FAU Harbor Branch Study Links Indian River Lagoon Fish Consumption and Elevated Mercury Levels in People

FORT PIERCE, Fla. (July 8, 2014) – Scientists at Florida Atlantic University’s Harbor Branch Oceanographic Institute (HBOI) analyzed hair samples to determine mercury concentrations of 135 residents living along the Indian River Lagoon (IRL) and found that individuals who reported eating locally-caught seafood one or more times per day are nearly four times more likely to have a mercury concentration above the Environmental Protection Agency’s recommended daily dose for human health.

Researchers began the study after finding high levels of mercury in IRL Atlantic bottlenose dolphins — they are considered a “sentinel species” because they are long lived, have defined home ranges and consume some of the same fish species as humans.

“The dolphins were a sort of ‘canary in the coal mine’ for us,” said Adam Schaefer, HBOI epidemiologist and one of the lead scientists on the project. “This study shows how a sentinel animal can help identify a public health hazard. Now this information can be used to develop interventions to reduce exposure among high risk groups, particularly pregnant women.” The key interventions include education regarding general guidelines for seafood consumption and specific species of fish that should be avoided during pregnancy.

Results from the peer-reviewed study are published in this month’s edition of the *International Journal of Environmental and Public Health* (www.mdpi.com/1660-4601/11/7/6709).

Mercury is a global environmental pollutant that causes adverse health effects, particularly on neurodevelopment in the fetus. Human exposure to mercury comes primarily from the consumption of fish and shellfish. In Florida, adults consume significantly more seafood on average when compared to the general population of the United States.

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About Harbor Branch Oceanographic Institute:
*Founded in 1971, FAU’s Harbor Branch Oceanographic Institute is a research community of marine scientists, engineers and educators focused on Ocean Science for a Better World. The institute drives innovation in ocean engineering, at-sea operations, drug discovery and biotechnology from the oceans, coastal ecology and*
conservation, marine mammal research and conservation, aquaculture, ocean observing systems and marine education. For more information, visit www.fau.edu/hboi.

About Florida Atlantic University:
Florida Atlantic University, established in 1961, officially opened its doors in 1964 as the fifth public university in Florida. Today, the University, with an annual economic impact of $6.3 billion, serves more than 30,000 undergraduate and graduate students at sites throughout its six-county service region in southeast Florida. FAU’s world-class teaching and research faculty serves students through 10 colleges: the Dorothy F. Schmidt College of Arts and Letters, the College of Business, the College for Design and Social Inquiry, the College of Education, the College of Engineering and Computer Science, the Graduate College, the Harriet L. Wilkes Honors College, the Charles E. Schmidt College of Medicine, the Christine E. Lynn College of Nursing and the Charles E. Schmidt College of Science. FAU is ranked as a High Research Activity institution by the Carnegie Foundation for the Advancement of Teaching. The University is placing special focus on the rapid development of three signature themes – marine and coastal issues, biotechnology and contemporary societal challenges – which provide opportunities for faculty and students to build upon FAU’s existing strengths in research and scholarship. For more information, visit www.fau.edu.