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PRESS RELEASE: STUDY REVEALS PRESENSE OF LONG-TERM RESIDENT DOLPHINS IN HIGHLY INDUSTRIALIZED UPPER GALVESTON BAY

KEMAH, Texas – Oct. 20, 2022 – During a four-year period, researchers observed nearly 200 bottlenose dolphins classified as year-round or seasonal long-term residents of upper Galveston Bay (UGB) that need to be closely monitored due to exposure to diverse and continuous threats, according to a study by the Galveston Bay Dolphin Research Program (GDRP), recently published in the journal *Marine Mammal Science*.

GDRP, a partnership of the Galveston Bay Foundation and the Environmental Institute of Houston at the University of Houston–Clear Lake, has been studying and bringing awareness to the vulnerable bottlenose dolphin population in Galveston Bay through boat-based surveys since 2014.

The study was completed with grant support from the Gulf of Mexico Alliance, the SeaWorld Busch Gardens Conservation Fund, the SeaWorld Busch Gardens Emergency Fund, Restore America's Estuaries, the Trull Foundation, and generous contributions from individual GDRP donors.

Common bottlenose dolphins (*Tursiops truncatus*) that inhabit industrialized, urban estuaries such as Galveston Bay are exposed to diverse anthropogenic threats including pollution, ship and barge traffic, dredging and construction, commercial and recreational fisheries, and fluctuating freshwater inflows. To mitigate human impact and conserve these populations, it is necessary to understand their habitat use and residency patterns.

From January 2016 through December 2019, GDRP conducted monthly photo-identification surveys in UGB. 442 distinct dolphins were identified during that timeframe and classified into three groups based on occurrence, permanence, and periodicity – year-round or seasonal long-term residents (Group 1), transients (Group 2), and short-term users of UGB (Group 3).

"The study revealed that nearly 200 dolphins use UGB as an important part of their home range. These individuals utilize habitats throughout most of UGB, including deep ship channels, open bay, and shallow nearshore waters. Roughly half of the individuals in this group were sighted in UGB in cold and warm periods over multiple years, and the other half returned during the warmer months (May–October). ...85 dolphins with the highest site fidelity in UGB were identified as year-round long-term residents, which could put them at an elevated risk.

Results suggest that transient dolphins may travel all the way north to UGB and do not always stay close to the mouth of the estuary (in presumed population "mixing" areas like Bolivar Roads). The Houston Ship Channel could be a conduit bringing transients to UGB from the pass, following the deeper waters and/or bow riding on ships, a behavior commonly observed in Galveston Bay. Therefore, transient dolphins are likely exposed to the same stressors as residents of UGB, albeit temporarily."

Mintzer, V. J., Quackenbush, A., & Fazioli, K. L. Site fidelity of common bottlenose dolphins (*Tursiops truncatus*) in a highly industrialized area of the Galveston Bay estuary. *Marine Mammal Science*. DOI: 10.1111/mmm.12984

The complete study can be read in *Marine Mammal Science*, the official journal of the Society for Marine Mammalogy at https://bit.ly/3eM4Tx9

GDRP continues to conduct research on the ecology and health of Galveston Bay dolphins, a key indicator species for the overall health of the Bay, including the effects of human-dolphin interactions and their impacts on both dolphins and people. For more information on the Galveston Bay Dolphin Research Program, visit galvestonbaydolphin.org.

About Galveston Bay Foundation

Established in 1987, Galveston Bay Foundation is a 501(c)(3) non-profit organization. Its mission is to preserve and enhance Galveston Bay as a healthy and productive place for generations to come. It implements diverse programs in land preservation, habitat restoration, water protection, youth education, and advocacy. For further information, contact the Foundation at (281) 332-3381, visit galvbay.org or connect via Twitter, Facebook, Instagram, and LinkedIn.

About the Environmental Institute of Houston

The University of Houston-Clear Lake established the Environmental Institute of Houston (EIH) in 1991 to address regional issues of environmental concern. Its mission is to advance understanding of the environment through interdisciplinary research, education, and outreach. For further information, contact EIH at (281) 283-3950, email eih@uhcl.edu, visit www.uhcl.edu/environmental-institute or follow us on social media.

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