NATSCI 387

Library Resources, Search Strategy, Reference Management
Where do you usually begin your research?

- Google
- Google Scholar
- Library Databases
- Wikipedia
- Library Catalog
- Other
<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Content</th>
<th>Authority</th>
<th>Audience</th>
<th>Uses</th>
<th>Examples</th>
<th>Sources</th>
</tr>
</thead>
</table>
| Academic, Scholarly Journals; Conference Proceedings | Present research conducted by experts in a field. Content is advanced and technical. | Peer-reviewed, author’s credentials, edited by experts in field. | Scholars, academics, and professionals in a field. | Primary research; in-depth research on a topic | ![Image](example.png) | Library databases  
- Agricola  
- GreenFile  
Google Scholar (some) |
| Trade Magazines                  | Present industry developments, news, and standards                       | Author’s credentials, affiliation of the publisher | Professionals working in a field             | Identify trends and stay current in a field       | ![Image](example.png) | Library databases  
- Academic Search Premier  
- GreenR  
Google (some) |
| Reference                         | Defines and provides historical and/or technical overview information on a topic | Author’s credentials, publisher’s credentials | Everybody                                   | Gather background information, topical overviews | ![Image](example.png) | Library databases  
- Access Science  
- Encyclopedia of Geography  
Wikipedia (some) |
| Reports (Government, Technical)   | Summarize an issue and make recommendations                              | Author’s credentials, governmental or industry affiliation | Professionals and public officials          | Inform development of public policy              | ![Image](example.png) | Government databases  
- Congressional and Research Service Reports  
Company websites |
| Newspapers                        | Present news and opinion on current and local/regional events            | Written and edited by professional journalists | General public                              | Follow development of stories, link to other sources, gather background information | ![Image](example.png) | Library databases  
- Academic Search Premier  
- Lexis Nexis Uni  
Google (some) |
| Popular magazines, websites       | Inform general readers about common interest issues                      | Author’s credentials, affiliation of the publisher | General public                              | Identify popular opinion and trending topics    | ![Image](example.png) | Internet, social media |
Moving from Research Question to Search Strategy

- Break your research topic/question into its core concepts
- Identify alternative keywords for your concepts
- Connect concept keywords with logic (boolean) to create your search strategy
- Iterate!
Moving from Research Question to Search Strategy

**Topic/Research Question:**
How does climate change impact pollinators in the northeast united states?

**Core Concepts:**
Climate change; impact; pollinators; northeast

**Keywords:**
Climate change, global warming, extreme weather events; impact, effect; pollinators, bumble bees; northeast, new england

**Search Strategy:**
(“climate change” OR “global warming”) AND (impact OR effect) AND (pollinator* OR “bumble bees”)
Academic Search Premier

A good starting point: articles from key journals in many scholarly disciplines, with some trade journals and magazines, 1975-present. More info...

SUBJECTS: General & Interdisciplinary  Landscape Architecture & Regional Planning
FORMATS: Articles
Agricola
Covers agriculture, plant and animal sciences, forestry; entomology; soil and water resources; agricultural economics and engineering; alternative farming; nutrition, 1970-present. More info...

SUBJECTS: Agriculture Arboriculture Economics Environmental Conservation Environmental Policy Environmental Sciences Food Science Microbiology Natural Resources Conservation Resource Economics Veterinary & Animal Studies Water, Wetlands & Watersheds Wildlife, Fish & Conservation Biology

Aquatic Science Collection
Collection of databases that index journal articles, book chapters, reports, conference proceedings, news, some in full text, published in the fields related to aquatic science, oceanography, water resources. See note for more detail. Varying coverage dates. More info...

SUBJECTS: Biology Environmental Conservation Environmental Policy Environmental Sciences Natural Resources Conservation Veterinary & Animal Studies Water, Wetlands & Watersheds Wildlife, Fish & Conservation Biology

GreenFILE
Scholarly, government, and general-interest articles on climate change, renewable energy, green building, sustainable agriculture, green building, pollution, recycling, education, law, health, and technology. Covers 1973-current. Includes Open Access full-text for more than 4,700 records. More info...

SUBJECTS: Building & Construction Environmental Conservation Environmental Policy Environmental Sciences Landscape Architecture & Regional Planning Natural Resources Conservation Sustainability Studies Water, Wetlands & Watersheds Wildlife, Fish & Conservation Biology

GREENR
Search by topic and/or geography: agriculture, food, energy, pollution, economic development, social factors and in journals, magazines, newspapers, encyclopedias as well as primary sources. More info...

Primary v. Secondary Sources in the Sciences

<table>
<thead>
<tr>
<th>Examples of Primary Sources</th>
<th>Examples of Secondary Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research articles published in scholarly,</td>
<td>Summaries, critiques, or interpretations of primary literature</td>
</tr>
<tr>
<td>peer-reviewed journals</td>
<td></td>
</tr>
<tr>
<td>Clinical trials</td>
<td>Review articles</td>
</tr>
<tr>
<td>Interviews</td>
<td>Textbooks <em>(can also be a tertiary source)</em></td>
</tr>
<tr>
<td>Correspondence</td>
<td>Dictionaries <em>(can also be a tertiary source)</em></td>
</tr>
<tr>
<td>Patents</td>
<td>Directories <em>(can also be a tertiary source)</em></td>
</tr>
<tr>
<td>Lab notebooks</td>
<td>Encyclopedias <em>(can also be a tertiary source)</em></td>
</tr>
<tr>
<td>Theses &amp; dissertations</td>
<td>Handbooks <em>(can also be a tertiary source)</em></td>
</tr>
<tr>
<td>Technical Reports</td>
<td></td>
</tr>
</tbody>
</table>
Reference Management

Migration is easy!

Login to New Refworks

... using your UMass email + Refworks password