

FINDING OF NO SIGNIFICANT IMPACT

RESTORE Act Science Program to fund a project titled
"Trophic interactions and habitat requirements of Gulf of Mexico Bryde's whales"

The Council on Environmental Quality (CEQ) Regulations state that the determination of significance using an analysis of effects requires examination of both context and intensity, and lists ten criteria for intensity (40 CFR 1508.27). In addition, the Companion Manual for National Oceanic and Atmospheric Administration Administrative Order 216-6A provides sixteen criteria, the same ten as the CEQ Regulations and six additional, for determining whether the impacts of a proposed action are significant. Each criterion is discussed below with respect to the proposed action and considered individually as well as in combination with the others.

The following enclosures will be included as part of the administrative record for this project and incorporated by reference in this FONSI.

ENCLs: (1) Permit No. 14450-04 (SEFSC)
 (2) NMFS Bryde's Whales Biological and Conference Opinion
 (3) NMFS ESA Section 7 Consultation request
 (4) Essential Fish Habitat Consultation request
 (5) Essential Fish Habitat Letter of Concurrence

1. Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?

The proposed action (preferred alternative) is to award funds to support the study to develop a comprehensive ecological understanding of protected Gulf of Mexico (GOM) Bryde's whales (hereafter, Bryde's Whales), including the physical, oceanographic, and biological features defining critical habitats and their ecological role in GOM marine food webs, by NOAA NMFS Southeast Fisheries Science Center and sub-awardees. The funds will be awarded by the NOAA RESTORE Act Science Program pursuant to the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies (RESTORE) of the Gulf States Act (Public Law 112-141, Section 1604). Activities analyzed in the Environmental Assessment (hereafter referred to as the EA) include

passive acoustic monitoring, acoustic echosounder monitoring, environmental sampling, trawling, biopsy sampling, and deployment of short term (< 3 days) and medium term (30-60 days) animal-borne telemetry tags (EA, Section 2.1). The proposed activities would occur on three cruises within the Gulf of Mexico in water depths between 100 and 500 meters deep. In May 2018 one cruise will be undertaken to deploy animal telemetry tags and complete passive echosounder activities. Two additional cruises are proposed in 2019 (May and November). The full range of activities listed above will occur on 2019 cruises.

The proposed action (activities) are not expected to cause adverse impacts resulting in a significant effect to the physical or biological resources, within the region, for the following reasons: A limited number of cruises (3) is proposed, each of short duration (~15 to 30 days). The in-water sampling with nets are restricted to one cruise (May 2019). Trawl paths will be chosen adaptively based upon factors such as depth, acoustic backscatter from echosounders, oceanographic features, and presence (or history of presence) of feeding Bryde's whales in the region. The trawl sampling gear

(682 kg each, 3.5 m²). The trawl opening is 15.5 m width by 10.0 m height, the codend mesh liner is 4.0 mm, and the trawl speed will be 6.3 km/h (towing speed). Trawling will not occur if sea turtles are sighted and will not impact the bottom substrate, as the trawl will be towed several meters above the bottom, thus minimizing adverse effects to ESA-listed species, marine mammals and to benthic resources. However, due to the potential for sea turtle ‘take’ during trawling, NMFS determined that the activities ‘may’ affect sea turtles and issued a Biological and Conference Opinion (Opinion) and an incidental take statement (ITS) for the incidental capture of sea turtles. In the Opinion (Encl 2. Section 15.1) NMFS sets the following limits on sea turtle take:

“Based on the calculated exposure estimates, we expect that up to four Northwest Atlantic DPS loggerhead, two North Atlantic DPS green, four hawksbill, one leatherback, and one Kemp’s ridley sea turtle may be captured while trawling conducted during the 2019 cruise in the proposed action. We anticipate that all sea turtles expected to be incidentally captured over the life of the permit will undergo short term harassment and/or minimal injury from being released from nets.”

The amount and extent of take for Bryde’s whales (if it is listed) for this project, is determined by the amended NMFS Permit No. 14450-04 (Encl 1). The proposed takes requested by the applicants are in Table 3 of the Opinion and are the same as those proposed by the Permits Division (Section 3.2.3.7). If Bryde’s whales are not listed prior to the May 2018 cruise, this research will be conducted under the authority of the existing NMFS Permit 14450-04, expiration 2/28/2019.

While collections of fishes managed under the Magnuson-Stevens Fishery Conservation Act will likely occur, NMFS has issued a Letter of Concurrence (Encl 5) that collections are not likely to adversely affect managed fish. Further, this research is contingent upon the researchers obtaining Scientific Research Permits (SRP) for the collection and holding of Highly Migratory Species (HMS) and species managed under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). It is expected that NMFS will issue these SRPs upon completion of the project EA and the signed FONSI.

Finally, NCCOS has determined that there are beneficial environmental impacts from these activities by providing critical data to NMFS regarding Bryde’s Whales and their food web.

Therefore, based on the context and intensity of the proposed activities, NCCOS determines that no significant adverse impacts may result.

2. Can the proposed action reasonably be expected to significantly affect public health or safety?

No, the proposed action is not expected to affect public health or safety. The proposed activities are routinely conducted aboard the NOAA ship *Gordon Gunter* and the NOAA ship *Pisces* homeport in Pascagoula, MS. NOAA vessels adhere to all Federal and state regulations to protect public health and safety, including the safety of the ship and crew. As a result, NCCOS does not expect any impact to public health or safety.

3. Can the proposed action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

The proposed action will have no significant impact on geographic areas with unique characteristics. The action area covers waters in the northeast Gulf of Mexico from Tampa, Florida, to Mobile, Alabama, between 100 and 500 meters deep. The primary area to be sampled is open water near the De Soto Canyon (see EA, Figure 1). The primary area is an area identified as a Biologically Important Area for Bryde's whale – however, the purpose is to research Bryde's whales and this BIA habitat. Trawling activities would not be conducted in Habitat Areas of Particular Concern (HAPC) or in area ecologically sensitive areas (e.g. corals). Further, trawling would not impact the benthos as the net would be towed several meters above the bottom. A *de minimis* amount of managed fish will be collected during a single cruise in May 2019, thereby ensuring no impact to the overall biomass of managed fish within the Gulf of Mexico. Finally, while the vessels may transit through National Marine Sanctuaries, none of the research activities will occur within Sanctuary boundaries.

4. Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

The proposed action's effects on the human environment are not likely to be highly controversial. The proposed activities are either routinely conducted by NMFS Southeast Fishery Science Center (SEFSC) or authorized under NMFS Permits Division. Further, the Gulf of Mexico Bryde's whale was proposed to be listed as endangered on December 8, 2016. Once the proposed listing becomes final, all of the take prohibitions of section 9(a)(1) of the ESA would apply. Therefore upon final listing, the Permits Division will issue an amended scientific research permit pursuant to section 10(a)(1)(A) of the ESA and section 104 of the Marine Mammal Protection Act (MMPA) of 1972, as amended (16 USC 1361 et seq.) to five applicants, to authorize take of Bryde's whales. The RESTORE Act grant recipients as holders of one of these permits (Encl 1, No. 14450-04), would be authorized under an amendment to the Permit. The purpose of the proposed permit amendments are to allow an exception to the moratoria and prohibition on takes established under the ESA and MMPA in order to allow the applicants to conduct scientific research on ESA-listed Bryde's whales, should the proposed listing become final. Therefore directed research on Bryde's Whales is not expected to be highly controversial.

The likelihood of controversy is reduced by the results of informal (EFH) and formal consultations (ESA Section 7) with NMFS that either concur with NCCOS determinations or have reached a no jeopardy opinion. Further, grant recipients (researchers) will be authorized to collect and hold species managed under the MSA and Highly Migratory Species (HMS) under valid NMFS Special Research Permits (SRPs). Researchers and vessel operators will employ Best Management Practices (BMPs) as applicable to project activities (EA, Appendix A.).

5. Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The proposed action's effects on the human environment are not highly uncertain nor do they involve unique or unknown risks. The proposed activities are either routinely conducted by NMFS SEFSC or authorized under NMFS Permits Division. Further, the information collected are beneficial to the management of Bryde's whales and natural resources in the region.

6. Can the proposed action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

The proposed activities require a scientific research permit pursuant to section 10(a)(1)(A) of the ESA and section 104 of the Marine Mammal Protection Act (MMPA) of 1972, as amended (16 USC 1361 et seq.) which authorizes take of Bryde's whales. There are currently only five (5) permit holders, of which two (including researchers for this project) are active in the Gulf of Mexico. Further, many of the proposed activities are routinely conducted by NMFS SEFSC and other researchers in the region and the information collected are beneficial to the management of natural resources in the region. Therefore, the proposed action does not set a precedent for future actions or represent a decision in principle about a future consideration.

7. Is the proposed action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

Cumulative effects is defined as:

"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 C.F.R. § 1508.7)."

There are a number of stressors that NCCOS considered in the cumulative effects analysis that comprise the environmental baseline (past and present conditions) in the Gulf of Mexico region, including; habitat degradation from underwater noise, marine debris (entanglement), marine dredging, pollutants from marine and terrestrial sources, annual "hypoxic zones", oil spills, vessel operations that result in strikes (e.g. marine mammals, sea turtles) and climate change (EA, Section 5.0). The magnitude and significance of these current, and past threats and activities are anticipated to continue into the reasonably foreseeable future.

The proposed action is limited in scope and duration, as reflected by a limited number of Bryde's Whale and turtle takes issued by NMFS under section 10(a)(1)(A) of the ESA and section 104 of the Marine Mammal Protection Act (MMPA) of 1972. A small volume of managed fish will be collected during a single cruise in May 2019, but no impact to the overall biomass of managed fish is anticipated within the Gulf of Mexico.

Therefore, based on the best scientifically available information NCCOS determines that the potential for significant cumulative impacts when the proposed action is combined with the past, present and reasonably foreseeable future actions are insignificant. This determination is based on the limited duration and sampling frequency of the cruises and the limited scope of the proposed activities. In addition, any future activities that could result in significant effects would undergo further environmental compliance and NEPA analysis on a case-by-case basis.

Further, NMFS Office of Protected Resources (OPR) has stated in the Opinion that activities will not have any cumulatively significant impacts (on ESA resources) when considered with related activities or with reasonably foreseeable activities.

8. Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

Proposed activities are conducted aboard a research vessel in open-water areas of the Gulf of Mexico in water depths between 100 and 500 meters deep. In-water gear will be used to target Bryde's whales and their prey field. Therefore, there is no potential for project activities to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural, or historical resources. Further, according the National Park Service cultural resources data layer there are no National Historic Sites within the project action area.

9. Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

There are twenty-three (23) ESA-listed species potentially found within the Gulf of Mexico region. Six (6) marine mammal, five (5) fish, seven (7) coral and five (5) sea turtle species (EA: Table 2, 3, 4, and 5) With the exception of the West Indian manatee all species are under the jurisdiction of NMFS. NCCOS made effects determinations for the ESA-listed species and initiated a formal consultation with NMFS on September 18, 2017. NCCOS determined that activities would either have 'no effect' or would 'not likely to adversely affect' all ESA-listed species that may occur in the region with the exception of sea turtles and Bryde's Whales. Due to trawling proposed for May 2019, there is the potential for incidental take of sea turtles. In addition, based on permit #14450-04, Bryde's Whale take is expected during the proposed activities. On April 19, 2018, NMFS issued a Biological and Conference Opinion (Opinion, Encl 2) and an Incidental take Statement (ITS) for "take" for sea turtles.

In the Opinion, NMFS also concurred that no other ESA-listed species was likely to be adversely affected by project activities, with the exception of Bryde's Whales (permitted take) and sea turtles. The ITS sets the following limits on the incidental capture of sea turtles; four (4) Northwest Atlantic DPS loggerhead, two (2) North Atlantic DPS green, four (4) hawksbill, one (1) leatherback, and one (1) Kemp's ridley sea turtle may be captured while trawling during the 2019 cruise.

BMPs such as protected species observers, maintaining minimum approach distances will be employed to further reduce the potential for adverse effects (EA, Appendix A).

10. Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

NCCOS does not expect the proposed action to threaten a violation of Federal, state or local law or requirements imposed for environment protection. Further, all agencies that administer the environmental resource statutes with the potential to be affected (i.e. ESA, EFH provisions of the MSA) were consulted and provided concurrence. All sampling and shipboard activities will be conducted in accordance with Federal, state, or local law.

11. Can the proposed action reasonably be expected to adversely affect stocks of marine mammals as defined in the Marine Mammal Protection Act?

The proposed action on Bryde's whales will be performed by long-term cetacean researchers, and as such, ESA Section 7 and MMPA Permits division have previously conducted consultations on these permitted research activities considering the effects on ESA-listed species. The activities that would be authorized under this proposed action are the same as those the applicants have been permitted to conduct previously. Such activities include vessel surveys, close approaches, biological sampling, tagging, and active acoustics. Previous ESA consultations considering permits to authorize the applicants to conduct these activities, all resulted in biological opinions concluding that the issuance of the research permits was not likely to jeopardize the continued existence of ESA-listed species, nor destroy or adversely modify designated critical habitat of the ESA-listed species and designated critical habitat as it existed at the time of each consultation.

In addition to Bryde's whales, there are twenty-three (23) other species of marine mammals potentially found in the project action area. Six (6) of these species are ESA-listed species which are referenced above (see criteria 9). Similar to the analysis for ESA-listed species, NCCOS does not expect the proposed action to adversely affect stocks of marine mammals such as the eighteen (18) non-ESA listed species (EA, Table 2). BMPs such as protected species observers and maintaining minimum approach distances will be employed to further reduce the potential for adverse effects (EA, Appendix A).

12. Can the proposed action reasonably be expected to adversely affect managed fish species?

Project activities are contingent upon receipt of a Scientific Research Permits (SRP) from NOAA NMFS Sustainable Fisheries for research related activities in the Gulf of Mexico which may impact or interact with species managed by MSA fishery management plans (FMP); and an SRP for research activities which may impact or interact with species managed by MSA FMPs for highly migratory species (HMS).

The proposed action will involve net tows for the collection of fish, which will only occur on the May 2019 cruise. Managed species likely to be collected during net tows include *Rachycentron canadum* (cobia), *Seriola dumerili* (greater amberjack), *S. fasciata* (lesser 15 amberjack), *S. zonata* (banded rudderfish), Lutjanidae species (snappers), Scombridae species (mackerels), and *Balistes capriscus* (gray triggerfish). HMS species may also be collected during the net tows. However due to the limited duration of the net towing to one (1) month in 2019 and relatively small size of the trawl fish collections are expected to be de-minimis, when compared to the overall population in the GOM.

Therefore as determined by NCCOS and NMFS and under the terms and conditions of the HMS SRP and the MSA SRP described above, project activities are not expected to adversely affect managed fish species.

13. Can the proposed action reasonably be expected to adversely affect essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act?

Essential Fish Habitat (EFH) is comprised of the waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 U.S.C. § 1802 (10)). The designation of

EFH by itself does not confer any protection of the areas from non-fishing or fishing impacts. Instead, it is a tool used by managers to reduce impacts and improve fisheries management.

There are sixteen (16) designated habitat areas of particular concern (HAPC) that are also managed under the MSA and six (6) that are proposed that could be within the project action area. Both the designated and proposed HAPCs will be avoided during trawling activities. Other activities would have no direct or indirect impacts to the HAPCs

In addition, the following EFH may be found in the action area:

1. Atlantic Highly Migratory Species (EA, Table 1)
2. Coastal Migratory Pelagics (king mackerel, spanish mackerel, cobia)
3. Coral
4. Reef Fish

NCCOS initiated an informal EFH consultation with NMFS Southeast Regional Office (SERO) on June 7, 2017 requesting concurrence with our determination that project activities would not adversely affect EFH within the project action area (Encl 4). On July 26, 2017, NCCOS received an LOC from the NMFS Office of Habitat Conservation (OHC), Southeast Regional Office (SERO) concurring with the NCCOS determination of no adverse effects to EFH (Encl 5). The letter stated that further EFH consultation on this action is not necessary unless future modifications to activities are proposed that would result in adverse impacts to EFH.

14. Can the proposed action reasonably be expected to adversely affect vulnerable marine or coastal ecosystems, including but not limited to, deep coral ecosystems?

Project activities are not expected to adversely affect vulnerable marine or coastal ecosystems because in-water sampling activities involving trawling are restricted to a single cruise, in May 2019 and trawl operations will not occur on the bottom, therefore no benthic disturbance of any kind is expected from this action. Further, anchoring is not required for research purposes. However, anchoring may be required for other reasons, such as avoidance of adverse weather conditions or in the unlikely event of an engine malfunction. While the choice of anchoring location is at the discretion of the ship's crew, if anchoring were necessary, vessel operators would select the anchor location based on depth, protection from seas and wind, and bottom type and avoidance of all sensitive habitats. Other proposed activities have no potential to adversely affect marine or coastal ecosystems.

15. Can the proposed action reasonably be expected to adversely affect biodiversity or ecosystem functioning (e.g., benthic productivity, predator-prey relationships, etc.)?

Project activities are not expected to adversely affect biodiversity or ecosystem functioning for the following reasons: Vessel operations and in-water sampling activities are restricted to the open waters of the Gulf of Mexico from 100 to 500 m deep, project activities are temporally limited (3 cruises total) over 2 years. Collections of Bryde's Whale biopsy samples and take will not exceed the limits set by NMFS Permits Division and collections of fishes and invertebrates are de-minimis relative to the total biomass or population size within the Gulf of Mexico. All activities are conducted in accordance with NMFS consultations and permitting terms and conditions (EA Encls. 1, 2, 5)

16. Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

The proposed action is not expected to result in the introduction or spread of a nonindigenous species as the research vessel's home port is Pascagoula, MS. Transits commence from the home port to conduct routine research operations within estuaries, bays and open ocean waters in the Gulf of Mexico. It does not generally travel outside of this region for research. However, if needed, to minimize the risk of aquatic nuisance species introduction, personnel would:

- o Clean hull regularly to remove aquatic nuisance species.
- o Avoid cleaning of hull in critical habitat.
- o Avoid cleaners with nonylphenols.
- o Avoid discharge of ballast water in designated critical habitat;
- o Use anti-fouling coatings;
- o Rinse anchor with high-powered hose after retrieval.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared by National Center for Coastal Ocean Science (NCCOS), RESTORE Act Science Program to fund a project titled "Trophic interactions and habitat requirements of GOM Bryde's whales," it is hereby determined that the project will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement for this action is not necessary.



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Date