



Student Scholarship Internship Opportunity (SSIO) Online System

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SSIO 2022 Internship Opportunity Position

Internship Information

Project title: Foraging ecology of NW Atl. Common dolphins, *Delphinus delphis*

NOAA mission goal: Healthy Oceans

Hypothesis or objectives: The Protected Species Branch (PSB) is seeking one graduate student who will focus on Common dolphin (*Delphinus delphis*) feeding ecology, principally comparing the diet from coastal New England waters (strandings/fishery bycaught) to offshore fishery bycaught animals (incidental fishery bycatch). The objective of this project is to examine and identify stomach contents from these dolphins. After a necropsy, tissues (i.e., stomach, blubber, muscle, etc) are frozen for later processing. This student will be processing Common dolphin stomachs in order to determine its recent foraging. Stomach content analysis includes; retrieving and identification of hard parts, primarily fish otoliths (ear bones) and cephalopod (squid and octopus) beaks. We will focus on otolith identification, enumerating and measuring the identified prey, and using this information to estimate important prey by frequency of occurrence as well as compare stranded inshore dolphin diet to offshore dolphin diet. In addition to learning lab techniques and prey species identification, the student will learn the benefits and limitations of stomach content analysis in light of larger ecological questions. Additional field work and lab opportunities (i.e., marine mammal necropsies) in support of the PSB research program may be available.

(The objective is for the student to learn skills, techniques, and experience hands-on research applicable to a career in ecosystem, fisheries and marine mammal research).

This is a "hands-on" activity. Daily, this student will be working in a wet-lab examining the stomachs of marine mammals, in order to gather, retrieve and identify the hard parts (fish otoliths, cephalopod beaks, bones, jaws, teeth, cartilage, lenses, etc) which identify prey and recent foraging activity. Frederick Wenzel, Fisheries Research Biologist will assist with daily tasks at hand, including; prey identification and management of both predator and prey variables. This is a long-term research project and can not be conducted/completed virtually. COVID restrictions may prohibit some field and lab work.

Academic status: Graduate

Estimated start - end date: May 2022 - August 2022

Duration: 4 months

Area(s) of discipline: Zoology

Internship location: Woods Hole, MA

Duties and responsibilities: Intern Duties/Responsibilities:
(List specific tasks and procedures the student will perform that are

associated with the project)

1. Evaluate Common dolphin body condition (via necropsy) and stomach contents to determine overall health of the animal.
2. Analyze marine mammal stomach contents as a function of recent foraging with a review of spatial and temporal variables for both predator and prey
3. Compare results from historical and published records to determine how foraging and prey changes both temporally and spatially.
4. Describe intra- and/or inter-annual variability at differing spatio-temporal scales for US Common Dolphins in order to gain a better understanding of what may be the important variables which may influence both predator and prey.

Special skills/training required: The student should have experience with database management including Excel as well as GIS (mapping) programs.

Expected outcomes: This student will have developed an extensive database on the Foraging ecology of NW Atlantic Common Dolphins (*Delphinus delphis*)

Guidance and supervision: Frederick Wenzel, Fisheries Research Biologist, for NOAA, NMFS, Northeast Fisheries Science Center, Woods hole, Ma. will be your supervisor.

<https://www.researchgate.net/profile/Frederick-Wenzel>

Application package: Letter of recommendation/or names of references
Resume
Unofficial transcript
Cover letter

Posted or modified date/time: Tuesday, September 28, 2021 - 4:10:00 PM

Internship Travel Information

Purpose (student's role): ---

Mode of transportation: ---

Date(s): ---

Destination: ---

Estimated cost: ---

Source of funding: ---

Mentors Contact Information

Name: Frederick Wenzel

Organization: National Marine Fisheries Service (NMFS)

Program office: Northeast Fisheries Science Ctr

Mailing address: 166 Water St
Woods Hole,, MA 2543

Fax number: 508-495-2066

Phone number: 508-495-2252

Email: frederick.wenzel@noaa.gov



Co-Mentor name: ---

Co-Mentor email: ---

**Agency or
organization:** ---

Admin Action

Submitted internship: **Approve**
 Disapprove

Additional comment(s):
(300 characters max)

Accepted for a minimum 3-month EPP NERTO internship. Requires: a workplan developed by CSC and NOAA mentor; substantial engagement with NOAA mentor; and, NOAA-aligned professional development. Queries are sent to: oed.epp10@noaa.gov.

Admin Initials (required):

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