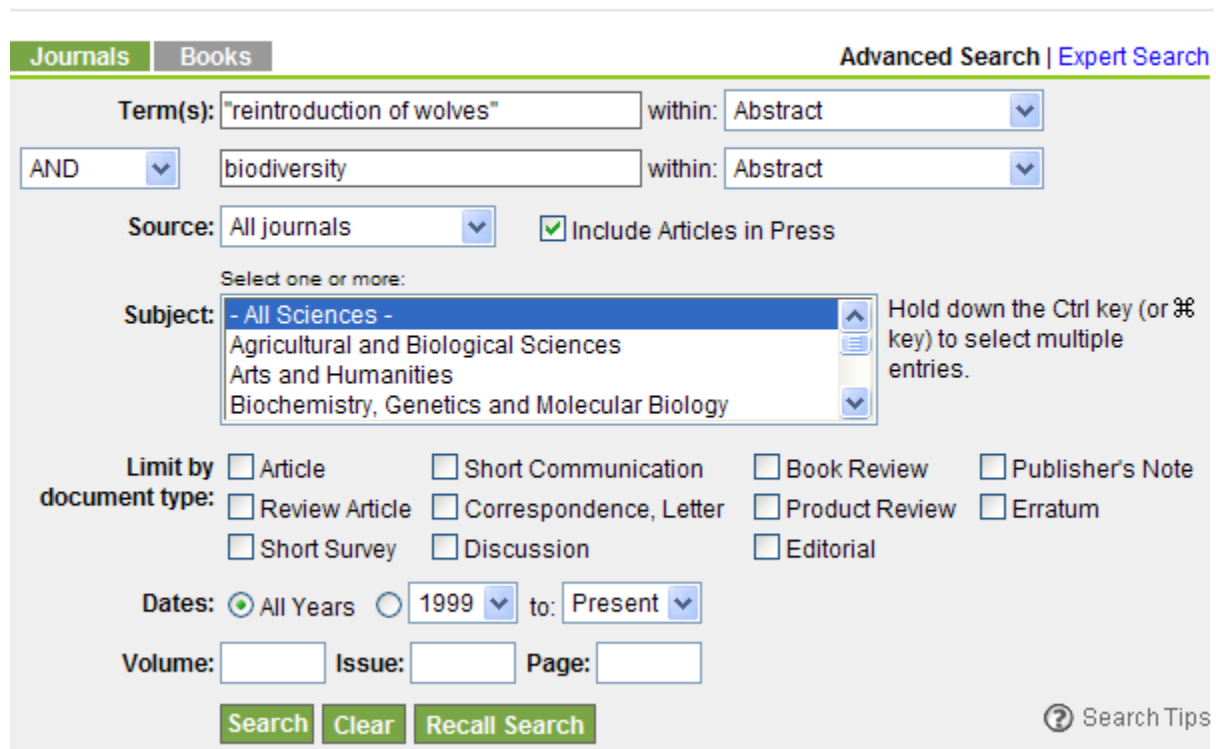


How to construct a highly technical search by starting with simple terminology or natural language

Unless you are well-acquainted with a subject, it is best to do a broad, general search of the full-text field using common terminology. After scanning "hits" from an initial search, if one of the articles looks good, read the abstract and note the professional terminology that is used. Perform a new search typing these terms into the "abstract" or "subject" field to find similar articles.

The following example is of a search for the effect of wolf reintroduction on the environment. The database that has been selected is ScienceDirect from Elsevier. The phrase "reintroduction of wolves" and the term *biodiversity* have been entered into the *abstract* fields, but this initial attempt yields no results.

 **No results were found**
Click the search tips link on the search form below for additional information.



The screenshot shows a search interface with the following elements:

- Buttons for "Journals" and "Books" are visible at the top left.
- Navigation links for "Advanced Search" and "Expert Search" are at the top right.
- The search term "reintroduction of wolves" is entered in the "Term(s)" field, with "within: Abstract" selected in the dropdown.
- The second search term "biodiversity" is entered in the second field, also with "within: Abstract" selected.
- The search operator is set to "AND".
- The "Source" is set to "All journals", and the checkbox for "Include Articles in Press" is checked.
- The "Subject" dropdown menu is open, showing options: "- All Sciences -", "Agricultural and Biological Sciences", "Arts and Humanities", and "Biochemistry, Genetics and Molecular Biology".
- There is a note: "Hold down the Ctrl key (or ⌘ key) to select multiple entries."
- The "Limit by document type" section includes checkboxes for: Article, Short Communication, Book Review, Publisher's Note, Review Article, Correspondence, Letter, Product Review, Erratum, Short Survey, Discussion, and Editorial.
- The "Dates" section has "All Years" selected, with "1999" and "Present" in the date range dropdowns.
- Fields for "Volume:", "Issue:", and "Page:" are present but empty.
- Buttons for "Search", "Clear", and "Recall Search" are at the bottom.
- A "Search Tips" link with a question mark icon is at the bottom right.

NEXT PAGE

To broaden the search, the Full Text field is selected. This attempt yields 7 hits, some of which are shown in the image below the search window.

Journals | **Books** [Advanced Search](#) | [Expert Search](#)

Term(s): "reintroduction of wolves" within: Full Text

AND | biodiversity within: Full Text

Source: All journals Include Articles in Press

Select one or more:

Subject: **- All Sciences -** (selected)
 Agricultural and Biological Sciences
 Arts and Humanities
 Biochemistry, Genetics and Molecular Biology

Hold down the Ctrl key (or ⌘ key) to select multiple entries.

Limit by document type:

<input type="checkbox"/> Article	<input type="checkbox"/> Short Communication	<input type="checkbox"/> Book Review	<input type="checkbox"/> Publisher's Note
<input type="checkbox"/> Review Article	<input type="checkbox"/> Correspondence, Letter	<input type="checkbox"/> Product Review	<input type="checkbox"/> Erratum
<input type="checkbox"/> Short Survey	<input type="checkbox"/> Discussion	<input type="checkbox"/> Editorial	



Dates: All Years 1999 to: Present

Volume: Issue: Page:

Search **Clear** **Recall Search** ? Search Tips

7 articles found for: FULL-TEXT("reintroduction of wolves") and FULL-TEXT(biodiversity)

[Edit Search](#) | [Save Search](#) | [Save as Search Alert](#) | [RSS Feed](#)

 = Full-text available  = Abstract only

Search Within Results:

Refine Results

Content Type

Journal (7)

Journal/Book Title

Biological Conservation (4)

Forest Ecology and Management (2)





Journal of Environmental Management (1)


Year


2009 (3)


2007 (2)

2004 (1)

  Email Articles  Export Citations  Download PDFs

1.  **Wolves, elk, willows, and trophic cascades in the up**
Forest Ecology and Management, Volume 200, Issue:
 William J. Ripple, Robert L. Beschta
[Preview](#) [PDF \(1031 K\)](#) | [Related Articles](#)

2.  **Second chance for the plains bison**
Biological Conservation, Volume 136, Issue 2, April 20
 Curtis H. Freese, Keith E. Aune, Delaney P. Boyd, Jam
 Natalie D. Halbert, Kyran Kunkel, Kent H. Redford
[Preview](#) [PDF \(237 K\)](#) | [Related Articles](#)

3.  **Wolf reintroduction, predation risk, and cottonwood**
Forest Ecology and Management, Volume 184, Issue:
 William J. Ripple, Robert L. Beschta
[Preview](#) [PDF \(729 K\)](#) | [Related Articles](#)

NEXT PAGE

This is the abstract of the first article in the results list. (Sometimes, the first article isn't going to be useful and you will have to scan the results page until you find one that is.) Note the scientific jargon that is used. Wolf (or wolves) is *Canis lupus*. At the bottom of the article a new term is used that denotes the effect that a species can have on other species. This term is **trophic cascade**.

Wolves, elk, willows, and trophic cascades in the upper Gallatin Range of Southwestern Montana, USA

William J. Ripple¹ and Robert L. Beschta¹

Abstract

We summarized the status of wolves (*Canis lupus*), elk (*Cervis elaphus*), and woody browse conditions during the 20th century for the upper Gallatin elk winter range in southwestern Montana, USA. During this period, wolves were present until about the mid-1920s, absent for seven decades, and then returned to the basin in 1996. A chronosequence of photographs, historical reports, and studies indicated willows (*Salix* spp.) along streams became heavily browsed and eventually suppressed following the removal of wolves, apparently due to unimpeded browsing by elk. However, after wolf establishment in 1996, browsing intensity on willows lessened in some areas and we hypothesized that, at both a landscape and fine scale, browsing pressure reflects terrain configurations influencing predation risk (nonlethal effects), in conjunction with lower elk densities (lethal effects). We measured browsing intensity and heights of Booth willow (*S. boothii*) along 3000 m reaches of the Gallatin River and a tributary to examine the potential influence of wolf/elk interactions upon willow growth. Where the Gallatin Valley is relatively narrow (high predation risk), willows began releasing in 1999 and by 2002 were relatively tall (150–250 cm). In contrast, willow heights along a wider portion of the Gallatin Valley, along the open landscape of the tributary, and an upland site (all low predation risk) generally remained low (<80 cm). We identified terrain and other features that may contribute to the perceived risk of wolf predation, by elk for a given site. Although alternative mechanisms are discussed, changes in willow communities over time following wolf removal and their subsequent reintroduction were consistent with a top-down **trophic cascade** model involving nonlethal and possibly lethal effects. If similar top-down effects upon vegetation hold true in other regions of North America and other parts of the world where wolves have been extirpated, wolf recovery may represent a management option for helping to restore riparian plant communities and conserve biodiversity.

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These two scientific terms are entered into the abstract fields. This results in 5 hits. These articles are likely to be highly relevant to someone researching this topic.

Journals Books Advanced Search | Expert Search

Term(s): "canis lupus" within: Abstract

AND "trophic cascade" within: Abstract

Source: All journals Include Articles in Press

Select one or more:

Subject: - All Sciences -
 Agricultural and Biological Sciences
 Arts and Humanities
 Biochemistry, Genetics and Molecular Biology

Hold down the Ctrl key (or ⌘ key) to select multiple entries.

Limit by document type: Article Short Communication Book Review Publisher's Note
 Review Article Correspondence, Letter Product Review Erratum
 Short Survey Discussion Editorial

Dates: All Years 1999 to: Present

Volume: Issue: Page:

? Search Tips

1.  [Wolves, elk, willows, and trophic cascades in the upper Gallatin Range of Southwestern Montana, USA](#)
Forest Ecology and Management, Volume 200, Issues 1-3, 25 October 2004, Pages 161-181
 William J. Ripple, Robert L. Beschta
 [Preview](#)  [PDF \(1031 K\)](#) | [Related Articles](#)

2.  [Restoring Yellowstone's aspen with wolves](#)
Biological Conservation, Volume 138, Issues 3-4, September 2007, Pages 514-519
 William J. Ripple, Robert L. Beschta
 [Preview](#)  [PDF \(1296 K\)](#) | [Related Articles](#)

3.  [Large predators and trophic cascades in terrestrial ecosystems of the western United States](#)
Biological Conservation, Volume 142, Issue 11, November 2009, Pages 2401-2414
 Robert L. Beschta, William J. Ripple
 [Preview](#)  [PDF \(11188 K\)](#) | [Related Articles](#)

4.  [Linking wolves to willows via risk-sensitive foraging by ungulates in the northern Yellowstone ecosystem](#)
Forest Ecology and Management, Volume 230, Issues 1-3, 15 July 2006, Pages 96-106
 William J. Ripple, Robert L. Beschta
 [Preview](#)  [PDF \(539 K\)](#) | [Related Articles](#)

5.  [Historic aspen recruitment, elk, and wolves in northern Yellowstone National Park, USA](#)
Biological Conservation, Volume 95, Issue 3, October 2000, Pages 361-370
 William J. Ripple, Eric J. Larsen
 [Preview](#)  [PDF \(550 K\)](#) | [Related Articles](#)