# LIBRARY OF CONGRESS COLLECTIONS POLICY STATEMENTS

## Life Sciences
## (Classes QH, QK, QL, QM, QP, and QR and selected portions of class Z)

**Contents**



### I. Scope

The overall context for this policy is the Library's position as the *de facto* national library of the United States. The Collections Policy Statement for the Life Sciences covers the subclasses QH (Natural history, Ecology, and Biology), QK (Botany), QL (Zoology), QM (Human anatomy), QP (Physiology), and QR (Microbiology and Immunology) and applicable subclasses of Class Z.

Examples of life sciences covered under these subclasses are the following: natural history, biodiversity, nature and wildlife conservation, endangered and invasive species, biology, botanical gardens, plant physiology and ecology, animal behavior, anatomy, general physiology, neurophysiology, and animal biochemistry. Works across multiple formats are collected, including print materials, photographs, manuscripts, electronic resources, audio-visual materials, and microform.

**Collecting Overlap with Other U.S. National Libraries**

The subject areas covered by this Collections Policy Statement overlap with the collecting priorities of the Nation's other national libraries. The Collecting Policy section of this document outlines the areas within this subject where Library of Congress collecting aligns with the collecting responsibility of the other U.S. national libraries. The Library's collections are shaped primarily by the needs of the Congress. Emphasis is placed on collecting materials that support research on current issues, legislation, and public policy to meet the reference and research needs of staff, scholars, and to support the legislative work of Congress. Though the National Agricultural Library has national collecting responsibility for technical agriculture and the clinical aspects of veterinary medicine, and the National Library of Medicine has national collecting responsibility in the matters of clinical medicine, the Library of Congress also has Collections Policy Statements on *Agriculture* and *Medicine*. For information on the National Agriculture Library's collecting efforts in this area, please see: https://www.nal.usda.gov/collections. For information on the National Library of Medicine's collecting efforts in this area, please see: https://www.ncbi.nlm.nih.gov/books/NBK518693/.

Life science subjects related to Class S (Agriculture) and Class R (Medicine) are addressed in separate Library of Congress Collections Policy Statements for *Agriculture* and for *Medicine*.

## II. Diverse and Inclusive Collecting Statement

As the nation's *de facto* national library, the Library of Congress strives to build an expansive, yet selective, collection that records the creativity of the United States and is reflective of the nation's diversity and complexity. The Library's mandate is to have collections that are inclusive and representative of a diversity of creators and ideas. A priority includes acquiring material of underrepresented perspectives and voices in the Library's collections to ensure diverse authorship, points of view, cultural identities, and other historical or cultural factors. The Library also seeks to build a research collection that comprises a globally representative sample of international materials that are diverse in voice and perspective, relative to their places of origin, further supporting the Library's mission to sustain and preserve a universal collection of knowledge and creativity for Congress and future generations.

Diverse collecting is mentioned within many of the Library's Collections Policy Statements. In addition, the Library has adopted several specific collection policies in an effort to ensure it is building an inclusive and representative collection. For more information, see the Library's Collections Policy Statements on *Ethnic Materials*, *LGBTQIA+ Studies*, *Women's and Gender Studies*, *Independently Published and Self-Published Textual Materials*, *and* *Countries and Regions with Acquisitions Challenges*.

## III. Research Strengths

### A. General

The Library's collections in the life sciences display the same breadth and depth of coverage characterized by the Library's scientific collections in general. Materials in botany, ecology, genetics, and zoology are the backbone of the life sciences collections. This collection also touches upon other areas of science, such as *Agriculture* and *Medicine*, which have their own Collections Policy Statements. Examples of some of the areas with possible crossover are pharmacology, biotechnology, gardening, horticulture, conservation biology, general agriculture, anatomy, physiology, and microbiology.

Publications in the life sciences issued by learned societies, research institutes and major universities, both within and outside the United States, are well represented. This is especially true of publications issued in the 18th and 19th centuries, acquired through the Smithsonian Deposit (1866) and its exchange programs, from which the Library has long, unbroken runs of proceedings, memoirs, monographic series, and journals. Beginning with the last quarter of the 20th century, a variety of electronic resources have provided improved bibliographic access to many of the Library's materials in the life sciences. In the 1990s, electronic journals, conference papers, born-digital materials, web sites, and other electronic resources in the life sciences were added to the Library's collections, using these same collection policies. Relevant resources at the Library include Springer journals, the *Biological & Agricultural Index Plus*, and *ProQuest SciTech Premium*. The *Supplementary Guidelines for Electronic Resources* provide additional direction and guidance.

The Library's collections in biology are as substantial as they are diverse. They include a wide variety of monographs and journals on molecular, systematic, and evolutionary biology, population genetics, natural history, ecology, animal behavior, microbiology and immunology. Its botany collections, including the taxonomy, morphology, physiology, and evolution of plants, are also significant in depth and breadth and especially rich in works emanating from herbaria, botanical societies and botanical gardens.

Collections in zoology, which include the taxonomy, anatomy, physiology, behavior, and evolution of millions of creatures, offer sizable and wide-ranging resources for researchers who study invertebrate and vertebrate zoology. These materials are noteworthy in number, language, scope, and level of comprehensiveness. Life science titles in the *LC Research Guides* highlight notable reference works and major monographs in these areas. The Library's collections on biogeography, biometry, bioinformatics, bioethics, genomics, and molecular biology are also extensive and easily support the work of scientists and researchers in all areas of the life sciences.

These collections are shaped primarily by the needs of the Congress, federal agencies, and the American public, and serve to carry out the Library's archival responsibility to collect and preserve historical materials for tomorrow's researchers. This material is notable for its broad appeal and usefulness. Emphasis is placed on collecting materials that support research on current issues, legislation, and public policy to meet the reference/research needs of staff, scholars, and to support the legislative work of Congress.

**B. Areas of Distinction**

The Library's collections of materials chronicling the botanical discovery of North America are particularly strong. The history of plant exploration and taxonomic botany has been captured in the scientific tracts of the great exploring expeditions and the transactions of botanical societies, lyceums, and herbaria and is highlighted in color-plate volumes by Isaac Sprague, Titian Ramsay Peale, Pierre Joseph Redouté, and Mark Catesby. Discovering, naming, and learning the uses of the flora and fauna of America sparked an interest in economic botany that is reflected in the collections by an abundance of material on plant utilization in commerce and industry, biotechnology, and ethnobotany. The Library's collections on herbals, food plants, and medicinal plants are described in some length in Leonard Bruno's *The Tradition of Science: Landmarks of Western Science in the Collections of the Library of Congress* (Washington, 1987) and in James Reveal's *Gentle Conquest: The Botanical Discovery of North America with Illustrations from the Library of Congress* (Washington, Starwood Pub., c1992). The Library's Rare Book and Special Collections Division holds over 450 rare botanical books, many of them renowned for the beauty of their illustrations, and its Prints and Photographs Division contains hundreds of botanical prints and pictures of herbaria and botanical gardens. Some of the Library's treasures in the areas of natural history and zoology are also well-described in Bruno's *Tradition of Science*.

Also included in the Library's holdings are the manuscript collections of botanists, biologists, zoologists, environmentalists, ecologists and conservationists such as, E. O. Wilson, Gregory Pincus, Jacques Loeb, T. Swann Harding, William C. Gorgas, Luther Burbank, William T. Hornaday, Gifford Pinchot, Frederick Law Olmsted, and C. Hart Merriam.

A cornucopia of source material can be found in the Library's extensive holdings of proceedings of academies of science, transactions of scientific and learned societies, reports of government survey terms, and accounts of scientific expeditions sponsored by natural history museums, zoological societies, and other organizations. The Library's collections of illustrated scientific publications contain many hand-colored plates of birds, fishes, insects, reptiles, and innumerable other orders of animals, providing an exceptional record of various expeditions and voyages of discovery. Among these scientific collections are pictorial works by John Gould, William Healey Dall, Alexander Wetmore, John J. Audubon, and Alexander Wilson. These treasures, along with the rich collections of correspondence, reminiscences, and biographical material from all periods, in many language and in widely-ranging formats, from print to electronic, provide historians of science, scholars, biographers, and researchers with unparalleled resources in the life sciences.

## IV. Collecting Policy

The Library collects in life sciences on a worldwide basis, primarily at the Research Level, and acquires materials across multiple formats and in many languages. Life sciences material in non-English languages reflects the science and governmental policy of those countries and includes data on flora and fauna, natural resources, ecology, and conservation. The Library strives to collect important reference works, monographs and serials across a variety of languages in classes and subclasses relating to the life sciences as well as U.S. Government documents, bibliographies, and indexes that provide access to the collections.

The "Copyright Best Edition" statement is used in conjunction with this policy to maintain the Library's collecting strengths in life sciences and to support the work of Congress, scholars, educators, and citizens throughout the country and the world. As more publications are issued digitally, the Library must ensure that all important and appropriate information is added to the collections and that the formats represented are maintained to assure continued access. As e-prints, podcasts, webcasts, and new technologies for creating life science material proliferate, they will be collected using the same criteria as for print acquisition.

Even though the National Agricultural Library has national collecting responsibility for technical agriculture and the clinical aspects of veterinary medicine, and the National Library of Medicine has national collecting responsibility in the matters of clinical medicine, the Library of Congress also has Collections Policy Statements on *Agriculture* and *Medicine*.

## V. Best Editions and Preferred Formats

For guidance regarding best editions for material acquired via the Copyright Office, see: http://copyright.gov/circs/circ07b.pdf.

For guidance regarding recommended formats for material acquired via all other means; e.g., purchase, exchange, gift and transfer, see: http://www.loc.gov/preservation/resources/rfs.

For information regarding electronic resources, open digital content, web archiving, and data sets, see

the following Supplementary Guidelines: http://www.loc.gov/acq/devpol/electronicresources.pdf, https://www.loc.gov/acq/devpol/opencontent.pdf, http://www.loc.gov/acq/devpol/webarchive.pdf, and https://www.loc.gov/acq/devpol/datasets.pdf.

## VI. Acquisition Sources

Whenever possible the Library attempts to acquire materials through non-purchase means, such as copyright, exchange, gift, or the Cataloging in Publication program. The Library of Congress collections are heavily dependent upon materials received through the copyright deposit provisions of U.S. copyright law (17 USC section 407 & 17 USC section 408). For copyright demand, the U.S. regulations allow for the Library to receive analog and some digital materials. When items are offered in both formats the Library's default is normally the Best Edition print version, unless the publisher has arranged a special relief agreement with the Copyright Office. For materials not available to the Library through copyright deposit, or other non-purchase means, the Library acquires materials through purchase. Purchase is used predominately for non-U.S. publications that are not widely available within the United States. The Library utilizes an array of traditional methods of library acquisition (firm orders, subscriptions, and approval plans) with vendors located in different areas of the world. In addition, the Library uses its six Overseas Operations Offices to broaden its acquisitions opportunities outside the United States.

The Library acquires materials in various formats and languages, e.g., print materials, microforms, audio, video, and electronic, and from a variety of sources, as outlined in the previous paragraph. As more publications are issued digitally, the Library must ensure that all important and appropriate information is added to the collections and that the data formats are maintained to assure continued access to the digital information. Electronic obsolescence is not an option for scientific materials. As certain materials migrate from print to digital-only format, they are frequently accessible through the Electronic Resources Online Catalog. These sources may be freely available, or may require a subscription, as in the case of many electronic resources. Both are actively collected, and will continue to be collected in the future.

The Supplementary Guidelines for *Electronic Resources*, *Web Archiving*, and *Open Digital Content*, the Collections Policy Statement for *Dissertations and Theses*, and the "Copyright Best Edition" statement are used in conjunction with this policy statement, as are the statements for *Agriculture* and *Medicine*, to maintain the Library's collecting strengths in the life sciences and to support the work of Congress, scientists, scholars, educators, and citizens throughout the country and the world.

Several reliably strong sources for electronic materials in the area of the life sciences can be identified. The list titled Biology, Life Sciences and Genetics on the Electronic Resources Online Catalog can be helpful in identifying titles. Particularly useful titles include the subscription databases: *Academic Search Premier, Applied Science and Technology Full Text, Biological and Agricultural Index Plus, Biomed Central, Biosis, Digital Dissertations, Environmental Impact Statements Full-Text, Garden, Landscape and Horticulture Index, General Science Full Text, GeoRef, JSTOR, Medline, ProQuest Databases, Readers' Guide Retrospective,* and *Web of Science.*

Many books with CDs, DVDs, or links to digital content etc., received through copyright deposit are

collected, as many of them are standard reference tools in the sciences. Because the technology for viewing these items are not generally supported in the Library's reading rooms, access to these materials is limited.

## VII. Collecting Levels

Meeting the Library's Diverse and Inclusive Collecting Statement (see Section II) and the collecting levels outlined below requires continual evaluation of the publishing landscape, sources of expression, current events, and socio-cultural trends to thus maintain effective collecting policies and acquisitions methods. Changes in publishing or in the creation of materials covered by this policy statement may necessitate collecting efforts not explicitly referenced here. Such efforts will be handled on a case-by-case basis while the Library evaluates the need for policy statement updates.

For explanation of the Collecting Levels used by the Library, see https://www.loc.gov/acq/devpol/cpc.html. It should be noted that these collecting levels are aspirational in nature. That is, they are goals for guiding the Library's collecting policies. Changing resources in, for example, budgets or human capital, may require adjustments in collection building, especially at the comprehensive level (level 5).

**Natural History (General); Microbiology**

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| QH1-QH199 | Natural history, biodiversity, nature conservation, biogeography, endangered species | 5 | 4 | |
| Z7401-Z7409 | Bibliography | 5 | 4 | General and special topics in natural history |
| QH201-278 | Microscopy | 4 | 3 | |
| Z6704-Z6706 | Bibliography | 4 | 3 | General and special topics in microscopy |
| QH301-705 | Biology, biometry, population biology, evolution, genetics, cloning, genome, biodiversity ecology, bioethics | 5 | 4 | |
| Z5320-Z5349 | Bibliography | 5 | 4 | General and special topics on biology, evolution, genetics, bioethics |

**Botany**

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| QK1-474 | Botanical gardens, conservation, taxonomy, morphology phytogeography and geographical distribution | 5 | 4 | Economic botany is classed in SB107; |
| QK474.8-989 | Spermatophytes, gymnosperms, angiosperms, cryptograms, plant physiology and ecology | 5 | 3 | |
| Z5351-Z5358 | Bibliography | 4 | 3 | General and special topics on all aspects of botany and phytogeography |

**Zoology**

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| QL1-355 | Wildlife conservation, zoos, geographic distribution of animals | 5 | 4 | |
| QL362-739 | Invertebrates, chordates, vertebrates, and mammals by order and geographic distribution | 5 | 4 | |
| QL750-991 | Ecology, animal behavior, anatomy and embryology | 5 | 4 | Economic zoology is classed in SF84+ |
| Z7991-Z7999 | Bibliography | 4 | 3 | General and special topics on all aspects of zoology |

**Anatomy**

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| QM1-695-QL505.95 | All basic anatomical systems, histology | 4 | 3 | |

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| Z5333.A15; Z5354.A5; Z5956.A5 | Bibliography | 4 | 3 | General and special topics on all aspects of anatomy |

**Physiology**

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| QP 1-348 | General physiology, embryology, developmental physiology, kinesiology | 5 | 4 | |
| QP351-499 | Neurophysiology and neuropsychology, nervous system, brain, sense organs | 5 | 4 | |
| QP501-801 | Animal biochemistry, organic substances, proteins, amino acids, hormones | 5 | 4 | |
| Z6662-Z6663 | Bibliography | 5 | 4 | General and special topics on all aspects of physiology |

**Microbiology**

| LC Classification | Subject | U.S. Levels | Non-U.S. Levels | Notes |
|---|---|---|---|---|
| QR1-502 | Bacteriology, virology, mycology, microbial ecology | 4 | 3 | Virology collected at the 5 level |
| QR180-189.5 | Immunology | 5 | 4 | |
| Z5180-Z5185 | Bibliography | 4 | 3 | General and special topics on all aspects of microbiology |