Strategy 1: Find > Primary (Original research) & Secondary (Review) literature

OC Library WebPage  www.okanagan.bc.ca/library

Search OCtopus for Books, Media, Articles, and More!

Access Tip!
For off-campus/wireless access to OCtopus, at prompt Hello Guest, enter current OC student id number and your last/family name.

Results can include OC books, e-books & media, some e-reference titles, reports, academic & scholarly journal articles, popular magazine and newspaper articles.

For Biology research, it searches EBSCOhost databases – Medline plus ScienceDirect, JSTOR, and Wiley Online which include content for key scientific academic journals e.g. Nature, Science, Scientific American, Journal of Bacteriology.

Type in your terms:  e.g.  aliivibrio fischeri* bacteri*  proteus hauseri bioelectric*
bioluminescen* bacteri*  “bergey’s manual” bacteriology
bacteri*  finds bacteria, bacterial, bacteriology, bacterium

At the left menu column, Refine Results

1. To limit to results in a particular set of sources, on bottom of left menu column under Databases [click show more]
   click on a specific database e.g. Medline, or ScienceDirect

   click on Okanagan College’s Catalogue to find Bergey’s Manuals of bacteriology  - online access to e-book versions or to locate print versions at Library Reserve desk.
   (See Appendix at end of this guide for How to use Bergey’s Manuals)

2. To limit your results to Journal Articles
   Tick the box  Peer Reviewed & Scholarly
   Start with this box ticked  Available from OC
. Use **date-slider** to get most current results e.g. 2010-2014

. Refine Results by **Subject** to get results with best subject match  
  e.g. *electrophysiology*  
  **Tip!** Alternatively type subject term(s) into top search box

3. **Need better results?**

   Under top search boxes, click **Advanced Search.**  
   Type your extra terms into other boxes

   aliivibrio fischeri*  
   AND bacteri*  
   AND metabolism OR physiology  
   AND bioluminescen*  
   NOT (term you do not want results containing)  
   AND review* (for review articles)  
   AND “journal of bacteriology” in SOurce journal  
   (for academic articles in this journal title)

4. **Need more results?**

   Under **left menu column,** **Untick** the box **Available from OC.**  
   If there is no full-text for your desired result(s), click **Where can I get this article?** link to submit an online Interlibrary Loan request

**Results Tip!**

Use **Add to Folder** to gather your selected results then print/email/save results set  
Stop to tick the **citation format box for APA** so you also get a **References list**  
along with full-text of your articles

<table>
<thead>
<tr>
<th>Strategy 2: Search in a specific database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lib WebPage &gt; Find &gt; Articles &gt; <strong>Databases by Subject</strong> &gt; Biology</td>
</tr>
</tbody>
</table>

**For:** **Primary Research**

**Science Direct**  
very current for premier academic journals with links to Related articles, Cited by & Related Reference works

- Click “Advanced search”  
- In menu bar, click “Journals”  
- Use drop-down menu to change “all journals” to “subscribed journals”
**JSTOR** covers *PNAS* and many scholarly peer-reviewed scientific journals; focus in full-text is on back-files (over a century!) up to 2011.

**Tips!** No subject searching feature, so search in full-text or title
- Check ✔ article ✔ review
- Click Content I can access

### Google Scholar

Use this link and find what Scholar has that you can get full-text through OC
- Access articles from a wide variety of academic publishers, professional societies and universities plus scholarly articles available across the web & JSTOR.
- Many online journal articles show as pay-per-view - don't pay!

**Tip!** Click **Settings** on top menu bar then click **Library Links**. Type **Okanagan College**. **Save** preferences. Then at your search results list, you will have option to **Click** on *Where can I get this at Okanagan College Library?* And find it freely available at OC.

### Strategy 3: **Search in a specific scientific journal**

- Lib webpage > Find > Articles > **Find Electronic Journals by Title**
  - Search by *title of journal* to find database(s) to access journal full text at OC
  - Then click link to either:

  *journal website* as subscribed by OC to search content & get full-text or Library's article database(s) such as **Medline**, or **Science Direct**

- enter in key terms to find articles just in this journal, by clicking *search within this publication* or, enter terms into *Search box* or find **Advanced Search**

*Journal of Bacteriology* [Highwire](https://www.highwire.org) (6 months embargo)

*Molecular Microbiology* [Wiley Online](https://onlinelibrary.wiley.com)

*Journal of Bioscience & Bioengineering* [ScienceDirect](https://www.sciencedirect.com)

*Nature* from 2008 to current articles-on-demand, [journal publisher's website](https://www.nature.com); for articles from 1997 onwards but not current year, [Academic Search Premier](https://www.elsevier.com/)

*Proceedings of the National Academy of Sciences of the USA (PNAS)*
   [PubMed Central - National Library of Medicine](https://www.ncbi.nlm.nih.gov/pmc/): (6 months embargo)

*Science* [JSTOR - Life Sciences Collection - JSTOR](https://www.jstor.org): to 2008

*Scientific American* [Nature Publishing Group Journals - Nature Publishing Group](https://www.nature.com)
Strategy 4:

Find articles from Reference list of citations, or article without immediate full-text (free) found on Google search

Search OCtopus for Books, Media, Articles, and More!

Try the OCtopus engine first, type author(s) names & title words from article. If in an OC licensed database or e-journal collection, the full text may appear.

OR Lib webpage > Find > Articles > Find Electronic Journals by title
- Search by title of journal to find database(s) to access journal full text at OC
- Find search box, either on journal website or in article database (as above), enter author and title words to find specific article

APA style

- Keep details of your sources, cite them (in-text) in your essay & list them on a References page at the end of your paper or presentation.
- Use free citation service websites Zotero, Mendeley, KnightCite
- Library WebPage > Help > Style & Citation Guides (APA, Chicago, MLA) for examples of sources cited in APA format
- OC Library’s online APA Citation tutorial
- APA Style Guide from Purdue University Online Writing Lab (OWL)

Need help?

- Ask librarians at the Library Research Help desk
- Research Help links to librarians by email & AskAway live chat on Library WebPage
- Michelle Ward, Biology Librarian email: mward@okanagan.bc.ca
Appendix:


The purpose of this manual is to help in the identification of bacteria. It is arranged based on phenotypic information.

**How to use the manual**

1. Determine the phylogenetic tree for the bacterium of interest.
2. Go to the *Contents* pages at the beginning of the manual and look for the *Group* for your bacterium.
3. Under each Group you will find a list of the Genera that belong to the Group.

**Example:**

Group 17  GRAM-POSITIVE COCCI.............................527
          Genus Aerococcus.....527  Genus Peptococcus.........530
          Genus Coprococcus..527  Genus Peptostreptococcus.....530
          Etc.

Alternatively, you can look for the Genus of the bacterium in the "Index of Scientific Names of Bacteria" at the back of the manual and select the page number in bold.

A more thorough explanation on the use of the BMDB-9 is provided in Chapter 1, "Using This Manual" (p.1).

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The purpose of this manual is to help in the identification of procaryotes.

The second edition of the BMSB categorizes the majority of the genera by their 16S rRNA gene sequences. This second edition is composed of five volumes.

V.1: The archaea and the deeply branching and phototrophic bacteria.
V.2: The Proteobacteria.
Part C: The alpha-, beta-, delta-, and epsilonproteobacteria.
V.3: The firmicutes.
V.4: The bacteroidetes, spirochaetes, tenericutes (mollicutes), acidobacteria, fibrobacters, fusobacteria, dictyoglomi, gemmatimonadetes, lentisphaerae, verrucomicrobia, chlamydiae, and planctomycetes.
V.5: The actinobacteria.

How to use the manual

"The Road Map to the Manual" is in volume one (p.119).
Table 2: Phenotypic Grouping of the Prokaryotic Phyla indicates in which volume you can find information on the genera, in addition to information on the phylum, class, and group (BMBD-9). A "Taxonomic Outline of the Archaea and Bacteria" (March 2000) follows Table 2.

1. Determine the phylogenetic tree for the bacterium of interest.
2. Go to the Contents pages at the beginning of the volume and look for "Class, Order, Family."
3. Under each Family you will find a list of the Genera that belong to the Family of the bacterium of interest.
4. It is important to read the material that appears under both the genus and the species. Information about the genus does not usually repeat on the species description.

Example:

Phylum XIII. Firmicutes.................................................................19
   Class II. "Clostridia"...............................................................736
   Order I. Clostridiales..............................................................736
   Family I. Clostridiaceae.........................................................736
      Genus I. Clostridium.........................................................738
      Genus II. Alkaliphilus......................................................828
      Genus III. Anaerobacter....................................................830
      Etc.
Alternatively, you can search Table 2 of the "Road Map to the Manual" and check if the genus of your bacterium is listed. If listed, see in which volume the information about your bacterium is found. Then go to the "Index of Scientific Names of Archaea and Bacteria" (at the back of the volume) and select the page in bold type.

Example:

<table>
<thead>
<tr>
<th>Genus</th>
<th>Phylum</th>
<th>Class</th>
<th>Volume</th>
<th>BMBD9</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaerobacter</td>
<td>Firmicutes</td>
<td>&quot;Clostridia&quot;</td>
<td>3</td>
<td>Group-18</td>
<td></td>
</tr>
</tbody>
</table>

Anaerobacter, 6, 736, 737, 802, 830, 847

Note: It is useful to read the "On Using the Manual" found at the beginning of each volume.

Bergey's Manual of Systematic Bacteriology, 1st ed. (BMSB-1)

The purpose of the first edition of the BMSB is to help in the identification of bacteria. It is arranged according to phenotypic characteristics of bacteria and is composed of four volumes that are subdivided into 33 sections.

V.1: Gram-negative bacteria of general, medical, or industrial importance.
V.2: Gram-positive bacteria other than actinomycetes.
V.3: Archaeobacteria, cyanobacteria, and remaining gram-negative bacteria.
V.4: Actinomycetes.

How to use the manual

1. Look up the name of your bacterium or its genus in the "Cumulative Index (Volumes 1-4) of Scientific Names of Bacteria" located at the back of Volume 4. The page in bold type is where the information of interest, specific to your bacterium, can be found. The other page numbers indicate where it is mentioned.
2. It is important to read the material that appears under both the genus and the species. Information about the genus does not usually repeat on the species description.

Example:

Micrococcus, 3, 31, 305...1004...2394
agilis, 1003-1005, 1006...1040
amylovorus, 471
Etc.

Note: It is useful to read the "On Using the Manual" found at the beginning of each volume.