

2014 Fellow, Geological Society of America



Roy Haggerty

Hollis M. Dole Professor,
Environmental Geology

Haggerty has been named as a Geological Society of America (GSA) 2014 Fellow. GSA Fellows are recognized for their distinguished contributions to the geosciences through research, teaching, contributions to the public awareness of geology, and other avenues.

Haggerty is an internationally renowned leader of fundamental and applied research on the physics of water-ecosystem interactions, specifically in advancing our knowledge of mass transport in, and exchanges between, ground- and surface-water. He is widely published in hydrogeology and watershed hydrology, including the seminal paper on multi-rate mass transfer [Haggerty & Gorelick, 1995] that has been cited more than 300 times and was selected as one of 35 benchmark papers by the International Association of Hydrologic Sciences.

More recently, he has made significant contributions to catchment hydrology and freshwater ecology while leading the burgeoning field of hydroecology. He pioneered a novel coupled tracer test using bio-reactive tracers to determine residence times in streams and the biologically active hyporheic zone. These residence times were the subject of much debate prior to his method.

In addition to his research, Haggerty has demonstrated sustained academic leadership, including co-developing the successful OSU Water Resources Graduate Program, initiating Oregon State's Institute for Water and Watersheds, and earning multiple university-wide teaching and mentoring awards. Haggerty is the principal investigator for Willamette Water 2100, a \$4M project to evaluate how climate change, population growth, and economic growth together change the availability, use, and scarcity of water in the Willamette Basin.

Haggerty holds a bachelor's in geology with First Class Honors from the University of Alberta and master's and doctoral degrees in applied earth sciences/hydrogeology from Stanford.



Roy Haggerty sampling water from a well during a smart-tracer experiment at the HJ Andrews Experimental Forest.

"Earth science is the modern continuation of the 600-year exploration of our planet. It is a privilege for my students and me to be part of that exploration."

– Roy Haggerty