Movement Of Anglers And Sediment Transport: Implications For Moving Aquatic Nuisance Species

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Movement of anglers among rivers presents a potential pathway for the spread of whirling disease and other aquatic nuisance species (ANS). The objective of this study was to quantify the movement of anglers in southwestern Montana and the quantity of sediment they

carry on angling equipment. Anglers were surveyed at randomly selected high use fishing access sites on six rivers in southwestern Montana. Survey questions focused on location of angling trips in the past 30 days, planned fishing trips for the next 7 days, equipment cleaning practices, and aquatic nuisance species awareness. In addition to the questionnaire, sediment samples were collected from boots and waders with a pressure sprayer. Mean distance traveled by Montana residents from their home to the survey site was 115 km and 1738 km for non-residents. The median number of fishing access sites used during the previous 30 days by resident and non-resident anglers was three. Non-residents fished in more states in the previous 30 days than residents and traveled further distances to fish in the previous 30 days than residents. Mean quantity of sediment carried on one boot-wader leg was 8.39 g (± 1.5, 95% CI). Combining angler movement data, sediment quantity carried, and fishing license data, anglers in southwestern Montana are potentially moving thousands of kg of soil among fishing access sites every year making transport of ANS highly likely. Control of future ANS infestations will be difficult unless sediment transport is addressed.