A hand is visible in the top left corner, pointing towards a physical model of a river. The model is a topographical map with a river channel carved into it, filled with blue liquid. The surrounding land is colored in shades of green and brown, representing vegetation and soil. The river channel is a vibrant blue, with some darker blue areas indicating deeper water or faster flow. The model is placed on a dark surface.

RIVER MODELS FOR SCIENCE, EDUCATION AND CONSERVATION



**LITTLE RIVER
RESEARCH&DESIGN**

EMRIVER GEOMODELS

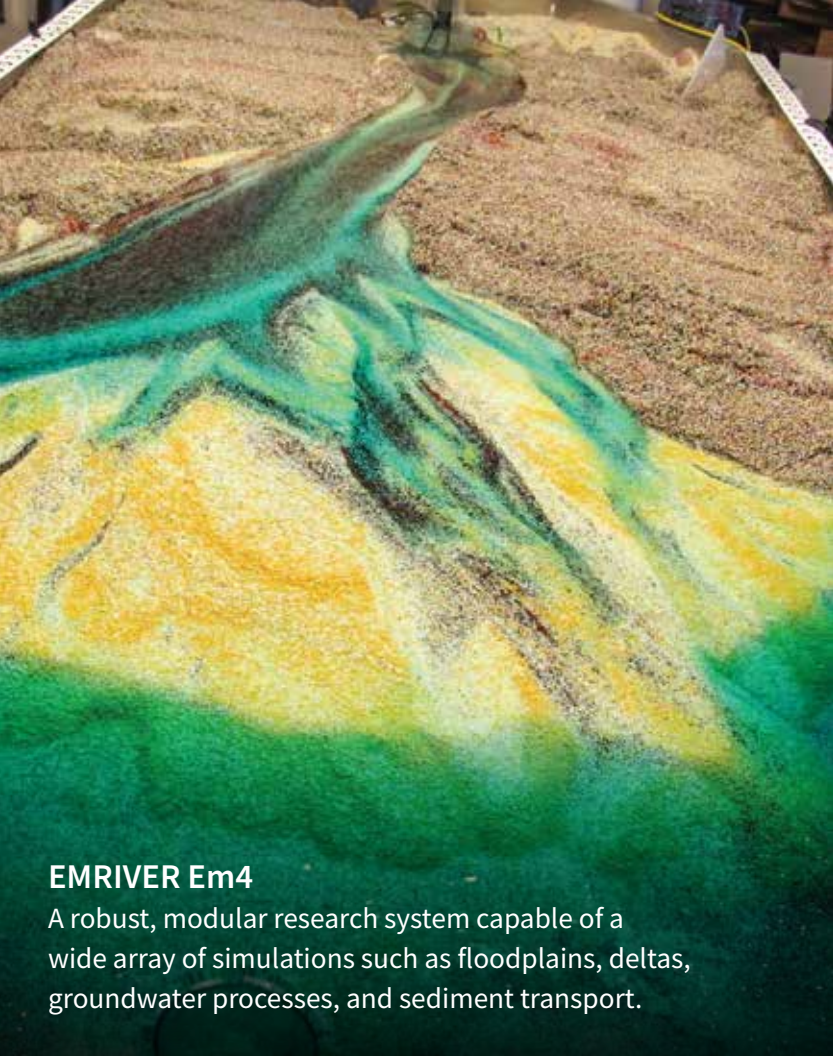
Our models and instruments are effective, cross-disciplinary research and teaching tools that:

- Foster STEM education through innovative hands-on learning
- Immerse students in scientific methodology and observation
- Engage the public to broaden conservation outreach
- Enhance research in geomorphology - including sedimentology and coastal processes
- Demonstrate fluid mechanics and river habitat hydraulics
- Facilitate best practices in civil engineering and landscape architecture

www.emriver.com



Little River Research & Design's Emriver models simulate complex fluvial, hydrologic, and geomorphic processes using robust and highly engineered components and our unique plastic modeling media.



EMRIVER Em4

A robust, modular research system capable of a wide array of simulations such as floodplains, deltas, groundwater processes, and sediment transport.

Em4

SPECIFICATIONS

Dimensions	3.7 m x 1.25 m
Weight	Table: 100 kg; Media: 163 kg
Portability	Best for a dedicated space. Not easily moved. Casters on tilting base allow model to roll.
Water Capacity	265 L
Base Options	Static, single-tilt, or dual-tilt.
System Includes	Color-coded modeling media, reservoirs, pump, power supply, flow controller, modeling accessories, laboratory manual, geomorphology DVD.



We have been very happy with our Em4 model since the day it arrived at BYU. We use it in beginning and upper division-level classes in geological sciences and civil engineering. The model is diverse and representative enough of many different aspects of stream and delta systems that students of all levels are engaged.

We keep the table in a prominent location in the lab section of our building, and many students are intrigued and inspired by it and often spend time outside of their scheduled labs to work with the table.

The lower-density media makes the table a good analogue for sediment transport on other planetary bodies, and some students have approached research projects for courses or their MS theses using the stream table.

We are so happy to have the Em4 and feel it helps to elevate our department's educational and research profile. We recommend this product to anyone engaged in teaching or researching river processes.

Jani Radebaugh

Associate Professor, Department of Geological Sciences
Brigham Young University



EMRIVER Em3

A modular and portable system perfect for research and teaching of river dynamic principles.

Em3

SPECIFICATIONS

Dimensions	3 m x 1 m
Weight	Table: 38 kg; Media: 108 kg
Portability	Easily moved. Can be powered by a 12V battery. Casters on tilting base allow model to roll.
Water Capacity	151 L
Base Options	Static, single-tilt, or dual-tilt.
System Includes	Modeling media, reservoirs, pump, power supply, flow controller, modeling accessories, laboratory manual, geomorphology DVD.



We have used the Emriver Em3 fluvial geomodel to demonstrate a variety of processes and resulting morphologies to undergraduate students. We've demonstrated different channel types, channel migration, point bar development and cut banks, meander cut-offs, erosional terracing, knickpoint migration, channel incision, delta development, the effects of base level on the depocenter, and delta-lobe switching. Overall, this geomodel has been a very useful educational tool to provide a visual example for some basic concepts of fluvial and deltaic geomorphology.

Ioannis Georgiou

Associate Professor of Earth and Environmental Sciences
The University of New Orleans



EMRIVER Em2

Optimized for ease of setup, use, and portability; perfect for demonstrating river science and conservation principles to audiences of all ages and educational backgrounds.

Em2

SPECIFICATIONS

Dimensions	1.9 m x 0.8 m
Weight	Table: 17 kg; Media: 68 kg
Portability	Optimized for ease of setup, use, and portability. Can be powered by 12V battery.
Water Capacity	102 L
Base Options	Static
System Includes	Modeling media, reservoir, pump, power supply, flow controller, modeling accessories, laboratory manual, geomorphology DVD.



I've been using the Em2 for over a decade to teach kids about the anatomy of a healthy river system as well as the impacts that people may have upon them. Thanks to the hands-on nature of the Em2, students who experience the table are highly engaged and motivated to experiment and explore various concepts. The power of the model to illustrate complex concepts and large-scale river events in such a clear, concise, and tangible way is simply priceless.

Ben Griffiths

River Kids Coordinator
New City School, St. Louis, MO



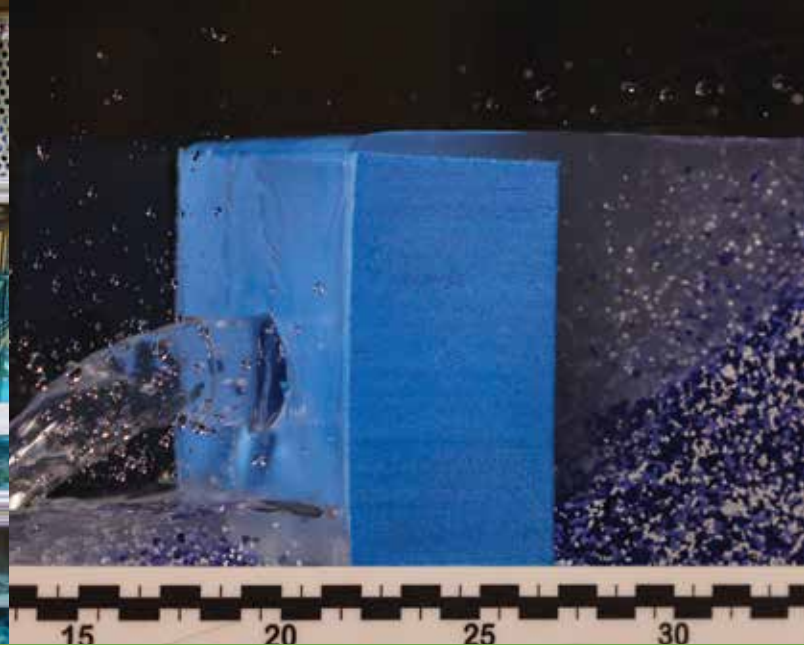
EMRIVER Emflume1

A turnkey, portable, desktop flume for studying fluid mechanics, river habitat hydraulics, and sediment transport.

Emflume1

SPECIFICATIONS

Dimensions	Working Section: 55.8 cm x 9.4 cm x 15.2 cm
Weight	Flume: 29 kg; Media: 6.8 kg
Portability	Small and portable. Fits on a desktop.
Water Capacity	23 L
Other Features	Efficient and quiet ducted propeller. Tilting system allows +/- 2.5 degrees of vertical tilt.
System Includes	Color-coded modeling media, flow controller, foam hydraulic shapes, pitot tube, user manual.



The Emflume1 has been a great addition to our Earth and Atmospheric Sciences department's teaching. It offers an easy-to-use interface for students to study fluid mechanics and is great for showing dynamics of sediment transport. When combined with our Em2 model's table-top view, these models allow me to show students how sediment transport dynamics affect our environment so that they will be prepared to make informed decisions about river, floodplain, and coastal management as they go forward in their careers.

Douglas Edmonds

*Associate Professor of Earth and Atmospheric Sciences
Indiana University*

INSTRUMENTS & ACCESSORIES

Accessories, instruments, and media are designed to help achieve educational, outreach, and research goals.

Modeling Media

At 60% the density of quartz sand, our unique, recycled thermoset plastic media allows for accurate scaling of river behavior, channel morphology, and sediment transport. Color-coding allows for visualization of sediment transport and deposition according to grain size. The media will not damage pumps or components.



“The media demonstrates processes with unreasonable effectiveness.”

— C. Paola, University of Minnesota



K500 Digital Flow Controller

The K500 provides precise control of flow from 25 to 210 ml/sec, meters and displays current flow rate in ml/sec, shows accumulated run time and flow in liters, and runs pre-programmed hydrographs.



Tilting Base

A tilting base can be added to adjust one or both axes of the table to change river valley slope, which expands the capabilities of the models, including the study of sedimentology, delta geomorphology, and tectonic influences on river form.



Wave Maker

Computer control of a paddle allows precise adjustment of wave frequency and strength to study coastal geomorphology including longshore drift, sediment delivery from river mouths, and, with our color-coded media, particle sorting by these processes.



Groundwater System

An upstream spray bar and downstream extraction valves produce parallel and uniform groundwater flow lines in the model and allow groundwater and channel flow to be known and partitioned, facilitating research on groundwater/surface water interactions.



“

The Vermont Department of Environmental Conservation's Rivers Program has had the Emriver stream table for almost 15 years, and it remains one of our top teaching tools for both professional and lay-person trainings. The Rivers Program supports 5 stream tables used around the state as part of our education and outreach work.

The Emriver stream table provides a quick and easy way to share real life examples and demonstrations of river dynamics and the interactions between the rivers and what we put in and along them. This has allowed for more awareness and in-depth discussion in our community planning efforts around such things as: floodplain protection versus development, habitat resources, water quality concerns, and long-term goals for maintaining a healthy river system.

The VT Rivers Program has, and would, recommend the Emriver tables to those looking for a truly engaging teaching and learning tool.

Staci Pomeroy

River Resource Scientist

Vermont Dept. of Environmental Conservation



Media Feeder System

Up to four hoppers allow precise input of various grain sizes into the flow for studying sediment disturbances and equilibrium in fluvial systems.



Dye Injector

Programmable dye pulses allow for better visualization of water movement and depth and are especially useful in time-lapse recording of experiments.

To see our full line of accessories
or for support, FAQ's, videos, setup,
and instructions, visit

www.emriver.com



“

It's a fabulous kit and just what we needed to engage audiences in India and convince people (*kids through politicians*) that rivers need to be respected as life giving natural systems.

Adrian Pinder

*Trustee, Director of Research
Mahseer Trust*

It has been a thrill to see the reactions, both from students and teachers, as we take the model around southern India. We have met so many people who have taken time off from work to visit an educational session and request we build an even bigger conservation message through the use of the Emriver table.

Steve Lockett

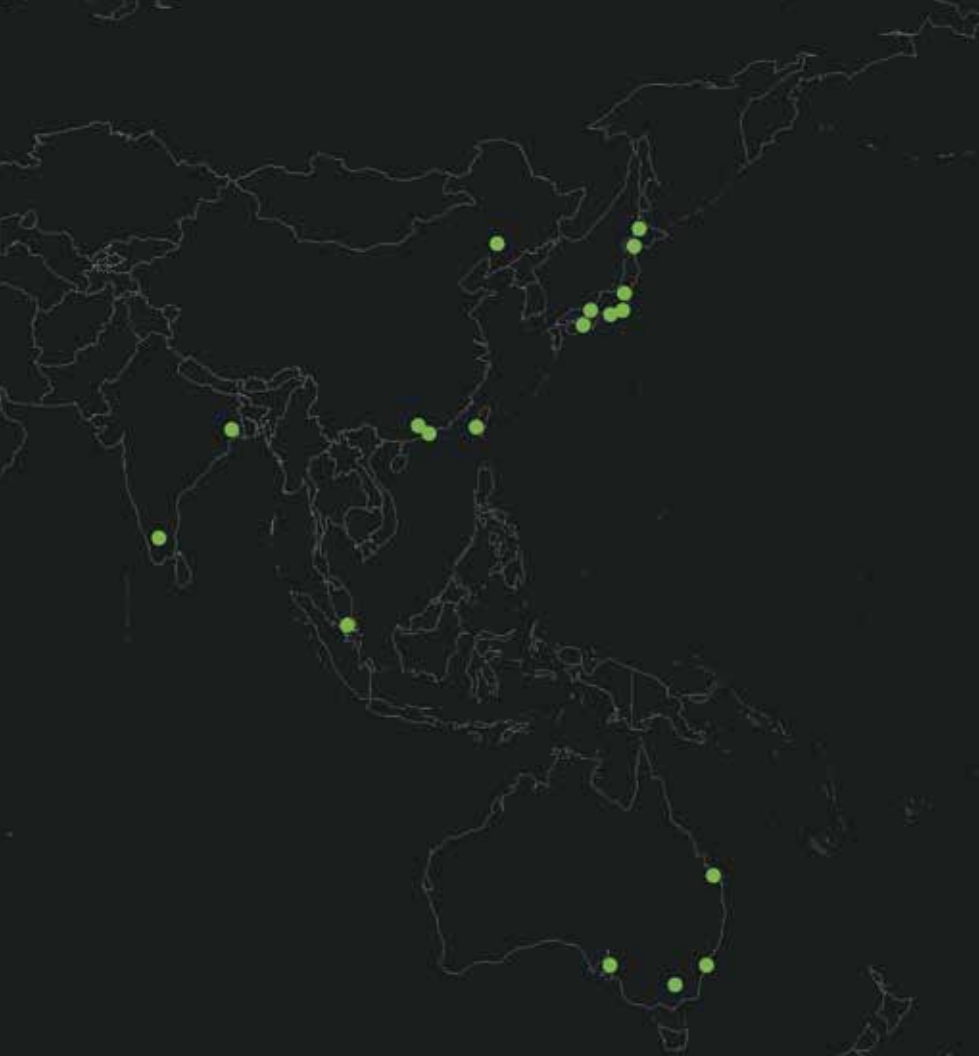
*Officer, Education and Outreach
Mahseer Trust*

A dark-themed world map with white outlines of continents and countries. Numerous bright green dots are scattered across the map, primarily concentrated in North America (USA and Canada) and Europe. There are also a few dots in South America and Africa.

Across the Globe

Improving river conservation and
science education worldwide.

To see a fully interactive map, videos, blog,
teaching guides, research applications, and
more, visit www.emriver.com



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For Pricing: Please email, call, or submit a request on our website.



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