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Deepwater Horizon • Project Proposal Form

Review

This project proposal has NOT been submitted yet.

Click SUBMIT on the button below.

This page is only to review the information given.

Review

Submission Type

1. Submission type:
- Update

Project Proposal Information

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panhandle Florida

3. Project Description:

- o Measure key variables of beach dune that affect hatchling orientation such as distance from dune to nest and dune height, in effort to identify issues on beach setting. • Using the results, we would promote planting of coastal pioneer plants that would block artificial lighting and establish beach dune, which also blocks artificial lighting.
- o Conduct surveys of hatchling orientation precision from subsamples of sea turtle nests along with light surveys using a photometer. Using measured light data and predictive models, we would map the severity of hatchling disorientation as a guide to light management efforts, representing all Florida panhandle beaches. Estimate the numbers of hatchlings that are currently unable to reach to ocean due to natural and artificial causes. • Identify "hot spots" of artificial lighting. • Monitor hatchling orientation accuracy along with measurements of light intensity.
- Restoration results • Reduce rates of hatchling and adult turtle disorientation. • Increase survivorship of hatchlings. • Produce better informed light management strategies to protect sea turtles nesting on the beaches along Florida.

4. Resource Benefits:

- o Reptiles/Amphibians
- o Shoreline
- o Terrestrial wildlife
- o Vegetation

Other Benefit(s):**5. Is the Project included in a Regional or Statewide Plan(s)?**

- o No

Plan Name:**6. Technical Feasibility:**

- o The investigator has experience of working on hatchling disorientation and artificial lighting issues. For example, the principal investigator (PI) had his doctoral project as "evaluation of the impact of artificial lighting on sea turtle hatchling orientation" and the manuscripts for journal publications are under internal reviews. The PI developed the novel technique of measuring light intensity and created predictive models for hatchling orientation parameters for the east coast of Florida (<https://hoiprediction.shinyapps.io/hatchling/>).

7. Complements to Existing Efforts:

- o Although the past project on hatchling orientation had a large geographic expansion, the amount of data from panhandle Florida was relatively small. For example, the number of nests that we collected the orientation data at the panhandle beaches was 152 (7% of the data set, 152/2203, <https://hoiprediction.shinyapps.io/HOItable/>; Select region as "Panhandle"). Similarly, predictive models for hatchling orientation parameters using measured light data were created using the data that collected from Florida east coast beaches (<https://hoiprediction.shinyapps.io/hatchling/>). We propose to increase sample size of the orientation data and create the orientation predictive models for the panhandle beaches. By using our experience, we would increase the amount of information on hatchling orientation, provide better management strategies, and assist reducing intensity of artificial lighting through effective mitigations.

8. Community Resilience:

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restoring dune, for example, through planting coastal pioneer plants. A beach dune is not only an essential element of hatchling orientation but also creates a coastal setting that withstands and recovers from storm surges and shoreline erosion.

9. Public Support:**10. Total Cost of Project:**

- \$200,000.00

11. Total Funding Request:

- \$200,000.00

12. Funding Needed For:

- Planning/Design
- Implementation
- Operation/Maintenance
- Monitoring

13. Status of Project Planning/Design:

- Started

14. Status of Project Permitting:

- Started

15. Is the Project able to be Phased?

- No

Number of Phases:**Describe the phases:****16. Time Frame of the entire Project:**

- 36

17. Category:

- Habitat restoration

Subcategory

Land Acquisition Subcategory:**Is there a willing seller?****Water Quality or Quantity Subcategory:****18. Habitat Restoration Subcategory:**

- Research/monitoring

Living Resources Subcategory:**Recreation or Public Access Subcategory:****Community Resilience Subcategory:****Other Subcategory:**

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Contact Information

19. Contact Information

First Name:

- Tomo

Last Name:

- Hirama

Company, Agency or Organization Name:

- Florida Fish & Wildlife Conservation Commission, Florida Fish & Wildlife Research Institute

Email Address:

- tomo.hirama@myfwc.com

Confirm Email Address:

- tomo.hirama@myfwc.com

Phone Number:

- 7272243093

Extension:

Partner Information

20. Would you like to identify a project partner?

- No

1. Partner Information

First Name:

Last Name:

Company, Agency or Organization Name:

- FWC

Email Address:

- tomo.hirama@myfwc.com

Phone Number:

- 7272243093

Extension:

Leveraging Information

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- No

1. Leveraging Information**Organization:****Funding Type:****Funding Amount:****Description:****Deadline:****Constraints:**

Location

22. Extent of Project Location:

- Regional

Vicinity**23. Region**

- Panhandle

24. Additional information on the location:**Project Location****1. Project Location:**

Documents

25. Upload documents:

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