“Bugs To Go” – a Portable Application for People Curious About Water Critters

For immediate release

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What do you call the stuff at the bottom of a river or stream?

Most of us call it “mud.” But if you are a biologist, it’s the “benthic community” – and a community it is, teeming with all sorts of creatures, from microscopic bacteria to aquatic worms and the larvae of more familiar bugs such as mayflies and dragonflies living on the stream bottom’s sediment, rocks and submerged logs. It’s a menagerie that’s important to the larger food chain in the environment, providing food for fish, frogs, birds and even bats, breaking down organic debris and recycling nutrients.

If you are a volunteer water quality monitor, a school biology teacher, an avid fisherman or just naturally curious about the world around you, there’s a new portable tool to learn more about these critters. We like to call it “Bugs To Go.”

Developed by the Clean Water Team at the State Water Resources Control Board and Aquatic Bio-assessment Laboratory, it’s a touch screen enabled PDF you can carry on your computer tablet or smart phone – so you can zoom in on photos of those mayfly larvae with a finger spread to catch details.

Biology teachers on a field trip can have students identify benthic critters by comparing samples to the photos in the application.

Do you like to fish a particular stream? A little knowledge can increase your luck. Knowing what kind of fish food lives in the water, and when it hatches or matures, gives you a leg up on how and when to fish.

Find a mysterious bug and wonder what it is? Pictures show the benthic bugs in various life stages, and the text tells where they live and how sensitive they are to pollutants.

That last point is important. If you are monitoring a stream for water quality and health, you might want to do a “biosurvey”: collecting the creatures you find in the stream and classifying them. Some of the bugs and other critters can thrive in a polluted atmosphere, but others require clean cold water with lots of dissolved oxygen. So who you find in the survey, and equally important, who you don’t find, indicates the health of the stream.

You can download the application here. You’ll never think of mud the same way again.
The Clean Water Team (CWT) is the citizen monitoring program of the State Water Resources Control Board Surface Water Ambient Monitoring Program (SWAMP). The CWT Citizen Monitoring Coordinator works statewide in order to provide technical assistance and guidance documents, training, quality assurance support, temporary loans of equipment and communication to citizen monitoring programs and watershed stewardship organizations.

To learn more about the Clean Water Team, visit: http://www.waterboards.ca.gov/water_issues/programs/swamp/cwt_volunteer.shtml

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