



Sea lamprey

# Steps to Reduce Exposure to Lampricides



## What are sea lampreys?

Sea lampreys (shown in the photo above) are parasitic fish that are native to the Atlantic Ocean. They kill fish by attaching to them and feeding on their blood and other bodily fluids.

Over time, sea lampreys have moved from the Atlantic Ocean into the Great Lakes. Every year, they kill more than 100 million pounds of Great Lakes fish, which is roughly the same weight as the Titanic.<sup>1</sup> This has led to efforts to control the sea lamprey population and keep them from entering streams that feed the Great Lakes. These efforts aim to keep balance in the aquatic ecosystem (or among the wildlife that live in a body of water).<sup>2</sup>

## What are lampricides?

Lampricides are chemical treatments (pesticides) that are used to control sea lamprey populations. They are added to rivers and streams and come in both liquid and pellet (granular) form. Common lampricides include TFM (3-trifluoromethyl-4-nitrophenol) and niclosamide (Bayluscide).<sup>3</sup>

It usually takes two to three days to apply lampricide to an area. However, this may take up to one week if the treatment area is large.<sup>3</sup>

## How can lampricides affect your health?

According to the United States Environmental Protection Agency, lampricides pose little to no health risk to people when used as directed and safety guidelines are followed.<sup>4</sup> If someone is exposed to lampricide treatments, symptoms may include skin irritation, eye irritation, or a headache.<sup>5</sup>

## How can we reduce our communities' exposure to lampricides?

Lampricide treatments can affect Tribes and their daily cultural practices. However, Tribal communities and their members can take steps to reduce their exposure to lampricides.

## Strengthen Collaboration Between Tribal Nations and Agencies:

- Tribes can partner with the agencies that use lampricides. These agencies include the U.S. Fish and Wildlife Service (USFWS) and Great Lakes Fishery Commission (GLFC). Tribes can require informed Tribal consent before treatments take place.
- Tribes and agencies can work together to create treatment schedules. This can help time treatments so they are done outside of important seasonal times for cultural practices. This collaboration honors Tribes' traditional ecological knowledge, which is used to protect their way of life, take care of the environment, and pass down knowledge learned from their ancestors.
- Tribes and the agencies that use lampricides can notify Tribal members about treatment schedules. This can include the treatment dates, locations, and chemicals that will be used. Warning signs can also be posted at all entrances to the treated area.

## Limit Exposure During and Shortly After Treatment:

- Community members should not enter the treatment areas during or shortly after the lampricide treatment. This follows the Environmental Protection Agency's guidance around Restricted-Entry Intervals. This guidance recommends that people wait at least 4 to 72 hours (depending on the type of treatment) before entering treated areas without personal protective equipment (PPE).<sup>6</sup>
  - If a community member is near or in the treatment area during or shortly after the treatment process, they should wear PPE. This PPE includes a long-sleeved shirt, long pants, rubber boots with socks, rubber gloves, safety goggles, and a respirator. This PPE can help keep the chemical away from the community member's skin and eyes.

- GLFC recommends that community members do not use water in the treated area for at least 24 to 72 hours (depending on the type of lampricide used and the size of the treatment area). People should use a different water source during this time.<sup>2</sup>
  - While the risk is low, lampricide could move through the soil and reach groundwater. Tribes can take the steps below if they believe their groundwater source contains lampricide chemicals:
    - Stop using the current groundwater source. Use different, safe water instead.
    - Contact a certified laboratory and ask them to test your water source.
    - If lab results are positive for lampricide contamination, report it to your Tribal government, USFWS, and your EPA Regional Tribal Program.
- GLFC recommends waiting about 72 hours (depending on the treatment area size) before using the treated area for activities like swimming, boating, and fishing.<sup>7,8</sup>
  - Take the following steps if harvesting fish during this time:
    - Rinse the fish thoroughly in clean water that does not contain lampricide.
    - Fillet it by removing the skin and fat.
    - Avoid all parts of the fish other than the fillet. Those parts may still have chemical residue during and shortly after the treatment.<sup>8</sup>

### Increase Community Awareness:

- Tribal communities can use community outreach efforts to educate community members about lampricide and the effects it may have on Tribal practices.
  - Share knowledge through flyers, posters, social media, and community events.
  - Hold community circles and youth programs where Tribal Elders can share their best methods to avoid chemical exposure during cultural practices.
- Community members can attend agencies' lampricide information sessions.

### What should you do if exposed to lampricide?

Follow the steps below<sup>9</sup>:

- **If on Your Skin:** Remove any contaminated clothing. Wash the area with soap and clean water. Have clean clothing handy.
- **If in Your Eye:** Rinse your eyes gently with clean water for at least 15 minutes. Reach out to a health care professional if you have eye irritation.
- **If Swallowed:** Rinse your mouth with clean water. Contact Poison Control at 800-222-1222 or a health clinic immediately.
- **If Breathed in:** Move to an area with fresh air. Contact a health care professional if you feel nauseous, dizzy, or have trouble breathing.

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**Sources:** 1) Sea lamprey: what is at risk? Great Lakes Fishery Commission. Accessed May 2025. <https://www.glfrc.org/what-is-at-risk.php> 2) What is a sea lamprey? National Ocean Service. Updated June 16, 2024. Accessed August 1, 2025. <https://oceanservice.noaa.gov/facts/sea-lamprey.html> 3) Control crews to begin removal of invasive sea lampreys throughout the Great Lakes basin to protect the \$5.1 billion fishery. Great Lakes Fishery Commission. Published April 21, 2025. Accessed June 5, 2025. [https://www.glfrc.org/pubs/pressrel/2025\\_PR\\_TreatmentSchedule.pdf](https://www.glfrc.org/pubs/pressrel/2025_PR_TreatmentSchedule.pdf) 4) TFM. U.S. Environmental Protection Agency. November 1999. Accessed May 2025. [https://www3.epa.gov/pesticides/chem\\_search/reg\\_actions/reregistration/fs\\_PC-036201\\_1-Nov-99.pdf](https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/fs_PC-036201_1-Nov-99.pdf) 5) Ceballos DM, Beaucham CC, Kurtz K, Musolin K. Assessing occupational exposure to sea lamprey pesticides. *Int J Occup Environ Health*. 2015;21(2):151-160. doi:10.1179/2049396715Y.0000000002 6) Restricted-entry intervals (REI). The Ohio State University. August 12, 2019. Accessed June 2025. <https://ohioline.osu.edu/factsheet/aex-59142> 7) Lampricide and sea lamprey control. Great Lakes Fishery Commission. Accessed June 2025. <https://glfrc.org/lampricide.php> 8) Washington State Department of Health. Reduce exposure to contaminants in fish. Accessed June 2025. <https://doh.wa.gov/community-and-environment/food/fish> 9) First aid in case of pesticide exposure. United States Environmental Protection Agency. Updated December 31, 2024. Accessed June 2025. <https://www.epa.gov/pesticide-incidents/first-aid-case-pesticide-exposure>

