Maine-eDNA
Diversity Plan

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**Introduction**

The nation’s focus on Diversity, Equity, and Inclusivity (DEI) has been extended to the University of Maine (UMaine) with the encouragement of UMaine’s President, Dr. Ferrini-Mundy. The prioritization of DEI advancement at UMaine is highlighted by the following recent activities:

- President’s Council on Diversity, Equity and Inclusion was appointed in 2020 to advise UMaine leadership and report on institutional effort and actions to ensure inclusive excellence. The Council includes 33 students, faculty, staff, alumni, and community partners from UMaine and the University of Maine at Machias (UMM).
- Findings and Recommendations Report was submitted by the President’s Council on DEI to President Ferrini-Mundy in December 2020.
- The Office of Diversity and Inclusion formed in 2019 at UMaine. This Office offers training on DEI related topics, coordinates events supporting the advancement of DEI, and works to improve DEI awareness by serving as a vital and integral resource for the UMaine community.

Accordingly, the importance of these activities has been imprinted on the Maine-eDNA Track-1 grant, which is a multi-institutional program led by UMaine, Maine’s land grant, space grant, and sea grant institution. Maine is a rural, predominantly white state, and has one of the highest rates of people with disabilities. There are jurisdictional opportunities for diversification, and the Maine-eDNA project is committed to DEI advancement.

**DEI Governance**

Maine-eDNA is a multi-institutional partnership between UMaine, the Bigelow Laboratory for Ocean Sciences, and members of seven other post-secondary and research institutions. A multi-institutional project requires clearly articulated governance principles to be effective, and DEI must be considered for the governance model to be both complete and impactful.

The Maine-eDNA Advisory Committee was established in February 2023 as a result of a NSF EPSCoR virtual site visit recommendation. The DEI Advisory Committee serves to enhance the project team’s focus on DEI considerations throughout all aspects of ongoing and planned Maine-eDNA education, training, and research programming, including the review of the Diversity Plan and Undergraduate Student Handbook, and recruitment, hiring, and retention practices.

This committee includes the following members:

- Dr. Ali Abedi, Associate Vice President for Research and Director of the Center for Undergraduate Research, University of Maine
- Ms. Beth Campbell, Education, Outreach and Diversity Program Manager, Maine EPSCoR
- Ms. Etain Cullen, Maine-eDNA Undergraduate Student
- Ms. Amy Fecteau, Human Resources Director, Gulf of Maine Research Institute
- Ms. Anila Karunakar, Director for Diversity and Inclusion, University of Maine
- Ms. Emily Pierce Lancaster, Maine-eDNA Ph.D. Candidate
- Dr. Melody Lindsay, Diversity, Equity, and Inclusivity Liaison, Bigelow Laboratory for Ocean Sciences (replaced Beth Orcutt in this role at Bigelow)
- Ms. Amie Parker, Director of Equal Opportunity & Deputy Title IX Coordinator, University of Maine System
Diversity Statement

The following DEI statement has been developed for the Maine-eDNA project: The Maine-eDNA project is committed to creating and sustaining a welcoming environment for all students, faculty, scientists, staff, and visitors. That environment, critical to the vigorous discovery/learning processes that define institutions of higher learning and research, also depends on the diversity of ideas, cultures, experiences, and backgrounds. The challenge for all of us is to seek out and recruit diversity, which is the lifeblood of a healthy intellectual environment, to support and retain people who have historically marginalized identities, and to commit to identifying and dismantling barriers to equitable participation. An inclusive environment is essential.

The Maine-eDNA Diversity Plan was originally created in December 2021. The Plan was reviewed and updated by the Maine-eDNA DEI Advisory Committee in February 2023.

Dimensions of Diversity

The dimensions of diversity as areas to improve DEI were generated in consultation with the President’s office at UMaine (see UMaine’s Diversity, Equity, and Inclusion summary) and the UMaine Office of Diversity and Inclusion. These areas are as follows:

1. Ability
2. Age
3. Ethnicity
4. Sexuality and sexual orientation
5. Gender and gender expression
6. Race
7. Religion and spirituality
8. Socio-economic status
9. Veteran status

Maine-eDNA project governance shall also consider other characteristics identified in the University of Maine System (UMS) discrimination policy (see next section).

Discrimination Policy

It is the policy of the Office of Equal Opportunity and the UMS to not discriminate or allow the harassment of employees or applicants on the basis of sex, gender identity, sexual orientation, race, color, religious creed, national origin, physical or mental disability, protected veteran status, or any other characteristic protected by law with regard to any employment practices, including recruitment, advertising, job application procedures, hiring, upgrading, training, promotion, transfer, compensation, job assignments, benefits, and/or other terms, conditions, or privileges of employment, provided the individual is qualified, with or without reasonable accommodations, to perform the essential functions of the job. This policy applies to all jobs at the University.

Employment decisions at the University are based on legitimate job-related criteria. All personnel
actions or programs that affect qualified individuals, such as employment, upgrading, demotion, transfer, recruitment, advertising, termination, rate of pay or other forms of compensation, and selection for training, are made without discrimination because of any basis protected by law. UMS employees may choose to voluntarily disclose their sex, race, national origin, disability and protected veteran status at any time by contacting Human Resources. Such information will be maintained in a confidential manner and will not be used against an individual when making any employment decisions. Employees and applicants with disabilities and disabled veterans are encouraged to inform Human Resources if they need a reasonable accommodation to perform a job for which they are otherwise qualified. UMaine makes, and will continue to make, reasonable accommodations to the known physical or mental limitations of an otherwise qualified applicant or employee to promote the employment of qualified individuals with disabilities and disabled veterans, unless such accommodations would impose an undue hardship on the operations of UMaine’s business.

As the lead institution of the Maine-eDNA project, UMS’s discrimination policy shall serve as a template for the purpose of project governance. The policy is comprehensive and serves as a tool for effective organizational management.

**Participative Governance**

The Maine-eDNA project includes three leadership groups:

- State Steering Committee
- Executive Committee
- Leadership Council

These leadership groups are supported by three advisory committees:

- Internal Advisory Committee (IAC)
- External Advisory Committee (EAC)
- Education and Workforce Development Committee

The membership selection process for each of these groups and committees will consider the dimensions of diversity that are identified in this plan wherever possible, recognizing that voluntarily divulged information may not be available for some individuals.

**Governance Tools**

All governing documents for the Maine-eDNA project (e.g., Governance Statement, Strategic Plan, Graduate Student Handbook, etc.), shall be reviewed and updated on an ongoing basis for consistency and alignment with DEI values. Maine EPSCoR is responsible for ensuring compliance with this objective.

**Search and Enrollment**

The University of Maine System and the Maine-eDNA project are fully committed to principles of equal employment opportunity and affirmative action. A Programmatic Term and Condition of the Maine eDNA award applies to DEI with respect to recruiting:

(8.2) Considerations in Project Hires: Project leadership will develop a strong plan for
recruiting a diverse pool of participants at all levels of Maine-eDNA research activities. The plan should reflect best practices as they relate to diversity and inclusion in STEM. The plan must include specific strategies for recruitment, hiring, and mentorship of faculty, postdoctoral researchers, graduate students, and undergraduate trainees. A draft plan must be submitted to NSF EPSCoR within 60 days of the award start date, and none of the project’s searches at the faculty or postdoctoral levels may be initiated until the plan is approved by NSF EPSCoR.

Our Diversity Plan is comprehensive and applies to the recruiting of faculty, scientists, staff, postdoctoral researchers, graduate and undergraduate students. Our approach is multi-segmented and commences with hiring guidelines that are defined by the Human Resources and Equal Opportunity organizations at UMaine and at Track-1 partner organizations. All Maine-eDNA positions hired by UMaine are advertised with the following equal opportunity statement:

The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran’s status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Amie Parker, Interim Director of Equal Opportunity, 101 North Stevens Hall, University of Maine, Orono, ME 04469-5754, 207.581.1226, TTY 711 (Maine Relay System).

Similarly, all professional positions recruited at the Bigelow Laboratory for Ocean Sciences (relevant for three postdoctoral researcher positions) are accompanied by the following statement:

Bigelow Laboratory for Ocean Sciences strives to maintain an environment that allows our employees to flourish through respectful, inclusive, and equitable treatment of others. We believe there is power in embracing the full diversity of humanity to advance science and are committed to supporting each other as individuals worthy of respect. Bigelow Laboratory is an Equal Opportunity/Affirmative Action Employer.

All managers and supervisors who are engaged with the Maine-eDNA project will take an active part in the UMaine Affirmative Action Plan to ensure all qualified employees and prospective employees are considered and treated in a nondiscriminatory manner with respect to all employment decisions. Furthermore, the UMS will solicit the cooperation and support of all employees for the University’s Equal Employment Opportunity and Affirmative Action Policy. These activities may be applied inclusively across the project by extending training to all project participants, regardless of the home institution of a participant. Further, the input and participation of HR functional leaders at Track-1 partner institutions shall be embraced, recognizing that best practices may emerge from any institution.

UMaine’s Affirmative Action Programs include an audit and reporting system, which, among other things, uses metrics and other information to measure the effectiveness of ongoing Programs. The UMS Affirmative Action Officer has been assigned responsibility for periodically reviewing progress in the compliance and implementation of the policy of affirmative action, and the Maine-eDNA project and its participants is subject to review at the discretion of the Affirmative Action Officer.

Search Committee Chairs at UMaine are required to complete training covering Implicit Bias, Diversity,
and Inclusive Hiring Practices as part of the recruiting activity. All search committee members (from UMaine and partner institutions) may be invited to attend search committee training, while the training is required for UMaine search committee chairs. This Equal Opportunity led training ensures a systematic review and fair consideration of all applicants. Bigelow Laboratory requires similar Implicit Bias training annually for all search committee chairs.

All appointment advertisements and position descriptions will be scrutinized to ensure language that could be perceived as restrictive, barrier-imposing and non-inclusive is modified and/or removed.

All Interview processes follow best practices such as behavioral-based techniques, structured interviews and follow guidelines to avoid implicit bias.

After defining the candidate pool for any professional position at the University of Maine, at any time when the pool is reduced in size, the Search Committee Chair and HR/EO officers are responsible to review and verify that diversity within the applicant pool persists at similar levels to that of the original applicant pool.

Faculty Search

The UMaine Human Resources Department utilizes a template for all faculty hires that enforces Equal Opportunity / Affirmative Action consideration in hiring. Specifically, there is an Affirmative Action Recruitment section in the faculty requisition template that is used to identify activities to ensure broad reach and the inclusion of underrepresented groups.

The Affirmative Action Recruitment activities statements for the three UMaine new faculty hires recruited by the Maine-eDNA project are summarized below.

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<tr>
<th>Faculty Position</th>
<th>Affirmative Action Recruitment Activities</th>
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| **Data Science** | • As an Academic Affiliate of NCWIT (the National Center for Women in Information Technology), the ad will appear automatically on their jobs website once it is found by Indeed.com’s web crawlers.  
• UMaine has a chapter of ACM-W (Association for Computing Machinery’s Council on Women in Computing), and the search committee will explore using that connection to reach out to women in computing.  
• The search committee will also directly |
| Search Chair: Kate Beard, Co-PI |  |

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email the ad to a list of over 500 women faculty across the country, which has been created for a previous CS faculty search (that resulted in the successful hire of a female assistant professor).

| **Ecological Bioinformatics**  
Search Chair: Michael Kinnison, Co-PI | Ads will be placed with the following organizations:  
• The Association for Women in Science  
• SACNAS (Society for Advancing Chicanos/Hispanics and Native Americans in Science)  
• Minority Postdoc (minoritypostoc.org)  
Applicants will further be asked to provide a statement of their practices and experiences in providing inclusive teaching, research, and outreach, as part of their application package. |
|---|---|
| **Aquatic Ecosystem Genetics**  
Search Chair: Michael Kinnison, Co-PI | Ads will be placed with the following organizations:  
• The Association for Women in Science  
• SACNAS (Society for Advancing Chicanos/Hispanics & Native Americans in Science)  
Applicants will further be asked to provide a statement of their practices and experiences in providing inclusive teaching, research, and outreach, as part of their application package. |

**Postdoctoral Fellow Search**

Postdoctoral researcher positions at UMaine are listed through Indeed.com, and further, posted using wide-spread advertising commensurate with Faculty Affirmative Action Recruitment Activities, as outlined in the preceding section. Similar to faculty recruiting, Search Committee Chairs are required to complete training with the Office of Equal Opportunity, covering Implicit Bias, Diversity, and Inclusive Hiring Practices. Search Committee Chairs proactively perform outreach to other institutions to advocate for applicants from underrepresented groups, and leverage social media to augment Indeed.com postings and other similar advertising.
Postdoctoral researcher positions are advertised widely by Bigelow Laboratory for Ocean Sciences as well, and all postings include an Affirmative Action statement.

Graduate Student Search

All graduate student search activities are led by the Graduate Education Coordinator, Jasmine Saros, who also serves as Chair of the Graduate Education Working Group. All graduate student appointments require the approval of the Graduate Education Working Group, the Maine EPSCoR Director, and the PI/PD, with these independent reviews providing assurance that diversity is considered in the selection process.

The diversity policy of the University of Maine Graduate School is as follows:

The University of Maine Graduate School is committed to recruiting and enrolling students of diverse backgrounds who are underrepresented on campus. To help promote diversity on campus the Graduate School works with graduate departments to help promote their programs on both a national and international scale through email and social media marketing. This enables graduate programs to connect with students outside of Maine and beyond. The Graduate School is part of the McNair Scholars program and the Institute for the Recruitment of Teachers – both of which are organizations that help underrepresented students access graduate education. The application fee is waived for students involved in these programs and the Graduate School works with the programs to share information about UMaine’s graduate options with their students. Additionally, the Graduate School encourages all graduate programs to complete holistic reviews of applications, giving all students equal opportunity in the application process.

The UMaine Graduate School’s policy directly applies to the Maine-eDNA graduate student cohort, given all graduate students in the cohort are pursuing degrees at UMaine. The project expands on this central policy as outlined in this section.

For graduate student recruiting, the Maine-eDNA Graduate Education Working Group posts position announcements at numerous sites. For Y1 recruitment activities, posts were made with organizations and professional societies that reached large and/or diverse audiences, including the following:

- The Institute for Broadening Participation
- The Society for Advancement of Chicanos/Hispanics and Native Americans in Science
- The American Geophysical Union
- Association of American Geographers
- The Ecological Society of America
- Nature Jobs

Maine EPSCoR works with National EPSCoR EODs to display graduate student recruitment information at the EPSCoR exhibit booth at the annual SACNAS conference. In addition, advertisements for graduate student recruitment are distributed to EPSCoR jurisdictions, advertised on Maine EPSCoR listservs, and disseminated to tribal communities in partnership with UMaine’s Wabanaki Center.
Undergraduate Student Search

Maine-eDNA recognizes the constant imperative to improve processes and inclusivity at all levels of the project, including undergraduate experiences via internships. Ahmad published an ideal reference for some of these considerations in 2019. All undergraduate appointments require the approval of the Undergraduate Education Coordinator (UEC), Peter Avis, and the Maine EPSCoR Director, in an effort to consider diversity through independent internal reviews.

The process of finding and recruiting undergraduates for the available internships will be enhanced by more vigorous and diverse promotion of the opportunities. With a broader advertisement of the opportunities, we anticipate a greater and more inclusive pool of candidates. These invigorated recruiting efforts will occur in key areas including:

I. eDNA relevant courses across the curricula of the participating institutions. To do so, the UEC will develop promotion and advertisement mechanisms with Maine-eDNA faculty and other faculty teaching these courses.

II. Targeted and diversified outreach and promotion to the STEM Ambassador undergraduates and participating community colleges.

III. eDNA faculty will be strongly encouraged to actively seek a wide range of candidates for the positions they may seek through their own research collaboration and network mechanisms. iv. Undergraduate internship advertisements and position descriptions will be scrutinized to ensure that language that could be perceived as restrictive, barrier-imposing, or non-inclusive is modified and/or removed.

IV. Very close attention will be given to making the internship description reflective of the actual and likely experience. This will require more active planning and coordination between the UEC and internship mentors (i.e., supervisors, PIs, graduate students).

Retaining Great Talent

The initial Diversity Plan developed by Maine-eDNA leadership focused exclusively on hiring, and it is recognized that there is both need and opportunity to expand the focus of this plan to include the retention of diverse faculty, staff, scientists, and students. It is not enough to recruit from diverse populations if the retention of those individuals is not sustainable. A significant part of building a diverse and inclusive environment is the effort to retain and grow those that we have worked to recruit.

Connecting to Community

Project leaders are committed to regularly revisiting the Maine-eDNA Diversity Plan to ensure that the stated goals and objectives are being achieved. Additionally, leadership is taking an active role in connecting hires to various networks that will support project efforts to retain a qualified team of professionals. Examples of the UMS and community organizations that participants are introduced to at UMaine include:

- Center for Diversity and Inclusion
- Rainbow Resource Center

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Similarly, Bigelow Laboratory provides all employees and students with online access to Resources for affinity groups and support networks.

**Training**

Every UMaine and Bigelow Laboratory hire, including students, is required to take a series of compliance
trainings that include:

- Sexual Harassment Prevention Training: This training is intended to provide information and the understanding necessary to ensure that the UMS is safe and free from sexual harassment as required by law and policy. It provides both legal and practical information.
- Title IX Training: This training provides information about the prevalence of Sexual Harassment and Discrimination and outlines prevention expectations set forth by law/policy and strategies. This training also covers how to create a culture of safety and strong response.

Maine EPSCoR, in collaboration with the UMaine Office of Diversity and Inclusion and Bigelow Laboratory, will introduce optional DEI training to all grant participants. Example classes which are available include:

- Introduction to Diversity, Equity and Inclusion
- Transforming Self for Racial Equity
- Self-Guided Foundational Safe Zone Training
- Bystander Intervention
- Ableism and Accessibility
- Cultural Competency

*DEI trainings offered in Yrs 3-5

Supplementary Trainings

In addition, a training opportunity covering mentoring was identified as a priority for Y3 of the grant. Two mentor training sessions were offered to all Maine-eDNA participants, regardless of institution or location.

In Y5 of the grant, a training session to mobilize Biocultural (BC) Notices and Labels, a decolonizing approach to data management that shifts toward responsible research practices, was offered to all Maine-eDNA participants. This initial training session was conducted to inform and support researchers’ and students’ participation in the collaboration between the Maine-eDNA, Wabanaki Tribal Nations in what is now Maine, Local Contexts, and the ENRICH Cultural Institutions Network.

Other training opportunities have been shared with Maine-eDNA undergraduate and graduate students including online, self-paced trainings, the Racial Justice Challenge and the LGBTQIA2+ Learning & Affirming Challenge, housed at the University of Maine Fogler Library.

The Maine-eDNA Executive Committee has the opportunity to work across organizational boundaries and identify DEI relevant training opportunities that can be extended to all grant participants, and these opportunities will be discussed at the standing monthly meeting of the Executive Committee.

Professional Development for Graduate Students & Early Career Researchers

Maine-eDNA is providing a structured set of professional learning opportunities and individual development plans to support the career development of postdoctoral fellows and pre-tenure researchers. While targeting postdoctoral fellows and pre-tenure faculty, graduate students are also being offered opportunities for growth and preparation for the next steps in their careers. Specific areas being addressed through shared professional learning are being aligned with individual goals and
priorities, as collected and documented through a development plan survey and individual conversations. In addition, early career team members are being provided with information and an invitation to the wide array of professional learning opportunities offered by the UMaine Center for Innovation in Teaching and Learning (CITL), the Maine Center for Research in STEM Education (RISE Center), the University of Maine Fogler Library, and other units within the project locations.

Project faculty have designed and conducted a Google survey that collected information to generate individual development plans for early career team members. This survey was implemented when early career team members joined the project in the summer or fall of 2020. Reports generated by this survey, along with conversations with new team members, are providing guidance about areas of need for professional learning. The new Workforce Working Group (established in response to the RSV), the Early Career Working Group, and the Graduate Education Working Group are collaborating in the design of new professional learning experiences to meet these needs.

Strategic Plan Objective Leads are sharing professional learning opportunities that may be of interest to new team members. Team members are being invited to participate in the annual RiSE Center Conference on STEM Education and Related Research, which is focused on integrating research and practice, and in particular, building agency and ownership among students in the STEM disciplines. This conference attracts over 100 educators and researchers from grades K-16+, and serves to help facilitate the transfer of knowledge from research into teaching and learning in the STEM disciplines, and also influences teaching practices.

Undergraduate Development

A central tenet of inclusive undergraduate experiences is to ensure that supportive structures and inclusive mentoring are in place. Therefore, programmatic structures will be added to the Maine-eDNA internship experience to provide greater support within any lab group and across the Maine-eDNA program. Once interns are identified (ideally by the end of February each year), students will be guided through a series of pre-internship workshops led by UEC, Peter Avis, who will introduce elements of the research experience, expectations, and some eDNA fundamentals. In addition, these workshops will offer an opportunity to build a stronger community across the Maine-eDNA program, as the various program participants will be invited to the workshops. The workshops (by zoom and/or with some possible in-person components) will also provide all students a chance to build trust and initiate networks with all of the individuals they will engage with during their subsequent internships.

The workshops will also provide students direct access to the UEC who can serve as a parallel mentor and an immediate contact at any point during their internship for support (e.g., especially valuable in the situations when graduate students have been historically called upon heavily to manage undergraduate students, but who may not be able to optimally mentor for some periods). During the internship, the UEC will provide opportunities to learn how the experiences are going for each individual intern, offer listening opportunities, guidance, and readjustments to ensure a strong and supportive experience.

After the internship, students will have a set of post-internship activities to encapsulate the experience, and this will include presentation opportunities as well as de-briefing opportunities, self-reflection, and

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assessments. Efforts will be made to continue a connection to these undergraduates to keep account of their future careers and successes.

These program structures will run in parallel with the Maine-eDNA program science cohesion building opportunities that will aim to ensure that students have a more robust understanding and experience with eDNA research from the beginning (project design and sample collection) to the end (bioinformatics, data analysis, and reporting).

**Complaints and Concerns**

We recognize that a Diversity Plan is created with an eye towards sustainability. Sustainability includes providing a mechanism for individuals to share concerns and to have incidences of bias or harassment addressed in a consistent and equitable manner.

**Complaint Mechanism**

Every individual is advised of the process to file a complaint should any concerns arise during the course of the project. The UMS is committed to maintaining a respectful, fair work and educational environment, free from discrimination and discriminatory harassment. The goal is to prevent discrimination or harassment from occurring and to provide a means of raising and resolving complaints. The UMS Equal Opportunity Complaint Procedure may be used by any project participant who believes that they have been discriminated against or harassed based on race, color, religion, sex, sexual orientation, including transgender status or gender expression, national origin or citizenship status, age, disability, genetic information, or veteran status. Sex discrimination complaints alleging discrimination based on marital status, pregnancy, or parental status may be raised through this procedure; additionally, sex discrimination or sexual harassment complaints alleging sexual assault, stalking, dating violence, and domestic violence may be raised through this procedure.

**Engaging in a Complaint Process**

Project participants will not be subjected to harassment, intimidation, threats, coercion, or discrimination because they have engaged in, or may have engaged in, filing a complaint, assisting or participating in an investigation, compliance review or hearing, or other activity related to the administration of Section 503 of the Rehabilitation Act of 1973, the Vietnam Era Veterans’ Readjustment Assistance Act of 1974, Executive Order 11246, all as amended, and/or any other federal, state, or local law or regulation regarding Equal Employment Opportunity, opposing any act or practice made unlawful, or exercising any other right protected by such laws or regulations.

**Version History**

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