



Shark Nurseries in the 10,000 Islands Estuaries

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BACKGROUND INFORMATION

Pumpkin Bay, Faka Union Bay and Fakahatchee Bay lie downstream of the Southern Golden Gate Estates, a failed development which built 813 miles of roads and 138 miles of canals during the 1960's to drain the swamps of Collier County in SW Florida. Wet season over-drainage through the Faka Union Canal has resulted in an 8-12 ppt salinity decrease in Faka Union Bay compared to adjacent Pumpkin and Fakahatchee Bays. Canals and roads in the Southern Golden Gate Estates will be removed in 2004 to restore the areas freshwater flow patterns. The planned hydrologic restoration will reduce the flow out of the Faka-Union Canal by 99% and provide a more even distribution (sheet-flow) of water to the coastal wetlands and bays of the 10,000 Islands.

HOW MIGHT THIS AFFECT ESTUARINE SHARK DISTRIBUTION OR SHARK NURSERIES?

This project was designed to gain an understanding of shark nurseries and distribution before, during and after the restoration of freshwater sheet flow into three of the many estuarine bays of the 10,000 Islands.

Sharks utilize shallow, protected estuarine bays to give birth to their young. These back bays provide young sharks with a bountiful food supply and protection from potential predators such as larger sharks.

Data presented here is preliminary and will be expanded upon as the project continues.

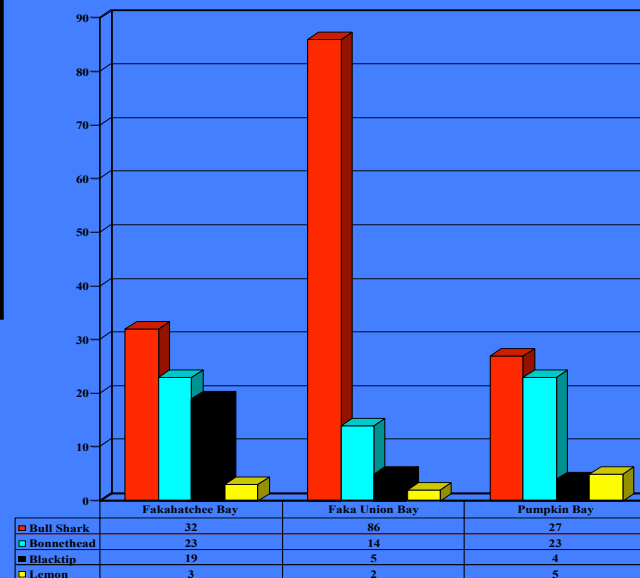
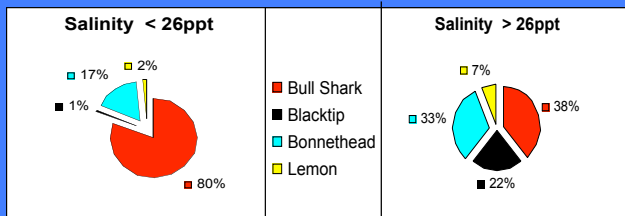
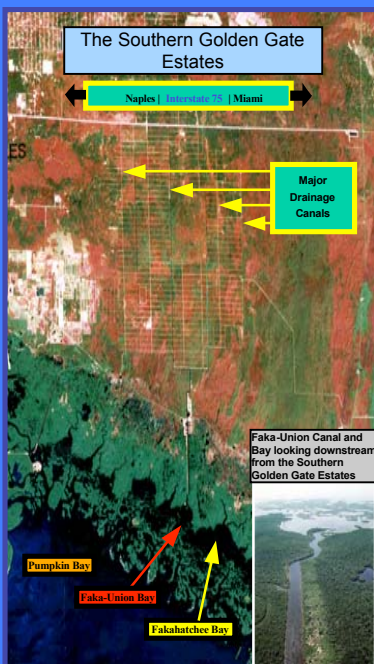
Is SALINITY the controlling factor?

Bull Sharks (*Carcharhinus leucas*) are the only sharks able to acclimate to low salinities and freely move from freshwater to marine waters.

According to the data so far, bull sharks are the dominant shark caught (over 50% overall), especially in the Faka Union Bay (over 80% within the bay).

Faka Union Bay, due to the large area of drainage canals, receives a tremendous amount of freshwater during the wet season (July-December).

Salinities are much lower than the other bays and therefore may exclude the other shark species from entering those waters.



Shark Species List



Bull Shark - *Carcharhinus leucas*



Bonnethead Shark – *Sphyrna tiburo*



Blacktip Shark – *Carcharhinus limbatus*



Lemon Shark – *Negaprion brevirostris*

OTHER NOTEWORTHY ELASMOBRANCHS



Smalltooth Sawfish – *Pristis pectinata*



SHARKS REWARD

Small Sharks are being tagged and released along Florida's Gulf Coast as part of a research project at Mote Marine Laboratory.

• YOUR NAME, ADDRESS, AND PHONE NUMBER
 • DATE AND LOCATION OF CAPTURE
 • TOTAL LENGTH OF THE FISH (measured or estimated)
 • WHETHER YOU RELEASED OR KEPT THE FISH

Center for Shark Research
 Mote Marine Laboratory
 1600 Thompson Parkway
 Sarasota, FL 34236

OR CALL (813) 388-4441
 CALL COLLECT

YOUR HELP IS GREATLY NEEDED AND APPRECIATED

