

Art Showcase

9:00am-11:00am

17th Annual Student Research Symposium

Memento Mori- A Reflection of Mortality

Presenter: Rebecca Sherrier

Advisor: Dr. Stephan Burt

My pieces reflect the practice of memento mori, which is an artistic movement based on representing

Scavenging decisions by vertebrates: visual and olfactory cues to risks associated with carcasses

Presenters: Carolyn Wawrzynowski and Sara Deangelo

Advisor: Dr. Zachary Olson

Relationships between organisms are recognized by their relative costs and benefits, but must also acknowledge risks assumed by the actors. Risks associated with scavenging behavior are not well defined. Using a factorial design, we deployed mouse (*Mus musculus*) carcasses in which we manipulated visual and olfactory cues to scavenging risk. A visual cue caused more scavengers to pass on a meal than an olfactory cue. These preliminary results suggest that visual signals of risk may be more important in scavenging decisions than olfactory signals.

Fresh Water Resources in the Island Nation of Kiribati: Effects of Overpopulation, Health Implications & Management Options

Presenter: Samantha Schildroth

Advisor: Dr. Pam Morgan

Freshwater resources in the coral atoll nation of Kiribati are limited and threatened by an increase in human population. This presentation outlines the population structure in Kiribati, its effect on freshwater lenses, resulting health implications of over-exploited water resources and ways in which to manage these resources.

Behavioral response of green crabs (*Carcinus meanas*) to both light and sound signals

Presenters: Iliana Flefel, Michelle Furbeck and Emily Corey

Advisor: Dr. Markus Frederich

The green crab *Carcinus meanas* is a highly invasive species and causes extensive damage to the local economy, but controlling the populations by traditional trapping is highly resource intensive. Therefore, we are investigating ways to attract crabs by light and sound signals. Preliminary results show a strong attraction to specific wavelengths, and the response to recordings of their own feeding sounds is currently under investigation.

Stable Isotope Signatures Reflected in Habitat Affinities: Saltwater, Estuarine, and Freshwater Fish in Saco Bay

Presenter: Andrew Davidsohn

Advisor: Dr. Carrie Byron

This project aims to visualize (both graphically and statistically) the delta carbon-13 values ranges of saltwater, estuarine, and freshwater organisms. Results supported my hypothesis that there is a significant difference in the delta carbon-13 values between saltwater, estuarine, and freshwater organism, suggesting a difference in food sources supporting food webs in each of these habitats.

Impacts of estrogen in sewage outfall on marine invertebrates.

Presenter: Alyssa Kaufold

Advisors: Dr. Carrie Byron and Dr. Teresa Dzieveczynski

This summer I will be observing how estrogen that does not get filtered out in sewage treatment plants affects marine organisms. Since I do not have any data yet, it will mainly be an introduction and explanation of the purpose and methods I plan to use.

**Food Web Dynamics for Shellfish Aquaculture:
Stable Isotope Fractionation Between Oysters and Phytoplankton**

Presenter: Katherine Perry

Advisor: Dr. Carrie Byron

The goal of this experiment was to see the trophic-step stable isotope fractionation values between oysters and phytoplankton, and to gain a better understanding of how these species relate to each other and their trophic levels. The common assumption for all species in many different trophic levels is that

This grand assumption was tested to see if it is accurate or if a species-specific fractionation value should be established for different organisms in different food webs.

Atlantic Sharpnose shark (*Rhizoprionodon terraenovae*) age and growth in the Gulf of Mexico

Presenter: Alicia Brown

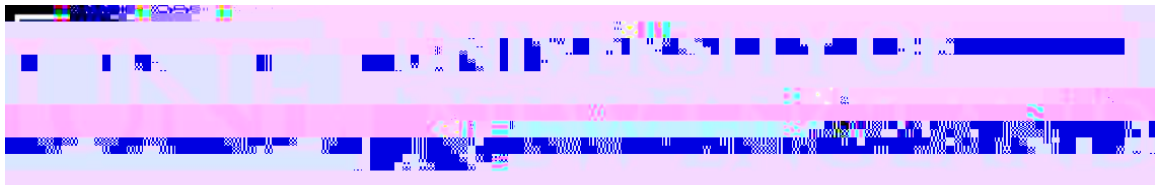
Advisor:

Analysis of Polycystic Ovary Syndrome through an Evolutionary Perspective

Presenter: Kailey Perez

Advisor: Dr. Greg Zogg

Polycystic Ovary Syndrome (PCOS) is a metabolic disorder that causes infertility in women of reproductive age. It is expected that natu



Characterization of Ongoing and Evoked Pain in Rat Temporomandibular Joint Osteoarthritis

Presenter: Sebastien Sannajust

Advisors: Ian Imbert and Dr. Tamara King

We characterized a rat model of TMJ osteoarthritis (TMJOA) in which monosodium iodoacetate (MIA) is injected into the TMJ joint space inducing cartilage loss and pain behaviors. We tested the hypothesis that MIA injection into the TMJ produces tactile hypersensitivity and ongoing pain.

Craniopagus Conjoined Twins

Presenters: Annie McGregor Alecia Steidler and Cassie Kimball,

Advisor: Dr. David Sandmire

The aim of this presentation is to discuss one of the rarest forms of conjoined twins: craniopagus.

Decary Room 205

Shortnose Sturgeon in the Saco River Estuary: An Assessment of Critical Habitat

Presenter: Cameron Hodgdon

Advisor: Dr. James Sulikowski

The Saco River estuary is home to two endangered sturgeon species, the Atlantic and the shortnose, the latter of which there exists little information about. To designate the river as a critical habitat (location necessary for conservation) for this species, information about their movement patterns is necessary. The Saco River estuary is home to two endangered sturgeon species, the Atlantic and the shortnose, the latter of which there exists little information about. To designate the river as a critical habitat (location necessary for conservation) for this species, information about their movement patterns is necessary.

Grey Seal Diet Composition

Presenter: Jessica Antonez

Advisor: Dr. Kathryn Ono

The Northwest Atlantic population of grey seals (*Halichoerus grypus*)

The Modern Public Spectacle: pornography and Fifty Shades of Grey

Presenter: Cassidy Bayen

Advisor: Dr. James Roche

An exploration of Michel Foucault's theories on the public spectacle and how it proliferates in the modern

Habituation to a novel stimulus in Louisiana crayfish

Presenter: Noelle Baker

Advisor: Dr. Zach Olson

My research entailed tapping a crayfish on its back for variable amounts of time to see how long or if they would become habituated. I also did a second condition where another crayfish was present in the tank during the tapping to see if that had any effect on their hyperawareness.

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