Sea Turtle Handling and Resuscitation

It is unlikely that sea turtles will survive impingement in a hopper dredge, as the turtles found in the dragheads are usually dead, dying, or dismantled. However, the procedures for handling live sea turtles follow in case the unlikely event should occur.

Please photograph all turtles (alive or dead) and turtle parts found during dredging activities and complete the Take Report Form.

Handling:
Do not assume that an inactive turtle is dead. The onset of rigor mortis and/or rotting flesh are often the only definite indications that a turtle is dead. Releasing a comatose turtle into any amount of water will drown it, and a turtle may recover once its lungs have had a chance to drain. There are three methods that may elicit a reflex response from an inactive animal:

- **Nose reflex.** Press the soft tissue around the nose which may cause a retraction of the head or neck region or an eye reflex response.

- **Cloaca or tail reflex.** Stimulate the tail with a light touch. This may cause a retraction or side movement of the tail.

- **Eye reflex.** Lightly touch the upper eyelid. This may cause an inward pulling of the eyes, flinching or blinking response.

General handling guidelines:
- **Keep clear of the head.**

- **Adult male sea turtles of all species other than leatherbacks have claws on their fore flippers. Keep clear of slashing fore flippers.**

- **Pick up sea turtles by the front and back of the top shell (carapace). Do not pick up sea turtles by flippers, the head or the tail.**

- **If the sea turtle is actively moving, it should be retained at onboard until transported by stranding/rehabilitation personnel to the nearest designated stranding/rehabilitation facility. The rehabilitation facility should eventually release the animal in the appropriate location and habitat for the species and size class of the turtle.**

Live sea turtles within dredge gear
When a sea turtle is found in the dredge gear, observe it for activity and potential injuries.
If the turtle is actively moving, it should be retained onboard until evaluated for injuries by a permitted rehabilitation facility. Due to the potential for internal injuries associated with hopper entrainment, it is necessary to transport the live turtle to the nearest rehabilitation facility as soon as possible, following these steps:

1. Contact the nearest rehabilitation facility to inform them of the incident. If the rehabilitation personnel cannot be reached immediately, please contact the NOAA Fisheries stranding hotline at 866-755-6622 or Sea Turtle Stranding Coordinator (Kate Sampson) at 978-282-8470.

2. Keep the turtle shaded and moist (e.g., with a water-soaked towel over the eyes, carapace, and flippers), and in a confined location free from potential injury.

3. Contact the crew boat to pick up the turtle as soon as possible from the dredge (within 12 to 24 hours maximum). The crew boat should be aware of the potential for such an incident to occur and should develop an appropriate protocol for transporting live sea turtles.

4. Transport the live turtle to the closest permitted rehabilitation facility able to handle such a case.

Sea Turtle Resuscitation Regulations: (50 CFR 223.206(d)(1))
If a turtle appears to be comatose (unconscious), contact the designated stranding/rehabilitation personnel immediately. Once the rehabilitation personnel has been informed of the incident, attempts should be made to revive the turtle at once. Sea turtles have been known to revive up to 24 hours after resuscitation procedures have been followed.

- Place the animal on its bottom shell (plastron) so that the turtle is right side up and elevate the hindquarters at least 6 inches for a period of 4 up to 24 hours. The degree of elevation depends on the size of the turtle; greater elevations are required 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 then alternate to the other side.

- Periodically, gently conduct one of the above reflex tests to see if there is a response.

- Keep the turtle in a safe, contained place, shaded, and moist (e.g., with a water-soaked towel over the eyes, carapace, and flippers) and observe it for up to 24 hours.

- If the turtle begins actively moving, retain the turtle until the appropriate rehabilitation personnel can evaluate the animal. The rehabilitation facility should eventually release the animal in a manner that minimizes the chances of re-impingement and potential harm to the animal (i.e., from cold stunning).

- Turtles that fail to move within several hours (up to 24) should be transported to a
suitable facility for necropsy (if the condition of the sea turtle allows).

**Dead sea turtles**
The procedures for handling dead sea turtles and parts are described in the Sea Turtle Take Standard Operating Procedures.

**Stranding/rehabilitation contact**

- *NOAA Fisheries Stranding Hotline at (866)-755-6622*