

Testimony of Jared Carpenter
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Before the House Natural Resources, Fish, and Wildlife Committee
On Lampricide and the Impact on Water Resources
January 25, 2017

Mr. Chairman and Members of the Committee, thank you for the invitation to testify on an issue of importance to the members of Vermont Trout Unlimited. My name is Jared Carpenter and I testify today in my capacity as the National Leadership Committee Representative of the Vermont Council of Trout Unlimited. The mission of Trout Unlimited is to conserve, protect and restore North America's coldwater fisheries, particularly protection of native coldwater fish species.

As a way of background about the organization, Vermont Trout Unlimited consists of approximately 1,200 members in five chapters throughout the state, in all counties and touching all corners of Vermont, including the Central Vermont Chapter, the Southwestern Vermont Chapter, the Connecticut River Valley Chapter, the Greater Upper Valley Chapter, and the MadDog Chapter. The Vermont Council is the statewide organization that assists the Chapters and advocates for specific policy to protect coldwater fisheries. The National Office is based in Arlington, VA.

Both regionally and nationally, Trout Unlimited supports the use of piscicides to protect and restore native fish species. "Trout Unlimited supports active intervention to recover native trout and salmon species and to prevent, where possible, the invasion of harmful non-native species." From TU National Policy on the Use of Piscicides: "Since TU's mission is to conserve, protect, and restore North America's coldwater fisheries and their watersheds, the conservation of native trout and salmon is a TU priority. This Policy acknowledges that there are a variety of issues that are important in the conservation of native salmonids, but focuses specifically on the control of non-native species using piscicides because of their prevalence and significance in many native fish restoration efforts." This policy is "based on a scientific review of the impacts of piscicides on fish populations and aquatic ecosystems. The issues involved in non-native species control are complex and many of the problems facing resource managers have not been solved. As a result,

the Policy serves as a foundation for TU actions until new and better ways to manage the negative impacts of non-native species on native aquatic fauna are developed in the future.”

In Vermont, TU continues to support the use of lampricide in the Lake Champlain Basin to protect and restore Atlantic salmon and lake trout populations and has strongly supported this program since its inception. Atlantic salmon and lake trout are native species that should be restored to a healthy, sustainable population. Further, the recreation involved with these species help contribute millions of dollars in economic activity to the region. TU members from Vermont and from other states, as well as all types of anglers, come to the area to fish for these species. According to the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Revised in 2014), Vermont Summary, state residents and non-residents spent \$131 million in total expenditures for fishing (total of 2,215,000 days). Now this was not just the Lake Champlain Basin, but a bulk of fishing expenditures occurred in the Basin.

I understand there is some question about whether sea lamprey is an invasive, non-native species or a native species, but I am not going to step into this issue until it is more fully explored. The fact of the matter is, these lampreys exist in such a number as to prevent the recovery of salmon and lake trout, two species that are struggling to recover in Lake Champlain and are favorite targets of sea lamprey. Both salmon and lake trout are native to the Lake Champlain region but the population collapsed by 1900 due to pollution and overfishing. Vermont TU supported efforts to repopulate the species in the area using stocks from fisheries in Maine and New York. But, the size of the lamprey population means that this species needs to be managed in order to restore the salmon and lake trout populations.

TU does not take the use of lampricide in the Lake Champlain Basin lightly. But, in many cases, it offers the best way to protect and restore native salmon and lake trout, when used in a very specific and controlled manner. Protection of native fish species can employ physical, biological and chemical methods. Physical methods could include nets, traps, electrofishing, drawdown or a combination of physical treatments. However, they have limited success and must be continuously employed. Barriers have had some success, but also bar the travel of non-target species. For sea lamprey, physical removal from Lake Champlain ranges from impractical to

impossible, while netting the larvae from the bottom of rivers is similarly difficult.

Traditionally, biological control methods include the introduction of natural predators. But these means potentially introducing a non-native species to Lake Champlain, which may well cause more harm than good. Another removal method is through angling, but this is not possible with sea lamprey as they will not pursue an artificial lure and it is unlikely they will be caught in numbers that would have a positive impact on salmon and lake trout.

Over the past seventy years, piscicides have become an important tool in fisheries management. Their use in fisheries management has been subject of extensive studies on their possible impacts on human health and the use is highly regulated by the U.S. Environmental Protection Agency. The chemical known as TFM, or 3-trifluoromethyl-4-nitrophenol, has been extensively tested and is considered one of the most target-specific piscicides one can use. While there have been some instances of non-target species being affected, the targeting of the sea lamprey while it is in larval form in the rivers is very specific. Further, numerous studies have shown it is relatively non-toxic to other fish, it does not have long-term effects on non-targeted species, it is not shown to bioaccumulate in species, and it breaks down into its base components in a few days.

There is no doubt that sea lamprey still have a negative impact on salmon and lake trout populations, but the program has achieved success. According to the U.S. Fish and Wildlife Service, in Lake Champlain before the use of lampricide, there were about 100 wounds for every 100 fish examined, so approximately a 100% wounding rate from sea lamprey. Today, the U.S. Fish and Wildlife Service states that the wounding rate is down to 30% for lake trout and 20% for salmon, which the Service considers more proportional for a body of water the size of Lake Champlain. Despite the decrease in wounding rate, nearly one in three still seems high.

TU supports the continuation of lamprey control through lampricide use as a tool to enhance the restoration of Atlantic salmon and lake trout. With the continuation of the program, we hope that salmon and lake trout populations will be restored to sustainable levels.