

## Ask a Responder: Q & A with a NOAA Fisheries Service Shark Expert



Dr. John Carlson is a research fisheries biologist for NOAA Fisheries Service

**Note:** This interview conducted by the USCG's Grace Baldwin was published originally on the Deepwater Horizon [website](#).

SNPA Grace Baldwin is serving as a public affairs specialist in the Deepwater Horizon Response. She is a U.S. Coast Guard Reservist from the public affairs detachment at Sector Baltimore, Md.

Dr. John Carlson is a Research Fisheries Biologist for NOAA's National Marine Fisheries Service and specializes in research related to the biology and population ecology of sharks, skates, rays and sawfishes. SNPA Baldwin spent some time with John discussing his current involvement with whale sharks in the Gulf of Mexico.

**Q: How did you become interested in your field of work?**

**A:** Sharks have always been an interest to me since I was a kid growing up near Long Island Sound.

**Q: Can you describe the background of whale sharks?**

**A:** Whale sharks are found globally in warmer waters including the Gulf of Mexico. They commonly feed on small fish, fish larvae and fish eggs. Whale sharks are primarily surface swimmers which raises some concerns for those currently inhabiting the Gulf of Mexico.

**Q: What agencies are involved in the effort to help whale sharks in the Gulf of Mexico?**

**A:** There are multiple groups involved: NOAA-National Marine Fisheries Service, NOAA-Office of National Marine Sanctuaries, Wildlife Conservation Society, and Gulf Coast Research Laboratory. People are doing different studies. Gulf Coast Research Laboratory is working on getting satellite tags on the sharks to report data such as location, depth and water temperature. The National Marine Fisheries Service is conducting aerial surveys to record the location of sharks and number of sharks in a certain location.

**Q: What behaviors of the whale sharks are being noticed or observed?**

**A:** The sharks do not appear to be trying to avoid the oil, which is why we want to do further research. There has been very little research conducted on whale sharks in the Gulf of Mexico.

**Q: What are the concerns for whale sharks in relation to the oil spill?**

**A:** Whale sharks are primarily surface swimmers and feed on small pelagic fish and plankton and as a consequence they may be ingesting oil. Additionally, the oil may collect in the gills and cause them to clog, which would result in the shark not being able to extract oxygen from the water. We don't know how the oil will affect the sharks either long term or short term but in a previous study on sharks from the Persian Gulf there was evidence of the transfer of hydrocarbons from the mother to the embryos.

**Q: What steps are being taken to address the concerns?**

**A:** We plan to monitor the sharks through aerial surveys and record areas where sharks are congregating. As part of the Wildlife Branch, we will provide this information to the Unified Area Command to urge that skimming operations focus on these areas to reduce the potential for sharks to come in contact with oil.

**Q: What challenges are you facing or anticipate facing in the effort to monitor and assist the whale sharks?**

**A:** The main challenge for monitoring is the weather. When there is inclement weather it makes it difficult to run surveys to locate the whale sharks. Additionally, the rain is breaking up the oil into a sheen and we don't know yet how that sheen will affect the whale sharks long term or even short term.

**Q: If you could speak directly to the public, what would you want them to know concerning whale sharks in the Gulf?**

**A:** The different agencies involved held a meeting recently to make recommendations to help keep sharks from ingesting oil. Through satellite tracking and aerial surveys we are moving forward and taking action on how to prevent whale sharks from coming in contact with surface oil. 🐋