BACKGROUND

Critical data gaps exist for all Texas bay, sound and estuary bottlenose dolphin (Tursiops truncatus) stocks. The Texas Bottlenose Dolphins Research Collaborative (TBDRC) aims to address these deficiencies. The Galveston Bay Dolphin Research and Conservation Program (GDRCP), a partnership between the Environmental Institute of Houston –UHCL and the Galveston Bay Foundation, is part of the TBDRC and addresses gaps in Galveston Bay, TX.

From the 1980’s to early 2000’s, studies of bottlenose dolphins in Galveston Bay (GB) (largely conducted by Texas A&M University MMBL) found:
- High concentrations of dolphins near the entrance to GB and lower concentrations in GB and East Bay
- A decrease in abundance moving north into the bay and little or no activity in upper GB and Trinity Bay regions

Recent surveys suggest an increase in dolphin activity in upper GB.

How do long-term bay-users perceive dolphin activity in upper GB?

95 bay users completed a 34-question online survey.

59% (n=13) of long-term users that indicated that there are now more dolphins in upper GB, explained that the improved health of Galveston Bay (i.e., better water quality, less pollution) and/or increase in food sources explains the increase.

65.33% (n=49) of year-round current users of upper GB indicated that dolphin abundance changes with time of year.

Conclusions

Dolphins utilize upper GB, a region previously thought to have little or no dolphin activity, with an apparent increase in abundance in this region over the last 20 years. There is an increase in relative abundance during warm months. Dolphins often associate with shrimp trawlers and vessels in the Houston Ship Channel. More investigation is needed due to the high risk environment.

Bottlenose dolphins are a good candidate to be a flagship species for Galveston Bay.

FUTURE RESEARCH

- Quantify site fidelity and determine proportion of resident & transient
- Expand study area to regularly include other portions of GB
- Compare the GDRCP fin catalog to others along the coast to look at large-scale movement patterns and habitat use
- Collaborate with other scientists along coast to evaluate prevalence and factors affecting skin lesions
- Continue current biopsy efforts to collect tissues for examination of persistent organic pollutants, stable isotopes, and genetic markers.

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Texas Bottlenose Dolphin Research Collaborative

Learn more about the Galveston Bay Dolphin Research and Conservation Program at www.galvbay.org/dolphin