



**DEPARTMENT OF THE NAVY**

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**SUBJECT: 27 MAY 2022 NOTICE OF INTENT TO SUE RELATING TO ENDANGERED SPECIES ACT VIOLATIONS**

Håfa Adai, Mr. Julian Aguon, Ms. Maxx Philipps, Mr. Noah Greenwald and Ms. Monaeka Flores:

The Department of the Navy (Navy) is in receipt of the May 27, 2022 letter from Blue Ocean Law, Center for Biological Diversity and Prutehi Litekyan: Save Ritidian (hereafter BCP) that provided notice of intent (NOI) to sue relating to the Navy's compliance under the Endangered Species Act (ESA) in support of the Marine Corps relocation on Guam (Relocation). I am responding on behalf of the Navy in this important matter.

This letter provides facts on both the Navy's obligations under the ESA and the Navy's performance of those obligations to address inaccurate statements in your letter. In coordination with the U.S. Fish and Wildlife Service (hereafter USFWS), the Navy has determined that reinitiation of consultation is not required at this time. The Navy has fully discharged its ESA obligations through robust consultation, implementation of conservation measures and supporting commitments, and continuing coordination with the USFWS to protect threatened and endangered species on Guam. The Navy initially prepared a Biological Assessment (BA) and USFWS issued a Biological Opinion (BO) in 2010 for impacts associated with the Relocation. In 2014, the Navy significantly modified the Relocation action resulting in a reinitiation of consultation with USFWS and a July 2015 BO superseding the 2010 BO. Following the 2015 BO, the Navy reinitiated consultation again due to USFWS's October 2015 listing of new species as threatened or endangered and the Navy's receipt of new information on the number of Mariana fruit bats on Guam. USFWS subsequently modified, amended, and clarified the 2015 BO in 2018 and 2020. These events show the Navy and USFWS have engaged in continuous, on-going, formal and informal coordination on ESA matters related to the Relocation for over a decade.

The Navy is in full compliance with requirements of the 2015 BO (as amended). Thus, the Navy has complied with its procedural and substantive duty to avoid jeopardizing the relevant listed species under Section 7(a)(2) of the ESA. Moreover, the Navy has complied with all of the terms and conditions contained in the BO's Incidental Take Statement and thus is exempt from liability

under Section 9 of the ESA. The Navy has posted these documents, as well as the required annual reports to the USFWS within the reference collection posted at the following website: <https://www.mcbblaz.marines.mil/Environmental-Program/>. Your letter has provided no new information that would trigger reinitiation of consultation under Title 50 Code of Federal Regulations §402.16.

BCP's claim that the Navy puts species in jeopardy by failing to perform timely mitigation measures under the BO (as amended) relies on incorrect assumptions and inaccurate timelines. Since the initial proposal in 2010, the Navy has worked closely with USFWS to adjust the necessary analysis, re-initiating consultation when the scope of the proposed project was modified (as in 2014), the amount of incidental take could have been exceeded (as with the Mariana fruit bats in the 2017 BO), and when new species were listed (as in 2015). For example, the Navy delayed construction of the project's main cantonment and firing ranges, and accompanying mitigation, until after receipt of the 2017 reinitiation to the 2015 BO and does not anticipate completing this construction until 2029. The sequence and timing of mitigation is dependent upon the progress of construction projects. The Navy has sequenced mitigation projects to address impacts as they occur, with annual reports from 2011 to the present documenting Navy compliance with the "Proposed Action" described in the BO (as amended). To improve conservation outcomes, the Navy has also funded additional, discretionary research and development into the basic biology and ecology of listed species. To date, the Navy has spent over \$24 million (M) on natural resources mitigation for BO compliance, and plans on spending substantially more over the life of the program.

Conservation efforts made by the Navy have been proceeding as planned, in accordance with requirements of the BO (as amended). Figure 1: North Guam Environmental Management Areas, enclosed, shows the areas on Northern Guam where the Navy has taken and is taking significant actions to improve native and listed species. The following are summaries of some of the Navy's key conservation contributions and measures implemented:

### Forest Enhancement

Forest enhancement includes efforts to enhance native forest habitats to support listed plants and animals through measures such as ungulate (hooved animals i.e., pig and deer) fencing and eradication, salvage and transplantation of plants from construction sites, and invasive plant control. Since 2017, the Navy has spent over \$11M on the forest enhancement program to enhance approximately 1,000 acres of forests on Marine Corps Base Camp Blaz (MCBCB). These forests lay within the durable habitats established in the Guam Micronesia Kingfisher (GMK) Memorandum of Agreement (MOA). (See Figure 1).

The Navy has already installed approximately 6.5 miles of ungulate fencing to enclose the Northern Finegayan Forest Enhancement Site in a 679-acre parcel and completed ungulate eradication in this area in October 2021, with 654 deer and 131 pigs removed. Costing almost \$2.9 million, these efforts will significantly benefit native and listed species.

Targeted invasive plant removal is ongoing within the forest enhancement sites as well. We have already identified discrete infestations for eradication. Concurrently, trials to test multiple control methods for invasive trees such as *Vitex parviflora* and invasive vines are in progress to develop a suite of tools for landscape level controls. Trials will continue until an effective methodology is developed. Other forest enhancement projects include baseline vegetation surveys, comprehensive implementation planning, installation of irrigation lines and paths to facilitate out-planting, of native and listed species.

## Northwest Field (NWF) Ungulate Fencing and Eradication

Significant habitat enhancement efforts are also progressing at NWF. In 2014, the Navy installed an ungulate fence in the NWF area associated with a prior Air Force action but did not conduct ungulate eradication activities within the fenced-in area. The Navy acknowledges that it removed portions of this smaller fence to support development of the Live Fire Training Range Complex (LFTRC) at NWF. The Navy considered this fence removal within the Relocation BO. Conservation measures in the BO included a new ungulate fence and subsequent ungulate eradication to protect an approximately 600-acre area, including 218 acres of primary limestone forest, 67 acres of secondary limestone forest habitat, and 97 acres of herbaceous scrub. (See, generally, Conservation Measures, page 38 of the 2015 BO; Construction and Operation of the LFTRC and Associated Surface Danger Zones, page 23 of the 2017 BO).

The Navy originally planned to have a 2.3-mile fence surrounding the NWF Ungulate Control Area (UCA), which encompasses the LFTRC. However, in the 2018 BO amendment, the Navy voluntarily added 1.76 miles of fence due to field observations that the cliff line was not an effective natural barrier to ungulate re-entry into the site. The Navy obtained USFWS concurrence that the timeline for the first 2.3-mile section of ungulate fence would begin in March 2019, with LFTRC construction commencement. The Navy completed construction of the first 2.3 miles of ungulate fences in March 2021, two years from the start of the construction that removed sections of the existing Ritidian fence. In March 2022, the Navy completed installation of the additional 1.76-mile fence, three years after the start of construction. The U.S. Department of Agriculture (USDA) is currently conducting ungulate eradication within the NWF UCA along with population counts, movement studies, and habitat studies. Eradication began in 2020 with ongoing installation of temporary barriers and the removal of 5 pigs and 152 deer as of June 2022. Eradication is still ongoing with completion expected in fiscal year 2023.

## *Serianthes* Protection and Propagation

BCP's allegation that the Navy removed the Ritidian fence in 2017 and left the sole *Serianthes nelsonii* (*S. nelsonii*) tree on Guam, and its seedlings, exposed to ungulates is inaccurate. In fact, removal of the Ritidian fence and associated vegetation clearing occurred in 2019, only after the Navy installed a separate ungulate fence protecting the *S. nelsonii* tree and its seedlings. The installation of this *S. nelsonii* fence, with consistent monitoring of the adult tree and its seedlings, has demonstrated that seedling mortality is not a result of ungulate damage, but rather the result of a range of many other threats that the Navy is working to address through its propagation efforts in coordination with USFWS and other species experts. In addition, removal of the Ritidian fence and associated vegetation clearing did not commence until March 2019.

The Navy has engaged in significant efforts to collect and propagate *S. nelsonii* seeds as well as to protect the adult *S. nelsonii* tree and its seedlings. As of April 2022, the University of Guam's (UOG) Guam Plant Extinction Prevention Program (GPEPP) has 2,744 seeds in storage, with 661 seeds collected in 2021 and 243 seeds collected in 2022. Nursery propagation trials for these seeds have resulted in dozens of healthy seedlings that are available for out-planting in protected areas. These efforts have led to the out-planting and active maintenance of more than 60 saplings at Tarague Basin, Route 3A restoration site, and the golf course plot at AAFB.

Joint Region Marianas (JRM) has several active cooperative agreements in place to continue to propagate and out-plant *S. nelsonii* seedlings. In 2021 and 2022, the Navy awarded approximately \$972,000 (\$972K) to UOG GPEPP for *S. nelsonii* monitoring, maintenance, propagation, and out-planting in association with INRMP commitments. The Navy further awarded an additional

\$618,283 in 2021 and 2022 to the Micronesian Conservation Coalition to propagate and out-plant at least 30 seedlings, as part of our Proposed Action in the Relocation BO. Site preparation, including installation of ungulate fencing and ungulate eradication, is ongoing for recipient sites. These cooperative agreements will result in the planting of many more *S. nelsonii* seedlings within AAFB and MCBCB conservation areas, which, in turn, would enable the future establishment of a sustainable population of mature *S. nelsonii* in the landscape.

### Threatened and Endangered Species Salvage and Propagation

The Navy has provided over \$4M in support for the propagation of listed plants and host plants for listed species through establishment of a native plant nursery and the funding of activities at other nurseries on Guam. These efforts led to the construction of a native plant nursery for the propagation of native and listed species in 2017 that became operational in February 2019.

The Navy has also awarded over \$4M to survey and salvage listed plants within construction footprints prior to vegetation removal. As of September 2021, these actions have salvaged and transplanted 71 *Bulbophyllum guamense*, 38 *Dendrobium guamense*, and 6,845 *Tuberolabium guamense*. All of these carefully planned efforts have resulted in a high survival rate of translocated plants. The surveys have also resulted in a better understanding of listed species distribution on Guam, where in some cases there were much higher population numbers than known during the 2015 listing. In addition, the Navy has collected seeds for *Heritiera longipetiolata* (*H. longipetiolata*) and *Tabernaemontana rotensis* (*T. rotensis*). Moreover, the Navy has collected over 50 seeds of *H. longipetiolata* and over 1,600 *T. rotensis* seeds. The Navy paid for the propagation of these seeds at the native plant nursery that is now engaged in the out-planting process of these plants within the MCBCB forest enhancement areas.

The salvage and translocation of individual threatened and endangered species from the construction project footprints is one component of a larger, more comprehensive effort to enhance native forest habitats to support listed plants and animals.

### *Cycas micronesica* Protection

Navy conservation measures are also enhancing the survival of *Cycas micronesica* (*C. micronesica*) also known as *fadang* in Chamorro. Most *fadang* in the landscape suffer from cycad scale, or *Aulacaspis yasumatsui*, infestation, which represents the most significant threat to the remaining plant population. These tiny insects infest the leaves, cones, seeds, and roots of *fadang*, feeding upon the plant and causing enough damage that even large trees may die from heavy infestations or subsequent attacks by other insects on the weakened trees.

The Navy has met commitments to harvest viable *fadang* from construction areas, which include steps for inspection and treatment for cycad scales prior to transplant, during nursery care, and out-planting and re-establishment in protected forest. Maintenance and monitoring during the establishment period of the transplanted individuals increase survivorship, even as wild populations continue to decline in the face of chronic scale infestation. The Navy also invested in additional care and monitoring measures beyond the first year of maintenance to ensure the survival of translocated *fadang*, with promising results as transplanted individuals show encouraging signs of growth. We further enhanced *fadang* survival by out-planting to areas where the Navy has constructed ungulate-proof fences and eradicated ungulates. As of July 15, 2022, the Navy continues to maintain 393 *fadang* harvested from viable whole plants, stems, and seeds from Relocation development areas, with 415 more seeds awaiting germination.

## Mariana Eight-spot Butterfly

Prior to vegetation clearing at the LFTRC construction sites, the Navy translocated host plants with varying life stages of the Mariana Eight-spot Butterfly, including eggs, caterpillars, or pupae, to sites outside the LFTRC construction footprint. The Navy monitored these translocated butterfly life stages for one year with results indicating that the butterfly species persist in these new locations more than 12 months after translocation.

In addition to moving eggs, caterpillars, and pupae on host plants away from construction sites, the Navy also committed to replant butterfly host plants on limestone boulders within the NWF UCA. In 2022, the Navy completed the installation of limestone boulders to support butterfly host plants. In 2023, the Navy plans to out-plant the butterfly host plants, *Elatostema calcareum* and *Procris pendunculata*, following NWF UCA ungulate eradication. The number of out-planted host plants is to be commensurate with the amount of host plants removed during construction of the LFTRC.

Many host plants within the construction footprints did not contain any butterfly life stages. Through collaborations with local community members and the Guam Department of Agriculture, the Navy provided these plants to other local organizations for propagation and planting throughout the island.

## Brown Tree Snake (BTS) Suppression

Since 2016, the Navy has invested more than \$5M in BTS suppression studies, small- and at-scale trial eradications, BTS research facility refurbishment, artificial bait formulation and development, and artificial bait manufacturing improvements. These efforts include improved BTS barrier design, development and studies of landscape-scale BTS suppression, bait tube monitoring, bait manufacturing infrastructure, threat assessment to reintroduced birds and monitoring methods and control within the BTS barrier-protected 135-acre Habitat Management Unit (HMU) at AAFB (See Figure 1).

Techniques for large-scale control of BTS remain in development as indicated in the 2020 GMK 5-year Review. New information continues to emerge about the effectiveness of various suppression methods and the appropriate level of suppression for survival of reintroduced birds. This information has led to ongoing design and planning for the building of a multi-species barrier on MCBCB at the South Finegayan Forest Enhancement site. As more information is learned, the Navy will incorporate this research into future landscape-scale suppression projects, including the initial multi-species barrier on MCBCB.

The multi-species barrier, which the BO specifies building after the declaration of successful suppression within the HMU, includes a new fence prototype incorporating elements to prevent movement of rats and cats as well as BTS. This new design will enclose approximately 160 acres of forest habitat on MCBCB. Eradication of feral ungulates will follow, along with control of rats, cats and BTS.

## Stewardship through Conservation and Cooperation

The Navy is a leader in its role as a natural resources steward in Guam and the Commonwealth of the Northern Mariana Islands. We dedicate substantial effort and resources to protect native plants and wildlife to ensure compliance with the ESA while at the same time serving the public interest by meeting vital national security obligations. The high quality of extant native forest resources and

habitat on JRM-administered lands reflects the Navy's effective stewardship and commitment to the natural resources under its care. Within the northern half of Guam where the limestone plateau above the Northern Guam Lens Aquifer is located, the Navy manages high-value native limestone forests as safety buffers for ranges, ammunition storage, communications, and airfield safety, as well as for natural and cultural resource conservation purposes.

The Navy believes that healthier native species and habitats on Guam directly support our troops' readiness and national security interests. The Navy leverages laws such as the Sikes Act and the ESA to dedicate millions of dollars in discretionary federal funds each year toward maintaining and improving the ecological baseline of species as part of the JRM Integrated Natural Resources Management Plan (INRMP). Millions more are also spent on non-discretionary compliance with legally binding conservation measures and terms and conditions in the 2015 BO (as amended), as well as efforts to implement non-binding conservation recommendations in that document. These measures often have secondary and tertiary benefits to listed species and native habitat under JRM jurisdiction.

In addition to the robust INRMP conservation program, and BO (as amended) compliance, JRM has been working with inter-agency partners since 2020 to establish a proactive, voluntary conservation partnership under the Readiness and Environmental Protection Integration (REPI) program. JRM's collaborative work with partners within the REPI program has implemented conservation actions outside JRM installations to ensure a whole island approach to Guam's conservation challenges. Since July 2020, JRM has invested more than \$4.0M in Department of Defense (DoD) REPI funding for off-installation, collaborative conservation projects in partnership with the Government of Guam, USFWS, National Fish and Wildlife Foundation, Guam Preservation Trust, and other partners. JRM intends to continue to seek resources to invest in and to grow this important partnership.

#### Guam Micronesian Kingfisher Memorandum of Agreement

Another significant investment the Navy has made is the implementation of commitments found in the Guam Micronesian Kingfisher Memorandum of Agreement (MOA). The MOA between Department of the Navy (DoN) and USFWS to support the conservation and recovery of the Guam Kingfisher is not part of the project description of the 2015 or 2017 BOs; therefore, updates on the implementation of the actions under the MOA are not included in the 2015 or 2017 BO annual reports. However, DoN provides separate annual reports on the status of actions taken under the MOA and continues to fulfill its obligations, including the December 22, 2015 designation of 5,234 acres of durable habitat in northern Guam and the annual allocation of up to \$2.0M for projects that protect and enhance this habitat. DoN, in cooperation with USFWS, has worked to identify, develop, and implement management activities on those lands to support GMK MOA objectives.

Approximate Navy expenditures in support of the GMK MOA objectives include the following:

- Fiscal Year (FY 2016): \$400K for trial eradication of BTS within U.S. Geological Survey (USGS) Closed Population facility;
- FY2017: \$900K for the MCBCB Haputo Ecological Reserve Area (ERA) fence planning and surveys, aerial delivery system (ADS) technology for BTS bait delivery to allow for landscape level BTS suppression toxicant drop/ automated bait manufacturing winder system cost share project for BTS eradication, and MOA project implementation plan;
- FY2018: \$1.9M for demographic and ecological effects of ADS in the HMU on AAFB, BTS monitoring, landscape suppression planning, and artificial bait optimization for landscape-scale BTS suppression;

- FY2019: \$1.5M for optimizing BTS monitoring; estimate of BTS predation thresholds for persistence of reintroduced birds on Guam, HMU monitoring and eradication evaluation, BTS eradication within the HMU, and invasive ungulate exclusion fence construction at Haputo ERA;
- FY2020: \$1.4M for ungulate fence construction at the southern Haputo ERA, USGS Closed Population fence refurbishment, and continuation of HMU monitoring for BTS after suppression efforts; and
- FY2021: \$1.5M for ungulate eradication within the Haputo ERA.

The Navy is working closely with USFWS to identify priority projects for FY2022 to award in keeping with GMK MOA commitments. BTS monitoring and control projects are under consideration pending new information from current research and emerging needs.

## Conclusion

The actions detailed above demonstrate that, in consultation and cooperation with the USFWS, the Navy has fulfilled its substantive obligations under Section 7(a)(2) of the ESA in the Guam Relocation action. The Proposed Action included the clearing of listed species habitat to allow for development of ranges and cantonment areas and the implementation of associated conservation and mitigation measures in accordance with applicable BOs, based on the best available science, taking into account developing information such as the increased frequency and intensity of typhoons.<sup>1</sup> The Navy subsequently consulted with USFWS when new information (such as the listing of additional species or the re-scoping of the Navy proposal) had the potential to change the conclusions in the initial BO. In reviewing the Navy proposal, USFWS imposed offsetting mitigation, replanting, and affirmative actions such as BTS control measures and ungulate fencing to protect these listed species, and concluded that under those terms and conditions, the Navy proposal would not result in jeopardy to the threatened and endangered species on Guam. Your letter offers no new information that suggests that this conclusion is incorrect or erroneous.

The ESA's requirement that plaintiffs must provide notice of a violation at least sixty days prior to filing suit (16 USC 1540(g)(2)(A)(i)) is intended to provide the agency an opportunity to identify and attempt to abate the alleged violation. *Klamath-Siskiyou Wildlands Ctr. v. MacWhorter*, 797 F.3d 645, 650 (9th Cir. 2015). *Sw. Ctr. for Biological Diversity v. U.S. Bureau of Reclamation*, 143 F.3d 515, 522 (9th Cir. 1998). In contrast to this action-forcing function, your May 27, 2022 NOI to sue letter contains a recitation of longstanding and challenging issues, faced by the listed species at issue and all land management agencies in Guam, that were either addressed in the BO (as amended) or were beyond the scope of the consultation. As an example of the former, the USFWS explicitly considered the increased frequency and intensity of typhoon events.<sup>2</sup> As an example of the latter, the imperiled state of the Kingfisher, Guam Rail, and Mariana Crow, species whose extirpation in Guam began in the 1980's and finished by 2000, was well understood at the time of initial consultation<sup>3</sup>, and was addressed through imposing a habitat preservation requirement on the Navy, memorialized in the GMK MOA. The 2015 jeopardy analysis emphasized the "range-wide survival and recovery needs of the kingfisher, crow, rail, bat and *S. Nelsonii* and the role of the action area in the survival

<sup>1</sup> "Climate models indicate that hurricanes in the northwestern Pacific are expected to increase in intensity, frequency and duration by 2200 and continue to increase further into the future. (Emanuel et al. 2008, p.360). Therefore, we expect habitat destruction and modification by typhoons to increase in the future" July 31 2015 BO, page 78. Typhoon effects on specific populations and habitat areas are discussed throughout the 2015 and 2017 BO documents.

<sup>2</sup> *Id.*

<sup>3</sup> Concerns about the continued viability of these captive populations, which are not managed by the Navy, existed at the time of the 2015 BO (See, e.g., Mariana Crow 'inbreeding depression' discussion at pages 58, 88 of the 2015 BO; concern over the low genetic diversity in captive populations of Guam Rails at page 63 of 2015 BO; and statement that current kingfisher population was 155 adults with 87.74% gene diversity at page 51 of the 2015 BO)

and recovery of [these species] as the context for evaluating the significance of the effects of the proposed Federal action.” (2015 BO, page 48).

As described at length above, the Navy has complied with these terms and conditions to ensure that Relocation construction activity will not result in jeopardy to threatened and endangered species on Guam.

Your allegation that Navy’s “failure to keep brown tree snakes from spreading to Cocos Island” constitutes new information that is not consistent with the facts. The DoD has no authority to interdict BTS for activities and areas on Guam that we do not control. Cocos Island Resort and the Government of Guam have jurisdiction over transits to and from this uninhabited island. Cocos Island offers tourist and wildlife attractions that are not associated with, and are geographically separate from, the areas of Guam affected by the Relocation. As noted above, the Navy has spent over \$5M to date on BTS suppression methods, and our commitment to continue to fund the study and implementation of these measures is ongoing and enduring. Your claim that the Navy’s failure to eradicate BTS from Guam evidences the failure of our mitigation measures imposes an unreasonable standard that goes well beyond those found in the BO documents (as amended).

After thoroughly reviewing the status of our Relocation efforts and coordinating with USFWS, the Navy has determined that we remain in compliance with our obligations under the ESA and that there is no new information requiring reinitiation of consultation at this time. You can find additional documentation of the Navy’s stewardship and continuing compliance with requirements of the 2015 and 2017 BOs, as modified, within document links found in the “Endangered Species Act Compliance” heading at <https://www.mcbblaz.marines.mil/Environmental-Program/>.

Should you wish to discuss this matter, please contact Susannah Mitchell from the Office of General Counsel, at (202) 685-7729 or [susannah.mitchell2.civ@us.navy.mil](mailto:susannah.mitchell2.civ@us.navy.mil).

Sincerely,



Benjamin R. Nicholson  
Rear Admiral, United States Navy  
Commander, Joint Region Marianas

Enclosure (1) Figure 1: North Guam Environmental Management Areas



Figure 1: North Guam Environmental Management Areas

