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ABSTRACT

This bibliography of juvenile literature, textbooks, and professional resources for teachers is based on acquisitions received between January 1st 1969 and May 25 1971 by the Educational Materials Center of the National Center for Educational Communication. The books annotated within have not been evaluated, however, they have been selected on the basis of three criteria: 1) publication during this period; 2) critical reception or favorable review by at least two professional journals; and, 3) ecological content. The nonfiction juvenile titles in the first two sections divide around three themes: 1) the problems endangered species of animals and plants, overpopulation, hunger, pollution; 2) the natural resources available and their utilization as the basis of the solution of the problems; and, 3) surveys of what has been done in recent years to repair the ecological damage. Biographies, animal stories, and conservation and ecology picture books are included in the second section. The next part describes fifteen juvenile fiction books about encounters between animals and people, imagined or fictional, but relevant to everyday happenings; some are fantastic in nature. Science and social studies texts are listed in the fourth section with teacher resources in the fifth. The review sources, and author and title indices are appended. (Author/SBE)

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**ENVIRONMENTAL-ECOLOGICAL
EDUCATION: A BIBLIOGRAPHY OF
FICTION, NONFICTION, AND TEXT-
BOOKS FOR ELEMENTARY AND
SECONDARY SCHOOLS**

Compiled by Lois B. Watt, Chief, and Myra H. Thomas
The Educational Materials Center of the National Center for Educational Communication

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FOREWORD

The ERIC Clearinghouse for Social Studies/Social Science Education is concentrating on locating, synthesizing, and making readily available the burgeoning literature of environmental-ecological education--particularly that which is "fugitive" and which clarifies social implications of environmental problems and programs. ERIC/ChESS has been searching for conference speeches, research reports, curriculum outlines, syllabi, and project reports with emphasis on environmental-ecological social aspects to abstract and index in Research in Education and to make available in microfiche and hardcopy from the ERIC Document Reproduction Service (EDRS).

In its information analysis and synthesis program ERIC/ChESS published Environmental Education: Social Studies Sources and Approaches by Martha T. Henderson as its first publication. This paper, ED 042 062, identified projects encouraging individual inquiry into environmental problems; programs stressing interaction between man and the environment; programs emphasizing field work; and programs in law, economics, and politics stressing values and ethics.

A forthcoming book, co-published with the Social Science Education Consortium, Inc. is The Environmental Problem: Selections from Hearings on the Environmental Education Act of 1970, edited by Irving Morrisett and Karen B. Wiley. The record of these hearings contains testimony from a wide cross-section of the population concerned with environmental quality and education--ecologists, such as LaMont Cole; social scientists, such as Margaret Mead and Kenneth Boulding; student leaders of the Environmental Teach-In, a theologian, government officials, philosophers, conservationists, businessmen, architects, journalists, and teachers. The testimony ranges from high-level, abstract, global thinking to detailed descriptions of specific action programs.

With the ERIC Clearinghouse for Science and Mathematics, ERIC/ChESS is producing four reviews of selected programs, curriculum guides, and materials for elementary teachers, secondary teachers, teachers of the urban disadvantaged children, and school administrators. These also will be available through EDRS, in early 1972.

The ERIC/SMAC clearinghouse is also compiling a comprehensive annotated bibliography of all environmental-ecological documents in the ERIC system and additional copyrighted literature, including general reference and technical information and learning resources for teachers and students. The ERIC Clearinghouse for Rural Education and Small Schools is doing additional synthesizing of literature in environmental and ecological education. See title entries 192 and 198 in this bibliography.

This publication, compiled at the Educational Materials Center, represents another area of interest to the social studies teacher and language arts teacher. Mrs. Watt and Mrs. Thomas have identified juvenile literature with environmental-ecological implications, often subtle and poetic. Recent textbooks received at the Educational Materials Center have been included also.

The Educational Materials Center is a resource unit of 16,000 volumes, organized and maintained as a unit of the National Center for Educational Communication of the U.S. Office of Education. One of the nation's most comprehensive collections of current book materials used in elementary and secondary schools and in programs of teacher education, it was organized in 1953. Presently collaborating with the Office of Education in sponsoring the EMC are the Association of American Publishers, Inc., the Children's Book Council, Inc., and the Federal City College of Washington, D.C.

The EMC staff provides special reference services based on its collections, to visitors and to correspondents; it conducts seminars on the development, selection, and use of educational materials and on the organization and maintenance of materials centers; and it compiles bibliographic reports such as this one, based on the nature and availability of the Center's holdings.

Its official address is Educational Materials Center, U.S. Office of Education, Washington, D.C. 20202.

Irving Morrisett, Associate Director
ERIC Clearinghouse for Social Studies/Social Science Education

INTRODUCTION

This bibliography of recent acquisitions of the Educational Materials Center may be useful in elementary and secondary school programs for environmental and ecological education. A preliminary listing was issued October 1, 1970, in response to the large number of requests received in the Office of Education from state and local education agencies for information about current publications on the subject. A portion of this bibliography, including literature of interest for children from pre-school age through the sixth grade, was reprinted with permission of the Office of Education by the Association for Childhood Education International in its journal Childhood Education in the issue of January 1971.

The bibliography is based on acquisitions of the Center received between January 1, 1969 and May 25, 1971. It includes juvenile literature, textbooks for elementary and secondary school students, and professional resources for teachers.

Readers wishing to obtain materials listed should contact the sources indicated, or purchase them from the usual commercial channels. The staff of the Educational Materials Center has not evaluated these books, and their inclusion in this list does not necessarily imply endorsement by the Office of Education.

Scope and Organization

Dorothy Wood, writing in the Winter 1971 issue of Appraisal: Children's Science Books (pages 1-2), comments on the fact that for a century, scientists have seen ecology as an entity, and that fifty years ago, elementary school teachers were teaching about plants and animals in relation to the science of ecology. Recognizing the truth of these statements, one could greatly expand the following list, for many fine books not included here can be located and used for their general background, as well as for tangential but valuable references to environmental-ecological education. However, few bibliographies can be comprehensive, and it seems important to focus this one on new and specific publications.

The compiler of this section has not evaluated the books annotated below; this is the task of the scientist and the local librarian or school administrator. Nevertheless, the limitations of space require some decisions about inclusion, and a summary of the guidelines followed are listed below:

- (a) Availability. The books included were received in the Educational Materials Center between January 1, 1969 and May 25, 1971. They were published during that period or immediately preceding it.
- (b) Critical Reception. All have been favorably reviewed in at least two of the professional journals concentrating on the field of literature for children, or in a major evaluative bibliography representing committee selection. The journals and bibliographic sources in the compilation of this section include:

Appraisal: Children's Science Book; The Booklist, a guide to current books; Bulletin of the Center for Children's Books; Children's Books in Print; Children's Books Suggested as Holiday Gifts 1970; Children's Catalog; Elementary School Library Collection; Horn Book Magazine; Virginia Kirkus' Review; School Library Journal; and Science Books: A Quarterly Review. Complete bibliographic description of these tools is provided on page

- (c) Content. The nonfiction books annotated here include principles of ecology as a major explicit part of the book. In the fiction listed, the compiler looked for ecological principles as fundamental to the plot, as a pervasive factor in the setting, or as part of the basic understandings of the characters.

The juvenile literature books are arranged in two large sections: nonfiction and fiction. The nonfiction titles seem to divide around three themes. Books (titles 1-20) discuss the problems we face. Some of these books identify our faulty relationships with animals and plants (titles 1-3, 5-7, 17, 18, 20) which have endangered certain species. Some look at specific human problems like overpopulation, hunger, and pollution of air and water, describing how they have resulted from our inattention to environmental needs (titles 4, 8, 14-16). Others survey several problems in a single volume, probing for basic causes and analyzing related conservation principles in general fashion (titles 2, 9-13, 19).

A second theme of the nonfiction included here is related to the resources we have at hand, and to the recognition and exploration of these resources as basic to the solution of our problems (titles 21-64). Of these books, a small group seem designed to encourage awareness of the earth's richness as a first step in protection: these (titles 21-29) include magnificent photographic essays in appreciation, collections of perceptive and provocative poetry, and a witty play based on recent news reporting of an ecological crisis in Borneo. A second group explores our food resources (titles 30-34), while a third discusses our relationship to land and water (titles 35-42), and a fourth group of books takes a close look at the interdependence of plants and animals (titles 42-64).

A third theme, related to the progress we have made, is supported by a group of books which survey what we have accomplished in the brief years we have been trying to repair our damage (titles 65-77).

Three other groups of factual books are organized on the basis of their similarity of format. They treat the same themes identified in the paragraphs above, but from rather special points of view. There is a group of biographies (titles 78-81) that call attention to men and women who were trying to bring us the message of conservation long before some were ready to listen. Next is a group of books that are based on observable fact and structured with happenings in the natural world, but which present the behavior of animal characters in story form (titles 82-96). Such books come very close to anthropomorphism and also to fiction, but they represent objective study and reporting on animal life patterns, in a way which is acceptable to young readers. The final group of factual books (titles 97-115) present the ideas of conservation and ecology in picture book form for the youngest readers.

Obviously there is overlapping in any categorical approach to literature, and users of this bibliography will find that some books are related to more than one of the groups identified.

In the second major section of juvenile literature, 15 books of fiction (titles 116-130), in two groups. The first contains both actual encounters between animals and people, imagined and fictional in content, but related to everyday happenings which might be duplicated in any similar community (titles 116-123). The second group of fictional books (titles 124-130) are fantastic in nature, but each has some relationship to principles of ecology and environmental concerns. Four of these are picture books (titles 124, 125, 127, and 128).

The 131 books annotated here can be used in a variety of ways. Some of the nonfiction titles will provide helpful supplements to textbooks written before our present concerns affected the curriculum. Some of them will enrich the experience of gifted children who are always ready for more substantial reading than basal texts. Provocative titles of fiction as well as nonfiction will both generate and support open end discussions in lively classrooms. Fiction with skillfully developed theme and characters will enlarge young readers' understanding of the natural world. Fantasy has its special functions, and a subtle approach through the plural dimensions of reality can awaken the perceptive child, sometimes more effectively than books of the everyday world. Hopefully the list will alert teachers and librarians to the wealth of materials available, and will encourage their continued search for newer and even more pertinent books.

Lois B. Watt, Chief
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National Center for Educational Communication
U.S. Department of Health, Education, and Welfare
Office of Education

JUVENILE LITERATURE, NONFICTION

Discussing the Problems

1. Euller, John. Whaling World. Garden City, N.Y.: Doubleday, 1970. 119 pp. Recounts man's frightening efficiency in destroying a valuable natural resource which could, under appropriate management, have augmented the world's failing food supply. (Grades 4-7)
2. Habenstreit, Barbara. The Making of Urban America. New York: Messner, 1970. 189 pp. Reports on the historical development of present urban problems, probing both their causes and their effects on the environment, local and national. (Junior high-up)
3. Harrison, C. William. Wildlife: Riches of the Earth. Illus. with photographs. New York: Messner, 1970. 190 pp. A general view of man's calamitous effect on the animals he has encountered. (Grades 7-9)
4. Helfman, Elizabeth S. This Hungry World. Illus. with photographs. New York: Lothrop, 1970. 160 pp. Thoughtful consideration of the factors which cause two-thirds of the world's people to be hungry, with a report on some helpful measures. (Grade 5-up)
5. Laycock, George. America's Endangered Wildlife. Illus. with photographs. New York: Norton, 1969. 226 pp. Discusses many rare and threatened mammals, birds, reptiles, and amphibians, along with the conservation efforts in their behalf. Full listing of prominent species, based on complete records periodically revised by U.S. Fish and Wildlife Service. Lists "Organizations Concerned with Endangered Wildlife," and books for additional reading. (Grade 5-up)
6. Laycock, George. Animal Movers: A Collection of Ecological Surprises. Garden City, N.Y.: The Natural History Press, 1971. 107 pp. The not-always well-known and sometimes uncomfortable results (for humans) of moving animals out of original habitats are reported in crisp breezy style. (Grade 5-up)
7. McClung, Robert M. Lost Wild America: The Story of Our Extinct and Vanishing Wildlife. Illus. by Bob Hines. New York: Morrow, 1969. 240 pp. Surveys the conditions of North American wildlife from the arrival of the first Europeans to the present time. (Grades 6-9)
8. McCoy, J. J. Shadows Over the Land. New York: Seabury, 1970. 152 pp. Recognizing man is an endangered species, the author documents crises in some unfamiliar as well as well-known areas, and identifies some positive steps for young readers concerned about conservation. (Grade 6-up)

The Nature and Science Library. Illus. with drawings and photographs. Garden City, N.Y.: The Natural History Press. Part of a series reviewed by and published for the American Museum of Natural History. The following five volumes treat the theme of interdependence in nature along with various phases of man's attempt to control his "household of earth." (Grades 7-9)

9. Chandler, T. J. The Air Around Us: Man Looks at His Atmosphere. 1969. 156 pp.
10. Joffe, Joyce. Conservation: Maintaining the Natural Balance. 1970. 188 pp.
11. Lauwerys, J. A. Man's Impact on Nature: Technology and Living Things. 1970. 188 pp.
12. Reid, Keith. Nature's Network: The Story of Ecology. 1970. 188 pp.
13. Russell, W. M. S. Man, Nature, and History: Controlling the Environment. 1969. 252 pp.

14. Navarra, John G. The World You Inherit: A Story of Pollution. Garden City, N.Y.: The Natural History Press, 1970. 192 pp. Provocative photographs extend this treatment, which makes plain the despoliation we have effected and suggests some logical remedies. (Grades 6-9)
15. Pringle, Laurence. One Earth, Many People: The Challenge of Human Population Growth. New York: Macmillan, 1971. 86 pp. The author makes the problem very plain as he analyzes conflicting opinions and takes a sobering look into the future. (Grades 5-8)
16. Pringle, Laurence. The Only Earth We Have. New York: Macmillan, 1969. 86 pp. A concise, honest statement of man's abuse of his planet (the reduction of wildlands, pollution of the air, and use of insecticides) documented with telling photographs. (Grades 5-8)
17. Ryden, Hope. America's Last Wild Horses. illus. with photographs. New York: Dutton, 1970. 311 pp. Historical view of the wild horse from his 16th century ancestors to the victimized unprotected feral animal of today. (Senior high)
18. Silverberg, Robert. Vanishing Giants: The Story of the Sequoias. New York: Simon & Schuster, 1969. 160 pp. Traces our knowledge of the two massive evergreens of California: the Pacific Coast redwood and the giant sequoias of the Sierra Nevada; describes the conflict of conservationists and profiteering lumbermen in the past century, as well as some successful recent efforts to protect the remaining forests. (Grade 5-up)
19. Watson, Alice, editor. America Was Beautiful. Introduction by Arthur A. Houghton, Jr. Barre, Mass.: Barre Publishers, 1969. 116 pp. A collection of engravings, originally published a century ago, record the natural beauty now so largely polluted. Originally edited by William Cullen Bryant, the present version pictures the country in 1870, from Washington to San Francisco, from Illinois to Louisiana. The brief, succinct captions emphasize the enormity of our loss. (Grade 6-up)
20. Wood, Frances and Dorothy. Animals in Danger: The Story of Vanishing American Wildlife. illus. with photographs. New York: Dodd, Mead, 1968. 181 pp. A discussion of our national neglect, the need to save vanishing species, and possible measures to accomplish this. (Grades 5-8)

EXPLORING RESOURCES

Awareness and Appreciation

21. Atwood, Ann. New Moon Cove. Illus. with photographs by author. New York: Scribner's, 1969. unpagged. Unusual photographs in color document the work of the sea in a small California cove. (Grade 4-up)
22. Atwood, Ann. The Wild Young Desert. Photographs by author. New York: Scribner's, 1970. unpagged. In the same evocative style as the earlier New Moon Cove, this book pictures the brilliant colors of the desert and considers the factors which make this environment: water and its absence, the shaping wind, and unique life forms. (All ages)
23. Clark, Ann Nolan. Along Sandy Trails. Photographs by Alfred A. Cohn. New York: Viking, 1969. 31 pp. A little Papago Indian girl and her grandmother walk the Arizona desert together, talking to each other about the flora and fauna, so the child "may know the desert and hold its beauty in her heart forever." (Grades 2-5)
24. Clark, Ann Nolan. Circle of Seasons. Illus. by W. T. Mars. New York: Farrar, 1970. 113 pp. Ceremonies of the Pueblo Indian Year celebrate the unity of life, a "oneness of plants and animals and man," where nothing is wasted, where each animal has a function, and each person knows his own part in the cycle. (Grade 5-up)
25. Cole, William, compiler. A Book of Nature Poems. Illus. by Robert Andrew Parker. New York: Viking, 1969. 256 pp. For those who love nature as well as poetry, here are poems of bright days and deep nights, of the seasons, and of earth, skies, and the sea. (Grade 5-up)
26. Feldman, Anne, and Jean Ely. The Inflated Dormouse and Other Ways of Life in the Animal World. Garden City, N.Y.: The Natural History Press, 1970. 112 pp. Focus on the unfamiliar and a bright touch of humor pervade this presentation of some accommodation mechanisms by which animals survive. The text is succinct, the photographs abundant and appealing. (All ages)
27. Hannum, Sara, and John Terry Chase, compilers. The Wind Is Round. Illus. by Ron Bowen. New York: Atheneum, 1970. 100 pp. Modern American and British poetry, arranged by seasons from winter to winter and invitingly illustrated, have been chosen in the hope that the poets' vision may help us "to discover our Eden before we destroy it." (Grade 6-up)
28. Pomerantz, Charlotte. The Day They Parachuted Cats on Borneo: A Drama of Ecology. Scenery by Jose Aruego. New York: Young, Scott, 1971. unpagged. This verse-play dresses a true incident in witty text and zany pictures to provide fun and learning for young performers. (Grades 3-7)
29. Roberts, Bruce and Nancy. Where Time Stood Still: A Portrait of Appalachia. Illus. with photographs. New York: Crowell-Collier Press, 1970. 114 pp. This in-depth study of the relationship of a people to the land which is both their sustenance and their prison, documents the plea that "individuals are one of the most important resources of any region, and it is our obligation to discover how we can best help them help themselves." (Grade 5-up)

Food

30. Dodge, Bertha S. Potatoes and People: The Story of a Plant. Illus. by John Kaufmann. Boston: Little, Brown, 1970. 190 pp. Historical survey of one plant's importance to human hunger, and its influence on today's needs. (Grade 6-up)

31. Edlin, Herbert L. Plants and Men: The Story of Our Basic Food. Illus. with photographs and diagrams. Garden City, N. Y.: The Natural History Press, 1969. 253 pp. This is a volume of the Nature and Science Library, reviewed by and published for the American Museum of Natural History. (Grades 7-9)
32. Esterer, Arnulf K. and Louise A. Food: Riches of the Earth. Illus. with photographs. New York: Messner, 1969. 190 pp. A historical survey, global and detailed, with attention to such new sources of nutrition as the sea, and to developing remedies against the greed and the wastefulness of man's past. (Grades 9-12)
33. Scott, John. Hunger: Man's Struggle to Feed Himself. Illus. with photographs. New York: Parents' Magazine Press, 1969. 181 pp. Reviews man's mismanagement of his environment, identifying priority tasks for an orderly use of our resources with some attention to new and synthetic foods, sea farming, and weather control. (Grades 7-9)
34. Waters, John F. The Sea Farmers. Illus. with photographs. New York: Hastings House, 1970. 120 pp. Recognizing as a severe problem the need to feed a steadily increasing population, the author surveys the techniques of ocean farming; details how fish, lobsters, oysters, and shrimp are farmed, discusses the possibilities of new products like Marine Protein Concentrate, and explores the future for collecting and farming still other species. (Grades 5-8)

Land and Water

35. Arnov, Boris, Jr. Homes Beneath the Sea: An Introduction to Ocean Ecology. Illus. with photographs. Boston: Little, Brown, 1969. 131 pp. A science teacher's presentation of how plants and animals are affected by currents, pollution, and parasites and other biological phenomena of the sea. (Grades 6-10)
36. Davies, Delwyn. Fresh Water: The Precious Resource. Illus. with photographs and diagrams. Garden City, N. Y.: The Natural History Press, 1969. 155 pp. Consideration, from a worldwide point of view, of the basic relationships between man and water, with attention to problems of pollution and purification; a volume in the Natural History Library, reviewed by and published for the American Museum of Natural History. (Grades 7-9)
37. Goetz, Delia. Rivers. Illus. by John Kaufmann. New York: Morrow, 1969. 63 pp. General view of the world's rivers noting their burden of man's pollution; gives particular attention to the Potomac as a typical system. (Grades 2-6)
38. Naden, Corinne J. Grasslands Around the World. Illus. with photographs and maps. A First Book. New York: Watts, 1970. 66 pp. A general survey and a discussion by geographic areas emphasize conservation and interdependence. (Grades 3-6)
39. Pringle, Laurence P., editor. Discovering the Outdoors. Illus. with photographs and diagrams. Garden City, N.Y.: The Natural History Press, 1969. 128 pp. This guide to investigating life in fields, forests, and ponds is a collection of articles from Nature and Science, the magazine for young readers edited by and published for the American Museum of Natural History. (Grades 5-8)
40. Quilici, Folco. The Great Deserts. The International Library. Adapted by Margaret O. Hyde. New York: McGraw-Hill, 1969. 128 pp. Comparative discussion of the varying deserts of Africa, Arabia, Asia, Australia, and America: their physical features, the wildlife, and the people. (Grades 5-9)
41. Scott, Frances and Walter. Exploring Ocean Frontiers: A Background Book on Who Owns the Seas. New York: Parents' Magazine Press, 1970. 219 pp. This detailed survey reflects growing national and international concern for protection and appropriate use of resources. (Grade 7-up)

42. Smith, Frances C. The First Book of Swamps and Marshes. Illus. with photographs. New York: Watts, 1969. 64 pp. A wealth of information about the different types of wetlands, their importance to man, and the plants and animals found in each. (Grades 6-9)

Plants and Animals

43. Bjorklund, Lorence F. The Bison: The Great American Buffalo. Illus. by author. New York: World, 1970. 63 pp. Impressive close-up views of the Western high country, the plains, and bison sketched from life are supported with cogent vignettes from the story of near-extinction: "The Buffalo Hunter," "The Hide Capital," "The Right of Way," and finally "The Return of the Bison." (Grades 4-8)
44. Burton, Maurice. Animal Partnerships. Illus. with photographs; with drawings by R. B. Davis. New York: Warne, 1970. 107 pp. British naturalist's survey of differing types of association, mostly beneficial to both partners. (Grades 6-9)
45. Case, Marshal T. Look What I Found! Photographs by the author. Drawings by Mary Lee Herbster. Riverside, Conn.: Chatham Press, 1971. 95 pp. Subtitled "The Young Conservationist's Guide to the Care and Feeding of Small Wildlife," this introduction for observers and collectors has a very simple text, generously illustrated. (Grades 4-6)
46. Cohen, Daniel. Animals of the City. Illus. by Kiyoko Komoda. New York: McGraw-Hill, 1969. 95 pp. Quick introductions to environmental functionings of many members of the urban environment, from cats to cockroaches. (Grades 5-8)
47. Davis, Bette J. Mole From the Meadow. Illus. by the author. New York: Lothrop, 1970. 64 pp. A life cycle story, enlivened with crisp drawings, to document this often maligned, prehistoric survivor's valuable service in the underground. (Grades 3-7)
48. Earle, Olive L. Praying Mantis. Illus. by author. New York: Morrow, 1969. 48 pp. Life story of a Chinese mantis, familiar inhabitant of gardens in the United States, with along-the-way pictures of other members of the same ecology. (Grades 2-4)
49. Foster, Laura Louise. Keeping the Plants You Pick. Illus. by the author. New York: Crowell, 1970. 149 pp. Recognizing human dependence upon the beauty of plants, a skilled botanical artist explains how to bring indoors these satisfying elements of the outside environment, with appropriate attention to conservation principles. (Grade 5-up)
50. Gilbert, Bil. The Weasels: A Sensible Look at a Family of Predators. Illus. by Betty Fraser. New York: Pantheon, 1970. 201 pp. Based on the recognition that "predation is a natural, necessary element in the complicated system of relationships by which life supports life," and that if weasels and their relatives are predators, so are the robins which devour earthworms. (Grade 6-up)
51. Goodheart, Barbara. A Year on the Desert. Illus. by Mel Hunter. Englewood Cliffs, N. J.: Prentice-Hall, 1969. 57 pp. Describes the range and variety of the desert's life forms and their interdependence. (Grade 5-up)
52. Gray, Robert. Gray Wolf: The Natural Life of North American Wolves. Illus. with photographs. New York: Norton, 1970. 135 pp. A conservationist's view of a misunderstood animal. (Grades 5-9)

53. Hogner, Dorothy Childs. Birds of Prey. Illus. by Nils Hogner. New York: Crowell, 1969. 132 pp. Basic information on the appearance, the habitat, and the feeding and nesting habits of 49 such dramatic creatures as hawks, eagles, falcons, and owls, with notes on the conservation efforts to save some which are particularly beneficial to man. (Grades 4-6)
54. Howell, Ruth Rea. A Crack in the Pavement. Photographs by Arline Strong. New York: Atheneum, 1970. unpagged. Clear and appealing photographs document an informal text about animals and plants which accommodate even the crowded conditions of today's cities. (K-Grade 4)
55. Kaufmann, John. Robins Fly North, Robins Fly South. Illus. by author. New York: Crowell, 1970. unpagged. A lucid text and drawings fresh with color tell how one bird meets the demands of its environment. (Grades 2-4).
56. Milne, Lorus and Margery. The Nature of Animals. Illus. by Thomas R. Funderburk. Philadelphia: Lippincott, 1969. 255 pp. An introductory treatment with comparative attention to the basic processes of animal life, relationship to other living things, and the balance of nature. (Grades 6-10)
57. Milne, Lorus and Margery. When the Tide Goes Far Out. Illus. by Kenneth Gosner. New York: Atheneum, 1970. 88 pp. A generalized description of the seashore's web of life, with consistent reference to conservation and concern for the environment. (Grades 4-7)
58. Pine, Tillie S. and Joseph Levine. Trees: And How We Use Them. Illus. by Bernice Myers. New York: McGraw-Hill, 1969. 50 pp. Very simple factual presentation, of possible use with non-performing readers. (Grades 3-5)
59. Pond, Alonzo W. Survival in Sun and Sand. Illus. with photographs. New York: Norton, 1969. 180 pp. Recounts some ways in which plants and animals keep alive and reproduce in the harsh extremes of dry heat and bitter cold. (Grade 5-up)
60. Shuttlesworth, Dorothy E. The Story of Flies. Illus. by Barbara Wolff. Garden City, N. Y.: Doubleday, 1970. 58 pp. Along with chapters on the several kinds of flies, the author discusses helpful functions as well as disastrous effects of each species. (Grades 4-7)
61. Silverstein, Alvin and Virginia. Metamorphosis: The Magic Change. New York: Atheneum, 1971. 74 pp. Clear photographs and a lucid text show how seven different animals make startling changes in form to meet environmental challenges. (Grades 3-6)
62. Simon, Hilda. Partners, Guests, and Parasites: Coexistence in Nature. Illus. by author. New York: Viking, 1970. 127 pp. Informative four-color drawings help to document the unusual relationships which involve cooperation as well as exploitation when differing life forms are associated for specific purposes. (Grades 5-8)
63. Simon, Seymour. Discovering What Earthworms Do. Illus. by Jean Zallinger. New York: McGraw-Hill, 1969. 47 pp. The author suggests experiments to document the descriptive text; brief attention to place of the earthworm in a life system. (Grades 2-5)
64. Simon, Seymour. Science in a Vacant Lot. Illus. by Kiyo Komoda. New York: Viking, 1970. 64 pp. Such a lot "isn't really vacant at all," and this book encourages simple activities by which children can prove that even a city space is a complex environment. (Grades 2-6)

Reporting Some Progress

65. Hilton, Suzanne. How Do They Get Rid of It? Philadelphia: Westminster, 1970. 117 pp. Surveys some methods for combating pollution, based on the fact that certain kinds of trash become treasure when specially treated for reuse. (Grades 5-8)
66. Johnson, James Ralph. The Southern Swamps of America. New York: McKay, 1970. 152 pp. After general background treatment of the characteristic swamp wildlife, the author discusses in detail each of the five major areas now federally protected: Florida's Everglades National Park, Corkscrew Swamps, and Big Cypress Swamp, Georgia's Okefenokee National Wildlife Refuge, and Tennessee's Reelfoot Lake. (Grades 6-9)
67. Laycock, George. The Pelicans. Garden City, N. Y.: The Natural History Press, 1970. 58 pp. Report on the hopeful developments in wildlife workers' efforts to save this endangered species, the "brown pelican" which almost disappeared from Louisiana and Texas. (Grades 3-6)
68. Laycock, George. Wild Refuge. Illus. with photographs. Garden City, N. Y.: The Natural History Press, 1969. 151 pp. Poetic prose and striking photographs describe the development of the National Wildlife Refuges and how they have saved scores of species from extinction. Included a partial list of wildlife refuges, primarily those on which managers live. (Grade 5-up)
69. Laycock, George. and Ellen. The Flying Sea Otters. Photographs by author. New York: Grosset, 1970. unpagged. Simply told story of how conservationists have reversed the processes of greed and cruelty threatening the sea otters. (Grades 2-7)
70. McCoy, J. J. Nature Sleuths: Protectors of our Wildlife. Illus. by Noel Sickles and with photographs. New York: Lothrop, 1969. 160 pp. Describes the activities of conservation officers who stalk the alligator thieves, the waterfowl poachers, the deer shiners and other "unsportsmanlike sportsmen" who loot wilderness areas for their own illegal profits. (Grade 5-up)
71. McCoy, J. J. Saving Our Wildlife. Illus. with photographs. New York: Crowell-Collier Press, 1970. 232 pp. Beginning with a description of the lush scenery, abundance of clear water and rich variety of animal life which the early developers of America enjoyed, the author traces our subsequent extravagance and more recent efforts to protect our threatened species. (Grade 6-up)
72. Munzer, Martha E. Valley of Vision: The TVA Years. Illus. with photographs. The Living History Library. New York: Knopf, 1969. 199 pp. This story of a "twentieth-century rescue operation," which harnessed the flood-prone Tennessee River and renewed the 40,000 square miles of its valley land in seven states, is enriched by folk music the people sang and contemporary prints of their life activities. Written under the auspices of the Conservation Foundation. (Grade 7-up)
73. Murphy, Robert. A Heritage Restored: America's Wildlife Refuges. Illus. with photographs. Foreword by Stewart L. Udall. New York: Dutton, 1969. 128 pp. Beginning with the historical background of man's destruction of birds and animals and the land which supports them, the author surveys our present national refuge system of more than 300 areas in five major regions. There is an appendix listing and locating about 140 refuges, with indication of the wildlife which can be seen in each. This volume is adapted by the author from an adult edition published in 1968 under the title Wild Sanctuaries: Our National Wildlife Refuges-A Heritage Restored. (Grade 6-up)
74. Spier, Peter. Of Dikes and Windmills. Illus. by author. Garden City, N. Y.: Doubleday, 1969. 187 pp. Story of the Dutch people's determination not only to live with their watery environment but to make more land; their accomplishments, from the effective spadework of the Dark Ages mound dwellers to the complex engineering of the Delta Plan are plentifully detailed with clear diagrams and water color pictures. (Grade 5-up)

75. Stevens, Leonard A. How A Law Is Made: The Story of a Bill Against Air Pollution. Illus. by Robert Galster. New York: Crowell, 1970. 109 pp. Using the framework of a fictional state, the author details each step of the legislative process from the complaints of concerned citizens about a summer's smog to the governor's signature on a control law. (Grades 5-9)
76. Sutton, Ann and Myron. New Worlds for Wildlife. Illus. with photographs. New York: Rand McNally, 1970. 190 pp. Reports on the alternate roles of man as global destroyer of wildlife, and potentially as preserver of the environment in the more than 1200 national parks and equivalent reserves which have been set up in more than 100 countries, representing constantly increasing attention to the cause of international conservation. (Grade 5-up)
77. Van Dersal, William R. Wildlife for America: The Story of Wildlife Conservation. Illus. with photographs. New York: Walck, 1970. 160 pp. This revised and enlarged version reports the progress of 20 years in relating wildlife conservation and land use programs. (Grades 6-9)

JUVENILE LITERATURE, BIOGRAPHIES, STORY AND PICTURE BOOKS

Biographies —

78. Graham, Ada and Frank. Wildlife Rescue: Alternative to Extinction. New York: Cowles, 1970. 136 pp. An introduction to four special people who have cared about saving animals: Guy Bradley who lost his life in defending the Everglades; Margaret Owings, whose work protects the sea otters of California coastal waters; Herbert Johnson, superintendent of the Jamaica Bay Wildlife Refuge on Long Island; and John Walsh who directs field rescue operations in the western hemisphere for the International Society for the Protection of Animals. (Grade 6-up)
79. Hirsch, S. Carl. Guardians of Tomorrow: Pioneers in Ecology Illus. by William Steinel. New York: Viking, 1971. 192 pp. The stories of eight Americans whose messages, if heeded, would have improved our environment over the years. Thoreau, Marsh, Olmsted, Muir, Pinchot, Norris, Leopold, and Carson. Interpretive chapters identify our present choices. (Grade 6-up)
80. Sterling, Philip. Sea and Earth: The Life of Rachel Carson. Illus. with photographs. Women of America Series. New York: Crowell, 1970. 213 pp. Biography of the woman whom the American Academy of Arts and Letters cited as having "used her scientific insight and moral feeling to quicken our consciousness of living nature and alert us to the calamitous possibility that our short-sighted technological conquests might destroy the very source of our being." (Grades 6-8)
81. Lader, Lawrence, and Milton Meltzer. Margaret Sanger: Pioneer of Birth Control. Illus. with photographs. New York: Crowell, 1969. 174 pp. Lader has utilized material from his 1955 adult biography, including many hours of personal interviews with Mrs. Sanger, in the preparation of this story of a gentle but strongly influential woman. (Junior high-up)

Treating Natural History in Story Format

82. Adrian, Mary. A Day and a Night in the Arctic. Illus. by Genevieve Vaughan-Jackson. New York: Hastings, 1970. 64 pp. Describes the encounters of a Polar Bear and her cubs with the other animals and plants sharing the top of the world, delineating the part of each in the chain of life. (Grades 2-4)
83. Annixter, Jane and Paul. Ahmeek. Illus. by Robert Frankenberg. New York: Holiday House, 1970. 63 pp. Forced from his overpopulated home pond, a young beaver builds a new colony, only to find that he and his helpers must start over when a trapper's dynamite blasts their carefully built first lodge. (Grade 4-up)
84. Bancroft, Griffing. Snowy: The Story of an Egret. Illus. by Mel Hunter. New York: McCall, 1970. 149 pp. A young male bird's birth-to-death (shot down by a plume hunter) struggle for food, in a world grown increasingly hostile to wild creatures. (Grade 6-up)
85. Clarkson, Ewan. Halic: The Story of a Gray Seal. Illus. by Richard Cuffari. New York: Dutton, 1970. 158 pp. From the seal's birth "on the running tide," to his triumphant maturity, this account emphasizes each organism's function in the service and support of other forms of life in the North Atlantic sea, and on the shores it washes. (Grade 7-up)
86. Devlin, Thomas. The Wild and Free. Illus. by Kevin McIntyre. New York: Scribner's, 1969. 111 pp. Ten short stories of animals and their ways in many environments, including the Cotswold foothills of England, the Wyoming ranch country, the lower woodland slopes of the Sierra Nevadas, and the Bitter Root Mountains of Montana. (Grades 5-8)

87. Edmonds, Walter D. Beaver Valley. Illus. by Leslie Morrill. Boston: Little, Brown, 1971. 70 pp. A different and realistic tale of how smaller creatures suffer when newcomers change the community scene; this time the disturbers are beavers. (Grades 3-6)
88. Freschet, Berniece. Beaver on the Sawtooth. Illus. by Matthew Kalenoff. New York: Crowell, 1969. unpagged. The account of a pair of beavers, who, as they build a dam, make their house, gather food, and raise a family of three, make particular contribution to the environment. (Grades 1-5)
89. Freschet, Berniece. The Flight of the Snow Goose. Pictures by Jo Polacco. New York: Crown, 1970. 40 pp. Large print, simple text and clear pictures tell this story of migration during which the geese are imperiled by hunters, oil slicks and forest fires. (Grades 1-4)
90. George, Jean Craighead. The Moon of the Alligators. Illus. by Adrina Zanazanian. The Thirteen Moons. New York: Crowell, 1969. 41 pp. Interesting information on the life of any alligator in the Everglades of Florida. (Grades 4-8)
91. George, Jean Craighead. The Moon of the Deer. Illus. by Jean Zallinger. The Thirteen Moons. New York: Crowell, 1969. 41 pp. Graphic account of a young deer's life in a Connecticut marsh, his rivalry with a fierce old buck bent on battle, and their place in the ecology of the region. (Grades 4-8)
92. Giegling, John A. Warrior of the Skies. Illus. by Jennifer Perrott. Garden City, N.Y.: Doubleday, 1970. 135 pp. Chronicles the first two years in the life of a male goshawk, a bird of prey endangered by fierce enemies and changing, sometimes savage, environments. (Grades 5-8)
93. Hutchins, Ross E. Little Chief of the Mountains. Illus. by Jerome P. Connolly. Chicago: Rand McNally, 1970. 64 pp. The coney or pika, the "little chief hare," unlike the hibernating mammals of the Rocky Mountains, makes and stores summer hay for his stay-awake-winter--a curious member of the high country's life system. (Grades 2-4)
94. Scheffer, Victor B. Little Calf. Decorations by Leonard Everett Fisher. New York: Scribner, 1970. 140 pp. Adapted from the author's adult book Year of the Whale (Scribner's 1969). This version for younger readers describes a young sperm whale's birth and the happenings of his first year, and relates him to other life forms of the ocean and to conservation programs. The decorations of the adult volume have been converted to handsome full pages of blue and white silhouettes showing Little Calf and his herd in characteristic poses. (Grade 5-up)
95. Waters, John F. The Crab From Yesterday: The Life-Cycle of a Horseshoe Crab. Illus. by W. T. Mars. New York: Warner, 1970. unpagged. The story of one old "living fossil," and how a small boy saved her from some misguided bounty hunters, is interwoven with scientific details about those curious relatives of spiders and scorpions, and their place in marine ecology. (Grades 2-5)
96. Zeiske, Wolfgang. Esox: The Story of a Pike. Illus. by Hans Baltzer. New York: Delacorte, 1970. 94 pp. This dramatic tale of a huge game fish makes plain his role as a powerful predator, describing also the life web in the German glacial lake where Esox was spawned and, many years later, captured. (Junior high-up)

Picture Book Treatment of Basic Principles

97. Aruego, Jose. Symbiosis: A Book of Unusual Friendships. Illus. by author. New York: Scribners, 1970. unpagged. An anthropomorphic but amusing view of mutual dependence shown by nine sets of odd animals; fun for an adult to share with a child. (K-Grade 3)

98. Busch, Phyllis S. At Home in Its Habitat: Animal Neighborhoods. Photographs by Arline Strong. Discovering Nature Series, New York: World, 1970. unpagged. "About the places where animals live: where they find safety and protection for themselves and for their families." (K-Grade 3)
99. Busch, Phyllis. S. Puddles and Ponds: Living Things in Watery Places. Photographs by Arline Strong. Discovering Nature Series, New York: World, 1969. unpagged. A wide range of water forms, from seldom-inhabited city puddles, to country ponds which swarm in summer and later are chilled with crunchy snow, where a child can see that "winter is not forever and that the pond will soon be a livelier place." (K-Grade 3)
100. Carrick, Carol and Donald. The Pond. Illus. by author. New York: Macmillan, 1970. unpagged. On the simplest level, an identification of the larger, more easily recognized animals who live in a pond. (PreSchool-Grade 1)
101. Carrick, Carol and Donald. Swamp Spring. Illus. by author. New York: Macmillan, 1969. unpagged. Pictures and prose convey the wonder, the beauty, and the mood of time and place. (K-Grade 3)
102. Carrick, Donald. The Tree. Illus. by author. New York: Macmillan, 1971. unpagged. Erik loved the tree, mourned when it had to be cut down, felt some comfort as he helped his father build a chair from its wood, and learned about hope and responsibility when they planted a new tree. A very simple tale, but it is the essence of land care. (PreSchool-Grade 1)
103. George, Jean Craighead. All Upon a Stone. Illus. by Don Bolognese. New York: Crowell, 1971. unpagged. Chronicles a day and a night in the life of the tiny mole-cricket, and his adventures under and around and upon the huge stone where he lives. The microcosm bustles with fairy shrimp, wood snails, beetles, sheltering moss, gemlike flowers, and waving ferns, which are pictured in soft colors. (K-Grade 3)
104. Hamberger, John. The Call of a Loon. New York: Four Winds Press, 1969. Illus. by author. unpagged. A brief but graphic story, with scenic drawings, of the beautiful loon who seeks his mate in a lake wilderness inhabited by beavers, ravens, swans, moose, and other northern wildlife. (K-Grade 3)
105. Hawes, Judy. What I Like About Toads. Illus. by James and Ruth McCrea. New York: Crowell, 1969. 33 pp. Informative life story, from egg to adult, including interesting habits and their value to farmers. (K-Grade 3)
106. Hazen, Barbara Shook. Where Do Bears Sleep? Illus. by Ian E. Staunton. Reading, Mass.: Addison-Wesley, 1970. unpagged. Not only bears but other animals as well are tucked up, each in the kind of sleeping-place best for him, in this gentle exercise in awareness. (PreSchool-Grade 2)
107. May, Julian. Alligator Hole. Illus. by Rod Ruth. Chicago: Follett, 1969. unpagged. Poetic text and watercolor paintings portray plant and animal life of the Everglades, with emphasis on the alligator, its need for water, and its ecological importance. (K-Grade 3)
108. Pringle, Laurence. From Field to Forest: How Plants and Animals Change the Land. Photographs by author. Discovering Nature Series. New York: World, 1970. unpagged. "About the changes in plant and animal life which take place on land that was once cultivated, then abandoned." (K-Grade 3)
109. Rockwell, Anne and Harlow. Molly's Woodland Garden. Illus. by author. Garden City, N.Y.: Doubleday, 1971. unpagged. Who dug up the bean seeds, leaving behind some strange, ping-leathery-shelled eggs? Pictures reflect a complex web of life in this story of Molly's gently suspenseful summer. (PreSchool-Grade 2)
110. Rockwell, Anne and Harlow. Olly's Polliwogs. Carden City, N.Y.: Doubleday, 1970. unpagged. Drawings in full color help tell the story of Ollie's finding of the frog's eggs, and how he cared for them at home through all their changes into adult Leopard Frogs; simple approach to life systems and interdependence. (PreSchool-Grade 3)

11. Shulevitz, Uri. Rain Rain Rivers. Illus. by author. New York: Farrar, 1969. unpagged. Few words and evocative, action-filled drawings, washed in blues and greens and muted yellows, express the essence of water and its power over people and places. (PreSchool-Grade 3)
117. Tresselt, Alvin. The Beaver Pond. Illus. by Roger Duvoisin. New York: Lothrop, 1970. unpagged. A constantly changing life system is shown in full color paintings, while the text details the life story of the pond itself. (PreSchool-Grade 3)
113. Tresselt, Alvin. It's Time Now! Illus. by Roger Duvoisin. New York: Lothrop, 1969. unpagged. The changes each season brings to the city are documented in simple prose and bright colors. (PreSchool-Grade 3)
114. Van Leeuwen, Jean. One Day in Summer. Illus. by Richard Fish. New York: Random, 1969. unpagged. A small child's enjoyment of a day at the beach with his grandfather is shown in terms of his growing awareness of the shorelife around him. (PreSchool-Grade 2)

Science Series for the Young (Level B). Reading, Mass.: Addison-Wesley, 1970. These two books develop the concepts of food chains and the web of life in very simple text and colorful, explicit pictures.

115. Wong, Herbert H., and Matthew F. Vessel. Animal Habitats: Where Can Red-Winged Blackbirds Live? Illus. by Arvis L. Stewart. (Grades 1-3).
116. Wong, Herbert H., and Matthew F. Vessel. Pond Life: Watching Animals Find Food. Illus. by Tony Chen. (Grades 2-4)

JUVENILE LITERATURE, FICTION

Animals and People in Everyday Life

117. Cavanna, Betty. Mystery on Safari. Illus. by Joseph Cellini. New York: Morrow, 1970. 224 pp. Romanticised account of how 17-year-old Kim, a lukewarm traveling companion with her conservationist grandmother in East Africa, becomes an ardent defender of endangered wildlife. (Grades 6-9)
118. Cohen, Peter Zachary. The Bull in the Forest. Drawings by Ruth Bornschlegel. New York: Atheneum, 1969. 86 pp. A confused hunter shoots a bull who breaks out of his field and into the forest where he disturbs other hunters, a bear, and some wolves. A quietly observant boy helps solve the tangle in this story whose moral is unobtrusively clear. (Grades 3-5)
119. Ellis, Mel. Flight of the White Wolf. New York: Holt, 1970. 195 pp. Rus has raised Gray from puppyhood, and when the big wolf is goaded into killing a teasing dog, Rus knows his only hope of saving the life of his pet is first to track him through the wilderness and then lead him to the Wisconsin Wildlife Reserve to join his kind at last. (Grades 4-9)
120. Gage, Wilson. Mike's Toads. Illus. by Glen Rounds. New York: World, 1970. 93 pp. Mike, quick to commit, but slower on follow-through, gets himself involved with a demanding collection, mostly *Bufo Americanus*. Entwined in this natural and funny story is a good deal of explicit information along with some implicit environmental concepts. (Grades 5-6)
121. Johnson, Virginia Weisel. The Cedars of Charlo. Illus. by Lydia Rosier. New York: Morrow, 1969. 192 pp. Story of a horse-struck girl, the woebegone palomino she restores to show condition, and their part in a doomed-to-failure struggle to save a part of their Montana Wilderness Area from commercial logging interests. (Grades 6-9)
122. North, Sterling. The Wolfling. Illus. by John Schoenherr. New York: Dutton, 1969. 223 pp. Documentary novel of southern Wisconsin in the 1870's, where young Robbie Trent, with the encouragement of Thure Kumlien, Swedish-American naturalist, raises a wolf-dog cub to precarious adolescence. The narrative reconstructs a rich environment, and detailed notes support each chapter. (Grade 4-up)
123. Rumsey, Marian. Beaver of Weeping Water. Illus. by Lydia Rosier. New York: Morrow, 1969. 95 pp. Eleven-year-old Joey has watched the beaver's skillful construction with increasing pleasure. However, the dam diminishes the creek which supplies their Oregon farm with water, and Joey realizes that he must find a way to discourage the beaver before concerned adults kill him; he does. (Grades 3-7)
124. Sandburg, Helga. Anna and the Baby Buzzard. Illus. by Brinton Turkle. New York: Dutton, 1970. unpagged. The lesson of each creature's peculiar relationship to its environment is gently implicit in this story of a farm child and her unusual pet; based on a true incident. (K-Grade 3)

Fantasy

125. Carrick, Carol and Donald. A Clearing in the Forest. New York: Dial, 1970. unpagged. Legend-like tale in which the spirits of the forest at first resist a settler's attempt to establish his cabin, but when the humans care for the land and support the animals, the spirits make known their welcome. (K-Grade 3)
126. Dayton, Mona. Earth and Sky. Pictures by Roger Duvoisin. New York: Harper, 1969. unpagged. Colorful collages point up boastful words as "Earth" and "Sky" argue their relative importance in a simple but fancifully appealing statement of unity. (PreSchool-Grade 3)

127. Lanier, Sterling E. The War for the Lot: A Tale of Fantasy and Terror. Illus. by Robert Baumgartner. Chicago: Follett, 1969. 256 pp. When a refugee horde of savage rats from the town dump threaten the peace of the Woodland, the endangered animal residents let young Alec March know he has the power to communicate with them; thus a strange partnership is formed to save "the Lot." (Grade 4-up)
128. Miles, Miska. Apricot ABC. Illus. by Peter Parnall. Boston: Little, Brown, 1969. unpagged. An ecological drama lightly touched with fancy has subtly placed letters adding fun for a game of detection. The crisp, colored drawings and verses are combined in a fresh open format. (PreSchool-Grade 3)
129. Peet, Bill. The Wump World. Illus. by author. Boston: Houghton, 1970. 44 pp. Emigrant Pollutians destroy the simple peace of the Wumps with mighty machines, tall buildings, and smoking chimneys-in a moralistic but funny tale. (K-Grade 4)
130. Selden, George. Tucker's Countryside. Illus. by Garth Williams. New York: Farrar, 1969. 167 pp. Chester Cricket (of The Cricket in Times Square), having moved to Connecticut, summons his colleagues Harry Cat and Tucker Mouse from the city to help him defeat the bulldozers threatening his deeply loved Old Meadow. (Grades 3-6)
131. White, E. B. The Trumpet of the Swan. Illus. by Edward Frascino. New York: Harper, 1970. 210 pp. In a story of gentle funning and fantasy the swan Louis compensates for his congenital voicelessness by learning first to read and write, then to play magnificently on the trumpet stolen for him by his devoted father. Conquering all obstacles from Red Rocks Lake, Montana to a Philadelphia nightclub, Louis pays for the trumpet and ends this unobtrusively ecological saga with a return to peaceful wildness "Where all Trumpeter Swans feel safe and unafraid." (Grades 4-6)

TEXTBOOKS

Science

132. Bishop, Margaret S., and others. Focus on Earth Science. Columbus, Ohio: Merrill, 1969. 534 pp. An annotated teacher's edition and solutions manual, as well as test booklets, are available. (Junior high school)
133. Boyer, Robert, E., series editor. ESCP Pamphlet Series. Boston: Houghton Mifflin, 1971. Paperback. (Grades 9-12)

PS-1. Field Guide to Rock Weathering, by Robert E. Boyer. 38 pp.
PS-2. Field Guide to Soils, by Henry Foth and Hyde S. Jacobs. 38 pp.
PS-7. Field Guide to Beaches, by John H. Hoyt. 46 pp.
PS-8. Field Guide to Lakes, by Jacob Verduin. 46 pp.

134. Brock, J. A. M., and others. Patterns and Processes of Science: Laboratory Text No. 1. Lexington, Mass.: Heath (Division of Raytheon), 1969. 416 pp. (Grades 7-8)
135. Brock, J. A. M. Patterns and Processes of Science: Laboratory Text No. 2. 1969. 371 pp. (Grades 7-8)
136. Brown, F. Martin, and others. Earth Science. Morristown, N. J.: Silver Burdett, 1970. 566 pp. (Junior-Senior high school)
137. Davis, Ira C. and others. The Holt General Science Program. Rev. ed. New York: Holt, Rinehart and Winston, 1969.

Science 1: Observation and Experiment. 424 pp.
Science 2: Experiment and Discovery. 440 pp.

Supplementary aids are available. (Grades 7-9)

138. Ecology: Nature and Needs, Book A. AEP Ecology Program. Middletown, Conn.: American Education Publications, 1971. 47 pp. Paperback. (Grade 4)
139. Educational Research Council of America. Life Science Investigations: Man and the Environment, by Frederick A. Rasmussen, Paul Holobinko, and Victor M. Showalter. Teacher's edition. Boston: Houghton Mifflin, 1971. 496 pp. (Grades 9-12)
140. Fitzpatrick, Frederick L., and others. Living Things. Revised teacher's ed. New York: Holt, Rinehart & Winston, 1970. 629 pp. (Junior or Senior high school)
141. Fitzpatrick, Frederick L., and John W. Hole. Modern Life Science. Rev. ed. New York: Holt, Rinehart, and Winston, 1970. 584 pp. (Senior high school)
142. Gross, Jesse and Seymour Kopilow. Study Lessons in General Science. Chicago: Follett Educational Corporation, 1969. Paperbacks.

The Earth and Its Atmosphere. 64 pp.
How Life Is Maintained. 64 pp.
Substances Around Us Change. 62 pp.
Work and Energy. 64 pp.

Part of an eight-booklet series designed as a flexible general science course that allows students with learning problems to grasp junior high school science concepts. (Junior high school)

143. Harris, Jacqueline L. and Erwin A. Steinkamp. Ecology: Man Explores Life. American Education Publications Unit Book. Middletown, Conn.: American Education Publications, 1970. 47 pp. Paperback. (Grades 7-9)
144. Heimler, Charles H. Focus on Life Science. Teacher's annotated ed. and solution manual. Columbus, Ohio: Merrill, 1969. 649 pp. (Junior high school)
145. Kroeber, Elsbeth, and others. Biology. 2d rev. ed. Lexington, Mass.: Heath (Division of Raytheon), 1969. 646 pp. Supplementary aids include a teacher's manual, a workbook and laboratory manual, and comprehensive tests. (Grade 7-up)
146. Mallinson, George G., and others. Science: Understanding Your Environment. Morristown, N.J.: Silver Burdett, 1972. This elementary science series, grades K-6, will not be available for purchase until January 2, 1972; however, books 3-5 may be examined in the Educational Materials Center, U.S. Office of Education now.
147. Marean, John H., and others. Earth Science: a Laboratory Approach. Investigating the Earth. Menlo Park, Calif.: Addison-Wesley, 1970. 824 pp. 32 colored stereograph plates included. (Grades 9-12)
148. Moore, Harold A., and John R. Carlock. The Spectrum of Life. New York: Harper & Row, 1970. 822 pp. (Grades 9-12)
149. National Environmental Education Development (NEED). A National Park Foundation Program created for the National Park Service and developed by the Educational Consulting Service. Experimental ed., with revised teacher materials. Morristown, N.J.: Silver Burdett, 1971. Fundamental to this program is the concept that knowledge and appreciation of the natural environment must include firsthand experience as well as text study and classroom work. It is planned as an interdisciplinary course, with the most emphasis on science and social studies, for grades 4-9 in urban, suburban, or rural environments. A Picture Packet, Classroom text, Outdoor text, Teacher's Guide and Filmstrips will be available.
150. Otto, James H., and Albert Towle. Modern Biology. Rev. ed. New York: Holt, Rinehart, and Winston, 1969. 787 pp. Teacher's guide correlates text, laboratory, and testing program. Other aids include laboratory investigation, transparencies and film loops. (Senior high school)
151. Oxenhorn, Joseph M. Pathways in Science-2. New York: Globe Book Company, 1969. Paperback.
Built for Living. 179 pp.
Chemistry of Mixtures. 147 pp.
Oceans of Air and Water. 180 pp.

Series designed for the slow learning high school student reading on fifth grade level. Teacher's guides available for each. (Junior or senior high school)
152. Ramsey, William L., and others. Modern Earth Science. Rev. ed. New York: Holt, Rinehart and Winston, Inc., 1969. 620 pp. Annotated Teacher's Edition. Also available are laboratory experiments and other supplementary aids. (Grade 7-up)

153. Thurber, Walter A., and Robert E. Kilburn. Exploring Earth Science. 2d ed. Boston, Mass.: Allyn & Bacon, 1970. 496 pp. (Grade 7-up)
154. Thurber, Walter A., and Robert E. Kilburn. Exploring Life Science. 2d ed. Boston, Mass.: Allyn & Bacon, 1970. 522 pp. (Grade 7-up)

Social Studies

155. Bendick, Jeanne. A Place to Live. A Stepping-Stone Book. New York: Parents' Magazine Press, 1970. 64 pp. Guidelines for Teachers prepared by Patricia Post. Folder. (Grades 1-4)
156. Bulger, John D. Wildlife of Farm and Field. Washington, D. C.: National Wildlife Federation, 1969. 14 pp. (Elementary and junior high)
157. The Conservation Story: a Background for Understanding Today's Crisis. Prepared by George F. Pollock. An American Education Publications Unit Book. Middletown, Conn.: American Education Publications, 1969. 47 pp. (Grades 7-12)
158. Cooper, Kenneth S., and others. The Changing New World: North and South America. Mankind in Time and Place. Teacher's ed. Morristown, N. J.: Silver Burdett, 1969. 626 pp. (Grade 5)
159. Cooper, Kenneth S., and others. Learning to Look at Our World. Mankind in Time and Place. Teacher's ed. Morristown, N. J.: Silver Burdett, 1969. 426 pp. (Grade 4)
160. Dimond, Stanley E., and Elmer F. Pflieger. Our American Government. Teacher's annotated ed. Philadelphia: Lippincott, 1969. 819 pp. (Senior high school)
161. Drummond, Harold D. Our World Today Series. Annotated teachers' editions. Boston: Allyn & Bacon.
- Journeys Through the Americas. 1969. 711 pp. (Grade 5)
- The Western Hemisphere. 1970. 644 pp. (Grade 6 or 7)
162. Educational Research Council of America. Social Science Staff. Concepts and Inquiry: The Educational Research Council Social Science Program. Boston: Allyn & Bacon, 1970. Paperback.

American Communities

- An Apple-Growing Community: Yakima, Washington. 58 pp. (Grade 2)
- A Forest-Products Community: Crossett, Arkansas. 71 pp. (Grade 2)
- An Historical Community: Williamsburg, Virginia. 122 pp. (Grade 2)

- Our Community. Communities at Home and Abroad. 137 pp. (Grade 2)
- The Metropolitan Community. 184 pp. (Grade 3)

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