

How to Conduct Literature Surveys Using Life Science Databases (Part 1)

Author

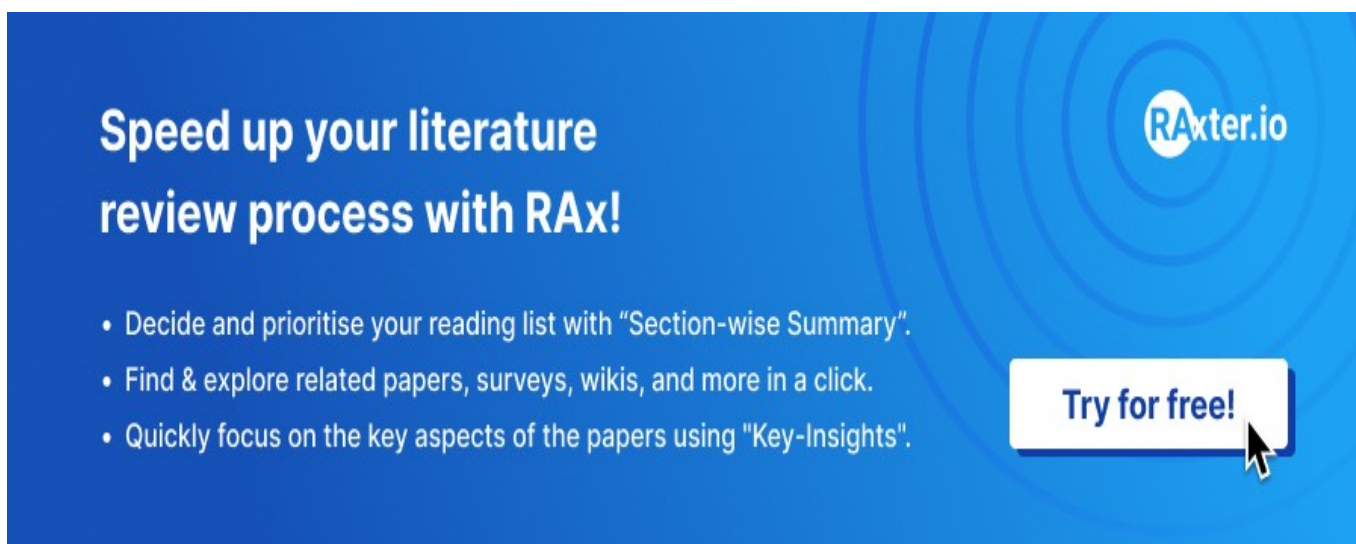
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When thinking about or [beginning a research project](#), part of your arsenal of ideas should be your literature search. The key to literature search is a database. A database is not just a random compilation of references. It is a useful tool from which you can glean information to either support your thesis or get ideas for a thesis. Either way, the literature search is always necessary. A [literature review](#) can involve the usage of different types of databases. In this article, we will discuss the literature review databases for life science, specifically. But before that, we need to make a list of reference managers.

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Reference Managers

As you begin to build your reference list, you might consider [using reference managers](#) to help keep your information organized. [Using a reference manager](#) helps avoid the tedious job of having to search for and insert citations into your paper. Except for EndNote, most of the software is freely available and can be downloaded from the target website. The references are already formatted so that there is no need to go through the extra work of ensuring that your format fits that of your target journal or thesis.

After the list of reference managers, you may want to search for databases specific for the literature review of the manuscript. Before you begin your search, you might speak with your institution's librarian or your counselor to get a list of databases that are available and accessible to you. This won't take you much time and will save you hours, making it specific as to which databases you need to search.

The following are some of the databases in the life science disciplines:

BIOSIS Previews

The [BIOSIS Previews](#) database covers all the branches of life sciences, such as botany, zoology, biochemistry, agriculture, public health, and biomedical research and their related interdisciplinary fields. It provides references from books, papers, posters, and abstracts from most forums, including meetings and conferences. This database is touted as [one of the most comprehensive](#) of any other sources, such as Web of Science, in the life sciences.

You will find this database helpful because it provides both published and non-published information from other links, such as [Biological Abstracts](#) and [Biological Abstracts/RRM](#).

CAB Abstracts

The [CAB Abstracts](#) claims to lead the world in English-language abstracts for the life sciences. The database contains more than 8.5 million records from journals all over the world, since the year 1973 and in 50 different languages. The countries represented in this database include both developed and developing countries. The database indexes more than 10,000 publications on a wide range of life science subjects. These subjects range from agriculture and environmental studies to veterinary medicine.

The database also includes non-journal material, such as conference proceedings and field notes. The index includes a Thesaurus that provides more precise search results.

Zoological Record

The [Zoological Record](#) dates back to 1864 and is known as the leading taxonomic reference tool with more than 5,000 serials and other sources of information. Veterinary science, biodiversity, and environmental studies are some of the key disciplines in this reference database. You can also find information on animal fossils and how the different species of animals diversified over the years.

A unique feature of this database is that it contains records that provide the very first published description of an animal. This is valuable information for those who study the changes in animals throughout history. It also provides records of new species and their classifications.

NAL Catalogue (AGRICOLA)

The [National Agricultural Library](#) (NAL; previously, AGRICOLA) database is specifically geared towards the agricultural fields of study and maintained by the [U.S. Department of Agriculture \(USDA\)](#). The database comprises several million citations from both printed materials and electronic media. It also offers support materials, such as audiovisuals, geared towards agricultural research.

Plant science, fisheries, entomology, food science, and agricultural engineering are just a few of the subjects that fall under this database. Specifically, NAL also provides resources to land-grant and other state educational institutions. These resources offer agricultural programs as part of the curriculum.

PubAg

[PubAg](#) is new USDA portal that provides more than 40,000 scientific journal articles published over 17 years. Agricultural researchers add new information to this fairly recent database.

These are just a few of the reference databases available in the life science fields. There are several others that you may like to search and make your own reference list. Some helpful tips for compiling your reference list follow.

Have a Search Strategy

There are two kinds of researchers: [one who is looking for a research project and the other who needs support](#) for one that is already in the making. However, a strategy must be followed for both.

- If you are looking for a subject to study, the reference databases can provide help in what's already out there and can demonstrate any gaps that exist in the information. At that point, you might consider trying to fill those gaps with your original research.
- You can also repeat an older study if the results of that study lacked a sound basis. Again, always ensure that you're the only one doing this. Use focused keywords that are specific to your subject. Set up alerts for new information, but remember to cancel them after you no longer need them. Be sure to visit the links to identify which reference library would fit your specific needs.

Which of the mentioned reference libraries have you used and why? Is there another that is not on the list that you would recommend? Please let us know your thoughts in the comments section below.

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