

(GIS) for spatial analysis. GIS is a computer software system for making maps of data and for doing spatial data analyses.”

In addition, personnel from Jacksonville University also performed some aerial surveys for manatees. Databases that were obtained and reviewed are shown in Table 2.

Table 2

Aerial Surveys for Manatees in and/or Near St. Johns County		
# flights	Dates Flown	Location
50	5/9/88 – 4/24/90	St. Johns River – Southern limit near N boundary of St. Johns County
79	5/2/90-3/11/97	St. Johns R. - Southern limit near N boundary of St. Johns County
45	3/11/91-11/30/93	Atlantic Intracoastal Waterway – entire St. Johns County
21	5/20/93-5/27/94	St. Johns R- Northwestern county boundary
301	3/14/94-9/11/03	St. Johns R. - entire Western boundary of St. Johns County
25	6/29/94-6/28/95	St. Johns R. – entire Western boundary of St. Johns County

Collectively, these surveys, which consist of 442 flights that were conducted between May 1988 and July 1995, provide a reasonably good understanding as to the abundance and distribution of manatees in northeast Florida.

Data from both of these types of surveys in St. Johns County are somewhat difficult to gather and interpret; however, in part because some flight paths only covered portions of the County’s waterways. Additionally, challenges arise due to the boundary between counties being the St. Johns River (i.e., some sightings within the St. Johns River are considered to be in St. Johns County, others are in Clay County or Putnam County). For these reasons, data hereafter for the St. Johns River include both those sightings that were accredited to St. Johns County and those accredited to the adjacent county.

From these data, it is clear that manatees may be present in coastal or non-land-locked freshwater areas in northeast Florida at any time of the year, and that numbers vary considerably from month to month and year to year. Lowest numbers appear to be during the winter and highest numbers during the summer.

Based on aerial survey data, it appears that manatees were most abundant along the shorelines of the county’s waterways. It is unclear as to whether or not this is an accurate representation of their distribution, or merely a reflection of the fact that manatees are more likely to be seen in shallow waters than in deeper areas.

Although it would take more detailed analysis than the data has thus far been subjected, cursory analysis suggests that manatees use the St. Johns River and the AICW as corridors for movement during different times of the year. However, because some manatees were observed to be eating *Spartina*, the value of this resource as food for manatees cannot be overstated.