



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Pacific Islands Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122  
Honolulu, Hawaii 96850

In Reply Refer To:  
01EPIF00-2014-F-0262

JUN 10 2016

Rear Admiral Bette Bolivar  
Department of the Navy  
Joint Region Marianas  
PSC 455 Box 211  
FPO AP 96540-1000

Subject: Informal Consultation on Mariana Islands Training and Testing Program Affects to Eighteen Newly-Listed Species, Guam and Tinian

Dear Admiral Bolivar:

The U.S. Fish and Wildlife Service (Service) received your letter on February 20, 2016 (letter), requesting our concurrence with your determination that the Mariana Islands Training and Testing Program (MITT) is not likely to adversely affect listed species pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C 1531 et seq.). This informal consultation addresses the implementation of MITT Program to eighteen newly-listed species on Guam and one newly-listed plant species on Tinian. The MITT actions in this consultation are addressed in the February 20, 2015, "Biological Opinion for the Mariana Islands Training and Testing Program" (01EPIF00-2014-F-0262, MITT Biological Opinion), as amended. The proposed MITT actions addressed in the MITT Biological Opinion have not changed, nor have the anticipated effects to the species addressed that formal consultation. The species addressed in this informal consultation were listed on October 1, 2015; surveys of habitat at MITT project sites indicate these species may occur within the MITT project action area.

You requested our concurrence with your determination implementation of MITT on Guam is not likely to adversely affect seven endangered plant species (*Eugenia bryanii*, *Hedyotis megalantha*, *Heritiera longipetiolata* (Ufa-halomtano), *Phyllanthus saffordii*, *Psychotria malaspinae* (aplokating), *Solanum guamense*, *Tinospora homosepala*), the endangered Mariana eight-spot butterfly (*Hypolimnas octocula marianensis*, ababbang, libweibwogh), three endangered tree snails (the Guam tree snail (*Partula radiolata*; akaleha), humped tree snail (*Partula gibba*; akaleha), and the fragile tree snail (*Samoana fragilis*; akaleha dogas)), and seven threatened plant species (*Bulbophyllum guamense* (siboyas halumtanu, wild onion), *Cycas micronesica* (fading), *Dendrobium guamense*, *Maesa walkeri*, *Nervilia jacksoniae*, *Tabernaemontana rotensis*, and *Tuberolabium guamense*) and on Tinian, that *Dendrobium guamense* is not likely to be adversely affected by the proposed action.

## **PROJECT DESCRIPTION**

There has been no change to the proposed action description included in the 2015 MITT Biological Opinion. Surveys of habitat in the action area indicate newly-listed species may occur in areas where ground maneuver type training activities (such as field training exercises, land navigation, and combat search and rescue) and small arms training (including urban warfare training, noncombatant evacuation operations, embassy reinforcement, direct action and land demolitions) on Guam and Tinian. Details of the proposed action are outlined in the MITT Biological Opinion and your letter contains additional project details pertaining to the newly-listed species.

### **Action Area**

The MITT action area spans portions of Guam, Rota, Tinian, Saipan, and the entire island of FDM. The action area for this informal consultation addressing the newly-listed species addresses a subset of where MITT actions are proposed in areas potentially occupied by the newly-listed species. Some of the newly-listed species are known to occur on Rota and Saipan, but not in locations near proposed MITT actions. The project areas addressed in this informal consultation include locations within the Naval Base Guam (NBG) Munitions Site (Breacher House, Emergency Detonation Site, and the Sniper Range) and Andersen Air Force Base (AAFB) where live-fire and ground maneuver-type training activities may occur, the Explosive Ordnance Disposal Range with the Tarague Basin and the Silver Flag and RED HORSE Quarry ranges at Northwest Field, and Tinian Military Lease Area (MLA).

### **Measures to Minimize Threats**

#### *Physical Disturbance Due to Ricochet*

Physical disturbance and strike of the newly-listed plants and invertebrate species on Guam may result from ricochet or direct strike from use of the small arms munitions on small arms firing ranges, vehicles used during maneuver and convoy training, and land navigation training where individuals or groups of troops traverse an area on foot. Ranges are designed and maintained to minimize ricochet outside the range footprint. Your letter indicates range managers don't expect ammunition to ricochet beyond the perimeter of the range footprints. Field surveys conducted in 2015 around a training range on Guam found no evidence of damage related to range activities on any trees outside the range footprint.

On Tinian, small arms will be used during Military Operations in Urban Terrain-type training activities and sniper training that may occur in and around North Field World War II structures and the Old Japanese Headquarters Building. When small arms are used during such training activities, weapons are fired into bullet traps. In addition the habitat surrounding areas used for live fire activity on Tinian are dominated by tangantangan scrub, which is not expected to support newly-listed species. Any locations used by agreement with local authorities will be selected to avoid habitat areas for newly-listed species.

#### *Crushing and Trampling*

Vehicular (cars, trucks, all-terrain-vehicles, and amphibious vehicles) and pedestrian movements conducted during land navigation training and field training exercises may cause physical disturbance to habitats that support the newly-listed species on Guam. On Guam, field training exercises may potentially cause ground disturbance within the Southern Land Navigation Area and Northern Land Navigation Area within NBG Munitions Storage. The Navy locates all ground-disturbing training activities on previously disturbed sites whenever possible and bivouac sites are situated within previously disturbed areas within the land navigation areas. New trails are not created as part of training activities. Vehicle traffic only occurs on designated roads and trails. Vegetation clearing and digging are prohibited except for specified purposes. Because pedestrian traffic could result in inadvertent trampling of plants, which may cause injury of individual plants, training activities are restricted in many areas where the newly-listed species may occur and large-scale movement of troops will not occur within limestone habitat. The following site-specific measures will also be taken to minimize the potential for disturbance to native vegetation and the newly-listed species:

Guam:

- Training areas, including transit routes necessary to reach training areas, are clearly identified and marked. Vehicular activities will be restricted to designated and previously identified areas;
- The Navy will continue to control erosion through the “Site Approval Process,” whereby the Navy environmental program reviews each proposed project for its erosion potential and involves the designated installation Natural Resource Specialist in the process;
- The Navy will continue to manage erosion in accordance with applicable storm water pollution prevention plan at each training location;
- The Navy will prohibit off-road vehicle use except in designated off-road areas or on established trails;
- The Navy will comply with existing policies and management activities to conserve soils, including requirements and restrictions outlined in COMNAVMARIANASINST 3500.4A (U.S. Department of the Navy, 2013);
- “No Wildlife Disturbance” and “No Training Areas” are designated on NBG Munitions Site and AAFB Tarague Beach. Vegetation removal is limited to maintaining existing bivouac areas, and no support camps will be established;

Tinian:

- The Navy will locate ground-disturbing training activities on previously disturbed sites whenever possible. Training areas, including transit routes necessary to reach training areas, will be clearly marked, with vehicular activities restricted to designated and previously identified areas;
- Training does not occur within Hagoi or adjacent areas designated as a “No Training Area,” and no vegetation removal of any kind is permitted in this location. Training also does not occur in the Bateha or Mahalang wetland areas;
- Training does not occur in limestone forests, found within the Tinian MLA along ridgelines associated with Mount Lasso. Vegetation removal would be limited to the

maintenance of existing bivouac areas and maneuver units will remain tactical and not establish support camps;

- Riparian wetlands are dispersed through the Southern Land Navigation Area; no maneuver and navigation training occurs within riparian wetlands in this area, in accordance with U.S. Department of the Navy, 2013 (Table 3-4, page 38; and Figure 3-10, page 40).

### *Increased Wildfire Risk*

Wildfires pose a significant threat to the sensitive ecosystems in the Mariana Islands. Fire season on Guam typically lasts from January through June and most fires occur in the February through May period. The primary vegetation communities most prone to carry fire onto and through military properties on Guam are savanna grassland communities and degraded limestone forest communities. Other forests including limestone forests and ravine forests that are typically more mesic and less prone to burning may also be susceptible to burning during drought periods. Fires that originate outside military properties have the potential to spread onto Department of Defense lands. Arson and debris burning outside of Department of Defense lands accounts for approximately 70 percent of the fires and 87 percent of the acres burned on Department of Defense lands on Guam. Additional fires that spread to Department of Defense lands are caused by smoking, campfires, and other unidentified civilian causes. Training activities that pose the greatest risk include live-fire training activities, ground maneuver training with vehicles, field training exercises that require cooking, and training activities that require unexploded ordnance disposal actions. Use of pyrotechnics and other incendiary devices will be restricted.

Fire season on Tinian typically lasts from January through June. There is likely increased risk during the driest portions of the fire season, which generally begins in February and lasts through May. The Tinian MLA is dominated by tangantangan thickets and finer fuels along the North Field tarmac. Tangantangan is fire adapted and recovers rapidly post-fire, while other woody vegetation is likely to be slower to recover. During major exercises, the Navy further minimizes fire threat by requesting, through the West Field command post, the use of Tinian Fire Department assets. These assets include a 300-gallon pump truck and crew and a 750-gallon pumper truck and crew to augment the military fire response.

In the past, military training activities in the Marianas have rarely resulted in wildfire. Joint Region Marianas implements a wildland fire prevention plan that establishes specific guidance, procedures, and protocols to assure protection of natural resources on Guam. The plan is incorporated into COMNAVMARIANASINST 3500.4A (U.S. Department of the Navy, 2013 (Appendix B, pages 87–91)), and covers all military lands on Guam (NBG facilities and AAFB). Some developed operational areas within NBG and AAFB are also covered by other installation Federal Fire Department plans. To minimize the potential for a fire to adversely affect the newly-listed species, all training activities that involve ground maneuvers on Guam will be consistent with the fire management plan included in COMNAVMARIANASIST 3500.4A (U.S. Department of the Navy, 2013). All training activities that involve ground maneuvers on the Tinian MLA will be consistent with the fire management plan included in COMNAVMARIANASINST 3500.4A (U.S. Department of the Navy, 2013 (Appendix B)).

*Invasive Species Introduction and Spread*

Military training activities on Guam and Tinian incorporate special measures to minimize the potential introduction of new or additional invasive species and the potential dispersal of invasive species. The MITT Biological Opinion details various transport modes and introduction pathways in addition to the invasive species management and control actions that will be implemented by MITT to minimize invasive species. The Navy recognizes the importance of this issue, and has several policies and procedures that function to reduce the potential risk of invasive species introductions. For example, OPNAVINST 5090.1D Chapter 12 includes several provisions to prevent the spread of invasive plants, pests, and animals. Further, the Navy contributes to the implementation of the Regional Biosecurity Plan for Micronesia and Hawaii (RBP) (U.S. Department of the Navy, 2015 (Appendices J and L)) that includes pathway-specific measures to prevent invasive species transport. The purpose of the plan was to evaluate terrestrial, marine, and freshwater invasive alien species risks to the Republic of the Marshall Islands, Palau, Federated States of Micronesia, Guam, the Commonwealth of the Northern Mariana Islands, and Hawaii to develop a regionally vetted biosecurity plan that guides implementation efforts across the region. These plans and protocols, coupled with exercise-specific restrictions and procedures discussed herein, minimize the potential for invasive species transport into habitats of newly-listed species to the maximum extent possible.

**EFFECTS ANALYSIS**

The proposed action has the potential to result in harm to listed plants, butterflies, and snail species due to physical disturbance and increased risk of wildfire and invasive species introduction and spread. Measures to minimize harm to the newly-listed species are incorporated into the MITT project design.

*Physical Disturbance*

The newly-listed plants, tree snails, and butterflies may occur in habitat immediately adjacent to training ranges where they may be struck by ammunition. The measures incorporated into the project design minimize the likelihood of direct impact of a listed species or disturbance of its habitat by ammunition. Because ranges are designed to minimize the likelihood ammunition will ricochet and fall outside the training range footprint, the likelihood of a direct strike to a listed species is discountable. Disturbance to downrange vegetation outside the training range footprint is also expected to be discountable.

Newly-listed species and their habitat may be exposed to trampling and disturbance by foot- and vehicle-traffic, camping activities, and training activities. Because only limited training activities will occur outside of developed areas and existing roads and trails, and most such activities will occur within disturbed habitat not likely to be occupied by the newly-listed plants, butterflies, and snails, the potential for trampling or other physical disturbance to these species is discountable.

### *Wildfire*

Wildfire can directly affect listed species and it can change the physical and biological characteristics of their habitat. Although fire ecology of the newly-listed species is not known, based on fire effects to similar species, the newly-listed species plant, tree snail, and butterfly species are likely to be injured or killed if they are exposed to a high-intensity wildfire. In addition, if post-fire restoration efforts to control invasive species are not taken, regeneration of native forest in the burned area is unlikely to occur. Wildfires may be ignited as a result of training at the NBG Munitions Site (Breacher House, Emergency Detonation Site, and the Sniper Range), the Explosive Ordnance Disposal Range with the Tarague Basin and the Silver Flag and the RED HORSE Quarry ranges at Northwest Field, ground-maneuver actions at AAFB, and ground maneuvers and live-fire training at the Tinian Military Lease Area. Small arms are unlikely to cause wildfires and demolitions and explosives activities will be contained to cleared areas, fires are unlikely to be ignited as a result of the proposed live-fire training exercises. Vehicle use and camping activities may also result in accidental fire ignition. However, fire suppression resources will be staffed according to a wildland fire prevention plan that establishes specific guidance, procedures, and protocols to assure protection of natural resources on Guam. To minimize the potential for a fire to adversely affect the newly-listed species, all training activities that involve ground maneuvers on Guam will be consistent with the fire management plan included in COMNAVMARIANASIST 3500.4A (U.S. Department of the Navy, 2013). All training activities that involve ground maneuvers on the Tinian MLA will be consistent with the fire management plan included in COMNAVMARIANASINST 3500.4A (U.S. Department of the Navy, 2013 (Appendix B)). Therefore, the number of wildfires ignited as a result of the proposed action is expected to be low and fire size is expected to be minimized. Therefore, project-related fire effects to the newly-listed species are expected to be discountable.

### *Invasive Species*

The newly-listed species are threatened by the encroachment of invasive species. Invasive species compete with native species for resources and non-native animals pose a threat as predators and as sources of physical disturbance and trampling. The MITT project incorporates provisions to prevent the spread of invasive plants, pests, and animals into exercises on Guam and Tinian. In addition, the Navy contributes to the implementation of the Regional Biosecurity Plan for Micronesia and Hawaii (RBP) (U.S. Department of the Navy, 2015 (Appendices J and L)). These plans and protocols, coupled with exercise-specific restrictions and procedures detailed in the MITT Biological Opinion, minimize, to a level where it is discountable, the potential for invasive species transport into habitats of newly-listed species.

## CONCLUSION

We concur with your determination the proposed implementation of MITT Program is not likely to adversely affect the eighteen newly-listed species on Guam and one newly-listed plant on Tinian addressed in this consultation pursuant to section 7 of the ESA. Our basis for this conclusion is the MITT participants will not deviate from the actions and the conservation measures specified in the MITT Biological Opinion and herein. Actions other than those specified in the MITT Biological Opinion and the Project Description of this informal consultation have the potential to result in harm to listed species and may require reinitiation of section 7 consultation. In addition, if new information reveals that the proposed project may affect listed species in a manner or to an extent not considered, or a new species or critical habitat is designated that may be affected by the proposed action, reinitiation of consultation pursuant to section 7 of the ESA may be necessary. If you have any questions concerning this informal consultation, please contact Jacqueline Flores at (671) 787-6094.

Sincerely,



Mary M. Abrams, PhD  
Field Supervisor

## REFERENCES

U.S. Department of the Navy. 2013. COMNAVMARIANASINST 3500.4A. Signed October 2013.

U.S. Department of the Navy. 2015. Regional Biosecurity Plan for Micronesia and Hawaii, Volume 1. Eds. University of Guam and the Secretariat of the Pacific Community.