National Oceanic and Atmospheric Administration
U.S. Department of Commerce

NOAA's Oil Spill Response

Sea Turtle Strandings and the Deepwater Oil Spill

Sea turtle stranding responders, working under the guidance of the Wildlife Branch Unit of the Unified Command, which includes several NOAA experts, are responding to dead and live sea turtle strandings and offshore teams are searching for and rescuing oiled sea turtles from the spill area.

Credit: University of California, Davis

All the live oiled turtles are cleaned of oil and are being treated and cared for at one of four primarily de-oiling centers across the northern Gulf of Mexico or at secondary rehabilitation facilities once they are stabilized.

NOAA experts are examining turtles that have stranded in the area affected by the oil spill to determine, if possible, whether their deaths can be linked to oil, or another cause. All of the turtles are being sampled externally for oil and tissue samples are being taken during necropsy when the condition of the carcass is sufficiently fresh. The majority of the turtles recovered as strandings have not had external oil.

In contrast, the vast majority of turtles captured offshore during directed surveys are externally oiled. Aerial surveys have documented sea turtles swimming in oiled areas and in unoiled areas. We do believe that this spill will significantly affect sea turtles in the Gulf of Mexico.

General Affects of Oil on Sea Turtles

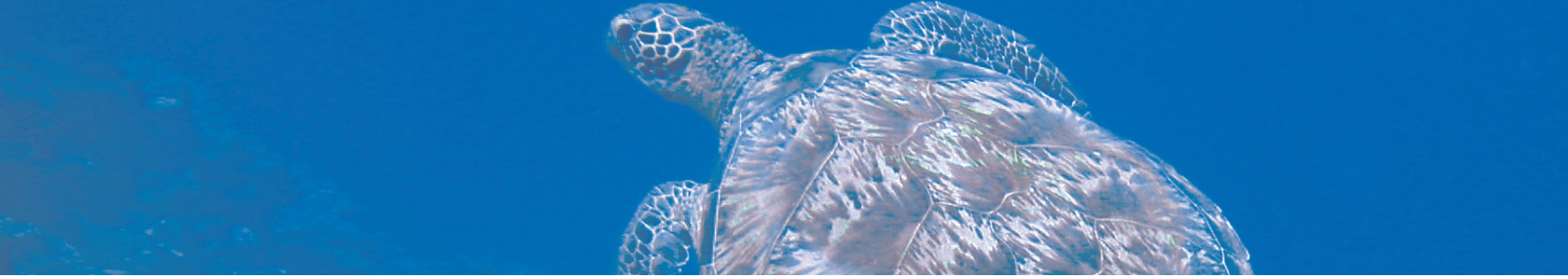
Sea turtles may be exposed to chemicals in oil or to chemicals in products such as dispersants used in two ways: internally (eating or swallowing oil, consuming prey containing oil based chemicals, or inhaling of volatile oil related compounds) and externally (swimming in oil or dispersants).

Several aspects of sea turtle behavior put them at risk including the importance to turtles of surface convergence areas, typically highly productive areas where ocean currents converge and where oil has been found. These areas provide feeding and sheltering habitat to sea turtles in the Gulf of Mexico, especially the young, early life stage animals.

Sea turtles are air breathers and all must come to the surface frequently to breathe. In an oil spill, they may be exposed to volatile chemicals at the surface during inhalation.

Additionally, sea turtles may experience oiling impacts on nesting beaches when they come ashore to lay their eggs, and their eggs may be exposed during incubation potentially resulting in increased egg mortality and/or possibly developmental defects in hatchlings.

(contined on back)



Hatchlings emerging from their nests may encounter oil on the beach and in the water as they begin their lives at sea.

External Effects: Oil and other chemicals on skin and body may result in skin and eye irritation, burns to mucous membranes of eyes and mouth, and increased susceptibility to infection.

Internal Effects: Inhalation of volatile organics from oil or dispersants may result in respiratory irritation, tissue injury, and pneumonia. Ingestion of oil or dispersants may result in gastrointestinal inflammation, ulcers, bleeding, diarrhea, and maldigestion. Absorption of inhaled and ingested chemicals may damage organs such as the liver or kidney, result in anemia and immune suppression, or lead to reproductive failure or death.

Reasons for Sea Turtle Strandings

There are thousands of sea turtle strandings every year along the Gulf of Mexico and U.S. east coast. NOAA is working to understand why sea turtles are stranding in the area of interest. In previous years, this same area has experienced increased strandings during this time of year. The stranding numbers we are seeing currently in Louisiana, Mississippi and Alabama are much higher than normal, however. This may be due in part to increased detection and reporting, but this does not fully account for the increase.

The primary human cause for sea turtle deaths in the Gulf of Mexico is bycatch in fishing gear. Bycatch in shrimp trawls is recognized as a leading source of sea turtle mortality if Turtle Excluder Devices (TEDs) are not properly used or not required.

The other primary types of fishing gear that incidentally catch and can kill sea turtles include longline gear and gillnets. Vessel strikes also cause mortality of sea turtles, especially where turtle abundance and vessel activity are high, such as areas near ports, marinas, and navigation channels.

There are five sea turtle species in the Gulf of Mexico: Kemp's ridley, leatherback, hawksbill, and green sea turtles are listed as endangered under the Endangered Species Act; loggerhead sea turtles are listed as threatened but are currently proposed for endangered listing in the western North Atlantic, which includes the Gulf of Mexico.

Rehabilitating Oiled Sea Turtles

The Wildlife Branch, Marine Mammal and Sea Turtle Unit of the Unified Command has implemented region-wide protocols for caring for turtles in distress and established four rehabilitation/de-oiling centers: one in Louisiana, one in Mississippi, and two in Florida. Additional facilities are on standby if needed.

NOAA is working closely with the U.S. Fish and Wildlife Service, through the Unified Command, on addressing issues of concern on sea turtle nesting beaches in the Gulf of Mexico as well. Wildlife teams on the water have been instructed to bring any turtles in distress back to shore for transport to the rehabilitation facilities.

Sea turtles may experience oiling impacts on nesting beaches when they come ashore to lay their eggs. Their eggs may be exposed during incubation potentially resulting in increased egg mortality and/or possibly developmental defects in hatchlings.

To get the latest numbers of sea turtle strandings and captures as part of the Wildlife Branch Unit's on water search and rescue operation go to http://response.restoration.noaa.gov/deepwaterhorizon.

Learn more about NOAA's response to the BP oil spill at http://response.restoration.noaa.gov/deepwaterhorizon.

To learn more about NOAA, visit http://www.noaa.gov.