

Skaltsas, D. 2010. Exploring the diversity of *Phytophthora* and related genera in aquatic environments in Maryland, U.S.A. *Phytopathology* 100:S119.

In an attempt to discover the species diversity in streams of Maryland we have conducted an intensive survey in 2009. Sites were located throughout the State including different ecosystems such as oak forests, urban parks, agricultural sites, and brackish water in Eastern Shore around Chesapeake Bay. In total 27 streams were surveyed and baited from May to August. In each site, four rhododendron leaves in a mesh bag was deployed and collected after 1–3 weeks. Due to the water temperature fluctuations, sites in lower elevation in eastern Maryland were baited up to 11 times in weekly intervals. Water-soaked or necrotic tissue samples from baited leaves were plated on selective agar (PARPNH) for *Phytophthora*, and any outgrowing colonies sub-cultures after 3–5 days. In total 1,600 isolates were identified as *Phytophthora* and 450 as *Pythium* or an unidentified Oomycete. Isolates were initially identified based on ITS sequencing. This poster presents one of the most comprehensive analysis of species assemblage of *Phytophthora* that exists in diverse aquatic environments in Maryland.