property. Each component has different characteristic endemic and/or threatened species, and the nominated property as a whole represents the unique characteristics of the biota of the Central and South Ryukyus.

The nominated property is under the strictest protection in Japanese system. Key threats to the biota include the

impact of invasive alien species such as small Indian mongoose and cats, wildlife roadkills and the illegal collection of wild rare and threatened species. For these threats, the risks to the nominated property are prevented or mitigated by various measures implemented through collaboration among related administrative organs, private organizations and local communities. In recent years, the tourism industry has developed, and measures towards sustainable tourism use have been started on each island.

d) Statement of authenticity

Not applicable because this nomination does not claim cultural values.

e) Requirements for protection and management

The nominated property is designated as Special Protection Zones or Class I Special Zones of national parks managed by the Ministry of the Environment and/or Preservation Zones of Forest Ecosystem Reserves managed by the Forestry Agency. In addition, the nominated property is designated as National Wildlife Protection Area and Natural Monument Protection Area. The nominated property is thereby protected by the highest-ranked strict protection measures in the Japanese protected area system, and is ensured of adequate management resources and appropriate long-term protection.

The four islands containing the nominated property are inhabited by people, and the places for residents' lives and industrial activities are close to the habitats for endemic species and threatened species. To enable the coexistence of protection of the property and the people's livelihoods, buffer zones were set up mainly in the Class II Special Zone of the national park and/or the Conservation and Utilization Zone of the Forest Ecosystem Reserve, adjacent to the nominated property. In addition, Surrounding Conservation Areas encompassing the nominated property and the buffer zones are designated under the Comprehensive Management Plan to implement conservation through legal or customary means as well as a broader range of conservation and management measures required to counter threats to the nominated property such as invasive alien species and illegal collection of rare and threatened species. Looking at the whole region in which the nominated property is located and setting up three different management categories facilitates the organic management of the nominated property in partnership with many stakeholders.

Some of the endemic species and/or threatened species living in the nominated property, such as the Amami rabbit, three species of spiny rats, Okinawa rail and Iriomote cat, have been designated and legally protected as National Endangered Species and/or National Natural Monuments.

The responsible administrative organs, i.e. the Ministry of the Environment, the Forestry Agency, the Agency for Cultural Affairs, Kagoshima and Okinawa Prefectures, and 12 municipalities, have established the Regional Liaison Committee to facilitate and coordinate their works in the management of multilayered protected areas and the protection of designated species. They manage the nominated property in a consistent manner based on the Comprehensive Management Plan which covers conservation management measures not only in the nominated property but also in the buffer zones and Surrounding Conservation Areas.

Under the Regional Liaison Committee, four sub-local meetings including local stakeholders as members have

been set up, and regional Action Plans were formulated to effectively carry out conservation and management of the nominated property through collaboration and cooperation with the local stakeholders. Also, the Scientific Committee and Local Working Groups comprised of academic experts have been established to provide scientific advice to the conservation and management by administrative organs, and promote adaptive conservation and management in light of scientific knowledge and insight.

Name and Contact Information of Official Local Institution/Agency

Naha Regional Office for Nature Conservation, The Ministry of the Environment

Address: Naha Daiichi Chihou Godochosha, 1-15-15 Higawa, Naha City, Okinawa Prefecture 900-0022

TEL: +81-98-836-6400 FAX: +81-98-836-6401

E-mail: NCO-NAHA@env.go.jp Web address: <http://kyushu.env.go.jp/naha/index.html>

Kyushu Regional Forest Office, The Forestry Agency

Address: 2-7 Kyomachi-honcho, Nishi-ku, Kumamoto City, Kumamoto Prefecture 860-0081

TEL: +81-96-328-3500 FAX: +81-96-355-389

E-mail: cms_ky@maff.go.jp Web address: <http://www.rinya.maff.go.jp/kyusyu/>



Mangrove forest, Iriomote Island (Photo: MOEJ)

Amami-Oshima Island

- Endemic and threatenend species representing the island



■ *Asiagomphus amamiensis amamiensis*



■ *Luscinia komadori komadori*



★ ■ *Pentalagus furnessi*



Protobothrops flavoviridis



■ *Neolucanus protogenitivus protogenitivus*



★ ■ *Scolopax mira*



★ ■ *Tokudaia osimensis*



Dinodon semicarinatum

★ : EDGE species
(Zoological Society of London)

○ : Relict endemic species

○ : Endemic species
(including subspecies, varieties)





Tokunohsima Island

- Endemic and threatened species representing the island -



*Protobothrops
flavoviridis*



★ ■ *Goniurosaurus
splendens*



■ *Odorrana
amamiensis*



■ *Solenogyne
mikadoi*



*Dinodon
semicarinatum*



★ ■ *Echinotriton
andersoni*



■ *Asarum
hatsushimae*



■ *Pteris formosana*

■ : Threatened species
(IUCN Red List)

■ : Threatened species
(MOEJ Red List)

Photo by Shosaku Hattori, Hidetoshi Ota, JWRC, MOEJ

Northern Part of Okinawa Island

Ednemic and threatened species representing the island



■ *Dendrobium okinawense*



■ *Luscinia komadori namiyei*



■ *Sapheopipo noguchii*



■ *Pieris japonica* var. *koidzumii*



■ *Rhipidolestes shozoi*



★ ■ *Gallirallus okinawae*



★ ■ *Odorrana ishikawae*



■ *Odorrana narina*

★ : EDGE species (Zoological Society of London)

○ : Relict endemic species

○ : Endemic species (including subspecies, varieties)

■ : Threatened species (IUCN Red List)

■ : Threatened species (MOEJ Red List)

Photo by Hidetoshi Ota, MOEJ



Iriomote Island

- Endemic and threatenend species representing the island



■ *Asarum gelasinum*



■ *Solenogyne mikadoi*



■ *Rhinocypha uenoi*



■ *Asiagomphus yayeyamensis*



■ *Odorrana supranarina*



■ *Elaphe taeniura schmackeri*



Scincella boettgeri



★ ■ *Plestiodon kishinouyei*

○ : Relict endemic species

● : Endemic Species (including subspecies, varieties)

Photo by JWRC, MOEJ

