Project Title: Penobscot Indian Nation (PIN) Diadromous Fisheries and Water Quality Research
Project Location: Penobscot Nation Dept. of Natural Resources, Indian Island, ME
Project Leaders: Dan McCaw (dan.mccaw@penobscotnation.org), **Dan Kusnierz** dan.kusnierz@penobscotnation.org)
Project Time Frame: ~May 15, 2022 – August 12, 2022
Total Hours: up to 520
Semester Hour Allocation: 40 hours per week as available

The PIN Fisheries Program operates in a cooperative management framework with USFWS, NOAA-Fisheries, and the ME-DMR Division of Sea-run Fisheries and Habitats, with the purpose of preserving Atlantic salmon within the Gulf of Maine. PIN Fisheries is responsible for developing and protecting sustenance fishing opportunities. The PIN also manages, monitors and helps to restore the entire suite of sea-run fish to Tribal waters in the Penobscot River drainage. This is accomplished by supplementation, population monitoring, habitat connectivity projects, participation in the hydroelectric compliance and relicensing arenas, and the writing, updating and execution of management plans, both Tribal and collaborative.

The PIN Water Resources Program conducts a wide range of water quality monitoring activities throughout the Penobscot watershed and tribal trust lands. Data from these projects are used to assess attainment of water quality standards (tribal, federal, state), to assess habitat quality for aquatic life, to determine compliance with license/permit limits, and to recommend changes to improve water quality. PIN cooperates with federal and state agencies and shares data for use in water quality related decision making. All work is contingent on being able to conduct it in a COVID-safe environment and appropriate modifications to the scope of work will be made as appropriate.

The intern would be involved in:

- Conducting field surveys for impaired aquatic connectivity in streams on Tribal Trust lands
- Conducting field surveys to assess river herring abundance and timing to recently stocked and Tribal lakes
- Researching movement of anadromous fish returning to Penobscot watershed and identifying potential sources of toxic contaminant exposure
- Conducting water quality monitoring, aquatic insect sampling, lab analyses, and other sampling activities in and adjacent to Tribal territory waters
- Communication and environmental outreach
- Interns will be given opportunities to participate in career development webinars and interact with other interns in Sea Grant and NOAA.

Opportunities Include:

- Getting to know and work with scientists from state, tribal, and federal agencies
- Learning methods, techniques, and equipment used for assessing water quality, habitat and aquatic communities