

Materials List for:

Modeling the Size Spectrum for Macroinvertebrates and Fishes in Stream Ecosystems

Daniel J McGarvey¹, Taylor E Woods^{1,2}, Andrew J Kirk³

¹Center for Environmental Studies, Virginia Commonwealth University

²Department of Ecology and Evolutionary Biology, University of Tennessee

³Department of Environmental Quality

Correspondence to: Daniel J McGarvey at djmcgarvey@vcu.edu

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Materials

Name	Company	Catalog Number	Comments
Chest waders	Multiple options	n/a	Personal protective equipment for use during electrofishing. Do NOT use 'breathable' waders as electrical current will pass through them.
Rubber lineman's gloves	Multiple options	n/a	Personal protective equipment for use during electrofishing.
Dip nets with fiberglass poles	Multiple options	n/a	Used to capture stunned fishes during electrofishing.
Backpack electrofishing unit	Smith-Root; Halltech; Midwest Lake Management; Aqua Shock Solutions	www.smith-root.com ; www.halltechaquatic.com ; https://midwestlake.com ; https://aquashocksolutions.com/	Backpack electrofishers are currently manufactured and distributed by four independent companies in North America. Prices and warranty/technical support are the most important factors in choosing a vendor.
Block nets/seines (×2)	Duluth Nets	https://duluthfishnets.com/	Necessary length will depend on stream width. 3/8 inch mesh is recommended.
Cam-action utility straps with 1 inch nylon webbing (×4)	Multiple options	n/a	Used to secure/anchor block nets. Available at auto supply, hardware, and department stores.
Large tent stakes (×4)	Multiple options	n/a	Used to secure/anchor block nets. Available at camping and department stores.
5 gallon plastic buckets (×5)	Multiple options	n/a	Used to hold and transport fish during electrofishing. Available at hardware and paint supply stores.
10-20 gallon totes (×3)	Multiple options	n/a	Used as livewells, sedation tanks, and recovery bins for captured fishes. Available at hardware and department stores.
Battery powered 'bait bucket' aeration pumps	Cabelas	IK-019008	Used to aerate fish holding bins during field processing.
Fish anesthesia (Tricaine-S)	Syndel	www.syndel.com	Used to sedate fishes for field processing. Tricaine-S is regulated by the U.S. Food and Drug Administration.
Folding camp table and chairs	Cabelas	IK-518976; IK-552777	Used to process fish samples.
Pop-up canopy	Multiple options	n/a	Used as necessary for sun and rain protection.
Fish measuring board	Wildco	3-118-E40	Used to measure fish lengths.

Battery powered field scale with weighing dish	Multiple options	n/a	Used to weigh fishes. Must weigh be accurate to 0.1 or 0.01 grams.
Clear plastic wind/rain baffle	Multiple options	n/a	Used to shield scale in rainy or windy conditions. Must be large enough to cover the scale and a weighing dish.
White plastic or enamel examination trays	Multiple options	n/a	Trays are essential for examining fishes in the field.
Stainless steel forceps	Multiple options	n/a	Forceps are helpful when examining small fishes and in transferring invertebrates to specimen jars.
Hand magnifiers	Multiple options	n/a	Magnification is often helpful when identifying fish specimens in the field.
Fish identification keys	n/a	n/a	Laminated keys that are custom prepared for specific locations are most effective.
Datasheets printed on waterproof paper	Rite in the Rain	n/a	Waterproof paper is essential when working with aquatic specimens.
Retractable fiberglass field tapes	Lufkin	n/a	Used to measure stream channel dimensions.
Surber sampler or Hess sampler	Wildco	3-12-D56; 3-16-C52	Either of these fixed-area benthic samplers will work well in shallow streams with gravel or pebble substrate.
70% ethanol or isopropyl alcohol	Multiple options	n/a	Used as invertebrate preservative.
Widemouth invertebrate specimen jars (20-32 oz.)	U.S. Plastic Corp.	67712	Any widemouth plastic jars will work but these particular jars are durable and inexpensive.