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Stable Isotope Analysis of the Sandbar Shark, *Carcharinus plumbeus*: A Minimally Invasive Method for Comparison of Diet and Trophic Relationships between Genders, Locations, and Age Classes

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0163 AES Feeding Symposium I, 552 AB, Saturday 10 July 2010; AES GRUBER AWARD

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Stable Isotope Analysis of the Sandbar Shark, *Carcharinus plumbeus*: A Minimally Invasive Method for Comparison of Diet and Trophic Relationships between Genders, Locations, and Age Classes

The 2006 National Marine Fisheries Service SEDAR for large coastal sharks recommended the gathering of additional diet and trophic relationship data for the sandbar shark, *Carcharinus plumbeus*. No diet studies of any kind have been performed on South Carolina subpopulations of *C. plumbeus*, and stable isotope analysis has never been performed on this species. Muscle samples were taken from *C. plumbeus* caught by the South Carolina Department of Natural Resources and the Virginia Institute of Marine Science shark surveys. The analysis of $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ from this muscle tissue is ongoing and will be compared with prey species and between other *C. plumbeus* samples to determine the diet and trophic level of South Carolina and Virginia subpopulations. Intra-subpopulation comparisons will be made to detect potential differences in diet and trophic level between sharks of different age classes and genders.

0036 Poster Session I, Exhibit Hall D, Friday 9 July 2010

Bindesh Shrestha, Robert Javonillo, John Burns, Akos Vertes

George Washington University, Washington, DC, United States

Unique Protein Identified in a Characid Gill Gland

Gill glands develop from anterior gill filaments of the first gill arches during sexual maturation of males in a number of genera of characid fishes. During development, secondary lamellae shorten, while epithelial tissue grows over the space between adjacent gill filaments, resulting in the formation of chambers that retain ventral openings into the main gill cavity. All gill glands are characterized by enlarged columnar cells between adjacent secondary lamellae. Light microscopy occasionally reveals stainable material within the lumens of the gill gland chambers. Transmission electron microscopy shows the presence of abundant membrane-bound secretory