**Florida Atlantic University**

**Sea Turtles and Sex Ratio Study**

**Video Caption (video credit: Florida Atlantic University):**

Researchers from Florida Atlantic University have been studying and documenting sea turtles in Palm Beach County in southeast Florida since 2002, and found that 97 to 100 percent of the hatchlings have been female. They are the first to show why and how moisture conditions inside the nest in addition to heat affect both development and sex ratios of turtle embryos. They are the first to estimate sex ratios using a male-specific, transcriptional molecular marker *Sox9*, a marker of testis development in sea turtles and freshwater turtles.

**Photo Captions (photo credit: Jay Paredes, Florida Atlantic University)**

**Sex-ratio-egg**: a sea turtle hatchling on a beach in Palm Beach County in southeast Florida emerges from the egg.

**Sex-ratio-hatchling**: a newly hatched sea turtle emerges from its nest on a beach in Palm Beach County in southeast Florida.

**Sex-ratio-tezak**: graduate students Jake Lasala (on the left) and Boris Tezak, study co-author, measure a sea turtle hatchling.

**Sex-ratio-turtle-bellyup**: a newly hatched sea turtle is belly-up as it tries to get out of its nest on a beach in Palm Beach County in southeast Florida. When it does not rain much, nests form a crusty top layer of sand, which hatchlings have to tackle. It also takes them a lot longer to get out of the nest.

**Sex-ratio-turtle1**: a newly hatched sea turtle on a beach in Palm Beach County in southeast Florida.

**Sex-ratio-turtle2**: newly hatched sea turtles on a beach in Palm Beach County in southeast Florida.

**Sex-ratio-turtle3**: a newly hatched sea turtle swims amidst sargassum.

**Sex-ratio-turtle4**: a newly hatched sea turtle climbs out of its nest on beach in Palm Beach County in southeast Florida.

**Sex-ratio-wyneken**: Angela Field (left) and Jeanette Wyneken, Ph.D., study author and a professor of biological sciences in FAU’s Charles E. Schmidt College of Science, are installing a cage over a nest in their study to protect it from predators like foxes and raccoons. When hatchlings are expected to emerge from the nest, they close the cage to catch and examine them for the study.