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

FINDING OF NO SIGNIFICANT IMPACT

ON THE EFFECTS OF THE ISSUANCE OF 12 SCIENTIFIC RESEARCH PERMITS (File Nos. 16526, 16323, 16422, 16436, 16431, 16507, 16438, 16547, 16375, 16442, 16482, and 16508) TO CONDUCT SCIENTIFIC RESEARCH ON ATLANTIC STURGEON

National Marine Fisheries Service

Background:

From April 19 to August 22, 2011, the National Marine Fisheries Service (NMFS) received twelve (12) applications for permits (File Nos. 16526, 16323, 16422, 16436, 16431, 16507, 16438, 16547, 16375, 16442, 16482, and 16508) from the University of Maine; Connecticut Department of Environmental Protection; Stony Brook University; New York State Department of Environmental Conservation; Delaware DFW; Delaware State University; Environmental Research and Consulting; USFWS, Virginia Fisheries Resource Office; North Carolina Cooperative Fish and Wildlife Research Unit; South Carolina Department of Natural Resources; Warnell School University of Georgia; U.S. Geological Survey, and Florida Integrated Science Center, respectively, to conduct research on Atlantic sturgeon in the East Coast of the United States.

In accordance with the National Environmental Policy Act, NMFS has prepared an Environmental Assessment (EA) analyzing the impacts on the human environment associated with issuance of permits (*Environmental Assessment for the Issuance of Scientific Research Permits (File Nos. 16526, 16323, 16422, 16436, 16431, 16507, 16438, 16547, 16375, 16442, 16482, and 16508) for Research on Atlantic Sturgeon*). In addition, a Biological Opinion was issued under the Endangered Species Act (ESA) (NMFS 2012) summarizing the results of an interagency consultation. The analyses in the EA, as informed by the Biological Opinion, support the following findings and determination.

Analysis:

The National Oceanic and Atmospheric Administration's Administrative Order 216-6 (May 20, 1999) for implementing NEPA, contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) NEPA implementing regulations at 40 C.F.R. 1508.27 state the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

(1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson - Stevens Act and identified in Fishery Management Plans?

Response: The permitted taking of sturgeon would occur in marine areas, estuaries and freshwater rivers frequented by Atlantic sturgeon on the East Coast of the United States. No coral reef, seagrass beds and other sensitive ecosystems occur in the action areas of the proposed activities,

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and thus none would be affected.

Designated EFH does exist for federally managed species in the individual proposed action areas of permits. Specifically, the tidally mixed areas and near shore marine areas have designated EFH.

NMFS PR contacted the Northeast and Southeast Regional Offices of Habitat Conservation by email on September 2, 2011, asking for concurrence with our conclusion that the permitted activities would not likely impact EFH for other managed species in the action area. The Offices sent confirmation to NMFS PR agreeing that the proposed methods of capture Atlantic sturgeon would have minimal impacts on designated Essential Fish Habitat in proposed action areas. Thus, no further consultation was necessary.

(2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: No substantial impacts on biodiversity or ecosystem function within the action areas are expected. The bottom substrate of the proposed action areas, upon which the benthic productivity is largely dependent, consists of sandy loam sediment, mud flats, and some deep and shallow rocky substrate in the channels and off drop-offs of elevated shoreline. The impacts to bottom substrate would typically be during capture; however, due to the minimal contact by nets in localized areas— in addition to the proposed mitigation measures set forth in the permit for trawling—NMFS expects minimal disturbance of the benthic organisms and substrate.

Due to the nature of netting, NMFS would however expect some other non-targeted species would become enmeshed. However, non-target fish would be removed from the nets and released at the site of capture at short intervals, and it is believed that virtually all by-catch would be released alive without long-term effects on predator-prey relationships. Ecosystem function would not be substantially impacted for other species with the potential to be affected by the proposed research. It is also expected some juvenile and adult shortnose sturgeon (*Acipenser brevirostrum*) would be taken during sampling for Atlantic sturgeon. With respect to bycatch of shortnose sturgeon, the researchers would monitor gill nets closely, and if shortnose sturgeon are captured, NMFS would require similar netting protocols and standard research conditions in the permit for Atlantic sturgeon be used for ensuring shortnose sturgeon survival.

(3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: Issuance of the permit modifications is not expected to have substantial adverse impacts on public health or safety. These actions would involve the use of 95% ethanol pre-measured in vials for preservation, storage, and transportation of tissue samples. Also pre-measured MS-222 powder would be used for anesthetizing shortnose sturgeon during surgery. However, researchers are well aware of handling these chemicals correctly and would take normal safety measures. They would also be advised in the permit to dispose of the chemicals safely following state-approved measures.

(4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: Due to the scope and range of the Proposed Action, other listed species, their critical habitat, marine mammals, or other non-targeted species could be affected. Shortnose sturgeon are currently listed as an endangered species under NMFS jurisdiction, co-occurring closely with Atlantic sturgeon in each of the described action areas. Further, because shortnose and Atlantic sturgeon are comparable species sharing similar life history and habitat types, NMFS concludes current shortnose sturgeon scientific research highly influences the scope of proposed Atlantic sturgeon research analyzed in this EA and supported by the accompanying Biological Opinion. Permitted activities for both species require standard NMFS research and mitigation protocols to minimize stress and harmful effects on the species. The proposed research activities were determined to potentially have adverse effects on individual endangered shortnose sturgeon, but the effects were not expected to be significant on individual levels nor were they expected to be significant at the population or species level. Shortnose sturgeon do not have any critical habitat designated.

With respect to the endangered Atlantic salmon in the GOM and of overlapping range of designated critical habitat with Atlantic sturgeon, NMFS PR concludes the proposed research methods on Atlantic sturgeon in File No. 16526 may potentially have impacts on Atlantic salmon. However, because the methods proposed by sturgeon researchers in the GOM, and the limited historical interactions with Atlantic salmon over an extended period of time, NMFS concludes adherence to proposed protective measures for Atlantic salmon would likely minimize salmon interactions. Atlantic salmon specialists in the NMFS Northeast Region (Orono, ME) analyzed the potential impacts of research proposed and concurred with NMFS PR, stating that "overall, NMFS [Northeast Office of Protected Resources] does not expect the proposed Atlantic sturgeon sampling effort in the GOM would result in increased interactions with Atlantic salmon so long as the recommended gear modifications and proposed area restrictions with protective measures were adhered to." Thus, no incidental capture or mortality for Atlantic salmon would be authorized for Atlantic salmon in the action area.

With respect to endangered sea turtles, NMFS concludes that the proposed Atlantic sturgeon research methods in File Nos. 16547 and 16482 may likely adversely affect sea turtles. In these respective action areas in Chesapeake Bay tributaries and Georgia Rivers, although up to two sea turtles could potentially be captured in each research proposed, turtles would likely not be subject to lethal capture. Within impacted zones when turtles could be present, anchored net sets would be set for 30 minutes or less between checks and would be constantly tended. Also drift nets would be fished "floating" at the surface, constantly tended by the research team. Due to the precautions taken, the potential for mortality or serious harm of the turtle would be considered minimal in each action area. Additionally, personnel handling turtles would be trained in resuscitation techniques for turtles, and thus, none would be expected to be at risk of mortality.

With respect to impacts on marine mammals in individual permit actions, NMFS does not anticipate serious interactions with marine mammals due to precautionary measures researchers would agree to in permit conditions when netting in coastal or estuarine areas where marine mammals might be present. Likewise, NMFS believes any bycatch of non-protected species encountered would be returned to the water with minimal exposure to handling stress. That is, because nets would typically be checked at varied short intervals as dictated by temperature and dissolved oxygen concentrations, NMFS considers virtually all bycatch would be released alive.

(5) Are significant social or economic impacts interrelated with natural or physical

environmental effects?

Response: Effects of the research would be limited to the described impacts of the target and non-target species. Permitting the proposed research could result in a low level of economic benefit to local economies in the individual action areas. However, such impacts would be negligible on a national or regional level and therefore are not considered significant. These impacts are not interrelated with any natural or physical impacts. The Proposed Action would not result in inequitable distributions of environmental burdens or affect access (short- or long-term use) to any natural or depletable resources in the action areas.

(6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: A Notice of Receipt of the applications was published in the Federal Register (76 FR 58469, September 21, 2011) announcing the availability of the applications for permit and related documents for public comments (File Nos. 16526, 16323, 16422, 16436, 16431, 16507, 16438, 16547, 16375, 16442, 16482, and 16508). Comments received from the public regarding the applications were requests to review the applications. However, none were controversial and were addressed by advising the individual where to search online for the applications. Comments from NMFS Southeast and Northeast Regional Offices, Science Centers, and expert reviewers were also solicited and appropriately addressed within the EA and decision memos with respect to how the permit would authorize standard, well known and non-controversial research techniques.

(7) Can the proposed action be reasonably expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: Each of the research methods in the proposed permits have been analyzed under the current EA and the activities would not be expected to result in significant impacts to any unique areas mentioned above. Examples of such areas occurring in the proposed action areas include national parks and wildlife refuges, many state parks and conservation areas, and a variety of fishery management closure areas used to protect federal and state fisheries, including those established to recover over-fished stocks, protect by-catch species, or protect essential fish habitats (EFH). The following web site, http://www.mpa.gov/dataanalysis/mpainventory/mpaviewer/ was made available to researchers and included in the EA detailing locations and descriptions of Marine Protected Areas (MPAs) within each of the proposed action areas. As described, these areas have varying levels of access to recreational and commercial activities, seasonal protection levels and site specific management plans. However, most are managed for multiple uses, accessible year round, having few restrictions. In these areas where clear restrictions exist for access, researchers would be required to obtain proper authorization for research from the local regulating authority. Through this process, researchers would be made aware by the maintaining authority of local restrictions established for the protected area; or more formalized permits would be required having specific conditions in place guarding against adverse impacts to protected resources.

In any case, researchers would be responsible for obtaining permits, or complying with any other Federal, State, local, or international laws or regulations necessary when carrying out their actions.

Additionally, as stated above, with respect to anticipated effects on EFH by sampling gear and boating activities, NMFS concluded these would result in minimal disturbance to the physical environment, including the bottom substrate and any portion having EFH.

(8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: Potential risks by proposed research methods are not unique or unknown, nor is there significant uncertainty about impacts. Monitoring reports from other permits of similar nature, and published scientific information on impacts of research on comparable sturgeon species (i.e., shortnose sturgeon), indicate the proposed activities would not result in significant adverse impacts to the human environment or the species. There is also considerable scientific information available on the minimal likelihood of such impacts.

(9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: Although the environmental effects associated with authorizing scientific research on Atlantic sturgeon have been limited because the animal is newly ESA listed, currently three EAs have been prepared for Atlantic sturgeon research associated with ESA Section 6 grants to the states. However, a large number of other EAs and SEAs have previously been prepared on the effects of similar research techniques related to shortnose sturgeon.

Because shortnose and Atlantic sturgeon are comparable species sharing similar life history and habitat types, NMFS concludes current shortnose sturgeon scientific research highly influences the scope of proposed Atlantic sturgeon research analyzed in this EA. The majority of the applicants applying for Atlantic sturgeon research permits have previously participated or are currently participating in both shortnose and Atlantic sturgeon studies. This arrangement is expected to continue in the future. The EA for the Proposed Action summarizes the currently issued NMFS permits issued for shortnose sturgeon, as well as the titles of Section 6 grants for Atlantic sturgeon research for which EAs or SEAs were prepared. Each of these NEPA documents individually resulted in a Finding of No Significant Impact (FONSI) determination and each action was not considered controversial.

However, with respect to increased impacts on other listed species from issuance of 12 new ESA permits authorizing study of Atlantic sturgeon, NMFS does not anticipate the level and frequency of takes would increase for either listed sturgeon species. Likewise, permits would not be expected to increase the cumulative impacts on shortnose or Atlantic sturgeon. Concurrent takes of either species would be accounted for separately through biological opinions measuring the cumulative impacts for each species. Further, the shortnose sturgeon research would continue regardless of issuing new permits authorizing Atlantic sturgeon research. Thus impacts to Atlantic sturgeon resulting from shortnose sturgeon research would still occur. Lastly, when existing takes in permits have been exhausted for either species where ranges overlap, researchers would be required to cease studies on either species until their permits have either been modified to provide additional takes, or the anniversary date of permit issuance authorizes a new cycle of annual takes. Consequently, the Biological Opinion for the Proposed Action concludes that each of the individual actions would be expected to have no more than short-term effects on individual listed animals and no effects on other aspects of the environment. Further, the incremental impacts of

the actions when added to other past, present, and reasonably foreseeable future actions discussed in the EA would be minimal and not significant.

(10) Is the proposed action likely 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?

Response: The action would not take place in any district, site, highway, structure, or object listed in or eligible for listing in the National Register of Historic Places, thus none would be impacted. See Response #7 for a discussion about managed protected areas. Research will not occur in National Marine Sanctuaries. Where the Proposed Action would occur in other areas of significant scientific, cultural or historical resources, NMFS PR considers the proposed fishery research would have very limited environmental impact, if any, to these significant resources. The research methods in the proposed permits have been analyzed under the current EA, and the activities would not be expected to result in significant impacts to any unique areas mentioned above. Thus, none of these resources are expected to be directly or indirectly impacted.

(11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: The U.S. Geological Survey has documented several aquatic nuisance species occurring in the proposed research area having potential to be spread by research into adjacent watersheds. However, the applicants are instructed to follow certain conditions proposed by NMFS (outlined in the accompanying EA) minimizing the potential spread of these aquatic nuisance species. Therefore, the proposed research activities would not be expected to result in introduction or spread of non-indigenous species to other watersheds. The research activities would also not involve discharging bilge water or other issues of concern relative to non-indigenous species.

(12) Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Response: The decision to issue these 12 research permits in the Proposed Action would not be precedent setting nor would it affect any future decisions. NMFS has issued numerous scientific research permits to study shortnose sturgeon pursuant to section 10 of the Endangered Species Act; thus, this is not the first permit NMFS has issued for this substantially related research activity. Issuance of permits or permit modifications, to a specific individual or organization for a given similar research activity, does not in any way guarantee or imply NMFS would authorize other individuals or organizations to conduct the same research activity. Any future requests received, including those by the applicants, would be evaluated upon their own merits relative to the criteria established in the ESA and NMFS' implementing regulations.

(13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: Issuance of the 12 proposed permits is not expected to violate any Federal, State, or local laws for environmental protection. NMFS has sole jurisdiction for issuance of such permits for Atlantic sturgeon and has determined the proposed research activities are consistent with

applicable provisions of the ESA. The permits contain language stating the permits do not relieve the Permit Holders of the responsibility for obtaining other permits, or complying with other Federal, State, local, or international laws or regulations.

(14) Can the proposed action reasonably be expected to result in cumulative adverse effects having a substantial effect on the target species or non-target species?

Response: NMFS concludes procedures proposed in the individual actions would have potential for adverse effects on individual target animals; however, because the Atlantic sturgeon are robust responding well to handling, the cumulative effects on the population are not likely long-term or significant to the species. Additionally, NMFS established in permits requirements for monitoring for interactions with shortnose sturgeon, placing conditions in the permit detailing procedures to be used if shortnose sturgeon are incidentally captured.

Likewise, the EA considers impacts from interactions with other protected species such as Atlantic salmon, sea turtles or marine mammals. Although based on historical records, interactions with these species would be anticipated as extremely rare, sampling methods would be used to minimize contact and would also be conditioned to minimize adverse effects of boating and netting activities. Where takes of protected species are anticipated, such takes would be provided for through incidental take provision of the Biological Opinion produced for the proposed action.

Finally, the Biological Opinion prepared for issuing permits for File Nos. 16526, 16323, 16436, 16422, 16438, 16431, 16507, 16547, 16375, 16442, 16482, and 16508 provides an integration and synthesis of the information about the status of the species, past and present activities affecting these species, possible future actions that might affect the species, and effects of the Proposed Action, to provide a basis for determining the additive effects of the take authorized in this permit on ESA listed sturgeon, in light of their present and anticipated future status. The conclusion of the Biological Opinion for issuing these permits was that the Proposed Action would not likely jeopardize the continued existence of Atlantic sturgeon, shortnose sturgeon, Atlantic salmon or sea turtles.

DETERMINATION

In view of the information presented in this document and the analyses contained in the EA prepared for issuance of the permit, pursuant to the ESA, and the ESA section 7 Biological Opinion, it is hereby determined that the issuance of Permit Nos. 16526, 16323, 16422, 16436, 16431, 16507, 16438, 16547, 16375, 16442, 16482, and 16508 would not significantly impact the quality of the human environment as described above. In addition, all beneficial and adverse impacts of the proposed action have been addressed, reaching the conclusion of no significant impacts. Accordingly, preparation of an Environment Impact Statement (EIS) for this action is not necessary.

Helen Golde
Acting Director, Office of Protected Resources

4/2/12
Date