

# BIRDS OF HEMLOCK FORESTS

The eastern hemlock tree is a keystone species that provides numerous ecosystem services, and provides crucial food, shelter, and habitat for 96 species of birds. This includes songbirds, woodpeckers, and birds of prey.

## Hemlock Woolly Adelgid



Hemlock trees are currently threatened by hemlock woolly adelgid, or HWA, an invasive, sapsucking insect with the potential to kill trees in less than a decade. In some places, like the Great Smoky Mountains National Park, HWA has already wiped out entire stands of hemlock trees and devastated local ecosystems.

## Migratory Birds

Six species of migratory songbirds have been found to be significantly impacted by the loss of hemlock trees due to HWA. As HWA continues to spread through the native range of hemlock trees, many of these birds could disappear from our forests.



**Blackburnian Warblers** are also obligate species, and are a species of conservation concern in Pennsylvania. They have shown the greatest decline of any other migratory bird in infested hemlock stands.

**Hermit Thrushes** are migratory songbirds that build their nests under young hemlock trees and feed on invertebrates of hemlock stands. They have declined by more than 30 percent in infested stands.



**Black-Throated Green Warblers** are obligate birds that require hemlock stands for feeding and nesting. HWA infestations have led to declines in their populations.

**Acadian Flycatchers** are strongly associated with hemlock trees in their eastern range, and are very sensitive to the loss of these. Where other species decline in stands affected by HWA, these birds were completely absent.



**Blue-Headed Vireos** nest in hemlock stands, and were found to be consistently sensitive to infestations of HWA, which has raised concerns over their conservation status.

**Ovenbirds**, like hermit thrushes, are migratory songbirds and ground nesters that have been shown to decline in infested stands.

## What Can We Do?

There is still hope of managing HWA in forests. Infestations of HWA have been used by forest managers to successfully treated with insecticides, biological controls, or a combination of both.

But HWA must be detected early to save hemlock trees, which means forests must be consistently monitored to determine where the insect has spread and assess which trees are the highest priority.

While you are out in the forest, please keep an eye out for HWA, and help protect our hemlock forests! The birds that live there may depend on it.

## Identifying HWA

From November to April, HWA forms small woolly masses on the underside of hemlock branches. These are sometimes confused for spider sacs or spittle bugs.



Spittle bugs (left), spider sac (middle), and HWA

**If you believe you have found HWA, report your findings!** Contact the NYSDEC or the DCNR.

Alternatively, you may use the iMapInvasives app or website to record your findings in New York or Pennsylvania.

- ❖ PA homepage: [www.paimapvinvasives.org](http://www.paimapvinvasives.org)
- ❖ NY homepage: [www.nyimapinvasives.org](http://www.nyimapinvasives.org)

For more information about HWA and other invasive species in New York and Pennsylvania, visit:

- ❖ <https://www.dec.ny.gov/animals/265.html>
- ❖ <https://www.dcnr.pa.gov/Conservation/ForestAndTrees/InsectsAndDiseases/Pages/default>

