DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 226

[Docket No: 250709–0123]

RIN 0648–BJ52

Endangered and Threatened Species; Designation of Critical Habitat for Five Species of Threatened Indo-Pacific Corals

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: We, NMFS, designate critical habitat for five threatened Indo-Pacific coral species, *Acropora globiceps, A. retusa, A. speciosa, Fimbriaphyllia paradivisa* (formerly *Euphyllia paradivisa*), and *Isopora crateriformis,* pursuant to section 4 of the Endangered Species Act (ESA). Final critical habitat includes 18 specific areas encompassing approximately 237 square kilometers (km^2; 92 square miles, mi^2) of marine habitat in American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Pacific Remote Island Areas, and Hawai'i. We have considered economic, national security, and other relevant impacts of the designations, but are not excluding any areas from the critical habitat designations due to anticipated impacts.

DATES: This rule is effective August 14, 2025.

ADDRESSES: The final rule, maps, and Final Information Report and appendices can be found on the NMFS website: *https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat#critical-habitat-designations-maps-and-gis-data.*

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SUPPLEMENTARY INFORMATION:

Background

We listed 20 reef coral species as threatened under the ESA on September 10, 2014 (79 FR 53851), 15 of which occur in the Indo-Pacific. The remaining five species occur in the Caribbean. On November 27, 2020, we proposed critical habitat for the seven listed Indo-Pacific species that were then considered to occur within U.S. jurisdiction (85 FR 76262) and the five listed Caribbean species (85 FR 76302). All 20 of these listed coral species have undergone some level of population decline and are susceptible to multiple threats, including ocean warming, diseases, ocean acidification, ecological effects of fishing, and land-based sources of pollution. We determined that these species are likely to become endangered throughout their ranges within the foreseeable future as a result of a combination of threats, the most severe of which are ocean warming and acidification. On August 9, 2023, NMFS finalized critical habitat for the five Caribbean coral species (88 FR 54026).

On November 27, 2020, NMFS proposed to designate critical habitat for the seven listed Indo-Pacific corals that were then considered to occur within U.S. jurisdiction (*Acropora globiceps, Acropora jacquelineae, Acropora retusa, Acropora speciosa, Euphyllia paradivisa* (renamed *Fimbriaphyllia paradivisa,* see 89 FR 81867, October 9, 2024), *Isopora crateriformis,* and *Seriatopora aculeata;* 85 FR 76262), opened an initial 60-day public comment period that was extended three times to a total of 180 days, held two virtual public hearings, and received approximately 80 public comments. The 2020 proposed rule included specific areas with substrate and water column habitat characteristics essential for the reproduction, recruitment, growth, and maturation of the seven listed coral species. A total of 17 specific areas or ''critical habitat units'' were proposed to be designated as critical habitat, including 4 units in American Samoa (Tutuila and Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll), 1 unit in Guam, 7 units in the Commonwealth of the Northern Mariana Islands (CNMI; Rota, Aguijan, Tinian, Saipan, Anatahan, Pagan, Maug), and 5 units in the Pacific Remote Island Areas (PRIA; Howland, Palmyra Atoll, Kingman Reef, Johnston Atoll, Jarvis). Based on the best available information at that time, between 1 and 6 listed coral species were thought to occur within each of these 17 critical habitat units. Several other areas were also found to be either ineligible for designation as coral critical habitat, or were proposed to be excluded from the designation due to national security impacts, including the Ritidian Point Surface Danger Zone complex on Guam, the Navy's Submerged Lands around parts of Guam, the Navy's Marine Lease Areas around most of Tinian in CNMI, a group of six Navy anchorage berths on Garapan Bank in Saipan in CNMI, all of Farallon de Medinilla (FDM) in CNMI, and all of Wake Atoll in PRIA.

Based on our evaluation of new information provided in the public comments on the 2020 proposed rule as well as other new information that had become available, we concluded that a substantial revision of the proposed rule was needed. Hence, the 2020 proposed rule was withdrawn and a new proposed rule was published on November 30, 2023 (88 FR 83644). The major changes in the 2023 proposed rule from the 2020 proposed rule were: (1) Development of a methodology for using records of listed coral species to determine the occupied areas for critical habitat, the implementation of which led to three additional changes (listed here as numbers 2–4); (2) removal of the units for *A. jacquelineae* and *Seriatopora aculeata* from the proposed critical habitat (because current records indicate that the ranges of both species are entirely outside of U.S. waters), thereby reducing the number of species for which critical habitat was being proposed from 7 to 5 species (*Acropora globiceps, A. retusa, A. speciosa, Fimbriaphyllia paradivisa* and *Isopora crateriformis*); (3) reduction in the number of proposed critical habitat units from 17 to 16, including the elimination of 4 units from the 2020 proposed rule and addition of 3 new units, including 2 in CNMI, and 1 in Hawai'i; (4) reductions in the depth ranges of all Guam and CNMI units (thereby eliminating Garapan Bank on Saipan from consideration for coral critical habitat); (5) more precise delineation of proposed critical habitat within each unit; and (6) denial of the Navy's request for exclusion from coral critical habitat of the Ritidian Point Surface Danger Zone complex on Guam.

During the development of the proposed rule, we applied the joint NMFS–U.S. Fish and Wildlife Service (USFWS) implementing regulations (50 CFR 424.12) when evaluating the appropriateness of designating areas outside the geographical area occupied by the listed species as ''unoccupied'' critical habitat. Among other requirements, those regulations stated that we will only consider unoccupied areas to be essential where a critical habitat designation limited to occupied geographical areas would be inadequate to ensure the conservation of the species (50 CFR 424.12(b)(2)). However, on April 5, 2024, NMFS and the USFWS published a final rule revising those implementing regulations (89 FR 24300). Because those revised regulations became effective on May 6, 2024, we applied them during the development of this final rule. Although our analysis necessarily differed under

the 2019 and 2024 regulations, our determination with respect to unoccupied areas did not. This is because regardless of whether we apply the 2019 regulations or current, 2024 regulations, designating an area outside the geographical area occupied by the species at the time of listing as critical habitat requires a determination that the areas themselves are ''essential for the conservation of the species'' (16 U.S.C. 1532(5)(A)(ii)). Based on the best scientific data available, we have concluded that unoccupied areas are not essential for the conservation of any of the five coral species. This conclusion is consistent with our determination in the 2023 proposed rule, in which we also considered whether our analysis or its conclusion would be any different under the pre-2019 criteria for designating unoccupied areas.

Statutory and Regulatory Background for Critical Habitat Designations

The ESA defines critical habitat under section 3(5)(A) as the (1) specific areas within the geographical area occupied by the species at the time it is listed, on which are found those physical or biological features essential to the conservation of the species (hereafter also referred to as ''PBFs'' or ''essential features'') and which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary of Commerce (Secretary) that such areas are essential for the conservation of the species (16 U.S.C. 1532(5)(A)). Conservation is defined in section 3(3) of the ESA as to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary (16 U.S.C. 1532(3)). Section 3(5)(C) of the ESA provides that, except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species. Our regulations provide that critical habitat shall not be designated within foreign countries or in other areas outside U.S. jurisdiction (50 CFR 424.12(g)).

Throughout this document, we use the term ''critical habitat unit'' to refer to the cumulative specific areas for one or more coral species around the particular island or offshore bank around, or on which, the coral habitat is located. For example, overlapping occupied areas for five listed coral species occur around Tutuila Island and its offshore banks, which is thus named the Tutuila and Offshore Banks Unit of coral critical habitat.

Section 4(a)(3)(B)(i) of the ESA prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD) or designated for its use, that are subject to an Integrated Natural Resource Management Plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is designated. Section 4(b)(2) of the ESA requires us to designate critical habitat for threatened and endangered species on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. Pursuant to this section, the Secretary may exclude any area from critical habitat upon determining that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat. However, the Secretary may not exclude areas if this will result in the extinction of the species.

Once critical habitat is designated, section 7(a)(2) of the ESA requires Federal agencies to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify that habitat (16 U.S.C. 1536(a)(2)). This requirement is in addition to the section 7(a)(2) requirement that Federal agencies ensure their actions are not likely to jeopardize the continued existence of ESA-listed species. Specifying the geographic location of critical habitat also facilitates implementation of section 7(a)(1) of the ESA by identifying areas where Federal agencies can focus their conservation programs and use their authorities to further the purposes of the ESA. Critical habitat requirements do not apply to citizens engaged in actions on private land that do not involve a Federal agency. However, designating critical habitat can help focus the efforts of other conservation partners (*e.g.,* state and local governments, individuals, and non-governmental organizations).

Changes From the 2023 Proposed Rule

We evaluated the comments and information received from the public during the public comment period, as well as other new information that has become available since publication of the 2023 proposed rule. Based on our consideration of the comments and information (as noted below in the Summary of Comments and Responses section), we made two substantive changes to the critical habitat in this final rule: (1) the addition of two new units (Swains Island in American Samoa and Asuncion Island in CNMI), based on new records of listed coral species in those locations; and (2) the removal of two types of areas because they are unsuitable for the listed corals. Together, these changes resulted in the overall reduction in the total area of coral critical habitat from approximately 251 km^2 (97 mi^2) in the proposed rule to approximately 237 km^2 (92 mi^2) in this final rule. These changes are described in the Final Information Report and its appendices (NMFS 2025) and summarized below.

Addition of Two New Units

When the proposed rule was published in 2023, we were not aware of records of any listed corals from Swains Island in American Samoa or from Asuncion Island in CNMI, as described in appendix A (*i.e.,* the draft Records Document) of the Draft Information Report (NMFS 2023, appendix A), the primary supporting document for the proposed rule. Nevertheless, we still had identified these two areas as potential critical habitat, noting that these areas had recently been surveyed by experts and listed corals had been reported from nearby islands. After the publication of the proposed rule, the NOAA Fisheries Pacific Islands Fisheries Science Center (PIFSC) provided the following records: (1) four records of *A. retusa* collected from Swains Island in 2023; and (2) one record of *A. globiceps* collected from Asuncion in 2022.

As described in the draft Records Document (NMFS 2023, appendix A), a decision process was used to determine if the available coral records provided adequate evidence that any given island was within a listed coral species' occupied area at the time of the listing in 2014. In seeking public comment from the public, government agencies, scientific communities, among others, we anticipated that records identifying other areas of the listed species, including Swains and Asuncion, would be provided to us, which is what occurred here. During the public comment period in early 2024, records collected in 2023 (Swains) and 2022 (Asuncion) by PIFSC came to our attention. Based on these additional records, and following the decision process described in the draft Records Document that was used for the proposed rule, we now have an adequate level of confidence that Swains was within the occupied area for

A. retusa at the time of listing and that Asuncion was within the occupied area for *A. globiceps* at the time of listing, as described in appendix A (*i.e.,* the final Records Document) of the Final Information Report (NMFS 2025). Moreover, since we had identified these areas as possible critical habitat at the time of the proposed rule, both provide high quality coral habitat, and the nearest islands to both are occupied by listed coral species, the addition of these areas to the final designation was a foreseeable potential outcome. In addition, in the 2023 proposed rule, we specifically requested public comment on the development of the methodology for using records of listed coral species to determine their occupied areas for critical habitat; changes to the occupied areas for the listed coral species; changes to the depth ranges for the listed coral species; and other changes including refinement of critical habitat boundaries. Based on these additional considerations, we conclude that Swains and Asuncion were both within the occupied areas of these listed corals at the time of listing, and therefore critical habitat for *A. retusa* at Swains and for *A. globiceps* at Asuncion are added to this final coral critical habitat rule, increasing the total number of critical habitat units from 16 in the proposed rule to 18 in the final rule.

Removal of Unsuitable Areas

Based on information received in the public comments, two types of areas were removed from the final coral critical habitat because they are unsuitable for the listed corals. The first type of areas was found to have unsuitable substrates. The proposed rule included specific areas with suitable substrates, including all substrates categorized as ''rock/boulder'' within the occupied areas and depth ranges of the listed coral species. However, these rock/boulder substrates are found in both intertidal and subtidal areas. While subtidal rock/boulder provides suitable substrate for the listed coral species, intertidal rock/boulder does not provide suitable substrate, because the substrate is exposed to air at low tide, as described further in the Final Information Report (NMFS 2025). Thus, all specific areas containing intertidal rock/boulder substrates have been removed from final coral critical habitat.

In addition, public comments provided information showing that certain areas that had been included in proposed critical habitat on Rota, Tinian, and Saipan do not have suitable water quality. These include small areas designated as class A degraded waters by the CNMI government near the West Harbor and East Harbor of Rota, near the Tinian Harbor, and near the outfall of the Agingan Wastewater Treatment Plant on Saipan. Because these areas are likely to have unsuitable water quality and there is no evidence of listed corals occupying these areas (NMFS 2025), they have been removed from final coral critical habitat.

Other Changes

In addition to these two substantive changes in the final rule, we also made some minor, clarifying changes. These changes are described in the Final Information Report and its appendices (NMFS 2025) and summarized here: (1) based on information received in the public comments, the description of the water quality component of the essential feature was revised such that the nutrients section was updated to reflect recent literature on the effects of excessive dissolved inorganic nitrogen and dissolved inorganic phosphorus on reef-building corals, and a plastics subsection was added to the contaminant section to summarize the recent impacts of plastics on coral reefs; (2) the map of the areas on Guam covered by the Navy's Joint Region Marianas (JRM) INRMP was corrected by the Navy in October 2024, causing less area to be ineligible for coral critical habitat, which in turn resulted in an increase of approximately 1.5 km^2 (0.6 mi^2) of coral critical habitat around Guam between the outside of the northern edge of Apra Harbor to the north shore of the island; (3) the name of the listed coral *Euphyllia paradivisa* was changed to *Fimbriaphyllia paradivisa* (89 FR 81867, October 9, 2024) to reflect the change in the scientifically accepted name of this species; and (4) the final Economic Impact Analysis report (appendix C of the Final Information Report, NMFS 2025) was updated with current economic data and ESA section 7 consultation history, assumptions, and methods; however, these did not lead to any substantial changes to the results of the analysis (*i.e.,* still very low economic impacts) or the application of the results to this final rule (*i.e.,* still no economic exclusions).

Summary of Changes

The changes from the 2023 proposed rule to this final rule are summarized in table 1 below.

TABLE 1—SUMMARY OF CHANGES FROM 2023 PROPOSED RULE TO FINAL RULE

	2023 Proposed rule	Final rule
Occupied areas	*18 islands:* Tutuila & Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, Guam, Rota, Aguijan, Tinian, Saipan, FDM, Alamagan, Pagan, Maug Islands, Uracas, Palmyra Atoll, Johnston Atoll, Wake Atoll, FFS/Lalo.	*20 islands:* Tutuila & Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, Swains, Guam, Rota, Aguijan, Tinian, Saipan, FDM, Alamagan, Pagan, Asuncion, Maug Islands, Uracas, Palmyra Atoll, Johnston Atoll, Wake Atoll, FFS/Lalo.
Depth Ranges of critical habitat units*.	0–10 m (3 units)	0–10 m (3 units).
	0–12 m (10 units)	0–12 m (11 units).
	0–20 m (4 units)	0–20 m (5 units).
	0–50 m (1 unit)	0–50 m (1 unit).
Critical Habitat Units	*16 critical habitat units:* Tutuila & Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, Guam, Rota, Aguijan, Tinian, Saipan, Alamagan, Pagan, Maug Islands, Uracas, Palmyra Atoll, Johnston Atoll, FFS/Lalo.	*18 critical habitat units:* Tutuila & Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, Swains, Guam, Rota, Aguijan, Tinian, Saipan, Alamagan, Pagan, Asuncion, Maug Islands, Uracas, Palmyra Atoll, Johnston Atoll, FFS/Lalo.
Total area**	251 km^2 (97 mi^2)	237 km^2 (92 mi^2).

*These are the depth ranges around a given island for all of the listed species found on that island. The depth ranges of each listed species on each island are shown in table 2.

**Although two critical habitat units were added to the final rule, the total area decreased because of the removal of areas with unsuitable substrate from all units, and unsuitable water quality from three units, as described in the *Removal of Unsuitable Areas* section.

Summary of Comments and Responses

We solicited comments on the proposed rule and its supporting documents during a 90-day public comment period (88 FR 83644, November 30, 2023). We held a total of seven public hearings during the public comment period, including six in-person (one each on Guam, Saipan, Tinian, and Rota, and two on Tutuila) and one virtual hearing. We received public comments at the hearings, as well as via both standard mail and through the Federal eRulemaking portal, *https://www.regulations.gov.* We received a total of 17,225 public comments on the proposed rule, including 49 at the hearings, 17,174 via *https://www.regulations.gov,* and 2 by standard mail. Approximately 99 percent of the public comments on *https://www.regulations.gov* were from a campaign by the Center for Biological Diversity urging prompt finalization of the rule. In contrast, nearly all of the public comments from the public hearings expressed concern or opposition to the proposed rule. Approximately 50 of the public comments received on the proposed rule provided new information relative to the final rule. We received comments from a range of sources including global and local environmental non-profit groups, territory Governors, Federal and Territory Government agencies, student groups, and concerned citizens. We considered all public comments, and below we provide responses to all substantive issues raised by commenters that are relevant to this final rule. We do not respond to comments or concerns that we received that are outside the scope of this rule, such as comments on the reasons for listing the coral species under the ESA in the first place. As described above in the Summary of Changes from the Proposed Rule section, we incorporated information provided by commenters into the Final Information Report and its appendices (NMFS 2025) and this final rule.

Comments on Application of Coral Records to Critical Habitat

Comment 1: Two commenters opposed the removal of Tutuila and Offshore Banks from the occupied area for *A. jacquelineae* (which resulted in no proposed critical habitat for this species), arguing that the record of one colony of this species from Tutuila in 2008 should be an adequate basis for designating critical habitat for the species. That is, these commenters disagreed with our conclusion that the single record was likely of a waif colony outside the occupied area of *A. jacquelineae,* stating that the single record indicates that Tutuila was within the occupied area for the species at the time of listing in 2014 and therefore should be included in critical habitat.

Response: The single record of *A. jacquelineae* from Tutuila in 2008 remains the only record of this coral within U.S. waters despite hundreds of surveys around Tutuila by coral experts from the time the species was listed in 2014 through early 2024. Therefore, this record is considered a waif colony. Under our ESA section 4 implementing regulations, areas occupied by the species ''. . .may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals)'' (50 CFR 424.02). Therefore, and as we also discuss in appendix A of NMFS (2024a), the occupied area of a listed coral species does not include the area used solely by such ''vagrant individuals,'' (*i.e.,* waif colonies). In addition, the commenters did not provide any information to support their arguments that the single 2008 record demonstrates that Tutuila was within the occupied area of *A. jacquelineae* at the time of listing in 2014. Thus, there is no basis for including *A. jacquelineae* in this final rule.

Comment 2: Two commenters claimed that using existing records as the basis for determining the depth ranges of the specific areas of critical habitat is inadequate because it does not account for the potential increase in depth ranges of the listed species in response to future ocean warming as a result of climate change. One commenter requested that new coral surveys be conducted to ensure that records are current before finalizing critical habitat. One commenter stated that the uncertainties of coral species identification had not been accounted for in the application of the records to proposed critical habitat.

Response: While it is possible that the depth ranges of listed coral species could become deeper in response to ocean warming, deeper habitat may or may not provide refugia from this threat, and range expansion by a given species to deeper waters depends on many unpredictable physical and ecological factors (Bongaerts *et al.* 2017, Venegas *et al.* 2019). Thus, we cannot assume that the depth distributions of listed coral species will increase in the future. Therefore, there is no basis for extending the depths of coral critical habitat in this final rule. That is, the depths of critical habitat for each species in this final rule is based solely on the records of each species on each island, as shown in table 2 in section 3.1 of the Final Information Report (NMFS 2025), which are based on the records in appendix A (the Final Records Document) of that document. With regard to the request that new coral surveys be conducted to inform final coral critical habitat, we are required to publish a final rule within 1 year of publication of the proposed rule and use the best available information at that time (*i.e.,* the updated records in appendix A) to formulate our rules. There is no requirement to conduct new surveys to inform new rules.

The comment regarding coral species identification uncertainties not being accounted for in the application of the records to proposed critical habitat is incorrect. Sections 2 and 3 of appendix A of the Information Report (NMFS 2025) include both general and species-specific ''Species Identification Uncertainty'' sections that describe thoroughly how we accounted for this.

Comments on the Occupied Areas, Unoccupied Areas, and Specific Areas

Comment 3: Several commenters addressed the way we used coral records to determine the occupied areas and specific areas of critical habitat in the proposed rule. These included comments opposing the wide breadth of proposed critical habitat: One commenter indicated that existing coral species distribution data in American Samoa indicate that the distributions of listed corals are limited to relatively small areas rather than broadly around each island, thus critical habitat should be restricted to those areas where data show the species currently occur. Another commenter made a similar assertion, stating that the maps of proposed coral critical habitat are substrate maps rather than coral distribution maps, and thus inappropriately broad. Both commenters urged that coral critical habitat be restricted to just those areas where current data show that colonies of listed corals occur.

Response: We agree that both the occupied areas and the specific areas of the proposed and final coral critical habitat are broader than the distribution of the listed corals at any one point in time. However, as indicated in our implementing regulations, the geographical area occupied by the species is an area that is generally delineated around the species occurrences and may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors,

seasonal habitats, and habitats used periodically, but not solely by vagrant individuals) (50 CFR 424.02). Within any given area, colonies of the listed species may die off in response to natural disturbances and not reappear for a few years (NMFS 2025). Such mortality and recovery and associated disappearance and reappearance of coral populations at any given site is a normal response to natural disturbance. Therefore, when determining the occupied areas of the listed corals at the time of listing, we used the best available data regarding species occurrences to identify the range within which these corals were known or likely to occur given their life history.

In addition, the ESA's definition of ''critical habitat'' specifies that critical habitat occupied at the time of listing must contain physical or biological features essential to the conservation of the species (16 U.S.C. 1532(5)(A)(i)). Given the nature of these coral species and the available data, we cannot delineate specific areas of critical habitat at the precision of each coral colony, nor does the ESA require such a level of precision. Instead, the ESA requires only that we, using the best available scientific information, determine what areas contain the features that are essential to the conservation of the species and provide a reasoned basis for our conclusions (See *Alaska Oil* & *Gas Ass'n* v. *Jewell,* 815 F.3d 544 (9th Cir. 2016). As described in the *Specific Areas Containing the Essential Feature Within the Geographical Areas Occupied by the Species* section of this rule, we relied on the best available information on substrate and water quality within each critical habitat unit to determine where the essential feature occurred within the occupied areas.

Comment 4: One commenter requested that the breadth of the occupied areas for *A. retusa* and *A. speciosa* be expanded, which just included four critical habitat units for *A. retusa* and one critical habitat unit for *A. speciosa* in the proposed rule. This request was based on the claim that the pelagic larval dispersal and large ranges of these species indicates that U.S. islands that were not included in the proposed rule such as Palmyra Atoll, Howland Island, and Baker Island are most likely within the occupied areas of these two species.

Response: As explained in the Critical Habitat Identification and Designation sections of this rule and the Final Information Report (NMFS 2025), our methodology for determining the occupied areas for each listed coral species is based on the existing coral records in appendix A of the Final Information Report, which was updated in 2024 for this final rule. Islands without adequate evidence of being occupied by a given listed coral species at the time of listing in 2014 do not qualify for critical habitat for that species, such as Palmyra Atoll, Howland Island, and Baker Island for *A. retusa* and *A. speciosa.* While it is possible that these islands were or are within the occupied areas for these listed species based on pelagic larval dispersal and large ranges, it is equally possible that they were not because of the isolated locations and small sizes of these islands. However, two additional critical habitat units (Ta'u and Swains in American Samoa) were included in the final coral critical habitat for *A. retusa* based on the discovery of additional records for that species; both areas had been identified as possible critical habitat at the time of the proposed rule, and the nearest islands to both are occupied by listed coral species. Likewise, an additional critical habitat unit (Asuncion in CNMI) identified as possible critical habitat at the time of the proposed rule was included in final coral critical habitat for *A. globiceps* based on the discovery of additional records for that species. These additional records are provided in appendix A of the Final Information Report (NMFS 2025).

Comment 5: Two commenters objected to not including unoccupied areas in proposed critical habitat. Both commenters asserted that climate change is likely to cause shifts in the occupied areas in the near future such that currently unoccupied areas will become occupied areas for these species. One commenter also contended that unoccupied areas are likely to become occupied by listed corals in the near future because of their pelagic life history.

Response: Ocean warming is resulting in shifting ranges of reef-building corals, thus it is possible that the ranges of listed corals will eventually expand into the currently unoccupied areas within U.S. waters. However, such range shifts are a complex response to the interaction of different global threats such as ocean warming, ocean acidification, and sea-level rise, as well as localized threats (Dove *et al.* 2020, Guan *et al.* 2020), and vary by coral species, location, and other factors. With regard to unoccupied areas being likely to become occupied due to the pelagic life history of the listed corals, we do not agree that that is necessarily true because of the small size and isolation of these unoccupied areas. Thus, it is not possible to predict whether the currently unoccupied areas in U.S. waters will be occupied by listed corals in the foreseeable future, whether due to changing environmental conditions or due to their pelagic life history. Even if they were to become occupied, these areas are very small islands that collectively make up much less than 1 percent of the listed species' ranges, thus the unoccupied areas may not be essential for the conservation of these species.

Comment 6: One commenter suggested that the specific areas of critical habitat within each occupied area be expanded as follows: (1) addition of buffer zones to mitigate for future climate change impacts; (2) addition of current shoreline areas that are projected to be underwater due to sea level rise in the foreseeable future; and (3) addition of abyssal plains because of future potential mining and drilling.

Response: For areas that are occupied by the species at the time it is listed under the ESA, critical habitat is defined as those specific areas containing the physical or biological features essential to the conservation of the listed species and that may require special management considerations or protection. That is, specific areas within the occupied range of the species that do not contain the essential features cannot be included in critical habitat, such as buffer zones between specific areas and other areas or shorelines that are projected to be eventually inundated by sea-level rise. Likewise, abyssal plains are thousands of meters deep, far outside the depth ranges of any reef-building corals, and do not provide any of the essential features of coral critical habitat, thus cannot be included in critical habitat for the listed coral species.

Comment 7: Two commenters requested the following areas be removed from the specific areas of critical habitat within CNMI critical habitat units, due to compromised water quality that disqualify them from critical habitat, including: (1) On Saipan, class A waters within 1,000 feet (305 meters) of Agingan Outfall; (2) on Tinian, class A waters of San Jose Harbor; and (3) on Rota, class A waters of East and West Harbor. These two commenters also requested that an area on Pagan be removed from the specific areas of critical habitat due to planned future harbor developments. Finally, one commenter requested that the artificial substrates and managed areas be better described to clarify the distinction between the specific areas included in critical habitat vs. the

artificial substrates and managed areas not included in critical habitat.

Response: All four areas that were requested to be removed from the specific areas of critical habitat on Saipan (one area), Tinian (one area), and Rota (two areas), are designated by the CNMI Government as class A waters (CNMI Bureau of Environmental and Coastal Quality [BECQ] 2020) because of compromised water quality. We agree that these four areas do not qualify as specific areas for coral critical habitat because they do not contain the water quality component of the essential feature and cannot support occupancy of the areas by the listed corals, as explained further in the Final Information Report (NMFS 2025), thus they have been removed from final coral critical habitat. With regard to the area that was requested to be removed from the specific areas of critical habitat on Pagan, that area contains the essential feature of coral critical habitat. Since no areas on Pagan are covered by an INRMP, none can be exempted from critical habitat under 4(a)(3). Likewise, since there are no areas on Pagan where critical habitat would have national security, economic impacts, or other relevant impacts, none can be excluded from critical habitat under 4(b)(2). As there is no basis to exclude this area, we are including it in final coral critical habitat.

With regard to better describing the artificial substrates and managed areas, additional details have been provided in appendix B of the Final Information Report (NMFS 2025). Some critical habitat units, such as Tutuila and Offshore Banks, Guam, and Saipan, each have at least dozens of artificial substrates and managed areas that are not included in critical habitat. For each critical habitat unit, appendix B of the Final Information Report (NMFS 2025) lists the categories of artificial substrates (*e.g.,* Aids-to-Navigation or AToNs, seawalls, etc.) and managed areas (*e.g.,* harbors and navigation channels, areas around AToNs, etc.).

Comments on the Essential Feature

Comment 8: One commenter requested that we add the following quantitative thresholds for the water quality attribute of the essential feature: (1) Seawater temperatures not to exceed 1.0° C of location-specific warming; (2) aragonite saturation states not to exceed 4.0; and (3) water clarity (turbidity) not to exceed 7 nephelometric turbidity units.

Response: As explained in detail in the Water Quality section of the Final Information Report (NMFS 2025), identifying quantitative thresholds for water quality parameters such as seawater temperature, aragonite saturation state, and water clarity (turbidity) is inherently complex and influenced by taxa, exposure duration, and other factors. Even for a single species and a set exposure duration, such thresholds are variable across both time (*e.g.,* tidal cycle, season, etc.) and space (*e.g.,* habitat type, inshore vs. offshore, etc.) and may be nonlinear. The values presented in the Seawater Temperature, Aragonite Saturation State, and Water Clarity/Turbidity subsections of the Final Information Report (NMFS 2025) constitute the best available information at the time of this rulemaking. It is possible that future scientific research will identify more species-specific values for some of these parameters that become more applicable to the five listed coral species, though it is also possible that future species-specific research will document that conducive or tolerance ranges for the five corals fall within these ranges. Because the ESA requires us to use the best scientific information available in conducting consultations under section 7, we will incorporate any such new scientific information into consultations when evaluating potential impacts to the critical habitat. For these reasons, we are not including quantitative thresholds in this final rule.

Comment 9: One commenter provided new publications on the impacts of nutrients on corals, and suggested that nutrient impacts be re-evaluated in light of the new information. The same commenter also suggested that the contaminants attribute of the essential feature be expanded to address plastic pollution, because that has recently become a global problem for coral reefs.

Response: We agree that the addition of new information on the effects of nutrients and plastics on corals are appropriate and have updated the descriptions of the nutrients and contaminants components of the essential feature in this rule and the Final Information Report (NMFS 2025) accordingly. However, we do not agree that nutrient impacts need to be re-evaluated in light of the new information that was brought to our attention by the public comment, since it merely added to the already-existing information that we previously used to summarize nutrient impacts on listed corals in the proposed rule.

Comments on the Application of ESA Section 4(a)(3)

Comment 10: Several commenters disagreed with our conclusion that the Navy's 2019 Joint Region Marianas Integrated Natural Resources Management Plan (JRM INRMP) is likely to benefit the listed coral *A. globiceps,* which was the basis for our determinations that the Navy's Submerged Lands around Guam and FDM, as well as its Tinian Marine Lease Area (MLA), were ineligible for designation as coral critical habitat. Most of these commenters based their disagreement on the general argument that the Navy's activities are likely to continue to degrade the coral reefs and listed corals within all of these areas despite the implementation of the coral conservation components of the JRM INRMP. Similarly, one commenter made a general argument that the Navy has a poor track record of implementing its planned conservation projects in the Marianas and thus cannot be trusted to implement the projects as planned in the JRM INRMP. In addition, one commenter disagreed with our ineligibility determination for the Tinian MLA, based on specific information regarding the high quality of the *A. globiceps* habitat on Tinian together with the impacts of the different types of anticipated Navy activities on that habitat.

Response: Although several commenters expressed general skepticism regarding the benefits of the Navy's JRM INRMP to the listed coral, as well as general disagreement with our determination that the JRM INRMP provides a benefit to the listed coral, no new specific information was provided by these comments to support their claims. The updated 4(a)(3) determinations in this final rule and the Final Information Report (NMFS 2025) are based on the best available information on the listed coral and its habitat within the JRM INRMP marine areas, and the current status of the implementation of the coral conservation components of the JRM INRMP, including the most recent updates from the Navy (Department of the Navy [DON] 2023, 2024). As described in the updated conclusion for the JRM INRMP sections of this final rule and the Final Information Report, in general our determinations for the JRM INRMP are based on clear and recent documentation of coral conservation projects, demonstration of good faith efforts for listed corals, and a history of strong conservation work by the Navy, all of which have been demonstrated and documented.

With regard to the specific comment about the Tinian MLA, no new information was provided about either the use of the area by listed corals or the potential impacts of the Navy's activities. In contrast, our review of the most recent information provided by the

Navy on the implementation of the JRM INRMP within the Tinian MLA (DON 2023, 2024) shows that the coral conservation projects are benefiting, or are likely to benefit, listed corals in several ways, including at least removal of non-permitted buoys, control of crown-of-thorns outbreaks, and monitoring to detect changes that could result in management responses.

Comments on the Application of ESA Section 4(b)(2)

Comment 11: Several commenters disagreed with our conclusion that no areas should be excluded from coral critical habitat due to economic impacts. This conclusion was based on our determination that economic impacts are not likely to outweigh conservation benefits, based on the results of our draft Economic Impact Analysis report (NMFS 2023, appendix C) that was prepared for the proposed rule. These commenters argued that coral critical habitat would result in substantial economic impacts by delaying infrastructure development such as mooring buoys, boat ramps, sewage outfall management, harbor maintenance, seawall construction, and others, as well as by restricting ongoing activities such as commercial and recreational fisheries management and water quality management. The commenters contend that such development and activity is increasingly important economically due to rising sea-levels, shrinking local economies, and reduced populations, thus exacerbating the economic impacts of coral critical habitat on the local communities, thereby warranting exclusion of the most economically-impacted areas.

Response: We disagree with commenters that we underestimated the economic impacts of coral critical habitat. As detailed in the Final Economic Impact Analysis report (NMFS 2025, appendix C), we do not anticipate that section 7 consultations on the effects of proposed Federal actions on coral critical habitat will result in project modifications beyond those that are already being required to minimize effects to the listed corals, which have been required since the corals were listed in 2014. In addition, as explained in the Final Economic Impact Analysis report, no incremental costs of coral critical habitat are expected to be borne by third parties such as local governments or private companies. One major reason why the economic impacts are expected to be low is that coral critical habitat does not include any existing managed areas (*i.e.,* harbors, navigation channels, boat ramps, *etc.*) or artificial substrates, which is where many economically important activities are concentrated. These managed areas and artificial substrates are listed and described island-by-island in appendix B of the Final Information Report (NMFS 2025).

Comment 12: Several other commenters maintained that our Economic Impact Analysis report underestimated the potential economic benefits of coral critical habitat by not fully accounting for the economic benefits of coral reefs, such as providing food sources, protection from tropical storms, and ecotourism.

Response: We disagree with commenters that we underestimated the economic benefits of coral critical habitat. As described in the Final Economic Impact Analysis report (NMFS 2025, appendix C), the incremental economic benefits of this critical habitat designation are limited by the fact that these benefits will likely already stem from the protections the species receive as a result of their listing under the ESA. In addition, while we expect benefits to result from: (1) the increased protection of the essential feature from Federal actions via section 7 technical assistance; (2) enhanced ecosystem service benefits of coral reef conservation; and (3) greater education and awareness of coral reef conservation, these potential benefits are uncertain and cannot be quantified. Thus, we do not agree that the Economic Impact Analysis underestimates the potential benefits of coral critical habitat.

Comments on Engagement With Local Governments and Communities

Comment 13: Many commenters objected to how the in-person informational meetings and public hearings were carried out. Some of these commenters argued that more meetings and hearings should have been held, especially on the outer islands of American Samoa such as Ofu, Olosega, and Ta'u. Others complained that the advertising for the meetings and hearings was inadequate, especially on Guam. Some stated that additional informational meetings should have been held at a larger number of venues throughout each island.

Response: Public hearings on proposed Federal rules are not required unless requested, and even then, only one hearing is required (16 U.S.C. 1533(b)(5)(E)). However, we held seven public hearings on the proposed coral critical habitat rule even though none were requested. Six of the public hearings were in-person and were held throughout the jurisdictions where critical habitat was proposed (two in American Samoa, one in Guam, and three in CNMI (one each in Saipan, Tinian, and Rota)). We planned these public hearings based on previous attendance, information gleaned from various outreach intiatives from 2022 to 2023, and public input we received on previous engagement efforts. Notwithstanding our limited resources, our outreach efforts consisting of multiple hearings across a wide Pacific region exceeded the requirements in the ESA. We also contracted facilitators, who provided translation/interpretation in Samoan, Chamorro, and Carolinian. We then followed up the in-person hearings by hosting a virtual public hearing to provide an additional opportunity for the public to learn about the proposed rule and provide public comment. Each public hearing was advertised to the public via local media (*i.e.,* newspapers and radio), social media, and email lists in addition to being announced on the NOAA Fisheries website and the **Federal Register**. Furthermore, in addition to the public hearings, we held approximately two dozen in-person meetings and engagement events during the public comment period in American Samoa, Guam, and CNMI, including with territory resource agency departments, other Federal agency partners, gubernatorial and mayoral offices, community colleges, and community members (among others) to provide information to the public regarding proposed coral critical habitat. Thus, NOAA Fisheries went beyond what is required in order to engage the public and solicit public comments on the proposed rule, and we consider this to be meaningful engagement.

Comment 14: Many commenters complained that future impacts of critical habitat on local governments and communities were not clearly explained in the proposed rule and supporting documents.

Response: We believe that the future impacts of critical habitat on local governments and communities were described with sufficient clarity in the proposed rule and its supporting documents to allow for meaningful public comment. To address the commenters' concerns, this final rule and the Final Information Report (NMFS 2025) have been revised to incorporate plain language descriptions of why the economic impacts of coral critical habitat on local governments and communities are expected to be very low, especially within the *Economic Impacts,* Effects of Critical Habitat Designations, and Activities that May be Affected sections of the final

rule, together with their corresponding sections of the Final Information Report and its appendices (NMFS 2025).

Comment 15: Many commenters expressed concerns about restrictions they asserted would be caused by critical habitat on public access to marine resources and public use of those resources, especially subsistence fishing and reef gleaning. These commenters expressed a strong preference for community-based conservation over Federal regulations, such as designation of critical habitat.

Response: This coral critical habitat (and critical habitat in general) will not affect public access to, or public use of, marine resources. The ESA only requires federal agencies to consult prior to undertaking, funding or authorizing actions that might affect designated critical habitat. Accordingly, critical habitat does not: (1) restrict or change public access to any shorelines or marine areas such as beaches, lagoons, coral reefs, *etc.* that are within or adjacent to coral critical habitat; or (2) restrict public use of marine resources such as subsistence or recreational fishing and reef gleaning within coral critical habitat. Likewise, critical habitat does not establish a marine protected area of any kind, and thus will not lead to reduced public access to, or public use of, marine resources within critical habitat.

In addition, with regard to the strong preference for community-based conservation over Federal regulations such as designation of critical habitat, we agree that community-based conservation can be an effective approach for marine resource conservation and we strongly support it. We are not designating critical habitat to replace community-based conservation or because we believe it is better than community-based conservation, but rather because we are required by the ESA to designate critical habitat as a necessary means to conserve and recover threatened and endangered species.

Comment 16: Many commenters expressed objections to the potential increase in regulatory burdens to local governments resulting from critical habitat, which commenters believe could hinder future development of basic infrastructure that is sorely needed in the Territories (*e.g.,* shoreline protection, communication networks, public transportation, public health), hinder maintenance of existing infrastructure that are increasingly subject to damage by sea-level rise and storms in the Territories (*e.g.,* seawalls, roads, airports, buildings), and the release and spending of Federal funds in the Territories.

Response: Coral critical habitat is expected to have low impacts on local governments because the requirement to consult over an action's impacts to critical habitat only applies to actions funded, authorized or carried out by federal agencies. In those cases where Federal actions affect local governments such as Federal funding of a Territory government's actions, the ''incremental impacts'' of coral critical habitat are expected to be low. These incremental impacts are those that would be over and above the impacts that stem from existing protection of the corals through their listing as threatened species under the ESA. For example, if a Territory government agency has been receiving Federal funding annually over the past few years, the Federal agency that has been providing the funding would have already been consulting with NOAA Fisheries if the funded action were likely to affect listed corals. Since the effects of such actions on colonies of listed corals are typically similar to their effects on coral critical habitat, the designation of coral critical habitat is expected to result in low incremental impacts to local governments. These public comments were especially focused on concern that coral critical habitat could hinder future development of basic infrastructure that is sorely needed in the Territories (*e.g.,* shoreline protection, communication networks, public transportation, public health), hinder maintenance of existing infrastructure that are increasingly subject to damage by sea-level rise and storms in the Territories (*e.g.,* seawalls, roads, airports, buildings), and delay the release and spending of Federal funds in the Territories. However, such effects in the Territories are unlikely because of the low incremental impacts of coral critical habitat. These incremental impacts are summarized in the *Economic Impacts* section of this rule and described in the Final Economic Impact Analysis report (appendix C of NMFS 2025). Examples of the very limited impacts of critical habitat on local governments and communities in the Pacific Islands are provided by over a decade of experience in Hawaii, where critical habitat was broadly designated across federal and state marine waters for the Hawaiian monk seal in 2013, and also across federal and state marine waters of the main Hawaiian Islands for the Main Hawaiian Islands insular false killer whale in 2018.

Comment 17: Several commenters expressed opposition to what they stated are contrasting approaches used to consider critical habitat for areas controlled by the DOD versus areas controlled by local governments, especially in the Mariana Islands.

Response: Under the ESA, we are required to consider additional information with respect to areas owned or controlled by the DOD or designated for its use that does not apply to areas controlled or managed by local governments. Specifically, under section 4(a)(3)(B)(i) of the ESA, we consider whether there is an approved INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a) that provides a benefit to the listed species. We are prohibited from designating as critical habitat any lands or other geographical areas owned or controlled by the DOD (*i.e.,* Navy, Air Force, Army, *etc.*), or designated for its use, that are subject to a DOD INRMP, if the Secretary determines in writing that such plan provides a conservation benefit to the species for which critical habitat is designated. As explained in the Application of ESA Section 4(a)(3)(B)(i) section of this rule, we have determined that the Navy's JRM INRMP and the Air Force's Wake Islands INRMP (Wake INRMP) are both likely to benefit listed corals. Thus, all marine areas subject to these INRMPs that are within the control of DOD, including parts of Guam and Tinian and all of FDM and Wake Island, are ineligible for coral critical habitat. Since the Sikes Act does not apply to areas outside the control of DOD, including those controlled by Territory governments, there are inevitably contrasting approaches to the implementation of critical habitat between the two types of areas.

Comment 18: Several commenters stated that the proposed critical habitat is inconsistent with the Administration's stance on Equity and Environmental Justice (EEJ), asserting that the coral critical habitat rule conflicts with EEJ-related Executive Orders (E.O.s), including E.O. 13985 (advancing equity for all), E.O. 14096 (environmental justice), and E.O. 14031 (equity, justice, and opportunity for Asian Americans, Native Hawaiians, and Pacific Islanders) because areas covered by the JRM INRMP in the Mariana Islands were not included in proposed critical habitat, while areas covered by Guam's and CNMI's Marine Protected Areas (MPAs) were included in proposed critical habitat.

Response: As noted in the above response to comments on the contrasting approaches used to consider critical habitat for areas controlled by DOD versus areas controlled by local governments, the inclusion of some areas but not others in coral critical

habitat results from the implementation of the ESA's Section 4(a)(3) to consider INRMPs and Section 4(b)(2) to consider the economic impact, impact on national security, and any other relevant impact, of designating any particular area as critical habitat, as further explained in the ''Application of ESA Section 4(a)(3)(B)(i)'' and ''Application of ESA Section 4(b)(2)'' sections of this rule. Moreover, on January 20, 2025, Executive Order 14148 Initial Rescissions of Harmful Executive Orders and Actions, revoked the referenced Executive Orders.

Comment 19: Several commenters expressed appreciation for several aspects of the proposed rulemaking process, including the in-person public hearings that were held in January 2023 in the Territories, the translation and interpretation in the Samoan, Chamorro and Carolinian languages at the hearings, and the responses by NOAA Fisheries to the public comments on the 2020 proposed coral critical habitat rule, especially the replacement of that rule with the new 2023 proposed rule which addressed many of the major comments made by the Territorial Governments on the 2020 proposed rule.

Response: We appreciate the positive comments we received regarding several aspects of the proposed rulemaking process. Such feedback is very helpful for planning the implementation of future rulemakings.

Critical Habitat Identification and Designation

In the following sections, we describe the relevant definitions and requirements in the ESA and our implementing regulations, and the key information and criteria used to prepare this final critical habitat designation for the five listed corals (*A. globiceps, A. retusa, A. speciosa, F. paradivisa,* and *I. crateriformis*). In accordance with section 4(b)(2) of the ESA and our implementing regulations (50 CFR 424.12), this final rule is based on the best scientific and commercial information available.

We used a five-step process for identifying critical habitat areas for the threatened corals to determine the following: (1) the geographical areas occupied (*i.e.,* range) by the listed corals at the time of listing (*i.e.,* occupied areas, as well as depth ranges for the listed corals within the occupied areas); (2) the physical or biological features essential to the conservation of the listed corals (*i.e.,* essential feature); (3) whether the physical or biological features within these geographical areas may require special management considerations or protection; (4) the specific areas within each of the occupied areas where the essential features occur (this step consists of four sub-steps); and (5) whether any unoccupied areas are essential to the conservation of any of the listed corals.

Geographical Area Occupied by the Species (Occupied Area)

The phrase ''Geographical area occupied by the species'' in the statutory definition of critical habitat is further defined in the ESA section 4 implementing regulations as ''An area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).'' (50 CFR 424.02). That is, the ''Geographical area occupied by the species'' (hereafter abbreviated to ''occupied area'') refers to the range of the species at the time of listing, based on its historical records of occurrence. The methodology for determining which U.S. islands were within the occupied area for each listed species at the time of listing is described in section 2.1.4 of the Final Information Report (NMFS 2025) and summarized here.

The determinations of the occupied areas for each listed species at the time of listing are based on the records of each listed coral species within U.S. waters. However, using the records to determine occupied areas in U.S. waters requires overcoming three major challenges: (1) Finding all the records (compilation); (2) accounting for the high variability in the quality, quantity, age, species identification uncertainty, survey effort, and other factors associated with the records (assessment); and (3) interpreting the records to determine which islands are within the occupied area for each listed species and thus should be included in critical habitat (application). In order to address these challenges and ensure that we are using the best available information, we compiled all the available records for each listed coral species around each island within U.S. Pacific Islands jurisdictions and developed a consistent and transparent methodology for assessing and applying the records to determine occupied areas for each species in U.S. waters. The results are provided in appendix A (the ''Records Document'') of the Final Information Report (NMFS 2025), and were applied to this final rule. The compilation, assessment, and application of the records are summarized from the Records Document below.

The available records for each listed coral species around each island within U.S. Pacific Islands waters were compiled from all available sources. The search produced records of seven listed coral species (*A. globiceps, A. jacquelineae, A. retusa, A. speciosa, F. paradivisa, I. crateriformis,* and *S. aculeata*) from U.S. Pacific Islands waters. These records were divided into 47 records groups by island and species: The 47 records groups from 26 islands included 5 islands in American Samoa, 1 island in Guam, 10 islands in CNMI, 7 islands in PRIA, and 3 islands in the Northwestern Hawaiian Islands of Hawai'i (NMFS 2025, appendix A).

Each of the 47 records groups was assessed in terms of the following factors: (1) quality of records; (2) quantity of records; (3) age of records; (4) species identification uncertainty; (5) survey effort; and (6) other factors, as summarized below and explained in more detail in the Records Document.

The quality of records was addressed by categorizing records as ''photo records,'' ''expert data records,'' or ''other records.'' Because of species identification uncertainty, photo records are ideal if the location and date of the photo are known, and the photo clearly shows colony and branch morphology. However, many records of coral species are in the form of data sheets or species lists and lack photos. Any such record collected by a recognized Indo-Pacific reef-building coral species expert is considered an expert data record. Records that do not meet the criteria for photo records or expert data records are considered other records (*e.g.,* personal communications). Such records have higher uncertainty than photo records or expert data records, but still may provide valuable information. We confirmed all records via direct communication with the experts who took the records, or with experts who were able to vouch for the records. Our determinations of whether the island was within the occupied area for a listed species at the time of listing relied almost entirely upon photo records and expert data records. However, other records provided valuable information for some islands or parts thereof (NMFS 2025, appendix A).

The quantity of records is an important consideration, since the more photo records and expert data records we have for a species from an island, the greater the likelihood that the island was within the occupied area for a listed species at the time of listing (2014). Islands with a single photo record or expert data record of a listed species

may or may not have been within the occupied area of that species at the time of listing, depending on other factors. Older records are not necessarily lower quality. However, the older a record is, the less relevance it has to our determination of whether the island was within the occupied area for a listed species at the time of listing (NMFS 2025, appendix A).

Species identification uncertainty is substantial for most of the 15 listed Indo-Pacific reef coral species, even for experts. For listed coral species that are consistently distinct from similar species and frequently observed, species identification uncertainty has decreased since listing, as survey effort and expertise have increased. This is the case with *A. globiceps* and *I. crateriformis.* In addition, *F. paradivisa* and *S. aculeata* are consistently distinct from similar species, although they are very infrequently observed within U.S. waters. For these four listed species, identification uncertainty is relatively low now for coral species experts based in the U.S. Pacific Islands. In contrast, for listed species that are very similar to other species, the increase in survey effort since listing in 2014 has emphasized the difficulty in distinguishing them. This is the case with *A. retusa, A. jacquelineae,* and *A. speciosa.* For these three listed species, identification uncertainty is relatively high now, even for coral species experts who focus on the U.S. Pacific Islands (NMFS 2025, appendix A).

Survey effort refers to the amount of expert coral species surveys that have been conducted on an island. Historical survey effort has been highly variable from island to island, potentially influencing the interpretation of the records. However, all islands in this rule except FDM in CNMI have been included in the PIFSC's species-level standardized coral reef monitoring surveys at least one time since listing in 2014, and some islands have also been included in standardized surveys by other agencies. PIFSC's surveys are quite extensive around each island, including many transects and covering wide depth ranges. The DON restricts access to FDM, hence PIFSC does not survey there. However, the Navy periodically conducts species-level coral surveys at FDM, thus numerous surveys have been conducted on FDM both around and since the time of listing. All islands have been subject to extensive species-level surveys (*i.e.,* the PIFSC and DON surveys) around or since the time of listing, including within the depth ranges and habitat types of all listed coral species (NMFS 2025, appendix A).

In addition, other factors were also taken into consideration in assessment of the records, including taxonomic issues, morphological variability across archipelagos, and habitat preferences. The taxonomic issues that had to be accounted for included historical confusion of *A. globiceps* with *A. humilis,* and the name change from *Acropora crateriformis* to *Isopora crateriformis,* both of which affect treatment of historical records. Secondly, the apparent variability in colony morphology of *A. retusa* and related species between the American Samoa, Guam-CNMI, and PRIA archipelagos had to be accounted for. That is, the combination of high colony morphological variability and low numbers of records in Guam-CNMI and PRIA is such that we have low confidence in these records. Finally, some types of coral reef habitats are surveyed more than others, mainly because of accessibility and safety, raising the possibility that the records may not be representative of species' distributions across habitats (NMFS 2025, appendix A).

After we compiled and assessed each of the 47 records groups, we rated the level of evidence provided by each group that the island was within the occupied area for the listed species at the time of listing in 2014, using a systematic rating system that takes all the assessment factors into consideration. Each records group was rated between 1 (least likely) and 10 (most likely), resulting in the following 47 ratings:

1. Nine records groups were rated as 1: *A. jacquelineae* from Tutuila; *A. retusa* from Guam, Rota, Tinian, Howland, Kingman Reef, and Johnston Atoll; and *A. speciosa* from Guam and Kingman Reef.

2. Seven records groups were rated as 2: *A. globiceps* from Howland, Baker, Kingman Reef, Maro Reef, and Gardner Pinnacles; and *S. aculeata* from Guam and Saipan.

3. One records group was rated as 3: *A. retusa* from Jarvis.

4. Three records groups were rated as 4: *A. globiceps* from Alamagan, Asuncion and Uracas.

5. Two records groups were rated as 5: *A. retusa* from Wake Atoll; and *A. speciosa* from Tutuila.

6. Six records groups were rated as 6: *A. globiceps* from Rose, FDM, Palmyra, Johnston, and French Frigate Shoals (FFS, also known as Lalo); and *F. paradivisa* from Tutuila.

7. Three records groups were rated as 7: *A. retusa* from Ofu-Olosega, Ta'u, and Swains.

8. Six records groups were rated as 8: *A. globiceps* from Ofu-Olosega, Ta'u, Aguijan, Pagan, Maug Islands, and Wake Atoll.

9. Two records groups were rated as 9: *A. retusa* from Tutuila and Rose Atoll.

10. Eight records groups were rated as 10: *A. globiceps* from Tutuila, Guam, Rota, Tinian, and Saipan; and *I. crateriformis* from Tutuila, Ofu-Olosega, and Ta'u.

Finally, we interpreted the ratings for each of the 47 records groups in terms of the likelihood that the island was within the occupied area for the listed species at the time of listing in 2014. Seventeen of the records groups were rated as 1–3, generally because these records groups each consist of one or two records collected years or decades before listing together with the fact that no additional records have been collected since then despite extensive expert surveys. Thus, each of these 17 records groups provide inadequate evidence that the island was within the occupied area for the listed species at the time of listing, as explained in more detail in the Records Document (NMFS 2025, appendix A).

Of the remaining 30 records groups, the 25 that were rated as 6–10 each provide clear evidence that the island was within the occupied area for the listed species at the time of listing, as explained in more detail in the Records Document. The remaining five records were rated as either 4 or 5, the most ambiguous ratings in terms of providing inadequate vs. adequate evidence. We have determined that these five records groups each provide adequate evidence that the island was within the occupied area for the listed species at the time of listing, as summarized here from the Records Document (NMFS 2025, appendix A).

Three *A. globiceps* records groups were rated as 4 (Alamagan, Asuncion, Uracas), a species with low species identification uncertainty for trained experts. These records groups consist of one (Alamagan and Asuncion) and two (Uracas) records from 2017 and 2022. Because *A. globiceps* has low species identification uncertainty, and these records consist of records from 2017 and 2022, these records groups provide adequate evidence that the three islands were within the occupied area of *A. globiceps* at the time of listing in 2014 (NMFS 2025, appendix A).

Two records groups were rated as 5, *A. retusa* from Wake Atoll and *A. speciosa* from Tutuila, species with high species identification uncertainty, even for trained experts. The *A. retusa*/Wake records group consists of many photo and expert data records since listing in 2014. The *A. speciosa*/Tutuila records group consists of several photo and expert data records before and after listing in 2014, including two from 2016 that were confirmed with skeletal samples, and one record from a standardized monitoring survey in 2015

that was not confirmed with a skeletal sample. Although both species have high species identification uncertainty even for trained experts, the *A. retusa*/Wake records group consists of many photo and expert data records since listing, and the *A. speciosa*/Tutuila records group includes multiple post-listing records that were mostly confirmed with skeletal samples. Thus, the records groups provide adequate evidence that Wake Atoll was within the occupied area of *A. retusa,* and that Tutuila was within the occupied area of *A. speciosa,* at the time of listing in 2014 (NMFS 2025, appendix A).

In summary, 17 records groups each provide inadequate evidence that the island was within the occupied area of the listed species at the time of listing, while 30 records groups each provide adequate evidence that the island was within the occupied area of the listed species at the time of listing. These 30 records groups were from a total of 20 islands, including 19 islands for *A. globiceps,* 6 islands for *A. retusa,* 1 island each for *A. speciosa* and *F. paradivisa,* and 3 islands for *I. crateriformis* (NMFS 2025, appendix A), as shown in table 2.

In addition, the 30 records groups were used to determine the depth range of each listed species around each island. For *A. globiceps,* the depth ranges were 0–20 m (3 islands), 0–12 m (11 islands), and 0–10 m (5 islands). For the other 4 species, the depth ranges were 0–20 m for *A. retusa* (6 islands) and *I. crateriformis* (3 islands), and 20–50 m for *A. speciosa* and *F. paradivisa* (1 island each; NMFS 2025, appendix A), as shown in table 2.

TABLE 2—ISLANDS CONSIDERED WITHIN THE OCCUPIED AREA AT THE TIME OF LISTING FOR EACH CORAL SPECIES FOUND IN U.S. WATERS, AND THEIR DEPTH RANGES IN METERS

[NMFS 2025, Appendix A]

Island	*A. globiceps*	*A. retusa*	*A. speciosa*	*F. paradivisa*	*I. crateriformis*
Tutuila and Offshore Banks	0–20	0–20	20–50	20–50	0–20
Ofu-Olosega	0–20	0–20	.....	.....	0–20
Ta'u	0–20	0–20	.....	.....	0–20
Swains	.....	0–20	.....	.....	.....
Rose Atoll	0–10	0–20	.....	.....	.....
Guam	0–12	.....	.....	.....	.....
Rota	0–12	.....	.....	.....	.....
Aguijan	0–12	.....	.....	.....	.....
Tinian	0–12	.....	.....	.....	.....
Saipan	0–12	.....	.....	.....	.....
Farallon de Medinilla	0–12	.....	.....	.....	.....
Alamagan	0–12	.....	.....	.....	.....
Pagan	0–12	.....	.....	.....	.....
Asuncion	0–12	.....	.....	.....	.....
Maug Islands	0–12	.....	.....	.....	.....
Uracas	0–12	.....	.....	.....	.....
Palmyra Atoll	0–10	.....	.....	.....	.....
Johnston Atoll	0–10	.....	.....	.....	.....
Wake Atoll	0–10	0–20	.....	.....	.....
French Frigate Shoals/Lalo	0–10	.....	.....	.....	.....

Physical or Biological Features Essential for Conservation

Within the occupied areas, critical habitat consists of specific areas in which are found those physical and biological features (PBFs) essential to the conservation of the species and that may require special management considerations or protection. PBFs essential to the conservation of the species are defined as the features that occur in specific areas and that are essential to support the life-history needs of the species, including water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity (50 CFR 424.02).

Based on the best scientific information available, we identify the following physical feature essential to the conservation of the five corals.

Reproductive, recruitment, growth, and maturation habitat. Sites that support the normal function of all life stages of the corals, including reproduction, recruitment, and maturation. These sites are natural, consolidated hard substrate or dead coral skeleton, which is free of algae and sediment at the appropriate scale at the point of larval settlement or fragment reattachment, and the associated water column. Several attributes of these sites determine the quality of the area and influence the value of the associated feature to the conservation of the species:

(1) Substrate with presence of crevices and holes that provide cryptic habitat, the presence of microbial biofilms, or presence of crustose coralline algae;

(2) Reefscape (all the visible features of an area of reef) with no more than a thin veneer of sediment and low occupancy by fleshy and turf macroalgae;

(3) Marine water with levels of temperature, aragonite saturation, nutrients, and water clarity that have been observed to support any demographic function; and

(4) Marine water with levels of anthropogenically-introduced (from humans) chemical contaminants that do not preclude or inhibit any demographic function.

With regard to the first and second attributes, reef-building corals, including the listed species, require exposed natural consolidated hard substrate for the settlement and recruitment of larvae or asexual fragments. Substrate provides the physical surface and space necessary for settlement of coral larvae, a stable environment for metamorphosis of the larvae into the primary polyp, growth of

juvenile and adult colonies, and re-attachment of fragments. A number of attributes have been shown to influence coral larval settlement. Positive cues include the presence of crustose coralline algae, biofilms, and cryptic habitat such as crevices and holes. Attributes that negatively affect settlement include presence of sediment and algae (NMFS 2025).

With regard to the third and fourth attributes, reef-building corals, including the listed species, require seawater temperature, aragonite saturation, nutrients, and water clarity conditions within suitable ranges to enable coral growth, reproduction, and recruitment. Corals may tolerate and survive in conditions outside these suitable ranges, depending on the local conditions to which they have acclimatized and the intensity and duration of deviations outside the suitable ranges. Extended deviations from suitable ranges result in direct negative effects on all life stages. The listed corals thrive in warm, clear, nutrient-poor marine waters with calcium carbonate concentrations that allow for symbiont photosynthesis, coral physiological processes, and skeleton formation. This water must also have low to no levels of contaminants that would interfere with normal functions of all life stages (NMFS 2025).

Need for Special Management Considerations or Protection

As described in the Final Information Report (NMFS 2025), we determined that the essential feature may require special management considerations or protection throughout the species' ranges because threats to this feature exist within these areas. Such threats include global and local threats, especially ocean warming, ocean acidification, coral disease, land-based sources of pollution, and fishing. There were no public comments on this section of the draft Information Report or the proposed rule, nor has any relevant new information become available that would alter our conclusion regarding the potential need for special management considerations or protection.

Specific Areas Containing the Essential Feature Within the Geographical Areas Occupied by the Species

As described under *Geographical Area Occupied by the Species (Occupied Area),* we identified a total of 20 critical habitat units that are within the occupied area for at least one listed coral species. Within each of those critical habitat units, we delineated more specific areas that contain the essential feature using a 4-step process: (1) general information was used to delineate soft vs. hard substrates; (2) for the hard substrate areas identified in step 1, specific substrate information was used to delineate unsuitable vs. suitable hard substrates; (3) for the suitable hard substrate areas identified in step 2, we used water quality information to further delineate suitable vs. unsuitable areas; and (4) from the suitable areas identified in steps 1–3, we removed any overlapping artificial substrates and managed areas. The 4 steps were implemented for each of the 20 units as follows:

(1) For step 1, we used comprehensive substrate maps developed by PIFSC (PIFSC 2021) to delineate soft vs. hard substrates, leaving only hard substrate areas within the combined depth ranges of all listed species in each unit, except for Wake Atoll and FFS/Lalo, for which PIFSC (2021) did not produce maps. For Wake Atoll, we used the substrate map from the Pacific Islands Benthic Habitat Mapping Center (PIBHMC) (PIBHMC 2021). For FFS, we used the geomorphological structure component of the maps developed by National Centers for Coastal and Ocean Sciences (NCCOS) (NCCOS 2003).

(2) For step 2, we started with the hard substrate areas identified in step 1, then distinguished unsuitable vs. suitable hard substrates. Many hard substrates are unsuitable because: (1) highly-fluctuating physical conditions cause frequent and extreme environmental changes (*e.g.,* high tide surge vs. low tide sun exposure on many reef flat substrates); (2) water motion continuously mobilizes sediment (*e.g.,* pavement with sand channels) or unstable substrate (*e.g.,* rubble); or (3) flat, low-relief areas provide poor settlement and growth habitat (*e.g.,* pavement). Removal of these areas left suitable hard substrates, including spur-and-groove, individual patch reef, aggregate reef, aggregated patch reef, scattered coral/rock, and subtidal rock/boulder. For this step, primary information sources were Brainard *et al.* (2008, 2012, 2019), NCCOS (2003, 2005, 2010), PIBHMC (2021), PIFSC (2021), the detailed public comment letters from the territories (AS DMWR 2021, Guam DOAG 2021, CNMI DLNR 2021), and the American Samoa, Guam, CNMI, PRIA, and Northwestern Hawaiian Islands (NWHI) chapters in Waddell and Clarke (2008). Additional sources for individual critical habitat units are cited in the unit sections in the Final Information Report (NMFS 2025).

(3) For step 3, starting with the suitable hard substrate areas identified in step 2, we used water quality information to further delineate suitable vs. unsuitable areas. Unsuitable areas are those with water quality conditions that chronically fall outside of suitable ranges. For example, some of the areas identified in step 2 are nearly constantly exposed to pollution such as excessive nutrients, excessive sediment (*i.e.,* more than a thin veneer), or contaminants, making them unsuitable. Generally, such areas occur in enclosed lagoons and inner harbors where there is high runoff and limited water circulation. Outside of such areas, point and non-point sources of pollution generally do not overlap with suitable hard substrates because wastewater outfalls are located on soft substrates beyond the reef slopes, and stormwater and freshwater discharges occur primarily on soft substrates (sand or mud) or unsuitable hard substrates (pavement or rubble) along or near shorelines. For this step, primary information sources were Brainard *et al.* (2008, 2012, 2019), Environmental Protection Agency (EPA) (2021a-f), the detailed public comment letters from the territories (AS DMWR 2021, 2024, CNMI DLNR 2021, CNMI Governor 2024, Guam DOAG 2021, 2024), territory water quality assessments (AS EPA 2020, CNMI BECQ 2018, 2020), and sources for individual critical habitat units cited in the Final Information Report (NMFS 2025).

(4) For step 4, from the suitable areas identified via the above three steps, we removed any artificial substrates and managed areas (listed and described in appendix B of the Final Information Report), because they do not provide the essential feature. ''Managed areas,'' for the purposes of this final rule, are specific areas where the substrate has been persistently disturbed by planned management authorized by local, State, or Federal governmental entities at the time of critical habitat designation, and expectations are that the areas will continue to be periodically disturbed by such management. Examples include, but are not necessarily limited to, all harbors and their entrance channels, navigation channels, turning basins, and berthing areas that are periodically dredged or maintained. This definition of managed areas only applies to existing artificial substrates and managed areas (as of when this rule becomes effective), not to future proposed or planned artificial substrates and managed areas.

The resulting specific areas are where we consider the essential feature to be distributed currently within each critical habitat unit and depth range, based on the best available information. However, on smaller spatial scales,

there are likely locations within the specific areas that lack the essential feature, and the exact locations with and without the essential feature are likely to change somewhat over time in response to changing conditions. Thus, the specific areas described below are areas containing the essential feature, rather than areas made up completely and permanently of the essential feature. As described in detail in the Final Information Report (NMFS 2025), these 4 steps were applied to each of the 20 critical habitat units to delineate the specific areas of final coral critical habitat.

Unoccupied Critical Habitat Areas

Section 3(5)(A)(ii) of the ESA authorizes the designation of specific areas outside the geographical area occupied by the species (referred to here as ''unoccupied areas''), if those areas are determined to be essential for the conservation of the species. Our regulations at 50 CFR 424.12(b)(2) require that we first evaluate areas occupied by the species, and reiterate the statutory requirements that such areas must be essential for the conservation of the species.

To evaluate unoccupied areas that may qualify as critical habitat, we first considered the ranges at the time of listing of the five coral species that occur in areas under U.S. jurisdiction (NMFS 2025). The best available data provide no evidence that those occupied areas have been reduced from the historical ranges for any of the five listed species. Of the areas within U.S. jurisdiction that are outside the occupied ranges of the listed coral, <1 percent of the area could serve as habitat for the listed species. Because these species still occupy their historical ranges, the feature essential to their conservation is present in these areas, and the unoccupied areas represent a very small amount of potential habitat, we find the occupied areas adequate to ensure the conservation of the species (NMFS 2025). Thus, we are not designating any unoccupied areas within U.S. jurisdiction as critical habitat.

The impacts of global threats (especially ocean warming and ocean acidification) to the listed corals and their habitats are projected to substantially worsen in the foreseeable future, which may result in range shifts for some or all of the 5 listed coral species, as well as the other 10 species of corals that occur outside U.S. jurisdiction. For the five species occurring within U.S. waters, the areas outside their occupied ranges mostly occur along the northern edges of their ranges, thus ocean warming could make the ocean temperatures of these areas more suitable for the listed species in the foreseeable future. In contrast, ocean acidification is likely to have the opposite effect, causing ocean pH levels along the northern fringes of the species' ranges to become less suitable (Brainard *et al.* 2011, NMFS 2014). However, it is not possible to determine where such changes are likely to happen, and how they would affect any of the listed species' habitat. Because the five coral species each still occupy their historical ranges, the feature essential to their conservation is present in these areas, and unoccupied areas represent a very small amount of potential habitat, we cannot conclude that any unoccupied areas are essential to their conservation.

Application of ESA Section 4(a)(3)(B)(i) (INRMPs)

Section 4(a)(3)(B)(i) of the ESA prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the DOD, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary of Commerce determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

Two INRMPs are applicable to the coral critical habitat: (1) The Navy's JRM INRMP, which was finalized and signed in 2019 (DON 2019a); and (2) the Air Force's INRMP for Wake Island Air Field, Wake Atoll, Kokee Air Force Station, Kauai, Hawai'i, and Mt. Kaala Air Force Station, Oahu, Hawai'i (Wake INRMP), which was finalized and signed in 2023 (United States Air Force [USAF] 2023a). The JRM INRMP is a composite of management plans for many distinct DOD-controlled areas in the Mariana Islands, including areas in Guam, Tinian, and FDM (DON 2019a).

Summaries of the analyses provided in NMFS (2024b) of whether these two INRMPs are likely to benefit the ESA-listed corals or their habitat in Guam and CNMI (JRM INRMP) and Wake (Wake INRMP) are provided below. The analyses address the four considerations outlined in our implementing regulations at 50 CFR 424.12(h). These four considerations are: (1) The extent of the area and essential feature present in the area; (2) The type and frequency of use of the area by the listed species; (3) The relevant elements of the INRMP in terms of management objectives, activities covered, and best management practices, and the certainty that the relevant elements will be implemented; and (4) The degree to which the relevant elements of the INRMP will protect the habitat (essential feature) from the types of effects that would be addressed through a destruction-or-adverse-modification analysis under section 7 of the ESA.

JRM INRMP—Guam

In Guam, the JRM INRMP encompasses three marine areas (hereafter ''INRMP marine areas'') that overlap with smaller areas being considered for inclusion in coral critical habitat for the one listed coral that occurs in the Mariana Islands, *A. globiceps:* (1) Naval Base Guam—Main Base (NBG Main Base) Submerged Lands; (2) Naval Base Guam—Telecommunications Site (NBG TS) Submerged Lands; and (3) Andersen Air Force Base (AAFB) Submerged Lands. A summary of the analyses of whether the INRMP is likely to benefit the habitat of *A. globiceps* in each of these three INRMP marine areas is provided below, from the full 4(a)(3) analysis (NMFS 2024).

With regard to the extent of the area and essential feature present: (1) the NBG Main Base Submerged Lands cover approximately 30,000 acres (12,100 hectares) along the coastline from Orote Peninsula to Asan (described in the JRM INRMP, section 5.3, DON 2019a); (2) the NBG TS Submerged Lands cover approximately 19,500 acres on the northwestern side of Guam (described in the JRM INRMP, section 8.3, DON 2019a); and (3) AAFB Submerged Lands cover approximately 26,500 acres (10,700 hectares) of Submerged Lands on the northern side of Guam (described in the JRM INRMP, section 9.3, DON 2019a). Each of the three INRMP marine areas include extensive habitat for *A. globiceps* (NMFS 2025). The potential critical habitat within the three INRMP marine areas includes both the substrate and water quality components of the essential feature of coral critical habitat (*i.e.,* characteristics of substrate and water quality to support coral life history, including reproduction, recruitment, growth, and maturation), based on information provided in the Guam section of the full 4(a)(3) analysis (NMFS 2024) and the INRMP (DON 2019a).

With regard to the relevant elements of the INRMP, and the certainty that the relevant elements will be implemented, the two parts of this step are addressed separately below. The relevant elements of the JRM INRMP for each INRMP marine area include: (1) for the NBG Main Base Submerged Lands, the INRMP includes a Coral Habitat Enhancement Plan (section 5.4.2.1), consisting of eight specific actions in three categories (three monitoring and

adaptive management actions, three collaboration with local partners actions, and two reduction of vessel impacts actions); (2) for NBG TS Submerged Lands, the INRMP includes a Coral Habitat Enhancement plan (section 8.4.2.1), consisting of a similar set of eight specific actions as for NBG Main Base; and (3) for AAFB Submerged Lands, the INRMP includes a Coral Habitat Enhancement plan (section 9.4.2.1), consisting of a similar set of seven specific actions as for NBG Main Base, except that there is less focus on reduction in vessel impacts because of the much lower vessel traffic there. The actions, projects, and updates through early 2024 are described in detail in the full 4(a)(3) analysis (NMFS 2024).

NMFS concludes that the Navy will implement the relevant elements of the JRM INRMP for the previously described three INRMP marine areas for three reasons:

(1) *Clear and Recent Documentation*—the 2019 JRM INRMP includes Coral Habitat Enhancement plans for INRMP marine areas in Guam, with clear strategies and actions that address the habitat conservation needs of ESA-listed corals within these areas. The JRM INRMP's Appendix D also includes annual reports describing how coral conservation efforts had been implemented in the years leading up to the 2019 final INRMP. These coral habitat conservation plans, as well as progress reports from the most recent years (DON 2019b, 2020, 2021a,b,c,d, 2023, 2024), clearly articulate how the Navy is conserving coral habitat within the INRMP marine areas in Guam, and how it is planning to do so in the future (NMFS 2024).

(2) *Demonstration of Good Faith Efforts for Listed Corals*—the Navy has already implemented coral habitat conservation projects that are beneficial to ESA-listed corals within some INRMP marine areas in Guam, as described in the INRMP itself and its appendix D (DON 2019b), as well as progress reports (DON 2019b, 2020, 2021a,b,c,d, 2023, 2024). Many of these projects have been ongoing for several years and are proactive, in that they were not required of the Navy by the ESA (NMFS 2024).

(3) *History of Strong Conservation Work*—in our experience working with the Navy on the development of the marine resource components of its 2013 and 2019 final INRMPs (DON 2013, 2019a), we have found the Navy to be successful at carrying out marine habitat conservation work on Guam, and that it often takes the initiative on conservation efforts whether requested by NMFS or not. For example, many of the coral habitat conservation projects in the 2019 JRM INRMP (DON 2019a) and progress reports (DON 2019b, 2020, 2021a,b,c,d, 2023, 2024) had already been started by the Navy before corals were listed in 2014, and were being done to improve conservation of marine resources on the island, regardless of whether they were required by Federal statute or not (NMFS 2024).

The coral habitat enhancement elements of the JRM INRMP described previously are expected to substantially reduce the types of effects within the three INRMP marine areas in Guam that would be addressed through the destruction-or-adverse-modification analysis. The Navy would accomplish this primarily by using the results of its own monitoring program to develop and implement management measures to minimize the impacts of the Navy's actions in Guam on coral habitat within the INRMP marine areas. Thus, implementation of the JRM INRMP is likely to provide substantial protection to the essential feature of coral critical habitat (reproductive, recruitment, growth, and maturation habitat) within the Guam INRMP marine areas from the types of effects that would be addressed through critical habitat consultation (DON 2021a,b,d, 2023, 2024, NMFS 2024).

JRM INRMP—CNMI

In CNMI, the JRM INRMP encompasses two marine areas that overlap with smaller areas being considered for inclusion in coral critical habitat for the one listed coral that occurs in the Mariana Islands, *A. globiceps:* (1) the Tinian Marine Lease Area (Tinian MLA) Submerged Lands; and (2) the FDM Submerged Lands (DON 2019a). A summary of the analyses of whether the INRMP is likely to benefit the habitat of *A. globiceps* in each of these two INRMP marine areas is provided below, from the full 4(a)(3) analysis (NMFS 2024).

With regard to the extent of the area and essential feature present: (1) the Tinian MLA Submerged Lands cover approximately 47,500 acres (19,200 hectares) surrounding the northern portion of Tinian (described in the JRM INRMP, section 11.3, DON 2019a); (2) the FDM Submerged Lands consists of approximately 25,000 acres (10,100 hectares) surrounding FDM (described in the JRM INRMP, section 12.3, DON 2019a). Most or all of the potential critical habitat within the two INRMP marine areas includes both the substrate and water quality components of the essential feature of coral critical habitat (*i.e.,* characteristics of substrate and water quality to support coral life history, including reproduction, recruitment, growth, and maturation), based on information provided in the Tinian and FDM sections of the full 4(a)(3) analysis (NMFS 2024) and the INRMP (DON 2019a).

With regard to the relevant elements of the INRMP, and the certainty that the relevant elements will be implemented, the two parts of this step are addressed separately below. The relevant elements of the JRM INRMP for each INRMP marine area include: (1) for the Tinian MLA Submerged Lands, the INRMP includes a Coral Habitat Enhancement plan, consisting of three specific actions to enhance coral habitat by monitoring health and acute impacts (section 11.4.2.1; DON 2019a); and (2) for the FDM Submerged Lands, the INRMP includes marine habitat management actions, consisting of surveys and mapping of ESA-listed corals, coral reef, and other marine habitats within the area (section 12.4.2; DON 2019a). The INRMP also includes an assessment of ESA-listed corals, as required by the 2015 biological opinion on the Navy's Mariana Islands Testing and Training program (section 12.4.2.2; DON 2019a). The actions, projects, and updates through early 2024, are described in detail in the full 4(a)(3) analysis (NMFS 2024).

NMFS concludes that the Navy will implement these relevant elements of the JRM INRMP for three reasons:

(1) *Clear and Recent Documentation*—the 2019 JRM INRMP includes Coral Habitat Enhancement plans for INRMP marine areas in CNMI (Tinian MLA, FDM Submerged Lands), with clear strategies and actions that address the habitat conservation needs of ESA-listed corals within these areas. The JRM INRMP's appendix D also includes annual reports describing how coral conservation efforts had been implemented in the years leading up to the 2019 final INRMP. These coral habitat conservation plans, as well as progress reports from the most recent years including through early 2024 (DON 2019b, 2020, 2021a,b,c,d, 2023, 2024), clearly articulate how the Navy is conserving coral habitat within the INRMP marine areas in CNMI, and how it will do so in the future (NMFS 2024).

(2) *Demonstration of Good Faith Efforts for Listed Corals*—the Navy has already implemented coral projects that have the potential to benefit the habitat of ESA-listed corals within INRMP marine areas in CNMI (Tinian MLA, FDM Submerged Lands). For example, coral species presence and abundance surveys were conducted within the Tinian MLA in 2013 (Tetra Tech 2014) and 2017 (DON 2017), and around FDM in 2012 (Smith and Marx 2016), 2017

(Carilli *et al.* 2018), and 2022 (DON 2023). These surveys have the potential to benefit the habitat of ESA-listed corals by providing the information needed to better protect these areas in the future (NMFS 2024).

(3) *History of Strong Conservation Work*—the Navy has a long history of carrying out successful marine habitat conservation work in the Mariana Islands and often takes the initiative on conservation efforts whether requested by NMFS or not. For example, many of the coral habitat conservation projects in the 2019 JRM INRMP (DON 2019a) and progress reports (DON 2019b, 2020, 2021a,b,c,d, 2023, 2024) had already been started by the Navy before corals were listed in 2014. These projects were conducted to improve the conservation of marine resources on the island, regardless of whether they were required by Federal statute or not. While the majority of these projects have been implemented in Guam rather than CNMI, the JRM INRMP includes many plans for CNMI (as noted above), and the same Navy command (Joint Region Marianas) is responsible for carrying out such work in both Guam and CNMI (NMFS 2024).

The coral habitat enhancement elements of the JRM INRMP described above are expected to substantially reduce the types of effects within the INRMP marine areas in CNMI that would be addressed through the destruction-or-adverse-modification analysis. The Navy would accomplish this primarily by using the results of its own monitoring program to develop and implement management measures to minimize the impacts of the Navy's actions in CNMI on coral habitat within the INRMP marine areas. Thus, implementation of the JRM INRMP is likely to provide substantial protection to the essential feature of coral critical habitat (reproductive, recruitment, growth, and maturation habitat) within the CNMI INRMP marine areas from the types of effects that would be addressed through critical habitat consultation (DON 2021a,c,d, 2023, 2024, NMFS 2024).

Wake INRMP

On Wake Atoll, the Wake INRMP (USAF 2023a) encompasses the entire area being considered for coral critical habitat for the two listed corals on the atoll, *A. globiceps* and *A. retusa,* as described in the Final Information Report (NMFS 2025). A summary of the analyses of whether the INRMP is likely to benefit the habitat of ESA-listed corals in this INRMP marine area is provided below, from the full 4(a)(3) analysis (NMFS 2024).

With regard to the extent of the area and essential feature present, the Wake INRMP marine area includes nearly 500,000 acres (202,300 hectares) of Submerged Lands and waters within the lagoon and surrounding the atoll out to 12 nautical miles (22.2 km) from the mean low water line (USAF 2023a), and thus includes all reef-building corals and coral reefs associated with the atoll. Most or all of the potential critical habitat within the INRMP marine area includes both the substrate and water quality components of the essential feature of coral critical habitat (*i.e.,* reproductive, recruitment, growth, and maturation habitat provided by suitable substrate and suitable water quality), based on information provided in the Wake section of the full 4(a)(3) analysis (NMFS 2024) and the INRMP (USAF 2023a).

With regard to the relevant elements of the INRMP, and the certainty that the relevant elements will be implemented, the two parts of this step are addressed separately below. The relevant element of the Wake INRMP is the coral conservation component that was added to the INMRP in 2017 (appendix K, Coral Conservation Actions at Wake Atoll; USAF 2023a), which is made up of four groups of actions, each of which includes multiple projects: Water quality improvements (six projects), education and outreach (two projects), fisheries management (four projects), and physical DOD presence on Wake Atoll (three projects; USAF 2023a). The actions, projects, and updates through early 2024, are described in detail in the full 4(a)(3) analysis (NMFS 2024).

NMFS concludes that the Air Force will implement these relevant elements of the Wake INRMP for three reasons:

(1) *Clear and Recent Documentation*—the Wake INRMP includes a coral conservation plan (USAF 2023a) with a 4-pronged strategy (water quality improvement, outreach and education for Wake-based staff, fisheries management, and physical DOD presence on Wake Atoll, *i.e.,* restriction of access and overall natural resource management) that comprehensively addresses the conservation needs of ESA-listed corals and their habitat on Wake Atoll. This coral conservation plan clearly articulates how U.S. Air Force (USAF) is conserving corals and coral reef habitat on Wake, and how it will do so in the future. The ongoing implementation of the Wake INRMP is reported via progress updates and reviews including through early 2024 (USAF 2018, 2019, 2021a,b, 2023b, 2024, NMFS 2024).

(2) *Demonstration of Good Faith Efforts for Listed Corals*—In the years leading up to the final Wake INRMP (USAF 2023a), USAF implemented projects on Wake related to each of its 4-pronged coral conservation strategy, as explained in appendix S of the Wake INRMP. For water quality improvement, in 2016 USAF began implementation of both the stormwater pollution prevention and invasive plant control projects. For outreach and education, in 2016 USAF revised the Wake Island Dive Club Charter to further reduce the potential impacts of recreational activities on corals. For fisheries management, in 2017 USAF updated its fishing rules, which are part of the Wake Island Operating Guidance, to prohibit the use of (1) cast nets on the exterior of the atoll, (2) anchoring on coral reef habitat, and (3) and trolling over coral reef habitat. For physical DOD presence on Wake Atoll, in 2016 USAF funded and provided logistical support for a U.S. Fish and Wildlife Service (USFWS) coral survey that documented two ESA-listed corals on the atoll for the first time. Since 2017, USAF has implemented projects on Wake for each of its 4-pronged coral conservation strategy, as noted above and detailed in the progress updates and reviews (USAF 2018, 2019, 2021a,b, 2023b, 2024, NMFS 2024).

(3) *History of Strong Conservation Work*—USAF has a long history of carrying out successful marine habitat conservation work on Wake and often takes the initiative on conservation efforts. For example, many of the projects in the INRMP's coral conservation strategy had already been started by USAF before corals were listed in 2014, and were being done to improve the conservation of marine and terrestrial resources on the atoll, regardless of whether they were required by Federal statute. Likewise, in 2016, USAF funded and supported the USFWS coral survey of the atoll, leading to the discovery that the two ESA-listed corals occur on the atoll. In addition, USAF has historically been a strong conservation partner with NMFS, supporting a wide variety of marine and terrestrial conservation projects, and actively engaging both agencies in the INRMP planning and implementation process, as described in the progress updates and reviews (USAF 2018, 2019, 2021a,b, 2023b, 2024, NMFS 2024).

The coral conservation component of the Wake INRMP (appendix K, Coral Conservation Actions at Wake Atoll; USAF 2023a) is expected to reduce both direct and indirect impacts to listed corals via minimization or avoidance of recreational impacts (fishing, diving,

anchoring), and terrestrial impacts (*i.e.,* run-off from land-based activities), thereby addressing two of the primary threats to listed corals and elements of their habitat (fishing and land-based sources of pollution). That is, the coral conservation elements of the Wake Atoll INRMP described previously are expected to substantially reduce the types of effects at Wake Atoll that would be addressed through the destruction-or-adverse-modification analysis. Based on the fact that the Wake INRMP's coral conservation strategy is well-designed to reduce impacts to listed corals and their habitat, and also that recent progress updates and reviews (USAF 2018, 2019, 2021a,b, 2023b, 2024) demonstrate substantial progress with the implementation of the strategy, we determined that the Wake INRMP provides a benefit to listed corals, and their critical habitat (reproductive, recruitment, growth, and maturation habitat) (NMFS 2024).

Conclusion Regarding Areas Subject to INRMPs

Based on the analyses summarized previously and provided in the full 4(a)(3) analysis (NMFS 2024), we conclude both the JRM INRMP (DON 2019a) and the Wake INRMP (USAF 2023a) provide a conservation benefit to the listed corals and their habitats within all INRMP marine areas on Guam, CNMI, and Wake. Thus, the potential coral critical habitat areas within the INRMP marine areas on Guam, Tinian, FDM, and Wake are ineligible for designation as critical habitat.

Application of ESA Section 4(b)(2)

Section 4(b)(2) of the ESA requires that we consider the economic impact, impact on national security, and any other relevant impact, of designating any particular area as critical habitat. Additionally, the Secretary has the discretion to consider excluding any area from critical habitat if they determine that the benefits of exclusion (that is, avoiding some or all of the impacts that would result from designation) outweigh the benefits of designation based upon the best scientific and commercial data available. The Secretary may not exclude an area from designation if exclusion will result in the extinction of the species.

The following sub-sections summarize the economic, national security, and other relevant impacts analyses in the Final Information Report (NMFS 2025) that we projected would result from the designation of coral critical habitat. We considered these impacts when deciding whether to exercise our discretion to exclude particular areas from the designation. Both positive and negative impacts were identified and considered (these terms are used interchangeably with benefits and costs, respectively). Impacts were evaluated in quantitative terms where feasible, but qualitative appraisals were used where that is more appropriate.

The primary impacts of a critical habitat designation result from the ESA section 7(a)(2) requirement that Federal agencies ensure that their actions are not likely to result in the destruction or adverse modification of critical habitat and that they consult with NMFS in fulfilling this requirement. The impacts of designating coral critical habitat are only those that would be over and above the impacts of listing (*i.e.,* incremental impacts). The distribution of listed corals within critical habitat strongly influences the extent of incremental impacts. That is, the more colonies of listed corals that are distributed throughout coral critical habitat, the lower the proportion of Federal actions that would affect critical habitat and not affect listed corals, and thus the lower the incremental impacts of critical habitat designation. As described in section 3.3.21 of the Final Information Report (NMFS 2025), colonies of listed corals are generally distributed throughout the specific areas being considered for coral critical habitat, and thus the incremental impacts are expected to be very low.

Summaries of the economic, national security, and other relevant impact analyses in the Final Information Report (NMFS 2025) are provided below. The analyses follow the guidance for 4(b)(2) analyses provided in our 2016 policy (81 FR 7226, February 11, 2016) and regulations at 50 CFR 424.19.

Economic Impacts

The economic impacts of designating the areas identified as coral critical habitat are analyzed in the 4(b)(2) Economic Impact Analysis document, completed in early 2024, which is Appendix C of the Final Information Report (NMFS 2025). Economic impacts of the critical habitat designation result through implementation of section 7 of the ESA in consultations with Federal agencies to ensure their proposed actions are not likely to destroy or adversely modify critical habitat. We estimated the economic impacts of coral critical habitat in terms of present value costs for the 10-year period of 2024–2033, and annualized costs over that 10-year period. For the annualized costs, current Office of Management and Budget (OMB) guidance requires application of a 7 percent discount rate. Application of the 7 percent discount rate results in the annualized costs being more than 10 percent of the estimated cost for the 10-year period. For example, the total economic impacts of coral critical habitat for all units combined was estimated to be $360,000 for the 10-year period, while the total annualized cost was estimated to be $51,000. These costs can be expressed by unit for each of the 18 coral critical habitat units, by jurisdiction for each of the 5 affected jurisdictions, and by Federal activity for each of the 8 types of affected Federal activities (NMFS 2025, appendix C).

The three units with the highest 10-year and annualized costs are those with the largest human populations, the highest being Guam ($82,000, $12,000), followed by Tutuila ($64,000, $9,200) and Saipan ($42,000, $6,000), which together make up slightly over half of the total costs. The 18 units are in 5 jurisdictions, including American Samoa, Guam, CNMI, PRIA, and Hawai'i (only includes FFS in NWHI). American Samoa has the highest 10-year and annualized costs ($120,000, $17,000), followed by CNMI ($100,000, $14,000), Guam ($82,000, $12,000), Hawai'i ($39,000, $5,600), and PRIA ($19,000, $2,700). The three Federal activity categories with the highest 10-year and annualized costs are in-water and coastal construction ($120,000, $17,000), scientific research and monitoring ($86,000, $12,000), and protected area management ($67,000, $9,500), which make up over three-quarters of the total costs (NMFS 2025, appendix C).

Based on the foregoing information and full analyses provided in the Final Economic Impact Report (NMFS 2025, appendix C), we expect the total economic impacts of coral critical habitat to be less than half a million dollars over the first decade of designation, amounting to $51,000 annually. Economic impacts are limited to the costs associated with the additional administrative effort to complete section 7 consultations that would not otherwise be required, rather than project modifications that would not otherwise be required. In addition, coral critical habitat has the potential to result in economic benefits because it can lead to increased protection of economically-valuable coral reefs. However, such benefits are not quantifiable and thus have not been factored into the estimates of economic impacts (NMFS 2025, appendix C).

Based on these results, the economic impacts of coral critical habitat are likely to be very low, even on the

islands with concentrated economic activity (Tutuila, Guam, Saipan). This is largely because we do not expect any project modification costs. Since we expect most future proposed Federal actions that could affect critical habitat to be on Tutuila, Guam, and Saipan, which also have the largest populations, the conservation benefits of critical habitat are the greatest in these three units, as summarized below in the Other Relevant Impacts section and described in the Final Economic Impact Analysis report (NMFS 2025, Appendix C).

National Security Impacts

We received a request from the Department of the Navy (Navy) to exclude one site based on national security impacts: The portion of the Navy's Ritidian Point Surface Danger Zone (SDZ) Complex outside of DOD Submerged Lands on Guam. For this site, we considered whether the national security impacts asserted by the Navy of designating the site as critical habitat would outweigh the conservation benefits to the listed corals of designating the site as critical habitat. If impacts to national security outweigh the benefits of including an area in the designation, the Secretary may exercise discretion to exclude that particular area from critical habitat. If the benefits of including the area in the designation outweigh the impacts to national security, however, the site cannot be considered for exclusion from critical habitat (81 FR 7226, February 11, 2016).

The Ritidian Point SDZ complex overlaps with a small area of forereef identified for potential designation as coral critical habitat. The area is 0–12 m of depth and consists primarily of spur-and-groove and aggregate reef that provides high quality coral habitat. A species-level coral survey conducted in 2006 at this site did not find any *A. globiceps* colonies along a set of eight 50-m transects between 1 and 20 m within forereef and reef flat habitat (NMFS 2025). However, a more recent species-level coral survey conducted in 2021 at this site indicated that *A. globiceps* was present, finding a total of four colonies along a different set of eight 50-m transects at 6 m depth within forereef habitat at the site.

National security impacts depend on the additional section 7 requirements that would result from the coral critical habitat, above and beyond those already required to avoid jeopardizing the continued existence of any listed species or avoid destruction or adverse modification of other, designated critical habitats (*i.e.,* incremental impacts). The Navy noted that the Ritidian Point SDZ complex supports training at the Marine Corps Live Fire Training Range Complex (LFTRC) at AAFB, and construction of new facilities (*e.g.,* range administration building, range maintenance building, and observation towers) at AAFB, to meet the individual weapons training/qualification requirements of the Marine Corps. This SDZ is expected to be operational for 32 weeks per year and extends approximately 2 miles (3.2 km) over open water in the event stray bullets go over the berm and into the ocean. If this occurs, the bullets will settle on the seafloor (NMFS 2025).

The Navy stated that designation of the marine component of this site as coral critical habitat would result in limitations on live fire training at LFTRC. The Navy explained that such limitations would occur because limited staff time and resources would be diverted to preparing additional documents required to implement activities in critical habitat areas from work required on other vital environmental items. In 2021 and 2022, the Navy confirmed that this information is still applicable to the site.

The Navy noted that the individual live fire training for Marine Corps personnel at the LFTRC on Guam is a prerequisite for conducting unit level and combined level training. The Navy further explained that without the qualification of these live fire training events, individuals and small teams are not capable of conducting larger unit collective events, and that the LFTRC provides the necessary foundation upon which training progression is built. Plans are in place to considerably expand LFTRC in anticipation of growing Marine Corps training needs. No other facility on Guam or elsewhere in the Mariana Islands provides this type of training. In 2021 and 2022, the Navy confirmed that this information is still applicable to the site (NMFS 2025).

Because many training and construction activities are planned at LFTRC adjacent to this marine area, the listed coral *A. globiceps* occurs there, and the planned activities have the potential to affect this listed species, ESA section 7 consultations would likely be necessary whether critical habitat is designated or not. That is, the additional consultation requirement above and beyond what would already be required by the fact that listed corals occur at the site is not expected to be substantial. Also, the additional consultation for critical habitat would be for activities that are planned in advance, and thus the additional section 7 consultation workload would not be unpredictable but rather could be anticipated and managed ahead of time.

In determining benefits to the conservation of ESA-listed corals we considered whether designation of critical habitat at the particular site would lead to additional conservation of the species beyond what is already provided by the species' listing. The potential for additional conservation at a given site is a function of the listed corals' use of the area, the level of protection already provided by existing management (*e.g.,* the site is entirely within Guam National Wildlife Refuge), and the likelihood of non-DOD actions that are likely to affect the area and that are subject to the consultation requirements of section 7.

As elsewhere on Guam, the coral reef habitat within the area being considered for coral critical habitat is made up of forereef from 0–12 m depth, consisting primarily of spur-and-groove and aggregate reef. As noted above, *A. globiceps* occurs at this site. However, colonies of the species may die off in response to natural disturbances and not reappear for a few years, which may be why the 2021 survey found *A. globiceps* there but the 2006 survey did not despite surveying within the same habitat and depth range. Such mortality and recovery and associated disappearance and reappearance of coral populations at any given site is a normal response to natural disturbance. Although we cannot predict when or where this will occur, if colonies of the listed coral species do not occur at the site at the time of consultation, critical habitat would serve to protect the essential feature. However, at this time, we note that all of the areas being designated as critical habitat are occupied by one or more of the listed corals.

The area being considered for potential designation as coral critical habitat is entirely within USFWS Submerged Lands, which forms the marine component of the Guam National Wildlife Refuge (NWR), and is managed according to the Guam NWR Comprehensive Conservation Plan. The plan includes Strategies to Restore, Protect, and Maintain Native Marine Communities, such as marine debris removal and area closures. The site is also entirely within Essential Fish Habitat (EFH) for coral reef ecosystems, but EFH protections are not mandatory (NMFS 2025).

It is possible that non-DOD Federal actions will be proposed within this site that could affect the essential feature (*e.g.,* actions proposed by USFWS), but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation. When the site is not closed

by the SDZ, non-DOD actions could potentially occur there, for example those permitted or carried out by USFWS. Although such actions would presumably be consistent with the Guam NWR Comprehensive Conservation Plan (USFWS 2009), they may affect the essential feature (NMFS 2025).

Based on the considerations described above, we conclude that the impacts to national security of including this area within critical habitat do not outweigh the conservation benefits to the listed corals, and thus do not exclude the Ritidian Point SDZ complex from coral critical habitat due to national security impacts. The most important factors supporting this conclusion are: (1) the national security impacts of coral critical habitat are unlikely to be either substantial or unpredictable because listed corals are known to occur at this site at least some of the time, meaning that the Navy would already be conducting section 7 consultations on listed corals for any of their activities that may affect listed corals at this site even without critical habitat, resulting in little additional consultation work; and (2) the conservation benefits of coral critical habitat could be considerable because critical habitat would provide additional protection of the high quality essential feature that is found throughout the area from future proposed Federal actions (NMFS 2025).

Other Relevant Impacts

Other relevant impacts include the benefits of critical habitat designation and impacts on governmental or private entities that are implementing existing management plans that provide benefits to the listed species. The three main types of benefits of critical habitat designation are increased protection of the essential feature from Federal actions, ecosystem service benefits of coral reef conservation, and education and awareness.

Critical habitat is habitat needed to support recovery of listed species. That is, the most direct benefits of the critical habitat designation stem from the increased protection of the essential feature from Federal actions. While listed corals are generally distributed throughout the specific areas, there are still many locations within the specific areas that lack colonies of listed corals at any given point in time due to natural spatial and temporal fluctuations of coral colony presence. That is, individual colonies of listed corals may decrease or disappear from particular locations in response to local disturbances, then return and increase as local conditions improve. Such dynamic spatial and temporal fluctuations in the distribution of colonies of listed corals within the specific areas is a natural process. In locations and during times when specific areas lack colonies of listed corals and where Federal actions are proposed, critical habitat could serve to provide protection of the essential features (NMFS 2025).

Overall, coral reef ecosystems, including those comprising populations of the listed corals, provide important ecosystem services of value to individuals, communities, and economies. These include recreational opportunities (and associated tourism spending in the regional economy), habitat and nursery functions for recreationally and commercially valuable fish species, shoreline protection in the form of wave attenuation and reduced beach erosion, and atmospheric stabilization via carbon sequestration. As of 2023, the total economic value of coral reefs in the three U.S. Pacific Islands jurisdictions where the great majority of critical habitat is being designated was estimated as (1) American Samoa—$14.9 million/year, (2) Guam—$182.8 million/year, and (3) CNMI—$67.0 million/year (NMFS 2025, appendix C). Efforts to conserve the listed corals also benefit the broader reef ecosystems, thereby preserving or improving these ecosystem services and values (NOAA Coral Reef Conservation Program, 2013). While we cannot quantify the precise economic benefits of designating critical habitat, providing these values gives an indication of the value of conserving coral habitat. That is, these values represent the total value of coral reefs in general, an unquantifiable portion of which could be supported by coral critical habitat.

Additionally, there is the potential for education and awareness benefits arising from the critical habitat designation, stemming from entities that engage in section 7 consultations, and from members of the general public interested in coral conservation. Entities that engage in section 7 consultations may alter their activities to benefit the species or essential feature because they were made aware of the critical habitat designation through either the section 7 consultation process or the original listings. Members of the public may engage in similar efforts because they learned of the critical habitat designation through outreach materials (NMFS 2025).

There are a large number of Federal MPAs in American Samoa, Guam, CNMI, PRIA, and NWHI where coral critical habitat is designated, and many of these jurisdictions have draft or proposed management plans (NMFS 2025). Impacts of critical habitat designation on the agencies responsible for natural resource management planning of these areas (*e.g.* the National Park Service, USFWS, and Territorial natural resources management agencies), depend on the type and number of section 7 consultations that may result from the designation in the areas covered by those plans, as well as any potential project modifications recommended by these consultations. Negative impacts to these entities could result if the critical habitat designation interferes with these agencies' ability to provide for the conservation of reef coral species including the listed coral species, or otherwise hampers the management of these areas.

Conclusions for Section 4(b)(2)

We are not exercising our discretion to exclude any areas from coral critical habitat based on economic or national security impacts. As summarized in the *Economic Impacts* section, the economic impacts of coral critical habitat are expected to be very low, even on the islands with concentrated economic activity (Tutuila, Guam, Saipan). Since we expect most future proposed Federal actions that could affect critical habitat to be in these three units, which also have the largest populations (NMFS 2025, appendix C), the incremental conservation benefits of critical habitat are the greatest in these three units, although they apply to all critical habitat units. These benefits include: (1) increased protection of the essential feature from Federal actions via section 7 consultation and technical assistance; (2) enhanced ecosystem service benefits of coral reef conservation; and (3) greater education and awareness of coral reef conservation. While the conservation benefits of designating coral critical habitat are not quantifiable, they are not outweighed by the very low economic impacts, thus no areas are excluded on the basis of economic impacts. Likewise, as summarized in the *National Security Impacts* section, the national security impacts of designating coral critical habitat on the one requested exclusion site, the Navy's Ritidian Point Surface Danger Zone complex in Guam, are not expected to outweigh the conservation benefits of designating critical habitat, thus this area is not excluded.

Critical Habitat Designations

We are designating critical habitat for 5 listed coral species around 18 islands in 5 U.S. Pacific Islands jurisdictions

(table 3). For *A. globiceps,* we are designating specific areas around 17 islands, including 4 in American Samoa, 1 in Guam, 9 in CNMI, 2 in PRIA, and 1 in Hawaii. The depth ranges of the specific areas for *A. globiceps* are 0–20 m (3 islands), 0–12 m (10 islands), and 0–10 m (4 islands). For *A. retusa,* we are designating specific areas around five islands, all of which are in American Samoa. The depth ranges of the specific areas for *A. retusa* are 0–20 m on all five islands. For *A. speciosa* and *F. paradivisa,* we are designating specific areas around Tutuila and its offshore banks in American Samoa. The depth ranges of the specific areas for *A. speciosa* and *F. paradivisa* are 20–50 m. For *I. crateriformis,* we are designating specific areas around three islands, all of which are in American Samoa. The depth ranges of the specific areas for *I. crateriformis* are 0–20 m on all three islands (table 3). The 4(a)(3)(B)(i) INRMP analyses found that the entire areas around FDM and Wake Atoll, several areas off of Guam, and most of Tinian are ineligible for coral critical habitat. Maps of the critical habitat for each of the listed species around the 18 islands are provided at the end of this rule (table 3).

TABLE 3—CRITICAL HABITAT UNITS FOR THE 5 LISTED CORAL SPECIES *

Unit	*A. globiceps*		*A. retusa*		*A. speciosa*		*F. paradivisa*		*I. crateriformis*	
	Depth	Fig.	Depth	Fig.	Depth	Fig.	Depth	Fig.	Depth	Fig.
Tutuila and Offshore Banks	0–20	1	0–20	2	20–50	3	20–50	4	0–20	5
Ofu-Olosega	0–20	6	0–20	7	.....	.....	.....	.....	0–20	8
Ta'u	0–20	9	0–20	10	.....	.....	.....	.....	0–20	11
Rose Atoll	0–10	12	0–20	13	.....	.....	.....	.....	.....	.....
Swains	.....	.....	0–20	14	.....	.....	.....	.....	.....	.....
Guam	0–12	15	.....	.....	.....	.....	.....	.....	.....	.....
Rota	0–12	16	.....	.....	.....	.....	.....	.....	.....	.....
Aguijan	0–12	17	.....	.....	.....	.....	.....	.....	.....	.....
Tinian	0–12	18	.....	.....	.....	.....	.....	.....	.....	.....
Saipan	0–12	19	.....	.....	.....	.....	.....	.....	.....	.....
Alamagan	0–12	20	.....	.....	.....	.....	.....	.....	.....	.....
Pagan	0–12	21	.....	.....	.....	.....	.....	.....	.....	.....
Asuncion	0–12	22	.....	.....	.....	.....	.....	.....	.....	.....
Maug Islands	0–12	23	.....	.....	.....	.....	.....	.....	.....	.....
Uracas	0–12	24	.....	.....	.....	.....	.....	.....	.....	.....
Palmyra Atoll	0–10	25	.....	.....	.....	.....	.....	.....	.....	.....
Johnston Atoll	0–10	26	.....	.....	.....	.....	.....	.....	.....	.....
FFS/Lalo	0–10	27	.....	.....	.....	.....	.....	.....	.....	.....

* For each species, depth ranges in meters and figure numbers (''Fig.'') for the maps are shown.

Effects of Critical Habitat Designations

Section 7(a)(2) of the ESA requires Federal agencies, including NMFS, to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify designated critical habitat. When a species is listed or critical habitat is designated, Federal agencies must consult with NMFS on any agency actions that may affect the listed species or its critical habitat. During formal consultation, NMFS would evaluate the agency's action to determine whether the action may adversely affect listed species or designated critical habitat and issue its findings in a biological opinion. If NMFS concludes in the biological opinion that the proposed agency action would likely result in the destruction or adverse modification of designated critical habitat, NMFS would identify any reasonable and prudent alternatives to the action. Reasonable and prudent alternatives are defined in 50 CFR 402.02 as alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat. If NMFS concludes in the biological opinion that the proposed agency action would not likely result in the destruction or adverse modification of designated critical habitat, NMFS may provide discretionary conservation recommendations.

Regulations at 50 CFR 402.16 require Federal agencies that have retained discretionary involvement or control over an action, or where such discretionary involvement or control is authorized by law, to reinitiate consultation on previously reviewed actions in instances where, among other situations: (1) critical habitat is subsequently designated, or (2) new information or changes to the action may result in effects to critical habitat not previously considered in the biological opinion. Consequently, some Federal agencies may request reinitiation of consultation with NMFS on actions for which formal consultation has been completed, if those actions may affect the designated critical habitat for the listed corals.

Activities That May Be Affected

Section 4(b)(8) of the ESA requires, to the maximum extent practicable, that in any final regulation to designate critical habitat, we provide a brief description and evaluation of those activities (whether public or private) that may adversely modify such habitat or that may be affected by such designation. A wide variety of activities may affect the designated critical habitat, and may be subject to the ESA section 7 consultation process when carried out, funded, or authorized by a Federal agency. Such activities include, but are not limited to: in-water and coastal construction, water quality and discharges, fishery management, military activities, derelict vessel and marine debris removal, scientific research and monitoring, aquaculture, and protected area management. Section 7 consultations must be based on the best scientific and commercial data available at the time the consultation is undertaken, and outcomes are case specific. Inclusion (or exclusion) of an activity from this list, therefore, does not predetermine the occurrence or outcome of any consultation.

Non-federal entities may also be affected by these proposed critical habitat designations if they are undertaking a project that requires a

Federal permit or receives Federal funding. However, as we have stated previously, the incremental impacts of the critical habitat designation will likely be limited to additional administrative costs to NMFS and Federal agencies stemming from the need to consider impacts to critical habitat as part of the forecasted section 7 consultations, thus the designation of critical habitat is not expected to have substantial indirect impacts on State or Territory governments. Further information is provided in the Economic Impact Analysis in our Final Information Report (NMFS 2025, appendix C). Questions regarding whether specific activities will constitute destruction or adverse modification of critical habitat should be directed to us (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**).

Information Quality Act and Peer Review

The data and analyses supporting this action have undergone a pre-dissemination review and have been determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (section 515 of Pub. L. 106–554). On December 16, 2004, OMB issued its Final Information Quality Bulletin for Peer Review (Bulletin). The Bulletin was published in the **Federal Register** on January 14, 2005 (70 FR 2664), and went into effect on June 16, 2005. The primary purpose of the Bulletin is to improve the quality and credibility of scientific information disseminated by the Federal Government by requiring peer review of ''influential scientific information'' and ''highly influential scientific information'' prior to public dissemination. ''Influential scientific information'' is defined as information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions. The Bulletin provides agencies broad discretion in determining the appropriate process and level of peer review. Stricter standards were established for the peer review of highly influential scientific assessments, defined as information whose dissemination could have a potential impact of more than $500 million in any one year on either the public or private sector or that the dissemination is novel, controversial, or precedent-setting, or has significant interagency interest.

The information in the Final Information Report (NMFS 2025) and its appendices was considered influential scientific information and subject to peer review. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the Final Information Report (NMFS 2025) and its appendices. The resulting Peer Review Reports are available on our website noaa.gov (search for ''Peer Review Reports for Indo-Pacific coral critical habitat'') or upon request (see **FOR FURTHER INFORMATION CONTACT**).

References Cited

A complete list of all references cited in this final rule is available on our website (see **ADDRESSES**) or upon request from the NMFS Pacific Islands Regional Office in Honolulu, HI (see **FOR FURTHER INFORMATION CONTACT**).

Classification

Takings (Executive Order 12630)

Under E.O. 12630, Federal agencies must consider the effects of their actions on constitutionally protected private property rights and avoid unnecessary takings of private property. A taking of property includes actions that result in physical invasion or occupancy of private property and regulations imposed on private property that substantially affect its value or use. In accordance with E.O. 12630, this final rule would not have significant takings implications, because it does not include, occupy or invade private property or otherwise affect the value or use of private property to qualify as a taking. A takings implication assessment is not required.

Regulatory Planning and Review (E.O.s 12866, 13563)

E.O. 12866 provides that OIRA will review all significant rules. E.O. 13563 reaffirms the principles of E.O. 12866, calling for improvements in the Federal Government's regulatory system to promote predictability, reduce uncertainty, and use the best, most innovative, and least burdensome tools for achieving regulatory objectives. OMB determined that this final rule is not a significant regulatory action under E.O. 12866, as supplemented by E.O. 13563. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Unleashing Prosperity Through Deregulation (E.O. 14192)

This final rule is not an Executive Order 14192 regulatory action because this action is not significant under Executive Order 12866.

Federalism (E.O. 13132)

The E.O. on Federalism, Executive Order 13132, requires agencies to take into account any Federalism impacts of regulations under development. It includes specific consultation directives for situations in which a regulation may preempt State law or impose substantial direct compliance costs on state and local governments (unless required by statute). Pursuant to E.O. 13132, we determined that this final rule does not have significant Federalism effects and that a Federalism assessment is not required. The designation of critical habitat directly affects only the responsibilities of Federal agencies. In keeping with Department of Commerce policies and consistent with ESA regulations at 50 CFR 424.16(c)(1)(ii), we requested information for this rule from the appropriate marine resources agencies in American Samoa, Guam, CNMI, PRIA, and Hawai'i. This rule does not have substantial direct effects on the states or territories, or on the distribution of power and responsibilities among the various levels of government, as specified in E.O. 1312. State or local governments may be indirectly affected by this critical habitat designation if they require Federal funds or formal approval or authorization from a Federal agency as a prerequisite to conducting an action. In these cases, the State or local government agency may participate in the ESA section 7 consultation as a third party. One of the key conclusions of the economic impact analysis is that the incremental impacts of the critical habitat designation will likely be limited to additional administrative costs to NMFS and Federal agencies stemming from the need to consider impacts to critical habitat as part of the forecasted section 7 consultations. The designation of critical habitat is not expected to have substantial indirect impacts on State or Territory governments.

The designation may have some benefit to State and Territory resource agencies in that the rule more clearly defines the physical and biological feature essential to the conservation of the species and the areas in which that feature is found. While this designation would not alter where and what non-Federally sponsored activities may occur, it may assist State and Territory governments in long-range planning (rather than waiting for case-by-case ESA section 7 consultations to occur).

Energy Supply, Distribution, and Use (E.O. 13211)

Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking an action expected to lead to the promulgation of a final rule or regulation that is a significant regulatory action under E.O. 12866 and is likely to have a significant adverse effect on the supply, distribution, or use of energy. However, this final rule has been determined to be not significant for purposes of Executive Order 12866, and thus E.O. 13211 does not apply.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

We prepared a Final Regulatory Flexibility Analysis (FRFA) pursuant to section 604 of the Regulatory Flexibility Act (RFA). The FRFA analyzes the impacts to small entities that may be affected by the proposed designation and is included as appendix D of the Final Information Report (NMFS 2025), which is available at the link provided in **ADDRESSES**, or upon request (see **FOR FURTHER INFORMATION CONTACT**).

The FRFA uses the best available information to identify the potential impacts of designating critical habitat on small entities. However, uncertainty regarding the extent to which impacts of the proposed designation would be allocated between large and small entities complicates quantification of impacts specifically borne by small entities. Absent specific knowledge regarding which small entities may be involved in consultations with NMFS over the next 10 years, this analysis relies on industry- and location-specific information on small businesses with North American Classification System (NAICS) codes that were identified as relevant to the major activity categories considered in the economic analysis and which operate within counties or territories that share a coastline with the proposed critical habitat. Activities considered in the final economic analysis and the FRFA include in-water and coastal construction, dredging and disposal, beach nourishment/shoreline protection, water quality management, fishery management, military activities, derelict vessel and marine debris removal, scientific research and monitoring, aquaculture, and protected area management.

Information presented in section 5.0 of the Final Economic Impact Analysis Report, which is appendix C of the Final Information Report (NMFS 2025), demonstrates the lack of third-party involvement in consultations on the effects of Federal fishery management, protected area management, derelict vessel and marine debris removal, scientific research and monitoring, and military activities on ESA-listed marine species within the critical habitat units considered for coral critical habitat in the five jurisdictions. Unlike consultations on in-water and coastal construction, dredging and disposal, and shoreline stabilization projects, these consultations are conducted directly between NMFS and the Federal action agency with no third-party involvement. Each of these five categories of consultation is represented in the consultations completed in 2014–2023 that were reviewed for the economic impact analysis, and third parties were not involved in any of them. As discussed in the FRFA and section 5.2 of the Final Economic Impact Analysis Report, consultations on water quality management include inter-agency consultations on regional water quality standards, which do not involve third parties, and project-specific consultations regarding point source water pollution, such as National Pollutant Discharge Elimination System (NPDES) permits issued to third parties in American Samoa, Guam, and CNMI. The third parties issued NPDES permits are either businesses or territorial or commonwealth governments that do not qualify as small entities. In addition, because no section 7 consultations on beach nourishment projects occurred within the historical time frame selected for the economic impact analysis, no section 7 consultations on such projects were projected over the next 10 years. As a result, no incremental costs are assigned to small entities for beach nourishment activities. While consultations on aquaculture projects have the potential to involve third parties, the potential economic impacts to third parties are considered *de minimis.* Moreover, all of the historical aquaculture projects that resulted in consultations considered in the economic impact analysis were sponsored by public entities, none of which qualify as small entities.

Consultations on in-water and coastal construction, dredging and disposal, and shoreline stabilization (as explained further in the Final Economic Impact Analysis Report), all have the potential to involve third parties, such as recipients of Clean Water Act section 404 permits. These activities were combined into one broad industry category that may experience impacts to small entities: In-Water and Coastal Construction and Dredging. NAICS industries that are relevant to these activities include:

- Highway, Street, and Bridge Construction (NAICS 237310).
- Other Heavy and Civil Engineering Construction (237990).
- Dredging and Surface Cleanup (NAICS 237990).

The FRFA relies on the estimated incremental impacts resulting from the proposed critical habitat designation, as described in section 7.0 of the Economic Impact Analysis Report. The FRFA estimates the impacts of the coral critical habitat in terms of the percentage of revenues per small entity, which are estimated to be less than 0.1 percent of average annual revenues per potentially impacted small entity for each of the three jurisdictions (FRFA, table 1). These estimates reflect the conservative assumption that all costs borne by third parties are borne by small entities. Impacts are anticipated to be borne by the small entities engaged in in-water and coastal construction and dredging that consult with NMFS regarding the listed Indo-Pacific coral species critical habitat in the next 10 years. Impacts are presented in the FRFA for each of the three U.S. Pacific jurisdictions where one or more of the listed coral species occur and where small businesses engaged in the relevant activities have been identified—American Samoa, Guam, and CNMI. According to section 6.0 of the Final Economic Impact Analysis Report, no more than one consultation on in-water and coastal construction projects is forecasted to occur in either the NWHI or the PRIA. However, because no businesses are located in either the NWHI or the PRIA, it is not possible to determine what small entities, if any, would be affected. Given that so few consultations are expected to occur, the potential costs to small entities associated with in-water and coastal construction and dredging projects in the NWHI and the PRIA are anticipated to be negligible.

The estimated impacts to small entities reflect the assumption of the final economic analysis that critical habitat designation would not result in incremental project modifications. The rationale for this assumption is provided in section 5.0 of the Final Economic Impact Analysis Report and in this final rule. Impacts to small entities are thus assumed to be due solely to the additional administrative costs of considering the potential for adverse effects to critical habitat during section 7 consultations. In addition, the impact estimates generally assume that trends in the frequency of formal and informal consultations over the next 10 years will resemble those of the past 10

years (section 6.0 of the Final Economic Impact Analysis Report).

Given the uncertainty regarding which small entities in a given industry will need to consult with NMFS, this analysis estimates impacts to small entities under two different scenarios. These scenarios are intended to reflect the range of uncertainty regarding the number of small entities that may be affected by the designation and the potential impacts of critical habitat designation on their annual revenues.

Under scenario 1, the FRFA assumes that all third parties involved in future consultations are small entities and that incremental impacts for each territory or commonwealth (American Samoa, Guam, and CNMI) are distributed evenly across all of the entities in the respective territory or commonwealth. Scenario 1 accordingly reflects a high estimate of the number of potentially affected small entities and a low estimate of the potential effect in terms of percent of revenue, except for American Samoa, where it is estimated that only one entity is conducting construction activities in the areas considered for critical habitat. The assumption under scenario 1 that 2.8 small entities will be involved in consultation annually reflects the forecast that approximately 2.8 consultations will occur annually on construction activities involving third parties. This assumes that each consultation on construction activities involves a unique small entity, including 1 small entity in American Samoa, 1.2 small entities in Guam, and 0.6 small entities in CNMI. Critical habitat designation is expected to impact less than one small entity per year in CNMI because fewer than 10 consultations on construction-related activities in CNMI are projected to be completed over the next 10 years. Under scenario 1, the FRFA estimates total annual impacts of $1,008 for American Samoa (in 2023 dollars), $561 for Guam, and $309 for CNMI, or $1,878 across the three jurisdictions. As noted above, annualized impacts of the rule are estimated to make up less than 0.1 percent of average annual revenues for impacted small entities in each of the three jurisdictions. Estimated average annual revenues of potentially impacted small entities are $2.20 million in American Samoa, $3.40 million in Guam, and $2.71 million in CNMI.[1]

Under scenario 2, this analysis assumes that all third parties participating in future consultations are small entities and that costs associated with each consultation action are borne each year by a single small entity in each of the three jurisdictions. Estimated annualized impacts are equivalent under scenario 1 and scenario 2 in American Samoa and CNMI because impacts are expected to be borne by a single small entity under both scenarios for each of these jurisdictions. In American Samoa, there is only one small entity participating in potentially impacted construction-related activities. In CNMI, only six consultations—or less than one consultation per year—are expected to impact small entities over the next 10 years; third-party costs of a single consultation would be borne by a single entity under both scenarios. In Guam, projected annualized costs per small entity are 20 percent higher under scenario 2 than scenario 1 ($561 versus $468) because consultations involving third parties are projected to occur at a rate of 1.2 consultations per year. As with scenario 1, annualized costs borne by small entities total $1,878 across American Samoa, Guam, and CNMI, and impacts constitute less than 0.1 percent of average annual revenues for impacted small entities in each of the three jurisdictions.

There are no record-keeping requirements associated with the rule. Similarly, there are no reporting requirements. No public comments on the Initial Regulatory Flexibility Analysis (IRFA) were received during the public comment period. No Federal laws or regulations duplicate or conflict with this final rule. However, the protection of listed species and habitat under critical habitat may overlap other sections of the ESA. For instance, listing of the threatened Indo-Pacific corals under the ESA already requires Federal agencies to consult with NMFS to avoid jeopardy to the species. However, this analysis only examines the incremental impacts to small entities from the critical habitat rule.

The RFA requires consideration of alternatives to the proposed rule that would minimize significant economic impacts to small entities. We considered the following alternatives when developing the proposed critical habitat rule.

Alternative 1: No Action Alternative

Under the no action alternative, we would not designate critical habitat for the listed corals. The alternative of not designating critical habitat was considered in this FRFA but rejected because, in this case, it would violate the legal requirements of the ESA. Moreover, we have determined that the physical feature forming the basis for critical habitat designation is essential to the corals' conservation, and conservation for these species will not succeed without this feature being available. Thus, the lack of protection of the critical habitat feature from adverse modification could result in continued declines in abundance of the listed corals, and loss of associated economic and other values these corals provide to society, such as recreational and commercial fishing and diving services, and shoreline protection services. Small entities engaged in some coral reef-dependent industries would be adversely affected by the continued declines in the listed corals. Thus, while small entities would incur no direct incremental costs under the no action alternative, the no action alternative is not necessarily a ''no cost'' alternative for small entities.

Alternative 2: Preferred Alternative

Under this alternative, the areas designated are waters ranging from 0 to 10 m, 0 to 20 m, and 20 to 50 m deep (depending on the listed coral species and the critical habitat unit) in American Samoa, Guam, CNMI, the NWHI, and the PRIA. As noted in the Final Critical Habitat Information Report (NMFS 2025), the following areas are ineligible for critical habitat: parts of Guam, parts of Tinian, all of FDM, and all of Wake Atoll. An analysis of the costs and benefits of the preferred alternative designation is presented in the Final Economic Impact Analysis Report (appendix C of NMFS 2025). Relative to the no action alternative, this alternative will likely involve an increase in administrative costs for those section 7 consultations required to avoid adverse impacts to critical habitat, above and beyond those required due to the corals' listing alone. We have determined that no categories of activities would require consultation in the future solely due to this rule and the need to prevent adverse modification of critical habitat, based on the designation of only occupied critical habitat. Similarly, it is extremely unlikely that adverse effects of future activities on the critical habitat will result in destruction or adverse modification of the critical habitat. This is due to the fact that the critical habitat areas constitute a sufficiently small portion of each listed coral species' overall range such that the loss or degradation of habitat from future Federal actions within U.S. waters is not expected to pose a significant threat to their conservation and recovery, and thus future Federal actions would likely not result in destruction or adverse modification

[1] Average annual revenues were calculated based on company-specific revenue data sourced from the Dun & Bradstreet Hoovers database.

determinations. The preferred alternative was selected because it best implements the critical habitat provisions of the ESA by including the well-defined environmental features essential to the species' conservation, and due to the important conservation benefits that will result from this alternative relative to the no action alternative. Moreover, as described above, incremental costs to small entities under the preferred alternative are expected to be negligible, *i.e.,* less than 0.1 percent of average annual revenues for impacted small entities.

Alternative 3: Designating a Subset of Areas

A third alternative was considered that would have excluded from designation those areas in which, on economic or national security bases, the benefits of exclusion outweigh the benefits of inclusion. No areas were identified where it was determined that the benefits of exclusion outweigh the conservation value of designation to the species. In addition, the public did not submit comments on the benefits of exclusion and inclusion in general, nor were comments submitted on those benefits as they relate to specific areas. Thus, we rejected this alternative because it would lessen the conservation value to the species.

Coastal Zone Management Act (16 U.S.C. 1451 et seq.)

Under section 307(c)(1)(A) of the Coastal Zone Management Act (CZMA) (16 U.S.C. 1456(c)(1)(A)) and its implementing regulations, each Federal activity within or outside the coastal zone that has reasonably foreseeable effects on any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State coastal zone management programs. We have determined that this final rule will have no reasonably foreseeable effects on any of American Samoa's, Guam's, CNMI's, or Hawai'i's coastal uses or resources. These negative determinations were described in letters sent to American Samoa's, Guam's, CNMI's, and Hawai'i's Coastal Zone Management (CZM) offices on August 5, 2024. The Guam CZM office disagreed with our negative determination, as described in their October 10, 2024, response letter. On November 5, 2024, we responded to the Guam CZM office, reaffirming our negative determination. The CNMI CZM office concurred with our negative determination in their October 18, 2024, response letter. The American Samoa and Hawai'i CZM offices did not respond within 60 days and therefore concurrence is presumed (15 CFR 930.35(c)).

Paperwork Reduction Act (44 U.S.C. 3501 et seq.)

This final rule does not contain any new or revised collection of information, defined by the Paperwork Reduction Act (PRA) of 1995. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

This final rule will not produce a Federal mandate. The designation of critical habitat does not impose a legally-binding duty on non-federal government entities or private parties. The only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7 of the ESA. Non-federal entities that receive Federal funding, assistance, permits, or otherwise require approval or authorization from a Federal agency for an action may be indirectly affected by the designation of critical habitat, but the Federal agency has the legally binding duty to avoid destruction or adverse modification of critical habitat.

We do not anticipate that this rule will significantly or uniquely affect small governments. Therefore, a Small Government Action Plan is not required.

Consultation and Coordination With Indian Tribal Governments (E.O. 13175)

The longstanding and distinctive relationship between the Federal and Tribal Governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate Tribal Governments from the other entities that deal with, or are affected by, the Federal Government.

This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States towards Indian Tribes and with respect to Indian lands, Tribal trust resources, and the exercise of Tribal rights. Pursuant to these authorities, lands have been retained by Indian Tribes or have been set aside for Tribal use. These lands are managed by Indian Tribes in accordance with Tribal goals and objectives within the framework of applicable treaties and laws. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting Tribal interests. The critical habitat designations for threatened Indo-Pacific corals are located in U.S. Pacific Islands and therefore do not have Tribal implications in accordance with Executive Order 13175.

List of Subjects

50 CFR Part 223

Endangered and threatened species, Exports, Imports, Transportation.

50 CFR Part 226

Endangered and threatened species.

Dated: July 10, 2025

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, NMFS amends 50 CFR parts 223 and 226 as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

■ 1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531–1543; subpart B, § 223.201–202 also issued under 16 U.S.C. 1361 *et seq.;* 16 U.S.C. 5503(d) for § 223.206(d)(9).

■ 2. In § 223.102(e), in the table, under the heading ''Corals'' revise the entries for ''*Acropora globiceps,*'' ''*Acropora retusa,*'' ''*Acropora speciosa,*'' ''*Fimbriaphyllia paradivisa,*'' and ''*Isopora crateriformis*'' to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

(e) * * *

Species[1]			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
*	*	*	*	*	*
Corals					
Coral, [no common name]	*Acropora globiceps*	Entire species	79 FR 53852, Sept. 10, 2014.	*226.230*	NA.
*	*	*	*	*	*
Coral, [no common name]	*Acropora retusa*	Entire species	79 FR 53852, Sept. 10, 2014.	*226.230*	NA.
*	*	*	*	*	*
Coral, [no common name]	*Acropora speciosa*	Entire species.	79 FR 53852, Sept. 10, 2014.	*226.230*	NA.
*	*	*	*	*	*
Coral, [no common name]	*Fimbriaphyllia paradivisa*[3]	Entire species.	79 FR 53852, Sept. 10, 2014.	*226.230*	NA.
Coral, [no common name]	*Isopora crateriformis*	Entire species.	79 FR 53852, Sept. 10, 2014.	*226.230*	NA.
*	*	*	*	*	*

[1] Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).
[2] Jurisdiction for sea turtles by the Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, is limited to turtles while in the water.
[3] Name changed from *Euphyllia paradivisa* to *Fimbriaphyllia paradivisa* on October 9, 2024 (89 FR 81867).

PART 226—DESIGNATED CRITICAL HABITAT

■ 3. The authority citation for part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

■ 4. Add § 226.232 to read as follows:

§ 226.232 Critical habitat for *Acropora globiceps, Acropora retusa, Acropora speciosa, Fimbriaphyllia paradivisa,* and *Isopora crateriformis.*

Critical habitat is designated in the following jurisdictions for the following species as depicted in figures 1 through 27 of this section and described in paragraphs (a) through (e) of this section. The maps can be viewed or obtained with greater resolution (available at *https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat#critical-habitat-designations-maps-and-gis-data*) to enable a more precise inspection of the critical habitat for *A. globiceps, A. retusa, A. speciosa, F. paradivisa,* and *I. crateriformis.*

(a) *Critical habitat locations.* Critical habitat is designated for the following species in the following jurisdictions:

TABLE 1 TO PARAGRAPH (a)

Species	State—Counties (or other jurisdiction)
Acropora globiceps.	American Samoa (AS), Guam (Gu), Commonwealth of the Northern Mariana Islands (CNMI), Pacific Remote Island Areas (PRIA), Hawai'i (HI).
Acropora retusa.	AS, PRIA.
Acropora speciosa.	AS.
Fimbriaphyllia paradivisa.	AS.
Isopora crateriformis.	AS.

(b) *Critical habitat boundaries.* Except as noted in paragraph (d) of this section, critical habitat for the five species includes all specific areas depicted in figures 1 through 27 of this section.

(c) *Essential feature.* The feature essential to the conservation of *A. globiceps, A. retusa, A. speciosa, F. paradivisa* and *I. crateriformis* is: Sites that support the normal function of all life stages of the corals, including reproduction, recruitment, and maturation. These sites are natural, consolidated hard substrate or dead coral skeleton, which is free of algae and sediment at the appropriate scale at the point of larval settlement or fragment reattachment, and the associated water column. Several attributes of these sites determine the quality of the area and influence the value of the associated feature to the conservation of the species:

(1) Substrate with presence of crevices and holes that provide cryptic habitat, the presence of microbial biofilms, or presence of crustose coralline algae;

(2) Reefscape with no more than a thin veneer of sediment and low occupancy by fleshy and turf macroalgae;

(3) Marine water with levels of temperature, aragonite saturation, nutrients, and water clarity that have been observed to support any demographic function; and

(4) Marine water with levels of anthropogenically-introduced (from humans) chemical contaminants that do not preclude or inhibit any demographic function.

(d) *Areas not included in critical habitat.* Critical habitat does not include the following particular areas where they overlap with the areas described in paragraphs (a) through (c) of this section:

(1) Pursuant to ESA section 4(a)(3)(B)(i), all areas subject to the 2023 Wake Island and 2019 Joint Region Marianas INRMPs;

(2) Managed areas that do not provide the quality of substrate essential for the conservation of the five Indo-Pacific corals are defined as particular areas whose consistently disturbed nature renders them poor habitat for coral

growth and survival over time. These managed areas include specific areas where the substrate has been disturbed by planned management authorized by local, territorial, state, or Federal governmental entities at the time of critical habitat designation, and will continue to be periodically disturbed by such management. Examples include, but are not necessarily limited to, dredged navigation channels, shipping basins, vessel berths, and active anchorages. Specific federally-authorized channels and harbors considered as managed areas not included in the designations are:

(i) Pago Pago Harbor.
(ii) Aunu'u Harbor.
(iii) Auasi Harbor.
(iv) Ofu Harbor.
(v) Ta'u Harbor.
(vi) Faleasao Harbor.
(vii) Apra Harbor.
(viii) Agat Harbor.
(iv) Agana Harbor.
(x) Rota Harbor.
(xi) Tinian Harbor.
(xii) Saipan Harbor.

(3) Existing artificial substrates including but not limited to: fixed and floating structures, such as aids-to-navigation (AToNs), seawalls, wharves, boat ramps, fishpond walls, pipes, submarine cables, wrecks, mooring balls, docks, aquaculture cages.

(e) *Critical habitat maps.* The specific areas of critical habitat within the 18 units for the 5 listed coral species are shown in figures 1 through 27 of this section. Spatial data for these critical habitats and mapping tools are maintained on our website and are available for public use (*https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat*).

Figure 1. Final critical habitat for *Acropora globiceps,* Tutuila and Offshore Banks

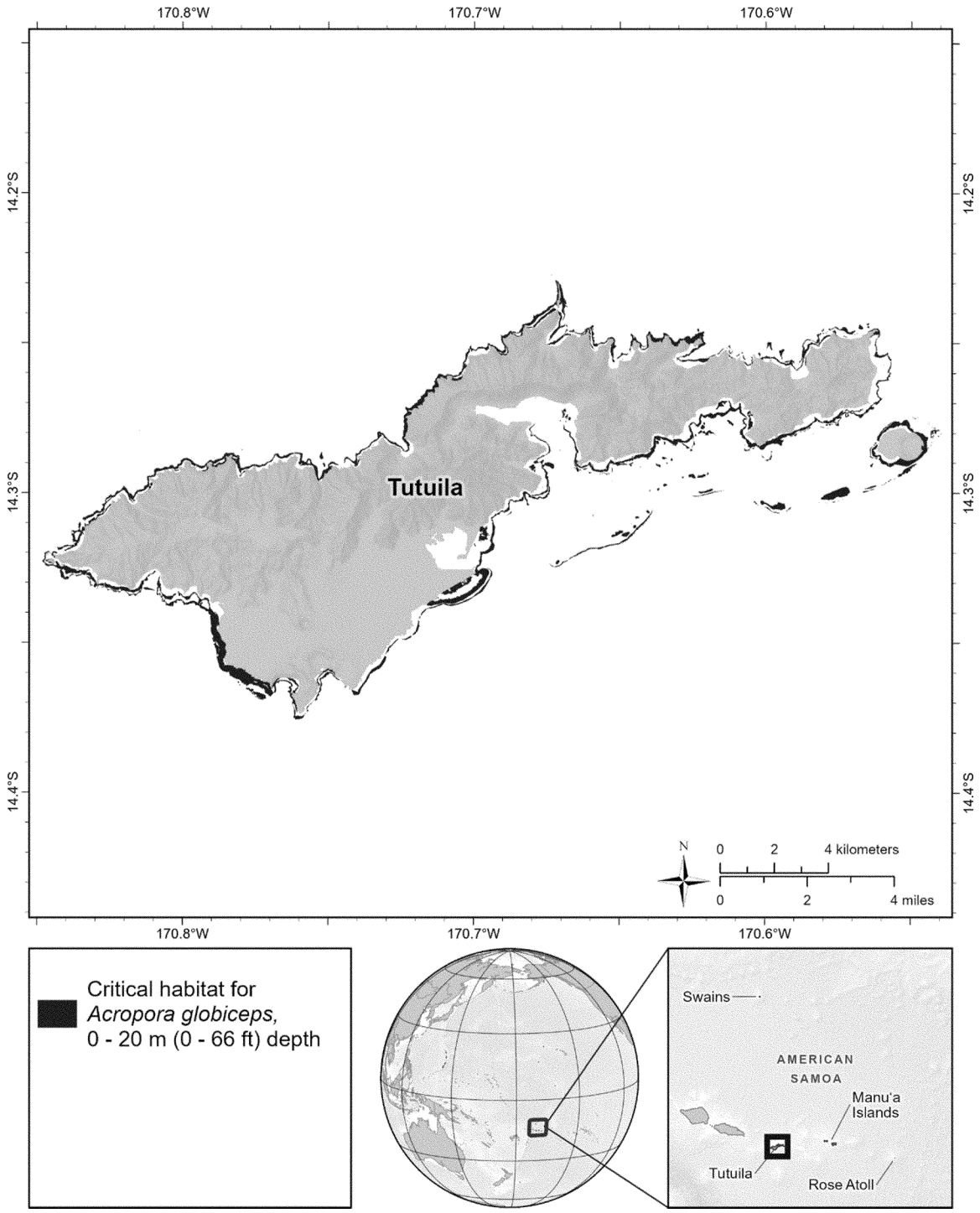


Figure 2. Final critical habitat for *Acropora retusa,* Tutuila and Offshore Banks

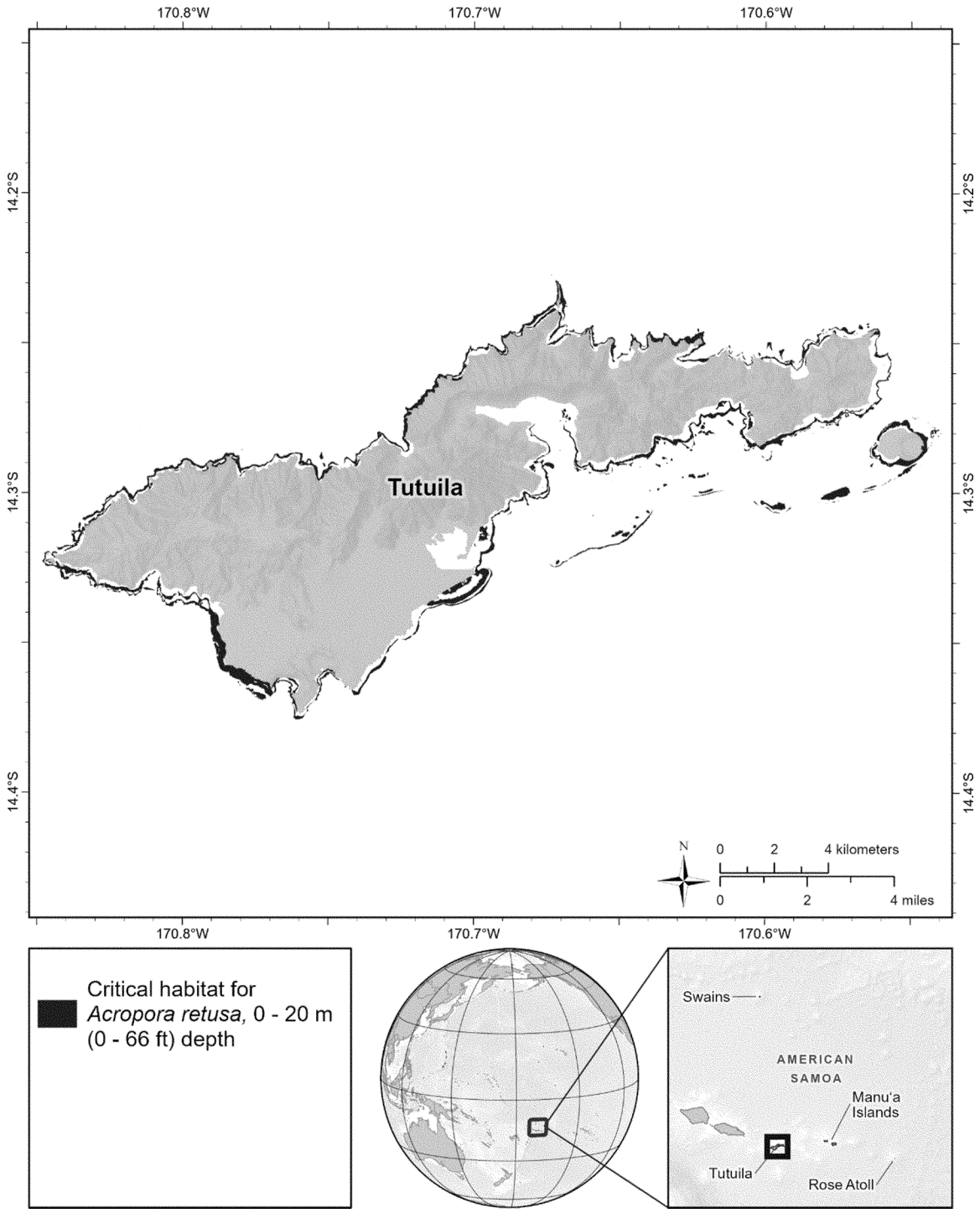


Figure 3. Final critical habitat for *Acropora speciosa,* Tutuila and Offshore Banks

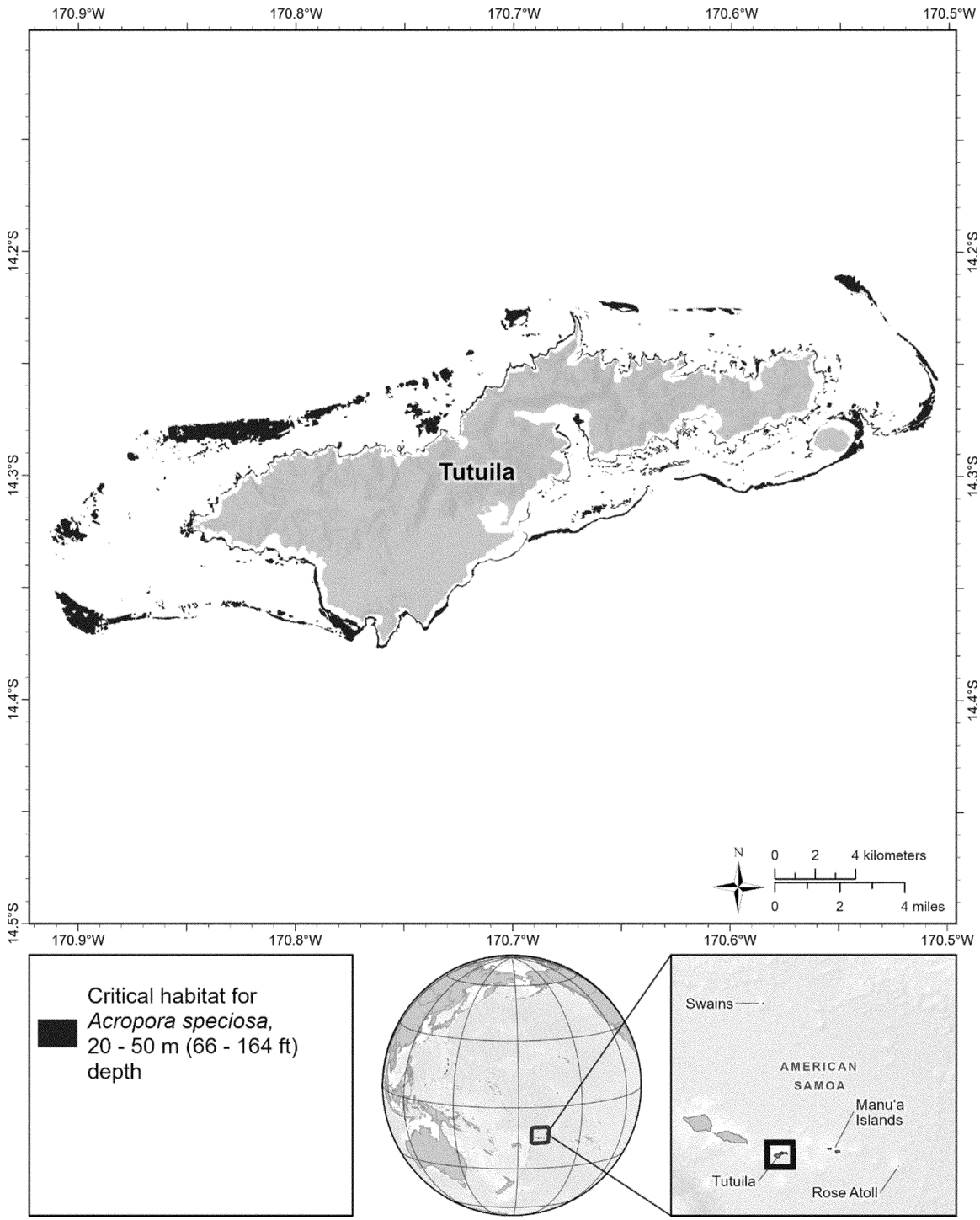


Figure 4. Final critical habitat for *Fimbriaphyllia paradivisa,* Tutuila and Offshore Banks

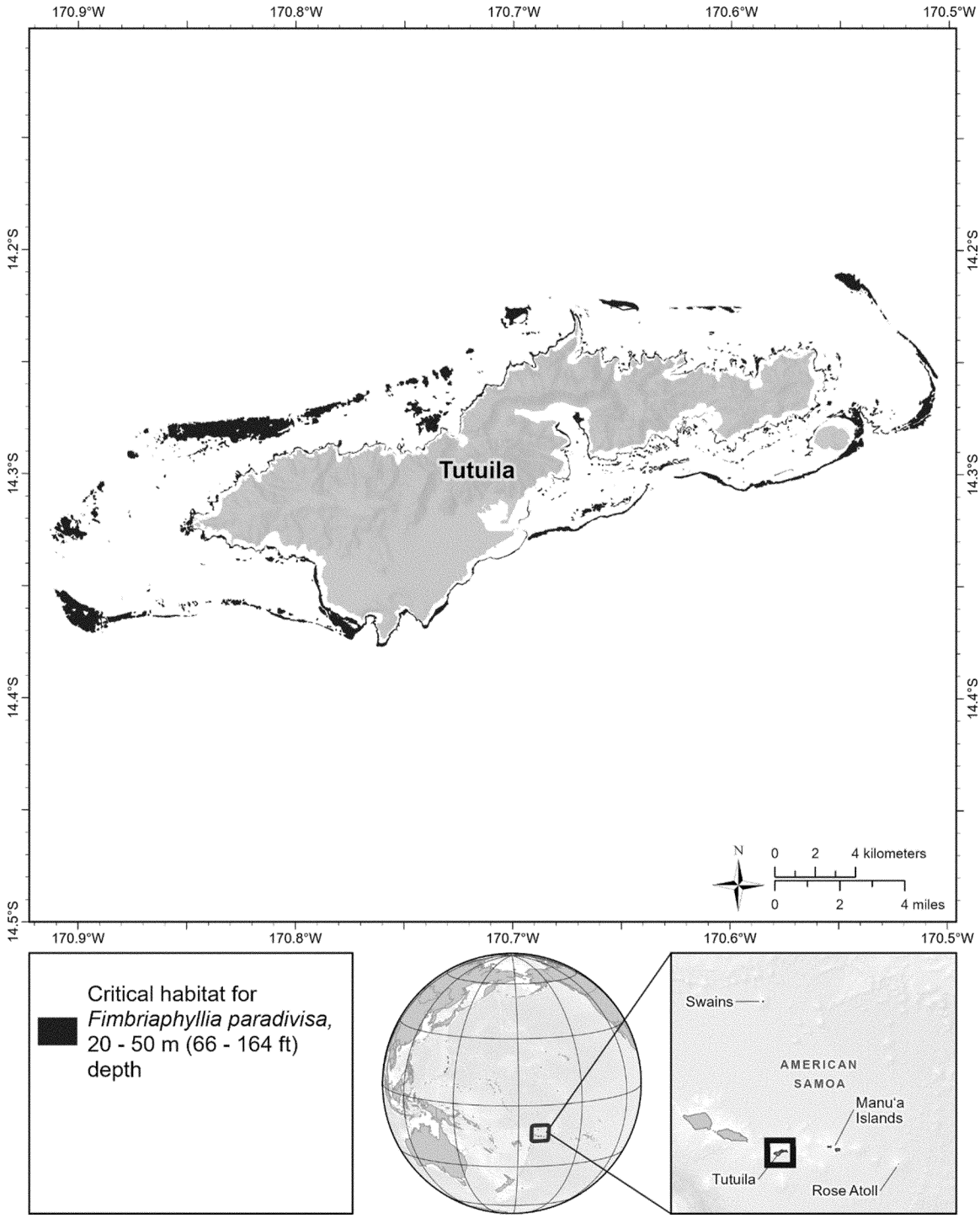


Figure 5. Final critical habitat for *Isopora crateriformis,* Tutuila and Offshore Banks

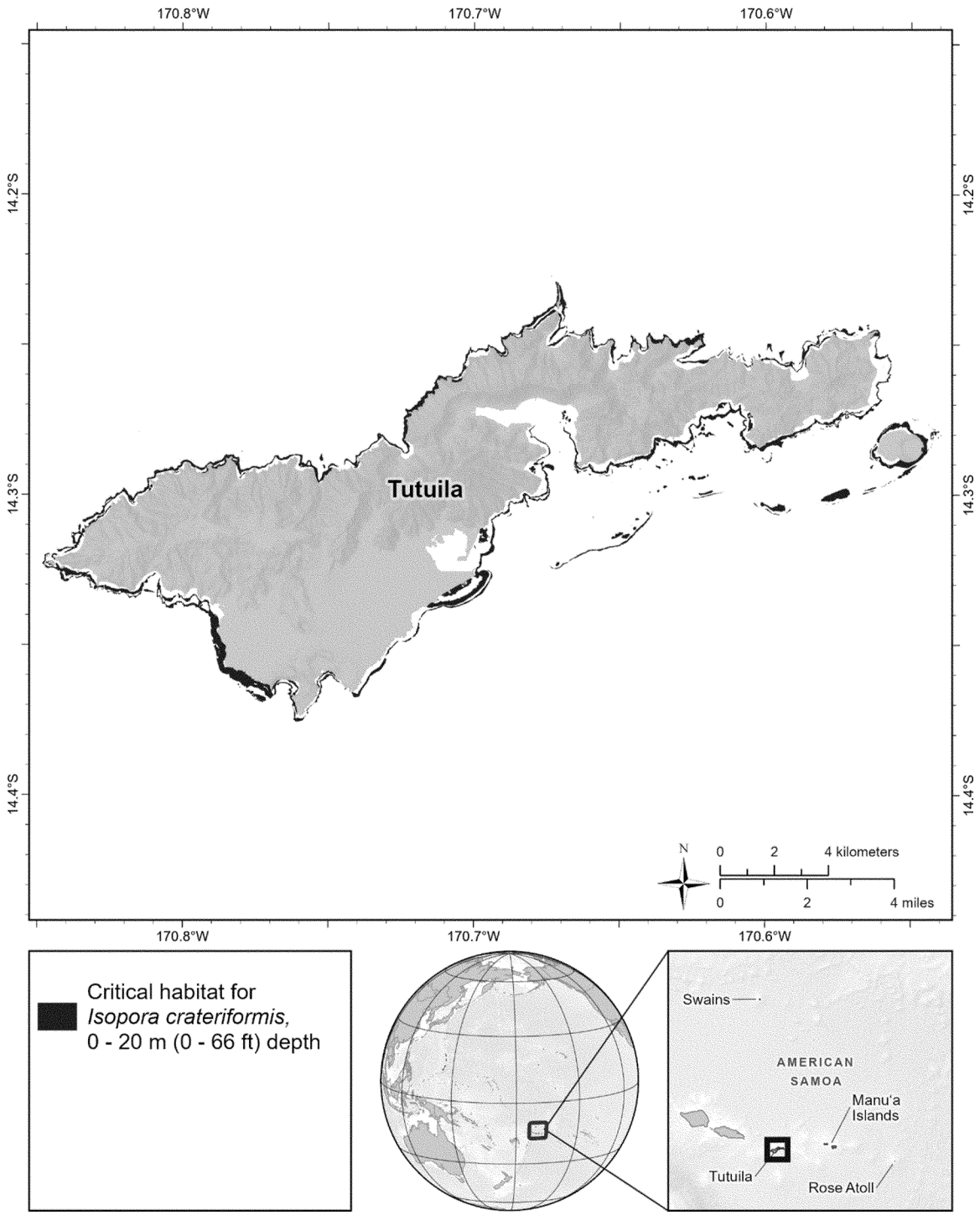


Figure 6. Final critical habitat for *Acropora globiceps,* Ofu-Olosega

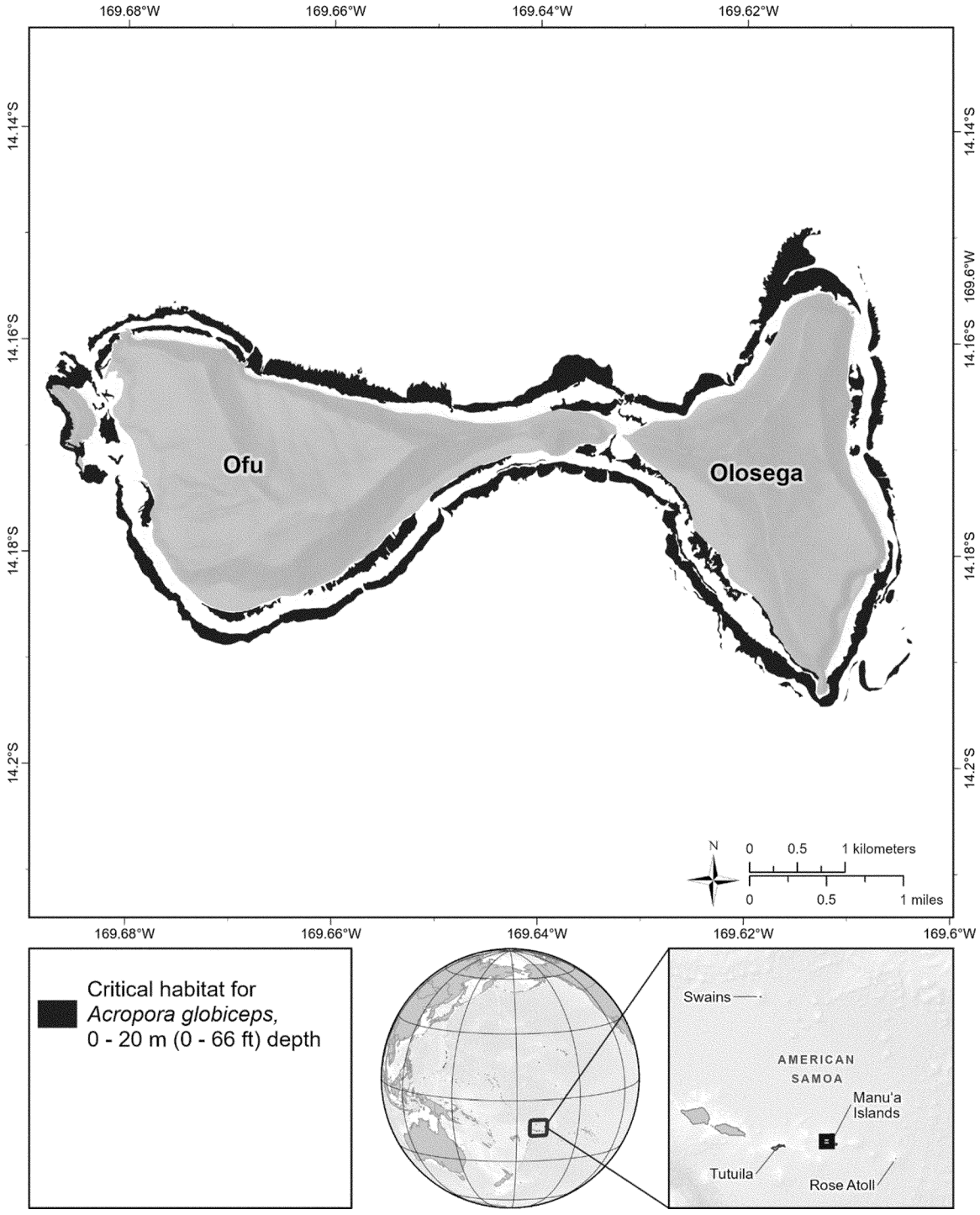


Figure 7. Final critical habitat for *Acropora retusa,* Ofu-Olosega

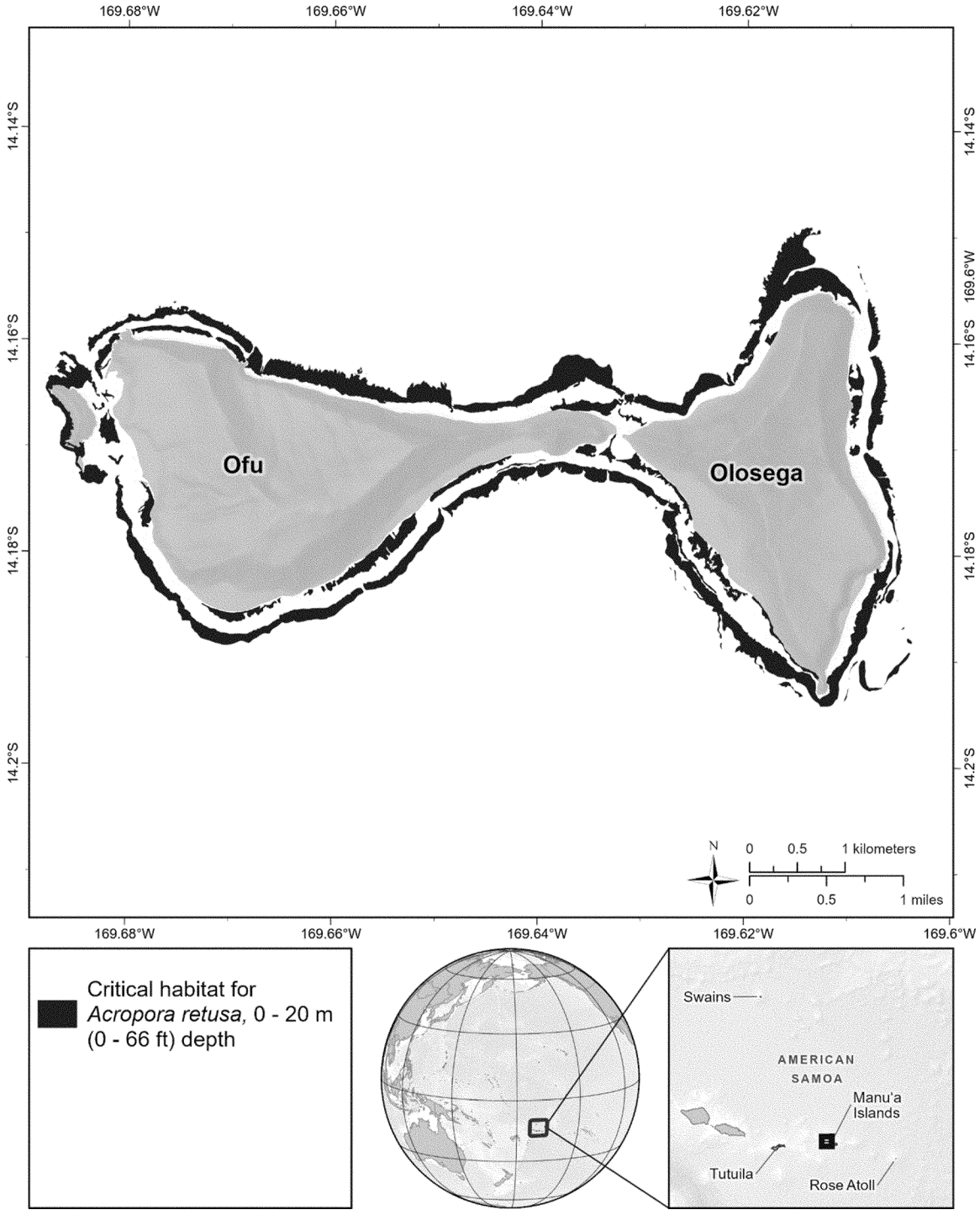


Figure 8. Final critical habitat for *Isopora crateriformis,* Ofu-Olosega

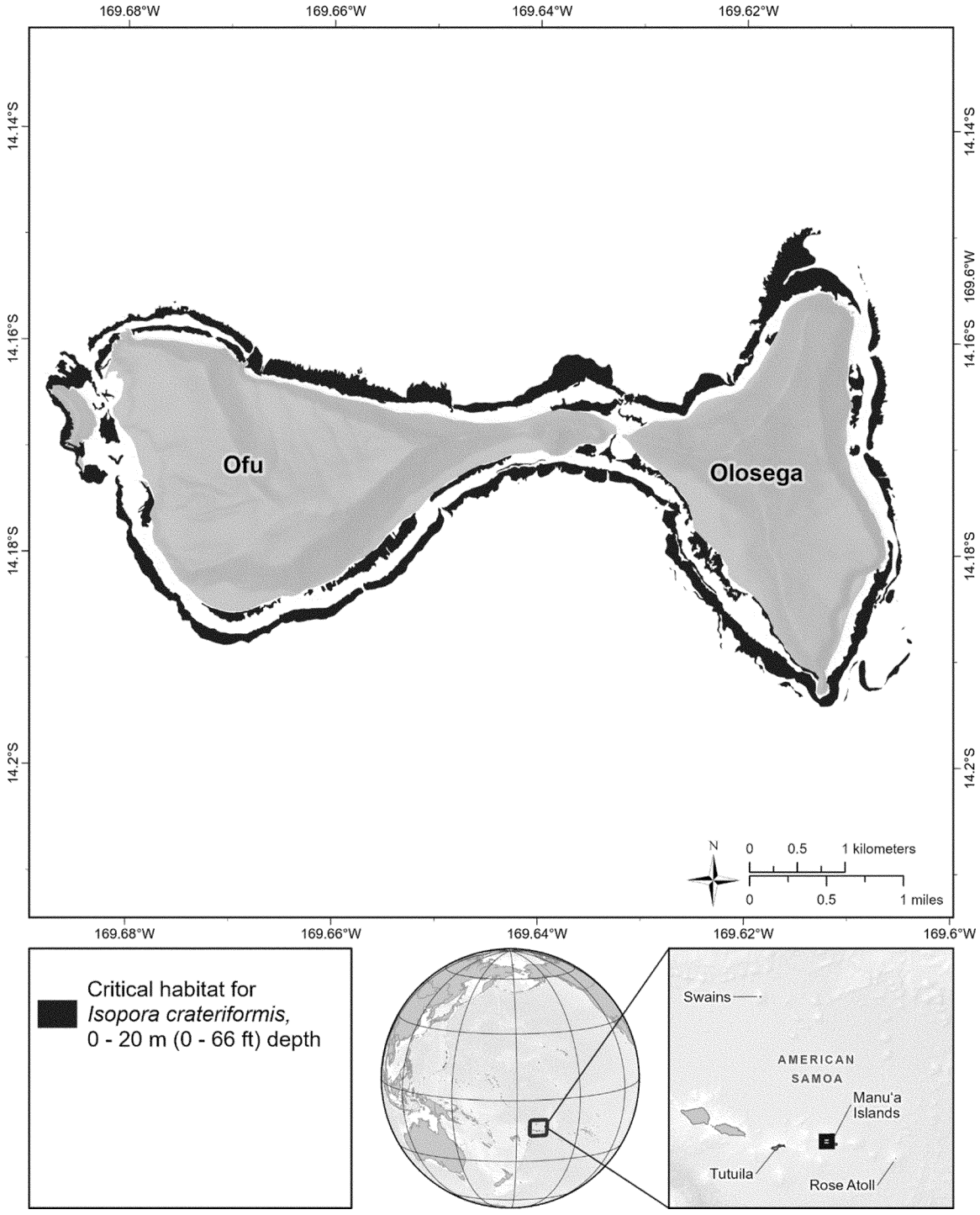


Figure 9. Final critical habitat for *Acropora globiceps,* Ta'u

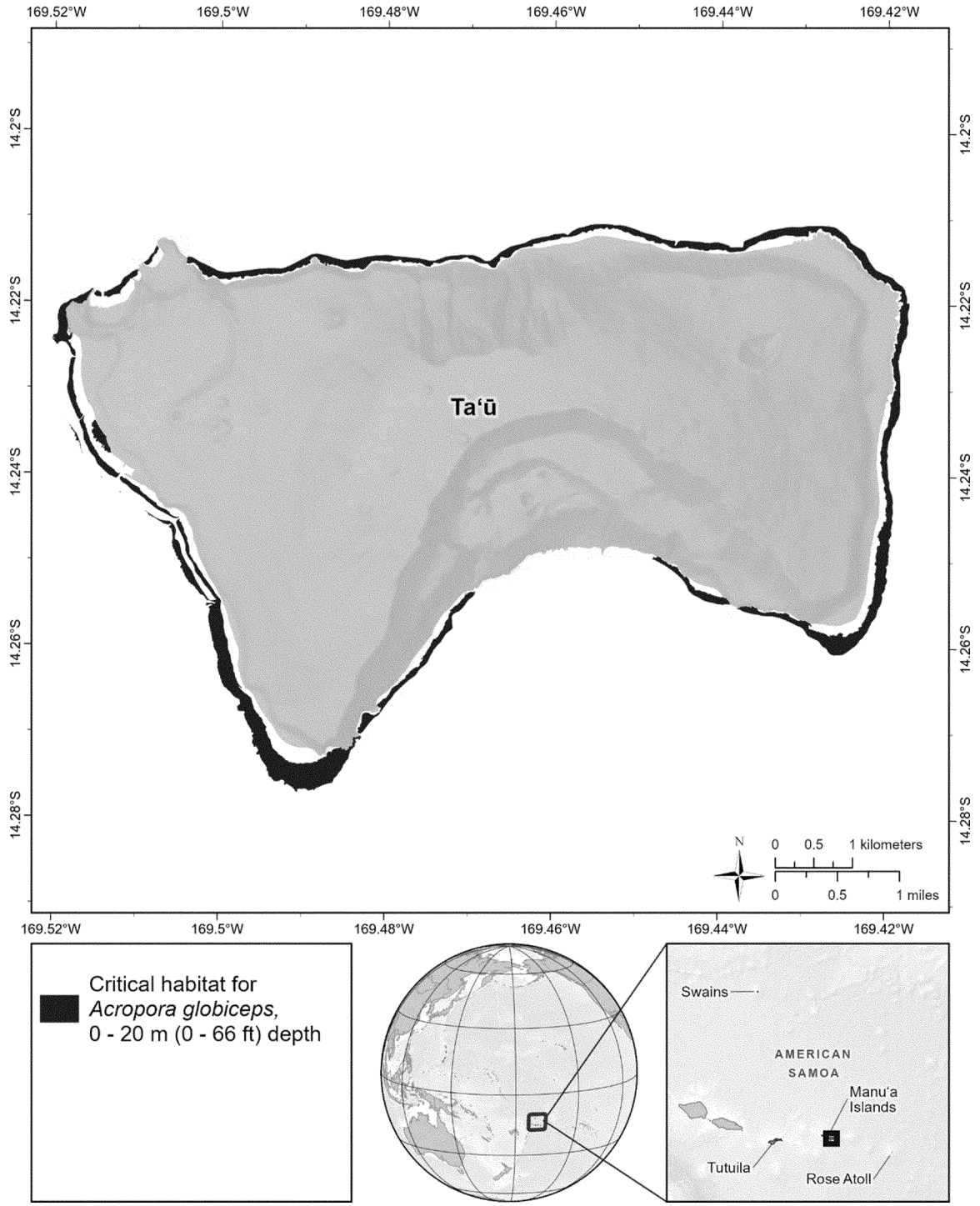


Figure 10. Final critical habitat for *Acropora retusa,* Ta'u

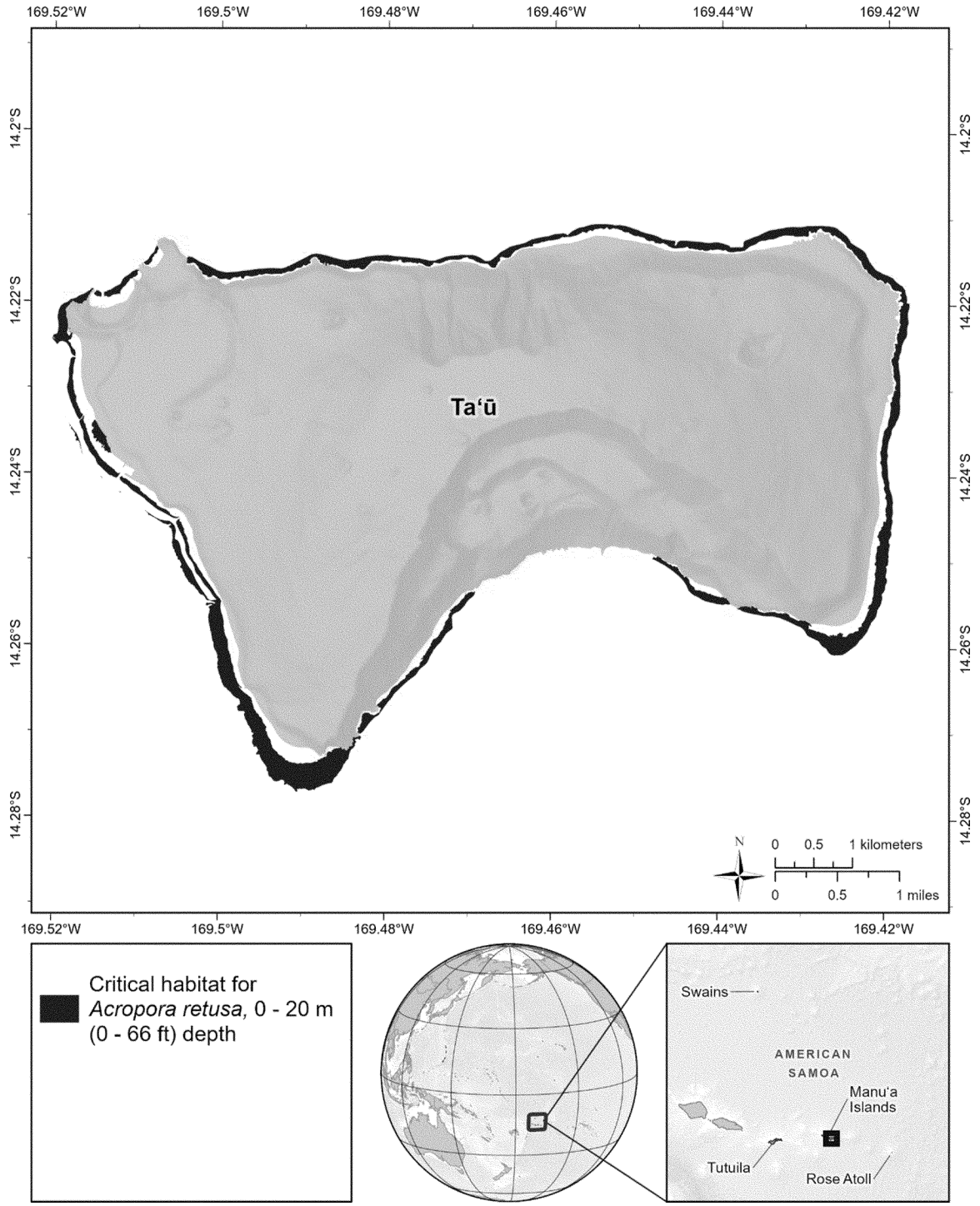


Figure 11. Final critical habitat for *Isopora crateriformis,* Ta'u

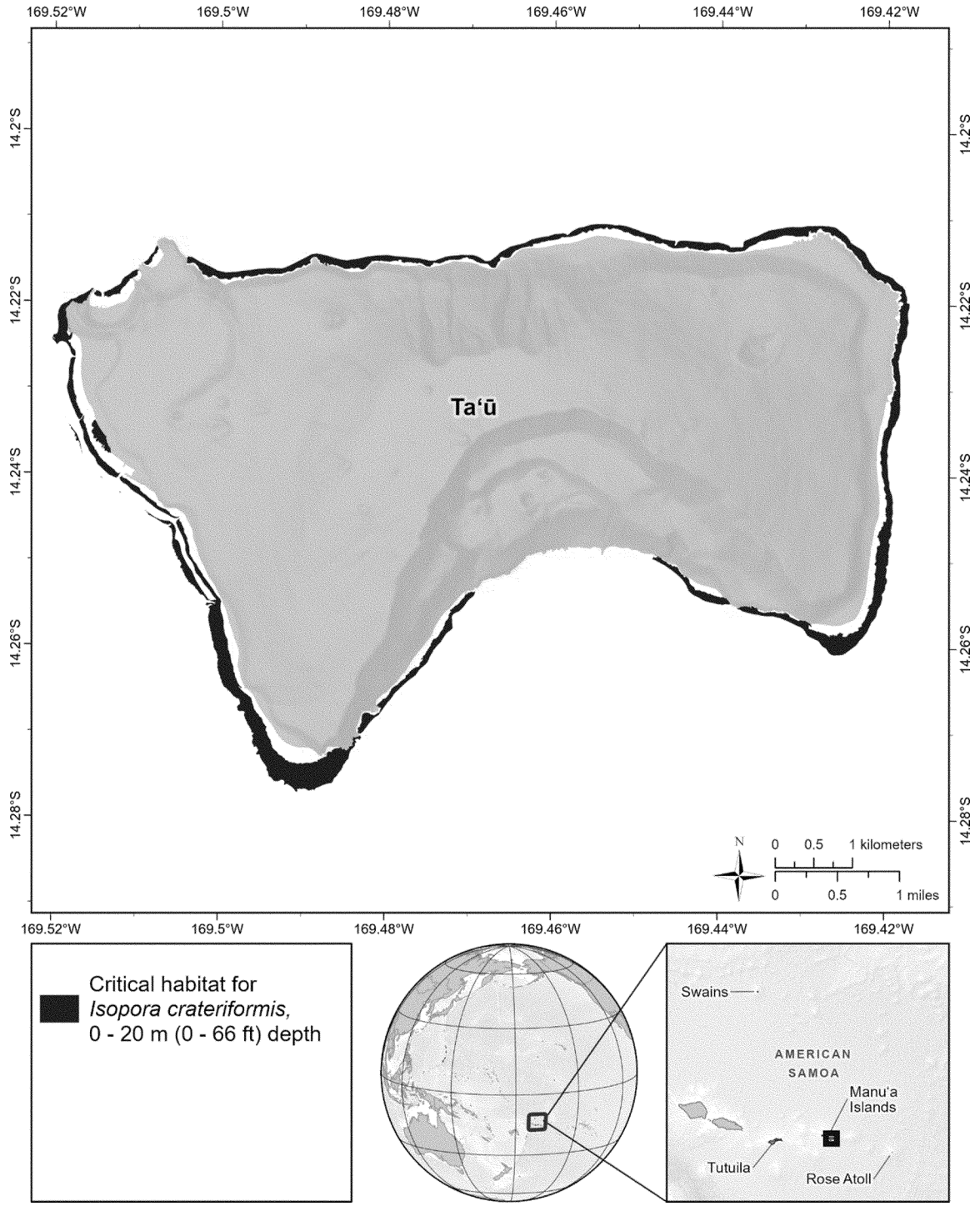


Figure 12. Final critical habitat for *Acropora globiceps,* Rose Atoll

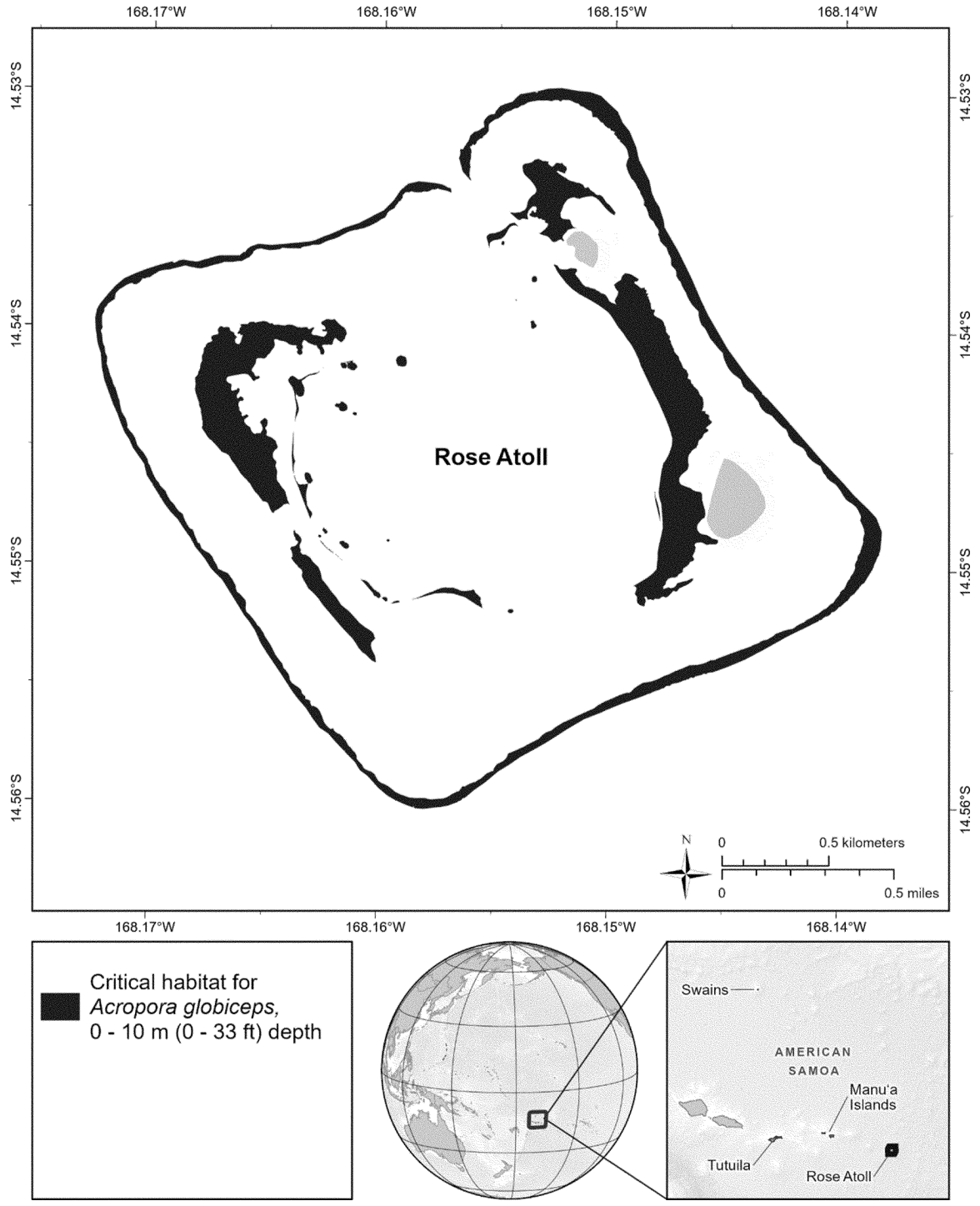


Figure 13. Final critical habitat for *Acropora retusa,* Rose Atoll

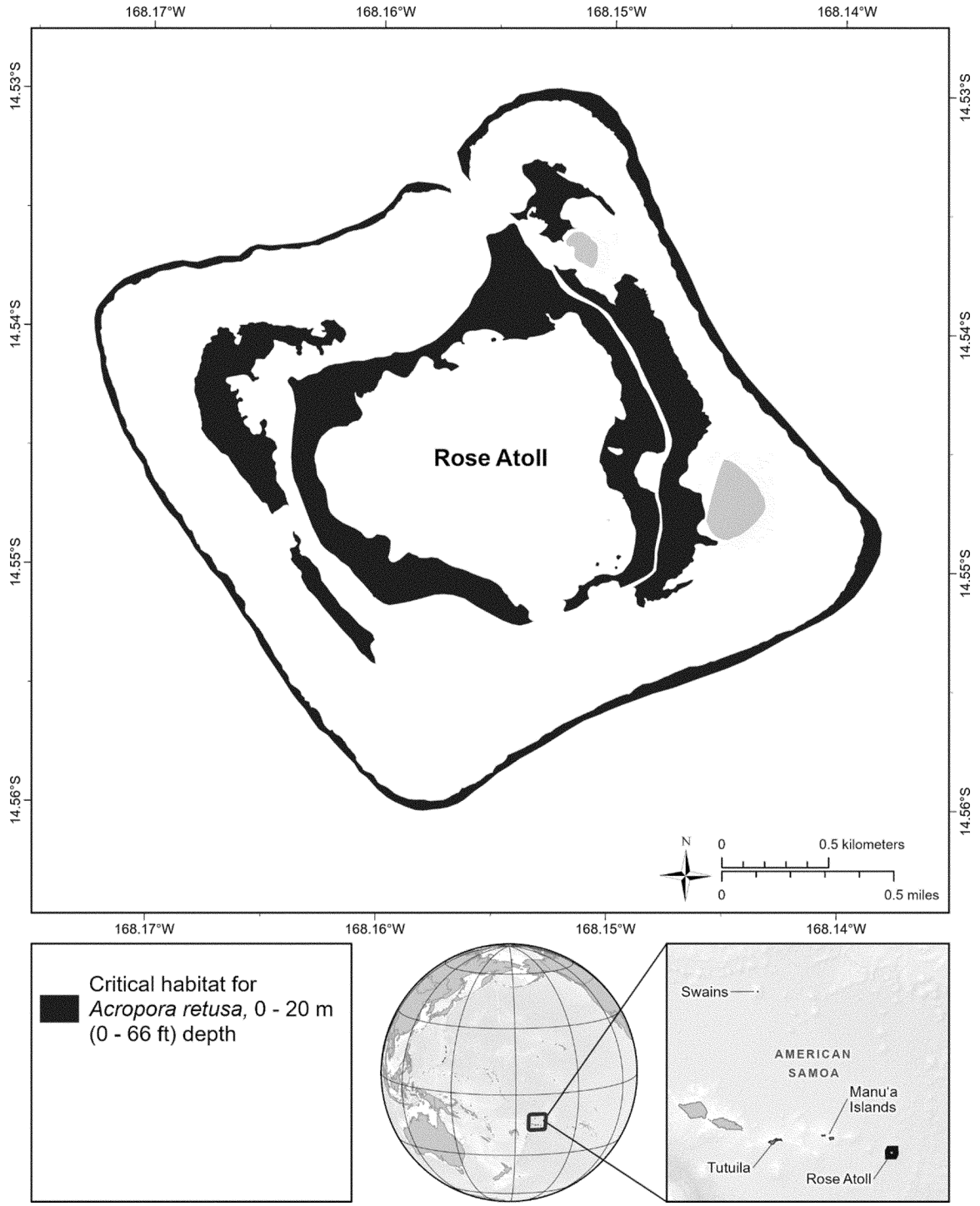


Figure 14. Final critical habitat for *Acropora retusa,* Swains

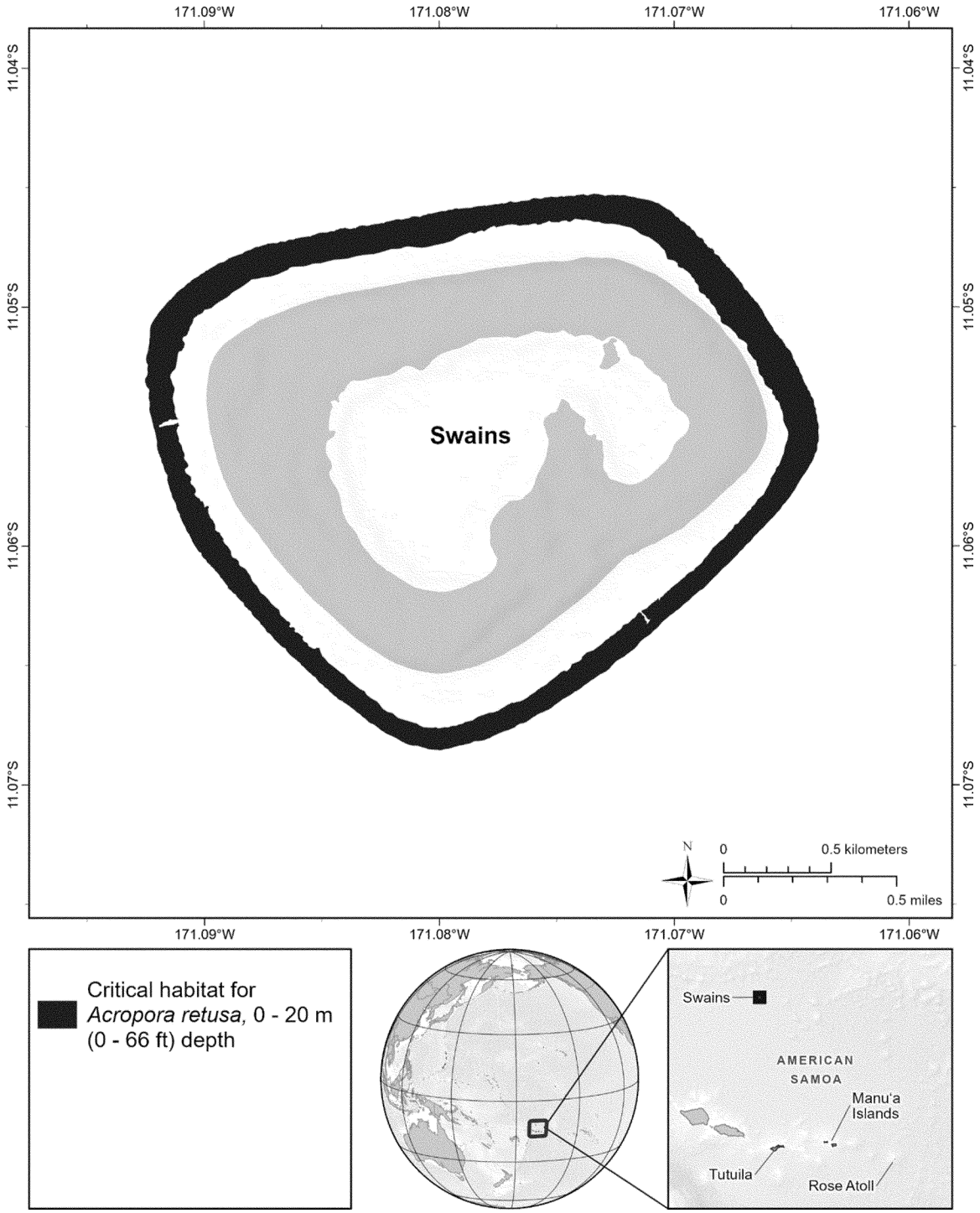


Figure 15. Final critical habitat for *Acropora globiceps,* Guam

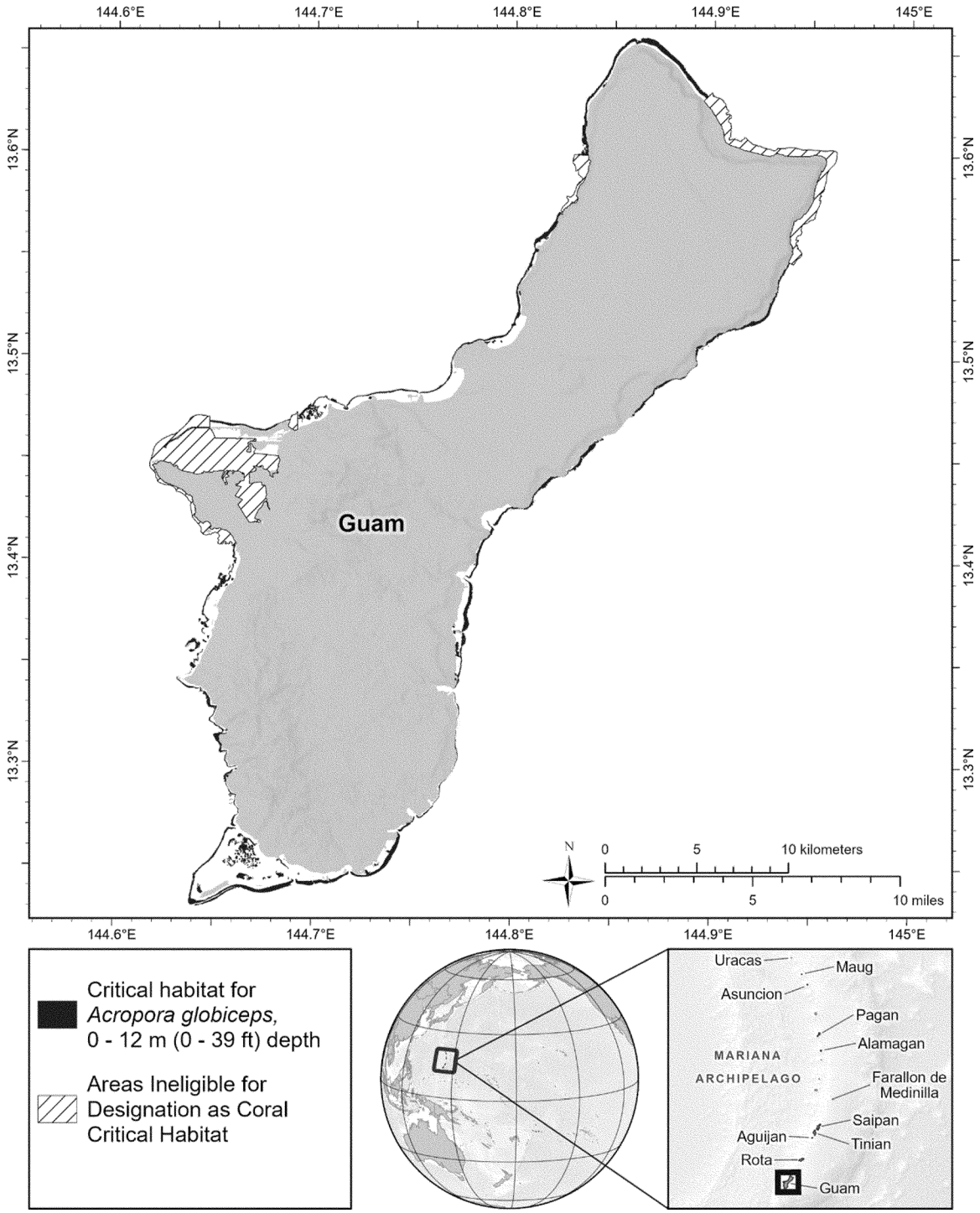


Figure 16. Final critical habitat for *Acropora globiceps,* Rota

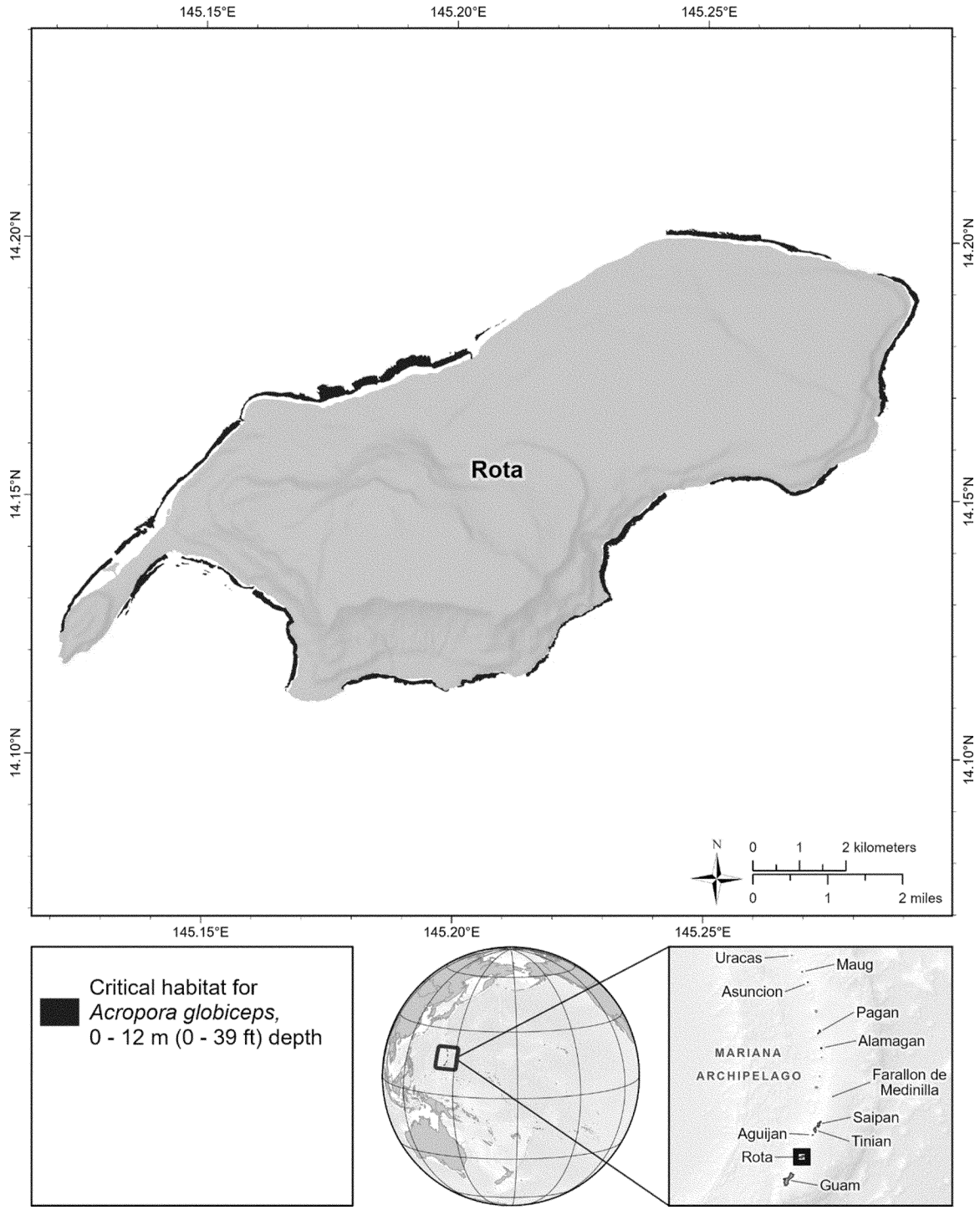


Figure 17. Final critical habitat for *Acropora globiceps,* Aguijan

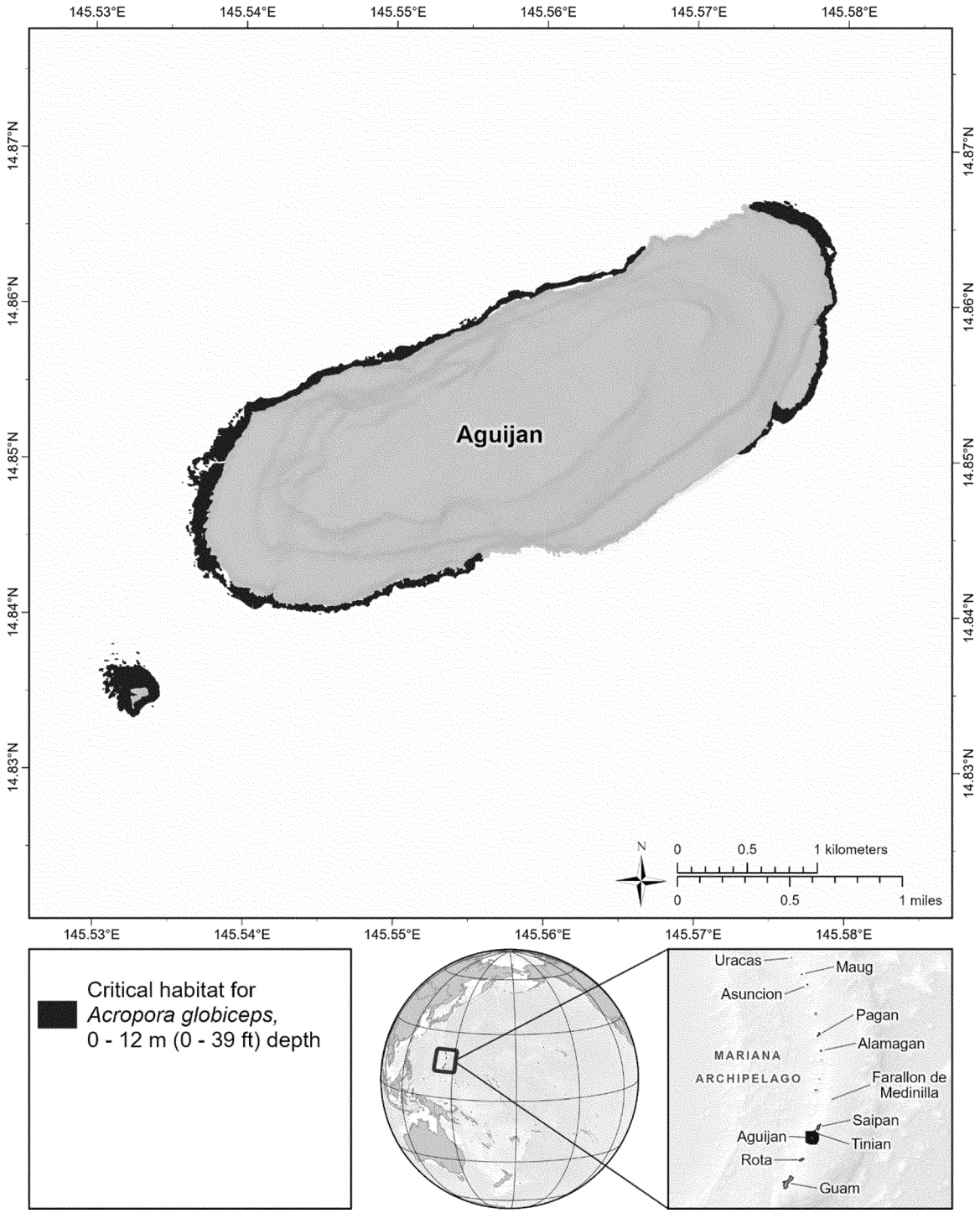


Figure 18. Final critical habitat for *Acropora globiceps,* Tinian

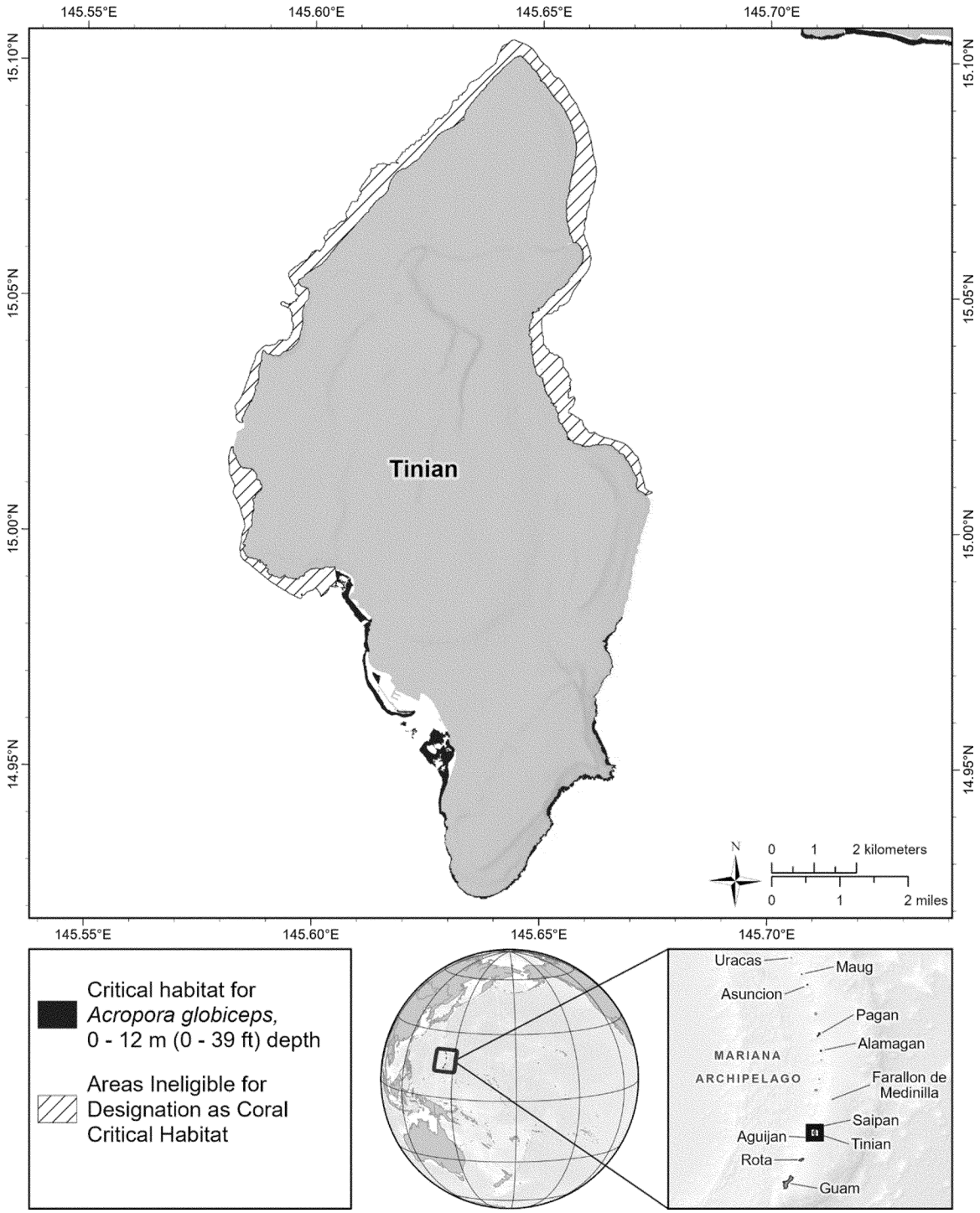


Figure 19. Final critical habitat for *Acropora globiceps,* Saipan

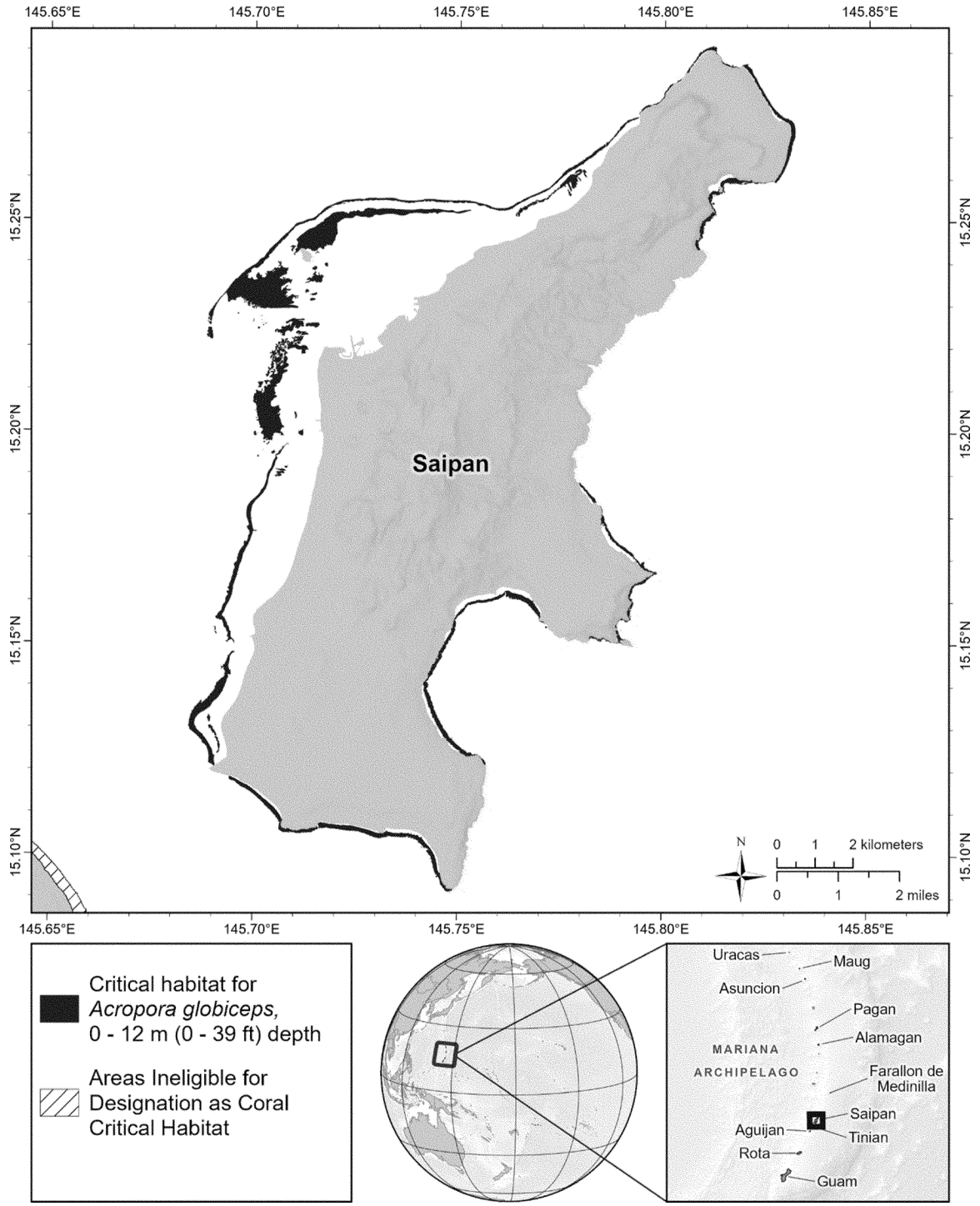


Figure 20. Final critical habitat for *Acropora globiceps,* Alamagan

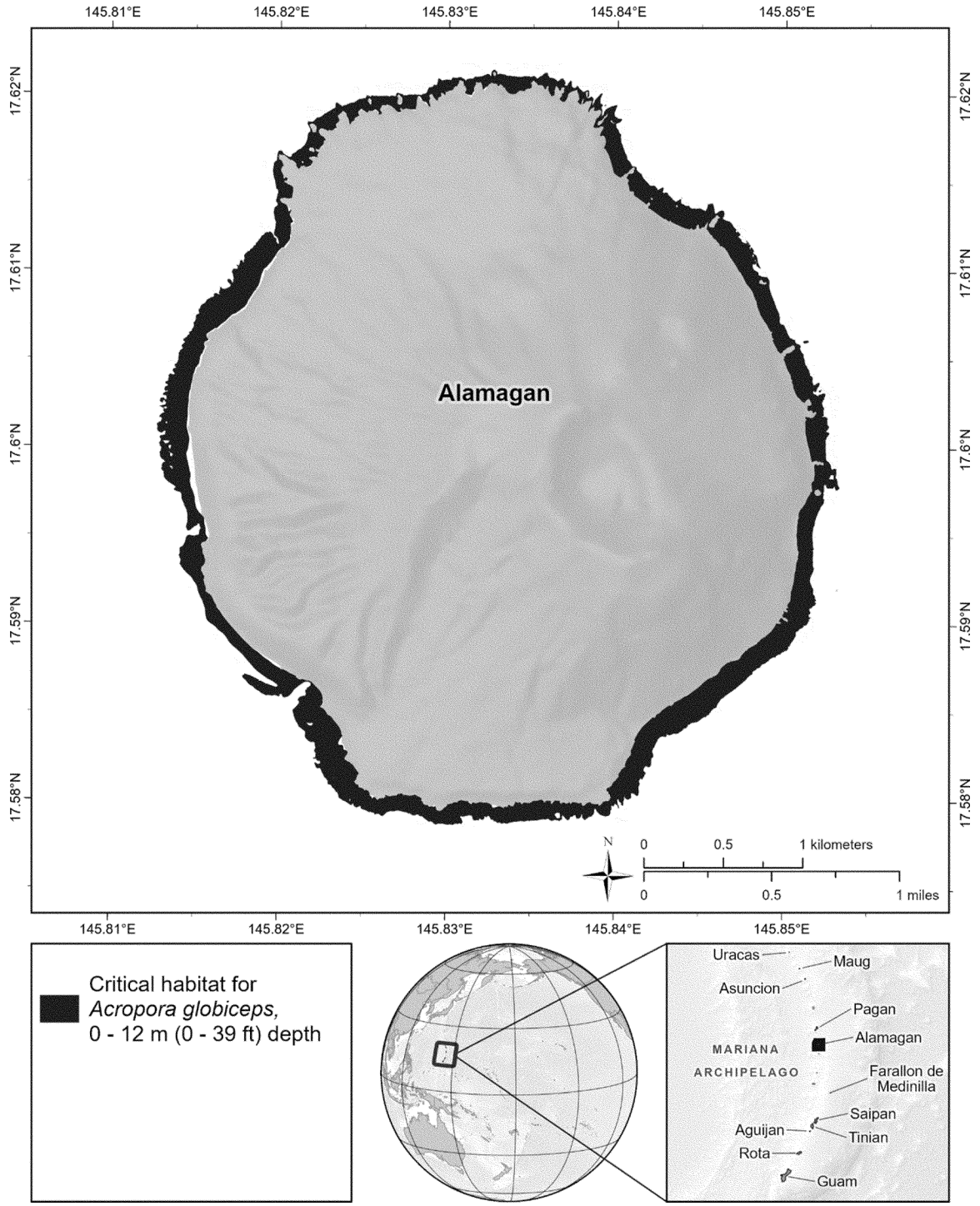


Figure 21. Final critical habitat for *Acropora globiceps,* Pagan

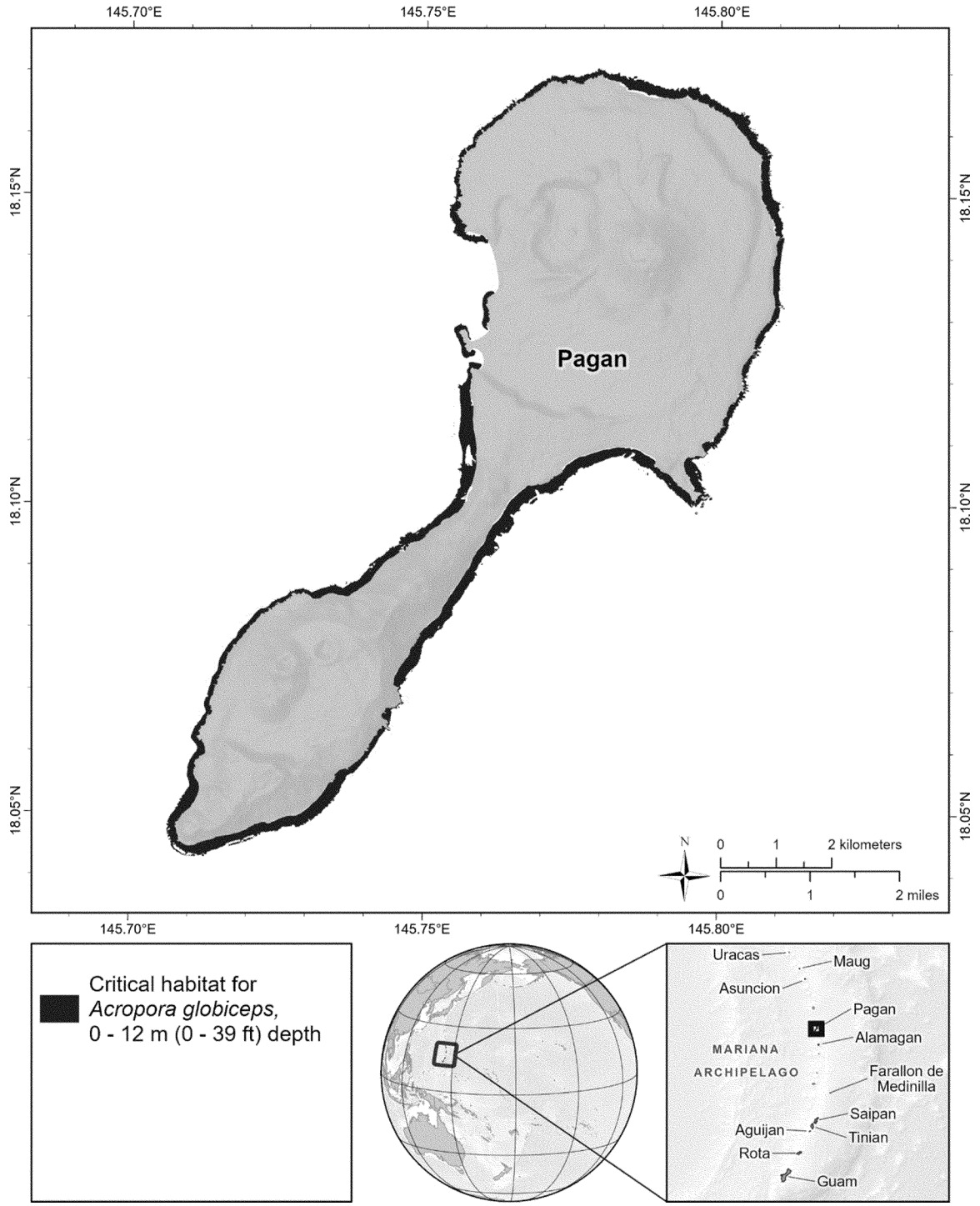


Figure 22. Final critical habitat for *Acropora globiceps,* Asuncion

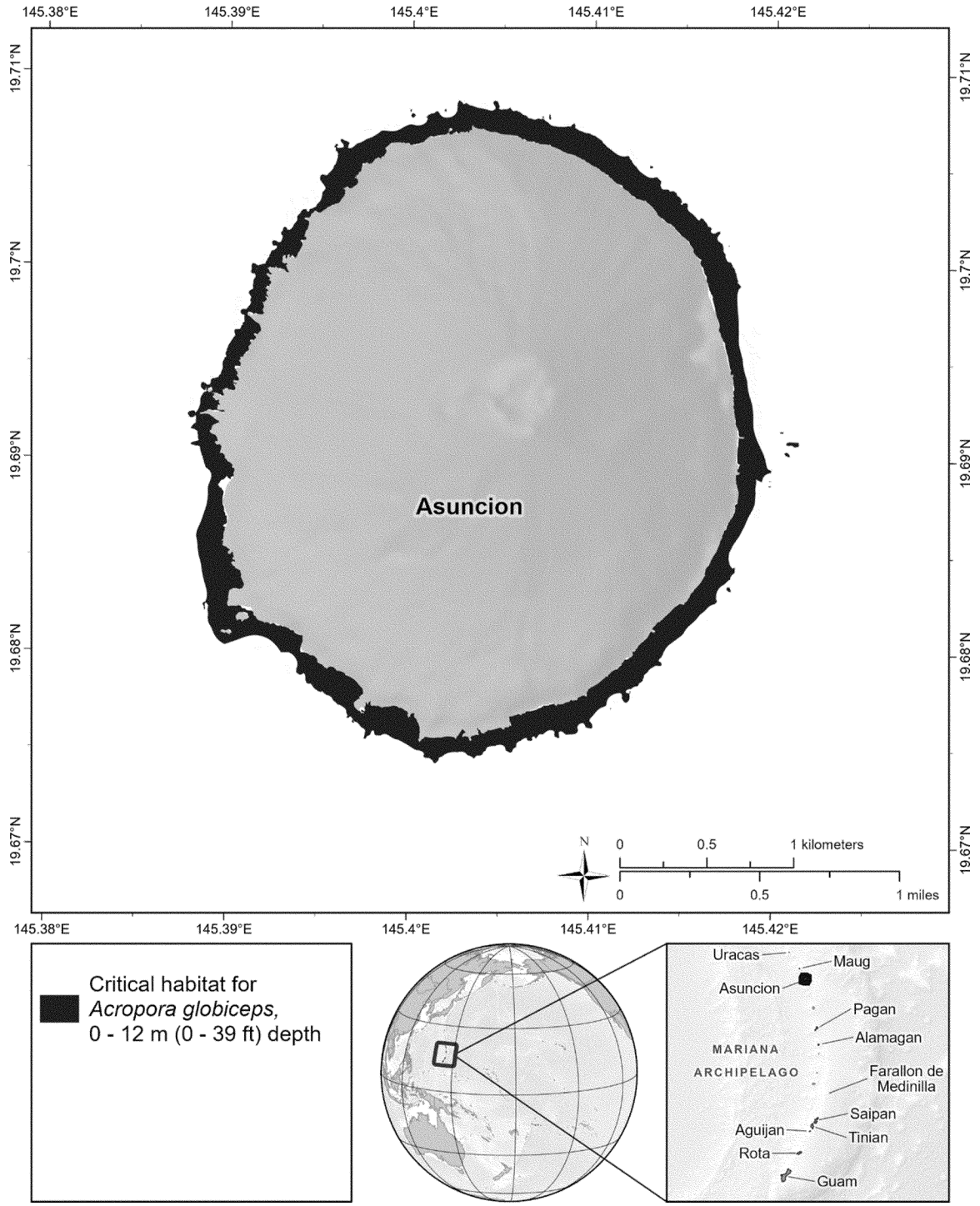


Figure 23. Final critical habitat for *Acropora globiceps,* Maug Islands

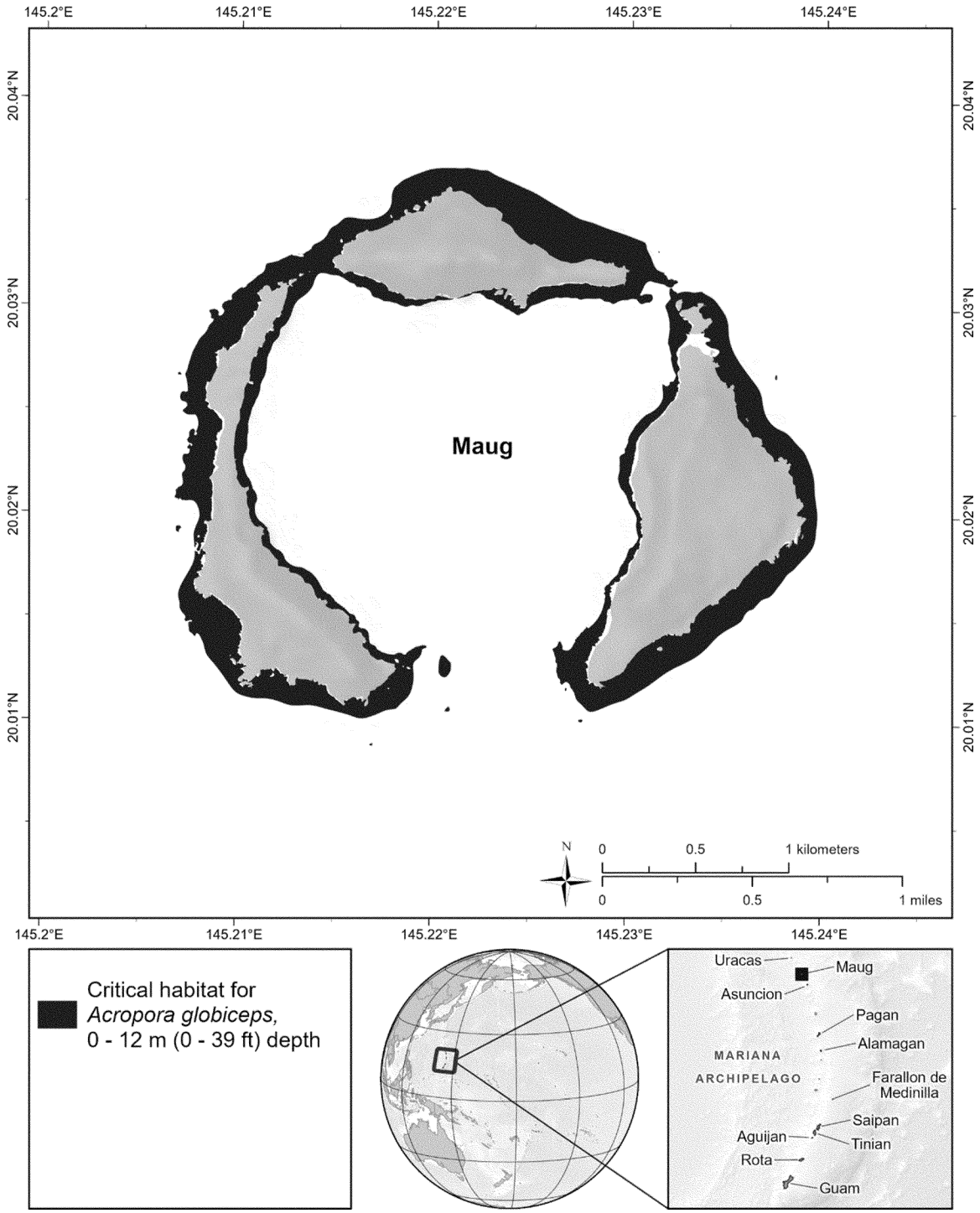


Figure 24. Final critical habitat for *Acropora globiceps,* Uracas

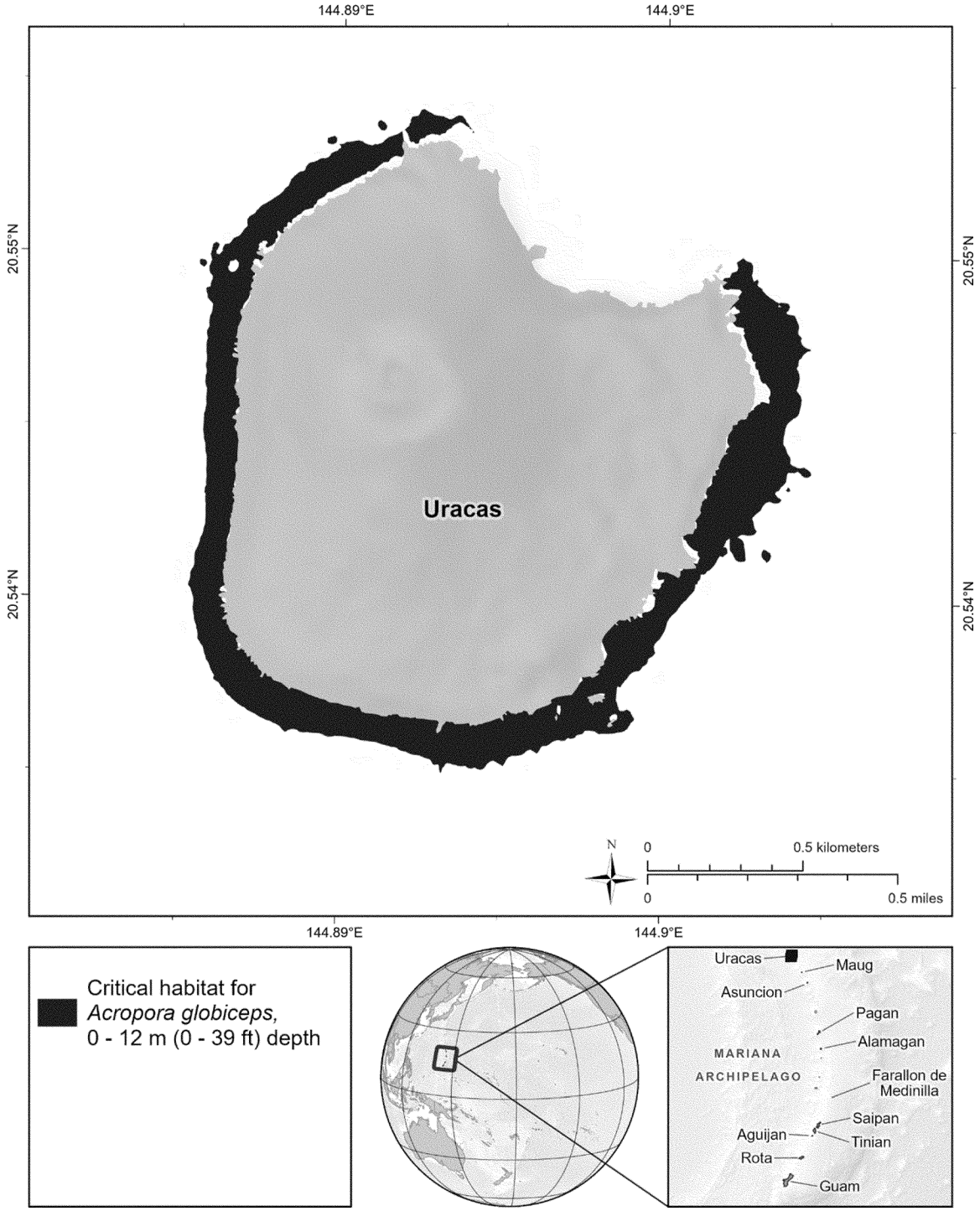


Figure 25. Final critical habitat for *Acropora globiceps,* Palmyra Atoll

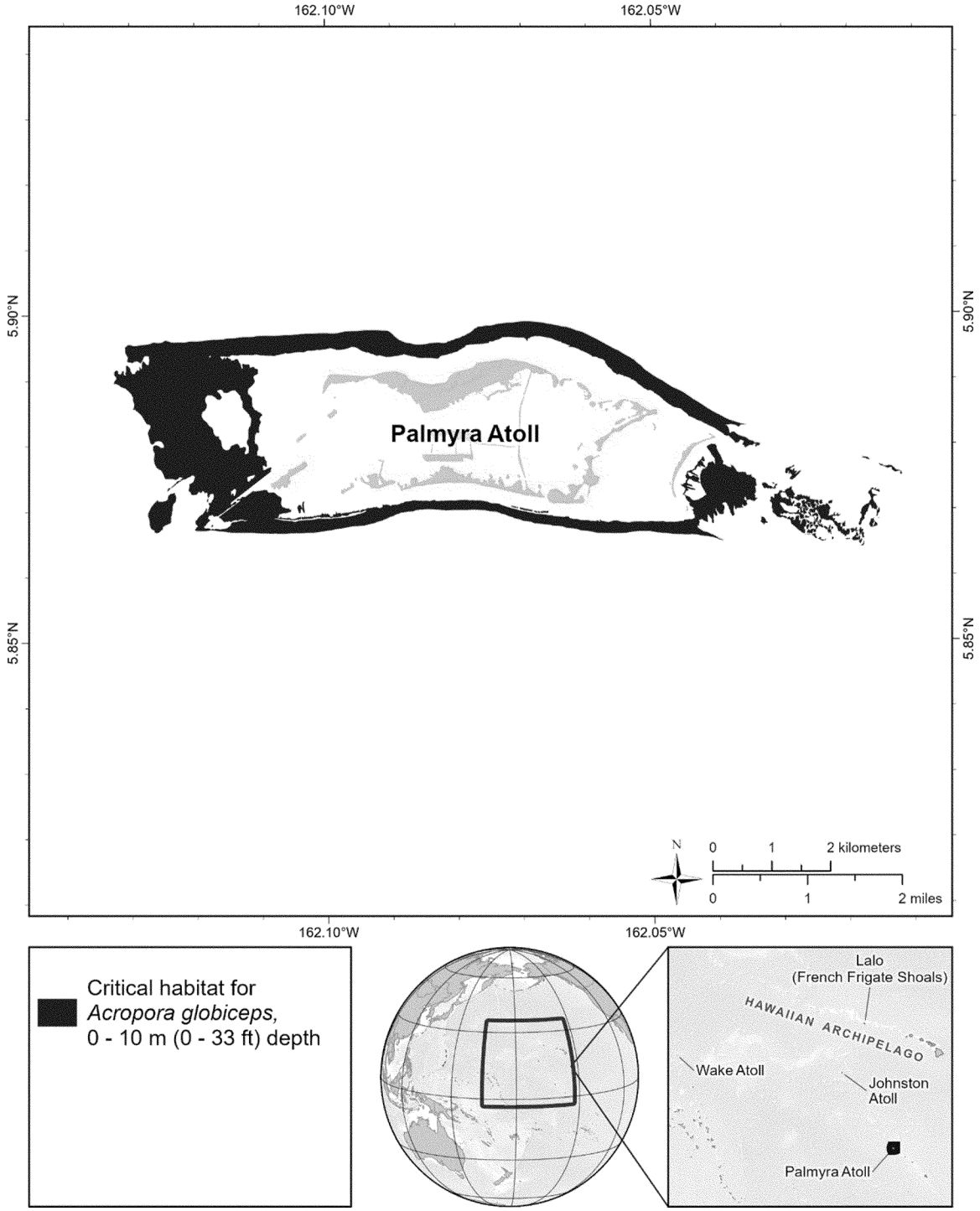


Figure 26. Final critical habitat for *Acropora globiceps,* Johnston Atoll

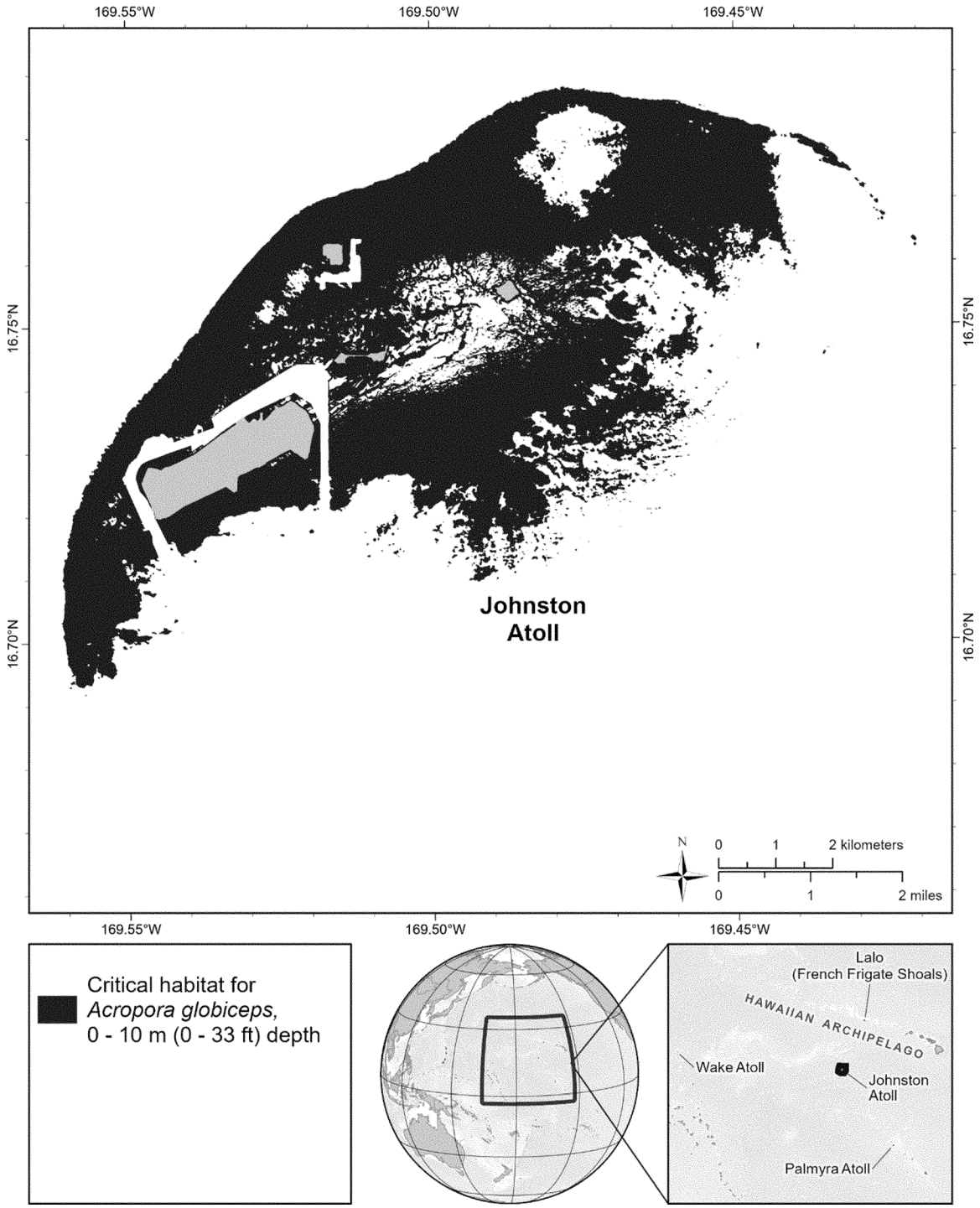
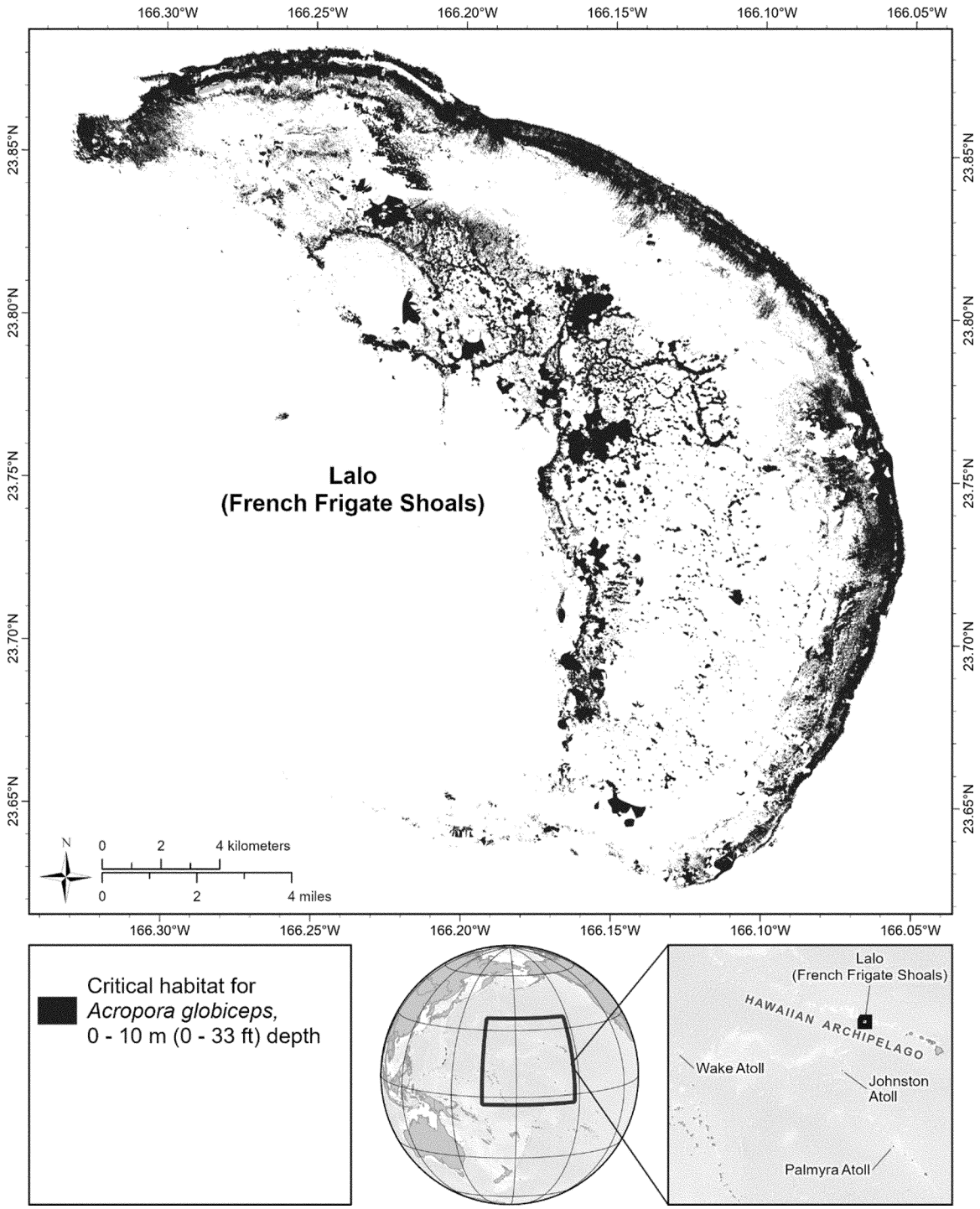


Figure 27. Final critical habitat for *Acropora globiceps,* French Frigate Shoals (Lalo)



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