

## **The bottlenose dolphins of St. Joseph Bay: background and recent research.**

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Within the past five years, there have been two unusual mortality events in the Florida Panhandle, resulting in over 200 dead bottlenose dolphins. Red tide, *Karenia brevis*, is suspected to be involved in both cases, although the degree of involvement in each is still in debate. This area of the Gulf Coast has had relatively little research performed on its bottlenose dolphin populations. St. Joseph Bay, the region where the majority of strandings has occurred, was last surveyed in the early 1990's. Biologists determined the population of the bay at that time to be zero.

In April and May of 2004, a joint effort between the Sarasota Dolphin Research Program, and the Department of Oceanography at Florida State University permitted researchers to 5 days surveying and biopsy darting animals in St. Joseph Bay and surrounding waters. The goal of this project was to gather preliminary data on dolphin distribution in the bay as well as to collect genetic samples from these animals to compare to the stranded animals from earlier in the month. At the end of the surveying, over 50 individual dolphins were identified and 33 biopsy samples were obtained. The biopsy samples are currently being analyzed to determine population structure, and blubber from the samples has been archived for analysis of environmental contaminant loads.

In February and March of 2005, researchers from the University of North Carolina Wilmington, Sarasota Dolphin Research Program, and Department of Oceanography at Florida State University began the first of several seasonal surveys of St. Joseph Bay and surrounding waters. The goals of this project are to identify the individual dolphins that inhabit the bay as well as determine their distributions and movement patterns along the panhandle of Florida. To accomplish this, a line transect survey design was instrumented to thoroughly cover St. Joseph Bay (see Fig. 1.). Line transects were selected randomly each day, and at each dolphin sighting, photographs were taken of each animal's dorsal fin for individual identification. Temperature, salinity, depth, and a lat/long position were also taken at the sighting. During 12 field days, 324 dolphins were observed. Many of the animals seen during this field season were also observed during the surveys in April and May of 2004. Future surveys are planned for April, May, and July of 2004, and February 2005.

It will take many more years of surveys to have an accurate depiction of the St. Joseph Bay bottlenose dolphins. However, these preliminary surveys will provide data important to understanding the abundance, distribution and movement of the bottlenose dolphins that inhabit St. Joseph Bay.

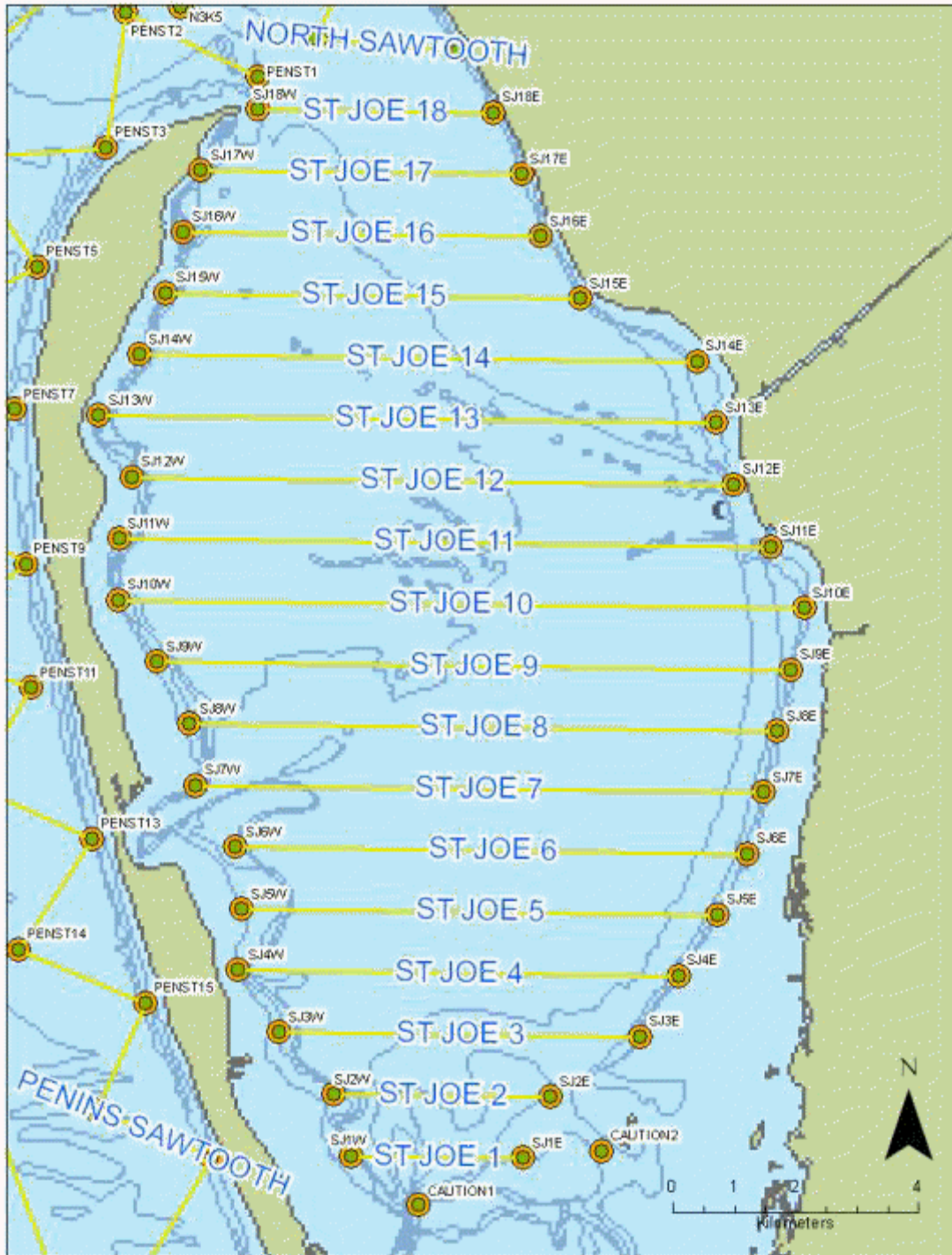


Fig. 1: Line transect survey design of St. Joseph's Bay