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Triet Minh Truong  
_Wright State University - Main Campus_

Audrey E. McGowin Ph.D.  
_Wright State University - Main Campus_, audrey.mcgowin@wright.edu

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Triet M. Truong and Audrey E. McGowin, Ph.D.*
Wright State University, Department of Chemistry, Dayton, OH 45435, USA

**Introduction**

Fibropapillomatosis (FP) is a neoplastic disease originally identified only on green sea turtles (*Chelonia mydas*). While the disease has been reported throughout the world, the etiological agent of FP remains unknown. Although numerous FP outbreaks have been documented, FP outbreaks have only occurred in marine turtle habitats. The disease appears to be dependent on the host species. Therefore, a system of identification that is reliable for both *Chelonia* species may give valuable insight on these two possibilities.

**Methods**

Natural leeches were obtained from St. Johns County, St. Lucie, the St. Lucie Nuclear Power Plant, and other parts of Florida. The host species was identified, and their DNA was sequenced by the automatic dye-terminator method using the ABI Prism 3700 DNA Analyzer (Applied Biosystems, Foster City, CA, USA). DNA sequences were submitted to NCBI GenBank. A DNA barcode was elucidated by comparing the COI sequences of *Ozobranchus* species with those of other marine leeches. The DNA barcode requires that it incorporate genetics, morphology, species behavior, geographic information, and other valid species designation attributes.

**Results and Conclusions**

Genetic sequencing of leeches from eight Florida sites reveals two different haplotypes for *Ozobranchus branchiatus*. These results support the hypothesis that *Ozobranchus* leeches have the ability to infect green sea turtles. Further research may be needed to determine if the leeches are indeed a causal agent of FP outbreaks. The discovery of a specific marine disease and the ability to identify the species of marine leeches will contribute to a better understanding of FP outbreaks.

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**References**