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An Urgent Appeal : The Okinawa Dugong is in Imminent Threat of Extinction

From:

The Nature Conservation Society of Japan (Chief Director: Akira Kameyama)  
The Northernmost Dugong Observation Team Zan (Rep: Masako Suzuki)  
nnn The Dugong Network Okinawa (Secretary-General: Taro Hosokawa)

We appeal, as NGOs working to protect the Okinawa dugongs, for greater awareness of the crisis faced by these animals due to the on-going construction of a US Marine base at Henoko, in Nago City, Okinawa. We are especially disturbed by the disappearance of Specimen A since construction of the base began, and call for special attention to the imminent threat of extinction faced by the Okinawa dugong.

The waters off Kayo, a town located on the eastern coast of Nago, approximately 10km to the east of the construction site, has long been known to be home to dugongs; even records of the town's history mention the animals. This marine area is believed to be used by dugongs as a birthing place: in 1990, a baby dugong was accidentally caught in a gill-net in this area; parents and a baby dugong were also sighted in the same area in 1998; and courting behavior was observed in 1999. This area has long been an important breeding place for the endangered Okinawa dugong.

We citizens began studying the dugong feeding traces in the area in 1998. Since 2007, Team Zan has carried out a survey every year and during the past 20 years we have never failed to observe feeding traces there. Since 1998 we have sighted dugongs in several other areas around Okinawa Island, but, in every one of those areas we eventually lost track of the animals. In contrast, dugongs have been sighted throughout the year in the waters off Kayo. Government surveys have obtained the same results. Taking into consideration the importance of the Kayo waters for the survival of the dugong in Japan, we have even refrained from making the name 'Kayo' public.

Specimen A

On November 11, 2018, we failed to observe any new feeding traces in the waters off Kayo. Meanwhile, as reported by The Ryukyu Shimpo on December 3, 2018, the Okinawa Defense Bureau had also not seen Specimen A since the end of October 2018; the Bureau's

material presented to The Environment Watch Committee (EWC) on November 28, 2018 mentions this fact. We attempted, without success, to find new feeding traces in the area on December 20, 22 and 23 of 2018 and again on January 13 and 20 of 2019.

The Okinawa Defense Bureau later uploaded to its website a document on the state of implementation of the construction (Resource No. 4), previously presented at the January 22, 2019 meeting of the EWC (the 18<sup>th</sup> meeting of the committee). According to this material, from August 2007 the Bureau carried out aerial surveys of the waters off the eastern coast of Nago as a part of its Environmental Impact Assessment and has continued the survey after the EIA was completed; throughout the eleven years up to September 2018, a month before Specimen A ceased to be seen, the animal had been sighted continually. On October 16 and 17, 2018, the Bureau carried out dugong feeding trace surveys of the sea-grass colonies in the water off Kayo, finding 25 traces. However, the Bureau found no new traces later and concluded that Specimen A stopped using the area.

In this document, however, the Bureau denies that construction was a causal factor in the disappearance of Specimen A. The Bureau argues that while Specimen A remained in the waters off Kayo when the noise and vibration caused by dumping large quantities of rubble into the waters off Henoko was at its peak (between November 2017 and August 2018), at the time the animal disappeared such disturbance had decreased.

The Bureau's denial is refuted by its own records: 'The Locations Around The Construction Site Where Dugongs Were Sighted' (pp. 86,87) contained in Resource No. 2: the ex post facto Survey Report presented to the 17<sup>th</sup> meeting of the EWC on November 28, 2018. The latter material notes that since 2007, when the Bureau began surveying the area, Specimen A used to be seen frequently at the entrance of Oura Bay, a large area just west of Kayo and adjacent to the construction site. However, as the material shows, sightings of the animal in the bay became less frequent during 2015. Specimen A gradually moved away from the waters off Henoko toward more south-eastern areas. Eventually, in 2017, the animal moved to an area where no dugong had been sighted before. The year 2015 when Specimen A ceased to frequent Oura Bay, coincides with the period when the Bureau began the marine part of the construction work and disturbed the area by deploying numerous guard boats, placing huge concrete anchor blocks on the seabed, surrounding a large area with buoyed fences, drilling into the sea-bed and building piers to contain landfill; it was also the period when the dugong Specimen C, frequently seen in the Bay until then, ceased to be sighted. Furthermore, the year 2017, when Specimen A moved to an area where no dugong had been sighted before, coincided with when the Bureau began pier-building;

heavily disturbing the area by dumping huge amounts of soil and rock into the sea. Judging from these facts, we have to assume that both dugongs A and C were severely disturbed by the construction and gradually moved away from their home areas. In June 2015, Specimen C finally moved away from the construction area and in October 2018 Specimen A also disappeared.

The Bureau states, concerning the behavior of Specimen A, in its preparatory document for its EIA: “The animal was observed by the Ministry of the Environment in its survey commencing in November 2003 not further than 5km away from Cape Abu or Cape Ban.” The Bureau itself had emphasized that the specimen’s habitat was limited to the area off Kayo, but it was the Bureau’s own construction work that drove the animal from its only home.

The Ministry of the Environment conducted surveys of dugongs and the sea-grass colonies around Okinawa Island from 2001 to 2005 for the purpose of establishing measures to protect dugongs. In November 2003, the Ministry first identified a specimen with a notch in its tail fin; later named ‘Specimen A’ by the Bureau in its EIA papers. During the survey the Ministry sighted this animal seven times. The specimen was already mature when first sighted by the Ministry in November 2003. We began our own research in 1998, when we found feeding traces in the Kayo water. The specimen must have been resident in Kayo waters for at least the 20 years since 1998.

The MoE, during its survey, continually conducted filming from the air using radio-controlled helicopters, a 24-hour watch from the shore and under-water monitoring using the Manta-method, establishing the importance to dugongs of the waters off Kayo.

At the 159<sup>th</sup> session of the Diet, in 2004, the Ministry recognized that the small population of dugong surviving in the waters around Okinawa Island satisfied the requirements for selection as a national rare wild species in the Endangered Species Protection Law and in 2011 the Nago City council requested that the MoE and the Justice Ministry designate the dugong as a national rare wild species. The MoE, however, declined to make the designation, so the Okinawa dugong and its habitat are still, today, unprotected by the law. The Ministry has long been aware of the endangered state of the Japanese dugong and the importance of the Kayo waters as its habitat, and cannot escape responsibility for driving Specimen A from its long-standing home.

The dugong, expelled from its home, must now face competition with other dugongs for feeding places in unfamiliar areas, where there is a risk of becoming tangled in fishing nets.

The Okinawa dugong, on the verge of extinction, is now more threatened than ever.

### Specimen C

The MoE, during the above-mentioned survey from 2001 to 2005, concluded in July 2003 (and made public in 2004) that there were at least five surviving dugongs around Okinawa Island. All five of them were considered mature. During 1998 and 2002 six dugongs were found dead. The minimum number of the Okinawa dugongs, as of November 1998, therefore, must have been eleven. No effective dugong protection measures were put in motion and, during the EIA conducted by the Okinawa Defense Bureau in 2008 (made public in 2009) only three dugongs were sighted. The three animals were designated Specimens A, B and C. Specimen A, as noted above, disappeared after the construction began. The individuals B and C, considered to be mother and offspring, were formerly based around Kouri Island, situated in the north-western waters of Okinawa Island, and had sometimes visited the eastern waters off Henoko and Oura Bay. Since 2009, Specimen C seemed to have become independent and had been seen moving by itself (as reported by the 2011 document of the Bureau). The latter animal often visited Oura Bay. During 2009 and 2015 the Bureau acknowledged 49 feeding traces in Oura Bay; in the same period our groups found, in total, 238 feeding traces in the same area as reported in a 2018 paper by Hosokawa. In the final document of the EIA (6-16-172; 2012) the Bureau admitted that these feeding traces were considered to be made by Specimen C. Despite being fully aware of the importance of Oura Bay as a feeding area for Specimen C, the Bureau had begun building piers and, as a result, drove the animal away from our survey area. As noted above, the animal has not been sighted since 2015.

### Specimen B

Within the area around the Kouri Island where Specimen B is based, an unexploded bomb, believed to be left over from the Pacific War, has been found. We warned the prefecture that if the bomb were disposed of in the usual way, i.e. by exploding it in the sea, there was a risk of harming the dugongs as well as the coral-reef ecosystem, but no alternative method has yet been proposed. If the bomb were exploded in the water, it could mean the end for the dugongs in the area.

### Our Demands

We demand of the Okinawa Defense Bureau and the Ministry of the Environment, and request of the Okinawa Prefecture the following:

- 1) The Okinawa Defense Bureau states, in the Environment Conservation Document attached to the EIA, "After the construction work begins we shall watch for changes in the dugong habitat. If any such change is observed we shall evaluate whether the change is due to construction, and, if so, immediately reconsider the construction method and take appropriate measures."

Though the Bureau continues to deny that disappearance of individuals A and C was caused by the construction work the facts above make the connection obvious. We demand that the Bureau halt the construction work immediately, and that the Ministry of the Environment direct the Bureau to halt the construction.

- 2) We demand that the Okinawa Defense Bureau set up a committee composed of fair and independent specialists, (not one like the ongoing Environment Watch Committee who accepted donations from the base construction contractors) to investigate the affect of the construction on the state of the dugongs. The investigation must be clear and transparent; the findings must be made public. As members of such a committee we recommend Dr. Toshio Kasuya, Dr. Ellen Hines, Dr. Amanda Hodgson, Dr. Helene Marsh, and the Marine Mammal Commission (<https://www.mmc.gov/>).
- 3) We demand that the Ministry of the Environment and the Okinawa Defense Bureau conduct an urgent search for the lost individuals A and C in the areas all around Okinawa including the waters off the outer islands.
- 4) We demand that the Ministry of the Environment designate the Japanese dugong as a rare wild species of Japan without delay.
- 5) We request that Okinawa Prefecture include in the Committee organized to properly dispose of the unexploded bomb, the bomb-disposal authorities, specialists in marine mammals and coral reefs, people in fishery and tourism, and us, the citizens' groups.

(We are planning to contact the Ministry of the Environment, the Okinawa Defense Bureau and the Okinawa Prefecture directly concerning our demands and request.)

Translator's note: Specimen B, believed to be the mother of C, was found dead on March 18 in the waters off Nakijin-son, a village near Kouri Island. The cause of her death will be investigated. We must make more effort to conserve and restore the marine ecosystem so that dugongs may one day come back and live with us in peace.