

Collection Policy: NATURAL RESOURCES

[Subject Scope](#) | [Priority Tables](#) | [Other policies . . .](#)

1.0 TEACHING, RESEARCH AND EXTENSION PROGRAMS

1.1 Mission and emphases of the department

The following descriptions represent an attempt at a comprehensive assessment of the historical and current focus of the department. However, unlike many disciplines such as chemistry or biology, natural resources is an open-ended, interdisciplinary field not easily defined by set parameters. Currently, the department is undergoing an extensive introspection with the intent of revising the focus, organization and scope of its work. This process, combined with the dynamic nature of the field as a whole, has the result that the department will change substantially.

Historically, the Department of Natural Resources has been recognized as a leader in the fields of wildlife management, forest science, woodlot management, maple syrup production, fisheries research and ornithology. More recently, national attention has focused on the department's contributions in resource policy, conservation biology, environmental ethics, international problems, ecotoxicology and wetlands management, as well.

1.2 Faculty research

The department has thirty academic staff, including 17 faculty, 6 adjunct or courtesy professors, and 8 senior research associates. Faculty research spans across many disciplines and includes the following areas: resource economics, values and ethics, resource policy and management, human dimensions of resource management, international problems, forest ecosystems, plant ecology, plant physiology, maple syrup production, woodlot management, aquatic ecosystems, fisheries management, fisheries genetics, stream ecosystems, wetlands, population and community dynamics, wildlife ecology and management, conservation biology, and ecotoxicology.

1.3 Graduate program

Approximately 45 students, including several foreign students from Africa, Southeast Asia, the Caribbean, and Europe, are enrolled in the graduate program. Currently, students in the program concentrate in one of these five principal areas: wildlife science, fisheries science, forest science, resource policy and management, and aquatic science. The research areas of the graduate students are as varied as those of the faculty. Areas with increasing student interest include human dimensions of resource management, values and ethics, international problems, conservation biology, ecotoxicology, and wetlands.

1.4 Undergraduate program

Currently, approximately 170 undergraduate students in the program distribute their interests across fisheries sciences, forestry sciences, wildlife sciences, and policy and management. Career interests of the students vary widely but typically include the following: wildlife, forest or fisheries biologist, wildlife, forests or fisheries manager, environmental law, resource/ environmental policy positions (in local, state and federal government agencies and private environmental/ resource organizations), veterinary management, and environmental education. The curriculum is becoming more integrated, as traditional interests merge into a larger ecosystem approach.

1.5 Extension activity

The department has approximately 17 extension associates with responsibilities in the following program areas: forest management, sugar bush management, economic vitality/ Christmas trees, agroforestry, 4-H/ youth development, outdoor recreation/ tourism, fisheries management, global change/ water resource management, wildlife habitat management, wildlife damage management, and ecological land-use planning. Specific issues of interest to the extension program include private forest management, deer management, sport fishing, hunting safety, and youth education.

1.6 Noteworthy facilities (e.g. unique classrooms, laboratories, farms, etc.)

The following laboratories and field stations are maintained by the department: Adirondack Fisheries Research Station, Old Forge, NY; Argot Teaching and Research Forest, Van Etten, NY; Cornell Biological Field Station (on Oneida Lake), Bridgeport, NY; Cornell Laboratory for Ecological and Evolutionary Genetics, Ithaca, NY; Eagle Bay Field Station, Thendara, NY; Ecotoxicology Laboratory and Greenhouse, Ithaca, NY; Fish Laboratory, Ithaca, NY Hudson Valley Research Laboratory, Highland, NY; Uihlein Sugar Maple Research-Extension Field Station, Lake Placid, NY.

There is also a Cooperative Learning Center with a course continuum that enables groups of students to work together in an integrated, cooperative learning environment.

In addition, the department works closely with the Laboratory of Ornithology, the Sea Grant Program, New York Cooperative Fish and Wildlife Research Unit, and the Richard E. Reynolds Game Farm of the New York State Department of Environmental Conservation.

2.0 SUBJECT DESCRIPTION AND GUIDELINES

2.1 Subject definition

Natural Resources is a highly interdisciplinary subject focused on understanding and managing the "natural" environment and its resources, and on human interaction with our environment in order to provide for both the continued human use and existence of elements in the "natural" environment, particularly wildlife, fish and forests. The science of natural resources emphasizes both ecology and ethics.

2.2 Subject scope

Currently, the subject is divided into two main areas, biology and policy, with in-depth emphasis in wildlife biology, fisheries biology, forest biology, and policy and management.

2.2.1 Wildlife Biology

This subject area focuses on understanding the structure, function and management of wildlife communities, which includes all terrestrial vertebrates, though historically emphasis has been placed on "game" (i.e. hunted) and non-game birds and mammals. Studies and research in this field examine population and community dynamics, impact of management practices and human dimensions of wildlife management. Increasing emphasis is being placed on the study of endangered populations, computer simulation of population dynamics, and genetic diversity. Other topics include: gene banks for endangered species, habitat management, wildlife sanctuaries.

2.2.2 Fisheries Biology

Historically, this subject area has focused on understanding the dynamics and management of fish populations. Increasing emphasis has been placed on genetic manipulation of fish stocks, limnology, eutrophication of lakes, acid precipitation in lakes and streams, aquaculture and ecotoxicology.

2.2.3 Forest Biology

Originally, forest biology concentrated on understanding and maximizing commercial production of lumber, Christmas trees and maple syrup. While studies in these areas continue, focus of the subject field has shifted to understanding the structure and function of tree and forest ecosystems. Special emphasis has been placed on studying the effects of acid precipitation on trees. Other topics include: agroforestry, forest policies of other countries, forest fires.

2.2.4 Biology of Wetlands

This subject area examines the history, preservation and destruction of coastal and adjacent freshwater wetlands. Fresh- and salt-marsh ecology and management, including the study of dominant plants, insects and vertebrates, are explored. Regulations, protection programs and management strategies are emphasized.

2.2.5 Policy and Management

This subject area is intended to house the sociological (as contrasted with biological) aspects of the field. Currently the field includes the

study of management practices, international problems, environmental policy and planning, environmental law, values and ethics, and the human aspects of resource management. (Olin collects in the area of general ethics. Mann covers such environmental ethics topics as animal rights, land use ethics, responsibility to future generations, and anthropocentric vs biocentric and theocentric views of humans and nature.) International issues include: global climate change, loss of species, degradation of oceans, destruction of the ozone layer, whales and whaling, deforestation, sustainable development, environmental regulation. Resource ownership, exploitation, compensation and preservation. Offshore gas and oil. Cultural differences in attitudes and behavior toward environment. Management practices under different cultural, economic and social systems. Indigenous resource management. Pollution; management of migratory whales, fish and waterfowl; Antarctic development; rainforest preservation, environmental carrying capacity, environmental impact analysis, biological assessments.

2.2.6 Other topics

Environmental organizations: history and description.

Biographies of famous naturalists (selective coverage).

Field guides: collected intensively for New York State. Beyond that, focused on scientific rather than popular uses.

Administration and management of state and national parks. (General descriptions of parks and natural areas-- including outside the U.S.--will be collected only if the focus is scientific, rather than popular.)

Camping and survival techniques (selective coverage).

Environmental and nature education and study, for all ages, including curriculum materials.

Fostering environmentally responsible behavior.

Risk assessment related to fish, forestry and wildlife.

Outdoor recreation; e.g., sport fishing, hunting. Diving will be collected only if there is a natural resources application.

Outdoor safety (New York State only.)

Big game hunting (if outside the U.S., only the impact on populations and ecosystems is of interest.)

Geographic information systems (GIS): environmental aspects only; techniques are collected by the Engineering Library.

Ecotoxicology: see separate Toxicology policy.

Radioecology.

Urban pests, such as raccoons.

Watershed management.

Water quality control related to agriculture.

2.2.7 Exclusions

Saltwater fishing

Zoo management (collected by the Veterinary Library)

Water collection or distribution.

Environmental law (collected by the Law Library)

2.3 Emerging trends in the subject area

Emerging trends in the field include increasing focus on global problems and policy, human aspects of resource management, values and ethics, and conservation biology.

3.0 SPECIAL INFORMATION NEEDS AND RESOURCES

3.1 Special information needs of those working in this subject area.

Electronic journals containing downloadable models or simulations.

International Treaties and UN Documents: These materials are of particular interest due to the expanding interest in international environmental problems and management.

U.S. Environmental Laws: Undergraduates in particular have expressed an increasing interest in this subject.

Endangered and Threatened Species Lists: Growing interest in conservation biology makes state, federal and international lists of this type particularly important.

Environmental data (e.g. CO2 emissions, soil erosion) globally and by country and region, especially as stored electronically.

3.2 Special collections or noteworthy resources in the field

3.3 Endowment funds or special funding arrangements

- Mann Endowment -- General Biology
- Dukart -- Environmental studies
- Wright -- Vertebrate zoology, herpetology
- Raney -- Ichthyology

4.0 TYPES OF MATERIALS

4.1 Priorities for types of materials

See [Priorities Table](#).

4.2 Format

Any information available through computer information systems (i.e., UN Documents, environmental laws), is desirable.

4.3 Geographical guidelines

Global. Areas of special interest are New York State and CIIFAD target countries. Emphasis is on terrestrial and aquatic ecosystems rather than urban areas.

Note: Refer to the policy for [Agricultural, Social & Economic Statistics](#).

4.4 Language guidelines

Focus on English and Spanish. Non Roman alphabets are collected by area studies.

4.5 Chronological guidelines

Current, plus historical treatments of environmental problems.

5.0 OTHER RELATED LIBRARY COLLECTIONS

- Olin Library--duplicates Mann collection policy regarding topics related to social aspects of environmental problems, policy and planning, particularly international problems and values and environmental ethics. UN documents. US government documents. Also houses the History of Science and Technology collection.
- Fine Arts Library--city and regional planning
- Law Library--Environmental laws and related topics
- Ornithology Library--Issues related to birds
- Engineering--Environmental engineering

6.0 POLICY QUESTIONS, COLLECTION NEEDS, FUNDING PROBLEMS OR OPPORTUNITIES

Mann and Olin need to decide on collection responsibilities for the following areas: general public policy and managerial works (e.g., legislative process, roles of citizen organizations, conflict resolution, cost/benefit analysis), environmentally related public policy.

Mann and Engineering need to decide which library should collect on water quality assessment and testing.

7.0 PRINCIPAL LC CLASSES

QH 75-198
QL 88
QL 101-345
QL 614-795
S 900-972
SD 1-668
SH 1-691
SK 351-579

8.0 RELATED COLLECTION POLICIES

- ECOL
- PLBI
- NEUR
- TOXI
- [ANSC](#)
- [ARME](#)
- Ornithology
- RURL -- development studies
- Agricultural and Biological Engineering
- AGRO -- GIS
- PAAM -- Program Evaluation
- IAD

Priorities Table for Natural Resources

Code	IMPORTANCE/INTENSITY CODES DEFINITIONS
NA	Not applicable to the discipline.
0	Ephemeral; of insufficient value to be provided by library.
1	Of short term interest, but with little or no enduring value; very selectively acquired; retained, uncataloged, for limited duration only, e.g. newsletters in newly emerging, poorly documented areas, and manuals or pamphlets for reserve reading.
2	Limited scholarly interest or utility; collected very selectively, but not of high priority.
3	Important for research and/or instruction; should be well represented, but collected selectively rather than intensively.

4	Very important for faculty and/or students; intensively collected, i.e. every effort is made to provide as deep coverage of this literature as possible.
5	Essential to work in the discipline; the most important type of material for research or instruction purposes. Ensuring the highest possible coverage should be the library's top priority in this discipline.

Code	SERIALS	Notes
4	Journals, scholarly	-
4	Journals, technical	-
-	Journals, other (describe)	-
-	Annual reviews, advances in...	-
4	Scientific and technical reports and research bulletins of major academies, learned societies, professional research and educational organizations and government agencies	-
3	Proceedings, of international congresses and symposia	-
3	Proceedings, national or local	-
-	Statistical series	-
-	Trade journals and periodicals	-
-	Popular periodicals, hobby	-
-	Popular periodicals, semi-technical	-
-	Popular periodicals, farm press	-
-	Newsletters/newspapers	-
-	Proceedings of legislative bodies	-
-	Student publications	-
-	Administrative publications of major academies, learned societies, professional, research and educational organizations and government agencies	-
-	Corporate annual reports	-
-	Yearbooks	-

-	Press releases	-
-	Lists	-
-	Working papers	-
Code	MONOGRAPHS	Notes
4	Major scholarly monographs	-
3	Professional and technical	-
-	Subject histories	-
-	Textbooks, upper division, graduate	-
-	Biographies	-
-	Popular monographs	-
-	Technical reports	-
3	Government reports	-
3	Proceedings, international	-
3	Proceedings, other	-
-	Theses and dissertations (outside CU)	-
-	Festschrift	-
-	Patents	-
-	Corporate histories	-
-	How-to books & lab manuals	-
-	Pamphlets	-
4/1	Ephemera (describe)	newsletters of organizations and associations
-	Maps	-

-	Technical bulletins/handbooks/compendia	-
Code	ELECTRONIC INFORMATION	Notes
3	Applications programs	-
3	Bibliographic databases	-
-	Bulletin boards	-
-	Fulltext files	-
3	Geographic information systems	-
3	Numeric/statistical files	-
-	Other (describe, taking as much space a necessary)	-

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[Top of Page](#)