Baiting Methodology for 2007 *Phytophthora* surveys in Alaska Dr. Gerry Adams, Michigan State University

At thirty streams in Alaska, *Phytophthora* species were baited and trapped from roots, soils, and water sources using Rhododendron leaves.

- Following a 48 hour incubation, the baits were removed from contact with the plants, soils, and water. They were washed and incubated at room temperature to 17 C, depending on resources.
- The soil was placed in styrofoam bowls and saturated. Three rhododendron leaves were placed on each and incubated up to 7 days.
- As lesions formed over 7-days, isolations from the margins of lesions were transferred to *Phytophthora* selective medium.
- From these media, isolates were transferred to V-8 juice medium containing β-sitosterol to stimulate formation of morphologically informative sexual spores (oospores).
- Later, plugs from these plates were floated in soil-extract to stimulate formation of a second type of morphologically informative spore producing organelle (sporangia).
- Permanent slide mounts will be prepared of the oospores and sporangia and used in microscopic studies and vouchers in conventional identification of the *Phytophthora* species.
- Additionally, species that are intractable to morphological identification such as *P. gonapodyides* will be identified based in DNA sequence homology to identified reference strains in NBCI Genbank data repository.



Figure 1: Baits with Rhododendron leaves.



Figure 2: Panguigue Creek, one of the two positive *Phytophthora alni* subsp. *uniformis* sites in Alaska.