

# On The Reel With Sweetwater

## SFG Upcoming Events

- SFG will be giving a presentation explaining innovative approaches to modern river enhancement and restoration at the Trout Unlimited Cherry Creek Anglers chapter meeting on May 11th. It will be held in the Mountain Lodge meeting room at Gander Mountain starting at 7:00 pm. SFG will be explaining and describing modern day concepts and techniques utilized in numerous large-scale river enhancement projects that were successfully completed in Colorado and Wyoming by SFG in 2006.



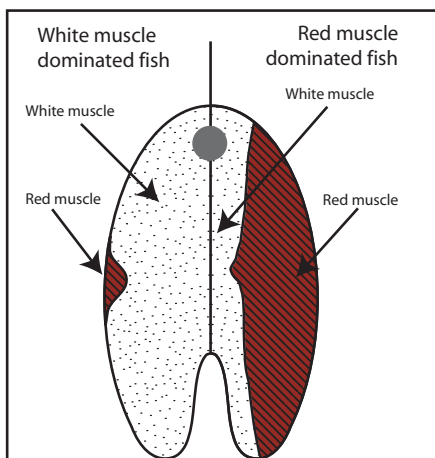
SFG Biologist Toby Stuart sampling on the Roaring Fork River

## SFG In The News

- SFG President and CEO Shannon Skelton has been nominated for the Max Award of Merit from the American Fisheries Society and the Federation of Fly Fishers Conservation Award.

## Red Muscle & White Muscle: What's In Your Fish - by SFG biologist Jay Robinson

**S**portfish caught by American anglers today come in all shapes and sizes, and are made up differently on the inside as well. Some sportfish, like pike or largemouth, are primarily ambush predators, and are built for short bursts of speed to attack their prey. Tuna, on the other hand, are built streamlined and are designed to be constantly swimming at a high rate of speed. Their respective muscle structures are different to help each fish accomplish their living tasks, and each fish has primarily two types. White muscle, with fewer capillaries and low resistance to fatigue, is



primarily used for short bursts of high speed. It doesn't recover quickly from high use, and is generally taxed during the struggle of an angling fight. Red muscle, with many capillaries, is a sustained-use muscle with good resistance to fatigue. Fish have both types of these muscle groups, in different percentages depending on what type of locomotion they use most. The pike, which mainly sits in cover and uses short bursts of speed infrequently, is primarily made of white muscle with smaller amounts of red muscle. Trout, which can be actively swimming in streams or ponds to feed, are made up of a greater percentage of red muscle than the pike. Though they are more active swimmers, their design doesn't require extended periods of fast locomotion, so they have a high percentage of white muscle as well. An example of a fish that is almost always speeding along is the tuna, made up almost entirely of continuous-movement red muscle. The high concentration of capillaries and mitochondria give the red muscle resistance to fatigue and fast recovery time, allowing tuna to swim and feed constantly. With this in mind, it may be easier to communicate with your guests some background information on why it is so important in catch and release fisheries to quickly land and release trout.

**SWEETWATER**  
FISHERIES GROUP  
*Innovation in Fisheries Stewardship and Management*

Fort Collins, Colorado  
970.227.5693  
[www.SweetwaterFisheries.com](http://www.SweetwaterFisheries.com)