FIELD GEAR DISINFECTION

- Decontamination should **first** occur BEFORE arrival at a project site. DO NOT ARRIVE OR MOVE ABOUT WITH DIRTY OR WET EQUIPMENT.
- Decontamination should occur BEFORE leaving a project site.
- Decontamination should be completed on a site-by-site basis. NOT drainage-by-drainage.

Equipment to be decontaminated: footwear, gloves, angling or sampling equipment, nets, live cages, holding boxes, coolers, scales, any other equipment having contact with the water, trailers and vehicles. Decontamination should not occur within the wetted vegetation/green zone of the waterway.

Steps:

(2-5 in the field, steps 1 and 6 in the laboratory)

1. **IN THE LAB BEFORE SAMPLING:** thoroughly rinse and disinfect everything. Rinse with fresh water after letting the decontamination solution sit for 15 minutes and allow everything to dry completely before taking it into the field.

2. **IN THE FIELD, AFTER SAMPLING:** Clean off all attached mud, debris, plants or animals from the equipment. Scrub with a bristle brush. Clean mud off boots and other equipments (buckets, nets, waders etc.) Inspect crevices and cracks for any seeds, spores, plant shards, or animals, and then rinse with water.

3. **IN THE FIELD, AFTER SAMPLING:** Wear gloves. Use a chemical treatment in a spray-on decontamination solution on all wetted footwear and sampling equipment. A wetted contact time with the disinfectant of 15 minutes minimum is required to sterilize the treated surfaces. The equipment should then be allowed to dry in the sun before reuse. Never dispose of liquid disinfectant in the field. For this reason a foot bath is not recommended since you will need to return the solution to the lab.

4. **IN THE FIELD, AFTER SAMPLING:** Clean hands with baby wipes or hand sanitizer.

5. **YOU ARE NOW READY TO MOVE TO THE NEXT SITE.**

6. **IN THE LAB AFTER SAMPLING:** Clean off all attached mud, debris, plants or animals from the equipment. Scrub with a bristle brush. Inspect crevices and cracks for any seeds, spores, plant shards, or animals, and then rinse with water. Thoroughly rinse and disinfect everything. Rinse with fresh water again and dry everything completely.
**Disinfectant:** we use Synergize, a Quaternary Ammonium Compound-based formulation. The manufacturer recommended concentration for Synergize, is 1:256 or ½ oz/ gal (1155ppm). Synergize has two active ingredients, 26% alkyl(dimethylbenzyl)ammonium chloride (benzalkonium; a quaternary ammonium compound), and 6% gluteraldehyde. Benzalkonium solutions can be inactivated by organic and inorganic contamination. Solutions are incompatible with soaps, and must not be mixed with surfactants. Hard water can also reduce biocidal activity. Surfaces should be clear of dirt and mud for best disinfection. These compounds are highly toxic to fish and aquatic invertebrates but only moderately toxic to mammals. Caution: concentrations above 10% can have high mammalian toxicity so the concentrate we use (26%) should be handled with extreme care. Once diluted in water the concentration should be approximately 0.1% (one tenth of a percent) so the toxicity to humans will be very low. However you should still use caution with the solution and avoid inhaling the vapor or spraying it directly on exposed skin. We suggest that you sterilize equipment on the edge of a roadway where contact with living organisms will be minimal.