

APPENDIX D: Endangered Species Act Concurrence



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE
Southwest Region
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Long Beach, California 90802-4213

In response refer to:
2013/9538: SSW

MAY 28 2013

MEMORANDUM FOR: Mark Helvey
Assistant Regional Administrator,
Sustainable Fisheries Division

FROM: *YD* Penny Ruvelas *Christ C Fog*
Southern California Area Office Supervisor
Protected Resources Division

SUBJECT: Section 7 Consultation on Effects of a Proposed Study on the Use of Light-Touch California Halibut Trawl Gear within Historic Monterey Bay Trawl Grounds on Endangered Species Act Listed Species

On 4 February 2013, the NMFS Southwest Region (SWR) Protected Resources Division (PRD) received a memorandum from the NMFS Southwest Region Sustainable Fisheries Division (SFD) requesting consultation under section 7 of the Endangered Species Act (ESA) for a proposed study on the use of light-touch California halibut trawl gear within historical Monterey Bay trawl grounds that are presently closed to trawling (California Senate Bill 1459 in 2006). The memorandum provided a description of the proposed study and included a biological assessment of the potential effects of the proposed action on ESA-listed species and designated critical habitat. Based on the assessment, SFD concluded that the proposed action is not likely to adversely affect ESA-listed species or designated critical habitat and requested PRD's concurrence with this determination. Since receipt of this memorandum, staff from both PRD and SFD have met several times to discuss the proposed survey, particularly the monitoring and mitigation protocols and observation distances, which were finalized by SFD and transmitted to PRD at the end of April, 2013. Of note, SFD submitted a memo to PRD in July of 2012 proposing a similar survey and concluded that the proposed action was not likely to adversely affect ESA-listed species or designated critical habitat. PRD concurred with the determination, although for various reasons, the survey never took place.

PROPOSED ACTION

The proposed study is a trawl survey, to be conducted by the California Department of Fish and Wildlife (CDFW; formerly, California Department of Fish and Game (CDFG)) in partnership



with SFD, to examine the feasibility of using light-touch trawl gear to capture California halibut (*Paralichthys californicus*) and to examine the effects of the gear on benthic habitats and bycatch levels. The light-touch trawl gear is designed to comply with the California Fish and Game Commission's criteria (California Code of Regulations Title 14 §124). The proposed survey will be conducted by a 49-foot wooden vessel with a 19 foot beam over a period of four to five days in July or August 2013 and consist of a total of 20 tows (30 minutes per tow) using light-touch trawl gear. The trawl planned to be used in the 2013 survey has a 60-foot footrope, with no floats on the headrope, creating a 4-foot opening (versus a 10 to 15-foot opening on a traditional trawl). With a body mesh of 5-inches and a cod-end mesh of 7.5 inches, the trawl net is unlikely to catch over 1,000 pounds of fish. All tows will be conducted during daylight hours in Monterey Bay along the same trawl lines used by CDFW in a similar halibut trawl survey conducted in August 2010 (CDFG 2010), at depths from approximately 10 to 35 fathoms on soft bottom, between approximately 36°56' N to 36°48' N latitude. Effects of the trawl gear on bottom habitat will be documented by a video camera mounted on the headrope of the trawl. All legal-sized halibut and non-halibut catch will be identified, measured, weighed, and released. Dead or sub-legal sized halibut may be retained for life history studies.

To minimize and avoid effects on marine mammals and sea turtles, a dedicated SFD scientist will be responsible for implementing the monitoring and mitigation protocols, with other personnel on the survey vessel assisting the scientist, as practicable. A PRD protected resources specialist will train all scientific personnel prior to the commencement of the survey. The SFD scientist and others will visually scan for marine mammals, sea turtles, and jellyfish (specifically brown sea nettles, an important sea turtle prey item) in an area of planned operations during transit to each station and keep a continuous watch throughout the survey operations. During the tow, observations will concentrate from the vessel out to a maximum distance of 647 feet, as that is approximately how far the trawl net will be from the vessel on any given tow. PRD-trained scientific staff will assess whether trawling operations can be conducted to minimize the potential for interaction between the gear and the animals sighted. If there is a risk of interaction with the gear (e.g. a pod of dolphin transiting the area), staff will determine if the vessel should remain in place, or, if operations cannot continue, safely move away from the animal(s) by at least 0.5 nautical miles. This determination will be based on the species and number of animals sighted, their behavior and direction of travel, if applicable, and their vector relative to the path of the vessels. Visual scans will be conducted during each subsequent move until the scientific crew determines that trawling operations can be conducted without risk of interaction between the gear and visible animals, or until the station is abandoned. During each tow, the Captain and scientific crew will keep continuous watch for marine mammals, sea turtles, and jellyfish in the area. If sighted, the scientific crew will determine the best strategy to avoid potential takes (e.g., immediate retrieval of the net to move away from the area; continue towing until the animal is clear of the area to prevent contact with the gear during haul-back).

ESA-LISTED SPECIES AND CRITICAL HABITAT

The following ESA-listed species under NMFS' jurisdiction may be present in the action area during the proposed survey and may be affected by the proposed action:

Marine mammals:

- Blue whale (*Balaenoptera musculus*) - Endangered
- Fin whale (*B. physalus*) - Endangered
- Humpback whale (*Megaptera novaeangliae*) - Endangered
- Gray whale, western north Pacific stock (*Eschrichtius robustus*) - Endangered
- Steller sea lion, eastern distinct population segment (DPS) (*Eumetopias jubatus*) – Threatened
- Guadalupe fur seal (*Arctocephalus townsendi*) – Threatened

Sea turtles:

- Leatherback turtle (*Dermochelys coriacea*) – Endangered
- Loggerhead turtle, north Pacific DPS (*Caretta caretta*) – Endangered
- Olive ridley turtle (*Lepidochelys olivacea*) – Endangered/Threatened
- Green turtle (*Chelonia mydas*) – Endangered/Threatened

Marine/Anadromous fish:

- Green sturgeon, southern DPS (*Acipenser medirostris*) – Threatened
- Chinook salmon, Sacramento River winter evolutionarily significant unit (ESU) (*Oncorhynchus tshawytscha*) – Endangered
- Chinook salmon, Central Valley Spring-run ESU (*O. tshawytscha*) – Threatened
- Chinook salmon, California Coastal ESU (*O. tshawytscha*) – Threatened
- Coho salmon, Central California Coast DPS (*O. kisutch*) – Endangered
- Steelhead, South-Central California Coast DPS (*O. mykiss*) – Threatened
- Steelhead, Central California Coast DPS (*O. mykiss*) – Threatened
- Steelhead, Central Valley DPS (*O. mykiss*) – Threatened

In addition, designated critical habitat for green sturgeon and leatherback sea turtles occurs within the action area and may be affected by the proposed action. The biological assessment also identified but then determined that critical habitat for Steller sea lions does not occur within the action area. Non-ESA listed marine mammals also may be present within the action area and may be affected by the proposed action. All marine mammals are protected under the Marine Mammal Protection Act.

EFFECTS OF THE PROPOSED ACTION

In this section, we summarize NMFS SWR SFD’s reasoning to support their determination that the proposed action is not likely to adversely affect ESA-listed species and designated critical habitat. We also provide the reasons for our concurrence with this determination, briefly describing the analysis of the effects of the proposed action on ESA-listed species and designated critical habitat and why we consider these effects insignificant and discountable.

Marine mammals

SFD determined that the proposed action is not likely to adversely affect ESA-listed marine mammals that may occur in Monterey Bay because the probability of encountering any of these species (i.e., visually observing or having any contact with the vessel and fishing gear) is unlikely based on the time of year and short duration of the proposed survey. In addition, the precautionary measures to be implemented under the marine mammal and sea turtle monitoring and mitigation protocol (enclosed with the biological assessment dated 10 January 2013 and subsequently amended, with PRD input) will also reduce the likelihood of an interaction. CDFW did not encounter any marine mammals during similar trawl surveys conducted in Monterey Bay in 2007 and 2010, using traditional trawl gear (CDFG 2007, 2010).

PRD concurs that the proposed action is not likely to adversely affect ESA-listed marine mammals, because the probability of incidental take (i.e., entangling, striking, or harassing a marine mammal) is extremely unlikely. Steller sea lions are not expected to be in the action area during the time of the proposed survey, making the probability of encounter very low. The probability of encountering Guadalupe fur seals is also extremely unlikely. Although within the species' range, the likelihood of Guadalupe fur seals being in the action area during the time of the proposed survey is low. If present at all, Guadalupe fur seals would likely be at very low numbers. Little is known about the timing and location of the western Pacific stock of gray whales and whether or not they may be in the action area during the proposed survey period. Blue whales, fin whales, and humpback whales occur in Monterey Bay during the time of year when the proposed survey is to be conducted and may be vulnerable to encounters with the fishing gear or the vessel. However, we agree that implementation of the measures (including, *inter alia*, the proposed tow speed and continuous visual scans for protected species prior to and during tows), as described in the monitoring and mitigation protocol, would minimize the probability of entangling, striking, or harassing a whale to an insignificant and discountable level. Specifically, continuous monitoring for whales prior to and during each tow and active measures to avoid interactions (e.g., moving at least 0.5 nm from animals that are observed in the area and at risk of interaction with the gear) would make the risk of entangling, striking, or harassing a whale extremely unlikely. In addition, the average expected tow speed of the vessel during the survey (2.4 to 2.7 knots) is relatively slow which could provide the observer with multiple opportunities to see a whale surface (dependent on sighting conditions) and take measures to avoid a collision.

Sea turtles and leatherback sea turtle critical habitat

SFD determined that the proposed action is not likely to adversely affect green, leatherback, loggerhead, and olive ridley sea turtles because the probability of encountering these species is low. SFD also determined that the proposed action is not likely to adversely affect designated critical habitat for leatherback sea turtles because the proposed action will have a low impact on leatherback sea turtle prey resources.

PRD concurs that the proposed action is not likely to adversely affect ESA-listed sea turtles, because of the extreme unlikelihood of incidental take. Green, loggerhead, and olive ridley sea turtles are considered rare north of Point Conception and are not likely to be in the action area

during the time of the proposed survey. In contrast, leatherback sea turtles are likely to be present in the area, based on satellite telemetry analyses, which showed leatherbacks returning back to the southern California Bight during the spring-time, and traveling to the central California coast in the summer/fall months (Benson et al. 2011). In addition, there were observations of leatherbacks in Monterey Bay in 2012 (likely to feed on the abundant brown sea nettles currently in the area; pers. comm. with C. Fahy, NMFS, 19 July 2012) and there was a stranding of a dead female adult leatherback on 25 July 2012 near the U.S. Coast Guard jetty in Monterey (likely dead due to natural causes; pers. comm. with H. Harris, NMFS Southwest Fisheries Science Center (SWFSC), 28 July 2012). Leatherback sea turtles are also vulnerable to capture by trawl gear, as shown by the capture of an individual in a mid-water trawl scientific research survey in July 2011 just north of Monterey Bay, off Pigeon Point (pers. comm. with C. Fahy, NMFS, 03 August 2012). Given confirmation that leatherbacks are currently and are likely to be present in the survey area and are vulnerable to capture in trawl gear, there is a risk of an animal being caught in the trawl net or struck by the vessel. However, that risk will be low, based on the short duration of the survey, the short tow times, the slow speed of the vessel, and the fact that no interactions with sea turtles occurred during similar trawl surveys conducted by CDFW in 2007 and 2010 (CDFG 2007, 2010). SFD has also proposed to contact NMFS scientist Scott Benson prior to each day of the survey to get information on the known location of any leatherbacks within the specific survey area in order to avoid potential interactions. We agree that implementation of the monitoring and mitigation measures, as described in the protocol, will further reduce the likelihood of entangling, capturing, striking, or harassing a sea turtle to a discountable level.

PRD also concurs that the proposed action is not likely to adversely modify or destroy designated critical habitat for leatherback sea turtles. The concern with respect to potential impacts within leatherback sea turtle critical habitat is the potential reduction of prey resources (e.g., jellyfish and salps), identified as the primary constituent element (PCE) for leatherback sea turtle critical habitat. Brown sea nettles, *Chrysaora fuscescens*, are likely the primary prey species targeted by leatherback sea turtles in this area (Benson et al. 2011). The CDFW trawl survey in 2010 incidentally caught brown sea nettles in all 12 tows conducted (CDFG 2010). The incidental capture of brown sea nettles in the proposed survey would likely be less than in the 2010 survey, because the light-touch trawl gear has a larger mesh size (7.5-inch mesh) than the traditional trawl gear used in the 2010 survey (4.5-inch mesh). In addition, the trawl gear is designed to collapse on itself so that it is unfishable when going down to the seafloor or on the way up to the vessel, minimizing the likelihood of capturing brown sea nettles in the water column when deploying or retrieving the gear. To further avoid incidental capture of brown sea nettles, the vessel will move to a different area before setting the gear if they are observed in the area. The increased mesh size of the trawl gear and precautions to avoid setting gear on brown sea nettles in the area will minimize incidental capture of jellyfish during the proposed survey. If jellyfish are captured and killed, the effect on the availability of these prey resources will be minimal, given the magnitude of prey in the area. In addition, the short duration of the tows and study will minimize impacts. Therefore, we conclude that the effects of the proposed action on the prey resources would be insignificant; we do not expect the proposed action to reduce the quality or quantity of jellyfish such that it reduces the conservation value of the prey resources for leatherback sea turtle critical habitat within the action area. Lastly, the scientific crew will attempt to identify, weigh, and count brown sea nettles incidentally caught, to the best of their

ability, in order to quantify the impact to leatherback sea turtle prey resources. This information will help to assess the actual impacts of the proposed survey on leatherback sea turtle prey resources in the area.

Green sturgeon and green sturgeon critical habitat

SFD determined that the proposed action is not likely to adversely affect ESA-listed green sturgeon (Southern DPS) because the probability of incidentally capturing a green sturgeon in the trawl gear is unlikely based on the short duration of the proposed survey, the short tow duration, and data indicating that green sturgeon have not been incidentally captured by trawl gear in Monterey Bay in the past. SFD also determined that the proposed action is not likely to adversely modify or destroy designated critical habitat for Southern DPS green sturgeon because the proposed survey will not disturb the species' migratory corridor or affect water quality or green sturgeon prey resources in the area.

PRD concurs that the proposed action is not likely to adversely affect Southern DPS green sturgeon because the probability of incidental take is extremely low. Green sturgeon may be present in the action area during the time of the proposed survey (Lindley et al. 2008) and have been incidentally caught in set-net gear in Monterey Bay in 1999 and 2000 (pers. comm. with R. Rasmussen, SWFSC, 18 July 2006). However, existing evidence indicates that the probability of incidental capture of green sturgeon in the proposed survey is extremely low. First, NMFS West Coast Groundfish Observer Program (WCGOP) data from 2002 through 2010 show that although numerous green sturgeon have been incidentally caught in groundfish bottom trawl fisheries along the California coast just north of Monterey Bay (Al-Humaidhi et al. 2012), there have been no observed encounters with green sturgeon in the groundfish bottom trawl fisheries in Monterey Bay. Fishing effort (measured by landings) and observer coverage rates for the groundfish bottom trawl fisheries in Monterey Bay varied over this period (from 6% to 28%; pers. comm. with J. Majewski, WCGOP, 26 July 2012), but were comparable to the fishing effort and observer coverage rates for the fisheries along the California coast just north of Monterey Bay (3% to 25%; groundfish landings data and WCGOP observer coverage rates, available online at:

http://www.nwfsc.noaa.gov/research/divisions/fram/observer/sector_products.cfm). The lack of observed green sturgeon encounters in Monterey Bay, in contrast with numerous observed encounters in California north of Monterey Bay, indicates that incidental capture of green sturgeon in the bottom trawl fishery in Monterey Bay has either not occurred or has been rare, possibly because of differences in the abundance of green sturgeon between the two areas. Second, green sturgeon were not encountered in similar trawl surveys conducted in Monterey Bay by CDFW in 2007 and 2010 (CDFG 2007, 2010). Third, the trawl gear to be used is designed to collapse on itself when the doors are not in proper fishing configuration, making the net unfishable when it is being let down to the seafloor or brought back up to the vessel. This design will further minimize the risk of incidentally capturing green sturgeon in the water column when deploying or retrieving the trawl gear. Finally, the short duration of the proposed survey and proposed tows further minimize the risk of incidentally capturing a green sturgeon. Therefore, we agree that the potential for incidental capture of green sturgeon is discountable.

PRD also concurs that the proposed action is not likely to adversely modify or destroy designated critical habitat for green sturgeon. The concern with respect to potential impacts within green sturgeon critical habitat are the potential effects on water quality and benthic prey resources, two of the primary constituent elements identified for green sturgeon critical habitat. Disturbance of the seafloor by bottom trawl gear can affect water quality by stirring up sediments and increasing water turbidity. Effects on prey resources can result from the incidental capture of benthic species and disturbance of benthic habitats and communities. However, we expect the impacts on water quality and prey resources to be low, because the light-touch trawl gear is designed to have minimal contact with the seafloor and reduce bycatch compared to traditional trawl gear. In addition, we expect that any impacts to water turbidity and benthic communities would be temporary and short-lived, due to the short duration of the proposed survey and proposed tows.

Therefore, we agree that the potential effects on water quality and the availability of prey resources will be insignificant.

Salmon and Steelhead

SFD determined that the proposed action is not likely to adversely affect ESA-listed salmonids because the probability of incidentally capturing salmonids in the trawl gear is unlikely based on the fishing methods to be used and the fact that no salmonids were incidentally captured during similar trawl surveys conducted in Monterey Bay by CDFW in 2007 and 2010 (CDFG 2007, 2010).

PRD concurs that the proposed action is not likely to adversely affect ESA-listed salmonids because the probability of incidentally capturing salmonids during the proposed survey is extremely unlikely. Although ESA-listed salmonids may be in the action area during the time of the proposed survey, we agree that the capture of salmonids is unlikely based on the fishing methods to be used in the survey. The trawl gear will be deployed near the sea floor to fish for benthic halibut, rather than higher up in the water column. This will reduce the likelihood of capturing pelagic species, like salmonids. In addition, the trawl gear to be used is designed to collapse on itself when the doors are not in proper fishing configuration, making the net unfishable when it is being let down to the seafloor or brought back up to the vessel. This design will minimize the risk of incidentally capturing salmonids when deploying or retrieving the trawl gear. The lack of encounters with salmonids during the 2007 and 2010 trawl surveys further supports the low likelihood of encountering salmonids in the proposed survey.

ESA CONCLUSION

Based on the information and analyses discussed above, PRD concurs with SFD's determination that the proposed action may affect, but is not likely to adversely affect, ESA-listed marine mammals, sea turtles, salmonids, and green sturgeon and/or destroy or adversely modify designated critical habitat for leatherback sea turtles and green sturgeon.

This concurrence does not provide coverage for the take of ESA-listed species or non-listed marine mammals. Although NMFS does not anticipate incidental take of ESA-listed species due

to this proposed study, in the extremely unlikely event that incidental take of an ESA-listed species occurs as a result of this project (e.g., incidental capture or entanglement, vessel strikes, or harassment of ESA-listed species), SFD should immediately stop all operations and contact NMFS SWR PRD staff for further direction prior to releasing or discarding the animal. If an animal is captured or entangled and may suffer additional harm if not released immediately, we recommend that you release the animal if you can do so without danger to the animal or to personnel and contact NMFS SWR PRD immediately or simultaneously for further direction. Please note that NMFS regulations (e.g., handling and resuscitation requirements for threatened sea turtles under 50 C.F.R. § 223.205(b)(5)) may apply and accordingly may supplement or supersede any of the recommendations concerning release or discarding discussed above.

The PRD points of contact are:

- Marine mammals: Monica DeAngelis (562-980-3232, Monica.DeAngelis@noaa.gov)
- Sea turtles: Christina Fahy (562-980-4023; Christina.Fahy@noaa.gov)
- Green sturgeon: Susan Wang (562-980-4199; Susan.Wang@noaa.gov)
- Salmon and steelhead: Jacqueline Pearson-Meyer (707-575-6057; Jacqueline.Pearson-Meyer@noaa.gov)

PRD would also appreciate a copy of any survey reports generated after the study has been terminated to assess impacts.

This concludes informal consultation for the proposed action. Reinitiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (2) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered, or (3) a new species is listed or critical habitat designated that may be affected by the action. As noted above, injury or death of the listed species described herein are not expected from this project; evidence of such an outcome would require re-initiation under (1) of this paragraph.

If you have any questions regarding this memorandum or other ESA-related issues, please contact Susan Wang at 562-980-4199 or Susan.Wang@noaa.gov

Additional Comments Regarding Species Protected under the Marine Mammal Protection Act

Although not subject to this consultation, we note that several non ESA-listed marine mammal species also occur within the action area. These species are protected under the Marine Mammal Protection Act (MMPA) and include: California sea lions (*Zalophus californianus*), Pacific harbor seals (*Phoca vitulina*), northern fur seals (*Callorhinus ursinus*), northern elephant seals (*Mirounga angustirostris*), Pacific white-sided dolphins (*Lagenorhynchus obliquendens*), short-beaked common dolphins (*Delphinus delphis*), northern right-whale dolphins (*Lissodelphis borealis*), striped dolphins (*Stenella coeruleoalba*), common bottlenose dolphins (*Tursiops truncatus*), Risso's dolphins (*Grampus griseus*), harbor porpoise (*Phocoena phocoena*), Dall's porpoise (*Phocoenoides dalli*), Minke whales (*Balaenoptera acutorostrata*), and killer whales

(*Orcinus orca*). The monitoring and mitigation protocol would apply to these species as well as to the ESA-listed species discussed above, and provide precautionary measures which might help to minimize the risk of interactions with the research vessel and trawl gear. Please note that the discussion of MMPA issues contained herein is for informational purposes only and does not affect any obligations SFD may have under the MMPA with regard to the underlying action; specifically, this letter does not provide Incidental Harassment or Take Authorization for any marine mammals.

In addition, if incidental take of a marine mammal occurs as a result of this project, SFD should immediately stop all operations and contact Monica DeAngelis or Christina Fahy for further direction, as described above. This event would trigger the need for SFD to obtain coverage under the MMPA for take of marine mammals.

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