

Assessment of Library Collections

Biological Sciences

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Journals

Library subscriptions by general count

The tool for identifying and accessing online journals is the Citation Linker on the library's web page. It groups Biological Sciences under Life Sciences for which FIU has 1,882. Among the subject categories are Biology (308 titles); Biochemistry (286); Bioinformatics (38); Biophysics (50); Biotechnology (106); Botany (107); Computational Biosciences (49); Cytology and Cell Biology (237); Entomology (38); Evolutionary Studies (58); Genetics (245); Immunology (238); Limnology (15); Metabolism (67); Micro and Molecular Biology (334); Morphology (30); Ornithology (16); Paleontology (12); Toxicology (80); Virology (51); and Zoology (109).

There are 218 print-journal subscriptions for Biological Sciences on the University Park campus and 35 on the Biscayne Bay campus.

In sum, FIU has 2,135 journals in the Life Sciences, of which 88 % are online.

Online-journal packages

The journal collections are developed largely on the basis of publisher-based packages through the state university library consortium. Of direct relevance to Biological Sciences are those of the American Chemical Society (ACS); American Society for Microbiology; Blackwell Synergy; Cambridge University Press; Elsevier Science; JSTOR; Oxford University Press; Springer; University of Chicago Press; and Wiley Interscience. The Nature Publishing package is selective (19 titles). Most packages have online archives from 1997; the ACS archive is comprehensive.

Citation-ranked literatures

The library's holdings in 21 citation-ranked literatures are outlined in Table 1. As shown, the overall proportion of holdings is 66% (1,121 of the 1,694 journals).

Literature	Number of titles	Number in those titles in the collections	Percentage in the collections	Number not in the collections
Biochemistry and Molecular Biology	307	203	66%	104
Biology, Miscellaneous	41	25	61%	16
Biology	42	25	60%	17
Biophysics	63	47	75%	16
Biotechnology and Applied Microbiology	131	65	50%	66
Cell Biology	146	101	69%	45
Developmental Biology	33	25	76%	8
Entomology	67	31	46%	36
Evolutionary Biology	30	28	93%	2
Genetics and Heredity	112	83	74%	29
Limnology	12	7	58%	5
Marine and Freshwater Biology	71	54	76%	17
Microbiology	81	61	75%	20
Microscopy	9	9	100%	0
Neurosciences	198	131	66%	67
Oceanography	39	32	82%	7
Ornithology	15	8	53%	7
Paleontology	29	17	59%	12
Plant Sciences	134	87	65%	47
Reproductive Biology	24	20	83%	4
Zoology	110	62	56%	48
totals	1,694	1,121	66%	573

Collection development progress

Development of the journal collections for Biological Sciences can be marked in a couple of ways.

- Citation-ranked journals. Since 2005 (the last collection assessment), the library has added 230 citation-ranked journals in Biological Sciences, bringing the overall proportion of the library's holdings in these literatures from 53% to 66%.

- PhD program development. In 2007, the library—following a collections assessment for the planned PhD program in Biochemistry (with the Department of Chemistry and Biochemistry)—added the following resources, selected on the basis of citation-impact factors: *Annual Review of Biochemistry*; *Cell*; *Nature Medicine*; *Annual Review of Cell and Developmental Biology*; *Nature Cell Biology*; *Nature Reviews Molecular Cell Biology*; *Annual Review of Plant Biology*; *Molecular Cell*; and *Annual Review of Biophysics*. The overall cost was about \$25,000. In addition, the library was provided supplemental funding for the *Nature* journal archive (from 1987) and the *Science* journal archive (from 1888).

Books

The library's book approval plan for the sciences generally covers all university press titles and all trade-publisher titles on contemporary social or public policy aspects of science, engineering, and technology. Trade-publisher coverage is broader for PhD programs, including handbooks and guidebooks in Biology, Natural History, Botany, and Zoology; and books on bioinformatics. In the social sciences (Biological Sciences extends, for example, to environmental fields, the approval plan is fairly comprehensive, without any substantive subject limitations.

The library has 38 monograph standing orders for Biological Sciences: *Advances in Applied Microbiology*; *Advances in Botanical Research*; *Advances in Enzymology and Related Areas of Molecular Biology*; *Advances in Genetics*; *Advances in Human Genetics*; *Advances in Insect Physiology*; *Advances in Marine Biology*; *Advances in Microbial Ecology*; *Advances in Parasitology*; *Advances in Virus Research*; *Annual Report (National AIDS Fund United States)*; *Annual Report (International Plant Genetic Resources Institute)*; *Annual Review of Biochemistry*; *Annual Review of Entomology*; *Annual Review of Genetics*; *Annual Review of Microbiology*; *Annual Review of Neuroscience*; *Annual Review of Physiology*; *Annual Review of Plant Biology*; *Basic Life Sciences*; *Cold Spring Harbor Symposia on Quantitative Biology*; *Collective Volumes of Scientific Papers*; *Current Topics in Developmental Biology*; *Evolutionary Biology*; *GeneFlow*; *International Review of Cytology*; *International Review of Neurobiology*; *Methods in Cell Biology*; *Methods in Enzymology*; *Methods of Biochemical Analysis*; *Mitteilungen Internationale Vereinigung für Theoretische und Angewandte Limnol*; *Progress in Nucleic Acid Research and Molecular Biology*; *Progress in Psychobiology and Physiological Psychology*; *Resource Guide to Careers in Toxicology*; *Reviews in Mineralogy and Geochemistry*; *Studies in Avian Biology*; *Symposium Series (Society for Applied Microbiology)*; *Vitamins and Hormones*; and *Wilderness*.

Both campus libraries have expansive budgets for faculty orders of additional books, as well as audio-visual and reference materials. In FY07, such orders for Biological Science amounted to \$2,966. In FY08 so far, such orders amount to \$10,793 for the University Park campus and \$477 for the Biscayne Bay campus.

Of FIU's approximately 55,000 online books, 707 have *biological* as a keyword descriptor.

Databases

FIU's collections of databases, about 300 in number, have at the core for Biological Sciences: *Biological Abstracts (BIOSIS)*; *Biological Sciences*; *Biological and Agricultural Index Plus*; *Biology Digest*; *General Science Full Text*; and *Science Citation Index*.

Supplementary databases for Biological Sciences include *Access Science*; *AGRICOLA*; *AIDS and Cancer Research Abstracts*; *ANTE: Abstracts in New Technologies and Engineering*; *Applied Science and Technology Full Text*; *ASFA: Aquatic Science and Fisheries Abstracts*; *Biotechnology and Bioengineering Abstracts*; *BNA Environment Library*; *CRC Handbook of Chemistry and Physics*; *EIS: Digests of Environmental Impact Statements*; *Ellis and Messina Catalogue of Foraminifera and Ostracoda*; *Environmental Sciences and Pollution Management*; *Gale Virtual Reference Library*; *Medline*; *NetLibrary Reference Center*; *NTIS (National Technical Information Service)*; *Oceanic Abstracts*; *Oxford Reference Online Premium*; *Plant Science*; *SciFinder Scholar (Chemical Abstracts)*; and *TOXLINE*.

Digital Collections Center (Gail Clement, Head, <http://digitalcollections.fiu.edu>)

The Digital Collections Center is developing a collection of national significance, as well as of interest to Biological Sciences: the *Everglades Digital Library*. Begun in 1995 in partnership with the Everglades National Park, it is certainly established in the scholarly system, having a usage count in FY07 of 781,133 from scores of countries. New technologies continue to improve search and retrieval and to connect it to the National Science Foundation's National Science Digital Library. The *Everglades Online Thesaurus: A Standard Vocabulary for the South Florida Ecosystem*, funded by the Department of Interior through its Critical Ecosystems Studies Initiative, provides a standardized vocabulary of concepts and terms of the South Florida environment with several hundred terms in the following categories: Lithosphere, Hydrosphere, Landscape, Chemical/Physical Aspects, Natural resources; and Human Impacts.

A related digital collection is the *Miami Metropolitan Archive* (urban environmental affairs).

Geographic Information Systems (Jennifer Fu, Head <http://gislab.fiu.edu/>)

Geographic Information Systems supports Biological Sciences and allied programs (e.g., Health Sciences and Environmental Sciences) by providing a computer teaching laboratory with spatial datasets. Such tools are increasingly important to public health professionals and policy makers for disease surveillance, control and prevention; environmental health assessment; environmental exposures; geographically-coded health data; health services allocation; and policy-decision processes. The principal spatial datasets include boundaries files, transportation networks, land cover and land use, topography, LIDAR elevation, SRTM, hydrography, LandSat imagery, and aerial photography.