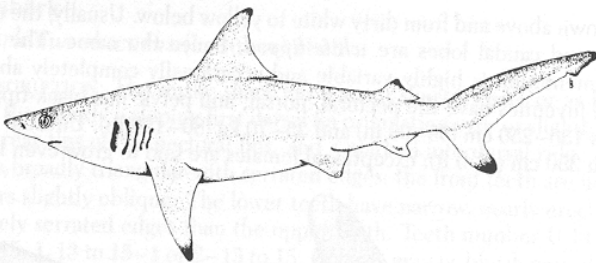


Promoting informed decisions in Southwest Florida through science-based training for the professional community

## Sharks - Sense vs. Sensation

In January 2002, a Coastal Institute workshop was conducted for beach managers entitled Sharks: Sense vs. Sensation. The purpose of the workshop was to provide park rangers, natural resources personnel and other beach managers with basic knowledge of shark biology, a better understanding of facts surrounding shark attacks, and strategies for effective management. A roundtable discussion provided a forum for participants to ask detailed questions of the panel of experts on the subject of sharks and beach management.



blacktip shark, *Carcharhinus limbatus*

Of the 350+ species in existence, there are a dozen species of sharks that commonly inhabit the waters around Southwest Florida. Some species display specific migration patterns and only come near shore at certain times of the year. Because shallow water is the most productive part of the ocean, females of certain species may use coastal waters only as breeding or nursery grounds.

Even though sharks have been around for millions of years, there is much yet to learn about them. Their skeletons are made up of cartilage, which will disintegrate rather than fossilize, leaving behind only teeth and jaw remnants for scientists to study. They do not adapt well to captive settings, and because of far-reaching ranges and deep water preferences, real-life observations of shark behavior are difficult to obtain. Sharks have never been considered to be a major food value in the U.S., therefore in-depth research has not been made a priority.

Sharks have inhabited earth for over 400 million years, and have highly developed senses of smell and taste. Many sharks are fast-swimming and predatory, some are scavengers, and others prefer to dine strictly on plankton. Most attacks on humans rarely continue beyond initial contact and are usually classified as cases of mistaken identity, often involving juvenile sharks, and surfers in turbid water.

### Which Sharks are Where?

According to the experts, here are a few general demographic pointers for Florida:

**Florida Keys to Miami:** lemon shark and nurse shark nursery grounds

**West coast to Tampa:** bull shark nursery grounds

**Marshes (northern Florida):** favorite hangout of black tip sharks

**Sand bars (warm water):** favorite hangout of spinner and black tip

People's awareness of sharks as threats became significant during World War II. This awareness was heightened in 1975 with the release of the movie "Jaws." Since then, sensationalism, or language around a truthful story that can lead to the wrong impression, has been used by the media to sell newspapers or compete with television, and nothing seems to receive media attention like a shark attack. Cold-blooded and rarely seen, sharks represent a phenomenon that people have no control over, such as lightning strikes and tornadoes.



Rookery Bay, located in southwest Florida, is recognized as one of the few remaining pristine, mangrove-forested estuaries in the U.S. As part of the National Estuarine Research Reserve System, it serves as an outdoor classroom and laboratory for students and scientists. For more information please call (239) 417-6310, write to RBNERR at 300 Tower Rd., Naples, FL 34113, or visit [www.Rookerybay.org](http://www.Rookerybay.org).



Volusia County is the shark bite capital of the world, with 47 miles of sandy coastline hosting 10 million visitors per year. A very productive inlet in the area is a popular destination for beachgoers, surfers and fishing enthusiasts, as well as sharks looking for food. Because local, national and international media watch for stories like shark bites to capture the public interest, Volusia serves as an effective case study in managing issues linked to public beach use and shark attacks.



What can beach managers do to address conflicts between beach users, sharks and the role of the media? The following strategies were discussed:

- 1) The beach manager's role is to be proactive, deliver the facts and downplay media hype
  - > notify people in advance of all potential threats and the chances of an encounter
  - > only 30 attacks occur annually out of the millions of encounter opportunities
    - could task someone with calculating the number of visitors to that beach
    - could illustrate with a chart comparing casualties on the beach vs. I-75
  - > remind visitors that the beach looks tame but it is a "marine wilderness experience"
    - visitors willingly enter shark's territory
  - > provide programs specific to that location
    - include info on rip currents, man-o'-war, lightning strikes or other
- 2) Encourage ways to avoid attracting sharks by understanding their motivation
  - > discourage or prohibit swimming at dawn and dusk
  - > watch out for areas of bait fish concentration and pull people out of the water
    - a temporary restraint on swimming until bait activity declines is prudent
    - note end of summer "mullet runs" that sharks take advantage of
  - > fishing aggravates sharks - can put them into a feeding mode
    - chum and bait will likely attract sharks
    - irregular movement of a hooked fish is irresistible to sharks
- 3) Build a rapport with the local media so that they will get the story right
  - > provide media with more proactive and educational information
  - > help them educate the public on attack prevention
    - illustrate what things not to do to avoid attracting sharks, i.e. don't act like prey
  - > don't emphasize the "dark side" of sharks
  - > consider reporter turnover - many are new to the state and don't understand the facts
    - invest the time to meet reporters and provide frequent informational briefings

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