Search tips for article databases

Topic search terms
Adding search terms with AND reduces the number of results.

Topic: The effects of climate change on invasive plants in California
Search terms are in red; combine with AND to search for articles where all terms occur.

Searches: climate change (52,000 results in BIOSIS)
climate change AND invasive plants (450 results)
climate change AND invasive plants AND California (24 results)

Synonyms of terms
Adding synonyms with OR increases the number of results.

Combine synonyms with OR to search for articles where any of the terms occur.

<table>
<thead>
<tr>
<th>climate change</th>
<th>AND</th>
<th>invasive plants</th>
<th>AND</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td></td>
<td>OR</td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>global warming</td>
<td></td>
<td>exotic plants</td>
<td></td>
<td>Western United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>non-native plants</td>
<td>OR</td>
<td>Pacific Coast</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nonnative plants</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Group ORed terms with parentheses:
(climate change OR global warming)
AND (invasive OR exotic OR non-native OR nonnative)
AND plants
AND (California OR Western United States OR Pacific Coast)

Exact phrase searching
Searching on exact phrases reduces the number of results.

Place quotation marks around exact phrases: “Western United States”; “Pacific Coast”

(climate change OR global warming)
AND (invasive OR exotic OR non-native OR nonnative)
AND plants
AND (California OR “Western United States” OR “Pacific Coast”)

Use sparingly: a search on “climate change” misses articles using “changing climate.”


See next page for more tips >
Truncation: finding all forms of search terms

Using truncation increases the number of results.

Add an asterisk after the stem of the search term:

- **climat*** finds climat|e
  climat|ic
  climat|ological
- **chang*** finds chang|e
  chang|es
  chang|ing
  chang|ed
- **inva*** finds inva|sive
  inva|sively
  inva|sion
  inva|ding
- **plant*** finds plant|
  plant|s, and also
  plant|ing
  plant|ed
- **California*** finds California|
  California|n

**CAREFUL:**

gene* finds gene and genes, but also general and generally; use (gene OR genes) instead.

**Test** truncation by searching on a truncated term in the Title field and looking for unintended words.

**PubMed warning:** Using truncation turns off automatic term mapping in PubMed.