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September 21, 2023

TO: David Bernhart
Assistant Regional Administrator,
Protected Resources Division,
NMFS, Southeast Regional Office,
263 13th Avenue South,
St. Petersburg, FL 33701

RE: Proposed Rule to Designate Critical Habitat for Endangered Rice's Whales, RIN 0648–BL86, 88 FR 47453, July 24, 2023

The Southern Shrimp Alliance (SSA) appreciates the opportunity to provide comments on this Proposed Rule. In preparing these comments, SSA carefully reviewed the Proposed Rule at 88 FR 47453 ("Proposed Rule")[1], the NMFS Gulf of Mexico Fishery Bulletin FB23-048 ("Bulletin")[2], the NMFS 2023 Rice's Whale Critical Habitat Report ("Report")[3], and the current April 26, 2021 Biological Opinion for the U.S. Southeast U.S. Shrimp Fisheries ("2021 BiOp")[4].

Founded in 2002, SSA's membership is comprised of many small, family-owned shrimp fishing businesses and associated shoreside enterprises that are at the core of the economies and cultures of coastal communities in all eight warm-water shrimp producing states from North Carolina to Texas. As explained in these comments, important components of the Gulf shrimp fishery could be significantly adversely impacted by this action.

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[1] https://www.federalregister.gov/public-inspection/2023-15187/endangered-and-threatened-species-designation-of-critical-habitat-for-the-rices-whale

[2] https://www.fisheries.noaa.gov/bulletin/request-comments-proposed-rule-designate-critical-habitat-endangered-rices-whales-0648#:~:text=The%20proposed%20critical%20habitat%20includes,behavior%3B%20and%20overall%20population%20growth.

[3] https://www.fisheries.noaa.gov/s3/2023-07/Critical-Habitat-Report-508-Final.pdf

[4] https://media.fisheries.noaa.gov/2021-04/2021%20SHRIMP%20OPINION.pdf?null

Throughout its existence, SSA has demonstrated its unwavering commitment through both its words and actions to avoid and minimize any adverse impact of U.S. shrimp fisheries on marine mammals and endangered species and their habitats consistent with the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). SSA has partnered with NOAA on many successful science-based initiatives to collect and analyze data and to develop and ensure compliance with fishing methods and gear requirements to minimize bycatch, serious injuries, and bycatch mortality that, among other measures, renders our U.S. shrimp fisheries the most sustainable in the world. We are proud of that record and look forward to working with the agency to ensure it achieves in this proposed action an appropriate balance between science-based conservation objectives and the viability of this iconic U.S. fishery and the many communities that depend on it.

Scope of Designation

As stated in the Bulletin; "*This critical habitat would guide federal agencies in avoiding and minimizing impacts to habitat critical to the recovery of the Rice's whale.* ***The proposed designation does not create any new regulations or restrictions on fisheries****. Only federal agencies are directly affected by a critical habitat designation;* ***non-federal entities may be affected if their activities involve federal funding, permitting, or authorization."*** (emphasis added)

Further, in referencing the 2021 BiOp, on page 41 the Report states: "*The 2021 reinitiation of the Southeast U.S. Shrimp Fisheries in Federal Waters concluded that the fishery is "extremely unlikely to adversely affect any large whales protected by the ESA" (NMFS 2021c)."* Indeed, the 2021 BiOp makes a finding of 'no jeopardy' with respect the shrimp fisheries' interactions with Rice's Whales provided the fishery remains in compliance with the Reasonable and Prudent Measures and other requirements set forth in the 2021 BiOp.

However, the 2021 BiOp obviously predates the designation of Critical Habitat that this action is designed to generate and so, those Reasonable and Prudent Measures or any other provisions of the 2021 BiOp simply do not address Critical Habitat for Rice's Whales.

SSA has been advised by NOAA Office of Protected Resources that the designation of Critical Habitat for Rice's Whales will not necessarily in itself trigger a formal reinitiation of consultations under section 7 of the Endangered Species Act (ESA) with respect to the Southeast U.S. shrimp fisheries. However, we note that NOAA has already formally reinitiated such consultations with respect to the Southeast U.S. shrimp fisheries with respect to smalltooth sawfish and Giant Manta Rays, and so we expect a new Biological Opinion will be generated as a result.

Furthermore, we note that the Bulletin includes the following statement: "*Federal agencies would be required to ensure that any activity that they conduct, fund,* ***or authorize*** *does not* ***destroy or adversely modify the species' critical habitat****."* Such "authorization" would include the agency's authorization for the Southeast U.S. shrimp fisheries to continue to operate in federal waters pursuant to the ESA.

Therefore, we must anticipate and prepare for the fact that the Biological Opinion that is generated from those ongoing formal consultations on Smalltooth Sawfish and Giant Manta Rays, or some future formal section 7 consultations, will also evaluate any potential for the shrimp fisheries to "*destroy or adversely modify*" Critical Habitat for the Rice's Whales and, as a result, may indeed create new regulations and restrictions that may adversely impact the viability of the Southeast U.S. shrimp fisheries in federal waters with respect to Rice's Whales Critical Habitat.

Critical Habitat Area

With the previous comments in mind, we request that the agency carefully reconsider the Critical Habitat Area as proposed to extend from 100m to 400m depth throughout Gulf federal waters as well as the underlying science with an eye towards minimizing the potential for the shrimp fisheries to be found to "*destroy or adversely modify*" the Rice's Whales Critical Habitat.

In that respect, we note that on page 6 the Report includes the following two statements:

> *"Based on a compilation of 181 sightings from NMFS marine mammal vessel and aerial survey sightings, the primary Rice's whale core habitat is considered to be in the northeastern GOMx, centered over the De Soto Canyon in waters* ***between 150 m and 410 m*** *depth (Rosel et al., 2021)."* (emphasis added)
>
> *"In 2017, there was a genetically confirmed sighting of a Rice's whale in the western GOMx off the central Texas coast in* ***225 m depth*** *(NMFS, 2018a; Rosel et al., 2021)."* (emphasis added)

On page 7 of the Report the following statement appears:

> *"A predictive density model highlights the importance of* ***the 200 m isobath*** *as an area Rice's whales may occupy along the northwestern GOMx shelf break (Roberts et al., 2016)."* (emphasis added)

Yet, on page 9-10 of the Report, the following statement appears:

> *"Garrison et al. (in review) developed* ***a density surface model to predict Rice's whale distribution in the GOMx based on bathymetric and oceanographic features****. Visual line transect survey data collected throughout the northern GOMx between 2003 and 2019 were analyzed, including broad-scale surveys of oceanic waters and directed studies within the Rice's whale core distribution area. Depth, sea surface temperature, surface and bottom salinity, sea surface height, surface geostrophic velocity, chlorophyll-a, and bottom temperature were among the variables considered. The model identified water depth, surface chlorophyll-a concentration, bottom temperature, and bottom salinity as the key parameters that characterize Rice's whale habitat. The model predicted additional suitable Rice's whale habitat outside the core distribution area in the northeastern GOMx,* ***generally throughout the GOMx within 100 and 400 meters depth.***

> *Concentration of Rice's whales in the core distribution area appeared to be explained by higher summer chlorophyll-a concentrations, an indicator of phytoplankton abundance and biomass in coastal and estuarine waters, in the northeast region of the GOMx as compared to other regions in the GOMx with suitable bottom temperatures, but less surface productivity."* (emphasis added)

Therefore, our reading of the science underlying the proposed 100m-400m depth of the Critical Habitat Area presented in the Report:

- there are two sources of *in-situ* observational data that suggest the Critical Habitat Area should be much deeper – beginning at least at the 150m isobath;
- there is one predictive model that points to the 200m isobath as being an important area that whales occupy; and
- there is one yet-to-be published paper on a predictive model of Rice's Whale distribution based on bathymetric and oceanographic features that suggests the Critical Habitat Area should begin with the 100m isobath.

Perhaps this may not seem so important to some, but to our fishery a high degree of precision is needed in order to correctly delineate Rice's Whales Critical Habitat as it relates to the historical fishing grounds of our shrimp fisheries so that our fisheries are not unnecessarily and incorrectly identified as a potential threat to the Critical Habitat. We strongly favor higher reliance on more precise observational data over areas more generally identified by predictive models.

On page 40 of the Report, the following statement appears:

> *"The shrimp trawl fishery mainly targets penaeid shrimp in GOMx waters less than 120m deep but also targets royal red shrimp in deeper waters that overlap with the proposed critical habitat."*

Indeed, according to maps provided by NOAA National Centers For Ocean Coastal Sciences (NCCOS) at SSA's request, a portion of the Gulf penaeid brown shrimp fishery operates at a depth greater than the 100m isobath inner boundary of the proposed Critical Habitat Area (See Figures A, B, C, D, E, F) [5]. At SSA's request, NCCOS also provided a depth distribution analysis of the Gulf brown shrimp fishery confirming that reality. (see Table 1)

Furthermore, such maps also confirm that a significant portion of the Gulf royal red shrimp fishery operates in waters less than the 400m outer boundary of the proposed Critical Habitat Area (See Figures A, B, C, D, E, F). Likewise, at SSA's request, NCCOS also provided a depth distribution analysis of the Gulf royal red shrimp fishery confirming that reality. (see Table 1)

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[5] *Note*: these maps show areas where overlap between shrimp fishing effort and the Critical Habitat Area appear to be the greatest There may be other areas of overlap in the Gulf. NOAA should evaluate all relevant shrimp fishing effort data analyzed by NCCOS.

The data provided and analyzed by NCCOS indicates that the approximate offshore limit of significant fishing effort for the brown shrimp fishery is 120m, and that the approximate inshore limit of significant fishing effort for the royal red fishery is 350m.

Therefore, given these data and analyses, and given that the science appears to lean towards a deeper inshore boundary for Rice's Whale Critical Habitat and that a precise delineation of such Critical Habitat is uncertain, SSA requests that the proposed inner boundary of the Critical Habitat Area be revised from 100m isobath to no less than the 120m isobath.

Likewise, given these data and analyses, and given the uncertainties in the science regarding the precise outer boundary of Rice's Whale Critical Habitat, SSA requests that the proposed outer boundary of the Critical Habitat Area be revised from 400m isobath to no greater than the 350m isobath.

That said, SSA does acknowledge that as cited above, "*the primary Rice's whale core habitat is considered to be in the northeastern GOMx, centered over the De Soto Canyon in waters* ***between 150 m and 410 m*** *depth". (Rosel et al., 2021*). And, indeed, that conclusion was based on *in situ* observations, not modeling predictions. Nevertheless, the areas of greatest overlap of the royal red shrimp fishery and the Rice's Whale proposed Critical Habitat area are further to the west outside of that core habitat area and so there may be some room for flexibility with respect to the outer boundary of the Critical Habitat area in those more western Gulf areas. SSA requests the agency's consideration thereof.

We believe these revisions to the boundaries of the Critical Habitat Area will minimize the potential for these shrimp fisheries to be incorrectly and unnecessarily identified as a potential threat to the Rice's Whale Critical Habitat.

<u>Shrimp Fishery Impacts</u>

As discussed above, given it is likely that the potential impacts of the southeast U.S. shrimp fisheries will be evaluated in a future Biological Opinion, SSA briefly references here two important conclusions set forth in the Report regarding Rice's Whale forage species and entanglement that further support the conclusion that the shrimp fisheries will not "*destroy or adversely modify*" Rice's whale habitat and is "*not likely to jeopardize the continued existence*" of the Rice's whale species. We ask the agency to consider these in addition to our request in the previous section for the Critical Habitat Area boundaries to be modified.

With respect to forage species, we note that the Bulletin and Proposed Rule set forth three attributes that influence the value of the critical habitat to the conservation of the species, the first of which is stated as:

> *"Sufficient density, quality, abundance, and accessibility of small demersal and vertically migrating prey species, including scombriformes, stomiiformes, myctophiformes, and myopsida;"*

In that regard, we note that the following statement appears on page 40 of the Report:

> *"The shrimp trawl fishery mainly targets penaeid shrimp in GOMx waters less than 120m deep but also targets royal red shrimp in deeper waters that overlap with the proposed critical habitat. The shrimp trawl fishery removes a significant amount of biomass from the GOMx ecosystem but its limited overlap with the proposed critical habitat mitigates its potential to significantly reduce the abundance of prey species."*

Further, the following statement appears on page 41 of the Report:

> *"No GOMx fisheries directly target Rice's whale prey species, thus limiting the threat to prey from fisheries activities to bycatch of fisheries that overlap with the proposed critical habitat. The total prey species biomass removed as bycatch from fishing in the GOMx could be a threat to the proposed critical habitat but the impact is unknown (Rosel et al. 2016). Given this uncertainty, NMFS does not anticipate that the designation of critical habitat will result in additional conservation efforts for fisheries. The incremental costs of the designations on commercial fisheries are thus most likely limited to the administrative costs incurred in the course of section 7 consultation by NMFS, Federal action agencies, and third parties."*

Finally, with respect to potential entanglement, the following statement regarding the 2021 BiOp pertaining to the Southeast U.S. shrimp fisheries appears on page 41 of the Report:

> *"The 2021 reinitiation of the Southeast U.S. Shrimp Fisheries in Federal Waters concluded that the fishery is "extremely unlikely to adversely affect any large whales protected by the ESA" (NMFS 2021c)."*

This supports the conclusion that Gulf shrimp trawl fishery does not pose an entanglement or other fishery operational threat to the status of the Rice's Whale population in the context of a jeopardy analysis.

Noise

The Southeast U.S. shrimp fisheries are among the most intensively regulated trawl fisheries in the world and are certainly the most sustainable of any shrimp trawl fishery globally in terms of the conservation of target species of shrimp, bycatch species including protected species, and sensitive habitats.

Of constant concern to the U.S. shrimp fisheries, however, are any impacts other ocean users may have on shrimp stocks, bycatch and protected species, and sensitive habitats for which the shrimp fisheries are held accountable under the Magnuson-Stevens Act, Endangered Species Act and Marine Mammal Protection Act, among other applicable laws.

One area of significant concern we would like to highlight in this respect is the potential for noise generated by offshore energy exploration and development in the Gulf of Mexico to

"*destroy or adversely impact*" Rice's whale critical habitat. To the extent that such noise has the effect of further diminishing the endangered Rice's whale habitat or population, virtually all relevant ocean activities, including the Gulf shrimp fishery, could be held accountable for such impacts through the imposition of additional regulatory measures on our operations.

Indeed, the third of the three attributes that influence the value of the critical habitat to the conservation of the species as set forth in the Bulletin and Proposed Rule is stated as follows:

> *"Sufficiently quiet conditions for normal use and occupancy, including intraspecific communication, navigation, and detection of prey, predators, and other threats."*

Additionally, as stated in the Bulletin:

> *"Federal agencies would be required to ensure that any activity that they conduct, fund, or authorize does not destroy or adversely modify the species' critical habitat."*

Therefore, BOEM and other federal agencies including NOAA that play a role in authorizing the conduct of offshore energy exploration and development activities in the Gulf are required, pursuant to the ESA, to ensure that such activity does not "*destroy or adversely modify*" Rice's whale critical habitat.

SSA does not pretend to offer meaningful expertise in this area, but it is clear to us in reviewing the Bulletin, Proposed Rule, and Report that the scientific community has serious concerns with respect to the impacts on noise on Rice's whale critical habitat. There are extensive references to this in these documents and so we simply wish to highlight the following:

As set forth on page 8 of the Report:

> *"Anthropogenic noise sources, including seismic survey airgun pulses and shipping traffic noise, appear to be the main contributors to the increased noise levels that lead to reduced detection ranges in the western GOMx."*

And as set forth in the Proposed Rule on page 47461 of the Federal Register:

> *"Finally, with respect to the third attribute related to sufficiently quiet conditions for normal use and occupancy, Rice's whales rely on their ability to produce and receive sound within their environment to navigate, communicate, and detect prey and predators. Rice's whales have a foraging strategy that is adapted to the waters near the continental shelf and slope of the Gulf of Mexico, and limited data from two tagged Rice's whales showed each whale made repeated dives to depths of 200 m or greater throughout daytime hours, followed by foraging lunges at or just above the seafloor. Little or no light reaches the seafloor at those depths, even during daylight hours, suggesting that these animals may use acoustic cues to locate and target schools of prey fish.*

Scientific information on the effects of anthropogenic noise on the behavior and distribution of baleen whales, including Bryde's whales, demonstrates that the presence of anthropogenic noise can adversely affect the value of marine habitat to Bryde's whales (for more discussion see the Anthropogenic Noise section of the final listing rule, 84 FR 15446, April 15, 2019). Of particular concern are anthropogenic noise sources that are long-lasting, chronic, and/or persistent, and cumulatively inhibit and/or mask the animals' ability to receive and interpret sound (e.g., opportunities to forage or reproduce). Rice's whales vocalize at frequencies between 60 and 160 Hz, and elevation of ambient noise in low frequencies (between 10 and 1,000 Hz) are the most likely to adversely affect Rice's whales' acoustic soundscape and use of their habitat.

How human activities introduce noise in the marine environment, and how those noises alter the animals' use of habitat, is complex. Determining the biological significance of such alterations is equally complex and involves considering site specific variables, including: the acoustic characteristics of the introduced sound (frequency (i.e., pitch), duration, and intensity); the physical characteristics of the habitat; the baseline soundscape; interactions with other sound sources; and the animals' use of that habitat. All of these factors will influence the pervasiveness and dominance of anthropogenic sound sources across the habitat. NMFS will continue to use the best scientific information available to analyze chronic or persistent noise sources and determine whether they degrade listening conditions within Rice's whale habitat.

Noises that would impair sufficiently quiet conditions for normal use and occupancy are those that inhibit Rice's whales' ability to receive and interpret sound for the purposes of navigation, communication, and detection or prey, predators, and other threats. As already noted, anthropogenic noises that are likely to impact the whales' habitat would be long-lasting, chronic, and/or persistent in the marine environment and, either alone or combined with other ambient noises, significantly raise sound levels over a significant portion of an area (in terms of size and use by the whale) on a prolonged basis (e.g., annual or multiannual).”

With those considerations in mind, SSA further wishes to highlight the considerable recent attention that has been drawn to noise allegedly generated by offshore wind energy survey activities in the Mid-Atlantic region perhaps through the use of sonar and/or seismic survey airgun pulses associated with offshore wind energy development. Once again, this transcends our expertise but we call your attention to the September 8, 2023, letter sent by the “Save Right Whales Coalition” organization to NOAA Administrator Spinrad [6], and to the video allegedly documenting such noise entitled “*Thrown to the Wind*” [7]. This letter and documentary include allegations that the noise levels being generated exceed the levels tolerated by NOAA regulations and could cause serious injury to and death of Rice’s whales, and “*destroy or adversely modify*” their critical habitat.

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[6] https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/64fddae8728fa92c0064459c/1694358248598/SRWC+-+NOAA+Letter+2023-09-08+FINAL.pdf

[7] https://www.bitchute.com/video/QoJYYbF2fU6y/

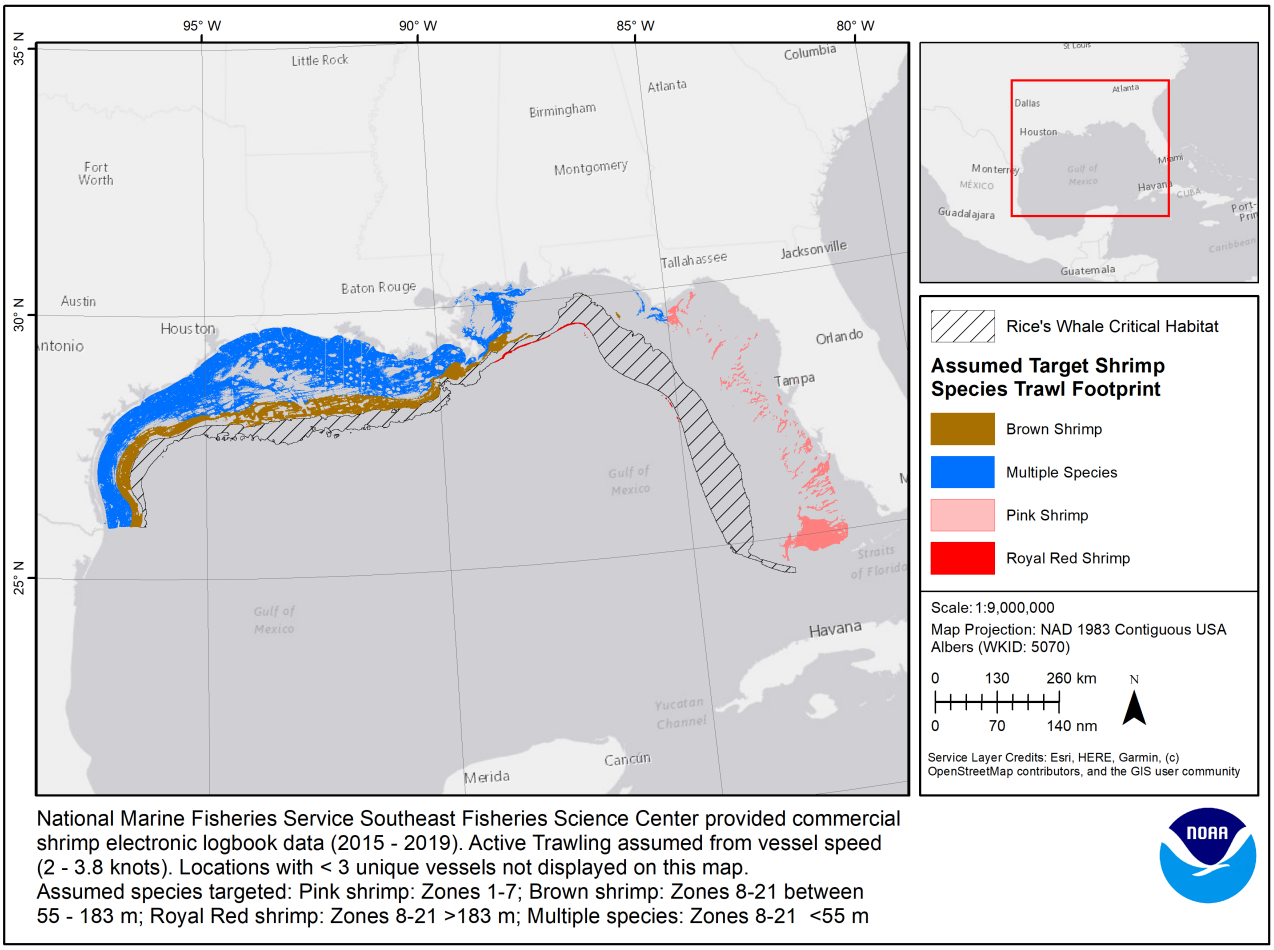
Given that, we urge NOAA to fully evaluate and determine if offshore energy development activities in the Gulf such as this type of survey work – whether as part of oil and gas energy development or wind energy development – poses a threat of serious injury or mortality to Rice's whale individuals or to the specie's critical habitat – or both. Again, to the extent these activities do have such adverse impacts on the Rice's whale population and/or critical habitat, the Gulf shrimp fishery could be held accountable to compensate for the cumulative effects of those impacts through additional regulations on our fishery.

As always, SSA appreciates NOAA's considerations of our inputs.

Sincerely,

John Williams,
Executive Director

Figure A



National Marine Fisheries Service Southeast Fisheries Science Center provided commercial shrimp electronic logbook data (2015 - 2019). Active Trawling assumed from vessel speed (2 - 3.8 knots). Locations with < 3 unique vessels not displayed on this map.
Assumed species targeted: Pink shrimp: Zones 1-7; Brown shrimp: Zones 8-21 between 55 - 183 m; Royal Red shrimp: Zones 8-21 >183 m; Multiple species: Zones 8-21 <55 m

Figure B

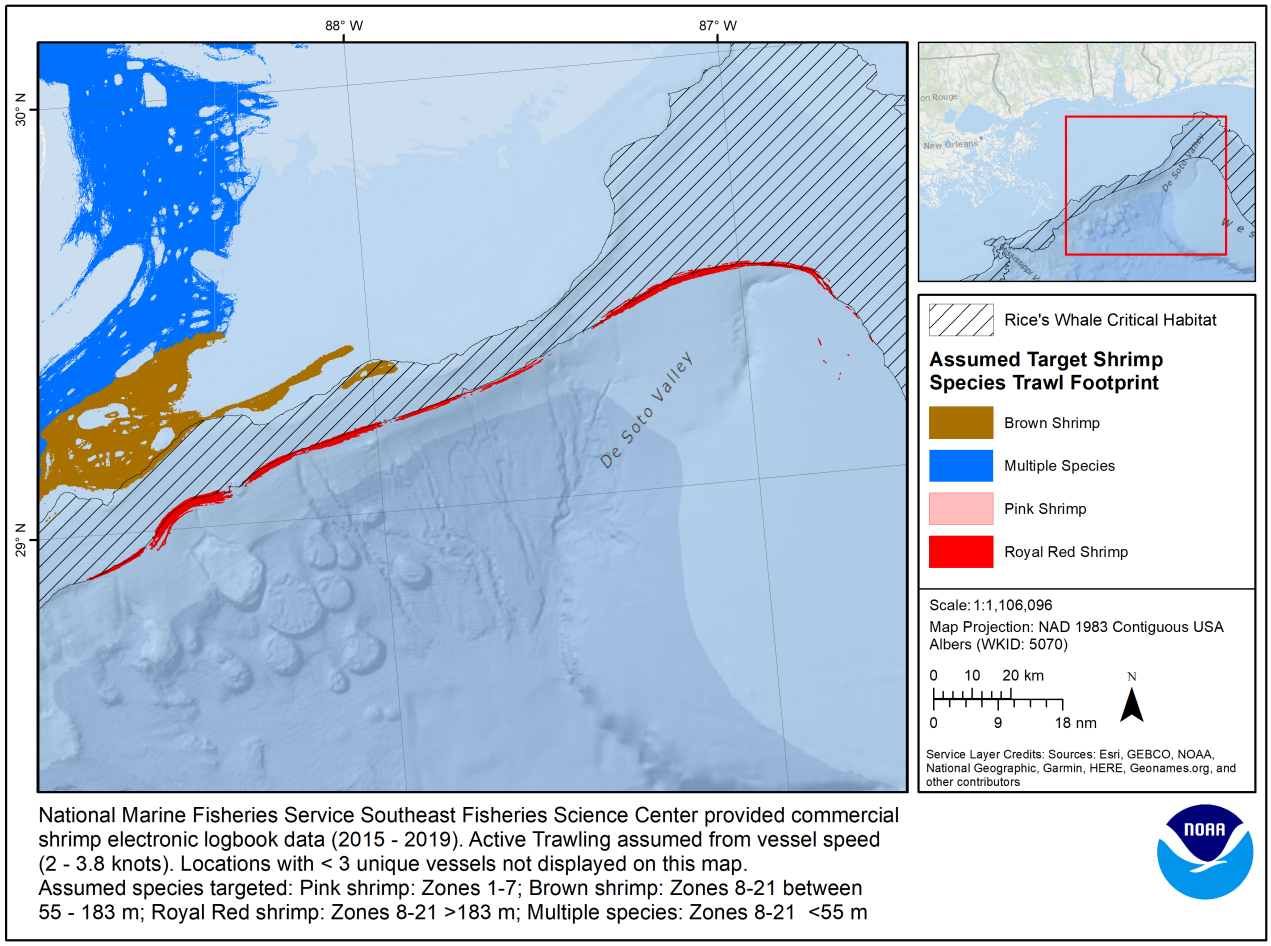


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Figure C

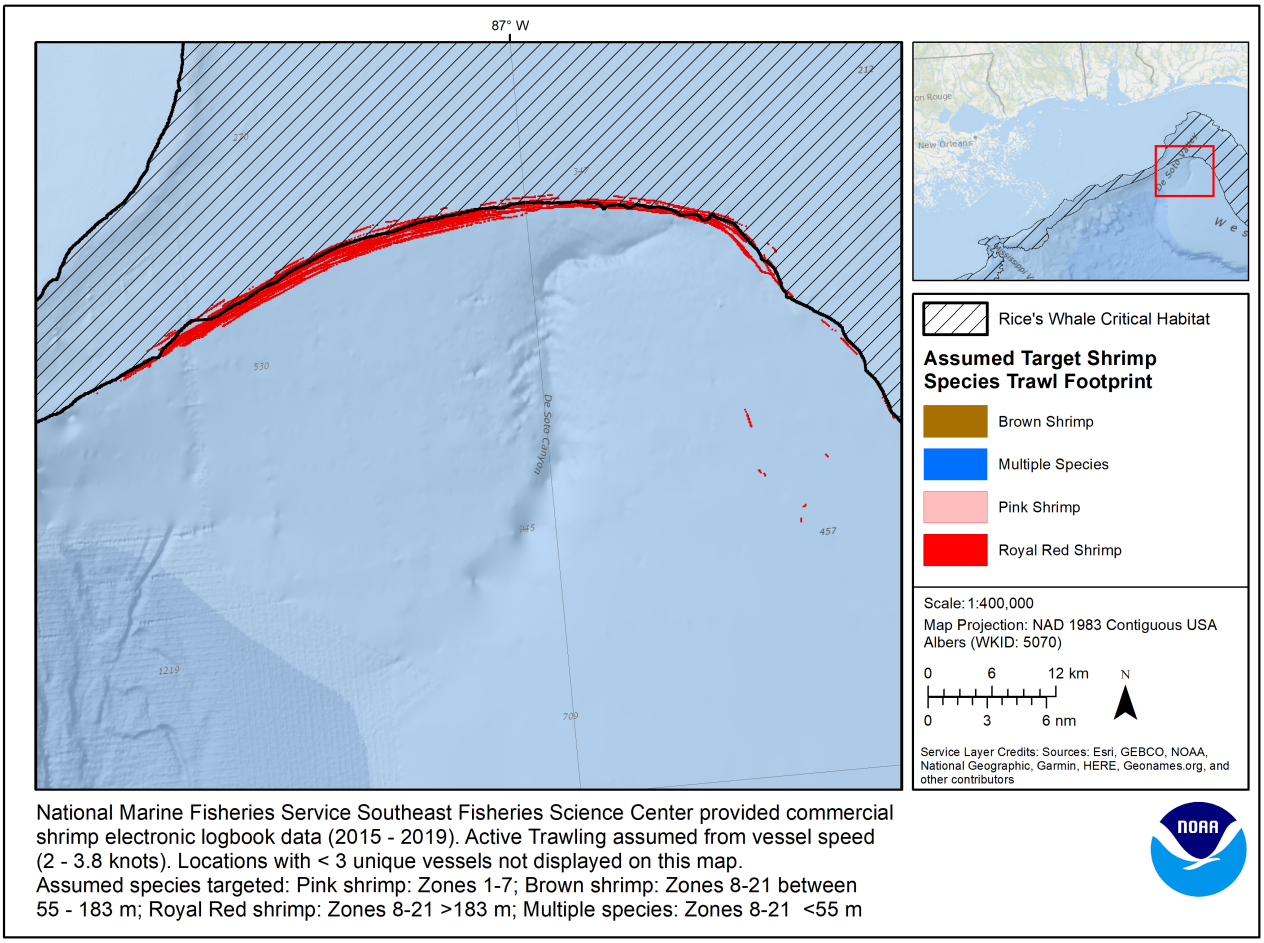

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Figure D

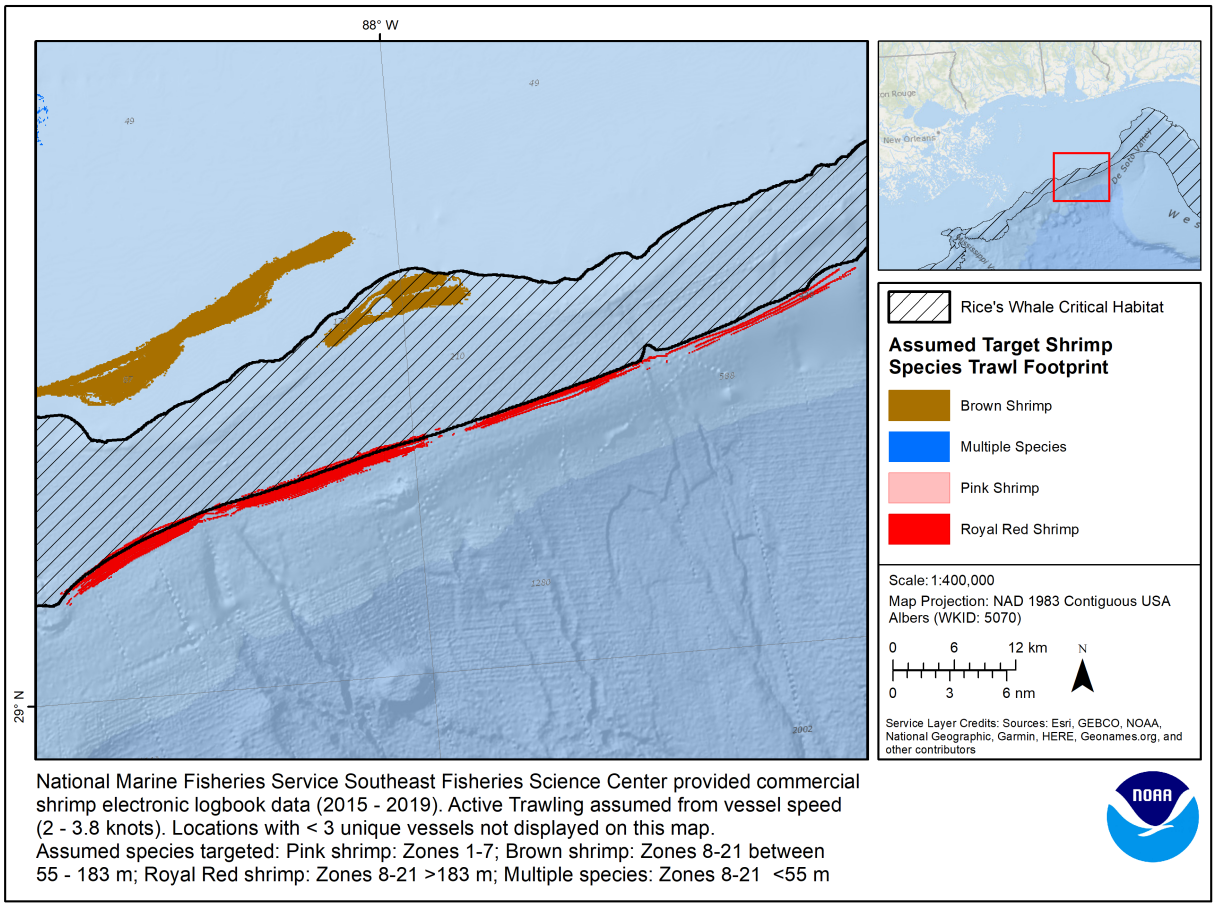

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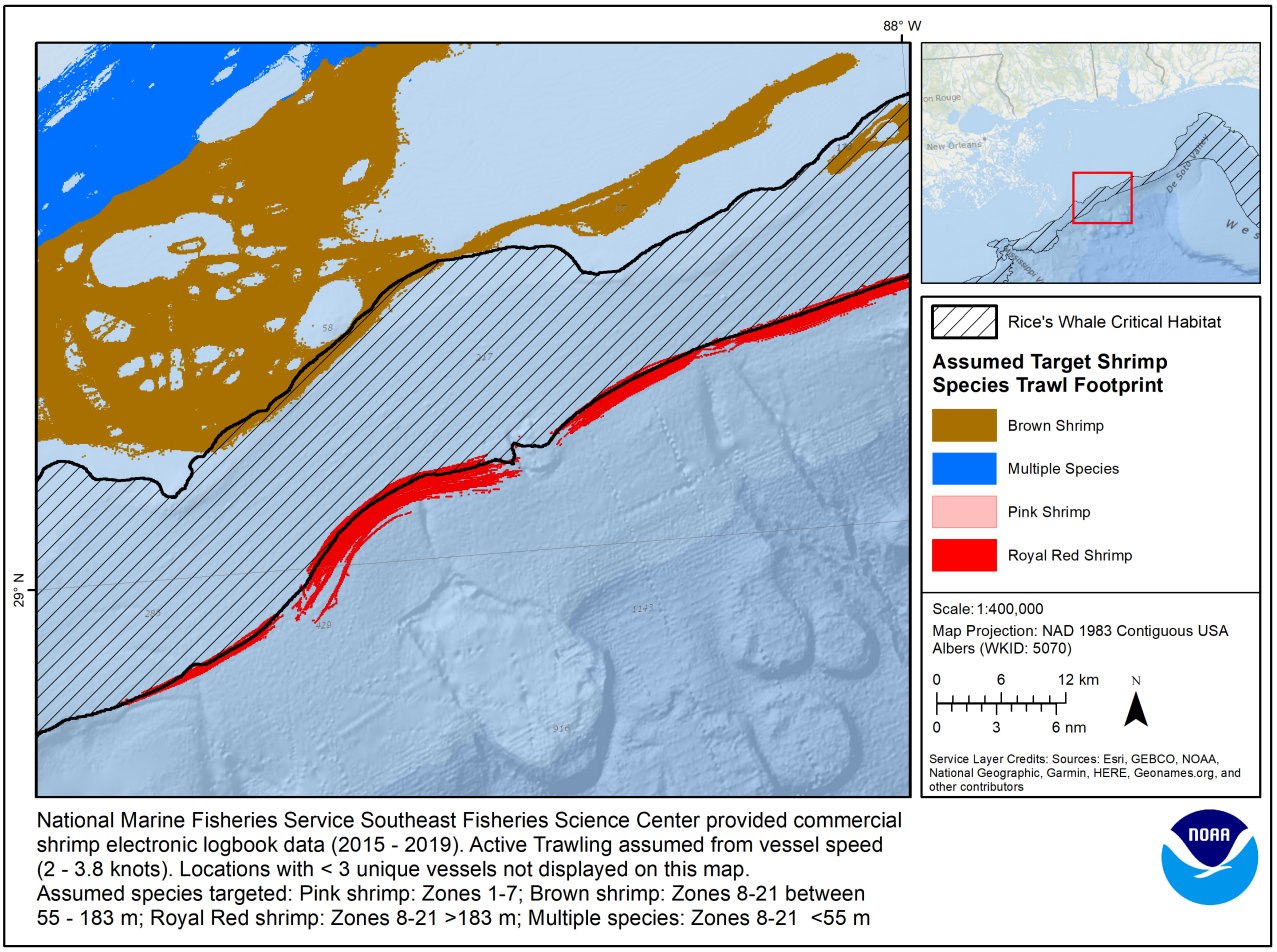
Figure E



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Assumed species targeted: Pink shrimp: Zones 1-7; Brown shrimp: Zones 8-21 between 55 - 183 m; Royal Red shrimp: Zones 8-21 >183 m; Multiple species: Zones 8-21 <55 m

Figure F

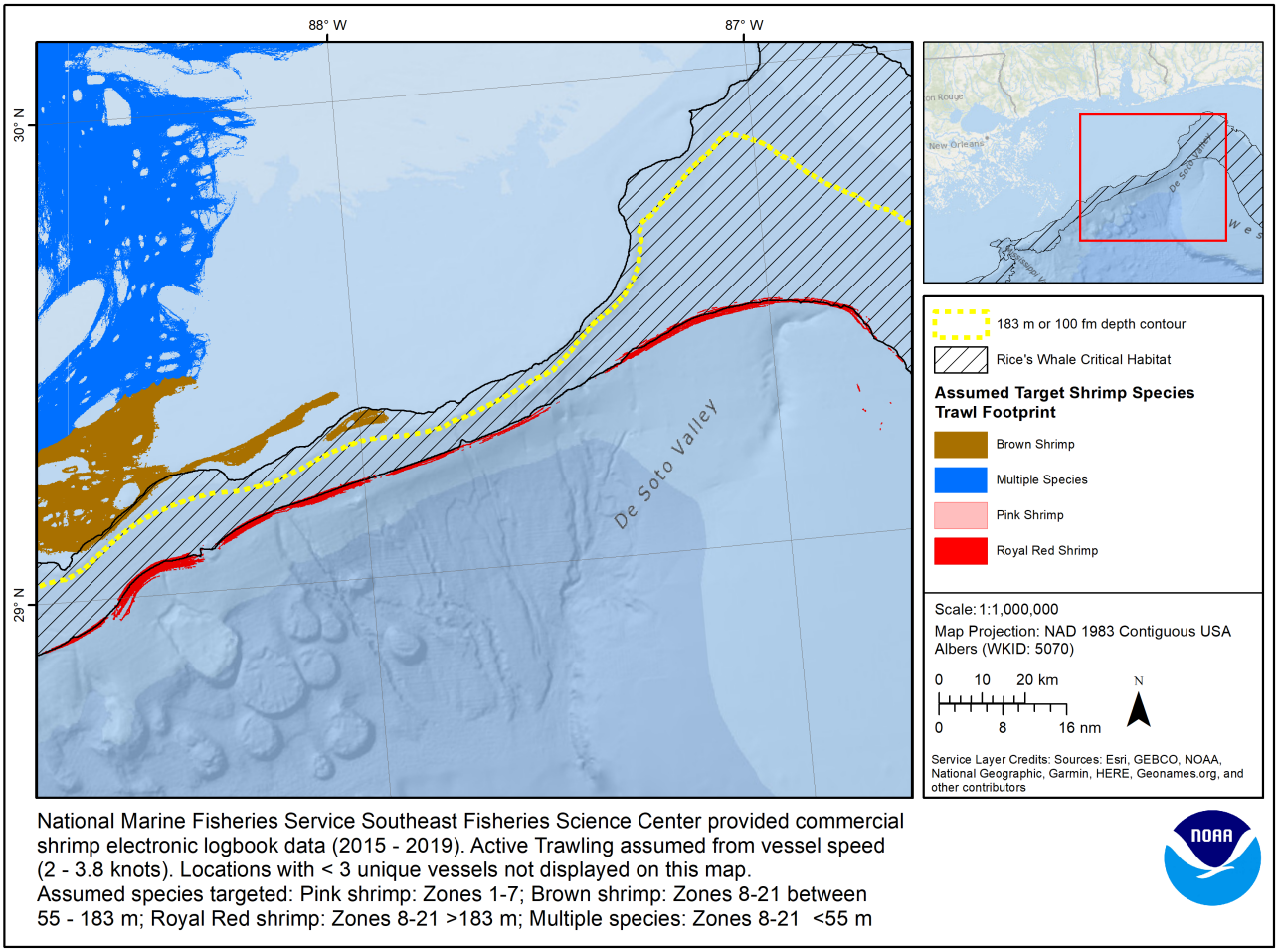

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Table 1

Depth Distribution of Royal Red and Brown Shrimp

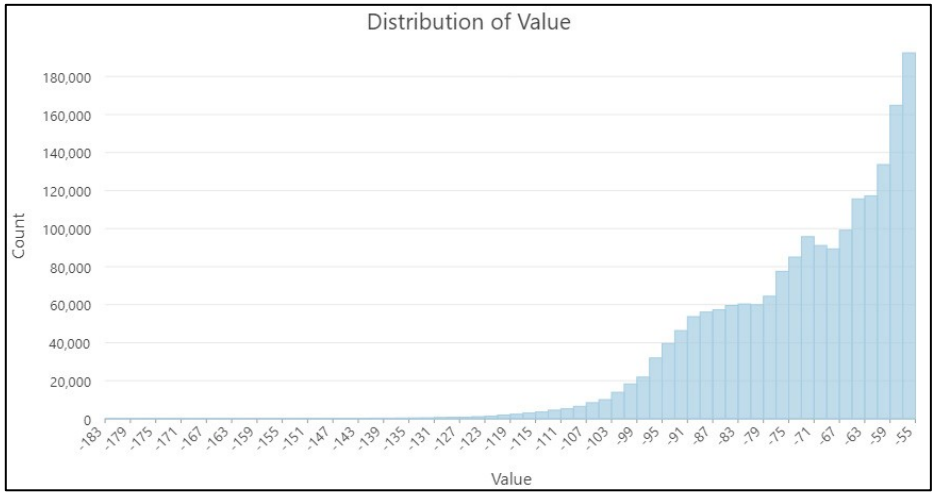
Trawling NCCOS Spatial Team

9/15/2023

Data: Data is assumed trawling from 2015-2019, with the 100x100m grid cell as the footprint/count. Royal Red Shrimp are assumed to be the target shrimp species when depths were >183 m. Brown shrimp were assumed to be the target species between 55-183 m.

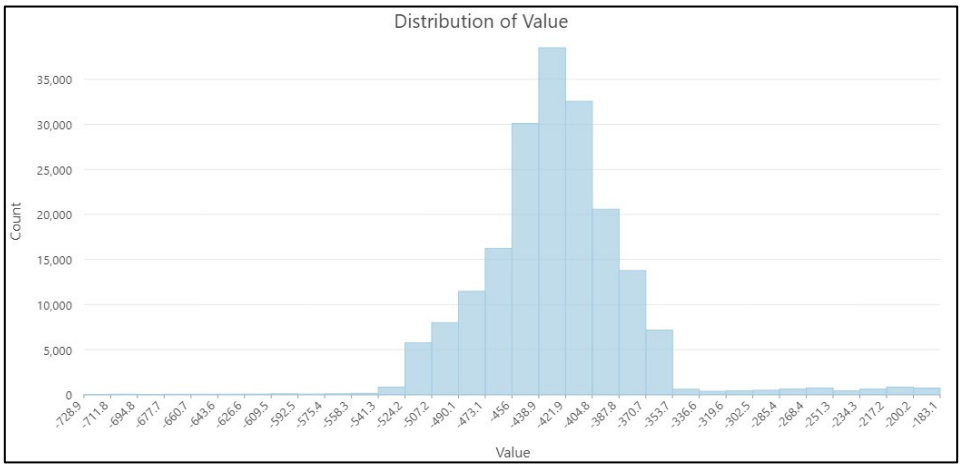
The Count on the Y-axis is the count of 100x100m cells, and the Value on the X-axis is the depth bins in meters.

Brown Shrimp cell count by depth bin histogram:



Note majority of assumed brown shrimp trawl cells are occurring at shallower depths, some assumed trawls were at the 183 m depth, however this could be the vessel was transiting at 2.0-3.8 knots as well.

Royal Red Shrimp cell count by depth bin histogram:



Note majority of assumed Royal Red shrimp trawl cells are occurring at depths between 353 and 540 m, although there are elevated values between 183-353 m.