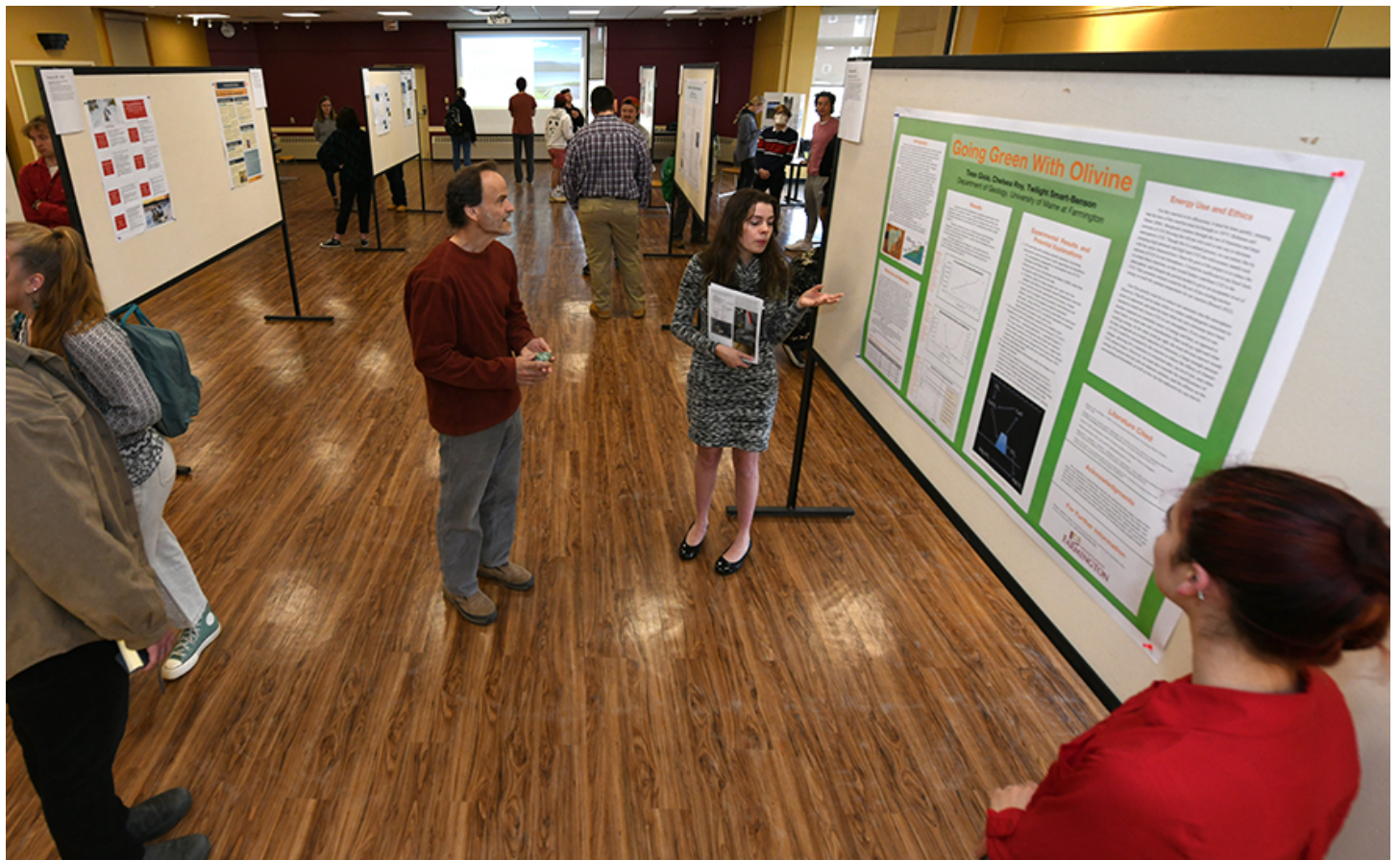




Michael D. Wilson SYMPOSIUM 15 April 2026



Welcome to the Michael D. Wilson Symposium

15 April 2026

The annual Symposium Day at the University of Maine at Farmington (UMF) campus celebrates its 27th year of highlighting the best of a UMF education, with students sharing their academic work with the campus community and beyond.

At UMF, we do not measure an education by the credits amassed or the grades obtained, but by the work produced. We educate with the adage: Don't tell me, show me.

Imagine an art student who said, "I obtained a degree in art with straight As." Wouldn't you say, "show me your art"? I don't want to see your report card. I want to see the paintings, the sculpture, the graphic designs, and the installations. Show me your portfolio.

The same can be said of a student in any field of study. Show me your creative writing, show me your scientific research, show me your political analysis, and show me your teaching plans. And not only show me but talk about it. Why is it important?

At UMF, we foster a culture of teaching and participatory learning, which helps students build portfolios of their work.

Symposium Day gives students an opportunity to share their work and their passion—to present a finished product and speak of its importance. I am amazed at the poise of our student presenters, and also the interest of students in each other's work.

Congratulations to all our presenters and to their faculty mentors who prepared and guided our students throughout the year in preparation for this event.

A special thanks to the Culture Committee, Professors Rachel Hovel, James Melcher, Douglas Reusch, NS Lewis Robinson and all who worked behind the scenes to make the day such a success.

Joseph W. McDonnell, President

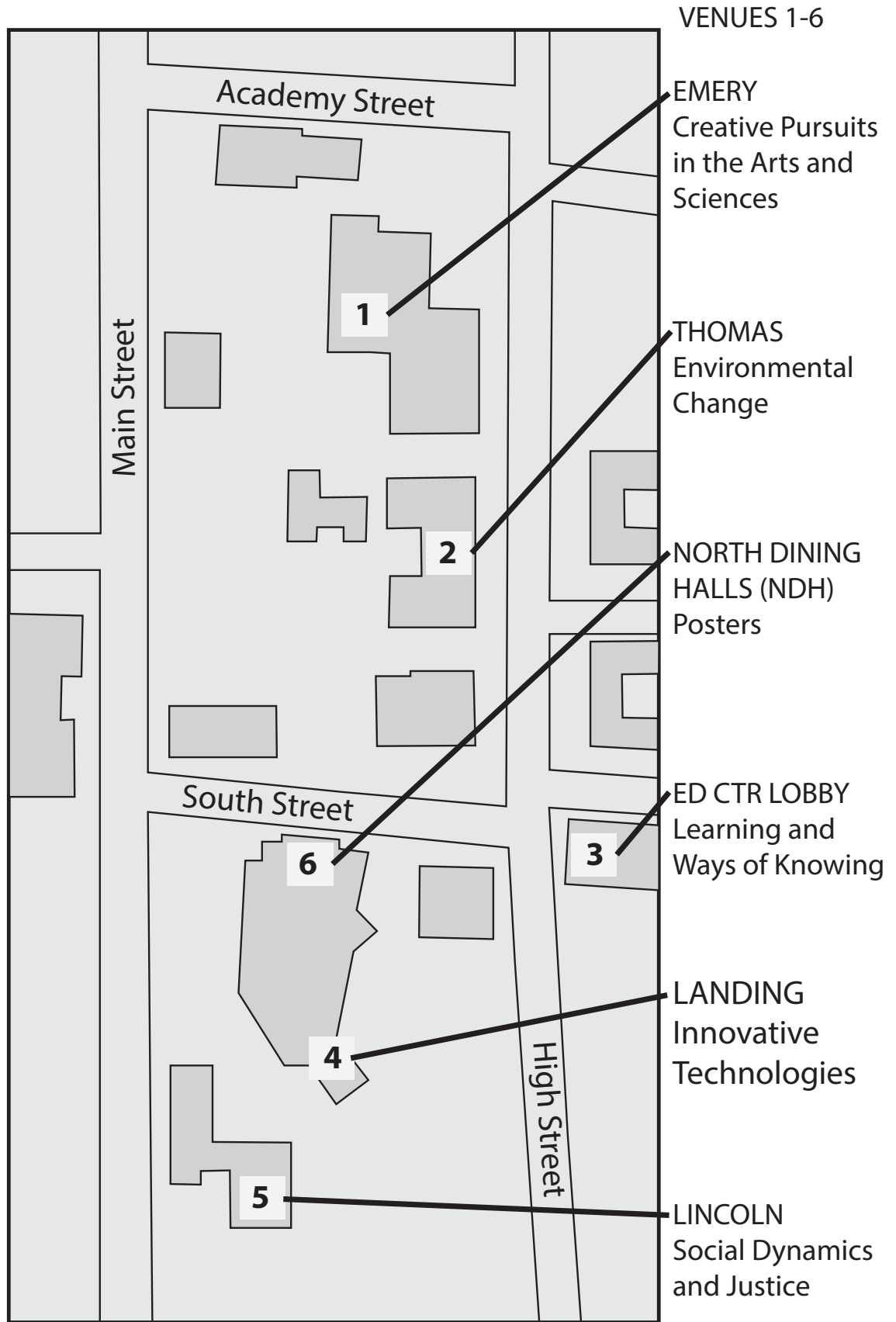
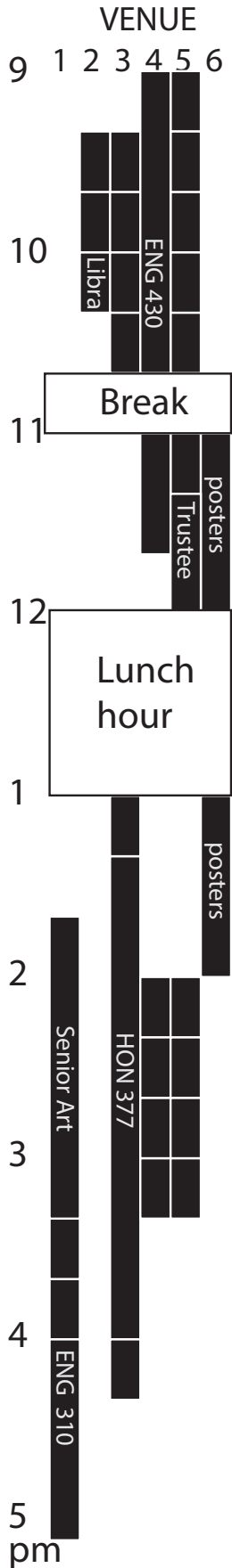
The Michael D. Wilson Symposium reminds us that research and creative activity are never solitary adventures. Rather, scholarship and the fine arts emerge out of our community and are shared with this very community. Symposium thus speaks to the very heart of who we are as artists and knowledge seekers. Every member of our academic community is called to participate in the *generation* of art and knowledge. As such, Symposium is a celebration of engaged citizenship and an affirmation of our collective responsibility to make meaningful contributions to our shared world.

Steve Quackenbush, Co-Provost and Dean of Arts and Sciences

Symposium Day provides a wonderful opportunity for students from all disciplines to share their impressive scholarly and creative work with the UMF community. The incredible array of presentations, poster sessions, readings, installations, and performances highlights the many talents of our student body and the multiple opportunities students have to engage in rich, rigorous research and learning experiences throughout their UMF education. Congratulations to all of the student presenters and faculty mentors, and many thanks to the organizers of this special event!

Kathy Yardley, Co-Provost and Dean of the College of Education, Health, and Rehabilitation

UMF SYMPOSIUM 2026



UMF Indigenous Land and Water Acknowledgement

We would like to begin by recognizing that the University of Maine at Farmington occupies the traditional homelands of the Abenaki people of Anmessokkanti, whose communities lived and sustained themselves along what we call the “Sandy River” for millennia until very recent times. We would like to honor them by sharing a short summary of this region’s significance to Abenaki people.

The Sandy River is a vital part of the food and kinship network extending throughout Abenaki or Wabanaki homelands. The river’s original name, Anmessokkanti, loosely translates to “land of the small fish,” being home to shad and alewives, and providing critical spawning habitat for Wild Atlantic Salmon. The plentiful fish populations here were a major food source for the Anmessokkanti and used as fertilizer for corn, beans, and squash cultivation. These crops, but corn in particular, were then shared with Wabanaki communities to the northeast whose soils and climates were less amenable to cultivation. This network was disrupted by colonialism and the industry, pollution, and river damming that accompanied it.

We acknowledge that UMF inherited its campus at the expense of the Abenaki community, after centuries of war, scalp bounty policies, and other tactics designed to extinguish the Abenaki from their own land. These events forced most Anmessokkanti to relocate to two Abenaki reservations in Quebec in 1704, called Wôlinak and Odanak. Many families descending from the Farmington area remain there today. We recognize that the dispossession and expulsion of the Abenaki from their homeland is an ongoing injustice upheld by settler colonialism. We pledge to bravely confront this painful reality.

We acknowledge that the Abenaki people of Odanak and Wôlinak descend from the original caretakers of this area, and maintain a sacred connection with it. We pledge to honor them by educating ourselves about their history and current struggles, and accepting our responsibility to correct ongoing injustice. We wish to also extend this acknowledgement to the Maliseet, Mi’kmaq, Penobscot and Passamaquoddy nations who, with the Abenaki, make up the Wabanaki people.

We recognize and affirm the sovereignty of the Native nations in this territory and beyond. We recognize that sovereignty means the ability to self-govern, and to govern over one’s homelands. We understand that this statement has real implications, and that decolonization is not a metaphor.

We pledge to continue our collaboration with Wabanaki people to further decolonize spaces and to transform UMF into a place that honors Wabanaki and other Indigenous peoples. We acknowledge that this is an ongoing process in which the University of Maine at Farmington promises to partake, in partnership the many Indigenous individuals who have contributed to this important cause.

(The Indigenous Land and Water Acknowledgement statement was authored by Mali Obomsawin [Odanak Abenaki First Nation, Bomazeen Land Trust] with input from Darren Ranco [Penobscot Nation, University of Maine].)

Table of Contents

Welcome to the Michael D. Wilson Symposium	2
Campus Map and Schedule	3
UMF Indigenous Land and Water Acknowledgement	4
Table of Contents	5
Michael D. Wilson Research Fellows and Scholars	6
Sargent Undergraduate Research Mentor Award	8
Arts Night (April 14th, Emery)	9
CREATIVE WORKS IN THE ARTS AND SCIENCES	
Venue 1: Emery Arts Center	10
ENVIRONMENTAL CHANGE	
Venue 2: Thomas Auditorium	12
LEARNING AND WAYS OF KNOWING	
Venue 3: Education Center Lobby	13
INNOVATIVE TECHNOLOGIES	
Venue 4: The Landing	15
SOCIAL DYNAMICS AND JUSTICE	
Venue 5: Lincoln Auditorium (and Venue 4: The Landing)	16
POSTER SESSION (ACROSS ALL FIVE CATAGORIES)	
Venue 6: North Dining Hall	22

Michael D. Wilson Research Fellow and Scholars

The Michael D. Wilson Scholars and Fellows represent some of UMF's best students from across all disciplines. The program recognizes UMF students' tremendous creativity, and expands UMF's commitment to undergraduate research and faculty mentoring. Each recipient is awarded funding to help underwrite an original undergraduate research or creative project. The Program has been providing single-semester support for research, scholarship and creative projects at UMF since the fall of 2006. It was expanded in the fall of 2007 to include two full-year Wilson Research Fellow awards to support even more substantive research projects. In the years since its inception, the Wilson program has supported the investigative research and creative activities of more than 250 students at UMF. During this time over 60 UMF faculty members have developed strong mentoring relationships with individual scholars, providing guidance with proposal development, research methodology and continuing pre-professional and post-graduate opportunities. The awards honor UMF alumnus Michael D. Wilson, class of 1976, an avid environmentalist, aspiring teacher, and dear friend whose untimely death in 1977 deeply saddened the UMF community. The students are nominated by a UMF faculty mentor and, after a competitive selection process, are chosen by the UMF Undergraduate Research Council.

2025-26 Wilson Fellows

Brianna Benson

A senior majoring in Biology, Benson is researching how temporal partitioning, utilizing habitats at different times of the day, is an ecological strategy that reduces competition between day hunters and night roamers in the natural world. Assoc. Prof. of Biology Donelle Schwalm is the faculty sponsor.

Ryan Martin-Hachey

A senior majoring in Biology, Martin-Hachey is conducting an analysis of Tick Zoonotic Disease Prevalence, infectious diseases that can be transmitted from ticks to humans, in the Greater Farmington area. Assoc. Prof. of Biology Donelle Schwalm is the faculty sponsor.

2025-26 Wilson Scholars

Spencer Brennick

A senior majoring in Biology, Brennick is studying the effects of calls on foraging in feeder birds. UMF faculty member Evan Jackson is the faculty sponsor.

Megan Dionne

Dionne is majoring in Health Promotion & Wellness and is exploring the relationship between alcohol use, peer influence and mental health among UMF college students. Assoc. Prof of Community Health Education Kate Callahan is the faculty sponsor.

Jalyn Drost

A junior majoring in Elementary Education, Drost is exploring using bookmaking to build content knowledge in Math, Science and Social Studies. Assoc. Prof of Literacy Education Kathryn Will is the faculty sponsor.

Paige Gonya

Gonya is a senior double majoring in International & Global Studies and Earth & Environmental Sciences.

She is using GIS technology to assess crosswalk safety on the UMF campus. Assoc. Prof. of Geology Matt McCourt is the faculty sponsor.

Kathryn Grover

A senior majoring in Creative Writing, Grover is exploring depictions of feminism, queerness and race through vampiric form. Assoc. Prof. of English Misty Krueger is the faculty sponsor.

Salfa Hendrix

Hendrix is majoring in Biology and is investigating the effects of landscape changes on the biodiversity of nocturnal hunters and infections transmitted from animals to humans in Western Maine. Assoc. Prof. of Biology Donelle Schwalm is the faculty sponsor.

Christopher Houdeshell

A senior majoring in Earth & Environmental Sciences, Houdeshell is researching the variation in growth of Atlantic Salmon across three different Maine rivers. Assoc. Prof. of Biology Rachel Hovel is the faculty sponsor.

Nora Hull

A junior majoring in Biology, Hull is researching the relationship between small mammal populations, landscape and Tick Zoonosis, infections transmitted from ticks to humans, in Farmington. Assoc. Prof. of Biology Donelle Schwalm is the faculty sponsor.

Hazel McEnaney

A senior majoring in Earth & Environmental Sciences, McEnaney is exploring the seasonal dissolved oxygen dynamics in high-elevation ponds in Western Maine. Prof. of Geology Julia Daly is the faculty sponsor.

Bobbie Pirruccello

A senior with an Interdisciplinary major in Web Media & Design, Pirruccello is illustrating a book of poetry. Senior Lecturer and Director of Emery Community Arts Center Ann Bartges is the faculty sponsor.

Aili Webb

A senior Psychology major, Webb is researching common and unknown mental disorders and conditions, awareness and acceptance. Asst. Prof. of Psychology Joey Essoe is the faculty sponsor.

Hannah Wilbur

A senior majoring in Art & Design, Wilbur is exploring finding joy beyond performance in collegiate sports through graphic design and athlete voice. Senior Lecturer and Director of Emery Community Arts Center Ann Bartges is the faculty sponsor.

Mya Williams

A junior majoring in Elementary Education, Williams is exploring using bookmaking to build content knowledge in Math, Science and Social Studies. Assoc. Prof. of Literacy Education Kathryn Will is the faculty sponsor.

Sargent Undergraduate Research Mentor Award

In 2012, the Undergraduate Research Council (URC) presented the first Undergraduate Research Mentor Award. In 2013, the award was named to honor the late Walter Sargent, a UMF history professor and URC member. Walter was not only a council member, but a mentor of many undergraduate research projects that built a culture of undergraduate research in his discipline. **At 11:55 am in Lincoln Auditorium (Venue 5)**, we will present the 2026 Walter Sargent Undergraduate Research Mentor Award to a faculty member with a similar record of mentoring and establishing a culture of undergraduate research within the discipline.

Past awardees

2025 – Dr. Sarah Sloane, Associate Professor of Biology

2024 – Dr. James Melcher, Professor of Political Science

2023 – Dr. Julia Daly, Associate Professor of Geology

2022 – Dr. Rachel Hovel, Assistant Professor of Biology

2021 – Shana Youngdahl, Assistant Professor of English

2020 – Dr. Timothy Breton, Assistant Professor of Biology

2019 – Dr. Kathryn Will, Assistant Professor Literacy Education

2018 – Dr. David Gibson, Professor of Geology

2017 – Dr. Karol Maybury, Associate Professor of Psychology

2016 – Dr. Nicholas Koban, Professor of Mathematics

2015 – Dr. Jean Doty, Professor of Biology

2014 – Dr. Matt McCourt, Associate Professor of Geography

2013 – Awarded posthumously to Dr. Walter Sargent, Associate Professor of History

2012 – Dr. Ron Butler, Professor of Biology

Arts Night

Tuesday April 14th

5:00-6:30pm

Reception (Emery Arts Center, downstairs) with refreshments!

HON 377 PASSION, PROTEST, FIRES: Theatre as Public History

Everest Bryant, Lachlann Cunningham, Alayna Marchessault will have art created for their final projects displayed in the area outside the performance space.

THE 252 DIRECTING will present brief scenes from class.

Ginny Stokes, Streeter Little-Farmer, Cam Veach and Hal Morgan present scene work from Bug by Tracy Letts.

Dante Capone, Tristan Samuelson, Reilly McCabe and Alex Hewett present scene work from The Importance of Being Earnest by Oscar Wilde.

HON 377

The final performance for Arts Night is an interpretive lyrical dance by *Ginny Stokes*, One Last Breath for her HON 377 final creative project.

CREATIVE PURSUITS IN THE ARTS AND SCIENCES

VENUE 1: Emery Arts Center

1:40pm-3:00pm

B.A. in Art & Design Senior Exhibition Artist Talks

Lillian Aldrich, Justin Boulay, Benjamin Branch, Connor Haskell, Jady Jacobs, Avery Joyce, Kai McCormick, Bobbie Pirruccello, Bobbi Smalley and Hannah Wilbur

Senior Art & Design majors will discuss their capstone art exhibition in the Emery Community Arts Center Gallery. Each student will give an artist talk that presents the ideas and processes that inspired their artwork. *(Faculty sponsor: Ann Bartges)*

3:00-3:10pm

Reframe the Game

Hannah Wilbur (Wilson Scholar)

Reframe the Game is a visual storytelling project that explores joy and human connection within collegiate athletics. Through original sports photography, athlete portraits, and athlete-written quotes, the project shifts the focus of sports media away from statistics and performance toward the emotional experiences of athletes. The work highlights moments of focus, competition, celebration, friendship, and reflection that shape what it means to be an athlete. Presented through a series of designed posters and an editorial-style magazine, Reframe the Game combines photography and graphic design to center athlete voices and reimagine how sports culture is visually represented. *(Faculty sponsor: Ann Bartges)*

3:10-3:30pm

Illustrated Poetry Book

Bobbie Pirruccello (Wilson Scholar)

This project proposes the creation of a fully illustrated poetry book developed through close collaboration between a visual artist and a poet. The final work will consist of 25 original poems paired with 25 illustrations, designed and produced as a cohesive 50-page book. Rather than functioning as simple accompaniment, the visual and literary works will be developed simultaneously so that each influences and reshapes the other. The project investigates how images can complicate, reinterpret, or expand poetic meaning while typography, layout, and sequencing guide the reader's experience. By integrating visual and literary language within a

unified design system, the project explores how interdisciplinary collaboration can generate layered narrative meaning. *(Faculty sponsor: Ann Bartges)*

3:30pm-3:50pm

Beyond Harlem: The Renaissance in New Orleans

Isabelle Veenstra

This presentation examines the geographical breadth of the Harlem Renaissance beyond New York and traces the connections of culture to New Orleans. To explore the relationship between these hubs, I will analyze two pivotal figures— Louis Armstrong and Zora Neale Hurston— both of whom had artistic practices and thematic influence from New Orleans. Recognizing the historical complexity behind the artistic ideas rooted in Southern tradition allows the Harlem Renaissance to be understood within larger cultural expressions. *(Faculty Sponsor: Michael Johnson)*

4:00pm – 5:30pm

A Reading by the Members of Advanced Fiction

Kaiden Clark, Ciel Condon, Isabelle Gerken, Shaylynn Koban, Andrew LaFlamme, Michael Libby, Katie Lipoma, Tristan Mitchell, Finley Narvesen, Lina Martinez Nocito, Eve Poteet, Jacie Strander, Kat Swist, Ethan Taylor, Kylee Walton, Musette White

The members of Advanced Fiction (ENG 310) will be reading 3-4 minute selections of their fictional works. Each reading will be accompanied by a projected image of their choosing. *(Faculty Sponsor: Lewis Robinson)*

ENVIRONMENTAL CHANGE

VENUE 2: Thomas Auditorium (Preble-Ricker)

9:20-9:40am

Assessing Crosswalk Safety On and Around the University of Maine at Farmington Campus Using Survey123 and GIS Technologies

Paige Gonya (Wilson Scholar)

Crosswalks and pedestrian infrastructure are essential in urban planning, public health, and GIS-based analysis due to their strong influence on walkability and safety. These elements have a strong influence on how individuals interact with their surroundings and have been a focus of many studies. This study aims to investigate the University of Maine at Farmington (UMF) campus and the surrounding areas to better understand how rural areas may be impacted differently. Of the 18 sites surveyed, 4 were individually observed to measure the average pause time, as well as other important elements that pertained to the crosswalk. Findings show pedestrians interact with areas that are perceived as more dangerous cautiously, depicting higher pause times. Other factors, such as available infrastructures, driver and pedestrian visibility, distractions, and overall usage, also play a role in how these specific crosswalks are perceived and used. *(Faculty Sponsor: Matt McCourt)*

9:40-10:00am

Salmon Growth in Orbeton Stream

Christopher Houdeshell

Atlantic salmon have faced serious declines in population with the only wild populations in the United States being found in Maine. These declines have been greatly contributed to human constructed barriers to migration and other anthropogenic factors. The migratory Atlantic salmon spawn in a limited number of rivers including some streams in western Maine. Orbeton stream in TOWN NAME and some other surrounding streams contains ideal salmon spawning habitat and have been the sites of various salmon restoration and monitoring activities. The Maine Department of Marine Resources (DMR) collected scales from Atlantic salmon parr in Orbeton stream from 2007 to 2025. These scales were imaged under a microscope and measured with image J to find variation in growth between different years. Variation between years was then compared to temperature differences between the years as a possible explanatory variable for variation in growth. *(Faculty Sponsor: Rachel Hovel)*

10:00-10:20am

The blue-green butterfly: a framework to guide the implementation of sustainable actions in tourism organizations

Dr. Thomas Gillman (Libra Scholar)

In the 21st century, tourism has increasingly been recognized as a critical sector for promoting sustainability. Yet, translating sustainability principles into everyday practices has long proven to be a major challenge for local tourism operators. This presentation introduces the Blue-Green Framework, a novel model designed to aid tourism operators in navigating sustainability issues in context appropriate ways. The framework integrates rich insights derived from fieldwork conducted in Vanuatu with established sustainability theory – incorporating economic, environmental and social dimensions. In doing so, it offers a distinctive perspective on how the spheres of sustainability interact and highlights the role of diverse knowledge systems in shaping sustainability practice.

LEARNING AND WAYS OF KNOWING

VENUE 3: Education Center Lobby

9:20-9:40am

The Impact of Tutoring at UMF

Tessa Tillman

This research evaluates the impact of peer tutoring provided at UMF on student academic outcomes. By analyzing data across diverse demographics and the role of assigned course tutors, the study investigates how support influences student engagement. The study focuses on key factors such as the Gateways to Success program, performance across disciplines, and the academic progress of students within specific GPA brackets. These findings will offer a data-driven foundation for optimizing support and bridging achievement gaps for students at UMF. *(Faculty Sponsor: Chris Bennett)*

9:40-10:00am

How does the syntax of the target language create difficulties for the translator of Christian lyrics? How are these difficulties addressed in different languages?

Peter Wannemacher

Translation is complicated. Poetry is more difficult. Translating hymns to be sung together in different languages add an extra dimension to the task. How do differences in syntax complicate and enrich the task of bringing different languages together in worship?

10:00-10:20am

They Come at Night: Exploring Depictions of Feminism, Queerness, and Race through Vampiric Form

Kathryn Grover (Wilson Scholar)

This project examines the figure of the vampire in popular media, and how it works as a manifestation of societal fears and anxieties, in relation to ideas of feminism, queer identity, and race. Following chronologically from Bram Stoker's original novel to 2025, this presentation uses monster theory such as Freud's "The Uncanny" and Kristeva's "Abjection" to explore how these fears manifest in the vampire. It also looks at how changing cultural attitudes, and social acceptance towards minority groups, has led the vampire to go from a horrific monster, to a tragic yet relatable figure of the night. (*Faculty Sponsor: Misty Krueger*)

10:20-10:40am

Brief Intro to the Enneagram and How It Can Help

Virginia Barrows

This session provides a brief introduction to the Enneagram, a personality framework outlining nine core patterns of motivation and behavior. Participants will learn how the system goes beyond traits to explore underlying fears, desires, and growth paths. The session highlights practical applications in emotional regulation, relationships, workplace dynamics, and counseling contexts. Common misconceptions will be addressed to clarify how the Enneagram serves as a reflective tool rather than a labeling system. Attendees will leave with foundational knowledge and actionable insight into how increased awareness can support intentional change and more effective connection with others.

10:40-11:00am BREAK

1:00-1:20pm

My writing and Trolsk

Musette White

As part of my honors-enhanced Advanced Fiction Writing class, I will talk about who I am as a writer — my goals, preferred genres of writing, and writing aesthetic, including the things that I have read, watched, or consumed in some way that influenced my writing — and the story I have been working on in this class, including an overview of the world, the plot (what I have

and hope it to be), the characters, the sources of inspiration for this story, and how it came to be. (*Faculty Sponsor: Lewis Robinson*)

1:20-4:00pm

Findings from HON 377's Fanfic Deep Dive Projects

Winter Adams, Bonnie Bragdon, Erin Butler, Dante Capone, Nataliya Delvalle, Austen Follansbee, Katie Gasper, Isabelle Gerken, Maddy German, Paige Gonya, Kathryn Grover, Madisyn McAlister, Rainier Murray, Josie Romatelli, Sonny Shouse, Jacie Strander, Anabelle Taff, Abby Washburn, Catherine White, Musette White, and Nicollette Wood

Students from HON 377: Fanfiction will present findings from their deep dives into the fanfics of their favorite fandoms, including those focused on anime, films, television and internet series, board games, video games, literature, and celebrities. (*Faculty Sponsor: Misty Krueger*)

4:00-4:20pm

The Secrets of Japanese Words and Sentences

Reilly McCabe

Why is it that the sentence “りんごを食べます” (which in Japanese would sound like: ringo wo tabemasu) can be translated word for word as “apple eat” or “apples eat”, but means “I eat an apple” or “I eat apples” in English? This presentation will answer that question and uncover some of the differences in building words (morphology) and forming sentences (syntax) in Japanese and English. Using examples of simple English and Japanese words and phrases, we will examine a few foundational rules of morphology and syntax in both languages. (*Faculty Sponsor: Denisa Cundick*)

INNOVATIVE TECHNOLOGIES

VENUE 4: The Landing (Student Center)

9:00-10:40am and 11:00-11:40am

Narratological Approaches to Novel Storytelling Techniques in Video Games

Kaiden Clark, Paz Clark, Katie Gasper, Nevyn Harvey, Zac Holt, Ella Joy, Eli Knowles, Andrew LaFlamme, Milo Melchert, Tristan Mitchell, Jace Pelletier, Finn Robinson, Anabelle Taff, Kylee Walton, Cole Writeout

The last several decades have witnessed video games emerge as a popular and vital platform for storytelling. Along the way, video games have developed innovative narrative strategies that incorporate new technologies and user dynamics to push beyond the limits of other traditional story-based genres like fiction and films. This set of panel discussions will draw from the field of narratology to analyze several such recent video games. Beyond probing video games' novel approaches to storytelling, these papers will also contend for the genre's unique capacity to disrupt well-worn ways of representing human experiences. *(Faculty Sponsor: Stephen Grandchamp)*

SOCIAL DYNAMICS AND JUSTICE

VENUE 5: Lincoln Auditorium

9:00-9:20

The Modern Global Ethics of Archaeological Excavation

Bryson Carr

The purpose of this research is to question archaeological excavation and its ethics of excavating sites of cultural importance. This research begins in what could be considered the catalyst of the modern archaeological excavation, the Clovis Point, one of the earliest sites in the Americas to have their ages confirmed with early methodologies of radiocarbon dating, opening up the Pandora's Box of ethical dilemmas concerning the future of modern-day global excavation. This research seeks to determine pros and cons of both sides for and against archaeological excavation in cultural sites in hopes of finding a middle ground or compromise. *(Faculty Sponsor: Nicole Kellett)*

9:20-9:40

The Underground Railroad and Quilt Codes

Abby Washburn

The underground railroad was the nickname given to the pathways which escaping slaves followed from the southern U.S. states to freedom in the northern states and Canada with the help of so-called 'conductors.' There are many stories and myths about the underground railroad, especially regarding the use of coded messages. My research explores the arguments surrounding quilts being used as coded messages, diving into the mayhap existence of such quilts, and the implications of their existence or not. My findings and information come from existing research and personal communications with museums and quilting societies. *(Faculty Sponsor: Nicole Kellett)*

9:40-10:00am

The Transition and Adoption of Oral Health Behaviors into Adulthood

Rachel Boucher

Untreated dental caries is the most common disease globally, affecting around 2.5 billion people and periodontal disease (gum disease) affecting another 1 billion. The inaccessibility to proper oral health services and education is a leading contributor to this disparity. Beginning in childhood, oral health behaviors can have lasting effects on the overall health of the body, but little research has been done on the transition into adulthood and its implications. Through conducting surveys and interviews as well as reviewing existing research, I examine how the lines between childhood and adulthood oral health practices are blurred. *(Faculty Sponsor: Nicole Kellett)*

10:00-10:20am

Greek Mythology in Modern Society: How Reinterpretations Change the Narrative

River Potter

Greek mythology has never truly belonged to the past. Its stories continue to shape modern literature, film, art, and popular culture. Through literature reviews, interviews, and comparative literary analysis of three different retellings, I aim to answer the questions of what the function of Greek mythology is in modern society and in what ways it is reinterpreted, to reinforce or challenge cultural values, social norms, and collective identity in Western society. This can give new insights into the reasons why mythology survives, how mythology is retold to stay prevalent, and uncover different perspectives on the relevance of Greek mythology. *(Faculty Sponsor: Nicole Kellett)*

10:20-10:40am

Ways to War: Influences on Ritual, Material, Tactical, and Strategic Aspects of Warfare in Classical Antiquity

Joseph Seastrand

Warfare in the ancient world was as much a social phenomenon as marriage, citizenship, sexuality, etc. While many believe war was purely practical, it was highly influenced by social and cultural factors. This project investigates the social context of Greek and Roman warfare, examining reasons for particular military tactics. Research findings expose motivations behind the ritual, tactical, and strategic aspects of warfare in Classical Antiquity as well as how these paradigms were altered when Romans and Greeks came into contact with one another. *(Faculty Sponsor: Nicole Kellett)*

10:40-11:00am BREAK

11:00- 11:20am

Settlement Choices of the Northern Picts

Adam Tosch

The Northern Picts were an indigenous group that existed in Scotland from the period of Roman occupation, in the British Isles, until the middle of the 9th Century C.E. This research re-examines longstanding theories for elite settlement selection among the Northern Picts, challenging the notion that communities prioritized environmental pressures and military necessity, through a comparative analysis of three kingdoms of the Northern Picts. The evidence will illustrate that Pictish settlement strategy reflects deliberate cultural positioning rather than environmental determinism alone. (*Faculty Sponsor: Nicole Kellett*)

11:20am-11:55am

The Invention of Illegal Immigration: A Scrapbook of Surveillance and Defiance

Dr. Michael Schoeppner (Trustee Professor)

This lecture examines the invention of illegal immigration in the nineteenth-century United States. Well before the Chinese Exclusion Acts were adopted, free Black people became targets for the first broad-based border laws in US history. By looking at how free Black people navigated the world of closed borders, Schoeppner reveals the race-based origins of American immigration law, the racial dimensions at the heart of urban policing, and the emergence of an enduring racial nativism that matured alongside Manifest Destiny. More importantly, he highlights the tactics that "illegalized people" adopted to counter their criminalized status.

11:55am-12:00pm

Announcement of Walter Sargent Undergraduate Research Mentor Award

12:00pm-12:05pm

Announcement of the Visio Roughton Scholarship Fund recipient

2:00-2:20pm

Trans People's Lived Experience(s) and Trans Rights in Modern-Day United States

Ella Joy

There is evidence that gender nonconforming people have lived throughout human history, yet the United States has a myriad of discriminatory laws and practices against transgender people. As a vulnerable and marginalized group today, I research how the current political climate in the United States affects trans people and whether or not trans people have access to rights in the face of discrimination. I consider and explore through my research the importance of trans rights in today's United States and how trans peoples' lived experiences reflect this importance. *(Faculty Sponsor: Nicole Kellett)*

2:20-2:40pm

Fair Hill's Human Geography

Evelyn Poteet

Fair Hill, Maryland is a unique case of living history. Many families have lived there for hundreds of years and are deeply connected to the landscape, most of which is within a protected Natural Resources Management Area, where historic structures, roads, and properties are left completely untouched by human development. Through interviews with locals and diving into documents, photos, maps, and historic records, this project collects a patchwork of stories and qualitative data to define the cultural landscape of Fair Hill Natural Resources Management Area in the form of an ArcGIS StoryMap. *(Faculty Sponsor: Nicole Kellett)*

2:40-3:00pm

Exploring the Relationship between Alcohol Use, Peer Influences & Mental Health Among College Students at UMF

Megan Dionne (Wilson Scholar)

Alcohol consumption remains highly common among college students. Guided by the Theory of Reasoned Action, this study analyzed how attitudes and perceived peer norms influence alcohol-related intentions among students at UMF. An anonymous online survey was administered to students to assess perceptions of alcohol use, social influences, and behavioral intentions related to drinking. Analyses explore associations between perceived social norms, attitudes toward alcohol consumption, and intentions to drink. Understanding these relationships may support the development of evidence-based prevention strategies that address social influences and normative beliefs surrounding alcohol use among college populations. *(Faculty Sponsor: Kate Callahan)*

3:00-3:20pm

Forensic Psychology Approaches to the Justice System as a Native American: A Comparative Analysis of Judicial Systems

Sydney Booth

This forensic psychology study explores the ways by which Native American people enter criminal justice systems, a process that is particularly difficult when one must face the challenging intersections between tribal, state, and federal jurisdictions. This presentation compares the judicial systems of the Penobscot Nation, the Navajo Nation, and the U.S. Department of Justice through the lived experiences of Native people navigating these institutions. The findings suggest that tribal legal processes are typically more culturally sensitive, therefore leading to more positive outcomes for those navigating its contours. *(Faculty Sponsor: Karen Barrett)*

VENUE 4: The Landing

2:00-2:20pm

Bridging the Gap Between Affordable Healthcare and Small Businesses

Carolyn Kinney

Starting a small business is an exciting and daunting process. Unfortunately, the rising cost of medical insurance in Maine adds a stressor: healthcare. Access to affordable healthcare is a critical attribute to job appeal and sustaining the Maine workforce for small businesses. I conducted an anonymous survey to better understand small businesses' perspectives on healthcare affordability and spoke with legislators from around the state to answer the question: What changes can be implemented to help small business owners access affordable healthcare in Maine? *(Faculty Sponsor: Jim Melcher)*

2:20-2:40pm

Disorders Versus Conditions: Comparing Misophonia and Specific Phobia Disorder's Familiarity in Public Stigma

Aili Webb (Wilson Scholar)

Misophonia is a condition where one has lower tolerance to specific sounds, causing significant impairments and affecting 20% of the population. However, it remains relatively unknown by the public, increasing the risk of stigma. This study examines the public's awareness and acceptance of individuals experiencing misophonia, and whether they can be increased by a brief informational passage while comparing it to a more known mental health disorder (specific phobia; SP). Participants are randomly assigned online surveys on misophonia or SP. They complete the Reported and Intended Behavior Scale (RIBS; measuring awareness and acceptance), read an educational passage, then answer the RIBS again. Data collection is

underway. Results have potential to gain insight to prevent public stigma. (*Faculty Sponsor: Joey Ka-Yee Essoe*)

2:40-3:00pm

Understanding Emojis: The Effects of Age, Gender, and Personality on Emoji Intentions and Patterns

Shaylynn Koban

Research found that emoji use differs across different ages, genders, and personality traits, but no study has examined how all these factors interacted. Here, we examined how these three factors relate to a person's intentions behind and patterns of using emojis. Participants filled out a questionnaire about their emoji use, personality traits, and demographic information. We hypothesize women and younger participants will use more emojis than men and older participants respectively. Additionally, gender will have the largest influence on emoji use. Understanding what factors impact how individuals converse digitally is essential, as most modern communication is done using technology. (*Faculty Sponsor: Joey Ka-Yee Essoe*)

3:00-3:20pm

Bars of Perception

Evryst Bryant

This study examines how stigma and empathy relates to the public's perception of murderers and sexual offenders—and whether a brief informational passage can impact their perception. Participants were randomly assigned to one of two online surveys about, "Jared," who is described as either a sex offender or a murderer. In both conditions, participants completed either the Attitude Toward Sexual Offenders or Attitude and Treatment of Murderers questionnaires. Participants then read an informational passage about "Jared's" conviction, then completed either the Attitude Toward Sexual Offenders or Attitude and Treatment of Murderer questionnaires, and the Toronto Empathy Questionnaire. Data collection is underway. (*Faculty Sponsor: Joey Ka-Yee Essoe*)

POSTER SESSION

VENUE 6: North Dining Hall

*Please note that all poster presenters are expected to be at their poster for at least one hour, either between **11:00am and 12:00pm** or between **1:00pm and 2:00pm**. The posters will be set up between 9:00am and 10:00am and should be left up until 3pm.*

ENVIRONMENTAL CHANGE

Poster #1

Tick Zoonosis in Farmington: A Website Resource

Cameron McGrath, Zoey Mclaughlin, Lily Bedard, Logan Burns, Quinn Conroy, Moriah Doody, Lou Elliott, Wren Kennison, Monica Lewis, Kaitlyn Minott, Eryka Moretto, Olivia Smart, Tala Soule, Nora Tobey, Niesa Wallace, Aldia Willard

Tick-borne zoonotic diseases are an increasing concern in Maine. With evidence suggesting a rise in tick abundance driven by multiple environmental and anthropogenic factors, evaluating disease risk is critical for guiding public health responses. The Wildlife Ecology and Conservation class created a website highlighting ticks and tick-borne diseases in the Farmington area. It includes information on local tick species, hypothesized drivers of tick expansion, and an overview of an ongoing tick zoonosis research project, including student participants, in the area. The website is intended to deepen the understanding of local tick population trends and the increasing threat of tick-borne illnesses. *(Faculty Sponsor: Donelle Schwalm)*

Poster #2

Tick Zoonotic Disease Prevalence in the Greater Farmington Region

Ryan Martin-Hachey (Wilson Fellow)

We studied tick zoonosis (i.e., Anaplasmosis, Babesiosis, and Borrelia (Lyme)) in the greater Farmington area. Our objective was to assess the influence of different land use types (i.e., rural yard, urban yard, undeveloped, urban semideveloped) on tick zoonosis prevalence. Preliminary results from 38 sites and 248 ticks showed ticks were found most commonly in rural yards (56% of ticks analyzed). Disease prevalence was also highest in ticks collected from rural yards (33.82% Borrelia and 22.43% Anaplasmosis) compared to other land use types (Range: 0-13% for Borrelia and 0-7% for Anaplasmosis). Babesiosis test results are forthcoming. *(Faculty Sponsor: Donelle Schwalm)*

Poster #3

Summer Dissolved Oxygen Dynamics in Western Maine Mountain Ponds

Hazel McEnaney (Wilson Scholar)

Small, high-elevation headwater ponds in western Maine are particularly sensitive to climate-driven changes in summer stratification due to their size and depth. This study examines dissolved oxygen dynamics in three proximal high-elevation ponds: Mountain, Cranberry, and Midway, using continuous, high-frequency water temperature and dissolved oxygen data collected during 2023 and 2024. Two ponds, Mountain and Midway, show steady, nearly linear oxygen depletion during summer, whereas Cranberry Pond reaches anoxic conditions much more quickly. The results suggest that stratification duration alone does not predict hypoxia severity and highlight the importance of pond-specific controls on benthic oxygen dynamics under continued climate warming. (*Faculty Sponsor: Julia Daly*)

Posters #4-7

Independent Student Projects in Forest Ecology & Conservation

Forest Ecology & Conservation students

Students in Forest Ecology & Conservation (BIO 294) will present their independent field projects in four posters, one per team. The projects will focus on Maine forest ecosystems, conservation issues, and explorations aimed at better understanding the nature of Maine forests and how and why they are constantly changing. (*Faculty Sponsor: Drew Barton*)

Poster #8

Effects of Calls on Foraging in Feeder Birds

Spencer Brennick (Wilson Scholar)

Feeding birds is a popular activity in the developed world. Outside of breeding season, many birds move around and forage in mixed-species flocks. These birds will forage at feeders together. I wanted to know if when these birds alarm call, is there a cross-species response? To answer this, I am observing a bird feeder and counting visits before and after I play different bird species' alarm calls through a speaker. (*Faculty Sponsor: Evan Jackson*)

Poster #9

Using Camera-bucket Traps to Assess the Relationship Between Small Mammal Communities and Tick-borne Zoonotic Diseases

Nora Hull

Some small mammal species serve as highly competent reservoirs for facilitating the spread of devastating zoonotic diseases, such as Lyme disease (*Borrelia burgdorferi*), by black-legged ticks (*Ixodes scapularis*). A positive correlation has been previously observed between small mammal hosts and zoonotic disease load in black-legged ticks. Using the bucket camera trapping method for small mammals as well as “dragging” and “flagging” methods to collect black-legged ticks, we examined the relationship between the small mammal population, black-legged tick population, and zoonotic load in Farmington, Maine. Preliminary results indicate differences in small mammal population density and season, depending on site type. (*Faculty Sponsor: Donelle Schwalm*)

Poster #10

The Effect of Habitat Type on Mesocarnivore Distributions and Subsequent Tick-Borne Zoonotic Disease Prevalence

Salfa Hendrix (Wilson Scholar)

Mesocarnivores play a wide range of roles within ecosystems due to their size, diets, habitats and activity levels. Mesocarnivores alter population sizes of prey species, ranging from deer to small mammals, which are prominent hosts for ticks and tick-based zoonotic diseases. Quantifying distributions of mesocarnivores serves for future conservation references and as a preview of the potential for zoonotic disease prevalence and spread. We used scent lure baited game cameras, a non-invasive monitoring method, to estimate mesocarnivore population densities and community composition in different habitat types in relation to zoonotic disease distribution. (*Faculty Sponsor: Donelle Schwalm*)

Poster #11

Juvenile Atlantic Salmon Growth Overtime in Orbeton Stream

Christopher Houdeshell (Wilson Scholar)

Atlantic salmon have faced serious declines in population with the only wild populations in the United States being found in Maine. These declines have been greatly contributed to human constructed barriers to migration and other anthropogenic factors. The migratory Atlantic salmon spawn in a limited number of rivers including some streams in western Maine. Orbeton stream in TOWN NAME and some other surrounding streams contains ideal salmon spawning habitat and have been the sites of various salmon restoration and monitoring activities. The

Maine Department of Marine Resources (DMR) collected scales from Atlantic salmon parr in Orbeton stream from 2007 to 2018. These scales were imaged under a microscope and measured with image J to find variation in growth between different years. Variation between years was then compared to temperature differences between the years as a possible explanatory variable for variation in growth. (*Faculty Sponsor: Rachel Hovel*)

Poster #12

Day Roamers vs Night Roamers: Temporal Partitioning between Golden Eagles & Mesocarnivores

Brianna Benson (Wilson Fellow)

Golden eagles (*Aquila chrysaetos*) are endangered in Maine. The Maine Department of Inland Fisheries and Wildlife utilizes over 100 baited cameras to monitor the species distribution. We used date and time-stamped images from these camera stations to explore temporal partitioning between golden eagles, other diurnal raptors, and nocturnal mesocarnivores, which may exclude raptors from food sources. I examined 322 images from 5 different sites and documented 8 golden eagles, 59 other raptors, and 164 mesocarnivores. Preliminary analysis suggests raptor activity is mostly diurnal and mesocarnivore activity is mostly nocturnal, there's no temporal overlap observed between golden eagles and other species. (*Faculty Sponsor: Donelle Schwalm*)

Poster #13

Stream water signature of the world's richest lithium deposit (in our backyard!)

Joe Kalisz, Holland Poisson, and Cole Rode

The Plumbago North lithium deposit, while not the world's largest (although it contains sufficient lithium for 15 million EV batteries!), is the richest. As expected, a two-year study of stream water chemistry reveals peak lithium concentrations below the pilot quarry, dilution proportional to runoff, and all concentrations well below the EPA safe limits. Interestingly, the major solutes (calcium, magnesium, sodium, potassium) present an unexpected puzzle- why do they display the opposite pattern, i.e., minima below the quarry and increasing concentrations downstream? (*Faculty Sponsor: Doug Reusch*)

INNOVATIVE TECHNOLOGIES

Poster #14

Turning a UMF Expense into Triple Revenue: Environmental, Financial, and Educational

Liana Sawyer, Sophia Winters, and Paige Gonya

Our project aims to perform carbon dioxide removal (CDR) by turning caustic waste ash from the UMF biomass plant, currently trucked at UMF expense to the Norridgewock landfill, into a PFAS-free, potassium and phosphorus-rich fertilizer for use by local farmers and gardeners. As a concrete illustration of CDR, a process that will need to be scaled to global proportions this century, it also constitutes educational revenue for the public. *(Faculty Sponsor: Doug Reusch)*

Poster #15

Quantifying gene expression patterns in mummichog (*Fundulus heteroclitus*) ovaries using novel agonists and phoenixin to understand SREB functions

Nora Hull, Jade Martens, Taylor-Jeffery Doone

SREBs are a family of receptors that are highly conserved in all vertebrate species. SREBs have been implicated in multiple disorders. A recently discovered endogenous hormone and synthetic agonists have led to new studies to understand how these receptors function. The purpose of this study was to use these compounds to investigate ovarian gene expression changes in mummichog (*Fundulus heteroclitus*). Gene expression patterns were confirmed by qPCR, with expression changes noted in metabolic, neurological, and reproductive pathways. Overall, in the mummichog ovary, neurological pathways seem to have the greatest response. *(Faculty Sponsor: Timothy Breton)*

Poster #16

Ovarian gene expression comparisons following the use of SREB receptor agonists and endogenous phoenixin across zebrafish (*Danio rerio*), mummichog (*Fundulus heteroclitus*), and pufferfish (*Dichotomyctere nigroviridis*)

Isabella Cain, Keira McGrath, and Taylor-Jeffrey Doone

The receptor family SREB is found throughout vertebrates. Endogenous ligands that bind to these receptors are largely unknown. There have been recent studies that have potentially found an endogenous hormone, Phoenixin (PNX-20), and novel agonists, PT-91 and A8535, that may activate these receptors. The purpose of this study was to compare ovarian gene expression changes across three fish species when exposed to these compounds. Zebrafish exhibited the greatest effects, pufferfish had moderate effects, and mummichog had the least

genes changed. Next steps will include investigations into shared gene changes and pathways across species to identify ovarian SREB functions in fish. *(Faculty Sponsor: Timothy Breton)*

Poster #17

Investigating the structure of the SREB G protein-coupled receptor family to better understand novel agonist effects in zebrafish (*Danio rerio*), mummichog (*Fundulus heteroclitus*), and pufferfish (*Dichotomyctere nigroviridis*) ovaries

Ryan Martin-Hachey, Haley Stewart

SREBs are a highly conserved G protein-coupled receptor family found in numerous organ systems in vertebrates. Ligands are largely unknown, but recent research has identified a possible endogenous hormone, phoenixin, and several synthetic novel agonists, A8535 and PT-91. Tests were done on mummichog, pufferfish, and zebrafish. This project was designed to compare receptor structures using the program Flare to compare 3D structures among fish species and to humans. Variation in the SREB3 models exhibited more similarity between human SREB3 and fish SREB3B than SREB3A. JalView was used to compare sequences and identify important amino acids for ligand binding. *(Faculty Sponsor: Timothy Breton)*

LEARNING AND WAYS OF KNOWING

Poster #18

A geology-psychology collaboration - what?

Britt Goodrum, Aiden Grant, Connor Harty, Skylar Low, Noel Matista, Zoey Pennell, Wyeth Purkiss, Tyler Rosa, Emma Syphers

We translate a series of essays entitled “The Geological Mind.” Geologist Basil Tikoff and cognitive scientist Tim Shipley visited key field sites around the world to learn more about both geologic and mental processes, including when first learning geology. *(Faculty Sponsor: Doug Reusch)*

Poster #19

Using Book-Making to Build Content Knowledge in Math, Science, and Social Studies

Jalyn Drost and Mya Williams (Wilson Scholars)

Our project, Using Book-Making to Build Content Knowledge in Math, Science, and Social Studies, highlights the importance of book-making with elementary-level students to make meaningful connections across disciplines. This project allowed us to build upon our previous experiences of book-making in children’s literature as we sought to develop pedagogical

understandings. By engaging in these mastery experiences, we were able to address the gap in the literature and develop specific approaches and techniques that can be used in elementary classrooms. *(Faculty Sponsor: Kathryn Will)*

Poster #20

Evaluating accessibility in geoscience programs at New England universities for students with physical disabilities

Marin Cupples

This research project aims to evaluate the accessibility of undergraduate geoscience programs at New England institutions by conducting a survey to identify accessibility gaps and promising practices currently being implemented for physically disabled students. Given the importance of increasing diversity in the geosciences and the well-documented underrepresentation of students with physical disabilities, this project will contribute to ongoing disciplinary conversations about equitable field and classroom experiences and further this student's goal of creating a course syllabus for wheelchair-accessible field work. *(Faculty Sponsor: Doug Reusch)*

SOCIAL DYNAMICS AND JUSTICE

Poster #21

The Pumpkin Patch Closet Project

Grace Macomber, Maya Gomez, Lillian Bennett

The Pumpkin Patch Closet Project's main purpose was to create a meaningful event for children in the community who might not otherwise have been able to afford a Halloween costume. Using the persuasive methods learned in class, the project successfully raised over 300 dollars and collected 250 costumes for children in need. The group then held an event where over 60 people from the community attended to pick out their costumes free of charge. The community responded extremely well to our efforts, donating generously to the cause. We all agree, Halloween is better when everyone has the opportunity to participate!

Poster #22

Exploring the Relationship between Alcohol Use, Peer Influences & Mental Health Among College Students at UMF

Megan Dionne (Wilson Scholar)

Alcohol consumption remains highly common among college students. Guided by the Theory of Reasoned Action, this study analyzed how attitudes and perceived peer norms influence alcohol-related intentions among students at UMF. An anonymous online survey was administered to students to assess perceptions of alcohol use, social influences, and behavioral intentions related to drinking. Analyses explore associations between perceived social norms, attitudes toward alcohol consumption, and intentions to drink. Understanding these relationships may support the development of evidence-based prevention strategies that address social influences and normative beliefs surrounding alcohol use among college populations. *(Faculty Sponsor: Kate Callahan)*

CREATIVE PURSUITS IN THE ARTS AND SCIENCES

Posters #23-34

Research Methods in Psychology: Results of Twelve Independent Investigations

Lillian Bennett, Katherine Bradley, Christina Carr, Maya Gomez, Katie Lipoma, Benjamin Mello, MaKenzie Nadeau, Kay MacClellan, Bobbi Smalley, Emma Towers, Hayzel Wallace

From January - April, 2026, twelve Psychology majors conducted independent research projects on the role of personality in learning styles; perceptions of sexual harassment; the content of sobriety posts on Reddit; student athletes' academic performance; Zodiac signs and personality; neurodiversity and affinity for animals; birth order and stress; musical preference and gender; age of first-device and social anxiety; athletes' perceptions of coaching styles; and the effect of falling asleep with music on sleep quality. *(Faculty Sponsor: Karol Maybury)*

A Tribute to Michael D. Wilson

Michael D. Wilson graduated from UMF in 1976. He loved teaching, helping children grow and develop. He reached out to help people whenever he could. He also had a deep love for the beauty and serenity of the wilderness where he felt a deep sense of connection.

Michael chose to live his life in a manner that was true to his beliefs. Many people remember him as a special person and a good friend. He died in a tragic accident in 1977, just as he was preparing to begin a new teaching position in a small town in Aroostook County.

