Project title: Salinity control in sharks and rays

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- Program Manager: Tyler Bowling – tbowling2@ufl.edu
- Faculty Principal Investigator: Gavin Naylor - gnaylor@flmnh.ufl.edu

Project Description: This project will assess the role of epigenetic control of osmoregulation in euryhaline elasmobranchs (i.e. sharks and rays), namely the Atlantic stingray, *Hypanus sabinus*. We will collect specimens and fresh tissues from an assortment of tissue types (muscle, heart, gills, rectal gland, spleen, kidney, and blood) in animals in freshwater systems (the St. John’s River) and in marine systems of the Gulf of Mexico. RNA sequencing will then be used to identify the tissues that showed differential expression in these two habitats. This will allow for a novel description of the biochemical pathways that are involved in responding to changes in salinity. This project is an incredible opportunity for student researchers to gain both biology related laboratory experience and the foundational skills related to field work to build off of in future research.

Students will assist with:

- Specimen collection through the use of gill nets, baited long lines, cast nets, and dip nets
- Gain experience boating, fishing, knot tying, netting, and general knowledge of the coastal/estuarine habitats of Florida
- Tissue sampling, sample preservation, sample organization, processing specimens and samples via dissection, and DNA extraction
- Care and upkeep of enclosures containing captured specimens and aquarium chemistry
- The student will be required to write a blog about their experience that will be shared on the FPSR website

Schedule:

- 40 hours a week for 1 month
- Specific days and times are variable
- Pay: $12.50 per hour
University of Florida, Florida Museum of Natural History and Florida Program for Shark Research
Waiver of Liability, Assumption of Risk, and Indemnity Agreement
(Stingray collection activities in Florida 2022)

Waiver: In consideration of being permitted to visit or participate in any way in any activity, including transportation, I, the undersigned, having actual knowledge and conscious appreciation of the particular dangers involved in the use of the above-described facilities and/or my participation in the above-described activities, voluntarily agree and assume all risks arising therefrom. I, for myself, my heirs, personal representatives, or assigns do release, waive, discharge, and covenant not to sue the University of Florida (UF) or Florida museum of natural history (FLMNH)/ Florida Program for Shark Research (FPSR), University Board of Trustees, its officers, employees, and agents for liability and responsibility for any and all claims, losses or demands relating to injury, death, or damages to myself or my property which may result from or arise in the course of my participation in such activity, including the negligence of the UF or FLMNH, Board of Trustees, its officers, employees, and agents.

Assumption of Risks: Activities on and near the water are dangerous and involve hazards and risks, including but not limited to:

- Risks related to the water such as drowning, injury from marine and aquatic organisms, or man-made objects in the water
- Risks arising from unaccustomed physical activity and/or the operation of power and/or manual tools
- Risks arising from the use of boating equipment
- Risks arising from being around and learning to use scientific equipment
- Risks arising from being in the dynamic environment of a vessel on the water
- Risks related to the weather, sun exposure, uneven terrain, temperature, lack of hydration, actions of other volunteers and participants, falling branches, encounters with wild animals, insects, reptiles, amphibians and other forces of nature

Visitation or participation in activities carries with it certain inherent risks that cannot be eliminated regardless of the care taken to avoid injuries. The specific risks vary from one activity to another, but the risks can range from 1) minor injuries such as scratches, bruises, and sprains to 2) major injuries such as eye injury or loss of sight, joint or back injuries, heart attacks, and concussions to 3) catastrophic injuries including paralysis and death.

I have read the previous paragraphs and I know, understand, and appreciate these and other risks that are inherent in visitation or participation. I hereby assert that my visitation or participation is voluntary and that I knowingly assume all such risks.

Indemnification and Hold Harmless: I further agree to indemnify and hold harmless and forever release and discharge the UF or FLMNH Board of Trustees, the Florida Board of Governors, their successors and assigns, their employees and agents from any and all claims and demands for loss, liability, damage, injury and/or costs whatsoever, which the undersigned and their heirs, representatives, executors and administrators, or other persons acting in their behalf, have or may
have against the Board of Trustees, the Florida Board of Governors by reason of any accident, illness, injury or death, arising or resulting directly or indirectly from my use of the above-described FPSR facilities and/or participation in the above-described activities.

In the event of any emergency in which I am unconscious or unable to clearly specify my wishes and desires I specifically give and authorize FPSR personnel to take whatever measures are necessary to protect my life and safeguard my possessions, including but not limited to administering emergency medical treatment, contacting Life Flight or an ambulance. I further agree that has no medical insurance coverage for such injury or loss, and I remain solely responsible/liabile for any and all costs and expenses incurred by FPSR when addressing any such emergency and will reimburse FPSR for all costs and expenses incurred.

I expressly agree that this release, waiver and indemnity is intended to be as broad and inclusive as permitted by Florida law.

Photography Release: I give permission for my/my child’s picture to be used in educational, news releases or advertising materials pertaining to the FLMNH.

Acknowledgment of Understanding: I further certify I am of lawful age, that I fully understand and acknowledge I am solely relying wholly on my own judgment, belief and knowledge of the circumstances involved in my use of the UF/FLMNH facilities, and/or participation in the above described activities and have carefully read this document, understand its contents, and voluntarily sign it of my own free will and choice.

Name of activity: FPSR stingray collection season 2022

Printed Name and Signature of Participant:
_________________________________/________________________________________

If Participant is under age 18, Printed Name of Parent/Legal Guardian:_______________________
If Participant is under age 18, Parent/Legal Guardian Signature:____________________________
Date: ______________________

Emergency contact:

- Name: ______________________
- Relationship: ______________________
- Contact #: ______________________
ISAF INTERNSHIP APPLICATION

General Information:
Name:_________________________________________ Pronouns:_________
Date of Birth:________________________
Gatorlink Username: ___________ Gatorlink ID: ___________
Applicant’s Permanent Address:
Street:________________________________ Phone #_______________
City:_________________________ State:______ Zip Code:___________
Applicant’s Current Address:
Street:________________________________ Phone #_______________
City:_________________________ State:______ Zip Code:___________
Email Address:________________________________________________

Academic Information:
College Name/City, State:_______________________________________
Current Academic Status:
Undergraduate: Freshman__ Sophomore__ Jr.__ Sr.__ GPA: _____
Highest Degree Received_____ Year___ Major_______________________

Work Experience, Research Experience and Skills:
(Attach additional pages as needed)
____________________________________________________________
____________________________________________________________
____________________________________________________________
Statement of Interest

Prepare a written statement of interest that explains:

- Your reasons for applying
- Any appropriate background information including past and present (both academic and non-academic) experience
- Description of your goals and objectives for your internship
  - How these goals will contribute to your future career plans
- Demonstrate commitment to making meaningful contributions to a pluralistic community and the continuation of a diverse student body

Confidentiality

Interns may be given access to Health Insurance Portability and Accountability Act (“HIPAA”) protected personal info when working with ISAF cases. No information pertaining to victim’s identifying information, medial history, or description of incidents may be shared outside the FPSR office. Persons may not: share confidential Information to any third party, whether electronically, orally, or written (b) permit to be made copies or other reproductions of confidential Information; (c) make any use of confidential Information; or (d) use or disclose confidential Information in violation of applicable law, including but not limited to HIPAA. The non-disclosure terms of this Agreement shall survive any termination, cancellation, expiration or other conclusion of volunteering/employment. I _________________ (print name) agree to these terms.

____________________(Signature)
____________(Date)

Instructions for Submission:

Email a completed copy of this application along with the statement of interest and college transcripts (unofficial is acceptable) to:

Tyler Bowling, Manager Florida Program for Shark Research
Email: tbowling2@ufl.edu