Yellow Warbler | Justin Griggs | Audubon Photography Awards

BIRDS CONNECT SEATTLE

Spring 2026

EARTHCARE NORTHWEST

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The Sticky Secret of Hummingbird Nests

by Ariel Shiley

It's easy to overlook a tiny hummingbird nest tucked into a tree branch. About the size of a walnut, each nest is a compact cup woven from plant fibers, lichen, moss, twigs, and bits of leaves. What holds these materials together and turns them into a strong, dynamic structure is spider silk.

Female hummingbirds take on the entire task of nest building. They collect spiderwebs and weave the sticky strands throughout the nest like a natural glue. Using their beaks and breasts, they stretch the silk around both the nest and the supporting branch, creating a secure anchor.

(continued on next page) »»

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Hummingbird Nests (cont.)

Spider silk is ideal for this job because it is lightweight, incredibly strong, and remarkably elastic. As eggs hatch and chicks grow, the nest expands to fit its growing occupants while keeping its shape and its grip on the branch.

Pound for pound, spider silk is considered five times stronger than steel. Its fibers bend and stretch without breaking, helping hummingbird nests withstand the wind and rain of the Pacific Northwest. This resilience keeps the nest secure throughout the nesting season, from February through April.

Humans have long admired the remarkable properties of spider silk as well. In ancient times, spider webs were used as natural bandages to help stop bleeding. Today, scientists study silk for uses ranging from medical sutures to biodegradable materials. Hummingbirds, however, discovered its value long before modern science did.

Delicate as they appear, hummingbird nests are true engineering marvels. They use simple, prevalent materials in beautifully effective ways. The next time you spot a hummingbird darting through the trees, take a closer look nearby. You might just find a tiny, silk-bound nest quietly holding the next generation of Anna's or Rufous Hummingbirds.


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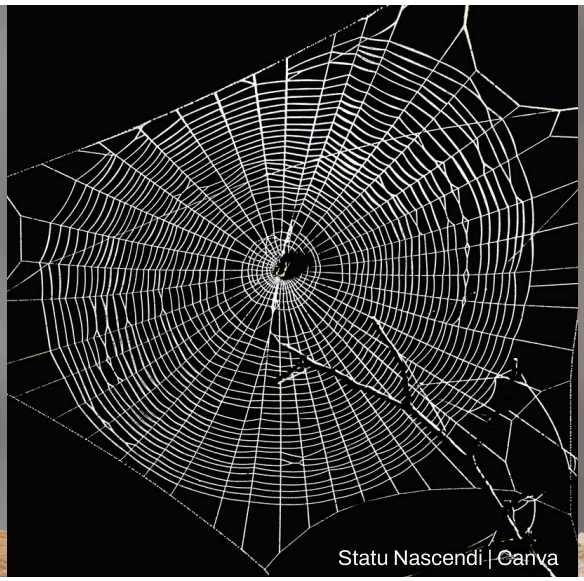
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Built to Catch Bugs: Adaptations of Insect-Eating Birds

by Carol Roll, Development Director

On summer evenings in the Pacific Northwest, the air above Green Lake seems alive with swooping birds and swirling clouds of tiny insects. What looks like chaos is actually a finely tuned system of specialists, each equipped with unique anatomy. Insectivores, or birds that predominantly eat insects, all have special adaptations to catch insects in the air, under bark, and among leaves.

Flycatchers such as the Pacific-slope Flycatcher and Western Wood-Pewee appear calm until, in the blink of an eye, they dart out and snatch an insect midair. Their flat bills are lined with stiff rictal bristles that act like tiny nets, guiding prey straight into their mouth.

Swallows take aerial hunting to another level. Violet-green and Tree Swallows use their long, narrow wings to twist through the sky with great speed and agility, while opening their large mouths to scoop up insects in flight.

On tree trunks, woodpeckers use shock-absorbing skulls to drill into bark, but it's their remarkable tongues—long, sticky, and barbed—that snag hidden larvae. Nuthatches and creepers can reach hidden insects that other species can't access by gripping bark with powerful feet as they probe every crack.

Higher in the canopy, warblers bring surgical precision with thin, pointed bills to pluck caterpillars and aphids, showing how small tools can do big work too. Together, these varied strategies help keep insect populations in balance and highlight the intricate connections that make healthy ecosystems possible.

Barn Swallows | Alan Peterson | Audubon Photography Awards

Aerial Insectivores in Decline: What 18 Years of Neighborhood Bird Project Data Reveals

by Joshua Morris, Conservation Director

Swallows, swifts, and flycatchers are aerial insectivores—birds that hunt insects in flight. These birds have been identified as species of concern due to steeply declining populations across North America in recent decades.

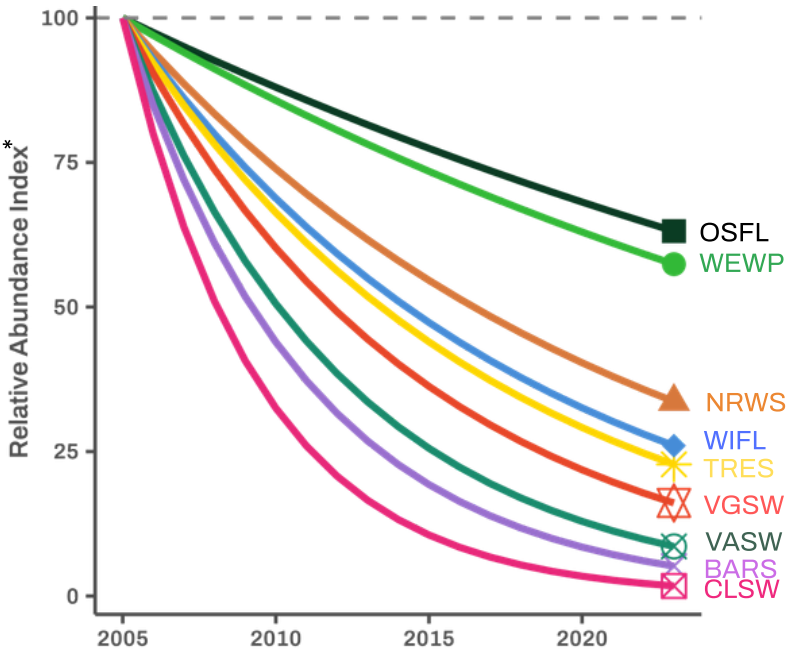
Our local aerial insectivores appear to be declining, too. We analyzed trends from our Neighborhood Bird Project (NBP) counts for 115 species from 2005 to 2023. Among landbirds, counts of aerial insectivores declined fastest, at an average rate of 7.3% per year, with nine out of ten species showing negative trends.

Cliff Swallow fared the worst. Counts fell by 20% annually, for a cumulative decline of 98% since 2005. Barn Swallow and Vaux's Swift also declined precipitously at 95% and 91%, respectively.

Pesticide use may be driving declines, either through direct ingestion or by depleting the insect prey base. Reducing pesticide use is an important way to help these species. Pet owners should be aware that many topical flea and tick medications are neonicotinoid-based and can enter the environment when animals go outside or are washed. Choosing food grown without pesticides also makes a difference. This extends to birdseed, much of which is grown with intensive pesticide use.

Habitat loss, including loss of nesting sites, is another driver. Modern buildings are often designed without eaves, with bird exclusion purposely in mind. This can reduce local nesting opportunities for species like Barn Swallows. If aerial insectivores are nesting on your building, consider yourself lucky and do what you can to protect them.

The one bright spot is the Western Flycatcher, counts of which have grown exponentially along nearly every forested NBP survey loop in recent years, with overall counts up 572%. Why this species booms while close relatives like Western Wood-pewee or Olive-sided Flycatcher bust isn't entirely clear. Western Flycatchers make a shorter migration and favor shaded interior forests, so fewer threats along the way, maturing forest at NBP sites, or both may help explain their success.



*Relative Abundance Index is expressed as relative to 2005 baseline (=100%). Species Key: Olive-sided Flycatcher (OSFL), Western Wood-pewee (WEWP), Northern Rough-winged Swallow (NRWS), Willow Flycatcher (WIFL), Tree Swallow (TRES), Violet-green Swallow (VGSW), Vaux's Swift (VASW), Barn Swallow (BARS), Cliff Swallow (CLSW)

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From the Executive Director

Dear Members,

Spring always feels like a season of possibility, and this issue captures both the wonder and the urgency of the moment. From the remarkable engineering of hummingbird nests to the specialized adaptations that help insect-eating birds thrive, we're reminded how extraordinary these small (and sometimes large) creatures are.

At the same time, our latest Neighborhood Bird Project findings show troubling declines in aerial insectivores. I'm encouraged, though, by the commitment and action being taken across our community, including the launch of our Conservation Reading Group, which creates space for learning together and turning knowledge into grassroots impact.

Thank you for being part of a community that learns, cares, and acts together for birds and people.

In gratitude,

Claire Catania
Executive Director

Silent Earth: A Conservation Call to Action

by Emily Knutsen, Conservation Committee

Our Conservation Committee formed a new reading group and kicked off our learning and discussion with Silent Earth: Averting the Insect Apocalypse.

In the book, Dave Goulson explores the factors that are causing substantial global insect decline: agricultural chemicals, a warming climate, habitat destruction, and other headwinds.

A world without insects would be a world without birds. Ninety percent of bird species rely on insects to feed their chicks. But a Silent Earth—a world absent of singing crickets and singing birds—doesn't need to be our future. Goulson outlines numerous ways in which we can all pitch in to re-establish equilibrium, including adding native plants.

rebrand.ly/ReadingGroup

Reading books like this helps us better understand our world and the ways to sustain it. With that in mind, our members are warmly invited to join the public launch of our Conservation Reading Group on March 24th. Participate quarterly as an independent self-guided reader, or join our in-person small group discussion.

Sign up for the Conservation Reading Group and see our quarterly book picks at AddaBook.net or by scanning this QR code.