Tutorial

Academic Journals, Trade Journals and Popular Magazines

How are they different?
Academic Journals, Popular Magazines and Trade Journals

How are they different?
Different Levels of Information

Academic Journal – Environmental Applications

Declines of the California Red-legged Frog: Climate, UV-B, Habitat, and Pesticides Hypotheses

Carroll Davidson*1, H. Bradley Shappell1, and Mark R. Bernstein2

1Section of Evolution and Ecology and Center for Population Biology, University of California–Davis, California 95616 USA
2U.S. Geological Survey, P.O. Box 70, San Dimas, California 91773 USA

Abstract. The federally threatened California red-legged frog (Rana aurora draytonii) has disappeared from much of its range for unknown reasons. We mapped 237 historic locations for the species and determined their current population status. Using a geographic information system (GIS), we determined kinematic, elevation, and land use attributes for all sites and analyzed the spatial patterns of declines. We then compared the observed patterns of decline to those predicted by the climate change, UV-B radiation, pesticides, and habitat alteration hypotheses for amphibian decline. Declines were not consistent with the climate change hypothesis but showed a strong positive association with elevation, percentage of agricultural land use, and local urbanization. These results apply to patterns of decline across the entire range of R. draytonii in California, as well as to the geographic substrates. The geographic gradient in decline is consistent with the UV-B hypothesis, although the UV-B hypothesis also predicts a north-to-south gradient in declines, which we did not observe. The association of declines with the amount of upland agricultural land use strongly suggests that wind-borne agrochemicals may be an important factor in declines. This association was most pronounced within the Central Valley–Sierra region, where other studies have documented both transport and deposition of pesticides to the Sierra Nevada and the presence of pesticide residues in the bodies of congeners (Rana sevastopouloi) and more distantly related (Rana rugosa) frog species.

Key words: amphibian decline, California red-legged frog, climate change, declining amphibian, geographic information system (GIS), habitat alteration, spatial analysis, agricultural land use, UV-B, wind-borne agrochemicals.

April 2001

Red-legged Frog Declines

Table 2. Logistic regression models.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>1 se</th>
<th>P</th>
<th>exp(B)</th>
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</thead>
</table>

Statewide reduced model?
Larva: 0.0699 0.0017 <0.0001 1.0612
Elevation: -0.0211 0.0046 0.0035 0.9789
Percent upland AG: 0.0056 0.0013 <0.0001 1.0041

Statewide reduced model with region:
Region: -2.4491 0.0003 0.0000 0.0582

LITERATURE CITED


Cowan, J. B. 1999. Mammals, reptiles and amphibians of the Gray Lodge Wildlife Area, California Department of Fish and Game, Sacramento, California, USA.


Cotta, S. 1997. Studies on the atmospheric transport and deposition of polyhalogenated biphenyls and pesticides in aquatic ecosystems of the Sierra Nevada. Dissertations University of California, Davis, California, USA.


Different Levels of Information

Popular Journal - Science News

Wafting pesticides taint far-flung frogs

Federal researchers have added new evidence to the growing case that agricultural pesticides blowing into California’s wilderness areas have played a role in mysterious declines in frog populations.

Traces of the common pesticides Dieldrin and chlorpyrifos showed up in more than half the Pacific tree frogs sampled in Yosemite National Park, but in only 9 percent of the frogs tested at sites upwind of agricultural areas, report U.S. Geological Survey scientists Gary Fellers and Donald Sparling.

Fellers, based at the Point Reyes National Seashore in California, and Sparling, at the Patuxent Wildlife Research Center in Maryland, spoke at a USGS symposium on amphibian declines held last week in Reston, Va.

Parts of California that may look like frog heaven have been anything but that during the past 15 years. The California red-legged frog now ranks as a threatened species on the U.S. list: the mountain yellow-legged frog and Yosemite toads have been proposed for listing.

The idea that drifting pesticides might somehow be harming frogs isn’t new, and studies have already confirmed parts of the scenario (SN: 9/8/99, p. 150). For instance, Fellers and his coworkers last year reported that air currents can transport pesticide residues into remote areas. Just what those low exposures might be doing to frogs has remained a troubling question, Fellers says.

Now, he and Sparling have checked Pacific tree frogs at six locations scattered around California. The researchers chose tree frogs as a proxy for rare species. Along the coast upwind of inland farms, “the frogs seem to be doing rather well,” Fellers says. In contrast, frogs in wilderness areas downwind of heavy agriculture were contaminated with low concentrations of pesticide.

The researchers report the first evidence in California that sublethal pesticide doses affect frogs. Tissue samples showed hampered activity for the enzyme cholinesterase, which keeps nerve cells firing normally. Fellers speculates that frogs with this condition might not be hopping, floating, or mating in top form. Details of the work will appear in a future ENVIRONMENTAL TECHNOLOGY AND CHEMISTRY.

“It’s an important study,” comments Carlos Davidson of the University of California, Sacramento, who studies the geographic distribution of amphibian declines in California. “Just because we have evidence for one cause doesn’t mean the others are wrong.” His caution: For example, he says he’s convinced that the practice of stocking waterways with trout is devastating native amphibians in some spots.

At the USGS symposium, veterinary pathologist Carol Meteyer of the Wildlife Health Research Center in Madison, Wis., described what she calls the first systematic comparison of deformed frogs from different sites. Other researchers have blamed the deformities on widespread environmental contaminants, parasites, or even predators that mutilate frogs. However, Meteyer says, her high-detail X-ray study reveals that frogs lacking a leg or two are also missing pelvic parts. That wouldn’t come from a survivable predator attack, she says.

She also notes that deformed frogs at four Vermont sites are usually missing limbs, but those in Maine have extras. Says Meteyer: “To me, this says there are different agents out there,” including, possibly, mixes of pesticides.

—N.Miles

Pacific tree frogs downwind from agricultural fields contain pesticide nerve endings.

What are Scholarly or Academic Journals?

- Scholarly journals are also known as academic journals or *peer-reviewed journals.

- All contain articles which explore topics in-depth, and....

*Peer review* is a process in which articles are reviewed by other experts for validity, usually resulting in more accurate information.
Academic Journals Contain:

- An abstract, or summary of each article
- Articles written by scholars/experts in a field
- Author credentials
- A technical or specialized vocabulary
- Charts and graphs
- Article length of at least 10 pages
- A bibliography or list of references
Example of an Academic Journal Article

Look for:
- Abstract/Summary
- Author Credentials
- Tables, graphs
- Reference List/Bibliography
- A serious appearance

Graphic from Edinburgh Napier University
The Main Purpose of an Academic Journal

To inform, to educate and to disseminate information to a scholarly audience
Examples of Academic Journals

- Global Marketing
- Sociological Inquiry
- Journal of Education for Business
- Journal of American History
- Journal of Counseling Psychology

Ulrich's Periodicals Directory
REF Z6941.U5 (REFERENCE)
Characteristics of Professional or Trade Journals

- Often have glossy pages and color illustrations
- Contain advertisements and job postings specific to the industry
- Written by industry experts, journalists with subject knowledge
- Author credentials sometimes given
- Technical or specialized jargon
- Sources sometimes cited
- Article length often short, between 1-7 pages
Main Purpose of Trade and Professional Journals

To inform trade and industry members about current issues relevant to the field.
Examples of Professional or Trade Journals

- Advertising Age
- HR Magazine
- Teaching Mathematics in the Middle School
- Library Journal
- Workforce Management
- Law and Order
Characteristics of Popular Magazines

- Visually appealing, glossy pages
- Prominent advertisements
- No bibliography
- Written by staff or freelance writers and reviewed by magazine editors
- No author credentials given
- Short articles written in accessible language – at about a 12th grade reading level.
Main Purpose of Popular Magazines or Journals

Written to entertain, sell to and inform a broad audience
Examples of Popular Periodicals

- Psychology Today
- Newsweek
- PC World
- Scientific American
- Sports Illustrated

Note that newspapers are also considered popular periodicals.
<table>
<thead>
<tr>
<th>Academic or Scholarly Journal</th>
<th>Trade or Professional Journal</th>
<th>Popular Periodical</th>
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<tbody>
<tr>
<td><strong>Examples</strong></td>
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<tr>
<td><strong>Authors</strong></td>
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<tr>
<td>Researchers, scholars, professors</td>
<td>Industry experts, journalists with subject knowledge</td>
<td>Staff writers, journalists some subject experts</td>
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<tr>
<td><strong>Purpose</strong></td>
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<tr>
<td>To inform, to educate, to disseminate information to a scholarly audience</td>
<td>To inform trade members about issues relevant to the field</td>
<td>To inform, entertain, persuade and sell to a broad audience</td>
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<tr>
<td><strong>Audience</strong></td>
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<tr>
<td>Scholars, researchers, scientists, students</td>
<td>Trade professionals</td>
<td>General public</td>
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<tr>
<td><strong>Language &amp; Length</strong></td>
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<tr>
<td>Complex sentences using a specialized or scientific vocabulary; often 10+ pages in length</td>
<td>Some technical jargon; length varies considerably, but often less than 7 pages</td>
<td>Accessible language, often written at a high-school reading level; length varies, but often less than 5 pages</td>
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<tr>
<td><strong>Sources</strong></td>
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<tr>
<td>Source material heavily documented with in-text citations, footnotes &amp; bibliography.</td>
<td>Sometimes cite sources</td>
<td>Sometimes cite sources</td>
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<tr>
<td><strong>Published by</strong></td>
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<tr>
<td>Universities, scholarly publishing houses, professional research organizations</td>
<td>Trade organizations</td>
<td>Commercial publishers</td>
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<tr>
<td><strong>Visual Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious look with charts, graphs, statistics, few advertisements</td>
<td>Often glossy pages, some trade-specific advertisements, charts &amp; graphs, photographs</td>
<td>Glossy pages, prominent advertisements, photographs</td>
</tr>
</tbody>
</table>
Are you Ready to Search for Journals?
To Consider:

- Read an introduction or overview to gain an understanding of your topic first.
  - Or search books, videos and government documents with the Traurig Online Catalog here [Traurig Library Online Catalog](#)

- Ask a librarian to recommend an index or database for your topic: Call 203-596-4560 or email the library at [library@post.edu](mailto:library@post.edu)

- To view a list of journal holdings by subject in pdf format, click here: [Current Journals](#)

- For more tips on locating and searching journals, see “How to Search for Journal Articles” tutorial on the library web page.