SOD Bike Tire Scrubber

Peter Thut, Rocky Chavez, Desaree Williams, Sibdas Ghosh, Department of Natural Sciences and Mathematics, Dominican University of California, San Rafael, CA 94901; thut@dominican.edu; Lisa Baird, Department of Biology, University of San Diego, San Diego, CA 92110; Mietek Kolipinski, National Park Service, Pacific West Regional Office, Oakland, CA 94607; Bruce Badzik, National Park Service, Golden Gate National Recreation Area, San Rafael, CA, CA 94123.

One vector of potential Phytophthora ramorum dispersal is infected sediment on bicycle tires of visitors entering open space land. This is a serious concern as recreational users may travel from an infected to a non-infected area in a short time frame. A prototype scrubber has been built to address this issue for mountain bike users of public parks and recreation areas. The device reduces accumulated soil and mud, decreasing the potential inoculum load on tires of mountain bikes before they leave an infected area.

This scrubber is intended for areas without electricity, pressurized water, or personnel and must be affordable, simple to operate, and easy to maintain at trailheads. The current design is essentially a trough of tough bristles through which the rider walks their bike. The motion of the bike provides all the power.

In preliminary tests 75% of the adhered sediment is removed from the tire tread. Comparison with a competing design is discussed and recommendations for trial installation are made. This scrubber is suggested as part of an overall system of reducing invasive species transport by humans.