Hello!

Brigid Farrell
(Science Librarian)

• Have a question?
  • Email me: farrelb@lemoyne.edu
  • Or set up an appointment on the library’s website
Assignment is due...

Feb 8th 11:59pm

* find it and submit it on Canvas *
(192 LECTURE, not lab!)
Google vs. Scholarly database

What is the difference?
<table>
<thead>
<tr>
<th><strong>Google</strong></th>
<th><strong>Scholarly Database</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How do you search?</strong></td>
<td></td>
</tr>
</tbody>
</table>
How do you search?  

Simple keywords (how you speak)  

Google  

Scholarly Database  

Advanced search (keywords and syntax)
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</thead>
<tbody>
<tr>
<td>Maybe someone, maybe no one</td>
<td>Edited for content and quality, often peer-reviewed</td>
<td></td>
</tr>
</tbody>
</table>
For your assignment, your article needs to be PEER-REVIEWED.
But what does peer-reviewed mean?

They are scholarly articles submitted for publication, which are judged by an independent and impartial panel of experts in that field.
How do I know if an article is peer-reviewed?

* This is important!
  Take notes!
How do I know if an article is peer-reviewed?

- The article sometimes says so!
How do I know if an article is peer-reviewed?

Don’t be fooled... Just saying the word “review” is NOT the same as peer-reviewed!!!!

The article sometimes says so!
How do I know if an article is peer-reviewed?

- The article sometimes says so!
  - Don’t be fooled...Just saying the word “review” is NOT the same as peer-reviewed!!!!
- Fool-proof method
  - Google “peer-reviewed” and the journal name!
How do I know if an article is peer-reviewed?

- The article sometimes says so!
  - Don’t be fooled...Just saying the word “review” is NOT the same as peer-review!!!!
- Fool-proof method
  - Google “peer-reviewed” and the journal name!
- LAST STEP - Make sure your article is not
  - Opinion or Editorial
  - News article (press release)
  - Book review
Be Careful!

A journal can be peer-reviewed...BUT these are NOT!

- LAST STEP - Make sure your article is not
  - Opinion or Editorial
  - News article (press release)
  - Book review
REVIEW!
*How to get started on your assignment*

**What is your question?**

Determine basic question/topic you are trying to answer?

**Keywords**

Figure out some keywords

Wildcards

More than one word!

**Connections**

Boolean operators

Synonyms
How to get started on your assignment

What is your question?

- How does the (variable) of the (flower) affect its pollination by (animal)?
*How to get started on your assignment*

What is your question?

- How does the (variable) of the (flower) affect its pollination by (animal)?
- How does the height of the Northern Blue Flag affect its pollination by bees?
How does the **height** of the **Northern Blue Flag** affect its pollination by **bees**?
REVIEW!
How does the height of the Northern Blue Flag affect its pollination by bees?
How does the height of the Northern Blue Flag affect its pollination by bees?
<table>
<thead>
<tr>
<th>HEIGHT</th>
<th>NORTHERN BLUE FLAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLLINATION</td>
<td>BEES</td>
</tr>
</tbody>
</table>
HEIGHT

NORTHERN BLUE FLAG

POLLINATION

STEP 1: Look for alternative endings...
<table>
<thead>
<tr>
<th>HEIGHT</th>
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<tbody>
<tr>
<td></td>
<td>-northern blue flags</td>
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</tbody>
</table>

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<th>POLLINATION</th>
<th>BEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>-pollinate, pollination, pollinator, pollinators</td>
<td>-bee</td>
</tr>
</tbody>
</table>
HEIGHT

POLLINATION
-pollinate, pollination, pollinator, pollinators

NORTHERN BLUE FLAG
-northern blue flags

STEP 2: Look for synonyms...
<table>
<thead>
<tr>
<th>HEIGHT</th>
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<tbody>
<tr>
<td>-growth</td>
<td>-northern blue flags</td>
</tr>
<tr>
<td></td>
<td>-iris versicolor (scientific name)</td>
</tr>
<tr>
<td></td>
<td>-iris</td>
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<td>-pollinate, pollination, pollinator, pollinators</td>
<td>-bee,</td>
</tr>
<tr>
<td>-propagation, propagate</td>
<td>-bumblebee, bumblebees, longhorn bee, longhorn bees, apidae (family), bombus (genus)</td>
</tr>
</tbody>
</table>
HEIGHT
- growth

NORTHERN BLUE FLAG
- northern blue flags

POLLINATION
- pollinate, pollination, pollinator, pollinators
- propagation, propagate

STEP 3: Use wildcards (most often the *)
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<td>-pollinat*</td>
<td>-bee*</td>
</tr>
<tr>
<td>-propagat*</td>
<td>-bumblebee*, longhorn bee*, apidae, bombus</td>
</tr>
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</table>
*How to get started on your assignment*

Connect some of your search terms with Boolean operators.
Boolean Operators

- **AND**: Must include both terms
- **OR**: Can include both terms or either term
- **NOT**: Excludes the next term
  (Very powerful, so use rarely)
REVIEW!
AND will narrow your search  
(give you fewer results)

OR will broaden your search  
(give you more results)
Example searches using Boolean operators:

“iris versicolor” AND bee* AND height AND pollinat*
Example searches using Boolean operators:

“iris versicolor” AND bee* AND height AND pollinat*

What if we get too few search results?

- Eliminate a keyword
- Use OR where it makes sense
- Simplify a keyword (just try iris)
Example searches using Boolean operators:

"Northern blue flag*" AND bombus
Example searches using Boolean operators:

“Northern blue flag*” OR apidae

What if we get too many search results?

- Add a search term
- Change OR to AND
- Use genus (bombus) instead of family name (apidae)
More complicated search
(might give more specific results)

(“Northern blue flag*” OR “iris versicolor”) AND
(bee* OR bumblebee* OR bombus)
More complicated search

("Northern blue flag*" OR "iris versicolor") AND (bee* OR bumblebee* OR bombus)

Here, we are connecting keywords in the same quadrant of our diagram with OR. And then connecting different quadrants with AND.
HEIGHT
- growth

NORTHERN BLUE FLAG
- northern blue flag* OR
- iris versicolor

AND

AND

POLLINATION
- pollinat*

BEES
- bee*, OR
- bumblebee*, OR
- longhorn bee* OR
- bombus

AND

AND
More complicated search

(“Northern blue flag*” OR “iris versicolor”) AND (bee* OR honeybee* OR bombus)

Here, we are connecting keywords in the same quadrant of our diagram with OR. And then connecting different quadrants with AND.
Go to BIO 192 Course Guide on Library Website!

→ Find Articles: Best Databases
  • Scopus
  • BioOne Complete
  • ScienceDirect
  • PubMed Complete
  • Google Scholar

→ Go to Advanced Search to use wildcards and Boolean Operators
Citation style for this assignment is APA.

***Use the link in the assignment for APA help!
Tips

- Journal articles are always cited as journal articles, regardless of how you access them (in print, online, etc.).
- Do not cite the database! Use Google if you aren’t sure of the journal title.
- Databases have different journals, so you should try more than one!
REVIEW!
THANKS!

Any questions?

farrelb@lemoyne.edu