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**Request concerning the IUCN field mission of proposed World Heritage sites
in Amami-Oshima Island, Tokunoshima Island,
the northern part of Okinawa Island, and Iriomote Island**

Akira Kameyama, Chairman, Nature Conservation Society of Japan (NGO)
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Joint Representatives, Ramsar Network Japan

On February 1st 2017, the Japanese government submitted to UNESCO its proposal for the islands of Amami-Oshima and Tokunoshima, the northern part of Okinawa Island and Iriomote Island to be inscribed on the World Natural Heritage list.

Japanese environmental NGOs have repeatedly sought the inscription of these islands of the Nansei Islands chain as World Heritage list since 1990. And in 2000, at IUCN World Conservation Congress held in Jordan, IUCN adopted a recommendation urging the Japanese government to consider the nomination of northern Okinawa Island as a World Natural Heritage site.

The northern part of Okinawa Island is home to the Okinawa rail (*Gallirallus okinawae*), the Pryer's woodpecker (*Sapheopipo noguchii*), the Yambaru long-armed scarab beetle (*Cheirotonus jambar*) and other endemic species. It is also an outstanding example of the natural environment of the Ryukyu Arc, demonstrating the evolutionary processes of ecosystems and the succession and evolution of biological communities. With its universal values, it deserves to be protected internationally. Having advocated the area for inscription on the World Natural Heritage list, we environmental NGOs are delighted to see this latest proposal.

However, from a nature conservation point of view, there are several serious problems with the content of this proposal. To ensure that inscription as a World Heritage site helps to preserve the value of the site and make sure it is not degraded in future, we request you to direct attention to the following five points when the IUCN experts conduct their field later this year (2017).

Points for attention

(1) We request that experts in the area of invasive species accompany the IUCN field mission.

We have a number of concerns regarding the measures proposed to prevent the introduction of invasive alien species (IAS) into the Ryukyu and Amami Islands (See section e) below). In order to determine whether the proposed prevention measures meet global standards and are appropriate for a World Heritage site, we request that experts from the Invasive Species Specialist Group (ISSG) accompany the IUCN field mission. These concerns were raised at the 6th World Conservation Congress in 2016. However, in our view, the Japanese government has shown so far no intention of making improvements.

(2) Additional sites for field mission in Okinawa

We request that the following sites outside the proposed World Heritage sites also be inspected:

- 1) Takae, in the village of Higashi, for the reasons given in b) and c) below,
- 2) Henoko and Oura Bay, for the reasons given in e) below.

These sites were the subjects of the three recommendations adopted by the IUCN, in 2000, 2004, and 2008, and should be inspected to evaluate the progress made there.

(3) Additional sites for field mission in Amami-Oshima Island and Tokunoshima Island

For the reasons given in a) and e) below, we request that the quarries around the proposed World Heritage sites on Amami-Oshima Island and Tokunoshima Island also be inspected, in particular, those areas which ship material off the islands.

(4) We hope opportunities will be arranged for the exchange of opinions with citizens.

It is reported that when the Ogasawara Islands were inspected in 2010 prior to being inscribed as a World Heritage site, discussions were also held between IUCN experts and citizens. We hope that similar arrangements will be made for the Amami-Ryukyu proposal.

(5) We would like to suggest the inspectors to contact the following experts for expert information.

(1) On alien species and related issues

(a) Takeshi Sasaki(*1).

Specialist on insects and spiders at the Museum of the University of the Ryukyus, "Fujukan."

(b) Mizuki Tsuji(Dr.) (*2).

Entomologist at the Faculty of Agriculture, University of the Ryukyus.

(c) Masatsugu Yokota (Dr.)(*3).

Specialist in plants and alien species problems at the Faculty of Agriculture, University of the Ryukyus.

These three experts were consulted, under the Okinawa prefecture's land reclamation program, on the matters of invasive alien species in land reclamation material for the Naha Airport runway extension project, .

(2) On Yambaru Forest and related issues:

(a) Tsutomu Kanaiduka(Dr.)(*4).

Representative of CONFEE, the Conservation Network for Forest Ecosystem in Japan.
Specialist on the forest ecosystems of northern Okinawa Island.

(b)Akino Miyagi (*5).

Specialist of the ecology of the insects of northern Okinawa Island. She spent more time than any other insect specialists in the field of Yambaru forest. Member of Lepidopterological Society of Japan.

(c)Yafuso Masako (Dr.)(*6).

Member of the Japan Scientists Association. Former Associate professor at the university of the Ryukyus. Specialist on insects and studied the relationship between insects that belong to the genus *Drosophilidae* and host plants.

(d)Hidetoshi Ohta (Dr) (*7)

Specialist in ecology and classification of the reptilian and amphibian animals. Former professor of the University of the Ryukyus, he now belongs to the Museum of Nature and Human Activities, Hyogo prefecture.

(e)Yoshiyasu Iha (*8).

Former high school biology teacher. He has been studying the environmental changes in the Yambaru forest more than 30 years.

(f) Chosei Tamaki(*9).

Specialist on *Lecanorchis japonica* and on the ecology of the Yabaru forest including the Takae area.

(3) on Military base related land contamination issues

Masami Kawamura(Dr.)(*10),

Director of the Informed Public Project, Specialized in land contamination issues related to US military bases. International sociologist. Member of IUCN Commission on Ecosystem Management(CEM).

Problems and background

The following statements provide background information on the requests.

a) Buffer zones are required as resolved at the IUCN World Park Congress

The area of the northern part of Okinawa Island proposed for World Heritage inscription has no buffer zone on most of the eastern edge, so that the property is unprotected at several points, (Fig. 1). On Amami-Oshima Island and Tokunoshima Island, there are numerous places where the property has a very limited buffer zone, or none at all. (Fig 2,3)

Inscription as a World Heritage site is often followed by an abrupt increase in tourists and pressure from development of the surrounding areas. The buffer zones indicated in the current proposal are insufficient to provide protection against current or future development pressure. At the 4th IUCN World Park Congress in February 1992, UNESCO and the IUCN held a World Heritage workshop and resolved that preserving the property required not only buffer areas but also the creation of a World Heritage Management Area with a program to protect the site against property development nearby (Mishra and Ishwaran 1992, Yoshida 2012). Followed by the meeting held by UNESCO, IUCN and ICOMOS, the World Heritage Committee adopted a resolution with the same content as the resolution adopted in 1992 (UNESCO 2009).

In Japan, a World Heritage site must first be a National Park as defined by the national parks law in Japan, which is how conservation secures. As mentioned above, the settings of the buffer zones and the World Heritage Management Area are not sufficient for the proposed property.

b) The environment inhabited by endemic species should be included in the proposed World Heritage area for the maintenance of integrity for the World Heritage Sites

The Yambaru forest in the northern part of Okinawa Island covers large area of 34,000 hectares as a whole, and is home to 5,400 animal and 1,000 vascular plant species. The forest has a high proportion of endemic species found in only this area including the Pryer's woodpecker (*Sapheopipo noguchi*), Okinawa rail (*Gallirallus okinawae*), the Yambaru long-armed scarab beetle (*Cheirotonus jambar*), and Okinawa spiny rat (*Tokudaia muenninki*) found only in this area. Many of these species are designated Japanese 'Natural Monuments' and more than 170 of them are endangered species included in the Environment Ministry's Red List. On the other hand, the national park and the World Heritage proposal cover only parts of the extensive natural habitat (Fig. 1-1). To prevent the extinction of endemic species, as much as possible of the appropriate environment should be conserved.

It appears that the proposed sites for World Natural Heritage do not reflect the actual distribution of endemic species, but were chosen for human convenience. It is difficult to conceive that creatures that show diverse behavior such as Pryer's woodpecker (*Sapheopipo noguchii*), Okinawa rail (*Gallirallus okinawae*), the Yambaru long-armed scarab beetle (*Cheirotonus jambar*) and Okinawa spiny rat (*Tokudaia muenninki*) limit their distribution within the proposed areas. Takaé in Higashi village is home to many rare and endangered species and is a biodiversity hotspot. However some part of Takaé is located within the U.S. Marine Corps Northern Training Area and there the construction of helipads for U.S. military is now under way. In fact, 29 nesting sites of Pryer's woodpecker, Japan's Natural Monument, as well as numerous rare insect species including the butterflies *Pithecopis corvus* and *Ypthima riukiwana* have been confirmed in Takaé. However, this area is not included in the World Heritage proposal.

Therefore, there is a possibility that the proposed site does not include all important sites for conservation. And there is a concern that many of the important areas are in fact located inside of "unreturned NTA" as discussed below. Takaé, is a mere 8 km from the proposed World Heritage site (Figure 4). If the whole of the Yambaru forest is not conserved as a single unit, the integrity of the site will be compromised.

For proper management of a World Heritage site, it is a basic principle that the proposed area must be selected according to the distribution of each species (with particular emphasis on rare species), designating core areas used for reproduction and other basic functions, and surrounded with habitat of the same type as a buffer zone.

It is imperative that a World Heritage site be selected according to the distribution of each species (with particular emphasis on rare species), include core areas used for reproduction and other basic functions, and be surrounded with a buffer zone. As a principle, these important natural environment areas needs be managed as a World Heritage site.

Many environmental NGOs have long sought the inscription of a wide area of northern Okinawa Island as a World Heritage site. We have proposed a site for World Heritage which includes both terrestrial and coastal water areas of the northern Okinawa Island, the Yambaru area. In the environment of small islands like Okinawa, it is crucial to protect both terrestrial and coastal water areas and their relationship. As the coastal area of northern Okinawa Island is habitat for the northernmost population of the dugong (*Dugong dugon*), an endangered species, (Kasuya and Abe, 2015), as the area of Henoko and Oura Bay, Nago City is habitat for 5,334 marine species including 262 endangered species, and as Takae is habitat for Pryer's woodpecker (*Sapheopipo noguchi*) and Okinawa Rail (*Gallirallus okinawae*), they should be included in the proposed site for World Heritage site. Wider area should be included to proceed effective conservation so that it would become World Heritage in a true meaning.

c) To preserve the integrity of the environment, the U.S. Marine Corps Northern Training Area should be included in the World Heritage Management Area

Since 1957 until very recently, approximately 7,800 hectare of the northern part (Yambaru forest) of Okinawa Island were used as the U.S. Marine Corps Northern Training Area (NTA). About 4,000 hectares of the NTA were returned to Japanese control in December 2016 : however the remainder of the NTA is still used for training by the U.S.military. While the returned area is expected to be considered for future inclusion for World Heritage site, it is not included in the proposed World Heritage site (Figure 1-2). The remaining NTA is also not included in the proposed site either . However, it is conceivable that endangered species and other rare species inhabit and use a wide area of the Yambaru forest including the NTA.

Figure 6-1and 6-2 shows that, in the returning of the NTA, a large part of Pryer's woodpecker's habitat, including Nishime yama, Terukubi-dake, and west part of Yonaha dake, has also been returned to Japanese control. However, a large part of their habitat remains in the unreturned NTA. Also, not all Pryer's woodpecke's habitat is included in the proposed World Heritage site (Figure 6-2). Moreover, while there is high possibility that rare and endangered species inhabit intact forests, it is pointed out that much of such intact forests is now in the NTA (Ito et al.2000). Thus, the protection of biodiversity in the Yambaru forest requires consolation with U.S. military and securing environmental protection measures applicable to the NTA.

Both the returned area and unreturned area of the NTA are continuous natural environment and it is hard to divide them (Miyagi 2016). To preserve the 'integrity' of the environment, both returned and unreturned areas should be included in the World Heritage Management Area and in its overarching conservation management plan.

In addition, given that the NTA is used for a variety of military exercises, it is hard to imagine that the noise from aircraft, soil pollution from dumped military waste, crashed aircraft and the like, have no impact on the surrounding areas. However, the proposal documents the Japanese government has presented to UNESCO does not have even a single map showing the location of the NTA. Nor do they contain discussion on the impacts of the NTA on the environment. We request you to confirm in your field mission what kind of conservation measures are taken to secure 'integrity' and whether consultation between the Japanese and U.S.

governments takes place. With regard unreturned part of NTA, we request IUCN to ask the U.S. government to provide information on environment, such as the status of endangered species. Then based on that information please judge if 'integrity' of the site is secured or not.

As discussed above, Amami-Oshima Island and Tokunoshima Island require enlarged buffer zones and other improvements. The selection of the proposed site in northern Okinawa Island ignores the continuous natural environments. UNESCO defines 'integrity' as 'a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes'. In our view, this proposal has not resolved the issues of 'integrity'. Thus the proposal should be improved in this regard.

d) Discussions with local citizens should be arranged.

In connection with sections a) to c) above, in preparing to select sites and content for the World Heritage proposal, the Japanese government has not made sufficient effort to hear the opinions of all stakeholders such as local communities and NGOs.

In the northern part of Okinawa Island, many stakeholder residents were not consulted regarding selection of sites and buffer zones for World Heritage, plans of helipads construction and relationship between returning of NTA and World Heritage inscription process. As decisions were made top-down, local residents who live nearby the helipad construction site continue to engage in protest against the construction, and concern has been raised over whether nomination of the northern part of Okinawa for World Heritage was a trade-off for helipad construction.

On Amami-Oshima Island and Tokunoshima Island, despite quarries are located outside of the proposed World Heritage sites, people who live around the quarries and people who own quarries are stakeholders for the reasons discussed below (section e). They were however not provided opportunities to know the detail of the selected areas for World Heritage and say opinion however.

On Iriomote-Island, the Iriomote subcommittee has been organized by the Ministry of the Environment and in the year 2016 to 2017, seminars and preparation meetings were held. However, until February 2017 official discussion on the action plan were held only twice, and local people were allowed to participate only as observer.

We sincerely hope that, as part of the IUCN field mission, the experts will meet with local experts and residents to hear their concerns.

e) An extensive land reclamation project is planned in close proximity to the proposed site for World Heritage, for which large quantities of rock and soil will be imported from quarries outside Okinawa prefecture. A program for the control of invasive alien species is essential.

In the area of Henoko, Nago city in northern Okinawa Island, just south of the proposed area for World Heritage site (Fig. 4), the construction of a U.S. military base, Futenma Replacement Facility, is now under way. This project requires 21 million cubic meters of landfill, 17 million cubic meters of which will be supplied from seven sites in six different prefectures outside Okinawa (Fig 5). Two of those quarries are located on islands which are within the boundaries of the proposed World Heritage site: Amami-Oshima Island (5.3 million cubic meters) and Tokunoshima Island (0.1 million cubic meters). The quarries themselves are excluded from the proposed site, as is the area to be land reclaimed at Henoko. The distance separating the construction site and the proposed World Heritage area is a mere 16 km.

The climate and ecosystems of the seven quarries in six different prefectures differ from those of Okinawa, and the quarry at Setouchi is known to contain the Argentine ant (*Linepithema humile*), an invasive alien species (IAS) listed in the Environment Ministry's "List of Regulated Living Organisms under the Invasive Alien Species Act." Each of the islands has its own endemic species and ecosystem, and its own process of evolution, one of the very reasons why they are nominated as candidates for World Heritage. There is a huge risk that moving large quantities of rock and soil from one island to another will disturb the different ecosystems and disrupt the processes of evolution and succession under way there. Strict measures and management are required.

To conserve the biodiversity and endemic species of the four islands in the proposed World Heritage Amami-Ryūkyū areas, there is an urgent need for programs to cull invasive species already present and to prevent the introduction of more.

These concerns were addressed in IUCN Resolution WCC-2016-Res-020-EN, “Strengthening pathway management of alien species in island ecosystem” adopted at the 6th World Conservation Congress and came into force in September 2016. In the same resolution, it was mentioned that even the domestic movement of people and goods is something that needs to be addressed. Meanwhile the Japanese government’s construction plan gives no suggestion whatsoever that the government has taken these matters into consideration.

Moreover, while the Japanese government’s World Heritage proposal mentions the issue of the mongoose as an alien species on Amami-Oshima Island and Okinawa Island, there is little discussion on other alien species and measures to control them. The issue of invasive alien species is not necessarily restricted to currently designated invasive alien species. It is quite possible that, once introduced and reproducing, other alien species may subsequently be found difficult to control. The World Heritage proposal has no mention of policy to be adopted in such instances. Though invasive alien species are recognized worldwide as a serious problem, in our assessment, the Japanese government’s understanding of the problem may not be on par with that of its counterparts.

In fact, despite the Naha Airport runway extension project is being carried out under the restrictions of the Law on Invasive Species and Okinawa prefectural ordinances on the handling of soil, invasive alien species have been confirmed near quarries which supply land reclamation material for the project. Work there has not been stopped, even temporarily. Nor appropriate measures have been taken. In effect, land reclamation material is being imported with no guarantee that it does not include invasive alien species.

With inscription of these sites as World Heritage list, an increase in tourism can be expected to follow, and the movement of people and goods is bound to cause problems. We hope that the IUCN experts will examine whether the conservation plan includes prevention measures, early-stage counter-measures, and a management system that incorporate local communities, all appropriate for World Heritage sites.

The way the islands with World Heritage areas should be

We would like to direct your attention to the following issues as well.

Okinawa prefecture and Kagoshima prefecture need to reconsider their islands’ carrying capacity. At present, 8,610,000 tourists visit Okinawa annually and Okinawa prefecture makes it its goal to have 10,000,000 visitors annually. To achieve this goal, a new airport is build on Ishigaki Island; an additional runway is being constructed at the Naha airport; new ports are also being built so that cruise ships carrying a large number of tourists could berth; and the number of resort hotels and rental cars are also steadily increasing.

Given that the sizes of the four islands nominated for World Heritage are small and that the areas that people could utilize for their daily life are also limited, we are concerned that impacts from all these developments will exceed and overwhelm the islands’ carrying capacity.

On Iriomote Island, one of the proposed area for World Heritage, the number of traffic accidents involving Iriomote cat (*Prionailurus bengalensis iriomotensis*), which is endemic to the island, is increasing. This is largely due to an increase in the number of tourists who drive and run over Iriomote cats with their rental cars. The Japanese government’s World Heritage proposal states recognizes the impacts of human activities such as road kill on the environment. However, it does not discuss effective measures to counter these impacts. Consideration should be given to the environmental pressure and impacts caused by tourists’ activities.

In Amami City of Amami-Oshima Island, projects to construct large industrial waste disposal facility (42,650m²) construction project and a base for construction project Japanese Self-Defense Force are being planned. However, consensus building between the government and local residents has been problematic and these projects have become social problems.

On Okinawa Island, many social problems have arisen from lack of consensus building and subsequent environmental destruction associated with the construction of the Futenma Replacement Facility project in Henoko and Oura Bay and helipads for U.S. military at Takae. In our view, on these islands with proposed World Heritage sites, any human activities, which are deemed to be unsustainable and could impact the proposed World Heritage sites, need to be reviewed, revised and be countered with adequate and coordinated measures brought about by all stakeholders including local stakeholders.

We request you to investigate whether existing frameworks and systems are adequate and can accommodate the predicted increase in tourist numbers for the future World Heritage area of the Amami Ryukyu islands.

CC:

Mr Sean Southey, Chair, Commission on Education and Communication

Ms Angel Andrade, Chair, Commission on Ecosystem Management

Ms Kristin Painemilla Walker, Chair, Commission on Environmental, Economic and Social Policy

Mr Jon Paul Rodriguez, Chair, Species Survival Commission Benjamin, Antonio, Chair, World Commission on Environmental Law

The following organizations support this letter.

Association to Protect the Northernmost Dugong

Dugong Network Okinawa

“No Helicopter Base” Association of 10 Districts North of Futamai

Society of No Base in Oura Bay/Residents of Villages North of Futami

Diving Team Rainbow-The Conference Opposing Helicopter Construction

The Save-Awase-Higata Association

Association for Protection of Marine Communities (AMCo)

The Nature and Culture Conservation Group of Amami (NCA)

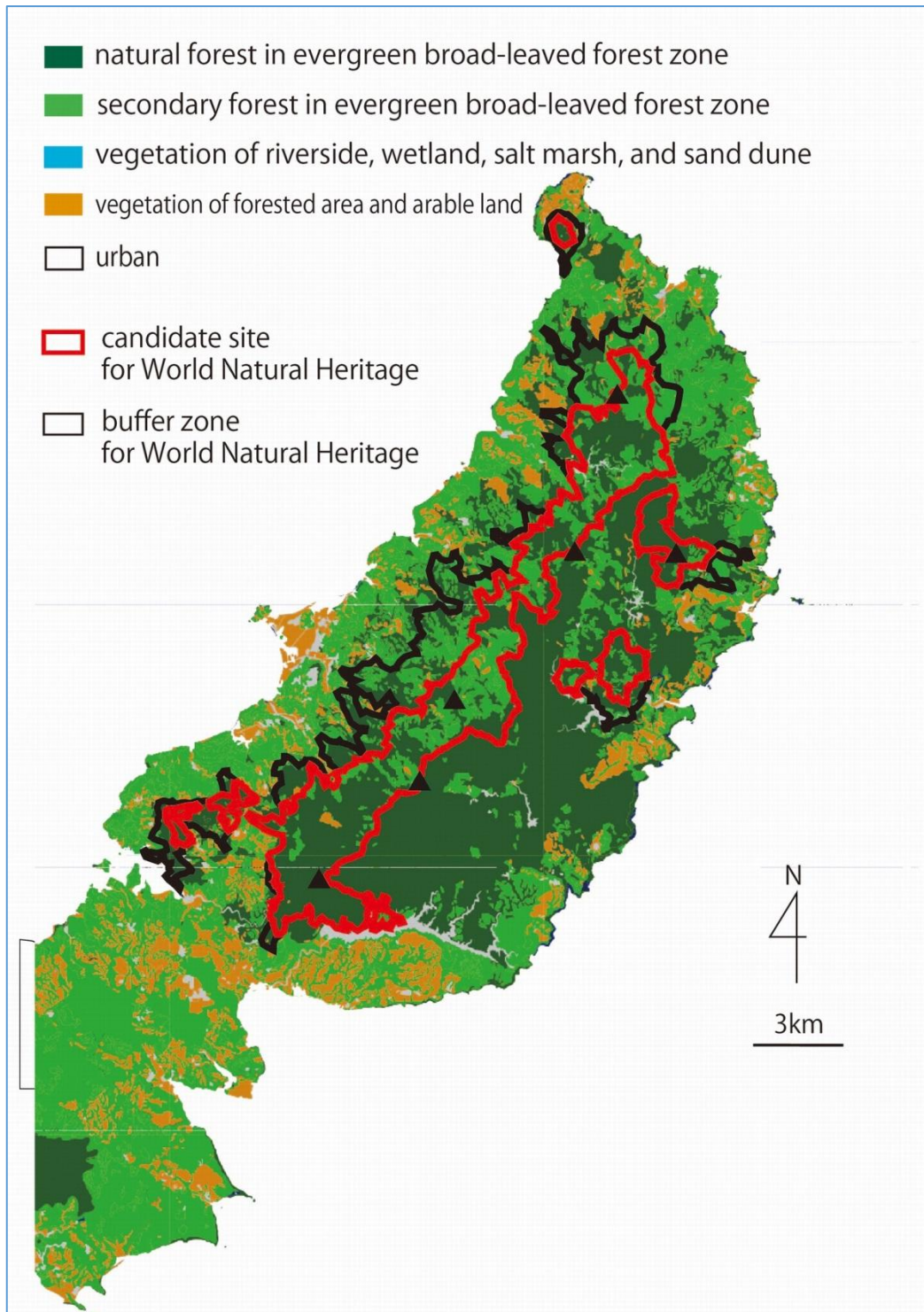


Figure 1-1. The relationship between the vegetation and the location of the World Heritage site in the northern part of Okinawa Island.
 (Created by NACS-J based on data from the Ministry of the Environment's national survey on the natural environment.)

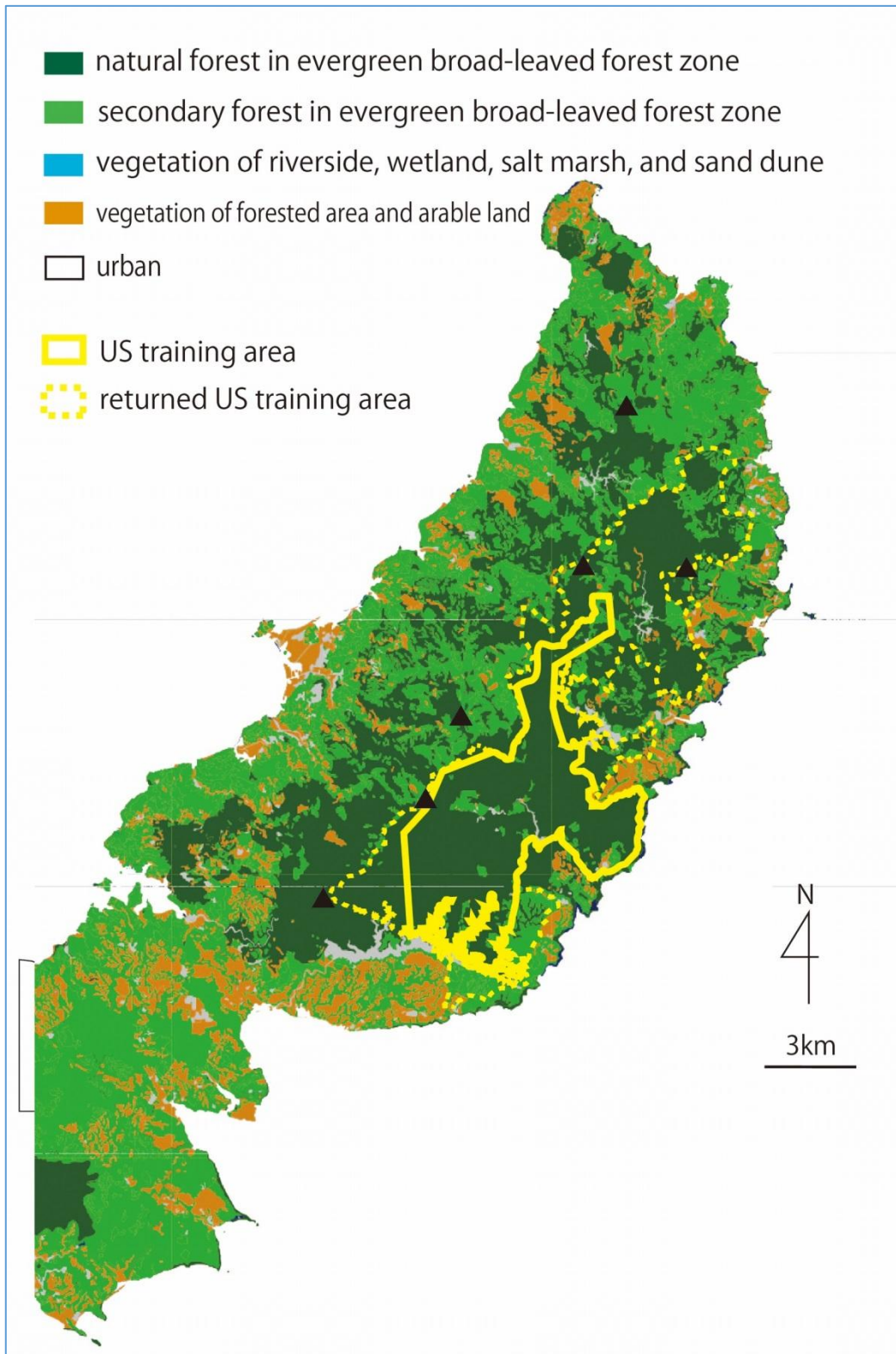


Figure 1-2. The relationship between the vegetation and U.S. Training Area
 (Created by NACS-J based on data from the Ministry of the Environment's national survey on the natural environment.)

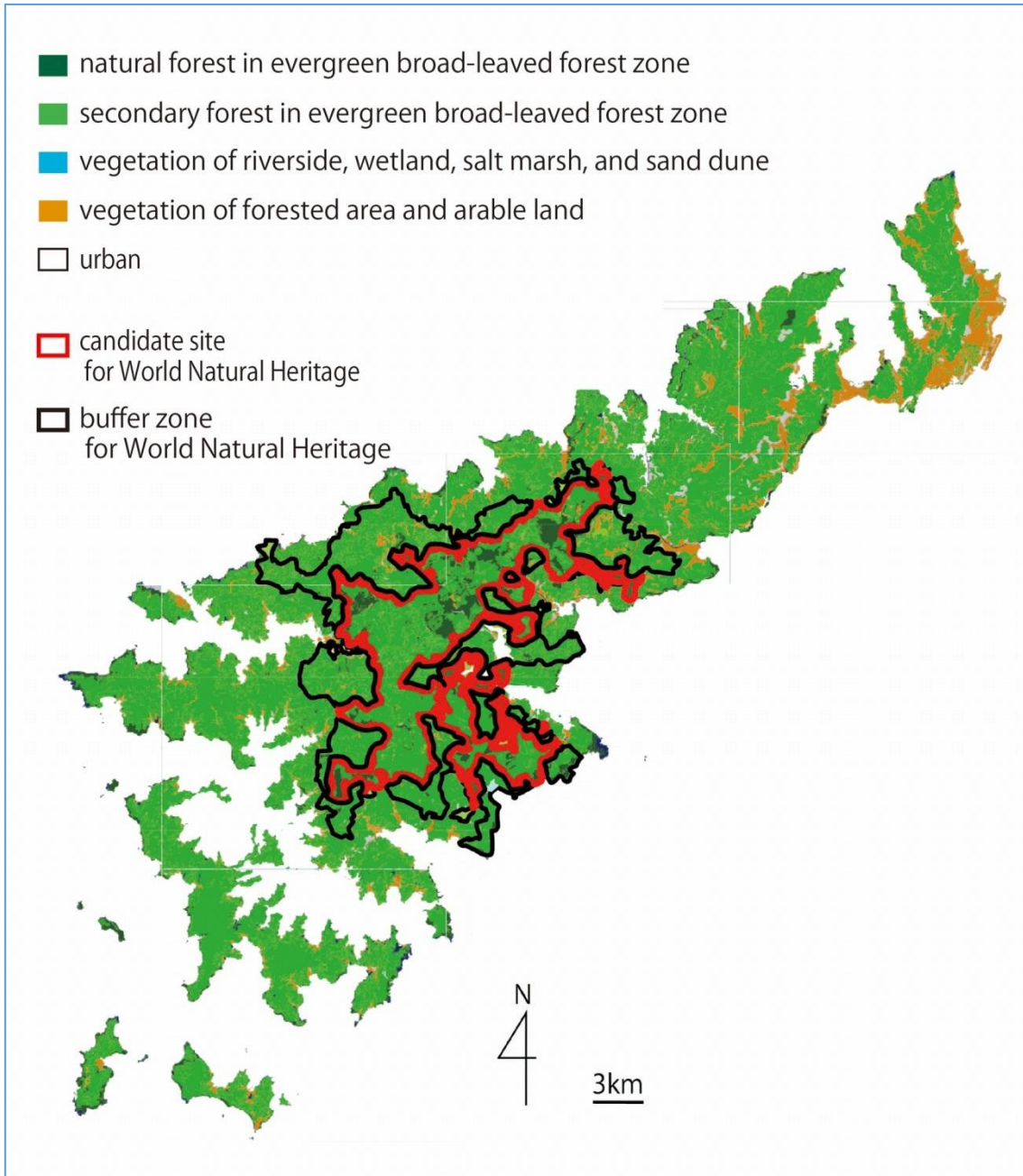


Figure 2. The relationship between the vegetation and the location of the World Heritage site in Amami-Oshima
 (Created by NACS-J based on data from the Ministry of the Environment's national survey on the natural environment.)

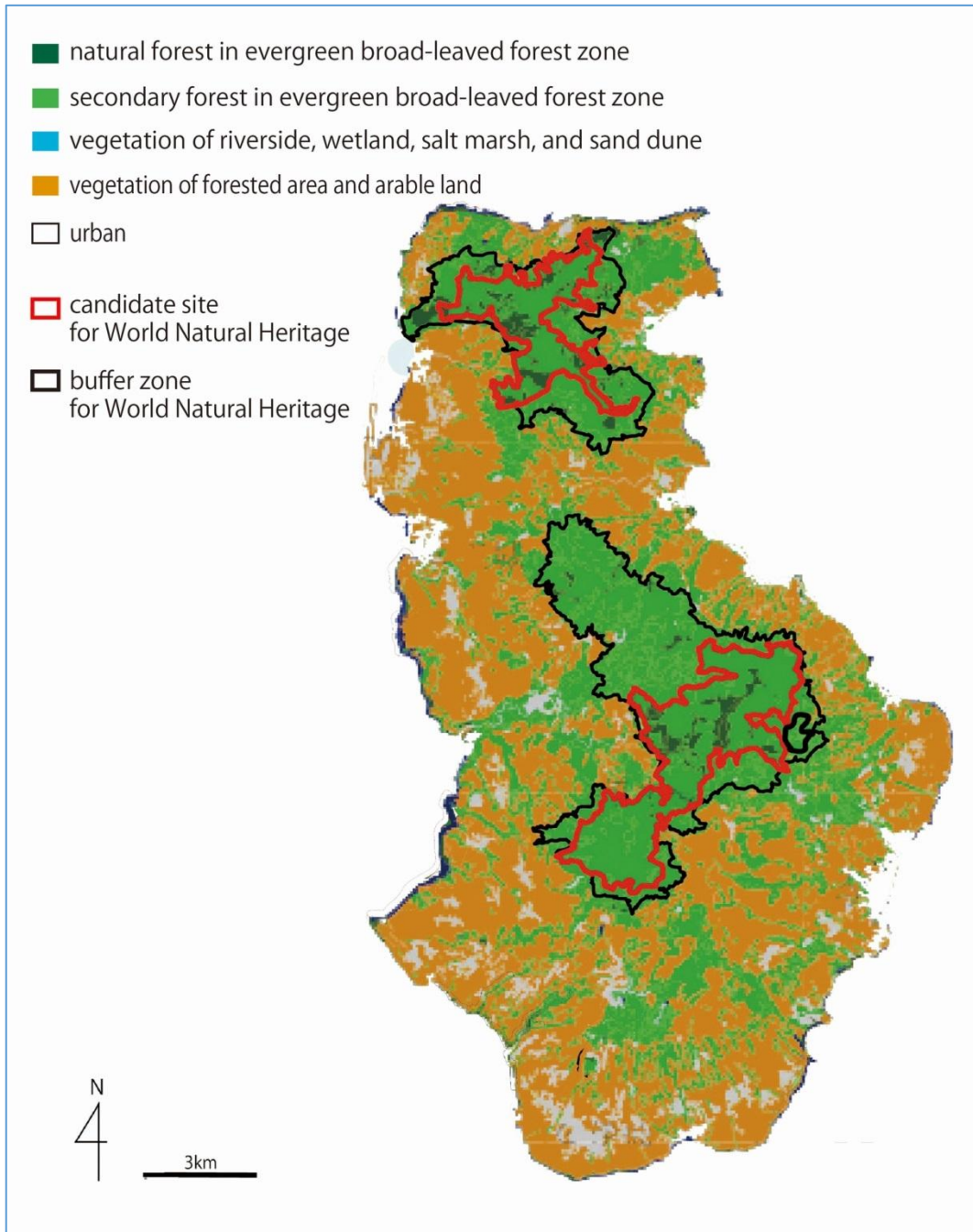


Figure 3. The relationship between the vegetation and the location of the World Heritage site in Tokunoshima Island
 (Created by NACS-J based on data from the Ministry of the Environment's national survey on the natural environment.)

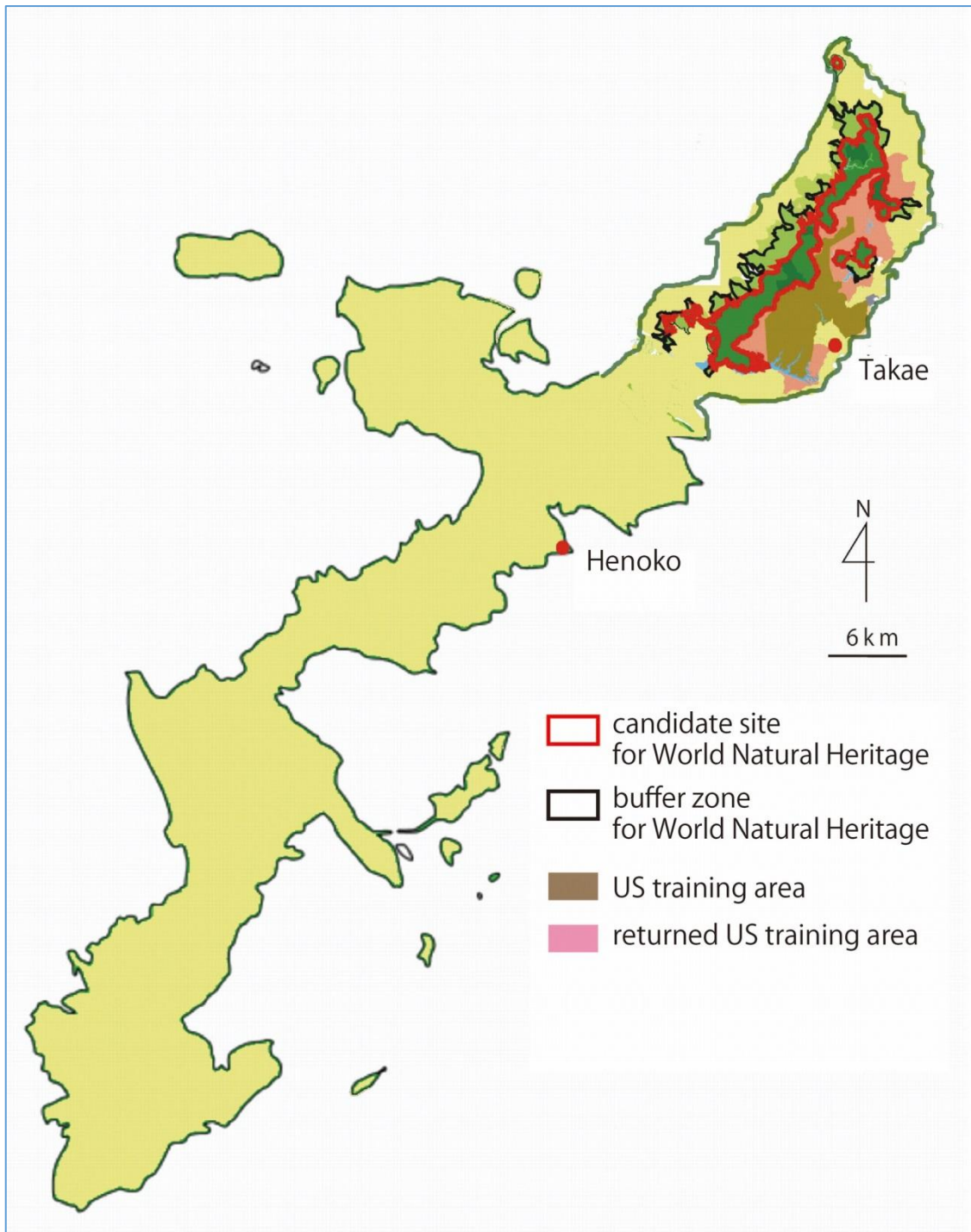


Figure 4. The locations of Takae and Henoko relative to the World Heritage site.
 (Created by NACS-J based on Yambaru National Park Plan and Amami Islands National Park Plan)

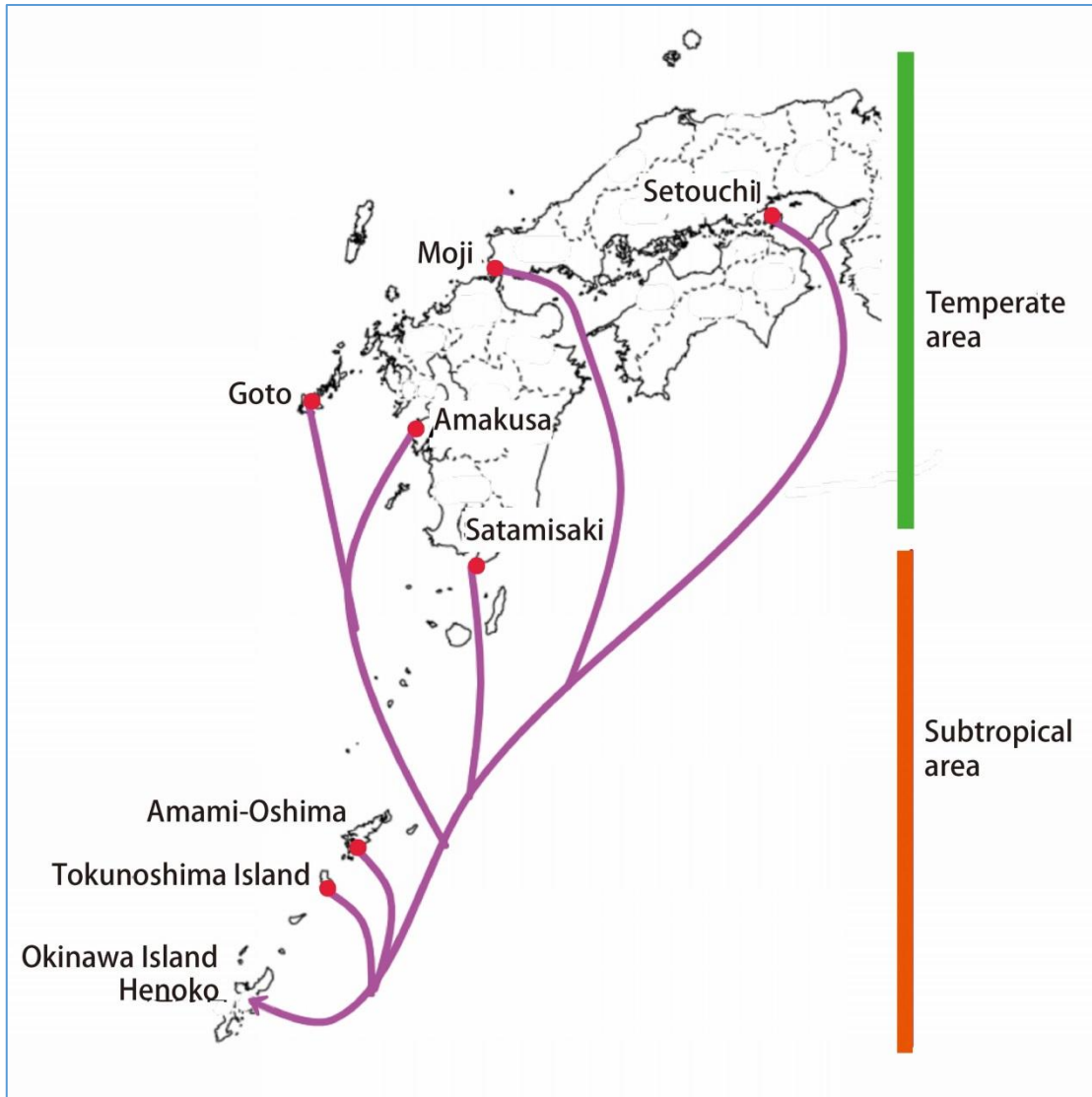


Figure 5. Planned sources of landfill material for the Futenma Air Station Replacement Facility. (Created by NACS-J based on information on the locations of quarries and transportation routes from the landfill application for Futenma Replacement Facility Construction Project (Okinawa Defense Bureau, 2013))

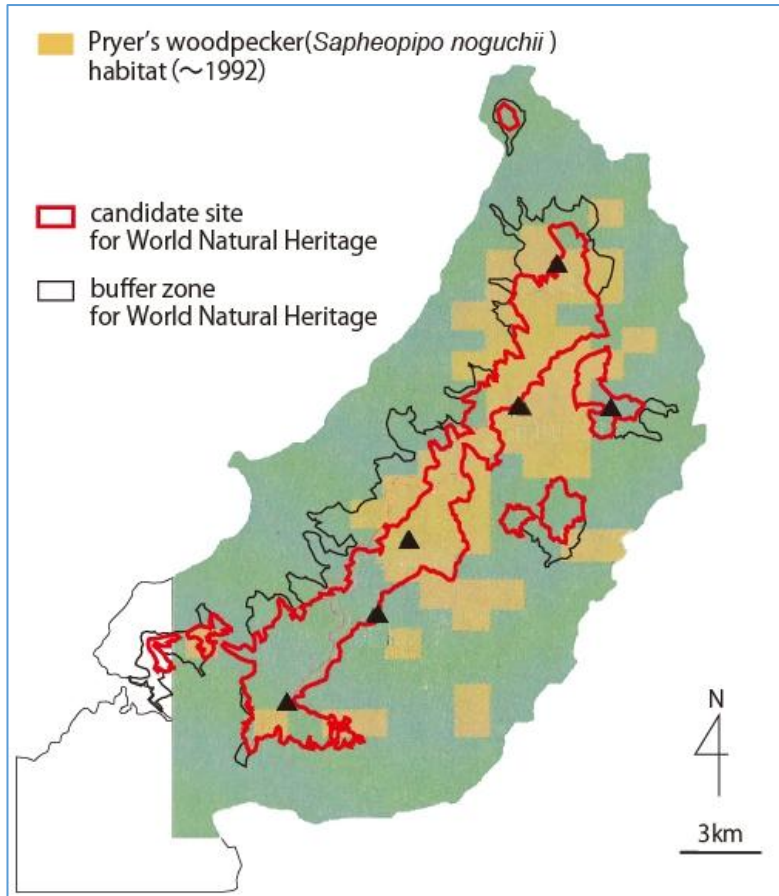


Figure 6-1. The relationship between the habitat of Pryer's woodpecker (*Sapheopipo noguchii*) and the World Heritage site in northern part of Okinawa Island
(Created by NACS-J based on

data from the World Heritage proposal, 'Nature Conservation' No 392, published in 1995 by NACS-J)

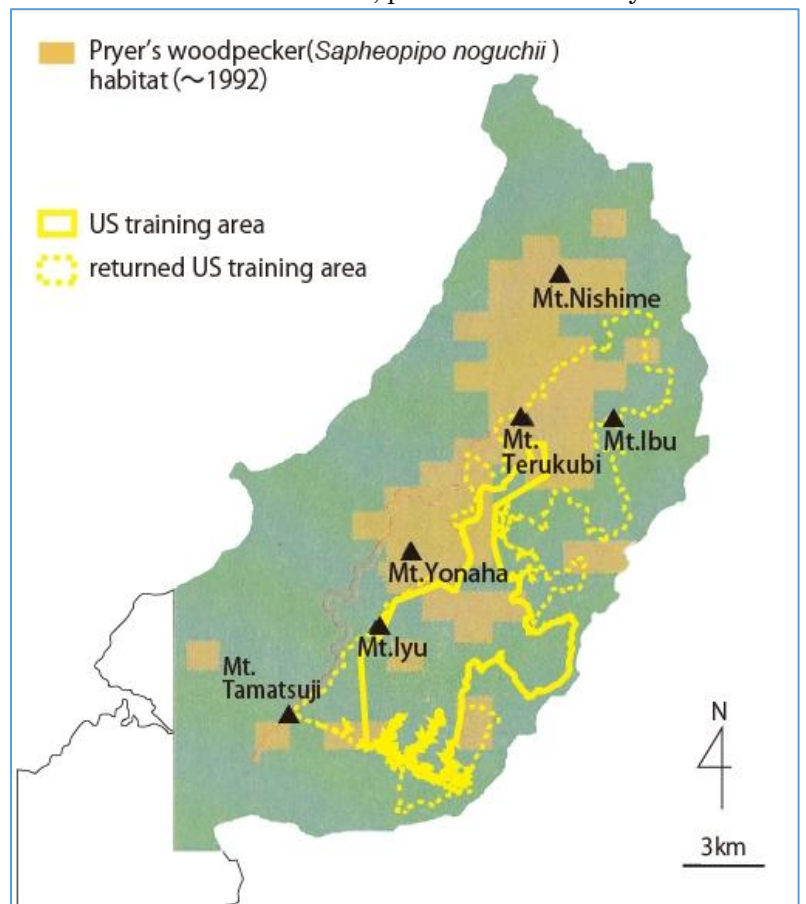
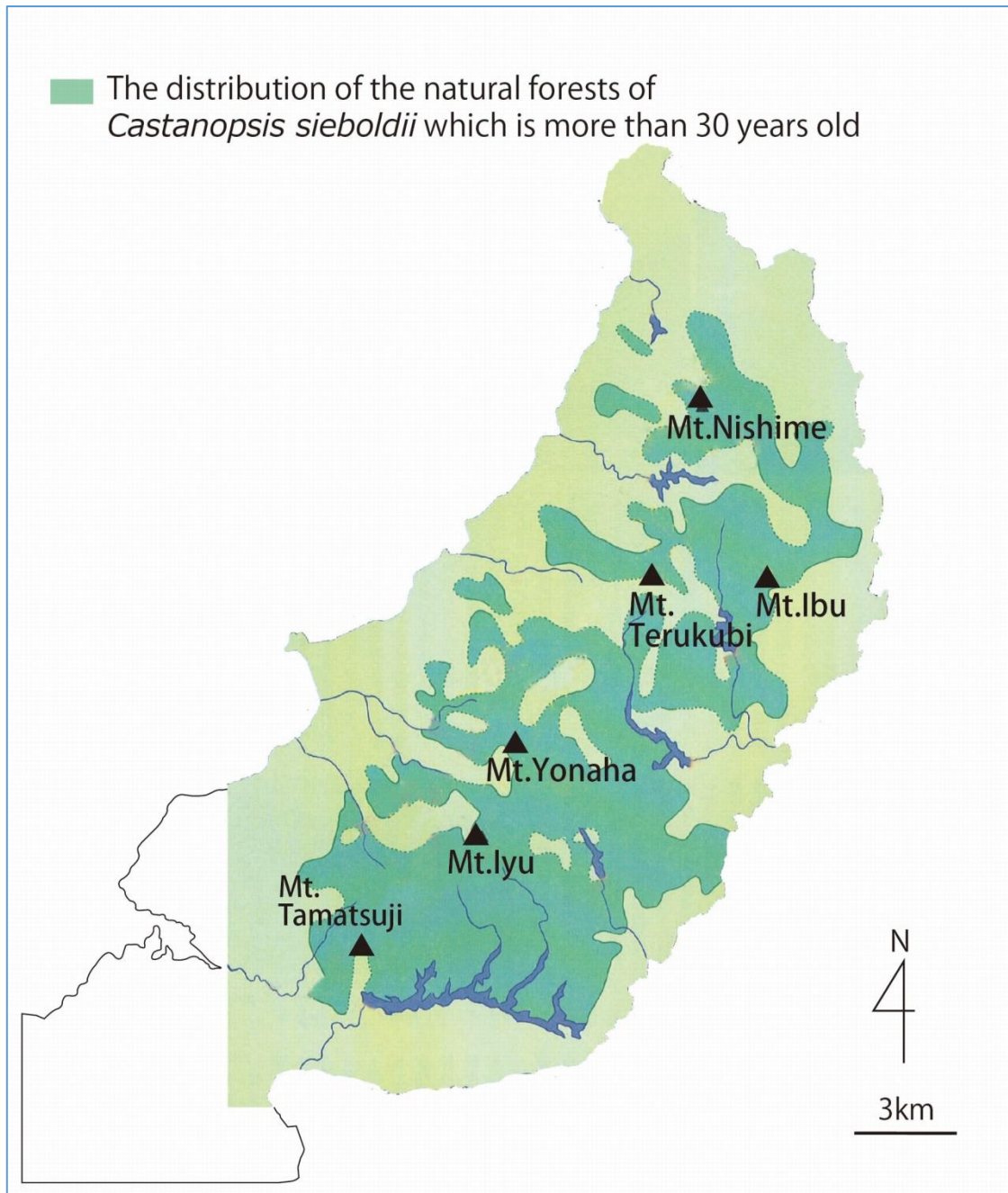
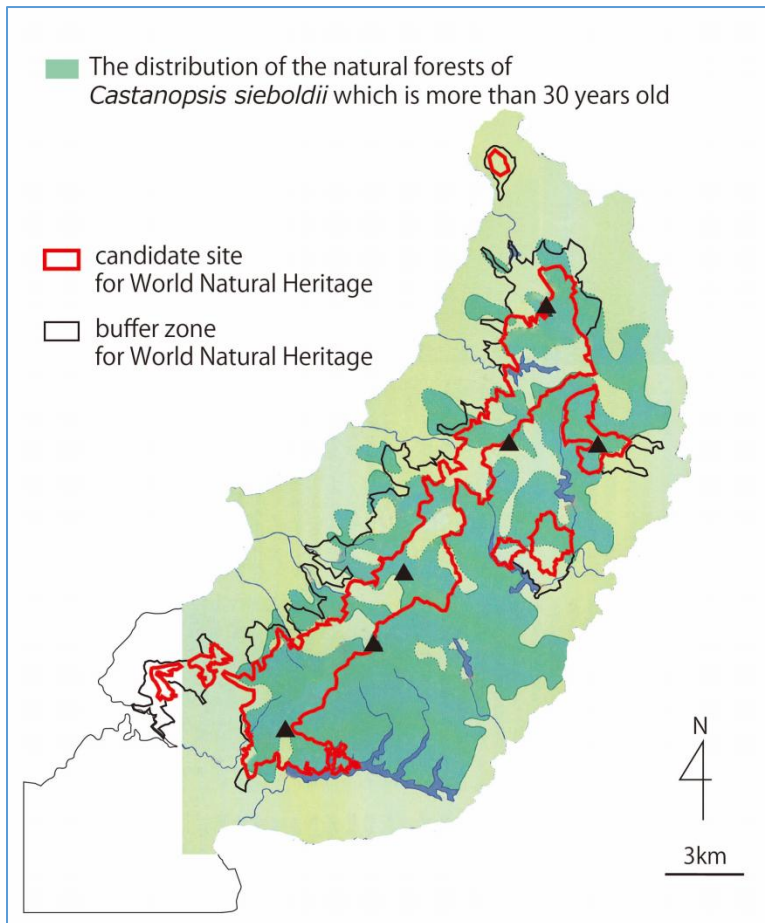


Figure 6-2. The relationship between the habitat of Pryer's woodpecker (*Sapheopipo noguchii*) and US Training area

(Created by NACS-J based on data from the World Heritage proposal, 'Nature Conservation' No 392, published in 1995 by NACS-J)



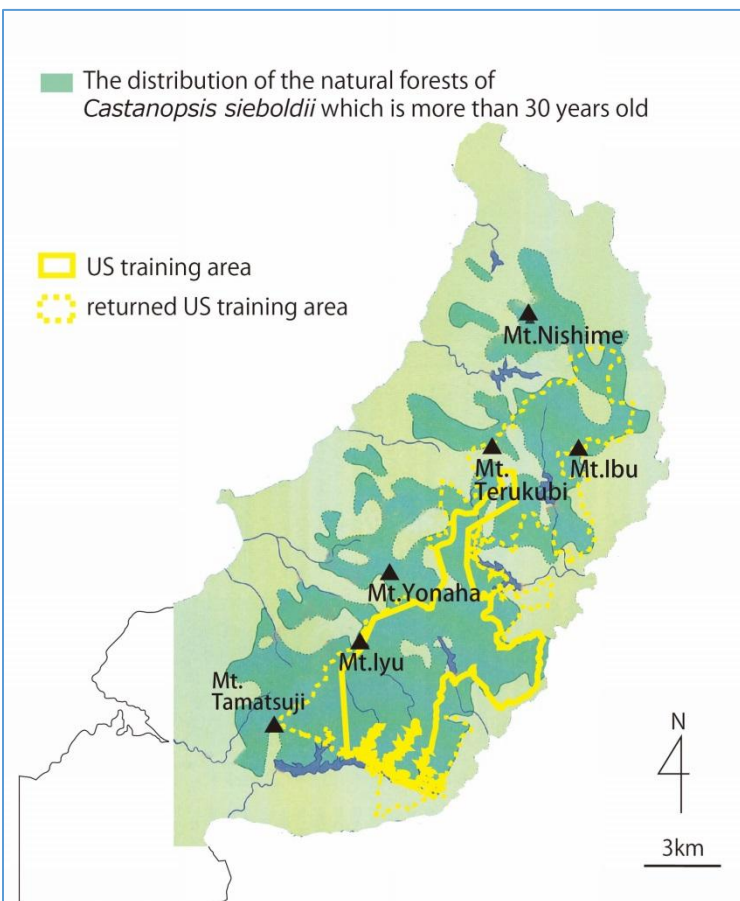
Reference Figure 1-1. The distribution of the natural forest of *Castanopsis sieboldii*.
 (Created by NACS-J based on data from the World Heritage proposal, 'Nature Conservation' No 392, published in 1995 by NACS-J)



Reference Figure 1-2.
 The relationship between the distribution of the natural forest of *Castanopsis sieboldii* and the World Heritage site.

(Created by NACS-J based on data from the World Heritage proposal, 'Nature Conservation' No 392, published in 1995 by NACS-J)

proposal, 'Nature Conservation' No 392, published in 1995 by NACS-J)



Reference Figure 1-3.
 The relationship between the distribution of the natural forest of *Castanopsis sieboldii*.
 (Created by NACS-J based on data from the World Heritage proposal, 'Nature Conservation' No 392, published in 1995 by NACS-J) and US Training area

Reference:

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