Controlled Vocabulary Analysis:
Library of Congress Subject Headings

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First introduced in 1898, the Library of Congress Subject Headings (LCSH) are a subject heading system, developed alongside the Library of Congress Classification scheme. It is the world's most widely-used subject heading system, created and maintained by the United States Library of Congress (Librarianship Studies & Information Technology, 2019). The public is able to propose new terms, as well as alterations to existing terms, via a research-based submission process demonstrating the warrant for the change, which is then reviewed and judged by the Library of Congress' Policy, Training, and Cooperative Programs Division (Library of Congress, 2014).

The LCSH's widespread use means librarians are likely to encounter it in many institutions (though Canadian librarians will likely encounter its adapted form, the Canadian Subject Headings (Government of Canada, 2025) and while it is certainly exhaustive in many respects, it is worth remaining skeptical of its purported universality, consistency, and neutrality.

For this analysis, I explored the subject headings relating to crustaceans, beginning from the subject heading **Crustacea**. In matters of biology, the LCSH (Library of Congress, n.d.a) appears at a glance to favor a scientific warrant, importing scientific classifications from the Western tradition; as such, I made comparisons to the National Center for Biotechnology Informations' taxonomy database (Schoch CL, et al., 2020). Subjects relating to animals, such as crustaceans, are divided into subject headings correlating to biological taxonomic rankings, with *Kingdoms* at the top and moving down through *Phylums, Orders, Suborders, Families, Genuses, and Species,* represented as a BT/NT hierarchy.

In practice, this is not strictly the case. Moving through BT/NT relationships, layers of taxonomy quickly become fuzzy, with certain layers of the hierarchy able to be leapfrogged and others omitted entirely. Many classifications have also been compressed, such as the various superfamilies and suborders of crab - Brachyura, Anomura, and Oxyrhyncha - which all simply redirect to the preferred term **Crab**.

While the LCSH shows a preference for designating scientific terms as preferred terms, this is not consistent: preferred terms such as **Crayfish**, **Hermit crabs**, and **Spiny lobsters** appear alongside terms like **Scyllaridae**, **Palaemonidae**, and **Cryptochiridae**. While many scientific classifications do lack common names, this does not appear to have been the guiding principle behind these decisions - **Hippidae**, for example, lists common names, Mole crab and Sand-crab, as USEFOR terms. These also do not reflect shifts in classification practices over time, as many of these scientific and non-scientific terms were introduced during the same periods as one another. I'd conclude that these choices are evidence of ongoing friction between the scientific and user warrants of classification.

In general, this domain of LCSH is stingy with RT/RT relationships, not only to non-scientific headings but to any heading outside the discipline of biology specifically. **Decapoda (Crustacea)** is not considered related to **Decapoda (Crustacea), Fossil**. The only exceptions are occasional connection to seafood, particularly animal products - **Crab meat**, reachable as a NT of **Crab**, lists as its own NTs **Canned crab meat** and **Frozen crab meat**.

One last interesting note is that the Library of Congress also maintains the LC Children's Subject Headings, "designed to complement LCSH and provide tailored subject access to children and young adults when LCSH does not provide suitable terminology, form, or scope for children." (Library of Congress, n.d.b) This system is separate from the LCSH, but interlinked with it, allowing users to navigate between the two systems at various points. **Decapoda (Crustacea)** contains two instances of the NT **Crayfish** - one as a standard subject heading and the other as a children's subject heading, each with their own sets of BT/NT, RT/NT, and USE/USEFOR relationships.

References

Conrad L Schoch, Stacy Ciufo, Mikhail Domrachev, Carol L Hotton, Sivakumar Kannan, Rogneda Khovanskaya, Detlef Leipe, Richard Mcveigh, Kathleen O'Neill, Barbara Robbertse, Shobha Sharma, Vladimir Soussov, John P Sullivan, Lu Sun, Seán Turner, Ilene Karsch-Mizrachi, NCBI Taxonomy: a comprehensive update on curation, resources and tools, *Database*, Volume 2020, 2020, baaa062, https://doi.org/10.1093/database/baaa062

Government of Canada (2025). *Canadian Subject Headings.* https://www.canada.ca/en/library-archives/services/heritage/cataloguing/canadian-subject-headings.html

Librarianship Studies & Information Technology (2019). *Library of Congress Subject Headings (LCSH).* https://www.librarianshipstudies.com/p/about.html

Library of Congress (2014) *Process for Adding and Revising Library of Congress Subject Headings.* https://www.loc.gov/aba/cataloging/subject/lcsh-process.html

Library of Congress. (n.d.a). *Crustacea.* Library of Congress Linked Data Service. https://id.loc.gov/authorities/subjects/sh85034396.html

Library of Congress. (n.d.b). *Library of Congress Children's Subject Headings.* Library of Congress Linked Data Service. https://id.loc.gov/authorities/childrensSubjects.html

National Center for Biotechnology Information (n.d.) Crustacea. *Taxonomy Browser.* *https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?mode=Info&id=6657*

Revisions

- Provided source for crustacean taxonomy.