2015 GRANTS-IN-AID-OF-RESEARCH
ANNUAL SUMMARY REPORT

Project Title: Feeding habits of the Amazonas manatee (*Trichechus inunguis*) and the Antillean manatee (*T. m. manatus*) in Colombia by applying stable isotope analysis.

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Manatees species in Colombia are under threat due to human activities such hunting and agriculture. These threats in term affect the quality of their habitat, and consequently their feeding ground. The main aim of this project was to study the Amazonas (*Trichechus inunguis*) and the Antillean manatees (*T. m. manatus*) feeding ecology. Potential food items (aquatic plants species) of Amazonas manatee (Amazon River, n= 33) and Antillean manatees (Orinoco River, n=11; Sinú River n =41; Magdalena River n=47) were collected from four regions in Colombia. The carbon and nitrogen isotope ratios of aquatic vegetation (potential diet) and skin of both species of manatees were measured with a mass spectrometer. The mean stable isotope values of skin of Amazonas manatee were δ^{13}C -23.17 ±3.78 ‰ and δ^{15}N 11.30 ±4.39 ‰ (n=29) whereas the isotope mean values measured for Antillean manatees were δ^{13}C -21.12 ±5.28 ‰ and δ^{15}N 8.30 ±2.42 ‰ (n=22). Despite that there were no significant differences between manatees' species in their stable carbon and nitrogen values, the skin of some individuals of Amazonian manatees were δ^{13}C enriched. Within species, there were no significant differences between sexes and class ages in their stable carbon and nitrogen skin signatures. Mean stable-carbon values of aquatic plants ranged from -28.7 ±6.4 ‰ to -20.6 ±9.1 ‰, whereas δ^{15}N values ranged from 4.7 ±1.9 ‰ to 5.3 ±2.0 ‰. There were significant differences in the isotope-carbon signatures of aquatic plants between sampling locations. This is the first project to investigate the feeding ecology of Amazonas and the Antillean manatees in Colombia using stable isotope analysis. The findings of the project could have significant a) implications for manatees' conservation effort and actions in Colombia, and b) inputs towards understanding the role of manatees in freshwater ecosystem. The results of this project will be published in a peer review journal and I grateful for the financial support awarded by the Small Grant in Aid of Research from the Society for Marine Mammalogy.