

**NATIONAL MARINE FISHERIES SERVICE
ENDANGERED SPECIES ACT SECTION 7
LETTER OF CONCURRENCE**

Title: Letter of Concurrence on the Issuance of Permit No. 20294 to Robert DiGiovanni Jr. for Vessel and Aerial Surveys of Blue, Fin, North Atlantic Right, Sei, and Sperm Whales.

Consultation Conducted By: Endangered Species Act Interagency Cooperation Division, Office of Protected Resources, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Action Agency: Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

JUN 2 - 2017

Refer to NMFS No: FPR-2017-9209

Ms. Jolie Harrison
Chief, Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East West Highway
Silver Spring, Maryland 20910

RE: Endangered Species Act Section 7(a)(2) letter of concurrence on the issuance of Permit No. 20294 to Robert DiGiovanni Jr. for vessel and aerial surveys of blue, fin, North Atlantic right, sei, and sperm whales.

Dear Ms. Harrison:

On March 17, 2017, the National Marine Fisheries Service (NMFS), Office of Protected Resources, Endangered Species Act Interagency Cooperation Division received your request for written concurrence that the issuance of a scientific research permit (No. 20294) to study several marine mammal species listed under the Endangered Species Act as amended (ESA; 16 U.S.C. 1531 et seq.) and non-listed marine mammals is not likely to adversely affect ESA-listed species. Permit No. 20294 would be issued to Robert DiGiovanni Jr., Ph.D., University of North Carolina Wilmington (the applicant), pursuant to section 104 of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 et seq.) to authorize vessel and aerial surveys of blue (*Balaenoptera musculus*), fin (*Balaenoptera physalus*), North Atlantic right (*Eubalaena glacialis*), sei (*Balaenoptera borealis*), and sperm (*Physeter macrocephalus*) whales, as well as other non-ESA-listed cetaceans. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at (50 CFR Part 402), and agency guidance for preparation of letters of concurrence.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with agency guidelines issued under section 515 of the Treasury and General Government Appropriations Act of 2001 (Data Quality Act; 44 U.S.C. 3504(d)(1) and 3516). This letter of concurrence will be made available through NMFS' public consultation tracking system, refer to consultation number FPR-2017-9209. A complete record of this consultation is on file at the NMFS Office of Protected Resources, ESA Interagency Cooperation Division.

Below we describe the timeline of our informal consultation with the Permits and Conservation Division (hereafter the Permits Division), the proposed action, the ESA-listed species that may be affected by the proposed action including the Permit Division's determinations, and the minimization measures included in the proposed action to avoid adverse effects to these species. We then consider whether the proposed action is likely to adversely affect ESA-listed species.



Consultation History

On January 18, 2017, the Permits Division provided us a draft of Mr. DiGiovanni Jr.'s application as part of the review and comment process. On March 17, 2017, the Permits Division sent us a memorandum requesting formal consultation on the issuance of Permit No. 20294. At this time, we informed the Permits Division that the proposed research activities may constitute take under the MMPA, but not necessarily under the ESA, in which case formal consultation would not be required. On April 12, 2017, the Permits Division provided additional information and clarification and informed us that the draft permit was being revised. On May 9, 2017, the Permits Division sent an updated permit.

Under the ESA, "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." "Harm" under the ESA is defined by regulation (50 CFR §222.102) as "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering." "Harass" under the ESA is defined by NMFS guidance as to "create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering" (NMFS 2016c).

Under the MMPA, "take" is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal" (16 U.S.C. 1361 et seq.) and further defined by regulation (50 C.F.R. §216.3) as "to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal. This includes, without limitation, any of the following:

- the collection of dead animals, or parts thereof;
- the restraint or detention of a marine mammal, no matter how temporary;
- tagging a marine mammal;
- the negligent or intentional operation of an aircraft or vessel;
- the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal;
- feeding or attempting to feed a marine mammal in the wild."

For purposes of this action, harassment is defined under the MMPA as any act of pursuit, torment, or annoyance which:

- has the potential to injure a marine mammal or marine mammal stock in the wild (Level A Harassment); or
- has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B Harassment).

Given the different definitions of take under the MMPA and ESA, there are circumstances in which an act may constitute take under one statute but not the other. Based on our evaluation of the application for Permit No. 20294, our previous biological opinions (opinions) on permits for Mr. DiGiovanni Jr. (Permit Nos. 15575 and 1036-1744), and discussions with the Permits

Divisions during early consultation, we determined that the proposed action was such a case in which take was likely to occur under the MMPA, but not the ESA.

This determination differs from our, and the Permits Division's, previous determinations regarding Mr. DiGiovanni Jr.'s research activities. Previously, we formally consulted with the Permits Division on the issuance prior permits for Mr. DiGiovanni Jr. (Permit Nos. 15575 and 1036-1744). At the time these previous permits were proposed, we and the Permits Division conservatively considered that the effects of the proposed actions were likely to result in take under both the ESA and MMPA. As a result, the proposed actions were likely to adversely affect ESA-listed species and we conducted formal consultation resulting in several biological opinions (e.g., NMFS 2005; NMFS 2012a). In our effects analyses in these opinions, we determined that blue, fin, North Atlantic right, sei, and sperm whales were likely to exhibit behavioral responses to the proposed vessel and aerial surveys, ranging from no response to sub-lethal, short-term behavioral responses (NMFS 2005; NMFS 2012a). After re-evaluating these effects, and discussing with the Permits Division in a meeting on January 5, 2017, we recommended the Permits Division consider the possibility that the proposed research may not result in take under the ESA and thus, may not be likely to adversely affect ESA-listed species.

On March 17, 2017, the Permits Division sent us a memorandum requesting concurrence on their determination that the issuance of Permit No. 20294 was not likely to adversely affect ESA-listed species. In this request, the Permits Division noted that the Permit would be issued as both an MMPA and ESA permit. However, in further discussion with the Permits Division we confirmed that no ESA take would be authorized, and the permit would be modified such that it would be issued only under the MMPA. As a result, we informed the Permits Division that initiation of formal consultation was not required, and we would work toward completing informal consultation.

Proposed Action and Action Area

The proposed action for this consultation is the issuance of a scientific research permit (Permit No. 20294) to Mr. Robert DiGiovanni Jr. to authorize take of ESA-listed blue, fin, North Atlantic right, sei, and sperm whales, in addition to several non-ESA-listed cetaceans, in the form of harassment under the MMPA. Under the MMPA, take of all age classes and both sexes would be authorized. No take of blue, fin, North Atlantic right, sei, and sperm whales under the ESA would be authorized since, as discussed above, the proposed research would not rise to the level of take under the ESA. The proposed research would involve both aerial and vessel surveys of cetaceans in the Mid Atlantic Ocean coastal and offshore waters from Rhode Island to North Carolina, over a five-year period (June 1, 2017 to May 31, 2022). Below we provide a brief description of aerial and vessel surveys as proposed by Mr. DiGiovanni Jr.

The Permits Division proposed to authorize Mr. DiGiovanni Jr. to conduct aerial surveys of ESA-listed (and non-ESA-listed) cetaceans in order for researchers take photographs and collect observational data. During aerial surveys, a team of researchers and two pilots would fly over tracklines from a fixed-wing aircraft. For inshore surveys, a Cessna 172 will be used and for offshore surveys, a high-wing twin engine aircraft will be used. Aerial surveys will be flown along the predetermined tracklines at an altitude of 600 feet at 100 knots in search of cetaceans. To determine abundance estimates the surveys will be flown in accordance with line transect protocols and distance sampling. The general procedure is to fly a straight line, which has been

randomly generated prior to the flight, and record any animals observations made from that line. Once an animal is observed, the data recorder will mark a sighting, which collects the location (using global positioning system (GPS) technology) and time. The observer will then record the angle to the animal from the aircraft, swim direction, species, group size and animal swim direction and behavior. Photo documentation will be conducted if identification is needed. It is estimated that less than half of the animals sighted would require circling for identification. During the photo identification of animals, the aircraft will not fly below 600 feet or circle on an animal if its behavior appears abnormal (swimming to avoid the aircraft, diving frequently). Circling for identification would not exceed six orbits. If at any point during circling researchers observe animals responding to the aircraft, they would minimize or curtail sighting efforts in order to avoid adverse affects.

The Permits Division also proposed to authorize Mr. DiGiovanni Jr. to conduct vessel surveys in order to collect photographs and observational data on ESA-listed and non-listed cetaceans. The exact vessel survey details (vessel size, number of researchers, etc.) would vary depending on the project and the research team conducting the vessels surveys. However, all would use the same general methods described here.

Three researchers would search for cetaceans along pre-determined tracklines (and on occasion opportunistically elsewhere) from research vessels, traveling 10 knots. If an animal such as a North Atlantic right whale is observed, the researchers will approach to obtain identification photos. Approaches will not be from the head direction and researchers will not approach within 20 yards. If the animal is exhibiting avoidance behavior (changing directions erratically) we will abort efforts for photo identification. Researchers will not approach animals at speeds of greater than 10 knots and will stay 20 yards off the site with minimized viewing time of less than 30 minutes. If at anytime during vessel surveys animals appear to be effected by the vessels presence, researchers would cease efforts to avoid adverse impacts.

On an annual basis, the Permits Division proposes to authorize the follow number of annual MMPA takes (no take would be authorized under the ESA) as the result of harassment associated with aerial and or vessel surveys under Permit No. 20294: 20 blue whales, 800 fin whales, 350 North Atlantic right whales, 480 sei whales, and 400 sperm whales. These numbers do not necessarily represent the number of individual animals that would be exposed to aerial and vessel surveys, as some animals may be exposed more than once in any given year.

Minimization Measures

In his permit application, Mr. DiGiovanni Jr. specifies the following measures designed to avoid adversely affecting ESA-listed species.

“When animals are located the survey aircraft will circle for photographs. If the animal appears to be showing avoidance behavior, diving to avoid the aircraft or abrupt changes in direction, our efforts we cease and return to survey track line. Vessel and land based surveys will use telephoto lenses to maximize the distance we can stay from the animal.”

In addition, the Permits Division proposes to include the following terms and conditions designed to avoid adverse effects to ESA-listed species (based draft permit as of May 9, 2017):

1. Researchers must immediately stop permitted activities and the Permit Holder must contact the Chief, NMFS Permits and Conservation Division (hereinafter “Permits Division”) for written permission to resume:

- a. If serious injury or mortality of protected species occurs.
 - b. If authorized take is exceeded in any of the following ways:
 - i. More animals are taken than allowed in this permit.
 - ii. Animals are taken in a manner not authorized by this permit.
 - iii. Protected species other than those authorized by this permit are taken.
 - c. Following incident reporting requirements
2. Researchers must approach animals cautiously and retreat if behaviors indicate the approach may be interfering with reproduction, feeding, or other vital functions.
3. Researchers must immediately terminate efforts if animals exhibit avoidance and/or evasive behaviors.
4. If animals are encountered during permitted research that are entangled or have evidence of human interaction that require closer observation, additional follow up, or tracking to monitor location, you must report these encounters and takes under the Marine Mammal Health Stranding Response Program.
5. Where females with calves are authorized to be taken, Researchers:
 - a. Must immediately terminate efforts if there is any evidence that the activity may be interfering with pair-bonding or other vital functions;
 - b. Must not position the research vessel between the mother and calf;
 - c. Must approach mothers and calves gradually to minimize or avoid any startle response;
 - d. Must discontinue an approach if a calf is actively nursing; and
 - e. Researchers must not approach a right whale calf that appears unusually thin or emaciated.
6. Manned aerial surveys must be flown at an altitude of 305 meters (1,000 feet).
7. To minimize disturbance: If an animal shows a response to the presence of the aircraft, the aircraft must leave the vicinity and either resume searching or continue on the line-transect survey.
8. This permit does not authorize takes of any protected species not identified in this permit, including those species under the jurisdiction of the United States Fish and Wildlife Service (e.g., manatees). Should other protected species be encountered during the research activities authorized under this permit, researchers must exercise caution and remain a safe distance from the animal(s) to avoid take, including harassment.
9. Individuals conducting permitted activities must possess qualifications commensurate with their roles and responsibilities.

Affected ESA-listed Species

The species that may be affected by the proposed action are listed below in Table 1, along with links to the Federal Register notices for their ESA-listings and recovery plans, and the Permits Division determination regarding the effects of the proposed action to each species. Blue, fin, North Atlantic right, sei, and sperm whales are the target ESA-listed species for this research (in addition to other non-ESA-listed cetaceans). The ESA-listed turtle species may be present within the action area but no interaction with these species would be authorized.

Table 1: Endangered Species Act listed species that may be affected by the proposed action. E – Endangered, T – Threatened, NLAA – Not likely to adversely affect.

Species	ESA Status	Critical Habitat	Recovery Plan	Permits Division Determination
Blue Whale (<i>Balaenoptera musculus</i>)	E – 35 FR 18319	-- --	07/1998	NLAA
Fin Whale (<i>Balaenoptera physalus</i>)	E – 35 FR 18319	-- --	75 FR 47538	NLAA
North Atlantic Right Whale (<i>Eubalaena glacialis</i>)	E – 73 FR 12024	59 FR 28805 and 81 FR 4837	70 FR 32293	NLAA
Sei Whale (<i>Balaenoptera borealis</i>)	E – 35 FR 18319	-- --	76 FR 43985	NLAA
Sperm Whale (<i>Physeter macrocephalus</i>)	E – 35 FR 18319	-- --	75 FR 81584	NLAA
Green Turtle, (<i>Chelonia mydas</i>) – North Atlantic DPS	T – 81 FR 20057	63 FR 46693	63 FR 28359	NLAA
Hawksbill Turtle (<i>Eretmochelys imbricata</i>)	E – 35 FR 8491	63 FR 46693	57 FR 38818	NLAA
Kemp's Ridley Turtle (<i>Lepidochelys kempii</i>)	E – 35 FR 18319	-- --	75 FR 12496	NLAA
Leatherback Turtle (<i>Dermochelys coriacea</i>)	E – 35 FR 8491	44 FR 17710 and 77 FR 4170	63 FR 28359	NLAA
Loggerhead Turtle, (<i>Caretta caretta</i>) – Northwest Atlantic Ocean DPS	T – 76 FR 58868	79 FR 39856	63 FR 28359 74 FR 2995	NLAA

Effects of the Action

Under the ESA, “effects of the action” means the direct and indirect effects of an action on the ESA-listed species or designated critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR §402.02). The applicable standard to find that a proposed action is not likely to adversely affect ESA-listed species or designated critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take (as defined by the ESA) occurs. Discountable effects are those extremely unlikely to occur.

A variety of ESA-listed sea turtles may be found within the action area. In fact, in his application Mr. DiGiovanni Jr. notes that his research team has previously documented Kemp’s ridley, loggerhead, leatherback, green, and other unidentified sea turtles during aerial surveys. Thus, there is a potential that during aerial or vessel surveys, researchers may encounter ESA-listed turtles and disturb them. As noted in the request for concurrence and previous opinions on permits for Mr. DiGiovanni Jr., (NMFS 2005; NMFS 2012a; NMFS 2017b), responses to such disturbance likely range from no response, to low-level behavioral responses including startle responses, diving, and other changes in behavior. Data from Mr. DiGiovanni Jr.’s annual reports from past research efforts are consistent with this; to date, he has observed no response by sea turtles to his research activities (NMFS 2012b). With or without a behavioral response, turtles may also experience a physiological stress response. However, given that researchers would not break tracklines to observe turtles, and turtles would not be intentionally approached, encounters with turtles are likely to be extremely brief, if they even occur at all. Given the short-term nature of these encounters, and the possible behavioral and stress responses that may occur, we find that the effects of vessel disturbance to ESA-listed turtles are insignificant. In addition to disturbance, vessel transits associated with vessel surveys carry a risk of vessel strike for sea turtles. However, as we in our previous opinion on Mr. DiGiovanni Jr.’s most recent permit (Permit No. 15575), we find this possibility extremely unlikely since researchers would constantly be on the lookout for marine animals and vessels would typically be transiting at slow speeds (NMFS

2012a). In addition, we are aware of no instances of a research vessel striking a sea turtle in thousands of hours of at sea research permitted by the Permits Division. Thus, we find effects of vessel strike to sea turtles to be discountable.

ESA-listed blue, fin, North Atlantic right, sei, and sperm whales would all be exposed to aerial and vessel surveys. Based on previous consultations on permits issued to Mr. DiGiovanni Jr. and other similar research activities, and the Permits Divisions' request for concurrence, these species are likely to exhibit a variety of behavioral responses to aerial and vessel surveys, ranging from no response to short-term avoidance (e.g., diving, change in swimming speed/direction, etc.) and active lobtailing and/or breaching (NMFS 2005; NMFS 2012a; NMFS 2016a; NMFS 2017a; NMFS 2017b). In for Mr. DiGiovanni Jr.'s annual reports from previous research permits, he notes that whales typical exhibit no response to his research activities (NMFS 2012b). Regardless of the response, with the short-term nature of the encounters, whales are expected to resume species typical behavior within a matter of minutes of researchers leaving the area. Given the mild, short-term expected behavioral responses, we do not anticipate any meaningful effects to the fitness of individual whales from aerial and vessel surveys as proposed under Permit No. 20294. As such, we find the effects of aerial and vessel surveys on blue, fin, North Atlantic right, sei, and sperm whales to be insignificant.

Conclusion

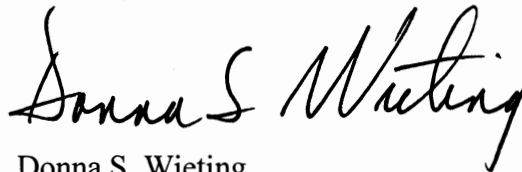
Based on this analysis, the NMFS ESA Interagency Cooperation Division concurs with the Permits Division that the proposed action may affect, but is not likely to adversely affect, ESA-listed species.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the federal agency, or by NMFS, where discretionary federal involvement or control over the action has been retained or is authorized by law and (1) new information reveals effects of the action that may affect an ESA-listed species or designated critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the ESA-listed species or designated critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed under the ESA or critical habitat designated that may be affected by the identified action (50 CFR §402.16).

Please direct questions regarding this letter to Maureen Trnka, NMFS Office of Protected Resources, ESA Interagency Cooperation Division, (301) 427-8454, maureen.trnka@noaa.gov.

Sincerely,



Donna S. Wieting
Director, Office of Protected Resources

Literature Cited

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- NMFS. 2012b. Permit No. 15575 Annual Reports. Office of Protected Resources, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Permit No. 15575, Silver Spring, Maryland.
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- NMFS. 2017b. Request for concurrence under the Endangered Species Act (File No. 20527). Office of Protected Resources, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Permit No. 20294, Silver Spring, Maryland.