

Dive In! In-Stream Freshwater Snorkeling

We often perceive that there isn't much to see beneath the surface of our nation's freshwater rivers and streams, but once we look underwater, an amazing world appears. Fish of incredibly diverse colors, shapes, and behaviors live in freshwater ecosystems. The streams themselves create other worldly, breathtaking streamscapes, giving humans willing to submerge themselves the opportunity to witness incredible ecological feats such as thousand-mile fish migrations, predator-prey interactions, or the vibrant-colors of mating displays. The underwater world of our rivers and streams is unexpected, largely unnoticed, and amazing! They are thriving aquatic communities, composed of subjects intimately tied to one another, and humans, through an aquatic matrix.

How do we submerge people into the amazing biodiversity of our freshwater rivers and streams? We pull them under the surface and into the aquatic realm, through guided freshwater snorkeling! Snorkeling establishes powerful connections between people and rivers, and is one of the most intimate interactions we can have with a river, experiencing the movement and organisms of a moving water body on its own terms. Snorkeling allows us to bond with subjects that are intertwined in these aquatic communities, granting us new perspectives and reasons to care about the importance of clean water. The ways in which rivers, and the creatures that live in them, are woven into our cultural and natural heritage become apparent. We empower participants by sharing how everyone has a role in protecting our rivers.

NorthBay and the U.S. Forest Service have been running freshwater snorkeling programs for over 15 years, and want to share some of the magic that happens during freshwater snorkeling trips. We have leveraged our joint experience to form a freshwater snorkeling partnership between a non-profit outdoor education foundation and the Federal government, with the intention of implementing freshwater snorkeling programs across the country. In addition to the programs we have established in Tennessee and Maryland, we are piloting snorkeling programs in Vermont, Alabama and Virginia this year and expect to serve 1,000 students. We have created the Freshwater Snorkeling Toolkit and Freshwater Snorkeling Curriculum to provide tools to groups who want to start and maintain their own programs. This presentation will share the underwater life of our rivers and streams with participants, inspire them to start their own freshwater snorkeling programs, and will give them an overview of the support available, like the freshwater snorkeling toolkit and curriculum, to assist them in establishing and running freshwater snorkeling trips.

Videos and information:

CJR & NorthBay Deer Creek Snorkeling: <https://vimeo.com/151201196>

A Deeper Creek: <https://vimeo.com/103358996>

[http://www.northbayadventure.org/Freshwater Snorkeling Curriculum Lesson.pptx](http://www.northbayadventure.org/Freshwater%20Snorkeling%20Curriculum%20Lesson.pptx)

(Notes: There are presentation notes in the slideshow. Please note that this slideshow may take 15 minutes or longer to download, depending on your internet speed. The file is 1.6 GB, approximately the size of a movie one would download from the internet.)

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Keith Williams is the founding Director of Education, and is the current Executive Director at NorthBay, one of the largest outdoor education programs in the U.S. He has a B.S. in Environmental Biology and M.S. in Ecological Teaching and Learning from the Lesley University Audubon Expedition Institute. Keith served on the Maryland Governors Environmental Literacy Working Group and he currently serves on the Maryland State Department of Education Gifted and Talented Education Advisory Board. He has developed river snorkeling based science curriculum, and established river snorkeling programs for non-profits and the U.S. Forest Service. Keith has led thousands of people on river snorkeling adventures. His first book on river snorkeling, "Snorkelhead", was published in June.

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Kimberly Winter is the NatureWatch National Program Manager for the U.S. Forest Service in Washington, D.C. She holds a Ph.D. in Wildlife Ecology and Management and a Master's degree in Ecological Anthropology. Throughout her career, Kim has sought ways to bring the value of conservation to the public eye by promoting opportunities for audiences to immerse themselves fully in nature, whether through programs like freshwater snorkeling, special events hosted by National Forests and Grasslands like Fishing Days, Bat Week, and Pollinator Week; or online using wildlife critter cams and educational resources like the FS NatureLIVE Distance Learning series, and the NatureWatch social media.