



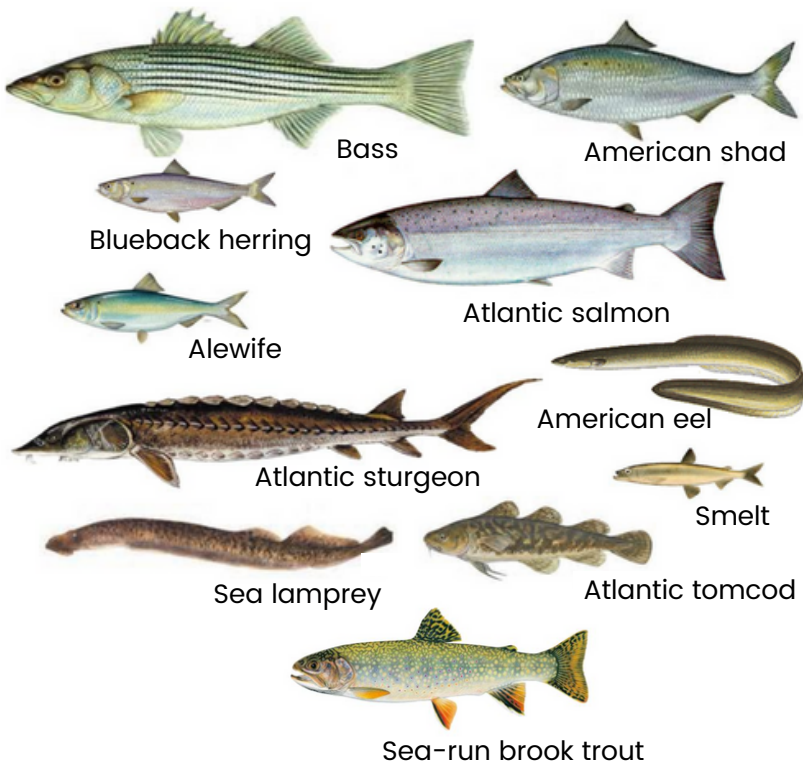
Megunticook River Citizens Advisory Committee

Newsletter

Megunticook Watershed & Dams



Diadromous Fish Found in Maine Waters*



* Diadromous fish migrate between fresh and salt water.

Next Zoom Presentation

Date: March 21, 2023, 4:30-5:30pm

Topic: An Overview of Technical Studies of the Megunticook River, 2018-2021

Presenter: Mike Burke, Principal Water Resources Engineer, Inter-Fluve.

* Please register [here](#).
(Online only, no in-person option.)

Our Next Meeting

Date: April 4, 2023

Time: 4:00-6:00 pm

Location: Tucker Room,
Camden Town Office

* All meetings are recorded and available to the public on the town's [Youtube Channel](#). In-person attendance at the MRCAC meetings is also welcome with the understanding that public comment is not permitted.

Mission Statement

To provide recommendations to the Camden Select Board for preserving and improving the sustainability and resiliency of the Megunticook River and its watershed.

Resources

NEW!! [MRCAC Website](#)

[Town of Camden Website](#)



Summary of Our 2nd Monthly Presentation

Topic: River Ecology and the Importance of Anadromous Fish



River Herring / Alewife

Our second monthly presentation was led by Nate Gray, a sea-run fisheries expert who has been working at the Maine Department of Marine Resources for over 30 years. Nate focused his talk on river herring (also known as alewives) as they are the “principal drivers” and keystone species for estuary ecosystems like the Megunticook River and Lake. Keystone species have a disproportionately large effect on their environment relative to its abundance and play a unique and crucial role in the way the greater ecosystem functions.

Alewives depend on fresh water for spawning in the late spring. Currently, the dams on the Megunticook River are preventing alewives from entering the fresh water in the river and lake. Fortunately, due to their high fertility, alewife populations tend to rebound quickly after re-connectivity efforts (via fish passage and/or dam removal). Nate estimates that full connectivity efforts in the Megunticook River could lead to the potential annual return of 300,000 alewives per year. It would also support rebounds in populations of other anadromous fish such as the blueback herring, American eel, brook trout, and white sucker (see diadromous fish chart on page 1).

As the alewife numbers grow so would the populations of birds, mammals, and other fish that eat them (see the food web chart on page 3). Alewives also increase the trophic state (or biological productivity) of the water they swim in which increases invertebrate populations (insects, snails, etc). Simply put, the presence of alewives greatly benefits other wildlife species and the wider ecosystem.



Success Stories:

Maine has become a leader in dam removal and river restoration in the US over the last 25 years. Nate shared some restoration success stories from the work he has been doing to restore connectivity in the Greater Kennebec Basin. In 2022, after removing a dam and reconnecting China Lake for the first time since 1783, the response was remarkable – the fish count shot up by 837,000 in a 6-week window. Researchers also found 100 bald eagles along a 7.5-mile stretch of river nearby. They were likely drawn there to feed alewives to their offspring. This is now the largest bald eagle aggregation east of the Mississippi.

Question from the public: Were alewives in the Megunticook River historically, before the dams were installed?

Answer: “As far as I understand it, alewives were present there and sea-run brook trout. It has all the hallmarks.” – Nate Gray

Note: FB Environmental is researching this. We'll send out the final report.

Presenter:

Nate Gray

Sea-run fisheries expert at the
Maine Department of Marine Resources





River Ecosystem Food Web with Alewives as Keystone Species (in middle)



Definition of Ecology:

The branch of biology which studies the interactions among organisms and their environment

Image credit: Nate Gray

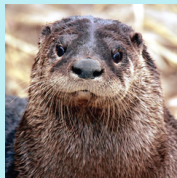
Species that Eat Alewives:

Birds

Bald eagle
Great blue heron
Osprey
Cormorant
Belted king fisher
Black backed gull
Common merganser
Hooded merganser
Common loon
Black duck
Herring gull
Mallard

Mammals

River otter
Weasel
Raccoon
Mink
Humpback whale
Harbor porpoise
Harbor seal
Finback whale



Fish

Atlantic cod
Atlantic salmon
Striped bass
Atlantic halibut
Bluefish
American eel
Haddock
Swordfish
Landlocked salmon
Chain pickerel
Brook trout
White perch

LOCAL EVENTS!

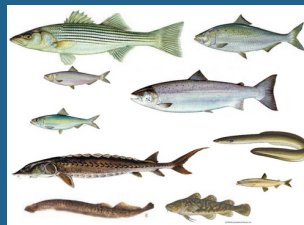


Top photo: American eels larvae (aka elvers) in Camden Harbor. Elver season runs from March 22 to April 7. The best viewing is at night with a flashlight .



Bottom photo: Alewives in the Ducktrap River at Turner Falls in Lincolnville. Watch them run this April or plan your own adventure with the [Maine Alewife Trail Map!](#)

Main Take-Aways:



1. Ecosystems are highly complex and depend on diversity to function
2. Humans are the root cause of fish population declines
3. Alewives are a keystone species in estuary habitats like the Megunticook River
4. River re-connectivity can lead to the rapid repopulation of alewives and other fish, mammal, and bird species

For more information, watch a recording of the presentation [here](#) or view the attached PowerPoint presentation.

Ideas or Questions?

Email us at megunticookriver@fbenvironmental.com