

Science, Service, Stewardship



Regulatory Process for EFH and ESA Consultations for Aquaculture Projects Southeast Regional Office

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EFH in PR and USVI

Coastal wetlands, including
mangrove forests and salt flats

Seagrass

Coral

Colonized hardbottom

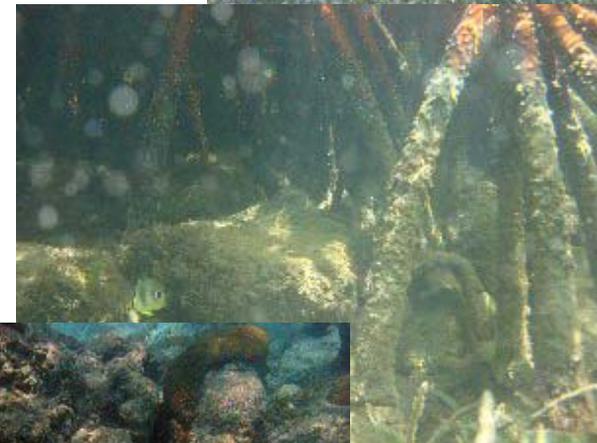
Sand/shell substrate

Benthic algae

Mud flats

Sandy beaches

Rocky shores

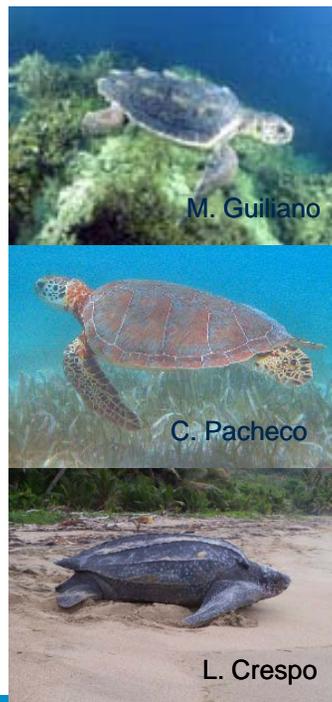




Listed Species in PR and USVI

USFWS

- 3 amphibians
- 11 reptiles (sea turtles nesting)
- 10 birds
- 1 mammal
- 48 plants



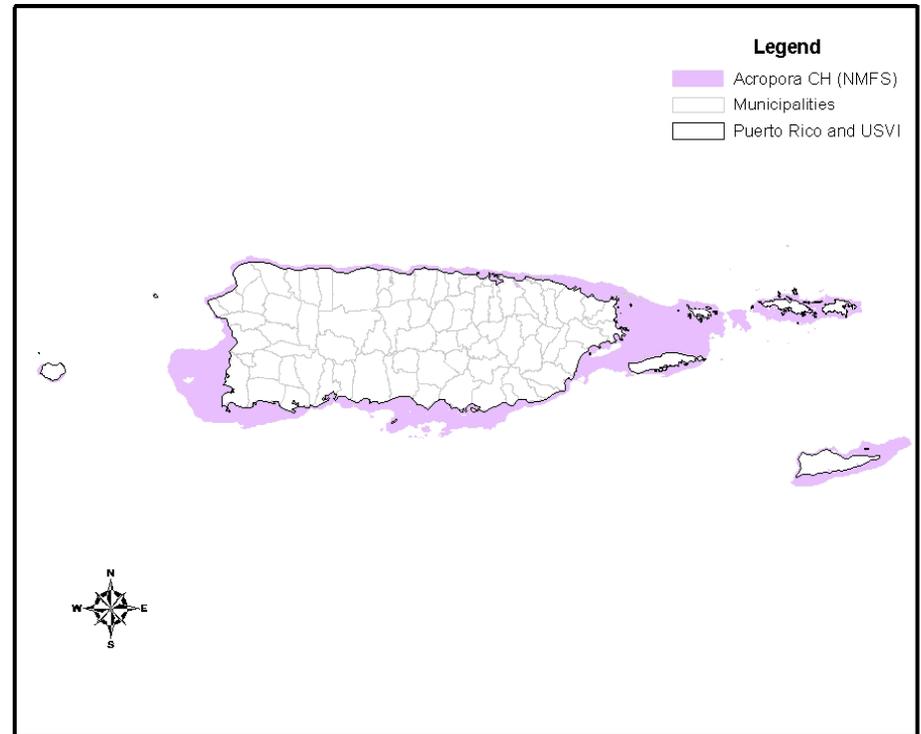
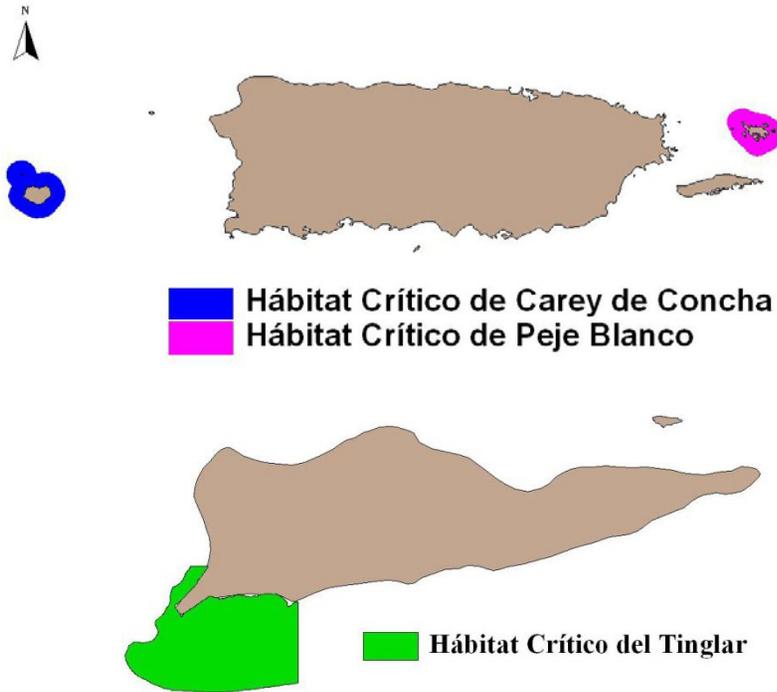
NOAA Fisheries

- 5 reptiles (sea turtles in the water) and designated CH for greens and hawksbills
- 5 mammals
- 2 corals and designated CH





Designated Critical Habitat (NOAA Fisheries)





Atlantic Coral Status Review

Corals undergoing status review (begun 2-10-10)

- *Agaricia lamarcki* - Lamarck's Sheet Coral
- *Montastraea annularis* – Boulder star coral
- *Montastraea faveolata* – Mountainous star coral
- *Montastraea franksi* – Star coral
- *Dendrogyra cylindrus* – Pillar coral
- *Dichocoenia stokesii* - Elliptical Star Coral
- *Mycetophyllia ferox* - Rough Cactus Coral





Consultation Requirements

Consultation required for projects with

- Federal funds
- Federal agency as proponent
- Federal permit requirement (such as for fill in wetlands, construction of in-water structures, waste discharges, dredging, etc.)

Federal agency with nexus to project is consulting agency

Agency can designate a non-federal representative in writing to complete the consultation



Consultation Process

For all actions, NOAA Fisheries first looks at whether impacts have been

avoided and/or minimized to the maximum extent practicable

then whether compensation has been proposed for unavoidable impacts

for all projects impacting resources under our jurisdiction directly or indirectly



EFH Consultation

- NMFS must be notified of the action by the federal agency
- Notification must include an EFH Assessment with a description of the proposed action, an analysis of direct, indirect, and cumulative impacts of the action on EFH, a determination of the extent of the impact, and proposed compensation for impacts, if necessary
- NMFS' comments include EFH Conservation Recommendations
- Federal agency must respond to NMFS' recommendations within 30 days and notify NMFS at least 10 days before taking final action
- NMFS can elevate the case through a formal objection



ESA Consultation

- If the project is a major activity, a Biological Assessment (BA) should be prepared if listed species or designated critical habitat occur in the area
- For minor projects, NMFS' recommends a Biological Evaluation (BE) if listed species or designated critical habitat occur in the area
- Determination of impacts
 - Possibilities are:
 - No effect
 - May affect but not likely to adversely affect
 - May affect, likely to adversely affect
 - Jeopardy or adverse modification of critical habitat



Project Information for Consultations

- Proposed location of cages and/or terrestrial and marine support facilities (docks, processing, hatchery, etc.), project lifetime, mooring and navigation aids
 - Site to avoid and minimize direct and indirect impacts to habitat
 - Phase installation to monitor potential impacts
 - Anchoring of cages in marine bottom
- Number and size of vessels to be used for construction, maintenance, and/or operation of facilities
 - Follow NMFS sea turtle construction guidelines and sea turtle and marine mammal vessel strike avoidance guidelines
 - NMFS recommendations to minimize potential impacts to corals and habitat
- Species to be used, number of cages, number of fish to be cultured, origin of stock
 - If non-native or rare species to be used, need to analysis potential impacts of escapees on naturally occurring fish populations
 - Disease analysis and treatments that could affect species and habitat
- Physical (currents, depth, water quality, etc.) and biologic (benthic habitat) characteristics of proposed location
- Potential user conflicts: fishers, divers, other boaters, tourist activities



Environmental Monitoring for Projects

- Environmental monitoring plan (before project, during maintenance, during operation):
 - control stations vs. impacted area, station locations based on current movement with distance from site
 - sediment (traps and cores) and water quality sampling (nutrients, antibiotics, fecal, suspended sediments, etc.)
 - effectiveness of feeding plan balancing consumption and excretion
 - cleaning of biofouling and use of materials that could affect species or habitat

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For more information

<http://sero.nmfs.noaa.gov/>

