

PERMIT TO INCIDENTALLY TAKE ENDANGERED/THREATENED SPECIES

I. AUTHORIZATION

Dr. David Hata, Virginia Polytechnic Institute (VPI), is hereby authorized to incidentally take the endangered and threatened sea turtles specified below while conducting trawling activities in the state and Federal waters of Cape Cod, Massachusetts to the Georgia-Florida border in the manner specified in the Permit Holder's January 10, 2005 application and supporting documents, subject to the provisions of Section 10 of the Endangered Species Act of 1973 (ESA)(16 U.S.C. " 1531-1543), the National Marine Fisheries Service (NMFS) regulations governing listed species permits (50 CFR Parts 222 and 223), and the conditions hereinafter set forth.

II. ABSTRACT

On January 10, 2005, VPI applied for an incidental take permit (ITP) for ESA-listed sea turtles associated with otherwise lawful trawling activities in state and Federal waters of Cape Cod, Massachusetts, to the Georgia-Florida border. On April 14, 2005, NMFS published a notice of receipt of VPI's application (ITP 1529) in the Federal Register (70 FR 19733). The comment period ended on May 16, 2005, and no comments were received.

The proposed research activity will consist of annual horseshoe crab abundance monitoring surveys and associated studies to evaluate survey methodology. The annual trawl surveys will provide abundance, distribution and demographic information in support of the horseshoe crab Fishery Management Plan of the Atlantic States Marine Fisheries Commission. The surveys will be conducted from Cape Cod, Massachusetts, to the Georgia-Florida border. Sampling consists of approximately 48 days at sea for a total of 250 tows deploying flounder and whelk trawls intended to capture horseshoe crabs for examination and enumeration. Tows will be no longer than 15 minutes of bottom time and will be conducted at night from mid-August through mid-November. Turtle excluder devices will not be installed in the trawl gear because these devices may hinder capture of horseshoe crabs. Thus, it is anticipated that the unmodified gears will capture fish and sea turtles.

The application submitted by VPI requested permission to take Kemp's ridley, green and loggerhead sea turtles, shortnose sturgeon, smalltooth sawfish, and Atlantic salmon. NMFS has determined that only listed sea turtles are likely to be taken. NMFS anticipates that each year the applicant may take: leatherback 1 live or dead; loggerhead 34 live 2 dead; Kemp's ridley 14 live and 1 dead; and green 2 live and 1 dead.

*Conservation Plan*

The conservation plan prepared by the applicant describes measures designed to monitor, minimize, and mitigate the incidental takes of ESA-listed sea turtles. The conservation plan includes limiting sampling effort in areas and times where sea turtles are likely to be present; avoiding coral and rock habitats associated with hawksbills and areas of submerged aquatic vegetation associated with green turtles; using minimal tow durations; avoiding areas of high fishing vessel activity which may attract foraging sea turtles and may increase the chance of multiple captures.

All activities will be conducted under the direct supervision of scientific parties from Virginia Tech. Sampling will not be conducted when sea turtles are observed in the area. If a sea turtle is captured, all efforts will be made to release the turtle as quickly as possible with minimal trauma.

If necessary, resuscitation will be attempted as proscribed by 50 CFR 223.206. Scientific parties will be familiarized with resuscitation techniques prior to surveys, and a copy of the resuscitation guidelines will be carried aboard the vessel during survey activities. In the event resuscitation is unsuccessful, the sea turtle will be transferred to the sea turtle stranding network of the appropriate jurisdiction. Other monitoring or mitigation actions will be undertaken as required.

The applicant considered and rejected three other alternatives, not applying for a permit, conducting the research in an area where ESA-listed species do not occur, or using different sampling gear when developing their conservation plan.

This conservation plan will be funded through grant funds supporting the research activities.

### III. INCIDENTAL TAKE AUTHORIZATION

Listed Species Affected:

#### Endangered

Leatherback turtle	<i>Dermochelys coriacea</i>
Green turtle	<i>Chelonia mydas</i> *
Kemp's ridley turtle	<i>Lepidochelys kempii</i>
Hawksbill	<i>Eretmochelys imbricata</i>

#### Threatened

Loggerhead turtle	<i>Caretta caretta</i>
-------------------	------------------------

\* *Green turtles in U.S. waters are listed as threatened except for the Florida breeding population, which is listed as endangered. Due to the inability to distinguish between these populations away from the nesting beach, green turtles are considered endangered wherever they occur in U.S. waters.*

NMFS anticipates that each year the applicant may take: leatherback 1 live or dead; hawksbill 1 live or dead; loggerhead 34 live 2 dead; Kemp's ridley 15 live and 1 dead; and green 3 live and 1 dead. If incidental captures reach the established level, VPI must cease activities authorized under this ITP. Take must be incidental to otherwise lawful research trawling activities described in the ITP application, and as conditioned herein. This ITP covers incidental take from date of issuance through December 15, 2011.

### IV. CONDITIONS OF PERMIT

The incidental take of ESA-listed sea turtles is authorized during activities as described in the application and subject to both the provisions of the conservation plan and the conditions specified in this ITP.

#### 1. Conditions to Monitor, Minimize, and Mitigate Impacts to Listed Species

1. *Tow times.* Tow times shall not exceed 15 minutes.

2. *Gear.* Trawl gear may only be deployed.

3. *Benthic Habitat.* Certain habitats such as coral or rock areas and submerged aquatic vegetation, important feeding areas for hawksbill and green sea turtles, will be avoided because of the potentially destructive nature of the proposed sampling gear and possible impacts on sea turtles.

4. *Sea Turtle Handling and Resuscitation Requirements.* All incidentally captured sea turtles must be handled as follows:

(1) Any specimen taken incidentally during the course of scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

(A) Sea turtles that are actively moving must be released over the stern of the boat. In addition, they must be released only when scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.

(B) Resuscitation must be attempted on sea turtles that are comatose, or inactive by:

(1) Placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 up to 24 hours. The amount of the elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.

(2) Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.

(3) Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be retained for scientific purposes. VPI will preserve the specimen (by placing it on ice) until it can be determined who will receive the specimen from VPI. VPI will contact the Chief, Marine Mammal and Turtle Division, Office of Protected Resources, National Marine Fisheries Service (address and phone listed under IV. B.) to make this determination.

(C) A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any specimen taken incidentally during the course of scientific research activities must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

5. *Gulf Sturgeon Handling Requirements.* Should a Gulf sturgeon be taken incidentally during the course of trawling, it should be returned to the water immediately. Sturgeon tend to inflate their swim bladder when stressed and in air. (If the fish has air in its bladder, it will float and be susceptible to sunburn or bird attacks.) Efforts should be made to return the fish to neutral buoyancy prior to and during release. Air can be released by gently applying ventral pressure in a posterior to anterior direction. The specimen should then be propelled rapidly

downward during release. For help with any questions relating to Gulf sturgeon, VPI should contact Stephania Bolden, Protected Resources, Southeast Regional Office, NMFS, at (727) 824-5312 (Fax: 727-824-5309).

6. *Additional Restrictions.* If observed interactions with sea turtles within the waters covered by this ITP reach thresholds specified in the AUTHORIZED INCIDENTAL TAKES section of this permit, VPI must immediately stop all trawling activities. VPI must then consult with NMFS to determine the appropriate next steps.

B. Reporting Requirements

1. *Take Reports.* All sea turtle incidental takes during VPI research trawling activities must be reported to the Chief, Marine Mammal and Turtle Division, Office of Protected Resources, NMFS, via phone (301-713-2322) or facsimile (Fax: 301-427-2522) within 24 hours of their occurrence. If a facsimile is not available within 24 hours of the take event, a hard copy of the report should be faxed or mailed as follow up (see 2. below for mailing address). Reports of the incidental take should include the date of the take, the condition of the turtle, the species (if known), and any other pertinent details of the circumstances of the of the taking (e.g. location.).

2. *Annual Report.* An annual report must be submitted to:

Chief, Marine Mammal and Turtle Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, Maryland 20910

on or before March 15 following the end of each permit period. The annual report must include:

- a. A report of the total sea turtle takes during the trawling activities authorized under the permit;
- b. An assessment of the variables, which may have contributed to the incidental capture of a sea turtle (e.g. gear deployment characteristics, trawl time, time of year, water temperature, location, depth);
- c. A report of the total number of sea turtles encountered ensnared in fishing lines, nets, and trap ropes and assisted under the conservation plan for this permit. The report should list the species encountered, their estimated size, location and date of encounter, and the condition of the turtle. If any of these sea turtles required care and were transported to a rehabilitation facility, the report will include the date of transportation, any details relative to the care given the turtle, and its current condition, status, and location; and,

d. A summary of any other interactions with threatened or endangered species (e.g. manatee).

3. *Final Report:* The Permit Holder must submit a final report within one hundred eighty (180) days of the expiration of this Permit summarizing the total take that occurred under the permit and the circumstances surrounding it. Reports must be submitted to:

Chief, Marine Mammal and Turtle Division,  
Office of Protected Resources, National Marine Fisheries Service  
1315 East-West Highway, Silver Spring, Maryland 20910,  
tel: (301) 713-1401, fax: (301) 427-2522.

C. General Permit Conditions

1. The Permit Holder may not transfer or assign this permit to any other person(s), as person is defined in Section 3(12) of the ESA. This permit is not in force or effective if transferred or assigned to any other person.
2. Upon request by the Director of the Office of Protected Resources, the Permit Holder must permit any employee(s) of NMFS, or any other person(s) duly designated by the Director, to inspect the Permit Holder's records and facilities if such records and facilities pertain to activities for which a take of ESA-listed species is authorized by this permit, relate to ESA-listed species covered by this permit, or pertain to the Director's responsibilities under the ESA.
3. The provisions of this permit may be amended upon reasonable notice by the Director of the Office of Protected Resources.
4. In the event any ESA-listed species not included in this permit is killed, injured, or collected during the course of activities in the action area of this permit, the Permit Holder must notify the Chief of the Marine Mammal and Turtle Division, NMFS as soon as possible, but not later than two days after the event. If the species is killed, it must be retained for scientific analysis. The Permit Holder must then submit a written report to the Chief of the Endangered Species Division describing the circumstances of the unauthorized take. Pending review of these circumstances, NMFS may suspend or amend this permit.
5. The Permit Holder is responsible for the activities of any individual who is operating under the authority of this permit. Such activities include capturing, handling, releasing, transporting, maintaining, and caring for any animal authorized to be taken by this permit.
6. Under the terms of the regulations, a violation of any of the terms and conditions of this permit will subject the Permit Holder, and/or any individual who is operating under the authority of this permit, to penalties as provided for in

the ESA.

7. Annual renewal of this permit is not automatic. Yearly evaluation of this permit by NMFS will include a review of take data before re-authorization.

8. 50 CFR Section 222.23(d)(8) provides for a reasonable fee to be charged to cover the costs of issuance of permits under the ESA. The fee for this permit has been waived.

---

James H. Lecky  
Director  
Office of Protected Resources

---

Date

---

Dr. David Hata  
Virginia Polytechnic Institute  
106 Cheatham Hall  
Blacksburg, VA 24061-0321

---

Date

Dr. David Hata  
Virginia Polytechnic Institute  
and State University  
106 Cheatham Hall  
Blacksburg, Virginia 24061-0321

Dear Dr. Hata:

Enclosed is Permit No. 1529, issued under the authority of Section 10 of the Endangered Species Act of 1973. This permit authorizes the take of listed sea turtles incidental to otherwise lawful research to assess horseshoe crab abundance from Cape Cod, Massachusetts south to the Georgia-Florida border. The trawl gear used will be flounder and whelk trawls with an 18.3-m head rope and 24.4-m footrope. The net will be towed at 4.6-5.6 km/hr with a 15-minute bottom time.

Your attention is particularly directed to Section IV.B. describing reporting requirements. This permit expires on December 15, 2011. However, please note that annual renewal of this permit before this date is not automatic. Yearly evaluation of this permit by NOAA's National Marine Fisheries Service (NMFS) will include review of each year's annual report and the reported take included in it, prior to re-authorization of the permit for the following year. The fee for this permit is waived.

Please note Permit #1529 is not valid until our office receives the signed copy. You may submit the copy by facsimile to (301) 427-2522 and confirm by mail. If you have any questions concerning the permit, please contact Therese Conant, at (301) 713-1401, ext. 126.

Sincerely,

P. Michael Payne  
Chief, Marine Mammal and Turtle Division  
Office of Protected Resources