

TERESA LYNN NEWBERRY, Ph.D.
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EDUCATION

- Ph.D. Biology (Plant Ecology Emphasis), University of New Mexico, 2008.
Dissertation: “Multi-scale Temporal Variability of Water Relations in Piñon Pine (*Pinus edulis*)”.
Committee: W.T. Pockman (Chair), J. H. Brown, D. T. Hanson, S. W. Leavitt.
- M.S. Natural Resources (Aquatic Ecology Emphasis), University of Michigan, 1985
Thesis: “Biogenic Silica Record in the Sediments of Little Round Lake.” Committee: C.L. Schelske (Chair), E.F. Stoermer, A. Beeton.
- B.S. Physical Sciences (Chemistry Concentration), San Jose State University, 1982

POST GRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS

- National Science Foundation Fellowship, Opportunities for Underrepresented Scholars 2015
- Post graduate certificate in Academic Leadership, Chicago School of Psychology, April 2016
- Post-baccalaureate Secondary Teaching Certificate, Pima Community College, 2014.
- Graduate courses in Indigenous Education Methodology, Tribal College Program Development, & Assessment, University of Arizona 2006-2009.

PROFESSIONAL EXPERIENCE

- 4 years of full-time experience as a research scientist at R1 universities
- 20 years of full-time experience as an instructional faculty member and department chair
- 11 years of experience as Principal Investigator/Project Director
- \$2.7M in external funding, including multiple National Science Foundation awards
- 15 peer-reviewed publications, book chapters, and other publications
- 28 conference presentations including 3 invited and keynote presentations

Tohono O’odham Community College, Chair, Science and Health, 2005—2007 and 2008—present

- Developed and administered Associate of Life Science and Associate of Arts in Life Science degrees programs for transfer including coordination of courses, statewide articulation, and development and implementation of program-level assessment plan.
- Principal Investigator, “*Pathways to Indigenous STEM*” NSF STEM ICE TI grant, \$2.5M.
- Principal Investigator and project director on multiple grants involving curriculum development, student retention, internship programs, community participatory research, and building laboratory infrastructure.

- Mentored adjunct and full-time faculty in teaching Biology courses and incorporating embedded college-wide and program-level assessments.
- Founded and advised a local chapter of American Indian Science and Education Society (AISES). AISES promotes representation of Native Americans in STEM fields.
- Advised and mentored students in research academic programs and research projects.

University of Arizona, Invited Faculty, Summer 2013-2016

- Taught a graduate course in Traditional Ecological Knowledge with a special focus on developing culturally responsive science curriculum to K-14 science educators serving Native American communities (AIS 431/531).

University of Arizona, Adjunct Professor, Fall 2014

- Taught an upper division/graduate course in Traditional Ecological Knowledge with a special focus on literature review and applications to issues in research, sovereignty, education and environmental management. (AIS 431/531).

Northern Arizona University, Faculty in Center for Sustainable Environments (Lecturer), 2007—2008

- Taught environmental science courses (ENV 101 & ENV 199)
- Enhanced face-to-face course by using BlackBoard Vista to provide new avenues for student interaction and collaborative learning in large format classes.
- Supervised 5 graduate teaching assistants and coordinated 8 lab sections per semester.
- Developed and managed curriculum including updating lab manual.
- Advised and mentored students.
- Mentored students in the “Ecohouse Living Learning Community”.
- Created service-learning course designed to teach students about sustainability and promote sustainability on the NAU campus (ENV 199).
- Member of Curriculum and Assessment Committee and Scholarship Committee.

Pima Community College, Faculty, Administrative Appt., 2004—2005

- Designed and taught on-line courses in Environmental Biology and Science for Teachers (BIO 105 & SCT 280).
- Trained and mentored faculty in best practices in the design and delivery of on-line courses.
- Earned certification as BlackBoard Vista instructional designer.
- Developed quality assurance and procedural guidelines for Distance Education Program

Pima Community College, Adjunct Faculty, 1999—2004

- Taught a variety of Biology courses for Majors, Allied Health, and General Education (BIO 182, BIO 105, BIO 109 & BIO 156).
- Designed and taught a web-based hybrid Environmental Biology course (BIO 105).

Prescott College, Adjunct Faculty, 1994—1999

- Taught courses in Ecology and Environmental Studies in Environmental Science program.

Mirametrics, Inc., Vice President, 1992-1994

- Vice president responsible for personnel hiring and management, organized and events at scientific conferences and tradeshow, and managed financial reports.

University of Arizona, Tree-Ring Laboratory, Visiting Research Scientist, 1990—1992

- Conducted research on relationships between physiology, growth and climate in southwestern woodlands and Midwestern temperate forests.
- Established a geochemistry stable isotope lab under PI direction.
- Performed laboratory measurement and analysis of carbon isotopic ratios and tree-ring growth; resulted in publication of peer-reviewed scientific paper.
- Co-taught dendrochronology course.

University of New Mexico, Graduate Research Assistant, 1989—1990

- Conducted field research on physiology and population ecology of grasses, shrubs and woodland trees on the Sevilleta National Wildlife Refuge, a 230,000 acre, federally sponsored Long-Term Ecological Research (LTER) Project.
- Supervised and mentored undergraduates in the “REU” (Research Experience for Undergraduates) program.
- Conducted research on water relations of piñon-juniper woodlands at Los Alamos National Laboratory as part of Graduate Fellowship.

University of New Mexico, Research Scientist, 1987—1988

- Established a biogenic silica lab for analysis of ocean sediments in Geosciences Department and conducted research in paleoclimatology.

University of Michigan, Research Assistant Scientist, 1986—1987

- Reconstructed paleoclimates from ocean sediments, resulted in publication of seminal paper and an invited talk at Woods Hole on reconstructing paleoclimates.

University of Michigan, Graduate Research Assistant, 1983—1986

- Researched phytoplankton populations and nutrient cycles in the Great Lakes which culminated in publication of 2 peer-reviewed papers.
- Completed master’s thesis which culminated in publication of 1 peer-reviewed paper and an oral paper at a conference in Austria.
- Worked as member of research team, included multiple expeditions on the Research Vessel “Laurentian”; resulted in publication of 4 scientific papers.

University of Michigan Medical Center, Research Assistant, 1982—1983

- Worked on research team investigating cure for Lupus.

- Developed new laboratory methods and protocols for determining amino acid sequence of proteins using high pressure liquid chromatography.

NASA-Ames Research Center, Summer Internship, 1981

- Worked on research team investigating the cause of fever and regulation of body temperature in animals for application in thermoregulation of humans during extended space travel.

PUBLICATIONS

- Reyes-Garcia, V. et al. (2021). Recognizing Indigenous Peoples' and local communities' rights and agency in the post-2020 Biodiversity Agenda. *Ambio*. doi: 10.1007/s13280-021-01561-7
- IPBES (May 2019) Global Assessment on Biodiversity and Ecosystem Services Chapter 3. *Assessing progress towards meeting major international objectives related to nature and nature's contributions to people*. Contributing author for Aichi Target 17 Incorporating Indigenous People's and Local Community knowledge in National Biodiversity Strategy and Action Plans.
https://www.ipbes.net/system/tdf/ipbes_global_assessment_chapter_3_unedited_31may.pdf?file=1&type=node&id=35279
- Newberry, T. "TOCC Plant Atlas: A Tool for Integrating Traditional Ecological Knowledge in Science Curricula and Preserving Biocultural Diversity", *in prep*.
- Newberry, T. and Trujillo, O. (2017) "Decolonizing Education through Transdisciplinary Approaches to Climate Change Education", Chapter 13 in *Indigenous and Decolonization Studies in Education*. Eds. Linda Tuhiwai Smith, Eve Tuck and K. Wayne Yang.
- Newberry, T., Quijada, A., Guarin, J., and C. Lopez (2016) "The Man In the Maze: An Indigenous Education Model. *Tribal College and University Research Journal*. Volume 1-- Issue 1 November 2016.
- Newberry, M.V., T.L. Newberry, and R. Geronimo (2016) "TOCC Plant Atlas" Web/HTML <http://toccatlas.plantpress.net/>.
- Quijada, A., Cassadore, E., Bumsted Perry, G., Geronimo, R., Lund, K., Miguel, P., Montes-Helu, M., Newberry, T., Robertson, P., & Thornbrugh, C. (2015, Spring). For a Sustainable Future: Indigenous Transborder Higher Education. *Tribal College: Journal of American Indian Higher Education*, 26(3), 32–35.
- Newberry, T. (2014). Climate Change, Water and Traditional Ecological Knowledge in the Southwest. <http://www.camelclimatechange.org/resources/view/174754/?topic=71692>
- Newberry, T.L. 2010. Effect of climatic variability on $\delta^{13}\text{C}$ and tree-ring growth in piñon pine (*Pinus edulis*). *Trees: Structure and Function* Vol. 24, No. 3 pp. 551-559 DOI: 10.1007/s00468-010-0426-9.
- Newberry, T.L., 1999. Effect of Spatial and Temporal Variability on Water Relations and Growth in Pinyon Pine: III. Whole Tree Response. In: Finch, Deborah M., et al. 1999. Rio Grande Ecosystems: Linking land, water, and people. Toward a sustainable future of the Middle Rio Grande Basin. Proc. RMRS-P-7.

- Leavitt, S.W. and T. Newberry. 1992. Systematics of stable-carbon isotopic differences between gymnosperm and angiosperm trees. *Plant Physiology (Life Sci. Adv.)* 11:257-262.
- Rea, D.K., N.G. Pisias, and T. Newberry. 1991. Late Pleistocene paleoclimatology of the central Equatorial Pacific: Flux patterns of biogenic sediments. *Paleoceanography*: 227-244.
- Newberry, T.L. and C.L. Schelske. 1986. Biogenic silica record in the sediments of Little Round Lake. *Hydrobiologia* 143: 293-300.
- Conley, D.J., C.L. Schelske, B.G. Dempsey, C.D. Campbell and T.L. Newberry. 1986. Distribution of biogenic silica in the surficial sediments of Lake Michigan. *Can. J. Earth Sci.* 23: 1442-1449.
- Schelske, C.L., D.J. Conley, E.F. Stoermer, T.L. Newberry and C.D. Campbell. 1986. Biogenic accumulation as an index of eutrophication in the Laurentian Great Lakes. *Hydrobiologia* 143: 79-86.

PRESENTATIONS AT CONFERENCES

- GLOBE Annual Meeting 2023: “Contextualizing GLOBE for Indigenous Communities Workshop”. Denver, CO. 2023.
- Waasamoogikinwaa’amaading: A Virtual Conference on Post-Pandemic Online and Distance Learning at Tribal Colleges, 2021. “Culturally Infused Online Environmental Biology Course at Tohono O’odham Community College”.
- Ecological Society of America Annual Meeting, 2020. “Pathways to Indigenous STEM: Promoting Success in Native Students through Culturally Responsive Problem-based Learning in Ecology”.
- AIHEC STEM Success Initiative, Albuquerque, NM. “Life in balance: Using Indigenous frameworks to design problem-based learning” July 2019. Keynote Speaker
- BOTANY 2019, Tucson, AZ. “The Role of Tribal Colleges in Promoting a Diverse and Inclusive Community in Botany”. July 2019. Invited Speaker
- American Indian Research Association. Pablo, MT. “Developing a Community-based Participatory Research Plan at Tohono O’odham Community College”. October 2018.
- Food and Water in Arid Lands: Dialogues Across Contemporary and Traditional Knowledge. ITKI-UNESCO City of Gastronomy Conference. University of Arizona. November 2016. “The Role of Tribal Colleges in Preserving Traditional Ecological Knowledge”. Invited Speaker
- 5th Annual AIHEC Chief Academic Officers Meeting, Salish-Kootenai College, August 2016. “The Man in the Maze: An Indigenous Education Model”. Invited Speaker.
- 27th International Conference on Conservation Biology, Montpellier, France, 2015. “The Role of Tribal Colleges in Preserving Biocultural Diversity and Traditional Ecological Knowledge.”
- 77th Annual Association of Pacific Coast Geography Conference, Tucson, AZ, 2014. Discussant for “Indigenous Research and Sustainability Practices” session.
- 99th Ecological Society of America Annual Meeting, Sacramento, CA. 2014. “Enhancing Climate Change Curriculum at Tribal Community Colleges through Partnership and Collaboration” with David Blockstein.
- Arizona Higher Education Sustainability Conference, Tucson, AZ. 2014. “Climate Change, Water, and Traditional Knowledge: Culturally-relevant, trans-disciplinary science curriculum”.

- 98th Ecological Society of America Annual Meeting, Minneapolis, MN. 2013. "Climate change, water and traditional ecological knowledge of the Tohono O'odham: A case study".
- Revisiting the State of Indigenous Language National Conference, Tucson, AZ. 2013. "Teaching Indigenous Language through Traditional Ecological Knowledge".
- Native Language Revitalization and Traditional Ecological Knowledge Symposium, Tucson, AZ 2013. "Integrating Traditional Ecological Knowledge and Language into Science Curricula".
- 97th Ecological Society of America Annual Meeting, Portland, Oregon. 2012. Chair and Organizer for the "Welcome to the Climate Change, Adaptation, Mitigation and e-Learning Community" workshop.
- 97th Ecological Society of America Annual Meeting, Portland, Oregon. 2012. "Climate Change, Water and Traditional Ecological Knowledge in the Southwest" with Octaviana Trujillo.
- 97th Ecological Society of America Annual Meeting, Portland, Oregon. 2012. "TOCC Plant Atlas: A Tool for Integrating Traditional Ecological Knowledge in Science Curricula".
- American Indian/Alaskan Native Climate Change Working Group Conference. Tucson, Arizona. 2012. "A Climate Change and Traditional Ecological Knowledge Curriculum".
- American Indian/Alaskan Native Climate Change Working Group Conference. Tucson, Arizona. 2012. "A Community-based Model for Appropriate Renewable Energy Development for Pisinemo Community".
- First Americans Land Grant Conference. Denver, Colorado. 2011. "A Community-based Model for Appropriate Renewable Energy Development for a Remote Community".
- 94th Ecological Society of America Annual Meeting, Albuquerque, New Mexico. 2009. "The Response of Piñon Pine (*Pinus edulis*) to Natural Climatic Variability".
- Native American Student Advocacy Institute, Tucson, Arizona. 2009. "Culturally relevant science curricula: Improving Science Education for Native American Students", with J. Antonellis, J. Daniels, and A. Juan.
- Pinyon-Juniper Symposium, Flagstaff, Arizona. 1994. "The Effect of Climatic Variability on the Physiology and Growth of Pinyon Pine".
- 15th Annual Symposium in Plant Physiology, UC-Riverside, California. 1992. "Inter-annual variation in water-use efficiency in Pinyon Pine".
- 4th International Symposium on Paleolimnology, Ossiach, Austria. 1985. "Biogenic silica in the sediments of Little Round Lake", with C.L. Schelske
- 2nd International Conference on Paleoceanography. Woods Hole, MA. 1986. "Late Pleistocene paleoclimatology of the central Equatorial Pacific: flux patterns of biogenic sediments", with D.K. Rea.
- Ecological Society of America/American Society for Limnology and Oceanography, Minnesota, 1985. "Biogenic silica in the sediments of Little Round Lake", with C.L. Schelske.

SPECIAL CURRICULUM PROJECTS & PROGRAM DEVELOPMENT

Invited Faculty, University of Arizona, AILDI, 2013-2015, 2022

- Taught AIS 431/531 Traditional Ecological Knowledge for American Indian Language Development Institute (AILDI). This course included training in indigenous educational methodologies to science teachers in Native communities for integration of indigenous content and perspectives in science curriculum at their home institutions. This course also explored the potential of using indigenous language to fully understand and document traditional ecological knowledge by engaging in critical oral and written analysis of the synergistic relationships between indigenous language, traditional ecological knowledge and science education.
- Led “Language, Culture, and Ecology” AILDI workshop June 2022. This workshop explored the interrelationships between indigenous language, culture, and ecology and the role of language as a carrier of ecological and cultural knowledge. This workshop provided participants an overview of cultural worldviews and traditional ecological knowledges (TEK) as well as tools to create TEK language-based curriculum. It highlighted model curriculum that incorporates TEK and language on topics such as traditional plants and climate change.

Faculty Member, Tohono O’odham Community College, 2005—2007 and 2008-present

- Developed and implemented 3 Science programs—A.S. Life Science, A.A. Life Science, and A.S. Physical Science. Science courses were designed to meet the learning needs of Native American students based on culturally responsive educational models of indigenous education.
- Created an indigenous education model for curriculum development and assessment based on the cultural symbol, The Man in the Maze and piloted the model with problem-based learning units in science and math classes.
- Infused technology throughout curriculum to create learning communities across tribal colleges and create interactive dynamic learning environments using Wiki sites, blog sites, podcasts, iPads, and interactive web resources.
- Created online hybrid and flipped STEM courses in CANVAS in Ethnobiology, Global Change Biology, Environment Biology and Majors Biology.
- Incorporated service learning into courses to enrich student learning in the area of environmental sustainability through meaningful community service. Student-led projects included community service and community and K-12 environmental education on topics such as traditional foods, biodiversity in the desert, recycling and invasive plants. All service-learning projects culminated in a reflection paper.
- Applied indigenous educational methodologies to developing placed-based curriculum modules that integrate math, science, and culture for the Southwest Native Lands Integrated Learning Semester.
- Co-developed a web-hosted Global Climate Change course--a multi-college curriculum project to teach about the impact of climate change from an indigenous perspective in an NSF project

awarded to the American Indian Higher Education Consortium. The goal of the course was to prepare Native American students to serve in leadership roles in preparation for these impacts on their communities.

- Conceived and managed development of the "TOCC Plant Atlas", a web-based teaching tool which teaches Tohono O'odham names for plants alongside scientific names. The Atlas provides extensive imagery and description of numerous species of Sonoran Desert flora and merges Tohono O'odham traditional knowledge with scientific knowledge for multi-scale description and identification of plants. This USDA grant funded project involved collaboration with Native elders and supervision of expert consultants.
- Co-developed an on-line curriculum module on Climate Change and Traditional Ecological Knowledge in the Southwest for the Climate Change, Adaptation and Mitigation e-Learning (CAMEL) site.

Faculty Lecturer, Center for Sustainable Environments, Northern Arizona University, 2007—2008

- Developed and implemented a new curriculum based on a learner-centered paradigm to increase student retention and success in a large-format Environmental Science course.
- Implemented Web-based technology (Blackboard VISTA) throughout face to face lecture courses to expand the learning environment and provide new avenues for student interaction and collaborative learning.
- Developed new curriculum for hands-on problem-based science labs using geospatial technology to teach the scientific method in the context of environmental science problems.
- Developed and implemented a new environmental science course with a focus on student-driven, service-learning projects and topics related to sustainability and ecological stewardship.

Faculty, Pima Community College, Tucson, 2004—2005

- Developed and implemented on-line Biology and Science for Teachers courses. My courses were frequently showcased as "exemplary" courses for exchange with other colleges.
- Trained faculty in use of WebCT and best practices in distance education through workshops.

GRANTS

- Principal Investigator, NSF TCUP STEM ICE-T, \$2.5M, "*Pathways to Indigenous STEM (Ma:cidag wo:g STEM Wui)*", 2018-2023.
- Principal Investigator (co-PI), NIFA Research Capacity, \$60K, "Building a Community-Based Research Plan at the Tohono O'odham Community College", 2017-2019.
- Principal Investigator, NSF Pre-TI STEM grant, \$95K, "Creating a Vision and Strategic Plan for increasing STEM Capacity at Tohono O'odham Community College, 2017-2018.
- Project Director, NSF AIHEC WIDER Grant, \$28K, "Life In Balance: Using a Problem-based Learning Model to Promote Sustainability and Improve Learning in Math and Science", 2015-16
- Principal Investigator, USDA-NIFA Research, \$200K, "A Community-based Model for Sustainable Energy", 2010-2013.
- Principal Investigator, NASA-AIHEC Climate Change Enrichment Grant, \$15K, "Impacts and Adaptation to Climate Change on the Tohono O'odham Nation", 2009.

- Principal Investigator, NSF-Partnership for Environmental Technology Education, \$1.5K, Strategies for student recruitment and retention in at tribal colleges, 2008.
- Key Personnel and Co-Author, DoD, \$164K. Program: Research Instrumentation for tribal colleges (for creation of GIS Lab), 2006.

GRANT AND PROGRAM ADMINISTRATION

- Chair of Science and Health at Tohono O’odham Community College, 2017-present
- Developed Associate of Science in Life Science, Associate of Science in Physical Science, and Associate of Arts in Life Science degree program at Tohono O’odham Community College including coordination of courses, statewide articulation, and development and implementation of program assessment plan.
- Project Director for NSF TCUP STEM ICE-T grant, \$2.5M, “*Pathways to Indigenous STEM (Ma:cidag wo:g STEM Wui)*”, 2018-present.
- Project Director of NSF TCUP Pre-TI grant, “*Creating a Vision and Strategic Plan for increasing STEM Capacity at Tohono O’odham Community College*”, 2017-2018
- Project Director for NSF AIHEC WIDER Grant to create an indigenous education assessment and curriculum design model and pilot the model with problem-based learning units in science and math classes, 2015-2016.
- Project Lead for Southwest Native Lands Integrated Learning Semester, a learning community with a unique pedagogical approach to teaching math and science with a place-based curriculum that integrates math, science and culture, 2013-2015.
- Project Director, NIFA Research Grant. Designed and tested a community-based model on appropriate forms of sustainable energy for a remote, low-income community. 2010—2013.
- Project Director, NASA AIHEC Climate Change Enrichment Grant. Administered and managed grant that involved supervising and mentoring student interns in projects investigating impacts and adaptations to climate change on the Tohono O’odham Nation plus a Climate Change Lecture Series and Forum. 2009.
- Project Director, NSF PETE Student Recruitment and Retention in the Sciences Grant. Administered and managed grant that culminated in full day workshop on student recruitment and retention in the sciences. 2009.
- Project Lead, Title III Science Laboratory. Managed design and building of a state-of-the art science teaching lab at Tohono O’odham Community College. Responsible for budget of \$100K, 2006.

COURSES TAUGHT

- Environmental Biology (Bio 105N)
- Biology for Majors: Unity of Life I (BIO 181)
- Biology for Majors: Unity of Life II (Bio 182N)
- Principles of Research in Natural Science (BIO 232)
- Service-learning Practicum (BIO/PHY 298)

- Research Practicum (BIO/PHY 299)
- Pathways to Science (SCI 101)
- Tohono O’odham Ethnobotany (BIO 208N)
- Teaching Indigenous Language through Traditional Ecological Knowledge (AIS 431/531)
- Traditional Ecological Knowledge (AIS 431/531)
- Environmental Science (ENV 101)
- Plant Ecology of the Sonoran Desert (ANR 128N)
- Global Change Biology (Bio 254N)
- Special Topics in Environmental Science (ENV 199)
- Introduction to Dendrochronology (GEO 464/564), with Steve Leavitt at University of Arizona.
- Natural History of the Southwest (Bio 109N)
- Science for Teachers (SCT 280)
- Biology for Allied Health (Bio 156N)
- Biological Concepts (Bio 100N)
- Preparation for General Chemistry (CHM 080)

ACADEMIC AND INSTITUTIONAL COMMITTEES

- Committee Member for Criterion3 (Teaching and Learning) for the 2015 TOCC HLC_NCA Re-accreditation process.
- Research Committee, Chair. Developed institutional guidelines for research at Tohono O’odham Community College. 2005—2007 & 2010—2015.
- Curriculum Committee, Chair. Developed protocol for curriculum and assessment processes at Tohono O’odham Community College and reviewed courses and programs, 2005—2007 and 2008—2017.
- Chair, Self-study Subcommittee. Chaired committee responsible for writing the Criterion I (Mission and Integrity) section of the Self-study report submitted for HLC-NCA Re-accreditation Process, 2009—2010.
- Faculty Certification Guidelines Committee. Developed guidelines for faculty certification at Tohono O’odham Community College, 2005—2006 and 2009.
- Selection Committees: Served on multiple selection committees to select new President, VP of Research & Development, VP of Administration, and Faculty members at Tohono O’odham Community College, 2009--present.
- Biology Articulation Task Force Representative. Represented Tohono O’odham Community College in state-wide articulation task force meetings, 2005—2007 and 2008—present.
- Faculty Senate President in 2010, Vice President from 2008—2009, and Faculty Senate Secretary 2006—2007 at Tohono O’odham Community College.
- Distance Education Committee. Developed quality assurance and procedural guidelines for Distance Education program at Pima Community College, 2005.
- Curriculum and Assessment Committee. Represented the Center for Environmental Science and Education in university-wide meetings at Northern Arizona University, 2007—2008.

- Scholarship Committee: Selected recipients for graduate and undergraduate scholarships for the Center for Environmental Science & Education at Northern Arizona University, 2007—2008.

AWARDS

- National Science Found Opportunity for Underrepresented Scholars Fellowship, 2015
- Common Good Award for Meritorious Service, TOCC, 2014.
- Graduate Student Research Award, NSF / U. New Mexico, 1992.
- Sigma Xi Research Fellowship, University of New Mexico, 1990—1991.
- Los Alamos National Laboratory Graduate Fellowship, 1989.
- Student Research Allocations Award, University of New Mexico, 1989.
- Fellowship, Rackham Graduate School, University of Michigan, 1985.
- Graduate Scholarship, University of Michigan, 1984—1986.
- National Merit Scholarship (full 4-year undergraduate scholarship).

MEMBERSHIPS IN SOCIETIES AND OTHER PROFESSIONAL ACTIVITIES

- Member, Academic Data Science Alliance (ADSA) TCU & HBCU Environment Data Science Working Group, 2021-present
- Advisory Board Member, Candeska Cikana Community College, NSF TCUP ICE-TI
- Member, Community Engagement Council, Arizona Sonoran Desert Museum 2016-present.
- Ecological Society of America
- Officer, Traditional Ecological Knowledge Section of the Ecological Society of America 2013-2017.
- Steering Committee Member for NSF Supplemental Grant, “Tribal College and University Partnerships in Climate Change Curriculum” a partnership between National Council for Science and the Environment, Council of Environmental Deans and Directors and the American Indian Higher Education Consortium—advised and helped guide grant activities, 2011.

EDITORIAL AND JOURNAL POSITIONS

- Editor in Traditional Knowledge for *Indigenous Policy* 2017-present.
- Reviewer for *Society of Ethnobiology Journal* 2019.
- Reviewer for *Journal of Contemporary Water Research and Education* 2017.
- Reviewer for *Sustainability Science Journal*, 2014-present.
- Reviewer for *Oxford University Press*, *Global Change Biology* by B. Rosenblum, 2015.

ORGANIZING ROLES IN SCIENTIFIC COMMITTEES

- Organizer for special session on “Indigenous Culture, Language and Ecology” for the 99th Ecological Society of America Meeting, 2014.