

Managing Vermont's Wild Trout



Lake trout favor the coldwater lakes in the Northeast Kingdom.

Brook trout are abundant in Vermont's many upland streams and some of the Northeast Kingdom's coldwater ponds.



Rainbow and brown trout inhabit the larger coldwater streams and rivers and their tributaries, such as the Dog River and Batten Kill.

Vermont is fortunate to have a wealth of wild trout populations. They are indicators of a healthy environment, needing cold, clean water and complex and connected habitats.

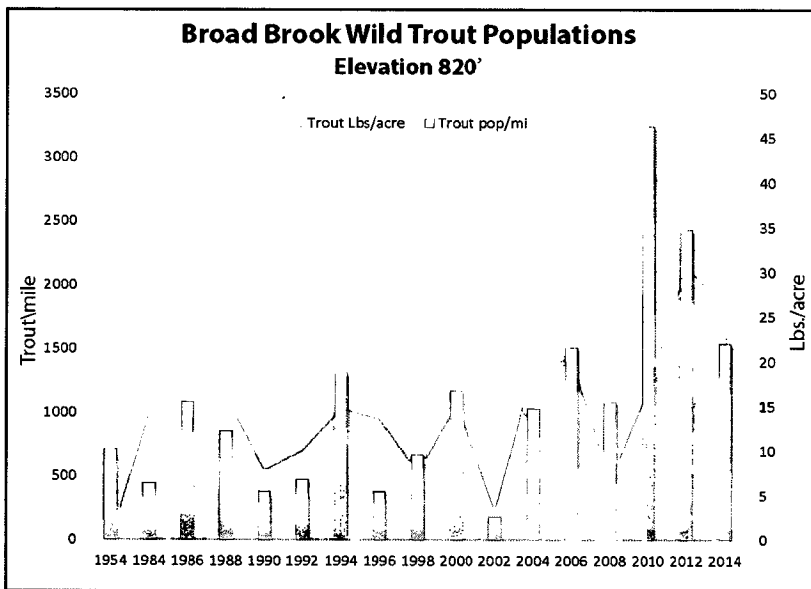
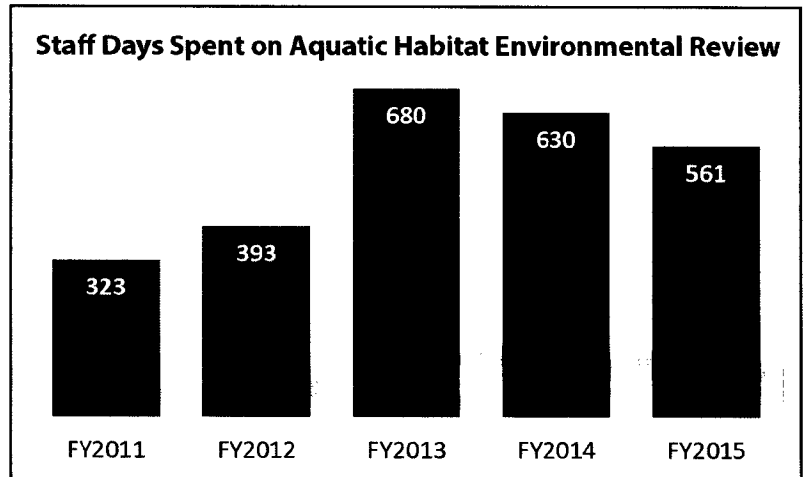
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Vermont Fish & Wildlife Department's wild trout management focuses on protecting and enhancing water quality and aquatic habitats.

Environmental Review

Fisheries staff expended more than 1,200 staff days in 2014 and 2015 protecting aquatic habits through project review and interagency coordination on aquatic habitat issues.



Monitoring Wild Trout Populations

Fisheries biologists conduct long-term monitoring of wild trout populations to evaluate population health and determine appropriate management strategies, such as fishing regulations and habitat enhancements.

Working With Partners

Aquatic Habitat Enhancement

Where biological evaluations indicate physical habitat conditions are limiting wild trout populations, department fisheries staff work with partners to identify, implement and evaluate habitat enhancement projects, such as the recent work on the Nulhegan River and Paul Stream. Felled trees and roots wads were added to increase instream woody habitat and improve wild brook trout habitat.

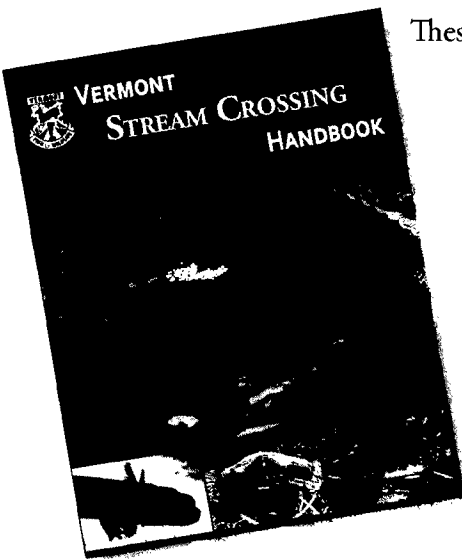


Improving Wild Trout Habitat - A Closer Look

Aquatic Organism Passage Project

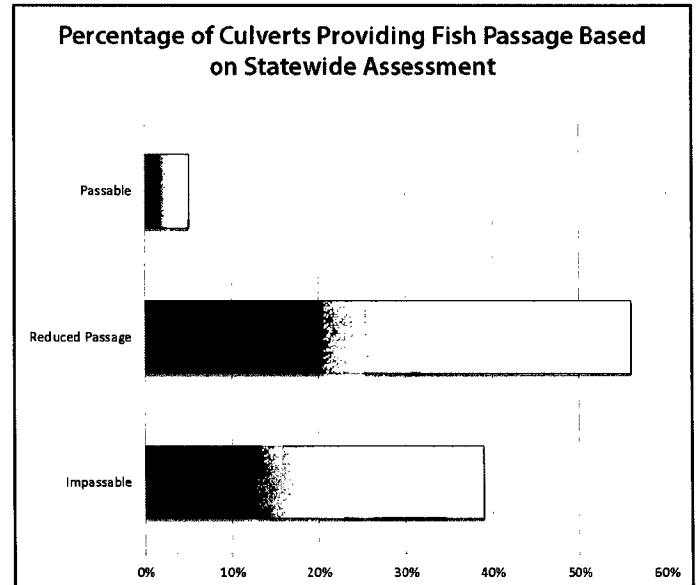
The ability for fish and other organisms to move up and down streams to access a wide range of habitats is critical for their long-term survival. Recent assessment of road/stream crossings in Vermont found only 5 percent provided unhindered fish passage.

Vermont Fish & Wildlife staff are working collaboratively with the Vermont Department of Environmental Conservation and VTTrans to improve fish passage in Vermont.



These efforts include:

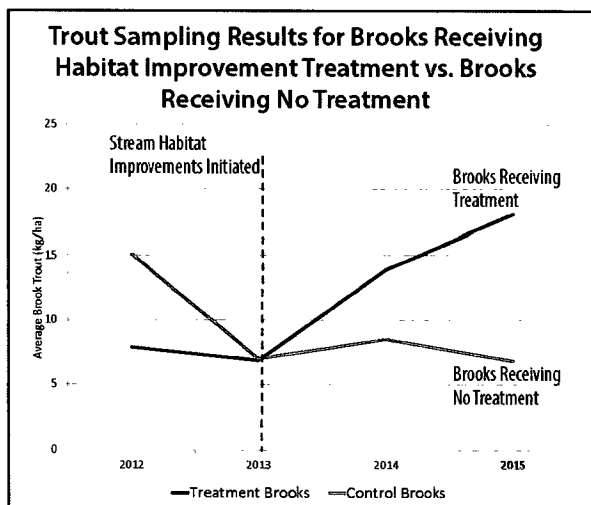
- Developing and implementing technical design guidelines for road/stream crossings.
- Producing a laymen's guidebook, the Vermont Stream Crossing Handbook.
- Coordinating with private and governmental partner organizations to improve aquatic passage at dams and culverts.
- Follow-up evaluations of fish passage.
- Providing partial funding for aquatic organism passage projects.



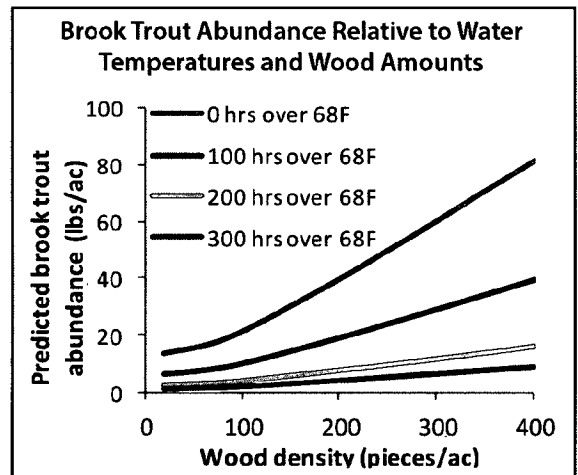
Wood Is Good For Trout

Department fisheries biologists sampled and monitored 33 streams in northeastern Vermont to determine what factors make for a good brook trout stream. The study indicated water temperature and the amount of wood per acre were the best predictors of brook trout abundance.

Based on this study, biologists are deliberately adding natural wood to selected streams where these important habitats features are lacking, and monitoring these streams to determine if this practice can effectively improve trout populations. The results are promising.



However, it is more effective to protect stream habitats by maintaining mature trees along stream banks that will provide shade to the stream and keep water temperatures low. Over time, some of these trees will fall into the stream, and create important habitat for trout and other species.



Brook trout abundance increased with decreasing water temperature and increasing wood. The different lines represent streams where water temperatures exceeded 68°F for 0, 100, 200, or 300 hours from May through September.

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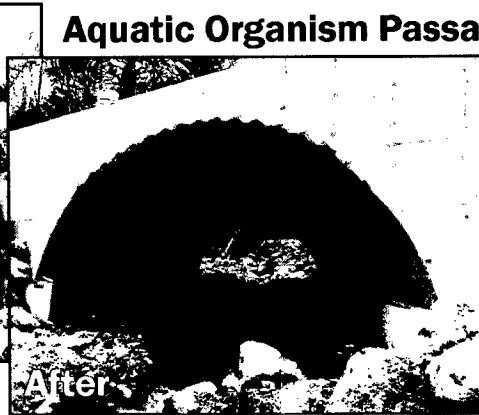


Riparian Enhancement

Restoring and protecting forested riparian areas is effective in improving and maintaining wild trout habitats over the long term. This riparian planting project along the banks of the Batten Kill in Sunderland was a partnership between the US Forest Service, Batten Kill Watershed Alliance, Bennington County Conservation District, Trout Unlimited and Vermont Fish & Wildlife Department.



Before



After

Aquatic Organism Passage (AOP) Enhancements

Replacing the culvert on Bradley Brook in Warren was a partnership between the Friends of the Mad River, US Fish and Wildlife Service, US Forest Service, Winooski Natural Resource Conservation District, Town of Warren and Vermont Fish & Wildlife Department.

WHAT MAKES GOOD WILD TROUT HABITAT?

Root systems stabilize streambanks



Downed trees and boulders form diverse and complex habitats for different fish species and sizes.



Clean gravels for spawning



Intact forested riparian area provides shading to keep temperatures cool.

