

3 Major Threats to Amphibians and How to Help



“A 2004 global assessment found that nearly 1/3 of the world's amphibians are threatened, representing 1,856 species. Amphibians have existed on earth for over 300 million years, yet in just the last two decades there have been an alarming number of extinctions, nearly 168 species are believed to have gone extinct and over 43% more have populations that are declining.”

– Julianne Oshiro, via
[AmphibiaWeb](#)

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1. Commercial and Residential Development - WHAT'S THE PROBLEM?

Your home or business is comfortable and LEED certified. But it may be sitting on former amphibian habitat that was obliterated to construct and service these buildings.

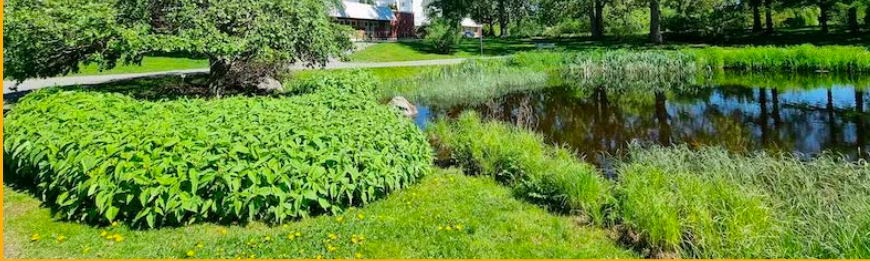


This is “habitat destruction” and “fragmentation.” It doesn’t necessarily resemble blasted landscapes of clear-cut forest. It can look like a pleasant country road or the right-of-way cut for power lines.



1. Commercial and Residential Development - WHAT CAN HELP?

Restore habitats whenever possible. This could be as easy as cleaning up old, unused development sites and just leaving them alone to be repopulated naturally. Or dig a pond in your yard surrounded by unmowed grass and foliage.



Amphibians absorb environmental toxins through their skin. **Stop using herbicides, fungicides, and pesticides** around your structures and yards. This includes golf course ponds, mulched flower beds, hedges, or the back deck where weeds grow. You simply don't need to poison anything where you live and work.



Legally protect species. If you commit some time and energy, you can learn about and engage your local legal procedures for identifying where and how to regulate and protect habitats and breeding sites.

2. Harmful Agricultural Practices - WHAT'S THE PROBLEM?

Cultivated farmland for crops or animals can cause similar environmental harm as a shopping mall or sports stadium. Habitats may be destroyed, wetlands filled in, agricultural chemicals and runoff could decimate amphibian populations.



Farming itself isn't the problem. Farmers care about the land and its creatures. Communities can invite farmers and other landowners to plan and lead habitat restoration and other efforts at reforming or replacing certain practices.



2. Harmful Agricultural Practices - WHAT CAN HELP?

Compensate farmers for the modest costs of conservation! Make this a financial priority for town boards and regional budgeting bodies.



Enact creative terrestrial habitat policies. Alter mowing/cutting schedules, follow the latest science on grazing methods, restore and plant new hedges, revisit the details of silviculture. Small alterations can produce significant benefits.



Enact creative aquatic habitat policies. Manage ditches and drainage to be more toad-friendly. Dig a couple extra ponds. Fence off streams and temporarily flooded areas from livestock and wild boars.

3. Roads and Highways

- WHAT'S THE PROBLEM?

Transportation corridors (i.e. “roads”) slice up habitats by creating confining barriers, destroy habitats during construction, and further disrupt ecosystems by altering drainage patterns and creating physical danger from vehicles.



The problem is much greater than an occasional injured frog on rainy nights. Many amphibians reproduce during mass migrations across long stretches of habitat. Dangerous road crossings can be devastating to whole populations.



3. Roads and Highways

- WHAT CAN HELP?

Install **culverts** or tunnels as road crossings. Install **barrier fencing** along roads. Reposition **storm drains**, gutters, and catch basins.



Install **signage** to alert motorists to be vigilant. **Temporarily close roads** during seasonal amphibian migrations. **Organize volunteers** to safely assist migrating amphibians across roads.



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An educational pamphlet by Dave Huth, davehuth.com

Source - The information in this work is drawn primarily from *Amphibian Conservation: Global evidence for the effects of interventions*, by Rebecca K. Smith and William J. Sutherland, *Synopses of Conservation Evidence, Volume 4* (Pelagic Publishing, www.pelagicpublishing.com) Smith, R.K. and Sutherland, W.J. (2014) *Amphibian conservation: Global evidence for the effects of interventions*. Exeter, Pelagic Publishing.

Amphibian Conservation: Global evidence for the effects of interventions is part of the amazing **Conservation Evidence Project**.

The Conservation Evidence project has three parts:

- 1) An online, open access journal Conservation Evidence that publishes new pieces of research on the effects of conservation management interventions. All our papers are written by, or in conjunction with, those who carried out the conservation work and include some monitoring of its effects.
- 2) An ever-expanding database of summaries of previously published scientific papers, reports, reviews or systematic reviews that document the effects of interventions.
- 3) Synopses of the evidence captured in parts one and two on particular species groups or habitats. Synopses bring together the evidence for each possible intervention. They are freely available online and available to purchase in printed book form. These resources currently comprise over 4,000 pieces of evidence, all available in a searchable database on the website www.conservationevidence.com.



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