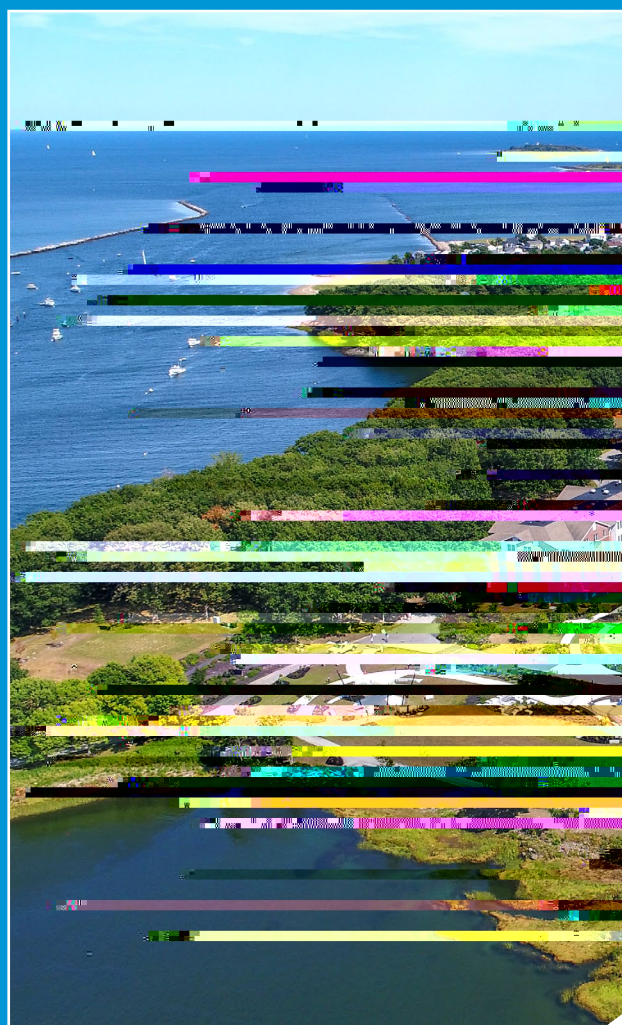


University of New
College of Arts and

23RD ANNUAL
SPRING
RESEARCH
SYMPOSIUM



Friday, 10 March 2023

UNIVERSITY OF
NEW ENGLAND

CONTENTS

Introduction	3
.	3
.	3
.	
Poster Presentations	5
.	↗
.	↘
Oral Presentations	40. . . .
.	1
.	2
Directory	52
.	3
.	↗
Thank you	57

RESEARCH AT UNE

On behalf of the UNE College of Arts and Sciences (CAS) Dean's Office, welcome to the 2022-23 CAS Spring Research Symposium! This event, now in its 23rd year, showcases the scholarly and creative endeavors of our students through posters and oral discussions and represents the outcomes of over 130 talented students working under the direction of dedicated faculty and professional staff.

Please join us in celebrating the hard work, enthusiasm, and creativity of our students by learning more about their fascinating projects. We hope you enjoy your day!

Amy Keirstead, Ph.D.

SCHEDULE

9:30–11:30 a.m. | Poster Presentations

11:30 a.m.–12:30 p.m. | Lunch and Speakers

James Herbert, Ph.D.

Brandon Hotham, B.A. '12 (Psychology and English), M.P.H. '14

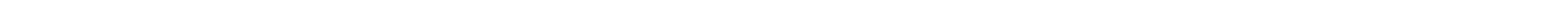
1–4 p.m. | Oral Presentations

KEYNOTE SPEAKER



Brandon Hotham is the Chief Experience Officer at the Dempsey Center in Lewiston and South Portland, Maine, where he is responsible for client strategy and operations, supporting any individual navigating cancer with evidence-based support care services. Following his Bachelor of Arts in 2012, Hotham earned his Master of Public Health degree from UNE in 2014. He has worked for several health care-related organizations in Maine and beyond, including the Maine Health Management Coalition, Martin's Point Health Care, Grand Rounds/Included Health, and Central Maine Healthcare. He has been with the Dempsey Center since April

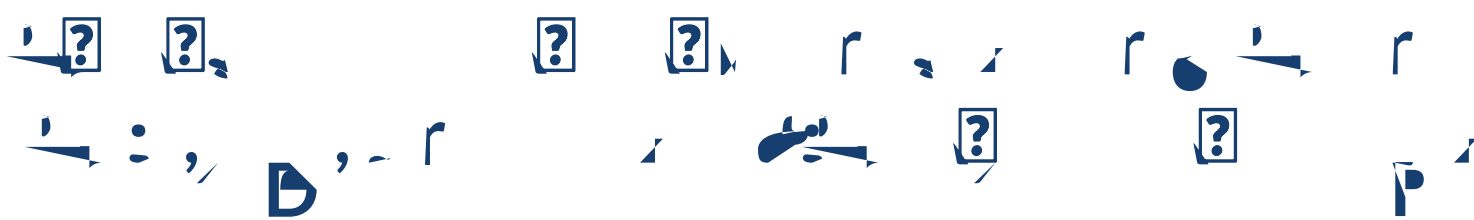
POSTER
PRESENTATIONS





Katelyn DeWater '26, Caitlin Cournoyer '24,
 Clayton Nyiri '25, Ben Wheeler '24, Rachel Becker '24,
 Josephine Pikowski '26, Megan Pike '24, Nicole Doucett '26 |
Jeri Fox, Ph.D., Michael Esty

The goal of this project is to develop a camera that can capture the fluorescent wavelengths of corals as well as to create a 3D model of a coral reef in Belize. Corals contain fluorescent pigments that protect themselves and their symbionts from UV radiation. Coral fluorescent wavelengths can be measured to determine their health and a 3D model can be used to map coral locations on reefs.



Katelyn DeWater '26 / John Kraeuter, Ph.D |
Will Kochitzky, Ph.D.

1, 2

In the past, NO_3^- concentration levels have exceeded the EPA's recommended limit of safe swimming concentrations at Goose Rocks Beach (GRB), Maine. One tributary at the north end and two tributaries at the south end of GRB are of interest because they drain salt marsh water that may contain high levels of NO_3^- directly into GRB. This modeler will be used to understand NO_3^- levels as they relate to calculated tidal volumes.



**Jack Genoways '25, Katelyn DeWater '25 |
Will Kochtitzky, Ph.D.**

1 2

In Fall 2022 and Spring 2023, I assisted Dr. John N. Kraeuter, a research professor at the University of New England (UNE) and member of the Shellfish Conservation Committee for Kennebunkport, Maine, in quantifying the persistently elevated levels of Enterococci bacteria in the rivers and marshes, at median low water (MLW) and median high water (MHW) behind Goose Rocks Beach.



**Hannah D'Amaddio '24, Faye Botelho '24, Ben Wheeler '24,
Peter Swanson '24 | James Vesenka, Ph.D.; Eva Rose Balog, Ph.D.**

Atomic Force Microscopy (AFM) is a high-resolution imaging technique, combining the capability of visualizing a wide range of materials from micro- to nanometer range with forces from pico- to nanonewtons range. The current report aims to provide a comparison of duplex, triplex and quadruplex DNA structures on treated mica surfaces imaged in ambient air conditions using tapping mode AFM. The resulting images give an insight into how air imaging and the AFM probe affect the topology.

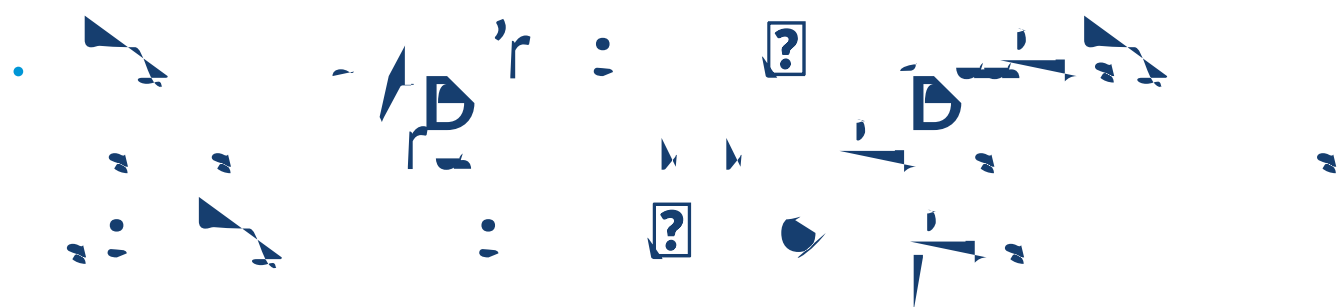
Defining a Service





**Justin Trueira '23, Carly Stringer '23, Lyle Massoia '22 '24 |
Kristin Burkholder, Ph.D.**

Ocean microplastics are substrates for bacterial attachment. If ingested by marine organisms, microplastics may facilitate pathogen entry into the human food supply. However, no studies have examined whether microplastics transport pathogens into marine species consumed by humans. In preparation for a larger study aimed at examining microplastic-mediated bacterial transport into fish, we compared binding to polyethylene terephthalate, polypropylene and low-density polyethylene microfibers. This will inform future efforts to study microplastics as pathogen vectors.



**Danielle Giacalone '24, Alec Worthen-Sluz '24,
Samuel Walsh '24, Jessica Gross '25, Kaleb Burns '24,
Virginia May '24, Brooke Parks '23, Jackson Schuyler '24,
Alex Woodworth '24, Abby Conway '23 | Pam Morgan, Ph.D.**

2 2

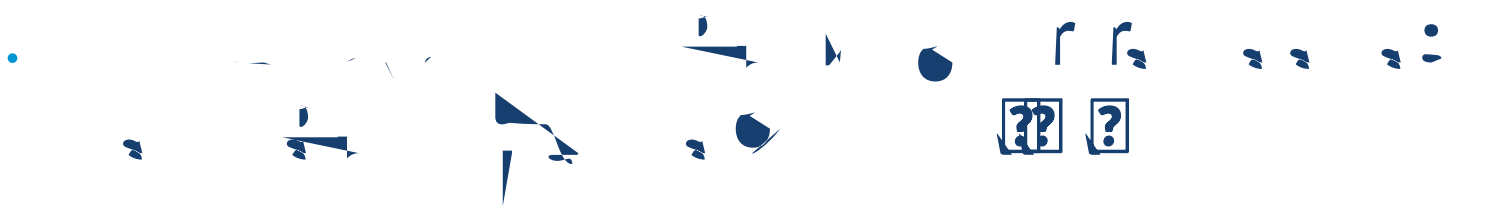
We researched the most effective way to communicate with UNE undergraduate students and administrators about the Living Shoreline Project on the Biddeford campus. This project will help to protect our campus shoreline from erosion. We conducted a survey and focus group, and discovered that communication strategies would need to be tailored to each stakeholder group. Our results led to the creation of several communication tools which we are implementing this semester.



Virginia May '24, Kayla King '23, Lydia Sawyer '26 |
Thomas Klak, Ph.D.

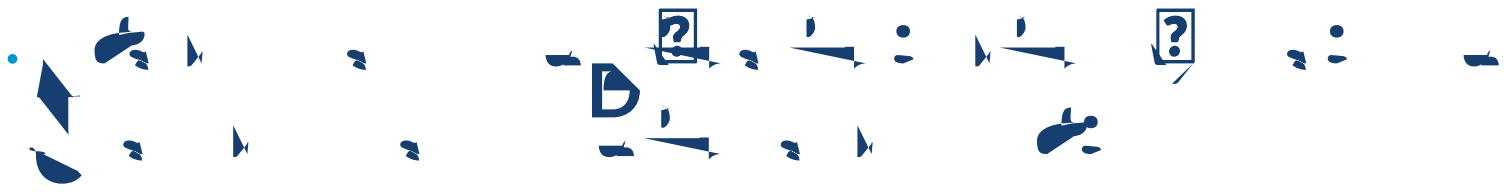
The UNE American chestnut restoration project continues to spearhead chestnut research through five breakthroughs the past year. (1) We have produced unprecedented quantities of genetically engineered Darling58 pollen which is (2)





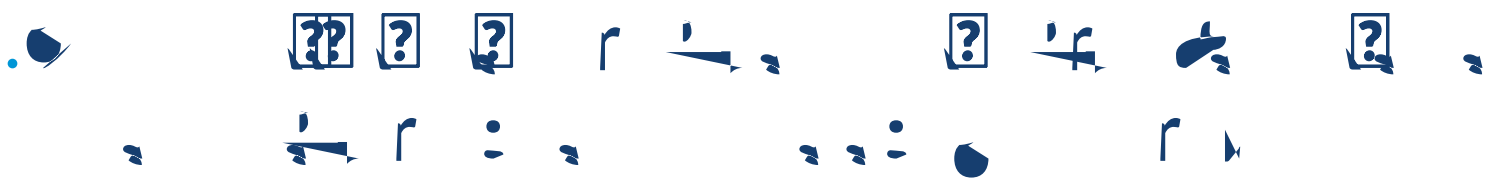
Dongjae Kang '25, Yesul Kang '22 | *Kristin Burkholder, Ph.D.*

Staphylococcus aureus and *Escherichia coli* are common bacterial pathogens that can cause invasive, and potentially drug-resistant, infections. Our lab previously found that the phenolic compound, pyrogallol, acts as an antibiotic adjuvant by increasing *S. aureus* susceptibility to certain antibiotics. In this project, we will assess whether *E. coli* can develop resistance to the effects of pyrogallol. This work will help elucidate the potential value of pyrogallol as an anti-microbial adjuvant.



Tehreem Pasha '25 | *Jerome Mullin, Ph.D.*

The goals of this project were to adapt and optimize an electrochemical method for the determination of acetaminophen for use in undergraduate laboratories, using screen-printed carbon electrodes and Microlab data acquisition instruments. Following successful proof-of-concept, experimental parameters were optimized, and the method was used to determine acetaminophen in commercially available OTC headache preparations. No significant difference between the experimentally determined amount of acetaminophen per tablet and product label specification was demonstrated at the 95% confidence level.



Anjanadevi Govindaraj '25, Alya Theriault '24 |
Kristin Burkholder, Ph.D.

Antibiotic resistance is a worldwide public health problem and novel approaches are needed to treat bacterial infections. Our lab has found that the phenolic compound, pyrogallol, can increase bacterial susceptibility to linezolid, which is an





Elias Young '23 | *Susan Farady, J.D.*

00

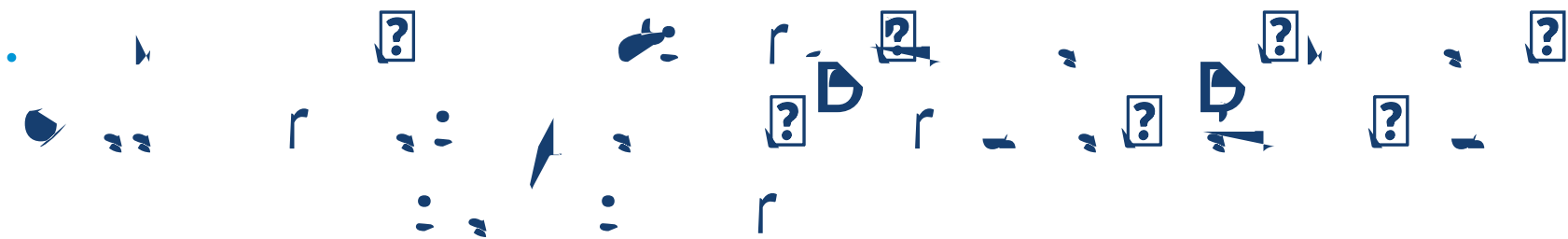
In 2023, human society faces continuous sources of existential problems that have stemmed from anthropogenic climate change. One of the effects associated with anthropogenic climate change is sea level rise, which refers to the gradual increase in sea level over the past hundred years and onward. My project looks the projected sea level rise of the waters near the Philippines, how impoverished Filipinos will be put into danger, and what can aid the countmEMCwual





Benjamin Gowell '25; Benjamin LaFreniere '22, '23 / Rebecca Peters, Briony Donahue, Nathan Miller, Alicia Cruz-Urbe | John Mohan, Ph.D.

White hake (*Merluccius americanus*) are a key ecological demersal gadid species found within inshore and offshore habitats in the Gulf of Maine (GoM). White hake use calcified earstones known as otoliths, for hearing and balance. Otoliths should reflect water chemistry throughout life as elements are permanently incorporated into the crystal structure through fish growth. This study examines if otolith core trace element concentrations are changing over time as records of increasing temperatures in the GoM.




Leo Edmondson '24 / Alicia Cruz-Urbe, Michelle Passerotti | John Mohan, Ph.D.

Atlantic bluefin tuna (*Makaira nigricans*) and white sharks (*Carcharodon carcharias*) are highly migratory, endothermic predators. The novel technique of elemental mapping was used to analyze their otoliths and vertebrae, respectively. Due to bluefin tuna and white sharks' shared physiological traits, this study focused on investigating and comparing elemental patterns between hard parts. This is a preliminary foray into analysis with an emphasis on establishing methodology for this cutting-edge technique.



Holly Stone '24 | Noah Perlut, Ph.D.

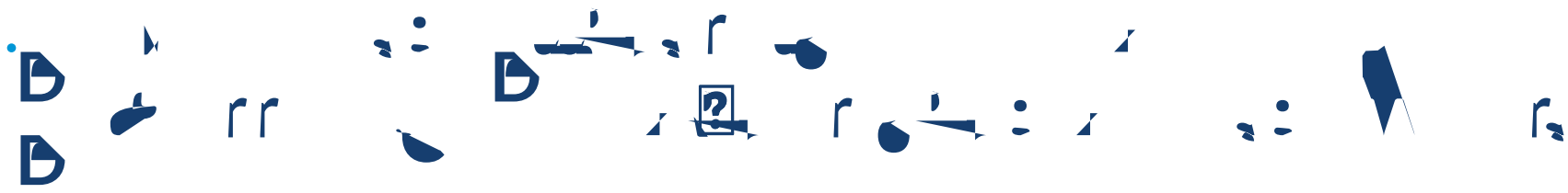
This project investigated if there is a common pattern taken for migration routes, how long does migration take, how do movements vary with different states, are there communal areas, and if migration is affected by sex (either time or route). This was investigated using Motus tracking devices, which allowed migratory pathing of the bobolinks to be recorded. Upon observation, the pathing seemed to be the same for almost all bobolinks that were tracked.



Claire Fecteau-Volk '26; Aubrey Jane '20, '23 / Eric Annis, Ph.D | Markus Frederich, Ph.D.

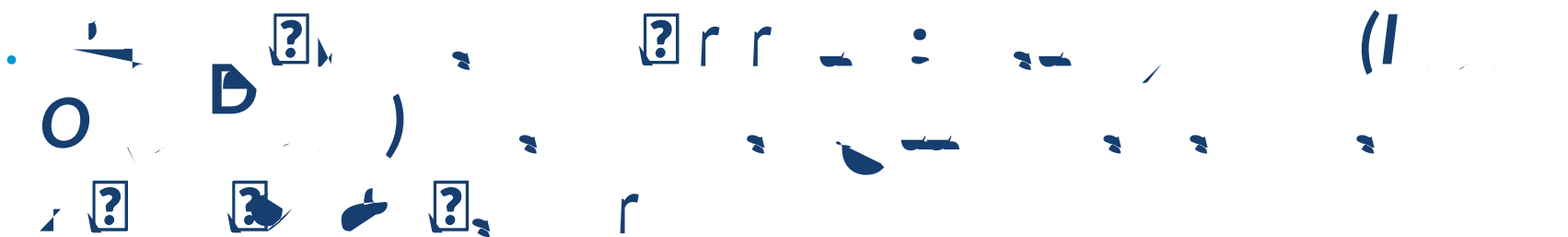
The heat tolerance of post-larval lobsters remains understudied, but is important to understand settlement and spatial shifts in populations as the climate changes. Using Western Blots we characterized protein expression of HSP70 and AMPK in stages I-V lobsters and characterized stage-specific thermal responses.





Maxi Bird '23 | Jennifer Garcia, Ph.D

In humans, mutations within the RNase T2 gene are linked to a rare neurodevelopmental disorder. To better understand this disease, we look at the role of Rny1, a RNase T2 enzyme, in regulating gene expression to promote proper growth in yeast. Using RT-qPCR, we investigated levels of specific mRNAs during glucose-rich growth. Uncovering the means by which Rny1 regulates gene expression helps us gain an understanding of how RNase T2 can contribute proper neurological development.



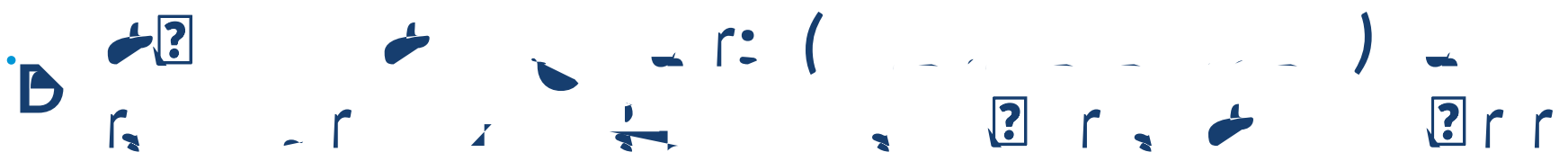
Peter Hennessy '25; Abigail Hayne '19, '23 | John Mohan, Ph.D.

The Shortfin Mako (*Isurus paucus*) is a highly migratory elasmobranch occupying much of the world's oceans and is important in commercial and recreational fisheries. To better understand their life history, this study used trace element analysis of vertebral cartilage in shortfin makos to investigate if individuals from different regions have distinct elemental signatures in the vertebrae edge. Elemental patterns will be compared to satellite tagging and genetic studies to better understand population connectivity of Makos.



Emma Christopher '25 | John Mohan, Ph.D.

The eye lenses of fishes, such as red snapper, are known to be recorders of age, growth, and life history, as they grow chronologically in protein layers, like otoliths. The eye lens of Atlantic Bluefin Tuna, *Morone chirocentrus*, have not been studied for such properties or compared to otoliths. The goal of this study is to establish a methodology for studying stable isotope analysis of *M. chirocentrus* eye lenses and compare results to bluefin otoliths.





Kathryn McGee '24 | Will Kochtitzky, Ph.D., Noah Perlut, Ph.D.

2

Bobolinks are long-distance migratory birds that travel 12,500 miles between North and South America each year. Utilizing migration data collected using light-level geolocators we can calculate the location of birds, but not the weather they experienced while migrating. GIS analysis using ERA-5 climate reanalysis data determined the temperature and precipitation conditions experienced by migrating birds along their migration route. This project will contribute to my thesis studying how environmental and genetic cues influence migration behavior.



Christopher Weis '24 | Will Kochtitzky, Ph.D.

1 2

22

This research project will be looking at the change in glacier melt and change in salinity in and around Svalbard. The methods will be using GIS knowledge to better map and understand what is happening and if there is any correlation. This project will also showcase what we can gather and use with GIS to better understand our oceans and world around us.

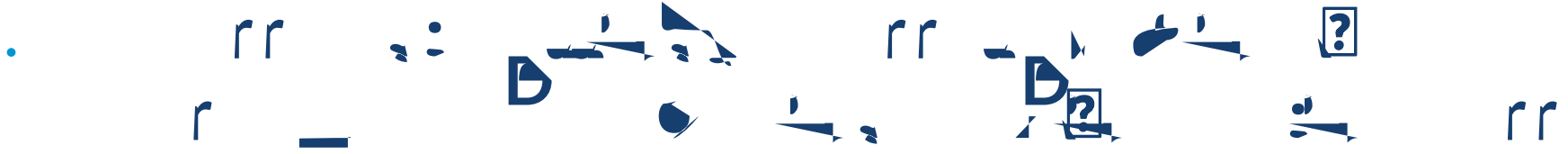


Kaleigh Potter '25 | Will Kochtitzky, Ph.D.

1 2

In October of 2020, Dan Shugar et al. published the first attempt to globally map glacial lakes and their evolution over time in *Journal of Glaciology*. Their automated mapping methods resulted in inconsistent, misshapen, and misplaced lake outlines, causing misleading results about the growth in glacial lakes globally. I am using GIS to re-map the glacial lakes in Novaya Zemlya, an archipelago in northern Russia, and correct the dataset.





Ryan Reed '23, Becky Powers '23 | Will Kochtitzky, Ph.D.

1 2

We will be using the Empirical Bayesian Kriging tool to estimate and fill in ice thickness data gaps of Canadian glaciers and to measure the uncertainty in interpolation to address the effectiveness of Empirical Bayesian Kriging as a tool for predicting ice thickness. Therefore, we will use interpolation to answer questions about which glaciers may be melting the fastest and predict which glaciers and specific areas of glaciers are most vulnerable to glacial melting.



Michael Fish '23, Katelyn DeWater '26 | Will Kochtitzky, Ph.D.

10

Determine how the salt marsh has changed in the last 60 years using aerial imagery, drones, and elevation data.



Abigail O'Hern '24 | Will Kochtitzky, Ph.D.

1 2

UNE hosts more than 600 transgenic chestnut saplings in an orchard in Cape Elizabeth. The transgenic chestnuts are compared against control trees, to see if they out perform the unmodified trees. Using UNE's drone and Agisoft software, we are able to measure the trees with GIS technology. We deployed the drone to collect, process, and conceptualize data to automate measurements that would normally be taken by hand.



Paige-Marie Merrill '24 | Will Kochtitzky, Ph.D.

22

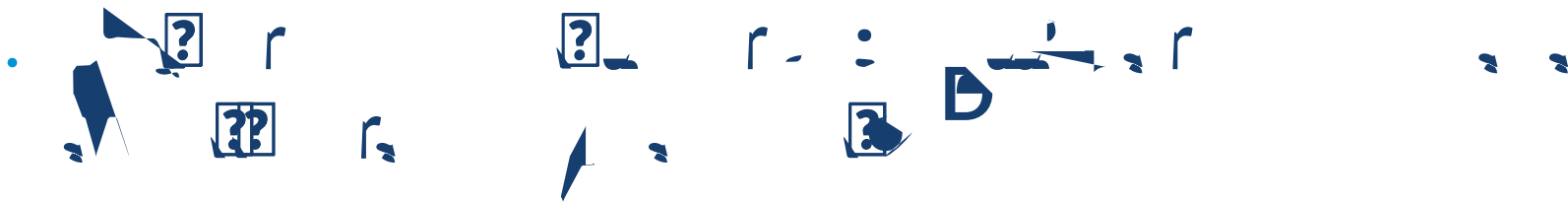
The Amazon is the largest tropical rainforest in the world and accounts for over 10% of Earth's biodiversity. Large-scale deforestation in the 1900s has begun to deteriorate these crucial ecosystems, leading to biodiversity loss and species extinction, increased risk of zoonotic diseases, climate change, and more. I used satellite imagery from Landsat 1-9 to observe and quantify these changes and found evidence of significant deforestation in the Brazilian Amazon.



Luke Gould '23 | Will Kochtitzky, Ph.D.

22

Surfing over the course of the last few years has experienced a drastic increase in popularity due to the pandemic. As people sought to escape the confines of their homes, more and more of them appeared in the lineups at your local surf break. The model displays new, uncrowded spots that are likely to have surfable waves. This was done using bathymetric data paired with coastline orientation data and a simulated swell direction.



Marley Cloutier '23, Courtney McColgan '23 |
Will Kochtitzky, Ph.D.

1-2



Research about the environmental recovery of Yellowstone National Park suggests that vegetation in grasslands are recovering. Vegetation declined due to both wildfires and the overpopulation of grazing animals like elk. We are examining the lingering effects of wildfires from 1988 and 2016 along with the reintroduction of wolves and how they've influenced vegetation growth over the years.



Katie Bergin '23, Morgan Segrest '23, Nate Roy '23 |
Susan Farady, J.D.

31



Shellfish aquaculture is a huge economy in Washington state. Shellfish aquaculture is managed by the Department of Ecology of Washington. The only issue is the wastewater from aquaculture farms. Washington has many strict laws about wastewater and how to dispose of it. This allows the state to carefully watch the natural water quality. Through these laws, permits, and overview of shellfish aquaculture in Washington, a more sustainable, more environmentally conscious way to farm shellfish results.



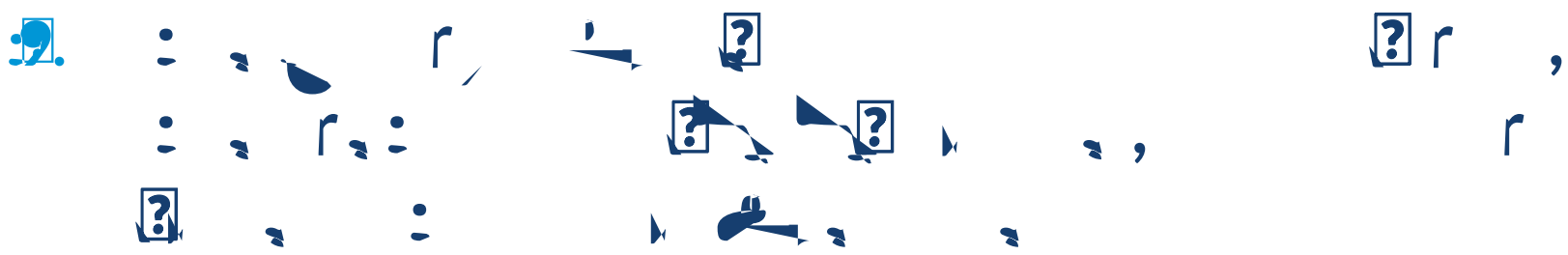
**Katie Bergin '23, Morgan Segrest '23, Nate Roy '23 |
Michael Galloway**

Seahorses () are unique organisms that have different behaviors and living requirements from other organisms in their phylum, Chordata. In this study I created two optimal tank environments for , considering water quality, hitching posts, and tank mates. I observed their natural behaviors around the different elements of their tanks (i.e., fake corals, live macroalgae, conspecifics). By observing these behaviors, I saw how these variables affected feeding activities, energy levels, and more.

Jared Franceschelli '24 | Susan Farady, J.D.

31

My focus will be doing a comparative analysis between Maine and Oregon and the different approaches each state takes, and how certain benefits and disadvantages of policy and management for supporting and promoting fish farming practices in Maine and Oregon. One of my main goals is to see if these policy and management practices are the best and most effective ways of producing a more sustainable way of fish farming and looking at different avenues to see if there's any other way that we could approach policy and management in various states and how will that be achieved.

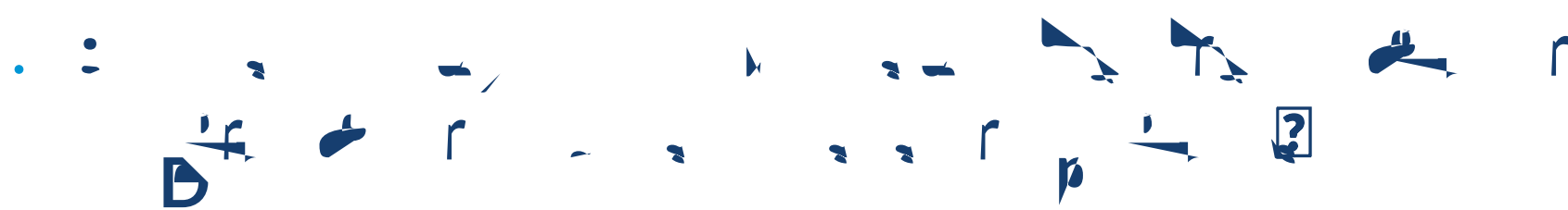


Julia Popson '23 | Susan Farady, J.D

31



I want to look into the mariculture industry in Alaska and how that differs from traditional aquaculture. I have researched the differences but want to know why mariculture is a bigger industry than aquaculture and why tribal nations are more apt to support mariculture than aquaculture. I also want to look into how climate change is going to affect these projects and what we can expect from these projects in the future.



Brittney Bull '24 | Susan Farady, J.D.

31

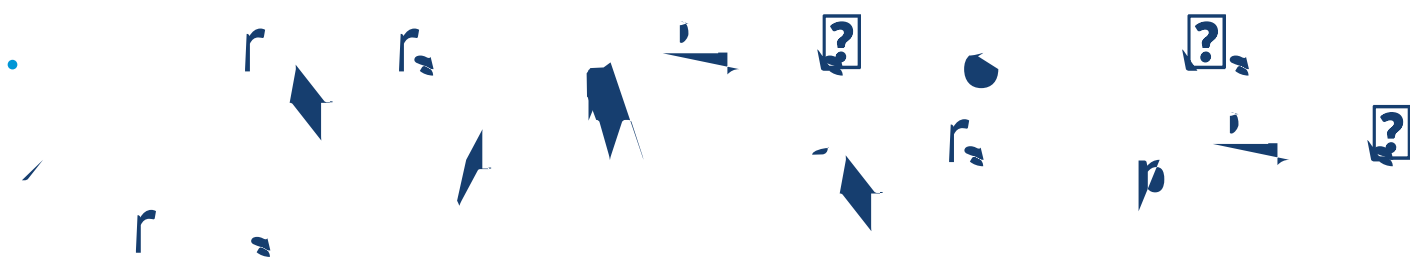


Invasive species and escapees often go hand-in-hand when it comes to the aquaculture industry and is used as a negative take whenever there's talk about expansion. This project aims to provide insight and examples of how these two categories can be managed in the United States through research and other countries' frameworks and regulations.



Molly Smith '24 | John Mohan, Ph.D.

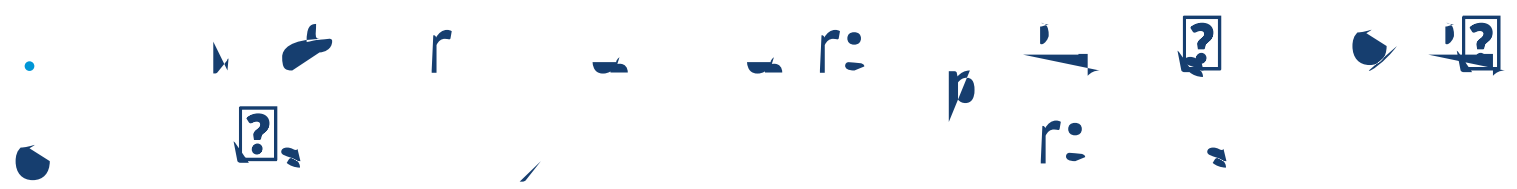
Age determination in elasmobranchs is achieved by the analysis of annually formed growth increments in calcified structures. Atlantic spiny dogfish (*Sphyrna tiburo*) have three structures which can be utilized, however discrepancies between them results in varying age estimates. This study compares the mantle and inner dentine layers of the dorsal spine and the vertebrae centra of Atlantic spiny dogfish (*Sphyrna tiburo*) for variation in band deposition.



Antoine Mier '24 | Susan Farady, J.D.

31

The New York City Harbor was once home to over 220,000 acres of oyster reefs, but with a growing population that was hum0avtN5323a((hum0av1.38.60ewhFF0053BDC 0tuag1f dorsar v



Courtney Carter '23 | Susan Far...CSgs... J.D. ...f...m...CourtMAF...cS...



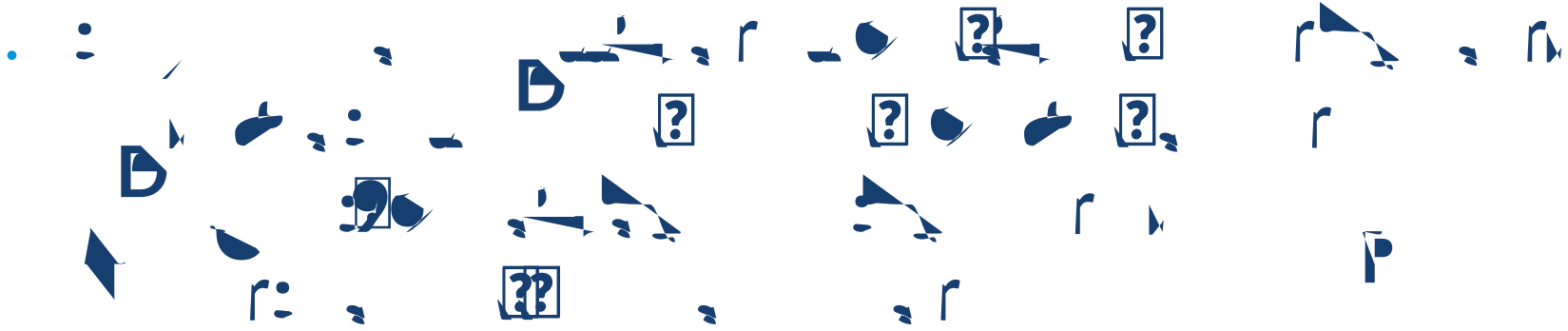
**Heather Marvin '26, Aliyah Walker-Pasko '24 |
Zachary Olson, Ph.D**

The Maine Owl Pellet Project is a collaboration between the University of New England, the Maine Department of Inland Fisheries and Wildlife, and the United States Fish and Wildlife Service that aims to engage the public and promote crowdsourced science to better understand the diet of Maine's owls and the distribution and composition of the small mammal community on which they prey, including the threatened northern bog lemming, to inform conservation efforts.



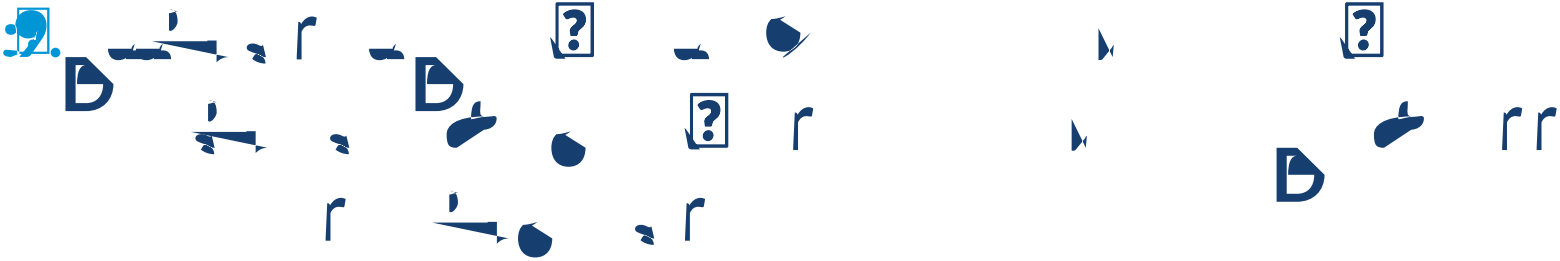
**Mia Morgan '23, Danielle McCarthy '26, Anika Koopman '24,
Sophia Simeone '23 | Julie Longua Peterson, Ph.D.**

This project focuses on the effect of social distancing prime words on partner preferences, fears of being single, and desires for emotional and physical intimacy. We explored whether participants who were primed with social



**Sophia Simeone '23, Anika Koopman '24, Mia Morgan '23 |
*Julie Longua Peterson, Ph.D.***

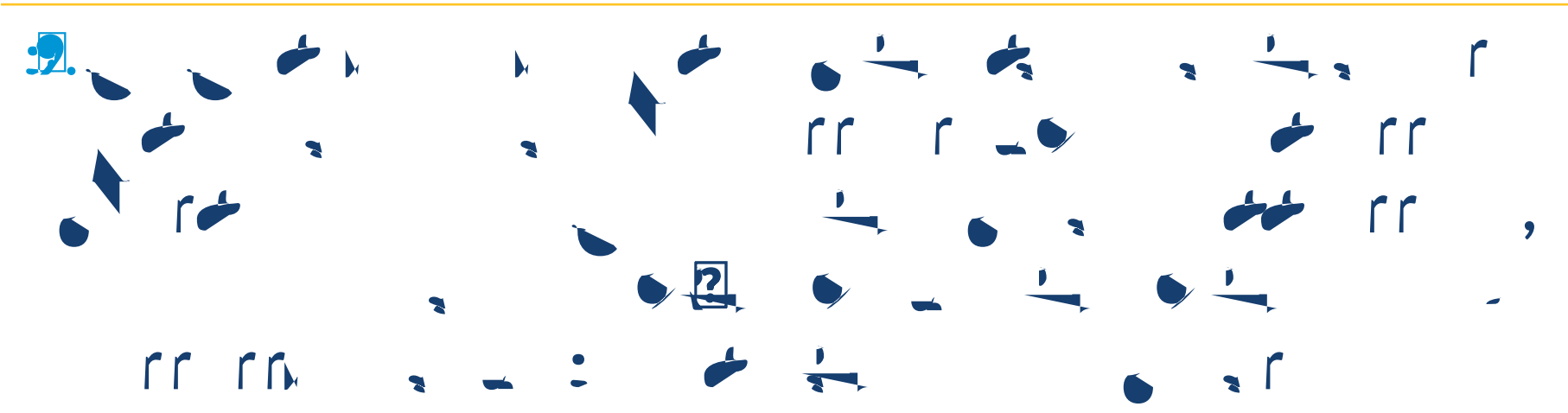
This research used a correlational design across two studies. We collected data during the implementation of COVID-19 protective measures (study 1) and after those measures were lifted (study 2). We examined how queer and cisgender heterosexual (cishet) participants differed in their empathy for vulnerable populations and their intentions and willingness to follow COVID guidelines (e.g., masking) during the pandemic. We explored political conservatism as a mediating variable in this relationship.



**Brooklynn Merrill '25, Megan Tomasch '25 |
*Michael Burman, Ph.D., Jared Zuke***

Neonatal pain increases susceptibility to chronic pain and mental health disorders. We have previously shown that corticotropin-releasing hormone in the central nucleus of the amygdala is involved. Our rodent model mimics the NICU experience through neonatal paw pricks. We will use RNAScope hybridization to identify differences in gene expression. The current data demonstrate the feasibility of this project examining changes in the amygdala as a function of age.

•



Hannah LaCourse '23, Lily Bennett '26, April Falstad '25 | Glenn Stevenson, Ph.D.

This is the first report of **opioid-sparing** dopamine D1/mu opioid interactions on pain, sedation, and drug reward in rats. SKF82958 and methadone were used as selective/high efficacy D1 and mu agonists, respectively. All three SKF82958/methadone mixtures had a higher therapeutic/safety index on pain relief and sedation endpoints relative to drugs alone, and showed no evidence of drug abuse potential. These results suggest D1-selective dopamine agonists have utility as candidate opioid-sparing analgesics.



ORAL
PRESENTATIONS



LEGEND

A
A

A
C

The Gulf of Maine (GoM) is warming faster than 99% of the global ocean. We selected 8 buoys throughout the GoM to represent 5 geographic regions. We then calculated specific heat, density, and change in temperature of seawater at each region from 2004-2020.

F
L



Peyton Sammons '23 | Cathrine Frank, Ph.D.

20 &

Cathrine Frank, Ph.D. will be an intricate explanation of the revision process for a short story and an accompanying artist book. Character development, setting the scene, and broadening the storyline are all key topics in this presentation. Excerpts of the short story will be read and the artist book will be explained as well.

Decary 205 | 1-1:20 p.m.



Beanie Lowery '23 | Cathrine Frank, Ph.D.

20 &

This presentation is a review of the original artists book 'Is Punk', and its subsequent revision 'Punker' as a humanities capstone project that analyzes personal growth, poetic growth, and artistic growth across the 4 years of study at UNE.

Decary 205 | 1:50-2:10 p.m.



Alex Kiehnau '23 | Cathrine Frank, Ph.D.

20 &

Alex Kiehnau will discuss the revision process of her novella, Caim and Abel, as part of the LIL420 Independent Project. Drawing upon published works, previous courses, and peer review, Alex analyzes and studies craft methodologies regarding creative fiction and will discuss how her writing process changes from the drafting and revision stages.

Decary 205 | 2:15-2:35 p.m.

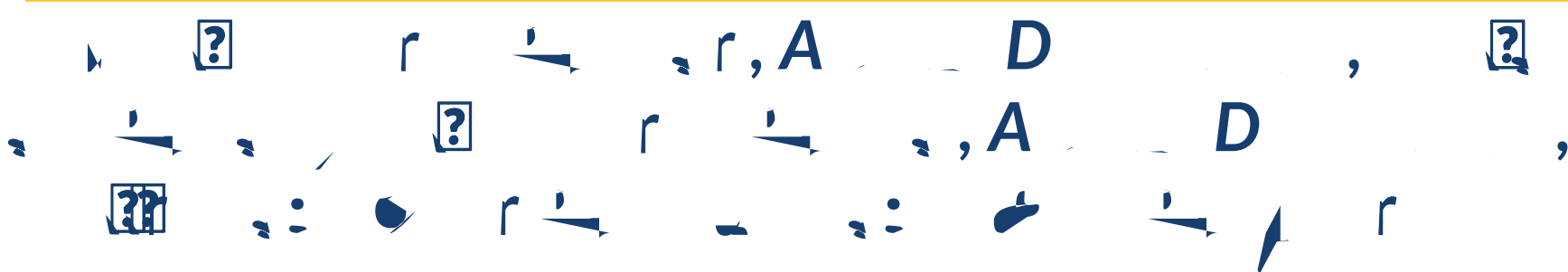


Samantha Mosier '23 | *Ali Ahmida, Ph.D.*

1

I will be reviewing two specific cases, the Libyan genocide committed by the Italian colonialists from 1929-1934, and the American case committed by European colonial settlers from the 16th to 19th century. My goal is to show how these cases are similar in terms of genocides, culture, relationships with the environment, and the fact that they have independent agency.





Cameron Capachietti '23, Nick Ettinger '23, Nicholas Geren '23, Sara Poll '23 | Margaret Stanton, Ph.D.

2

Previous research has shown that female crickets have difficulty locating male cricket's call in the presence of anthropogenic noise. Based on those results, we expect that when additional anthropogenic noise is present, the female crickets will have a decreased ability in locating the male cricket's call. Additionally, when no additional anthropogenic noise is present, we expect the female crickets to favor the side of the enclosure the male cricket is calling from.

Decary 207 | 1:50-2:10 p.m.

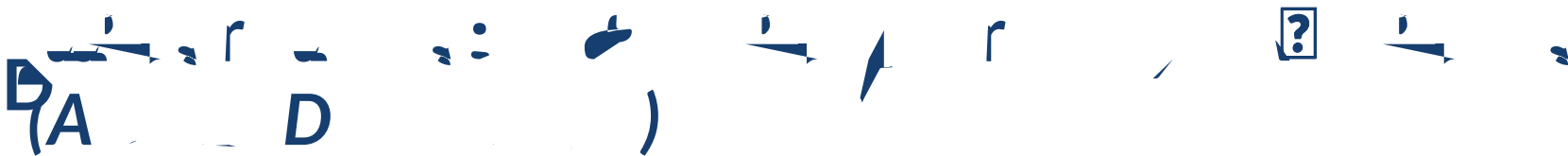


Jackie Osgood '23, Jackie LaBarre '23, Nick Vare '23, Lindsay Rose Smith '23 | Margaret Stanton, Ph.D.

2

Based on previous studies on the impact of different sounds on cricket calling behavior cricket calling was found to be interrupted by the presence of mining trucks compared to other biotic noises (Duarte et al. 2019). For our study we used rain, traffic, and bat noises. Our hypothesis is that mating calls will increase in the presence of biotic noise compared to abiotic noise, which will be increased compared to anthropogenic noise.

Decary 207 | 2:15-2:35 p.m.



Fenya Grew '23, Adryona Miller '23, Casey Wood '23, Cassidy Pacheco '24 | *Margaret Stanton, Ph.D.*

2

The purpose of this study is to observe how male crickets respond to different lengths of exposure to anthropogenic noise. The signaling rate and activity level of the male crickets will be observed as a way to study anthropogenic noise.

Decary 207 | 2:40-3 p.m.



Courtney McColgan '23, Jon Last '23, Rachel Kaplan '23, Marley Cloutier '23 | *Margaret Stanton, Ph.D.*

2

Prior research suggests that crickets exposed to predator scent cues will exhibit higher rates of evading predation and a longer latency to emerge from safety. In addition, crickets exposed to anthropogenic noise pollution will exhibit reduced locomotion. We expect that when house crickets (*Gryllus domesticus*) are exposed to anthropogenic noise or predator sound cues, they will reduce locomotion, spend less time outside of a shelter and show an increase in latency of emergence from hiding.

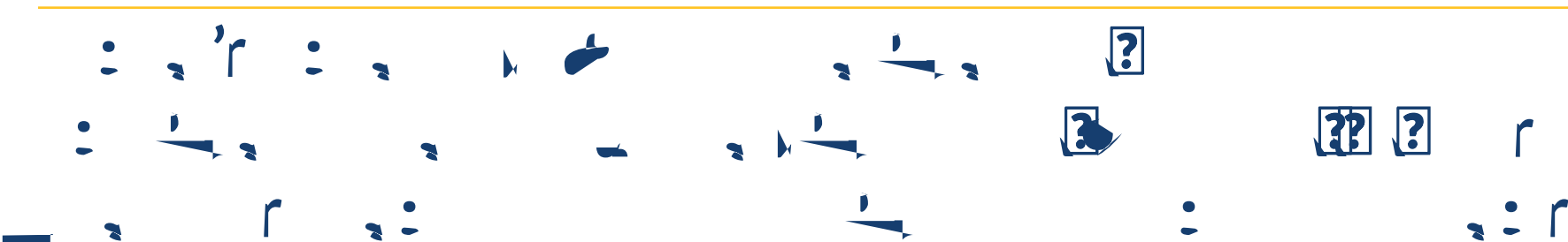
Decary 207 | 3:05-3:25 p.m.



Alex Kiehnau '23 | *Jesse Miller, M.F.A*

Alex Kiehnau will discuss the creative process behind her novella, Caim and Abel. Drawing upon published works, previous courses, and advisor peer review, Alex analyzes and studies craft methodologies regarding creative fiction and will discuss her personal writing process. Alex will also read portions of her novella and discuss the inspiration behind specific scenes.

Decary 208 | 1-1:20 p.m.



Carolyn Curley '23 | *Amy Deveau, Ph.D.*

Antimicrobial resistance to the gram-positive pathogen *Staphylococcus aureus* is one of the leading public health threats today. In this talk, an analysis of nuclear magnetic resonance (NMR) and infrared spectroscopy and mass spectrometry data of synthetic antimicrobial compounds will be presented. The data will be synergized and used to deduce the structures of the antimicrobial compounds.

Decary 208 | 1:25-1:45 p.m.



Peter Swanson '24 | *Eva Rose Balog, Ph.D.*

We investigate the stimuli-responsive behavior of an elastin-like polymer, nicknamed "KI8," in response to environmental variables using dynamic light scattering. This study focuses on measuring the hydrodynamic size, zeta potential, and physical polymer attributes such as flexibility and Kuhn length. Elucidating how KI8 responds to different stimuli such as temperature, pH, and ionic strength, and how these environmental variables affect its behavior will aid in the development of new biomaterials with tailored properties for biosensing applications.

Decary 208 | 1:50-2:10 p.m.

-

DIRECTORY



POSTERS BY AUTHOR









Name	Poster #		
Alley, Lauryn	66, 67	Currier, Jillian	25
Becker, Rachel	1	D'Amaddio, Hannah	4
Bennett, Lily	69	Deegan, Kelly	64
Bergin, Katie	46, 47	Delsignore, Evan	61
Bhattacharya, Ruhika	35	DeWater, Katelyn	1, 2, 3
Bickford, Jasmyne	27	DiTomaso, Ella	60
Binstock, Addie	33	Doucette, Nicole	1
Bird, Maxi	30	Edmondson, Leo	22
Botelho, Faye	4	Enos, Haley	67, 68
Boudreau, Megan	51	Fales, Caroline	39
Bull, Brittney	50	Falstad, April	69
Burns, Kaleb	8	Fecteau-Volk, Claire	24
Callaghan, Shannon	62	Fish, Michael	41
Carter, Courtney	53	Fox, Aidan	65
Christopher, Emma	34	Fox, Audrey	33
Cloutier, Marley	45	Franceschelli, Jared	48
Conway, Abby	8	Genoways, Jack	3
Cournoyer, Caitlin	1	Giacalone, Danielle	8
Curley, Carolyn	14	Gould, Luke	44
Currie, Cole	16	Govindaraj, Anjanadevi	13, 14



Reed, Ryan	40	Trueira, Justin	7
Ross, Shauni	62	Walker-Pasko, Aliyah	56
Roy, Nate	46, 47	Walsh, Samuel	8
Ryan, Taylor	51	Weis, Christopher	37
Sawyer, Lydia	9	Wheeler, Ben	1, 4
Scannell, Michael	54	Will, Brian	55
Schrankel, Brett "Dez"	29	Woodworth, Alex	8
Schuyler, Jackson	8	Worthen-Sluz, Alec	8
Segrest, Morgan	46, 47	Young, Elias	17
Simeone, Sophia	57, 58		
Smith, Molly	51		
Spada, Gianna	64		
Spezzano, Patrick	26		
Sprague, Grace	67		
Stevens, Peyton	64		
Stone, Holly	23		
Stringer, Carly	7		
Swanick, Sarah	6		
Swanson, Peter	4, 5		
Szumita, Richard	32		
Therriault, Alya	13, 14		
Tobin, Jake	28		
Tomasch, Megan	59		



ORAL PRESENTATION SCHEDULE

				
	Cox, Sammons	Mosier	Bradier, Forestier, Peduzzi	Kiehnau
	Fagan, Birdsall	Wall	Moore, Spies, Fabre, DeMers	Curley
	Lowery, Romero	Martinez	Capachietti, Ettinger, Geren, Poll	Swanson
	Kiehnau, Roundtable	Giano	Osgood, LaBarre, Vare,	

THANK YOU

THANK YOU!

The 23rd Annual College of Arts and Sciences Spring Research Symposium would not be possible without the support of many individuals and organizations who each contribute in their own way.

First, a hearty THANK YOU to the faculty and professional staff mentors who have supported the students in carrying out their scholarly work or class projects presented here today. Your generosity of time and effort has allowed the students to complete truly remarkable work.

Thank you also to the many faculty and professional staff members who have volunteered their time and expertise to



N