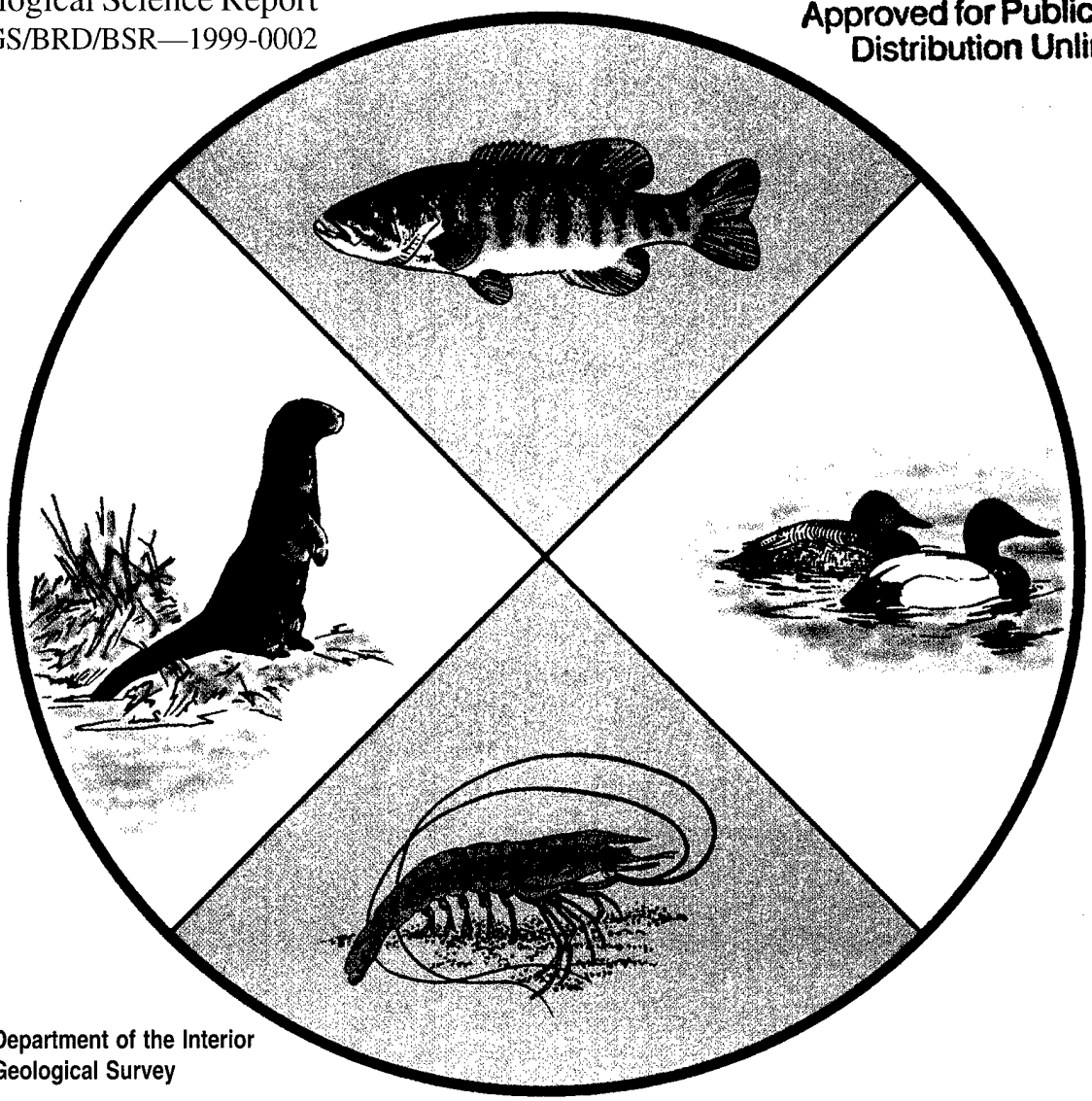
Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 Through 34

Biological Science Report
USGS/BRD/BSR—1999-0002

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited



U.S. Department of the Interior
U.S. Geological Survey

USGS
science for a changing world

20000417 231

DTIC QUALITY INSPECTED 2

Technical Report Series

The Biological Resources Division publishes scientific and technical articles and reports resulting from the research performed by our scientists and partners. These articles appear in professional journals around the world. Reports are published in two report series: Biological Science Reports and Information and Technology Reports.

Series Descriptions

Biological Science Reports ISSN 1081-292X

This series records the significant findings resulting from sponsored and co-sponsored research programs. They may include extensive data or theoretical analyses. Papers in this series are held to the same peer-review and high quality standards as their journal counterparts.

Information and Technology Reports ISSN 1081-2911

These reports are intended for publication of book-length monographs; synthesis documents; compilations of conference and workshop papers; important planning and reference materials such as strategic plans, standard operating procedures, protocols, handbooks, and manuals; and data compilations such as tables and bibliographies. Papers in this series are held to the same peer-review and high quality standards as their journal counterparts.

Copies of this publication are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 (1-800-553-6847 or 703-487-4650). Copies also are available to registered users from the Defense Technical Information Center, Attn.: Help Desk, 8725 Kingman Road, Suite 0944, Fort Belvoir, Virginia 22060-6218 (1-800-225-3842 or 703-767-9050).

Printed on recycled paper

REPORT DOCUMENTATION PAGE

Form approved
OMB No. 0704-0188

Public reporting burden for this collection is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)

2. REPORT DATE
March 1999

3. REPORT TYPE AND DATES COVERED
Biological Science Report

4. TITLE AND SUBTITLE
Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 through 34

5. FUNDING NUMBERS

6. AUTHOR(S)
Ronald Eisler

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESSES
U.S. Department of the Interior
U.S. Geological Survey
Biological Resources Division

8. PERFORMING ORGANIZATION REPORT NUMBER
USGS/BRD/BSR—1999-0002

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESSES
U.S. Department of the Interior
U.S. Geological Survey

10. SPONSORING, MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
Release unlimited. Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (1-800-553-6847 or 703-487-4650). Available to registered users from the Defense Technical Information Center, Attn: Help Desk, 8722 Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218 (1-800-225-3842 or 703-767-9050).

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

The Contaminant Hazard Reviews (CHR) series—sponsored by the U.S. Geological Survey Patuxent Wildlife Research Center—synthesizes ecotoxicological data for selected environmental contaminants, with emphasis on hazards to native species of flora and fauna. From 1985 through 1998, 34 reviews were published in various report series of the U.S. Department of the Interior on agricultural pesticides (acrolein, atrazine, carbofuran, chlordane, chlorpyrifos, diazinon, diflubenzuron, famphur, fenvalerate, mirex, paraquat, toxaphene), metals and metalloids (arsenic, boron, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, tin, zinc), mammalian biocides (sodium monofluoroacetate), organic industrial and municipal wastes (dioxins, pentachlorophenol, polycyclic aromatic hydrocarbons, polychlorinated biphenyls), mining wastes (cyanide), and ionizing radiations. This current report is a cumulative index to the common and scientific names of all biological species listed in the first 34 reports in the CHR series, with individual species cross-referenced by contaminant and corresponding page numbers. A similar index for chemicals is included.

14. SUBJECT TERMS (Keywords)
Index, mirex, cadmium, carbofuran, toxaphene, selenium, chromium, polychlorinated biphenyls, dioxins, diazinon, mercury, nickel, polycyclic aromatic hydrocarbons, arsenic, chlorpyrifos, lead, tin, pentachlorophenol, atrazine, molybdenum, boron, chlordane, paraquat, cyanide, fenvalerate, diflubenzuron, zinc, famphur, acrolein, radiation, sodium monofluoroacetate, silver, copper, wildlife, birds, mammals, amphibians, reptiles, fish, invertebrates, plants

15. NUMBER OF PAGES
iii+66 pp.

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	Unlimited

Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 Through 34

Biological Science Report
USGS/BRD/BSR—1999-0002
March 1999

Contaminant Hazard Reviews Report 35

By
Ronald Eisler

U.S. Department of the Interior
U.S. Geological Survey
Patuxent Wildlife Research Center
Laurel, Maryland 20708

Suggested citation:

Eisler, R. 1999. Cumulative index to chemicals and to common and scientific names of species listed in Contaminant Hazard Reviews 1 through 34. U.S. Geological Survey, Biological Resources Division, Biological Science Report USGS/BRD/BSR—1999-0002. iii + 66 pp.

Information about the availability of this report and others in the Contaminant Hazard Reviews series is provided on page 66.

Contents

Page

Abstract 1
Introduction. 1
Acknowledgments 3
Literature Cited 3
Index to Chemicals 6
Index to Species 22

Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 Through 34

by
Ronald Eisler

U.S. Geological Survey
Biological Resources Division
Patuxent Wildlife Research Center
Laurel, Maryland 20708-4017

Abstract. The Contaminant Hazard Reviews (CHR) series—sponsored by the U.S. Geological Survey Patuxent Wildlife Research Center—synthesizes ecotoxicological data for selected environmental contaminants, with emphasis on hazards to native species of flora and fauna. From 1985 through 1998, 34 reviews were published in various report series of the U.S. Department of the Interior on agricultural pesticides (acrolein, atrazine, carbofuran, chlordane, chlorpyrifos, diazinon, diflubenzuron, famphur, fenvalerate, mirex, paraquat, toxaphene), metals and metalloids (arsenic, boron, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, tin, zinc), mammalian biocides (sodium monofluoroacetate), organic industrial and municipal wastes (dioxins, pentachlorophenol, polycyclic aromatic hydrocarbons, polychlorinated biphenyls), mining wastes (cyanide), and ionizing radiations. This current report is a cumulative index to the common and scientific names of all biological species listed in the first 34 reports in the CHR series, with individual species cross-referenced with contaminant hazard review and corresponding page numbers. A similar index for chemicals is included.

Key words: Index, mirex, cadmium, carbofuran, toxaphene, selenium, chromium, polychlorinated biphenyls, dioxins, diazinon, mercury, nickel, polycyclic aromatic hydrocarbons, arsenic, chlorpyrifos, lead, tin, pentachlorophenol, atrazine, molybdenum, boron, chlordane, paraquat, cyanide, fenvalerate, diflubenzuron, zinc, famphur, acrolein, radiation, sodium monofluoroacetate, silver, copper, wildlife, birds, mammals, amphibians, reptiles, fish, invertebrates, plants

Introduction

A series of 34 Contaminant Hazard Reviews (CHR) was published between 1985 and 1998 under the aegis of the Patuxent Wildlife Research Center in direct response to requests for information from environmental specialists of the U.S. Fish and Wildlife Service and other scientists and resource managers in the U.S. Department of the Interior. Each CHR synthesized ecological and toxicological information of a single environmental contaminant, with emphasis on native fishery and wildlife resources. Specifically, reviews were prepared on selected agricultural insecticides, herbicides, animal control agents, metals, metalloids, organic industrial wastes, mining wastes, and ionizing radiations. Financial support for the CHR series was provided by the U.S. Fish and Wildlife Service, the National Biological Survey, the National Biological Service, and, most recently, the U.S. Geological Survey (Table). Page 66 of this report provides information on obtaining copies of the CHR reports.

This report presents an index for all chemicals and chemical trade names listed in CHR's 1 through 34; a similar index is included for the common and scientific names of all biological species. This publication is the second index to the CHR series. The first index—CHR 16 (Eisler and Corley 1989)—listed the common and scientific names of species in CHR's 1 through 15 but did not include chemicals and chemical trade names. The current index issue—CHR 35—supersedes CHR 16. This index was also prepared at the request of environmental specialists of the U.S. Fish and Wildlife Service and various natural resource managers in the U.S. Department of the Interior. It should also be a useful resource to the many other users of the CHR reviews.

Table. Publications in the Contaminant Hazard Reviews (CHR) series by CHR number, subject, report series and number, and author(s).

CHR No.	Subject	Report series and number[a]	Author(s)
1	Mirex	FWS 85 (1.1)	Eisler (1985a)
2	Cadmium	FWS 85 (1.2)	Eisler (1985b)
3	Carbofuran	FWS 85 (1.3)	Eisler (1985c)
4	Toxaphene	FWS 85 (1.4)	Eisler and Jacknow (1985)
5	Selenium	FWS 85 (1.5)	Eisler (1985d)
6	Chromium	FWS 85 (1.6)	Eisler (1986a)
7	Polychlorinated Biphenyls	FWS 85 (1.7)	Eisler (1986b)
8	Dioxins	FWS 85 (1.8)	Eisler (1986c)
9	Diazinon	FWS 85 (1.9)	Eisler (1986d)
10	Mercury	FWS 85 (1.10)	Eisler (1987a)
11	Polycyclic Aromatic Hydrocarbons	FWS 85 (1.11)	Eisler (1987b)
12	Arsenic	FWS 85 (1.12)	Eisler (1988a)
13	Chlorpyrifos	FWS 85 (1.13)	Odenkirchen and Eisler (1988)
14	Lead	FWS 85 (1.14)	Eisler (1988b)
15	Tin	FWS 85 (1.15)	Eisler (1989a)
16	Index to Species	FWS 85 (1.16)	Eisler and Corley (1989)
17	Pentachlorophenol	FWS 85 (1.17)	Eisler (1989b)
18	Atrazine	FWS 85 (1.18)	Eisler (1989c)
19	Molybdenum	FWS 85 (1.19)	Eisler (1989d)
20	Boron	FWS 85 (1.20)	Eisler (1990a)
21	Chlordane	FWS 85 (1.21)	Eisler (1990b)
22	Paraquat	FWS 85 (1.22)	Eisler (1990c)
23	Cyanide	FWS 85 (1.23)	Eisler (1991)
24	Fenvalerate	FWS 2	Eisler (1992a)
25	Diflubenzuron	FWS 4	Eisler (1992b)
26	Zinc	FWS 10	Eisler (1993)
27	Famphur	NBSY 20	Eisler (1994a)
28	Acrolein	NBSY 23	Eisler (1994b)
29	Radiation	NBS 26	Eisler (1994c)
30	Sodium Monofluoroacetate (1080)	NBS 27	Eisler (1995)
31	Planar PCBs	NBS 31	Eisler and Belisle (1996)
32	Silver	NBS 32	Eisler (1996)
33	Copper	USGS 1997-0002	Eisler (1998a)
34	Nickel	USGS 1998-0001	Eisler (1998b)

[a] FWS = Biological Report series of the U.S. Fish and Wildlife Service (CHR 1 through 26); NBSY = Biological Report series of the U.S. National Biological Survey (CHR 27 and 28); NBS = Biological Report series of the U.S. National Biological Service (CHR 29-32); USGS = Biological Science Report series of the U.S. Geological Survey (CHR 33 and 34).

Index to Chemicals

All chemicals, chemical trade names, and other substances with known biological properties listed in CHR's 1 through 34—a total of 1,570—are presented in Section 1. Each listed chemical is followed by a **boldfaced number** between **1** and **34** (this number corresponds to the CHR report number listed in Table) and nonbolded numbers that designate the pages in that report.

Index to Species

Taxonomic nomenclatures for plants and animals are under constant revision. In this report, I elected to conform as much as possible to the systems and spellings used by Scott and Wasser (1980) for plants, Swain and Swain (1948) for insects, Turgeon et al. (1988) for aquatic mollusks, Williams et al. (1989) for decapod crustaceans, Pratt (1935) and Hyman (1940, 1951a, 1951b, 1955) for miscellaneous invertebrates, Robins et al. (1991) for fishes, Ditmars (1966) for reptiles, Edwards (1974) and Howard and Moore (1991) for birds, and Nowak and Paradiso (1983) for mammals. Individual species are arranged alphabetically by scientific and common name (Section 2). Each scientific name is followed by a **boldfaced number** between **1** and **34** (this number corresponds to the CHR report number listed in Table) and nonbolded numbers that designate the pages in that report.

In total, 2,233 species of animals and plants were cited, of which only 23 (1.03%) were listed in at least 20 CHR reports. The most widely cited species included one species of plant (corn, *Zea mays*), two species of invertebrates (freshwater crustacean, *Daphnia magna*; American oyster, *Crassostrea virginica*), seven species of teleosts (channel catfish, *Ictalurus punctatus*; bluegill, *Lepomis macrochirus*; coho salmon, *Oncorhynchus kisutch*; rainbow trout, *Oncorhynchus mykiss*; fathead minnow, *Pimephales promelas*; brook trout, *Salvelinus fontinalis*; lake trout, *Salvelinus namaycush*), three species of birds (mallard, *Anas platyrhynchos*; domestic chicken, *Gallus* sp.; Japanese quail, *Coturnix japonica*), and ten species of mammals (cow, *Bos* spp.; domestic dog, *Canis familiaris*; guinea pig, *Cavia* spp.; domestic cat, *Felis domesticus*; human, *Homo sapiens*; hamster, *Cricetus* spp.; domestic mouse, *Mus* spp.; domestic sheep, *Ovis aries*; laboratory white rat, *Rattus* spp.; and domestic pig, *Sus* spp.). It is probable that these species are not representative of unusually sensitive or endangered species, but they can be considered appropriate sentinel organisms for many species of free-living wildlife.

Acknowledgments

I thank Henry C. Bourne for computer assistance; W. Nelson Beyer, Lynda J. Garrett, and Ann Zimmerman for technical review; Shannon E. Price and Beth A. Vairin for editorial services; and Susan M. Lauritzen and Natalie Gormanous Trahan for layout.

Literature Cited

Ditmars, R.L. 1966. Reptiles of the world. Macmillan, New York, N.Y. 321 pp. + 89 plates.

Edwards, E.P. 1974. A coded list of birds of the world. Ernest P. Edwards, Sweet Briar, Va. 174 pp.

Eisler, R. 1985a. Mirex hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.1), Contaminant Hazard Reviews Report 1. 42 pp.

Eisler, R. 1985b. Cadmium hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.2), Contaminant Hazard Reviews Report 2. 46 pp.

Eisler, R. 1985c. Carbofuran hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.3), Contaminant Hazard Reviews Report 3. 36 pp.

Eisler, R. 1985d. Selenium hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.5), Contaminant Hazard Reviews Report 5. 57 pp.

Eisler, R. 1986a. Chromium hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.6), Contaminant Hazard Reviews Report 6. 60 pp.

Eisler, R. 1986b. Polychlorinated biphenyl hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.7), Contaminant Hazard Reviews Report 7. 72 pp.

Eisler, R. 1986c. Dioxin hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.8), Contaminant Hazard Reviews Report 8. 37 pp.

Eisler, R. 1986d. Diazinon hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.9), Contaminant Hazard Reviews Report 9. 37 pp.

Eisler, R. 1987a. Mercury hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.10), Contaminant Hazard Reviews Report 10. 90 pp.

Eisler, R. 1987b. Polycyclic aromatic hydrocarbon hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.11), Contaminant Hazard Reviews Report 11. 81 pp.

Eisler, R. 1988a. Arsenic hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.12), Contaminant Hazard Reviews Report 12. 92 pp.

Eisler, R. 1988b. Lead hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.14), Contaminant Hazard Reviews Report 14. 134 pp.

Eisler, R. 1989a. Tin hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.15), Contaminant Hazard Reviews Report 15. 83 pp.

Eisler, R. 1989b. Pentachlorophenol hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.17), Contaminant Hazard Reviews Report 17. 72 pp.

Eisler, R. 1989c. Atrazine hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.18), Contaminant Hazard Reviews Report 18. 53 pp.

Eisler, R. 1989d. Molybdenum hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.19), Contaminant Hazard Reviews Report 19. 61 pp.

Eisler, 1990a. Boron hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.20), Contaminant Hazard Reviews Report 20. 32 pp.

Eisler, R. 1990b. Chlordane hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife

Service Biological Report 85 (1.21), Contaminant Hazard Reviews Report 21. 49 pp.

Eisler, R. 1990c. Paraquat hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.22), Contaminant Hazard Reviews Report 22. 28 pp.

Eisler, R. 1991. Cyanide hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.23), Contaminant Hazard Reviews Report 23. 55 pp.

Eisler, R. 1992a. Fenvalerate hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 2, Contaminant Hazard Reviews Report 24. 43 pp.

Eisler, R. 1992b. Diflubenzuron hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 4, Contaminant Hazard Reviews Report 25. 36 pp.

Eisler, R. 1993. Zinc hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 10, Contaminant Hazard Reviews Report 26. 106 pp.

Eisler, R. 1994a. Famphur hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Survey Biological Report 20, Contaminant Hazard Reviews Report 27. 23 pp.

Eisler, R. 1994b. Acrolein hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Survey Biological Report 23, Contaminant Hazard Reviews Report 28. 29 pp.

Eisler, R. 1994c. Radiation hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 26, Contaminant Hazard Reviews Report 29. 124 pp.

Eisler, R. 1995. Sodium monofluoroacetate (1080) hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 27, Contaminant Hazard Reviews Report 30. 47 pp.

Eisler, R. 1996. Silver hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 32, Contaminant Hazard Reviews Report 32. 44 pp.

Eisler, R. 1998a. Copper hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Geological Survey Biological Science Report USGS/BRD/BSR--1997-0002, Contaminant Hazard Reviews Report 33. 98 pp.

Eisler, R. 1998b. Nickel hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Geological Survey Biological Science Report USGS/BRD/BSR--1998-0001, Contaminant Hazard Reviews Report 34. 76 pp.

Eisler, R., and A.A. Belisle. 1996. Planar PCB hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. National Biological Service Biological Report 31, Contaminant Hazard Reviews Report 31. 75 pp.

Eisler, R., and J.H. Corley. 1989. Index to common and scientific names of species listed in Contaminant Hazard Reviews 1-15. U.S. Fish and Wildlife Service Biological Report 85 (1.16), Contaminant Hazard Reviews Report 16. 44 pp.

Eisler, R., and J. Jacknow. 1985. Toxaphene hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.4), Contaminant Hazard Reviews Report 4. 26 pp.

Howard, R., and A. Moore. 1991. A complete checklist of the birds of the world. Second edition. Academic Press, New York. 622 pp.

Hyman, L.H. 1940. The invertebrates. Volume 1. Protozoa through ctenophora. McGraw-Hill, New York. 726 pp.

Hyman, L.H. 1951a. The invertebrates. Volume 2. Platyhelminthes and rhyncocoela. The acoelomate bilateria. McGraw-Hill, New York. 550 pp.

Hyman, L.H. 1951b. The invertebrates. Volume 3. Acanthocephala, aschelminthes, and entoprocta. The pseudocoelomate bilateria. McGraw-Hill, New York. 572 pp.

Hyman, L.H. 1955. The invertebrates. Volume 4. Echinodermata. The coelomate bilateria. McGraw-Hill, New York. 763 pp.

Nowak, R.M., and J.L. Paradiso. 1983. Walker's mammals of the world. Volumes I and II. Johns Hopkins University Press, Baltimore. xliv + 1362 pp.

Odenkirchen, E.W., and R. Eisler. 1988. Chlorpyrifos hazards to fish, wildlife, and invertebrates: a synoptic review. U.S. Fish and Wildlife Service Biological Report 85 (1.13), Contaminant Hazard Reviews Report 13. 34 pp.

Pratt, H.S. 1935. A manual of the common invertebrate animals. P. Blakiston's Son and Company, Philadelphia. 854 pp.

Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea, and W.B. Scott. 1991. Common and scientific names of fishes from the United States and Canada. Fifth edition. American Fisheries Society Special Publication 20. 183 pp.

Scott, T.G., and C.H. Wasser. 1980. Checklist of North American plants for wildlife biologists. The Wildlife Society, 7101 Wisconsin Ave. NW, Washington, DC. 58 pp.

Swain, R.B., and S.N. Swain. 1948. The insect guide. Doubleday, New York. 261 pp.

Turgeon, D.D., A.E. Bogan, E.V. Coan, W.K. Emerson, W.G. Lyons, W.L. Pratt, C.F.E. Roper, A. Scheltema, F.G.Thompson, and J.D. Williams. 1988. Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks. American

Fisheries Society Special Publication 16. 227 pp. + 12 plates.

Williams, A.B., L.G. Abele, D.L. Felder, H.H. Hobbs, Jr., R.B. Manning, P.A. McLaughlin, and I.P. Farfante. 1989. Common and scientific names of aquatic invertebrates from the United States and Canada: decapod crustaceans. American Fisheries Society Special Publication 17. 77 pp. + 4 plates.

Section 1: Index to Chemicals

Chemical and trade names of substances listed in the Contaminant Hazard Reviews (CHR) series. Substances are indexed by **CHR report number** and by page numbers within each CHR report.

1068: **21** 4.
1080: **30** 1-47.
38023: **27** 4.
Aatrex: **18** 3.
Aatrex 4L: **18** 3.
Aatrex 4LC: **18** 3.
Aatrex 80W: **18** 3.
Aatrex nine-o: **18** 3.
AC 38023: **27** 4.
Aceanthrylene: **11** 5.
Acenapthalene: **11** 47.
Acenapthanthracene: **11** 55.
Acetamide: **30** 13.
Acetone cyanohydrin: **23** 40, 46.
Acetonitrile: **31** 12.
Acetylaminofluorene: **11** 48.
N-Acetylcysteine: **22** 5; **28** 7; **30** 12.
N-Acetyl-D-glucosamine: **25** 20.
N-Acetylglucosamine: **25** 4, 9.
Acid copper chromate: **6** 42.
Acraaldehyde: **28** 5.
Acraldehyde: **28** 5.
Acrolein: **28** 1-29.
Acryladehyde: **28** 5.
Acrylaldehyde: **28** 5.
Acrylamide: **28** 13.
Acrylic acid: **28** 3, 4, 6, 7, 24.
Acrylic aldehyde: **28** 5.
Acrylonitrile: **23** 6, 40, 46; **28** 13, 24.
Actinium-227: **29** 7, 9, 16, 89, 96.
Actinium-228: **29** 7, 9.
Adiponitrile: **23** 11.
AG-500: **9** 3.
Agent orange: **8** 3, 5, 29.
Agmatrin: **24** 4.
Alachlor: **17** 3.
Aldehyde dehydrogenase: **28** 13, 15, 22.
Aldrin: **21** 42.
Alfa-tox: **9** 3.
Alkyl isocyanates: **23** 6.
Alkylmercury: **10** 41.
Alkyl phenols: **22** 2.
Allethrin: **24** 2, 11.
Alltox: **4** 3.
Allyl alcohol: **28** 3, 6.
Allyl aldehyde: **28** 5.
Allylamine: **28** 24, 25.
Allyl formate: **28** 3.
Aluminum: **15** 70; **19** 1; **28** 3; **33** 8, 39, 71; **34** 59.
Aluminum oxide: **20** 4.
Amdro: **1** 34.
American Cyanamid 38023: **27** 4.
Americium-241: **29** 7, 14, 15, 20, 21, 24-26, 28, 34, 35, 38-40, 43, 46, 72, 78, 88, 89, 91, 97, 98, 101, 102, 105.
Americium-243: **29** 7, 101.
p-Aminobenzenearsonic acid: **12** 49, 52.
Alpha-amino-butyronitrile: **23** 19.
2-Amino-4-chloro-6-ethylamino-1,3,5-triazine: **18** 41.
2-Amino-4-chloro-6-isopropylamino-1,3,5-triazine: **18** 41.
p-Aminopropiophenone: **23** 10, 11; **30** 41.
2-Aminothiazoline-4-carboxylic acid: **23** 8.
Amitrol: **22** 3.
Ammonia: **23** 19, 28, 46.
Ammonium chromate: **6** 41.
Ammonium diuranate: **29** 13.
Ammonium hexacyanoferrate: **29** 55, 62, 90.
Ammonium hydroxide: **34** 5.
Ammonium molybdate: **19** 38; **33** 75, 78.
Ammonium paramolybdate: **19** 38.
Ammonium thiocyanate: **23** 11.
Amygdalin: **23** 3, 13, 46.
Amylnitrite: **23** 50.
Angeleside: **14** 5.
Aniline: **23** 10.
Anisoles: **17** 5, 19, 52; **31** 39.
Anthanthrene: **11** 5, 47.
Anthracene: **11** 5, 7, 10, 16, 17, 19, 20, 25, 40, 41, 45, 48, 52; **31** 39.
Antimony: **5** 30; **32** 5.
Antimony-124: **29** 5.
Antimony-125: **29** 6, 21, 24, 27, 43-46, 58.
Antimony-127: **29** 6.
Apirolio: **7** 5.
Aqualin: **28** 5.
Aquilin: **28** 5.
Argentite: **32** 2.
Argentum: **32** 5.
Argentum crede CI 77820: **32** 5.
Argon-39: **29** 5, 13.
Aroclor 1016: **7** 5, 26, 27, 32, 37, 38, 48, 51, 54; **31** 14, 15, 20, 35, 54.
Aroclor 1221: **7** 5, 6, 26, 27, 38, 40-42, 49, 54, 55; **31** 14, 35.
Aroclor 1232: **7** 6, 38, 40-42, 50; **31** 35.
Aroclor 1242: **7** 5-8, 10, 12, 14, 30, 37, 38, 40-42, 47-51, 54; **31** 14, 15, 20, 35, 61.
Aroclor 1246: **31** 54.
Aroclor 1248: **7** 6, 7, 13, 14, 30, 37, 38, 40-42, 50, 51, 54, 55, 60; **31** 15, 24, 35, 52, 55, 61.

Aroclor 1254: **7** 5-8, 12-14, 26, 27, 30, 31, 35-55, 57; **31** 14, 15, 20, 24, 35, 52, 54-57, 59-61.
Aroclor 1260: **7** 6-9, 13, 14, 30, 31, 34, 37, 38, 40-42, 48, 51, 53; **31** 14, 15, 24, 35, 52, 60.
Aroclor 1262: **7** 6, 38, 40-42.
Aroclor 1268: **7** 6, 38, 41-43, 55.
Arsanilic acid: **12** 59, 63, 68, 69, 76, 81.
Arsenates: **12** 1-81.
Arsenic: **2** 31; **5** 27, 30, 38; **12** 1-92; **14** 54; **15** 16, 49; **26** 12; **28** 4; **32** 5; **33** 36, 69, 73; **34** 8, 64.
Arsenic acid: **12** 4, 5, 63, 68.
Arsenic pentoxide: **12** 62.
Arsenic sulfides: **12** 7, 8, 15.
Arsenic trioxide: **12** 3, 5, 7, 8, 62, 63, 65-67, 69, 72.
Arsenites: **12** 1-81.
Arsenobetaine: **12** 14, 27, 30, 35, 36, 81.
Arsenous acid: **12** 10.
Arsines: **12** 7, 9, 10, 79.
Arsonous acid: **12** 10.
Arsphenamine: **12** 4.
Asana: **24** 2.
Asarco: **26** 6.
Ascorbic acid: **2** 24; **11** 57; **14** 15; **23** 11; **28** 7; **33** 7, 10.
Aspon: **21** 4.
Astatine-215: **29** 7, 9.
Astatine-218: **29** 7, 9.
Astatine-219: **29** 7, 9.
Atranex: **18** 3.
Atratol: **18** 3.
Atratol 80W: **18** 3.
Atratol 8P: **18** 3.
Atrazine: **3** 21; **17** 3; **18** 1-53.
Atrazine 4L: **18** 3.
Atrazine 80W: **18** 3.
Atred: **18** 3.
BAL: **34** 65.
Barium: **34** 9.
Barium-140: **29** 6, 13, 22, 32, 33, 46, 53, 83.
Barium sulphonate: **6** 35.
Basudin: **9** 3.
Bay 70142: **3** 3.
Belmark **24**: 4.
Belt: **21** 4.
Bentonite: **29** 62.
Benz(a)anthracene: **11** 6, 7, 16-20, 25, 27-34, 37, 40, 47, 52, 53, 55, 63.
Benzaldehyde: **23** 13.
Benzene: **1** 2; **8** 6; **17** 7; **27** 4.
Benzo(a)fluorene: **11** 5.
Benzo(a)perylene: **11** 16.
Benzo(a)pyrene: **11** 1-63; **20** 5; **28** 24; **34** 12, 13.
Benzo(b)fluoranthene: **11** 6, 17-19, 28, 32, 52, 53, 61.
Benzo(b)fluorene: **11** 5.
Benzo(c)fluorene: **11** 5.
Benzo(c)phenanthrene: **11** 6.
Benzo(e)pyrene: **11** 5, 16, 20, 32, 47, 56.
Benzo(g,h,i)fluoranthene: **11** 5.
Benzo(g,h,i)perylene: **11** 5, 7, 16, 18, 19, 23, 25, 26, 47, 52, 61.
Benzo(j)fluoranthene: **11** 6, 61.
Benzo(k)fluoranthene: **11** 5, 16, 17, 19, 52, 61.
Benzo(k)fluorene: **11** 23.
Benzyl isothiocyanate: **11** 35.
Beryllium-7: **29** 3, 5, 12.
Beryllium-10: **29** 3, 5.
Beta-ecdysone: **25** 20.
2-(Beta-D-glucopyranosyloxy)-isobutyronitrile: **23** 34.
Beta-dimethylcysteamine: **28** 7.
Beta-hydropropionaldehyde: **28** 5.
Beta-hydroxypropionaldehyde: **28** 5.
Beta-propionaldehyde: **28** 7.
Bicep: **18** 3.
Bicep 4.5L: **18** 3.
Bincennite: **23** 12.
Biphenylenes: **8** 29.
4,4'-Bipyridyl: **22** 7.
O,N-Bisdesmethylfamphur: **27** 3, 5, 17, 19, 20.
Bismuth: **19** 3.
Bismuth-207: **29** 44, 45, 96.
Bismuth-210: **29** 6, 8, 9, 85.
Bismuth-211: **29** 6, 9.
Bismuth-212: **29** 6, 9.
Bismuth-214: **29** 6, 8, 9, 95.
Bismuth-215: **29** 6, 9.
Bismuth subnitrate: **23** 10.
Blue copperas: **33** 4.
Blue powder: **26** 6.
Blue vitriol: **33** 4.
Bo-Ana: **27** 4.
Boracite: **20** 2.
Boranes: **20** 2.
Borates: **20** 1-29.
Borax: **20** 1-29.
Borax pentahydrate: **20** 3.
Bordeaux mixture: **33** 4.
Boric acid: **20** 1-29.
Boric oxide: **20** 3, 26.
Boron: **20** 1-32.
Boron-10: **20** 3, 5.
Boronatrocalcite: **20** 2.
Boron oxide: **20** 24, 25, 28.
Boron tribromide: **20** 5, 28.
Boron trichloride: **20** 3, 5.
Boron trifluoride: **20** 3, 5, 17, 25, 26.
Brodan: **13** 4.
Brodifacoum: **30** 6, 41.
Bromphemothrin: **24** 11.
Butyltins: **15** 5, 22, 23, 25, 31, 35, 54.

N-Butyronitrile: **23** 40.
Bypyridine: **22** 2.
Cacodylic acid: **12** 4, 6, 38, 40, 41, 53, 57, 59, 62, 63, 65, 67, 68, 70, 71, 73.
Cadmium: **2** 1-46; **5** 27, 36, 38; **6** 18, 25, 32; **10** 60; **12** 12; **14** 9, 15, 54, 56, 57; **15** 49, 63; **26** 10-12, 14, 39, 40, 43, 47, 49, 65, 66, 70; **29** 77; **31** 54; **32** 19, 26; **33** 6, 8, 36, 39, 41, 69, 70; **34** 4, 8, 9, 12, 34, 35, 43, 64, 65.
Cadmium-109: **2** 27, 30; **29** 5, 84.
Cadmium-113m: **29** 5, 21.
Cadmium-115: **29** 3, 5.
Cadmium-115m: **2** 30; **29** 5.
Cadmium chloride: **2** 24, 31.
Cadmium cyanide: **23** 5, 6.
Cadmium fluoride: **2** 19.
Cadmium fluroborate: **2** 19.
Cadmium selenide: **5** 4.
Cadmium sulfate: **23** 24.
Calciferol: **30** 41.
Calcineurin: **34** 9.
Calcium-45: **29** 5, 13, 14.
Calcium arsenate: **12** 5, 6, 38, 39, 64, 66, 71.
Calcium borate: **20** 23, 24, 28.
Calcium carbonate: **20** 16, 17.
Calcium cyanamide: **23** 11.
Calcium cyanide: **23** 4, 11, 35.
Calcium glutonate: **30** 7, 12, 31, 40.
Calcium molybdate: **19** 33, 38.
Calcium sodium EDTA: **33** 10.
Calcium trisodium diethylnitramine penta acetic acid: **33** 10.
Californium-252: **29** 7, 98, 102, 105.
Calmodulin: **34** 9, 58.
Camphechlor: **4** 3.
Captafol: **3** 21, 22.
Captan: **9** 29.
Carbaryl: **9** 29.
Carbofuran: **3** 1-36.
Carbofuran-7-phenol: **3** 4, 6, 25, 27.
Carbon-14: **29** 3-5, 10, 12-14, 19, 20, 25-28, 30, 101.
Carbon tetrachloride: **1** 2; **11** 35; **17** 7; **21** 42; **23** 11; **26** 12.
Carbonyl nickel powder: **34** 5.
Carbopol: **30** 14.
Carboxymethylcellulose: **22** 2.
4-Carboxy-l-methylpyridium ion: **22** 7.
CAS 52-85-7: **27** 4.
CAS 87-86-5: **17** 6.
CAS 107-02-8: **28** 5.
CAS 131-52-2: **17** 7.
CAS 333-41-5: **9** 3.
CAS 1563-66-2: **3** 3.
CAS 1910-42-5: **22** 4.
CAS 1912-24-9: **18** 3.
CAS 2385-85-5: **1** 2.
CAS 2921-88-2: **13** 4.
CAS 4685-14-17: **22** 4.
CAS 5103-71-9: **21** 4.
CAS 5103-74-2: **21** 4.
CAS 7440-02-0: **34** 5.
CAS 7440-22-4: **32** 5.
CAS 7440-50-8: **33** 4.
CAS 7440-66-6: **26** 6.
CAS 7646-85-7: **26** 6.
CAS 7733-02-0: **26** 6.
CAS 7758-98-7: **33** 4.
CAS 7761-88-8: **32** 5.
CAS 35367-38-5: **25** 3.
CAS 51630-58-1: **24** 4.
Cassiterite: **15** 12.
Catechols: **17** 5, 52.
CD-68: **21** 4.
Cekuquat: **22** 4.
Celatom MP-78: **23** 12.
Cerium: **29** 77.
Cerium-141: **29** 6, 10, 18, 26, 30, 33, 46, 53, 54, 61.
Cerium-143: **29** 6, 13.
Cerium-144: **29** 6, 10-13, 18, 21, 22, 24, 26, 30, 33, 44-46, 53, 54, 58, 60, 61, 75, 97.
Cerium chloride: **22** 5.
Ceruloplasmin: **33** 5, 7, 10.
Cerusite: **14** 5.
Cesium: **29** 77.
Cesium-134: **29** 6, 13, 26, 31-35, 37, 39, 46, 48-55, 57-61, 63, 64, 83, 88, 96, 99, 100.
Cesium-135: **29** 6, 101.
Cesium-137: **29** 3, 4, 6, 10, 12-14, 18-46, 48-64, 67, 68, 76-78, 81-84, 88, 90, 96-102, 104, 105.
CH_2COOK: **30** 2.
CH_2FCOOH: **30** 2.
$CH_2FCOONa$: **30** 1-47.
Chalcocite: **33** 2.
Chalcopyrite: **14** 5; **33** 2.
Chem-penta: **17** 6.
Chemtrol: **17** 6.
Chitin: **25** 2-4, 9, 20, 24.
Chitinase: **25** 4.
Chitin synthetase: **25** 2, 4, 10.
Alpha-chloralase: **30** 41.
Chlordan: **21** 4.
Chlor-dan: **21** 4.
Alpha-chlordane: **21** 3.
Chlordane: **3** 1; **21** 1-49.
Cis-chlordane: **21** 1-44.
Gamma-chlordane: **21** 3.
Trans-chlordane: **21** 1-44.
Chlordene: **21** 2-5, 13, 27, 29, 41, 42.

3-Chlordene: **21** 42.
Chlordene epoxide: **21** 41, 42.
Chloretol: **7** 5.
Chlorfluzuaron: **25** 10.
Chlorinated camphene: **4** 2, 3.
Chlorinated diphenyl ethers: **17** 5, 40, 52.
Chlorindan: **21** 4.
Chlor-kil: **21** 4.
2-Chloro-4-amino-6-isopropylamin-*s*-triazine: **18** 26.
4-Chloroanaline: **25** 1, 3, 4, 18, 19, 24, 27, 31.
Chloroanisoles: **17** 40.
Chlorobenzenes: **8** 6; **31** 19.
2-Chlorobiphenyl: **31** 21.
4-Chlorobiphenyl: **31** 54.
4'-Chloro-3,4-biphenyldiol: **31** 59.
4'-Chloro-4-biphenylol: **31** 59.
2-Chlorochlordene: **21** 41, 42.
3-Chlorochlordene: **21** 41.
Chlorodane: **21** 4.
2-Chloro-4,6-diamino-1,3,5-triazine: **18** 41.
2-Chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine: **18** 1-46.
4-Chloro-alpha-(1-methylethyl)benzeneacetic acid cyano (3-phenoxyphenyl)methyl ester: **24** 4.
Chloroform: **8** 6; **18** 5, 26.
4'-Chloroformanilide: **25** 10.
Chlorohydrin: **21** 5, 29.
4-Chloro-4'-hydroxybiphenyl: **31** 54.
4'Chloro-3-methoxy-4-biphenylol: **31** 59.
Chlorophen: **17** 6.
Chlorophenols: **17** 3, 5, 11, 18, 52.
N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide: **25** 3.
N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluoro-3-hydroxybenzamide]: **25** 31.
1-(4-Chlorophenyl)-3-(2,6-difluorobenzoyl)urea: **25** 1-3.
4-Chlorophenyl isocyanate: **25** 3.
2-(4-Chlorophenyl)-3-methylbutyric acid: **24** 28.
3-(4-Chlorophenyl) isovaleric acid: **24** 12.
Chlorophenylols: **31** 59.
4-Chlorophenylurea: **25** 1-4, 10, 18, 24, 27, 31.
Chlorpyrifos: **1** 33; **13** 1-34.
Chlorpyrifos oxon: **13** 10.
Chlorpyrifos-ethyl: **13** 4.
Chlortox: **21** 4.
Cholanthrene: **11** 6, 55.
Cholecalciferol: **30** 41.
Cholesterol (2R)-2-(4-chlorophenol) isovalerate: **24** 13.
Cholestyramine: **17** 41.
Chromate ion: **6** 3, 19, 39.
Chromate zinc phosphate: **6** 42.
Chromated copper arsenate: **6** 42; **33** 18, 35, 39, 40, 73.
Chrome lignosulphonate: **6** 35, 41.
Chromic oxide: **6** 3.
Chromite: **6** 2.
Chromium: **5** 38; **6** 1-60; **19** 6, 29; **23** 28; **26** 12; **29** 77; **31** 20; **34** 8, 9, 12, 43, 64.
Chromium-51: **6** 37, 40, 42; **29** 5, 32, 33, 83.
Chrysene: **11** 6, 18-20, 28, 32, 37, 40, 43, 45, 47, 50, 52.
CI 77949: **26** 6.
C. I. No. 77775: **34** 5.
CI pigment metal: **26** 6.
Cinchocaine chloride: **20** 21.
Cismethrin: **24** 2, 11.
CL 38023: **27** 4.
Clofibrate: **22** 5.
Clophen: **7** 5, 36.
Clophen A-50: **7** 48.
Clophen A 60: **7** 5.
Clor chem T-590: **4** 3.
Cobalt: **19** 3; **26** 10, 67; **29** 77; **33** 40; **34** 8, 9, 12.
Cobalt-57: **29** 5, 14, 16, 26, 27, 44.
Cobalt-58: **29** 5, 13, 14, 16, 24, 83.
Cobalt-60: **29** 5, 13, 14, 16, 20, 22, 24-27, 29-32, 37, 43-46, 58, 83, 84, 87, 96, 98, 102, 105.
Cobalt chloride: **23** 10; **25** 27, 29.
Cobalt cyanide: **23** 6, 18.
Cobalt edetate: **23** 10.
Cobalt histidine: **23** 10.
Colemanite: **20** 2.
Colestipol hydroxide: **17** 39.
Collargo: **32** 31.
Compound 1080: **30** 1-41.
Co-op: **18** 3.
Co-op atra-pril: **18** 3.
Copper: **2** 1, 16, 24, 26, 31; **5** 6, 7, 26, 27, 36; **10** 4; **12** 5; **14** 15, 57; **15** 1, 16, 49, 63; **19** 1, 3-6, 19-21, 30-37, 39, 41, 42, 44, 46, 49; **22** 6; **26** 4, 8, 9, 11-13, 43, 44, 47, 48, 66, 75, 79, 82, 87; **31** 20; **32** 2, 5, 9, 11, 12, 19, 29, 26, 30, 31, 35, 37; **33** 1-98; **34** 4, 8, 9, 19, 36, 59, 64.
Copper-63: **33** 4.
Copper-64: **29** 5; **33** 6, 10.
Copper-65: **33** 4.
Copper acetoarsenite: **12** 57-60, 71.
Copper acetyl acetonate: **33** 3.
Copper aquo ion: **33** 5.
Copper arsenate: **12** 5.
Copper carbonate: **33** 3, 5, 6.
Copper carbanato species: **33** 5, 80.
Copper chloride: **33** 3, 5, 66, 74.
Copper cyanide: **23** 6, 18, 27.
Copper dimethyl dithiocarbamate: **33** 3.
Copper glutamate: **33** 66.
Copper hydroxide: **33** 5.
Copper 8-hydroxyquinoline: **33** 10.
Copper nitrate: **33** 5.
Copper oxide: **33** 3.

Copper pentachlorate: **33** 3.
Copper ricinoleate: **33** 3.
Copper rosinate: **33** 3.
Copper sulfate: **19** 1, 5, 31, 39; **33** 1-98.
Copper (II) sulfate: **33** 4.
Copper-tartaric acid: **33** 3.
Copper-zinc superoxide dismutase: **33** 5.
Corodane: **21** 4.
Coronene: **11** 3, 5, 16.
Cortilan-neu: **21** 4.
Coumatetralyl: **30** 6.
CPIA-carboxyesterase: **24** 13.
CPIA-cholesterol ester: **24** 13, 14.
Cresylic acid: **33** 73.
Crioazine: **18** 3.
Crisquat: **22** 4.
Cristatrina: **18** 3.
Cristoxo: **4** 3.
Cupric acetate: **33** 9.
Cupric hydroxide: **33** 5.
Cupric oxide: **33** 5.
Cupric selenide: **5** 4.
Cupric sulfate: **33** 4.
Cupric sulfide: **33** 5.
Cupric sulphate: **33** 4.
Cuprous arsenite: **12** 5.
Cuprous oxide: **15** 70.
Curaterr: **3** 3.
Curium-241: **29** 7.
Curium-242: **29** 7, 14, 25, 39, 46.
Curium-243: **29** 7, 39, 46.
Curium-244: **29** 7, 15, 39, 40, 46, 78.
Curium-247: **29** 7, 15.
Curium-248: **29** 7, 15.
Curium-250: **29** 7.
Cyanic acid: **23** 6.
Cyanide: **23** 1-55; **32** 2; **33** 5.
Cyanides, weak-acid dissociable: **23** 32.
Beta-Cyanoalanine: **23** 19
Cyanocobalamin: **23** 8, 10.
Cyanogen: **23** 6, 11.
Cyanogen bromide: **23** 11, 38.
Cyanogen chloride: **23** 11, 18, 38.
Cyanogenic glycosides: **23** 1-50.
Cyanohydric acid: **23** 5.
Cyanohydrins: **23** 6.
Cyanophenoxybenzyl pyrethroids: **24** 1-39.
Alpha-Cyano-3-phenoxybenzyl *alpha*-(4-chlorophenyl) isovalerate: **24** 4.
Alpha-Cyano-3-phenoxybenzyl 2-(4-chlorophenyl)-3-methylbutyrate: **24** 4.
Alpha-Cyano-3-phenoxybenzyl alcohol: **24** 2, 3, 11.
(RS) *alpha*-Cyano-3 phenoxybenzyl (RS) 2-4-chlorophenyl-3-methylbutyrate: **24** 1-39.
Cyano (3-phenoxyphenyl) methyl 4-chloro-*alpha*-(1-methylethyl)benzeneacetate: **24** 4.
Cycasin: **23** 3.
Cyclam: **34** 9.
Cyclethrin: **24** 2.
Cyclohexanediamine tetraacetic acid: **34** 9.
Cyclophosphamide: **28** 3, 6, 24.
Cyflee: **27** 4.
Cypermethrin: **24** 2, 11.
Cyclopentadiene: **21** 2.
Cysteine: **22** 5; **28** 7.
Cysteamine: **30** 12.
D-1221: **3** 3.
2,4-D: **8** 8, 29; **22** 3.
Dalapon: **22** 3.
Dazzel: **9** 3.
DDD: **4** 7.
DDE: **4** 3, 7; **7** 32, 48, 52; **10** 50; **21** 42; **31** 39.
DDT: **1** 18, 24, 31; **3** 1; **4** 3, 17, 19; **7** 52; **10** 63; **21** 5, 8; **26** 40, 66; **31** 19, 60.
Decaborane: **20** 2, 3, 5, 22, 23, 26, 28.
Decachlorobiphenyl: **31** 8, 17, 26.
Decarboxy fenvalerate: **24** 10, 12.
Dechlorane: **1** 1, 2, 26, 27.
Dechlorane 510: **1** 2.
Dechlorane 4070: **1** 2.
Deethylated atrazine: **18** 2, 12, 17, 26, 36.
Deethylhydroxyatrazine: **18** 12, 34.
Deflubenzon: **25** 3.
Dehydroascorbic acid: **23** 11.
Dehydrodiazinon: **9** 24.
Deisopropylated atrazine: **18** 2, 26, 36.
Deisopropylhydroxyatrazine: **18** 12.
Delor: **7** 5.
Deltamethrin: **24** 2, 11.
N-Desmethylfamphur: **27** 3, 7, 17.
O-Desmethylfamphur: **27** 3, 5, 17, 19, 20.
Dextrone: **22** 4.
Dextrone X: **22** 4.
Dexuron: **22** 4.
DFP: **30** 41.
Dhurrin: **23** 14.
Diagran: **9** 3.
Dialkyllead: **14** 11.
Dialkylorganotins: **15** 8.
Dialkyltins: **15** 35, 49, 50, 67.
Diaminoatrazine: **18** 26.
Dianon: **9** 3.
DiaterrFos: **9** 3.
Diazajet: **9** 3.
Diazatol: **9** 3.
Diazepam: **24** 13.
Diazide: **9** 3.
Diazinon: **1** 33; **9** 1-37.

Diazinon AG 500: **9** 16.
Diazinon 4E: **9** 13, 16.
Diazinon 4S: **9** 16.
Diazinon 14G: **9** 9, 16, 29.
Diazinon 50 W: **9** 16.
Diazol: **9** 3.
Diazoxon: **9** 6, 17, 23-25, 28.
Dibenz(a,c)anthracene: **11** 6, 52, 56.
Dibenz(a,h)anthracene: **11** 6, 19, 37, 52, 56, 63.
Dibenz(a,j)anthracene: **11** 6, 52.
Dibenzo(a,c)fluorene: **11** 6.
2,3,7,8-Dibenzofuran: **8** 6, 7.
Dibenzofurans: **8** 29; **17** 2, 3, 5, 8, 9, 13, 18, 21, 40, 42, 52; **31** 39.
Dibenzo(a,e)pyrene: **11** 6, 53.
Dibenzo(a,g)fluorene: **11** 6.
Dibenzo(a,h)fluorene: **11** 6.
Dibenzo(a,h)pyrene: **11** 6, 53.
Dibenzo(a,i)pyrene: **11** 6, 53.
Dibenzo(a,l)pyrene: **11** 6.
Diborane: **20** 2, 3, 28.
Dibutylmethyltins: **15** 5.
Dibutylorganotins: **15** 8, 52.
Dibutyltin dichloride: **15** 36, 52, 67.
Dibutyltin disulfide: **15** 67.
Dibutyltins: **15** 11, 22, 24, 26, 30, 31, 54, 63, 68.
Dichlorobenzene: **8** 6.
2,2'-Dichlorobiphenyl: **31** 21.
2,4'-Dichlorobiphenyl: **7** 7.
2,6'-Dichlorobiphenyl: **31** 21.
4,4'-Dichlorobiphenyl: **7** 8.
Dichlorobiphenyls: **31** 4, 21, 25, 32.
Dichlorobornane: **4** 2.
Dichlorochlordene: **21** 4, 5, 29.
4,4'-Dichloro-3-biphenylol: **31** 59.
1,2-Dichlorochlordene: **21** 4, 5.
Dichlorodene: **21** 4.
2,8-Dichlorodibenzodioxin: **8** 25.
Dichloromaleic acid: **17** 11.
2,4-Dichlorophenol: **17** 8.
Dichlorophenols: **17** 11.
Dichromate ion: **6** 3.
Dicobalt ethylenediamine tetraacetic acid: **23** 10.
Dicrotophos: **27** 12.
Dicyclohexyltin dichloride: **15** 36.
Dieldrin: **1** 24, 31;**4** 3, 7; **7** 52; **21** 27.
Diethyldithiocarbamate: **22** 18.
Diethylenetriamine pentaacetic acid: **34** 9.
Diethyl 2-isopropyl-6-methylpyrimidin-4-yl phosphate: **9** 6.
Diethyllead: **14** 67.
Diethylnitrosamine: **28** 24; **34** 11.
Diethylorganotins: **15** 8.
Diethyl phosphoric acid: **9** 24.
Diethyl phosphorothioic acid: **9** 24.
Diethyltin dichloride: **15** 36.
Diethyltin diiodide: **15** 1.
Diethyltins: **15** 15, 54.
N-N-Diethyl-*m*-toluamide: **24** 36.
0,0-Diethyl-0-(3,5,6-trichloro-2-pyridyl) phosphate: **13** 10.
0,0-Diethyl-0-(3,5,6-trichloro-2-pyridyl) phosphorothioate: **9** 29.
Diflubenuron: **25** 3.
Diflubenzuron: **25** 1-36.
3-OH-Diflubenzuron: **25** 27.
Difluoroacetone: **30** 12.
2,6-Difluorobenzamide: **25** 1, 3, 4, 10, 24, 31.
2,6-Difluorobenzoic acid: **25** 1-4, 10, 24, 27, 31.
1-(2,6-Difluorobenzoyl)-3-(4-chlorophenyl)urea: **25** 3.
2,6-Difluorohippuric acid: **25** 31.
2,6-Difluoro-3-hydroxydiflubenzuron: **25** 31.
1,3-Difluoro-2-propanol: **30** 12, 41.
2,3-Dihydro-2,2-dimethyl-7-benzofuranyl methyl carbamate: **3** 3.
2,8-Dihydromirex: **1** 28.
3,8-Dihydromirex: **1** 28.
Dihydrotoxinin: **24** 12.
Dihydroxybiphenyls: **17** 5, 52; **31** 59.
4,4'-Dihydroxy 3,5,3',5'-tetrachlorobiphenyl: **31** 59.
4,4'-Dihydroxy 2',3',5',6'-tetrachlorobiphenyl: **31** 59.
Dihydroxydihydrochlordene: **21** 29.
Dihydroxyheptachlor: **21** 29.
2,3-Dimercapto-1-propane sulfonic acid: **26** 12.
2,3-Dimercaptopropanol: **10** 11; **34** 65.
N-(2,3-Dimercaptopropyl) phthalamidic acid: **12** 12.
2,3-Dimercaptosuccinic acid: **26** 12.
Dimethoate: **1** 33.
Dimethoxytetrachlorobenzenes: **17** 19.
4-Dimethylaminophenol: **23** 1, 10.
O-[4-1(Dimethylamino)sulfonyl] phenyl phosphorothioic acid O,O-dimethyl ester: **27** 4.
Dimethylarsenic acid: **12** 55.
Dimethylarsinate: **12** 10, 35, 64.
Dimethylarsine: **12** 9.
Dimethylarsinic acid: **12** 8, 10, 12, 20, 49, 52, 73.
Dimethylarsinous acid: **12** 10.
Dimethylbenz(a)anthracene: **11** 6, 56; **26** 14.
7,12-Dimethylbenz(a)anthracene: **11** 34, 35, 37, 47, 48, 50-53, 55, 56, 63.
1,1'-Dimethyl-4,4'-bipyridinium: **22** 1-28.
1,1'-Dimethyl-4,4'-bipyridinium chloride: **22** 1-28.
O,O-Dimethyl O, *p*-(N,N-dimethylsulfamoyl) phenyl phosphorothioate: **27** 4.
Dimethyl diselenide: **5** 4.
Dimethyl *p*-(dimethylsulfamoyl)phenyl phosphorothioate: **27** 4.
O,O-Dimethyl O-[*p*-(dimethylsulfamoyl)-phenyl] phosphorothioate: **27** 4.

O,O-Dimethyl-O,*p*-(dimethylsulfamoyl)phenyl phosphorothioate: **27** 4.
O,O-Dimethyl hydrogen phosphorothioate, O-ester with *p*-hydroxy-N,N-dimethylbenzenesulfonamide: **27** 4.
Dimethyllead: **14** 67.
Dimethyl maleate: **22** 18.
Dimethylmercury: **10** 9, 10.
Dimethylnapthalenes: **11** 40, 44.
Dimethylnitrosamine: **21** 42.
O, O-Dimethyl O-(*p*-nitrophenyl) phosphorothioate: **27** 8.
Dimethylorganotins: **15** 8.
N-N-Dimethylquinoneimine: **23** 10.
Dimethyl selenide: **5** 4; **12** 11.
p-N,N-Dimethylsulfamoyl phenol: **27** 3, 5.
O, *p*-(Dimethylsulfamoyl)phenyl O,O-dimethyl phosphorothioate: **27** 4.
p-(Dimethylsulfamoyl)phenyl dimethyl phosphorothioate: **27** 4.
p-(N,N-Dimethylsulfamoyl)phenyl glucuronide: **27** 3, 5, 17, 19.
Dimethyl sulfoxide: **18** 5.
Dimethyltin dichloride: **15** 36, 52.
Dimethyltins: **15** 4, 5, 10, 21, 23, 25, 28, 30, 32, 38, 54.
Dimethyl(2,2,2-trichloro-1-hydroxyethyl) phosphonate: **9** 29.
Dimilin: **25** 1-32.
Dinoseb: **22** 11.
Dioctylorganotins: **15** 8, 52, 55.
Diorganotins: **15** 8, 13, 15, 18, 35, 37, 52.
Dioxins: **7** 55; **8** 1-37; **17** 2, 3, 5, 8, 9, 13, 18, 21, 42, 52; **31** 39.
Dipentylorganotins: **15** 8.
Diphacinone: **30** 4.
Diphenyl ethers: **17** 8, 40; **31** 39.
5,5-Diphenyl hydantoin: **23** 12.
Diphenyltin dichloride: **15** 36.
Diphenyltins: **15** 7.
Dipropylorganotins: **15** 8.
Dipropyltin dichloride: **15** 36.
Disodium calcium cyclohexanediamine tetraacetate: **26** 12.
Disodium ethylenediamine tetraacetic acid: **26** 12.
Disodium methanearsonate: **12** 6.
Disodium methylarsenate: **12** 45, 46, 49, 52, 58.
Disodium methylarsonate: **12** 40.
Dithiocarb: **34** 65.
Dithiocarbamates: **33** 10.
Dithiomolybdates: **19** 6.
Dizinon: **9** 3.
Dodecachlorooctahydro-1,3,4-metheno-2H-cyclobuta(c,d)pentalene: **1** 2.
Dodecyclamine p-chlorophenylarsonate: **12** 58.
Dopamine beta-hydroxylase: **33** 5.
Dovip: **27** 4.
Dowchlor: **21** 4.
Dowco 179: **13** 1.
Dowicide 7: **17** 6.
Dowicide EC-7: **17** 6.
Dowicide G: **17** 6.
Dow pentachlorophenol: **17** 6.
DP-2: **17** 6.
D-penicillamine: **22** 5.
DU 112307: **25** 3.
Duphar BV: **25** 3.
Durotox: **17** 6.
Dursban: **9** 29; **13** 1, 3, 4.
Dyknol: **7** 5.
Dylox: **9** 29.
Dyzol: **9** 3.
D.z.n.: **9** 3.
Ectrin: **24** 4.
Emanay zinc dust: **26** 6.
Endrin: **21** 36, 42.
ENT 9932: **21** 4.
ENT 19507: **9** 3.
ENT 25644: **27** 4.
ENT 25719: **1** 2.
ENT 27164: **3** 3.
ENT 27311: **13** 4.
ENT 28244: **18** 3.
ENT 29054: **25** 3.
EPTC: **3** 22.
Eradex: **13** 4.
Erbon: **8** 3.
Esfenvalerate: **24** 2.
Ethanol: **17** 7; **30** 7, 12, 13, 40.
Ethanolamine: **33** 3.
2-Ethoxynaphthalene: **11** 54.
Ethoxyquin: **33** 73.
Ethyl acetate: **18** 5.
N-Ethyl-N-hydroxyethyl nitrosamine: **34** 12.
N-Ethyl-N-nitrosourea: **26** 13.
Ethylene oxide: **22** 2.
Ethylmercury: **10** 51, 52.
Ethyltins: **15** 53.
Europium-152: **29** 6, 97.
Europium-155: **29** 6, 27.
Famaphos: **27** 4.
Famfos: **27** 4.
Famophos: **27** 4.
Famoxon: **27** 1, 3-5, 7, 11, 13, 14, 17, 18, 20, 21.
Famphos: **27** 4.
Famphur: **27** 1-23.
Fanfos: **27** 4.
Farmco atrazine: **18** 3.
Fenclor: **7** 5.
Fendeet: **24** 36.

Fenkill: **24** 4.
Fenoprop: **8** 3.
Fenpropthrion: **24** 2.
Fenvalerate: **24** 1-43.
Ferriamicide: **1** 33, 34.
Ferric chloride: **31** 3.
Ferric sulfate: **34** 9.
Ferrihemoglobin cyanide: **23** 10.
Ferrimolybdate: **19** 3.
Ferrochrome lignosulfonate: **6** 35.
Ferrous chloride: **1** 33.
Ferrous sulfate: **34** 9.
Fezadin: **9** 3.
Fluoranthene: **11** 5, 10, 16-20, 26-29, 37, 40, 43, 47, 52, 56, 61.
Fluorene: **11** 5, 10, 23, 32, 36, 37, 43, 45, 48; **31** 39.
Fluorides: **19** 6; **33** 40.
Fluoroacetic acid: **30** 2.
FMC 10242: **3** 3.
Formaldehyde: **28** 24.
Formaldoxime: **23** 7.
Formamide: **23** 12, 19.
Formic acid: **23** 7.
N-Formylglycine: **22** 7.
FP Tracerite yellow: **23** 12.
Francium-223: **29** 7, 9.
Fratol: **30** 8.
Free cyanide: **23** 1-50.
Furadan: **3** 3, 27.
G-24480: **9** 3.
G-30027: **18** 3.
Galena: **14** 5.
Gallium arsenide: **12** 64.
Gardentox: **9** 3.
GC 1283: **1** 2.
Geniphene: **4** 3.
Germanium: **5** 30.
Gesaprim: **18** 3.
Gliftor: **30** 41.
Glucuronic acid: **25** 4.
Glutaraldehyde: **28** 3.
Glutathione: **28** 6, 7, 24.
Glyceraldehyde: **28** 4, 6.
Glycerol: **28** 3, 6.
Glycerol monoacetate: **30** 7, 12, 13, 40.
Glycidaldehyde: **28** 4, 6, 8, 24.
Glycidol: **28** 6.
Gold: **10** 4, 17; **12** 5, 16, 19; **23** 11, 35; **26** 8; **32** 2, 5, 11; **34** 4.
Gold-198: **29** 6.
Gramonol: **22** 4.
Gramoxone: **22** 2, 4, 18.
Gramuron: **22** 4.
Griffex: **18** 3.
Guaiacols: **17** 5.
HCS 3266: **21** 4.
Heptachlor: **3** 1; **21** 1-5, 13, 16, 22, 24, 29, 36, 43, 44.
Heptachlor epoxide: **21** 2-5, 13, 14, 16, 18, 19, 21, 22, 28, 36, 43.
Heptachlorinated dibenzodioxins: **17** 40.
Heptachlorinated diphenyl ethers: **17** 40.
Heptachlorobiphenyls: **31** 7, 17, 21, 25, 32-34, 43.
1,2,3,4,6,7,8-Heptachlorodibenzodioxin: **8** 25.
Heptachlorodibenzofurans: **17** 9, 13.
Heptachlorophenoxyphenols: **17** 10.
Herbaxon: **22** 4.
Herboxone: **22** 4.
Hexachlorobenzene: **1** 2; **17** 3, 5, 10, 13, 18, 21, 42, 52; **31** 39.
2,2',4,4',5,5'-Hexachlorobiphenyl: **7** 7, 8, 43, 47.
2,3,4,5,3',4'-Hexachlorobiphenyl: **8** 27.
2,3,6,2',3',6'-Hexachlorobiphenyl: **7** 43.
2,4,6,2',4',6'-Hexachlorobiphenyl: **7** 8.
2,4,5,2',4',5'-Hexachlorobiphenyl: **7** 54.
3,4,5,3',4',5'-Hexachlorobiphenyl: **7** 8, 43, 53; **8** 7.
Hexachlorobiphenyls: **31** 6, 7, 17, 21, 25, 32-34, 36, 38, 43, 54, 60.
Hexachlorocyclopentadiene: **1** 2; **21** 2.
1,2,3,4,7,8-Hexachlorodibenzodioxin: **8** 5, 25.
1,2,3,6,7,8-Hexachlorodibenzodioxin: **8** 5, 25, 27.
1,2,3,7,8,9-Hexachlorodibenzodioxin: **8** 5, 23, 25, 27; **17** 2.
Hexachlorodibenzodioxins: **17** 5, 9.
Hexachlordibenzofurans: **17** 9, 13.
Hexachlorophene: **8** 3, 29.
Hexafluron: **25** 10.
1,2,6-Hexane thiol: **28** 3.
Hexavalent chromium: **6** 1-46; **19** 29.
4-Hexylresorcinol: **28** 5.
Hyaluronic acid: **25** 4, 24.
Hydantoin: **23** 12.
Hydantonic acid: **23** 12.
Hydrochromate ion: **6** 3, 19.
Hydrocyanic acid: **23** 3, 5.
Hydrogen-3: **29** 3-5, 10, 12-14, 18-21, 25-28, 30, 74, 100, 102.
Hydrogen cyanide: **23** 1-50.
Hydrogen fluoride: **30** 14.
Hydrogen peroxide: **22** 4, 6; **23** 32; **34** 6, 13.
Hydrogen selenide: **5** 3.
Hydroquinone: **28** 4.
Hydroxocobalamin: **23** 8, 10, 11; **28** 27.
3-Hydroxyanthronilic acid: **9** 23.
Hydroxyatrazine: **18** 2, 4-6, 12, 26, 34, 36, 37.
p-Hydroxybenzenesulfonic acid: **27** 3, 5.
4-Hydroxybiphenyl: **31** 59.
3-Hydroxycarbofuran: **3** 3-6, 15, 21, 22, 24, 25, 27.
3-Hydroxycarbofuran-7-phenol: **3** 4, 22, 25, 27.

3-Hydroxychlordane: **21** 5.
l-Hydroxychlordene: **21** 41, 42.
4-Hydroxy 2-chlorobiphenyl: **31** 59.
4-Hydroxy 4'-chlorobiphenyl: **31** 59.
Hydroxydiazinon: **9** 24.
20-Hydroxyecdysone: **25** 10.
l-Hydroxy, 2,3-epoxy chlordene: **21** 41, 42.
Hydroxyethylenediamine triacetic acid: **34** 9.
4-Hydroxyfenvalerate: **24** 28.
N-Hydroxymethyl carbofuran: **3** 4, 22.
Hydroxymonomethoxytetrachlorobenzenes: **17** 19.
3-Hydroxy-N-hydroxymethyl carbofuran: **3** 24.
3-Hydroxynitrosocarbofuran: **3** 25.
3-(4' Hydroxyphenoxy) benzyl alcohol: **24** 29.
Hydroxy-4-picolinic acid: **22** 7.
3-Hydroxypropylmercapturic acid: **28** 25.
3-Hydroxy-*trans*-chlordane: **21** 5.
4-Hydroxy 3,5,4'-trichlorobiphenyl: **31** 59.
Ilsemannite: **19** 3.
Imidazole: **23** 12.
2-Imidazolidimone: **23** 12.
2-Iminothiazolidene-4-carboxylic acid: **23** 8.
Indeno(1,2,3-cd)pyrene: **11** 6, 16, 18, 19, 23, 26, 47, 52, 61.
Indium: **2** 31.
Indoleacetonitrile: **23** 14.
Inerteem: **7** 5.
Iodine: **23** 1, 9, 33, 34; **29** 77; **34** 8, 58.
Iodine-125: **29** 6, 98, 102, 105.
Iodine-129: **29** 6, 17-20, 23, 35, 42, 84, 98, 101, 102, 105.
Iodine-130: **29** 6, 13.
Iodine-131: **29** 6, 10, 12, 13, 18, 19, 32, 33, 43, 46-49, 51-54, 58-61, 64, 79, 81, 83, 88, 94, 96, 98, 102, 105.
Iron: **2** 24; **6** 4, 35; **12** 12, 20; **14** 9, 15, 72; **19** 3, 6, 19, 32; **22** 6; **26** 4, 7, 12, 47, 49, 67, 75; **29** 77; **32** 5, 12, 18, 35; **33** 8, 9, 74, 78; **34** 1, 8, 9, 19, 34, 37, 58.
Iron-55: **29** 5, 13, 14, 16, 26, 28, 30, 41, 43, 44, 79, 96.
Iron-59: **29** 5, 13, 16.
Iron cyanide: **23** 6, 18, 27.
Iron oxide: **14** 23; **20** 4.
Isobornyl thiocyanate: **20** 14.
Alpha-Isopropyl phenylacetate ester: **24** 2, 3.
JASAD Merrillite: **26** 6.
Jordisite: **19** 3.
Kadethrin: **24** 11.
Kanechlor: **7** 5.
Kanechlor 200: **7** 6.
Kanechlor 300: **7** 6.
Kanechlor 400: **7** 3, 6, 55.
Kanechlor 500: **7** 6.
Kanechlor 600: **7** 6.
Kaolinite: **22** 6; **33** 70.
Kayazinon: **9** 3.
Kayazol: **9** 3.
Kepone: **1** 2.
3-Ketocarbofuran: **3** 3-6, 21, 22, 24, 25, 27.
3-Ketocarbofuran phenol: **3** 3, 6, 27.
Killmaster: **13** 4.
Knox out: **9** 3.
Krypton-85: **29** 5, 13, 46, 101.
L-Kynurenine: **9** 23.
Kypclor: **21** 4.
L 15: **26** 6.
Lactic acid: **23** 34.
Laetrile: **23** 3, 13, 46.
Lannate: **9** 29.
Lanthanum-140: **29** 6, 22, 60, 97.
Largon: **25** 3.
Lasso: **18** 3.
Laterite: **34** 3.
Lauxtol A: **17** 6.
Lead: **2** 1, 24, 26, 31; **5** 27, 38; **10** 4; **12** 5, 12; **14** 1-134; **15** 1, 16, 49; **19** 3, 6; **26** 12, 14, 39, 43, 44, 47, 49, 79; **29** 8, 9, 77; **31** 20; **32** 2, 5, 26, 30, 35; **33** 8, 9, 33, 36, 39, 41, 69; **34** 8, 9, 43, 64.
Lead-210: **14** 9, 100; **29** 6, 8, 9, 15, 16, 18, 20, 21, 25-27, 29, 30, 34, 35, 85, 98, 105.
Lead-211: **29** 6, 9.
Lead-212: **29** 6, 9.
Lead-214: **29** 6, 8, 9, 95.
Lead acetate: **14** 9, 77, 78, 81, 83, 88, 91, 93, 94, 96, 97.
Lead arsenate: **12** 4-6, 8, 15, 57, 60, 65, 66, 71; **14** 22, 49, 78, 91, 100.
Lead carbonate: **14** 10, 56, 95.
Lead chloride: **14** 9, 10.
Lead hydroxide: **14** 10, 56.
Lead nitrate: **14** 9, 69, 76, 78, 97.
Lead oxide: **14** 9, 49.
Lead phosphate: **14** 56.
Lead subacetate: **14** 78.
Lead sulfate: **14** 9, 10.
Lead sulfide: **14** 9.
Lindane: **17** 13.
Lorsban: **13** 1, 3, 4.
Lotaustralin: **23** 14.
Lunar caustic fused silver nitrate: **32** 5.
M 140: **21** 4.
M 410: **21** 4.
Magnacide H: **28** 5.
Magnesium: **14** 15; **19** 3; **26** 12, 50, 66; **27** 19; **33** 9, 40, 44; **34** 8, 9, 59.
Magnesium acetate: **34** 12.
Magnesium oxide: **19** 1, 33.
Magnesium sulfate: **30** 13.
Malachite: **33** 2.
Malathion: **18** 14; **30** 41.
Malayaite: **15** 12.

Malic acid: **22** 7.
Malonitrile: **23** 40, 46.
Mandelonitrile: **23** 20.
Manganese: **14** 9, 56; **19** 6, 19; **26** 7, 8; **29** 77; **32** 12, 19; **33** 8, 9, 40; **34** 8, 9, 12, 19, 34, 59.
Manganese-54: **29** 5, 14, 16, 18, 22, 24-28, 30, 31, 43-45, 96.
Manganese-56: **29** 5.
Manganite: **23** 12.
Maxolon: **30** 38.
2-Mercaptoethanol: **28** 7.
Gamma-mercaptopropionylglycine: **28** 7.
Mercuric cyanide: **23** 5.
Mercuric selenide: **5** 4.
Mercuric sulfide: **10** 1, 14, 17, 40.
Mercurous ion: **10** 7, 9.
Mercury: **1** 26; **2** 24, 31; **5** 7, 26, 27, 36, 38; **7** 32, 52; **10** 1-90; **12** 10; **14** 15; **15** 1, 16; **19** 30; **26** 8, 13, 65; **32** 19, 30; **33** 8, 9; **34** 8, 64.
Mercury-203: **29** 6.
Mercury-206: **29** 6, 9.
Methanearsonic acid: **12** 8, 20, 63.
Methanol: **17** 7; **18** 5.
Methidathion: **22** 12.
Methionine: **28** 3.
Methomyl: **30** 4.
Methoxychlor: **21** 42.
2-Methoxy-3,4-dihydro-2PH-pyran: **28** 25, 27.
Methoxymethylmercury: **10** 41, 54.
2-Methoxy naphthalene: **11** 54.
Methylamine: **22** 7.
Methylamine hydrochloride: **22** 7.
9-Methylanthracene: **11** 41.
Methylarsines: **12** 7.
Methylarsinic acid: **12** 8.
Methylarsonate: **12** 21.
Methylarsonic acid: **12** 10.
Methylarsonous acid: **12** 10.
Methyl bromide: **1** 33.
Methyl chloride: **22** 3.
3-Methylcholanthrene: **11** 6, 34, 47-49, 51, 53, 56, 63; **15** 11; **25** 27; **31** 10.
20-Methylcholanthrene: **34** 10, 12.
Methyl fluoride: **30** 8.
l-Methylnaphthalene: **11** 38, 40.
2-Methylnaphthalene: **11** 38.
Methylene blue: **23** 10.
Methylene dioxyphenyls: **9** 6, 17.
Methylmercury: **5** 4, 27; **10** 1-75.
Methyl methacrylate: **23** 11.
Methyl parathion: **27** 8.
S-Methyl-N-((methylcarbamoyl)oxy)-thioacetimidate: **9** 29.
1-Methylphenanthrene: **11** 39.
1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP): **22** 9.
Methyl prednisolone: **22** 5.
4-Methylpyrazole: **30** 12, 40, 41.
p-(N-Methylsulfamoyl)phenol: **27** 3, 5.
p-(N-Methylsulfamoyl)phenyl glucuronide: **27** 5, 17, 19, 20.
Methyltins: **15** 5, 20, 21, 23, 25, 27, 30, 32, 35, 53.
Methyl viologen: **22** 4.
Metoclopramide: **30** 38.
Metribuzin: **22** 7.
Micromite: **25** 3.
Mirex: **1** 1-42; **8** 23; **31** 19, 39.
Molded silver nitrate argenti: **32** 5.
Molybdenite: **19** 3.
Molybdenum: **19** 1-61; **20** 29; **29** 77; **33** 8, 9, 45, 74, 79; **34** 8.
Molybdenum-99: **19** 4, 34; **29** 5, 46, 53.
Molybdenum dioxide: **19** 38.
Molybdenum trioxide: **19** 38.
Molybdic acid: **19** 29.
Monoacetin: **30** 40.
Monoalkyltins: **15** 35.
Monobutyltins: **15** 11, 28, 40.
Monochlorobiphenyls: **31** 4, 21.
2-Monochlorobiphenyl: **7** 4.
4-Monochlorobiphenyl: **7** 8, 49, 55.
Monochlorodihydrochlordene: **21** 5.
Monocrotophos: **27** 12.
Monofluoroacetic acid: **30** 2, 10, 14.
8-Monohydro mirex: **1** 2, 28.
9-Monohydro mirex: **1** 28.
10-Monohydro mirex: **1** 3, 28.
Monomethylarsonate: **12** 35.
Monomethylarsonic acid: **12** 7, 12, 18, 19, 55.
Monomethyltins: **15** 4, 5, 10, 28, 38.
Monoorganotins: **15** 8, 13, 15, 18, 37.
Monosodium fluoroacetate: **30** 8.
Monosodium methanearsonate: **12** 6, 47, 48, 52, 58, 60, 72.
Montmorillonite: **22** 6.
Morsodren: **3** 22.
Moto: **4** 3.
Naphthacene: **11** 5.
Naphthalene: **11** 3, 5, 7, 16, 33, 36, 38, 40, 43, 47, 50, 52; **31** 39.
Naphthene: **11** 50.
l-Napthyl N-methylcarbamate: **9** 29.
Neocidol: **9** 3.
Neodymium-147: **29** 6, 13.
Neptunium-235: **29** 7, 78.
Neptunium-237: **29** 7, 15, 78, 101.
Neptunium-239: **29** 7, 14, 46.
Neptunium-241: **29** 7.

$Ni(H_2O)_6^{2+}$: **34** 5, 6.
Niacin: **22** 5.
Niagara NIA-10242: **3** 3.
Nickel: **5** 7; **6** 31; **23** 28; **26** 12, 14, 41; **29** 77; **32** 2, 19, 20; **33** 8, 9, 41; **34** 1-76.
Nickel-56: **34** 5.
Nickel-57: **34** 6, 7.
Nickel-58: **34** 5.
Nickel-59: **34** 6.
Nickel-60: **34** 5.
Nickel-61: **34** 5.
Nickel-62: **34** 5.
Nickel-63: **29** 5, 26, 27; **34** 6, 8.
Nickel-64: **34** 5.
Nickel-65: **29** 5.
Nickel-67: **34** 6.
Nickel acetate: **34** 4, 12, 14, 48, 49, 51-55, 57, 59.
Nickel ammonium sulfate: **34** 4, 12.
Nickel antimonide: **34** 12.
Nickel arsenide: **34** 12.
Nickel bromide: **34** 5.
Nickel carbonate: **34** 4, 6, 10, 12, 49, 53.
Nickel carbonyl: **11** 35; **34** 2, 4, 6, 7, 10-13, 49-53, 55-57, 62-66.
Nickel chloride: **34** 4, 5, 7, 10-14, 42, 45, 46, 50-57, 59, 62.
Nickel chloride hexahydrate: **34** 6, 13, 44, 48, 52.
Nickel chromate: **34** 12.
Nickel cyanide: **23** 5, 6, 18.
Nickel disodium EDTA: **34** 49.
Nickel fluoborate: **34** 4, 55.
Nickel fluoride: **34** 4, 12.
Nickel hexahydrate: **34** 58, 65.
Nickel hydroxide: **34** 4-6, 12, 65.
Nickel mesotetraphenylporphine: **34** 14.
Nickel monosulfide: **34** 4, 12, 13.
Nickel monoxide: **34** 62.
Nickel nitrate: **34** 4, 6, 11, 13, 55.
Nickelocene: **34** 4, 12, 52, 55.
Nickeloplasmin: **34** 5.
Nickel oxides: **34** 1-6, 8, 10-12, 19, 49-57, 59.
Nickel perchlorate heptahydrate: **34** 52.
Nickel selenide: **34** 12.
Nickel subsulfide: **34** 1, 2, 4, 6-8, 10-13, 51, 54, 55, 57, 59, 62, 64.
Nickel sulfamate: **34** 4.
Nickel sulfate: **23** 24, 28; **26** 12; **34** 2, 4-8, 11-14, 19, 43, 46-57, 61, 62, 65.
Nickel sulfate hexahydrate: **34** 6, 7, 43, 49, 50, 52, 53, 57, 59.
Nickel sulfide: **26** 14; **34** 5, 6, 11, 55.
Nickel telluride: **34** 12.
Nicotinamide: **9** 7; **20** 19.
Nicotinamide adenine dinucleotide phosphate (NADPH): **22** 4, 5; **28** 6.
Nicotine: **30** 41.
Nicotinic acid: **22** 5.
Nigrosine: **30** 4.
$NiHPO_4$: **34** 5, 6.
Niobium-95: **29** 5, 18, 21, 22, 26-28, 30, 33, 97.
Nipsan: **9** 3.
Niran: **21** 4.
Nitras: **32** 5.
Nitric acid silver (I) salt: **32** 5.
Nitric acid silver (1+) salt: **32** 5.
Nitrilotriacetic acid: **14** 15; **33** 9, 10.
Nitrobenzene: **23** 10.
N-[4-(5-Nitro-2-furyl)-2 thiazoyl] formamide: **28** 24.
3-Nitro-4-hydroxyphenyl arsonic acid: **12** 6, 56, 58, 59, 70, 71, 81.
4-Nitroquinoline-N-oxide: **26** 13.
N-Nitrosoatrazine: **18** 36.
Nitrosocarbofuran: **3** 25.
N-Nitroso-N-methylurea: **19** 31.
N-Nitrososarcosine ethyl ester: **19** 30.
Noflamol: **7** 5.
Cis-nonachlor: **21** 1-44.
Trans-nonachlor: **21** 1-44.
Nonachlorinated diphenyl ethers: **17** 40.
Nonachlorobiphenyls: **31** 8, 17, 21, 25, 32.
Nonachlorophenoxyphenols: **17** 10, 21, 40.
Nonachlors: **21** 5, 11, 16, 26-28, 35.
Norepinephrine: **24** 12.
Nucidol: **9** 3.
Octachlor: **21** 4.
Octachlor epoxide: **21** 3.
Octachlorinated diphenyl ethers: **17** 40.
Octachlorobiphenyls: **31** 7, 17, 21, 32, 33, 43, 59.
Octachlorocamphene: **4** 3.
Octachlorocyclopentene: **21** 2.
Octachlorodibenzofurans: **17** 9, 13.
Octachlorodioxins: **17** 9, 11, 40.
Octachlorophenoxyphenols: **17** 10, 21, 40.
Octachlorostyrenes: **31** 19.
Octa-klor: **21** 4.
Octaterr: **21** 4.
Octyltins: **15** 5, 54.
OMS 1804: **25** 3.
Ontrack WE-l: **17** 6.
Organoarsenicals: **12** 1-81.
Organoleads: **14** 1-108.
Organotins: **15** 1-70.
Orthoarsenic acid: **12** 7.
Ortho-klor: **21** 4.
Ortho paraquat: **22** 4.
Orvar: **22** 4.

Oxalic acid: **22** 7; **30** 15.
Oxazolone: **21** 38, 42.
Oxychlordane: **21** 1-44.
PAHs: **11** 1-81.
Palladium-109: **29** 5.
2-PAM: **9** 23.
Papite: **28** 4.
PAPP: **30** 41.
Paracol: **22** 4.
Paraoxon: **21** 36.
Paraquat: **5** 27; **22** 1-28.
Paraquat CL: **22** 4.
Paraquat dichloride: **22** 1-28.
Paraquat dimethylsulfate: **22** 2.
Parathion: **10** 50; **21** 36; **27** 12.
Paris green: **12** 5; **33** 3.
PASCO: **26** 6.
Pathclear: **22** 4.
PCBs: **7** 1-72; **31** 1-75.
PCDDs: **8** 1-30; **31** 9, 14, 59.
PCDFs: **31** 9, 14, 59.
PCP: **17** 6.
PDD 6040-I: **25** 3.
Penchloral: **17** 6.
Penicillamide: **28** 7.
D-Penicillamine: **26** 12; **33** 10; **34** 65.
Penta: **17** 6.
Pentaborane: **20** 2, 3, 22, 23, 26, 28.
2,2',4,5,5'-Pentachlorobiphenyl: **7** 7, 8.
2,3,3',4,4'-Pentachlorobiphenyl: **31** 20.
3,3',4,4',5-Pentachlorobiphenyl: **8** 6.
Pentachlorobiphenyls: **31** 5, 6, 17, 21, 25, 32-34, 36, 38, 43, 59.
Pentachlorocyclopentadiene: **21** 2.
1,2,3,7,8-Pentachlorodibenzodioxin: **8** 5, 25.
1,2,4,7,8-Pentachlorodibenzodioxin: **8** 5, 25.
2,3,4,7,8-Pentachlorodibenzofuran: **7** 3.
Pentachlorodibenzofurans: **17** 9; **31** 9.
Pentachlorodioxins: **17** 9.
Pentachlorophenol: **8** 2, 3, 5; **17** 1-72.
Pentachlorophenol laurate: **17** 4.
Pentacon: **17** 6.
Pentafluorobenzyl bromide: **30** 7.
Penta general weed killer: **17** 6.
Penta-kil: **17** 6.
N-Pentane: **18** 5.
2,4-Pentanedione: **26** 14.
Pentanol: **17** 6.
Pentasol: **17** 6.
Pentlandite $(FeNi)_9S_8$): **34** 3.
Pentobarbital: **30** 12.
Penwar: **17** 6.
Permacide: **17** 6.
Permaguard: **17** 6.
Permasem: **17** 6.
Permatox: **17** 6.
Permethrin: **24** 11.
Perylene: **11** 5, 16, 20, 23, 24, 44, 47-49.
PH 60-40: **25** 3.
Phenacide: **4** 3.
Phenanthrene: **11** 5, 17-19, 23, 25, 27, 28, 30-33, 36, 39, 40, 44, 45, 47, 50, 52, 53, 55.
Phenatox: **4** 3.
Phenethyl isothiocyanate: **11** 35.
Phenobarbital: **22** 5; **33** 10.
Phenoclor: **7** 5, 36.
Phenoclor DP6: **7** 5.
Phenothrin: **24** 11.
3-Phenoxybenzaldehyde: **24** 6, 8.
3-Phenoxybenzoic acid: **24** 12, 28, 29.
3-Phenoxybenzoyl cyanide: **24** 10.
3-Phenoxybenzoyl glucine: **24** 36.
3-Phenoxybenzyl alcohol: **24** 29.
3-Phenoxybenzyl cyanide: **24** 10.
3-Phenoxybenzyl methylbutyric acid: **24** 6.
Phenoxyphenols: **17** 3, 5, 10, 52.
2-Phenoxyphenols: **17** 8, 40.
4-Phenoxyphenols: **17** 8.
Phenvalerate: **24** 4.
Phenylmercury: **10** 51, 52, 54, 59.
Phenyltins: **15** 5.
Phenytoin: **33** 10.
Phosphomolybdic acid: **20** 5.
Phosphorothioic acid: **13** 2.
Phosphorothioic acid 0,0-diethyl O-(6-methyl-2-(1-methylethyl)-4-pyrimidinyl ester: **9** 1-30.
Phosphorothioic acid 0,0-diethyl 0-(3,5,6-trichloro-2-pyridinyl) ester: **13** 1-24.
Phosphorothioic acid, O-[4-(dimethylamino)sulfonyl], phenyl O,O-dimethyl ester: **27** 1-21.
Phosphorothioic acid, O,O-dimethyl O-*p*-(dimethylsulfamoyl) phenyl ester: **27** 4.
Phosphorothioic acid, O,O-dimethyl-,O-ester with *p* hydroxy-N,N-dimethylbenzene sulfonamide: **27** 4.
Phosphorus: **19** 6; **20** 13; **27** 19; **34** 8.
Phosphorus-32: **29** 3, 5, 13, 14, 75, 98, 102, 105.
Cis-photochlordane: **21** 4, 29, 31-33.
Photomirex: **1** 28, 34.
4-Picolinic acid: **22** 7.
Pillarquat: **22** 4.
Pillarxone: **22** 4.
Pindone: **30** 41.
Piperonyl butoxide: **24** 13, 15.
Planar PCBs: **31** 1-75.
Platinum: **34** 9.
Plutonium-238: **29** 7, 11, 15, 17-20, 23-28, 33-35, 39, 40, 46, 58, 59, 73, 76, 88, 90, 91, 101.

Plutonium-239: **29** 7, 11, 13-15, 17-21, 23-28, 30, 33-35, 38-40, 43, 46, 58, 59, 78, 88, 90, 95, 98, 101, 102, 105.
Plutonium-240: **29** 7, 15, 18-21, 23-28, 33-35, 38-40, 43, 46, 58, 59, 78, 88, 90, 101.
Plutonium-241: **29** 7, 15, 39, 46, 97.
Plutonium-242: **29** 7, 15, 101.
Plutonium-244: **29** 7, 15.
PNAs: **11** 3.
Polonium-210: **29** 6, 8, 9, 15, 18, 20, 21, 25-27, 29, 30, 35, 42, 85, 96, 98, 102, 105.
Polonium-211: **29** 6, 9.
Polonium-212: **29** 6, 9.
Polonium-214: **29** 6, 8, 9, 95.
Polonium-215: **29** 6, 9.
Polonium-216: **29** 6, 9, 95.
Polonium-218: **29** 7-9.
Polychlorinated biphenyls: **1** 26; **4** 7, 19; **7** 1-72; **8** 2, 3, 27, 29; **21** 8, 42; **26** 42; **31** 1-75.
Polychlorinated dibenzofurans: **7** 3, 5, 55.
Polychlorinated dibenzo-*para*-dioxins: **8** 1-30.
Polychlorocamphene: **4** 3.
Polycyclic aromatic hydrocarbons: **11** 1-81; **34** 9, 10.
Polycyclic organic matter: **11** 3.
Polymethacrylates: **22** 2.
Polynuclear aromatic hydrocarbons: **11** 2.
POM: **11** 3.
Potassium-40: **29** 4, 5, 10, 17, 18, 20-22, 25-27, 29-31, 33-35, 38, 51, 52, 54, 58.
Potassium-42: **29** 5, 13.
Potassium arsenite: **12** 5.
Potassium cyanide: **23** 5, 20, 22, 30, 31, 34, 36-39, 41-46.
Potassium monofluoroacetate: **30** 2.
Potassium pentachlorophenate: **17** 5.
Potassium sorbate: **30** 6.
Potassium thiocyanate: **23** 45.
Powellite: **19** 3.
PP 148: **22** 4.
PP 910: **22** 4.
Pralidoxime: **9** 6.
Pralidoxime chloride: **27** 3, 19.
Praseodymium-143: **29** 6.
Praseodymium-144: **29** 6, 75.
Praseodymium-147: **29** 6, 27, 97.
Preeglone: **22** 4.
Priltox: **17** 6.
Primatol A: **18** 3.
Profenofos: **24** 13; **25** 9.
Promethium-147: **29** 6.
Propenal: **28** 5.
2-Propenal: **28** 1-27.
Propionitrile: **23** 6, 40.
Propranolol: **24** 13.
Propylene: **28** 3.
Protactinium-231: **29** 7, 9, 16.
Protactinium-234: **29** 7-9.
Protactinium-234m: **29** 7.
Prussic acid: **23** 5.
Pydrin: **24** 4.
Pyralene: **7** 5.
Pyranol: **7** 5.
Pyrene: **11** 4, 5, 10, 14, 16, 19, 20, 27-29, 32, 44, 47, 48, 53, 56.
Pyridine: **22** 3.
2-Pyridinealdoxime methochloride: **9** 23.
Pyridoxal 5-phosphate: **23** 11.
Pyridoxine hydrochloride: **2** 23.
Pyrimidinol: **9** 28.
Pyrinex: **13** 4.
Pyrite: **12** 3; **14** 5.
Quinolinic acid: **9** 23.
Radium-223: **29** 7, 9.
Radium-224: **29** 7, 9, 89, 95.
Radium-226: **29** 7-9, 13, 16, 18, 20, 21, 23, 27, 29, 30, 32, 34, 35, 41, 42, 71, 85, 95, 97, 98, 100-103, 105.
Radium-228: **29** 7, 9, 20, 95, 100, 101.
Radon-218: **29** 7, 9.
Radon-219: **29** 7, 9.
Radon-220: **29** 7, 9.
Radon-222: **29** 7-9, 13, 18, 98.
Ramrod: **18** 3.
Red squill: **30** 2.
Resmethrin: **24** 2, 11.
Rhodium-106: **29** 5.
Roman vitriol: **33** 4.
Ronnel: **8** 3.
Rubidium-86: **29** 5.
Rubidium-87: **29** 4, 5, 10, 18, 20, 25, 26, 29, 30.
Ruthenium: **29** 77.
Ruthenium-103: **29** 5, 13, 18, 22, 26, 27, 30, 46, 49-54.
Ruthenium-106: **29** 5, 10, 12, 13, 18, 21, 24, 26, 27, 30, 43-46, 49, 51, 53, 54, 58, 60, 61, 79.
S-5602: **24** 4.
Salzburg vitriol: **33** 4.
Samarium-143: **29** 4, 6.
Samarium-151: **29** 6, 97.
Sanmarton: **24** 4.
Santobrite: **17** 6.
Santophen: **17** 6.
Santotherm: **7** 5.
Sarin: **27** 2.
Sarolex: **9** 3.
SD 43775: **24** 4.
Selenium: **2** 24, 31; **5** 1-57; **7** 53; **10** 11, 43, 60, 64; **11** 57; **12** 11; **20** 19; **22** 5, 16; **23** 32, 33; **26** 13, 74-76; **32** 5, 9, 31, 37; **33** 8, 44, 65.
Selenium-75: **23** 44; **29** 5, 33, 83.

Selenium dioxide: **5** 3, 5.
Selenomethionine: **5** 29, 30, 39.
Selocide: **5** 25.
Selenopurine: **5** 30.
Shell atrazine herbicide: **18** 3.
Shell silver: **32** 5.
Silber: **32** 5.
Silflake: **32** 5.
Silicoborates: **20** 14.
Silicon: **26** 7; **33** 39.
Silpowder: **32** 5.
Silver: **5** 6, 26, 38; **10** 17; **12** 5; **15** 49; **26** 8; **29** 77; **32** 1-44; **33** 8, 9, 41.
Silver (1+) nitrate: **32** 5.
Silver 108m: **29** 5, 31.
Silver-110: **29** 5, 46.
Silver-110m: **29** 5, 25, 26, 30, 31, 58-60, 63, 64, 76, 79; **32** 6, 8, 9, 21, 22, 24, 26, 28-30, 34.
Silver-111: **29** 5.
Silver-113: **29** 5.
Silver acetate: **32** 5, 9.
Silver acetylide: **32** 5.
Silver albuminate: **32** 8, 35.
Silver atom: **32** 5.
Silver azide: **32** 5.
Silver carbonate: **32** 6.
Silver chloride: **32** 6, 8, 18, 20, 30.
Silver colloidal: **32** 5.
Silver cyanide: **23** 5, 6, 27; **32** 35.
Silver fulminate: **32** 35.
Silver iodide: **32** 3, 10, 17.
Silver nitrate: **32** 2, 4, 5, 7, 30-32, 35.
Silver oxalate: **32** 5.
Silver selenide: **5** 4; **32** 9.
Silver sulfadiazine: **32** 4.
Silver sulfate: **32** 6.
Silver sulfide: **32** 6-8, 29, 30.
Silver thiosulfate: **32** 3, 6, 7, 30.
Silvex: **8** 3, 29.
Simazine: **18** 14.
Sinituho: **17** 6.
Sodium-22: **29** 3, 5.
Sodium-24: **29** 3, 5, 13, 14, 33, 41.
Sodium acetate: **30** 7, 12, 13, 40.
Sodium alpha ketoglutarate: **30** 12.
Sodium arsanilate: **12** 63, 81.
Sodium arsenate: **12** 4, 5, 64, 67, 70.
Sodium arsenite: **12** 4-6, 12, 38, 41, 55-57, 60, 63-68, 70; **28** 4.
Sodium bicarbonate: **30** 8.
Sodium bisulfite: **28** 25.
Sodium borate: **20** 17, 23-25, 28.
Sodium borohydride: **20** 26.
Sodium cacodylate: **12** 49, 52, 57, 58, 64, 67, 70.
Sodium chromate: **6** 41.
Sodium citrate: **14** 15.
Sodium cyanide: **23** 5, 8, 11, 20, 22, 24, 27-31, 35-46, 50; **30** 4.
Sodium diethyldithiocarbamate: **34** 12, 65.
Sodium dimethylarsenate: **12** 46, 47, 49, 52.
Sodium ferrocyanide: **23** 12.
Sodium fluoacetate: **30** 8.
Sodium fluoride: **23** 7; **30** 14.
Sodium fluoroacetate: **30** 8.
Sodium hexacyanoferrate: **23** 12.
Sodium molybdate: **19** 22, 23, 30, 40.
Sodium monofluoroacetate: **30** 1-47.
Sodium nitrite: **23** 1, 10, 33.
Sodium nitroprusside: **23** 12, 32.
Sodium pentachlorophenate: **6** 42; **17** 1-58.
Sodium pyruvate: **20** 19; **23** 10.
Sodium selenate: **5** 26.
Sodium selenite: **5** 26, 29.
Sodium succinate: **30** 7, 12, 31, 40.
Sodium sulfate: **30** 13; **33** 75, 78.
Sodium tetraborate: **20** 3, 24.
Sodium thiocyanate: **23** 11.
Sodium thiosulfate: **12** 12; **23** 1, 9-11, 33.
Soman: **27** 2.
Soval: **7** 5.
Spectracide: **9** 3.
Spermidine: **28** 3.
Spermine: **28** 3.
Sphalerite: **14** 5; **26** 4.
Stalinon: **15** 1.
Stannic compounds: **15** 3, 4.
Stannite: **15** 12.
Stannous compounds: **15** 3, 4.
Stannous fluoride: **15** 12.
Strobane-T: **4** 3.
Strontium: **19** 19; **29** 77.
Strontium-85: **29** 5, 13, 28, 79.
Strontium-89: **29** 5, 10, 13, 18, 19, 28, 43, 46.
Strontium-90: **29** 4, 5, 10, 12-14, 18, 19, 21-25, 27, 28, 31, 32, 36-38, 40-43, 46, 56, 63, 67, 73, 74, 76-79, 81, 88, 96-98, 100-102, 105.
Strychnine: **30** 2.
Strychnine sulfate: **5** 30.
Succinic acid: **22** 7.
Succinonitrile: **23** 6, 40, 46.
Sulfates: **19** 5, 21, 23, 30, 31, 37, 39, 42; **33** 79.
Sulfotep: **9** 3.
Sulfur: **5** 26, 27, 30, 40; **19** 3, 6, 33, 34, 36, 37, 41; **23** 1, 9, 33, 46; **33** 9.
Sulfur-35: **29** 3, 5, 14.
Sumicidin: **24** 4.
Sumifly: **24** 4.
Sumipower: **24** 4.

Sumitox: **24** 4.
Sweep: **22** 4.
Synklor: **21** 4.
Synthetic 3956: **4** 3.
Tabun: **27** 2.
Tartrazine: **30** 4.
Tat-chlor 4: **21** 4.
2,3,7,8-TCDD: **8** 1-30.
Technetium-99: **29** 5.
Technetium-99m: **29** 5.
Teflubenzuron: **25** 10.
Tellurium: **32** 5.
Tellurium-127m: **29** 6.
Tellurium-129: **29** 6.
Tellurium-129m: **29** 6.
Tellurium-132: **29** 6, 46.
Tenaklene: **22** 4.
Ten-eighty: **30** 8.
Term-l-trol: **17** 6.
Tetraalkyllead: **14** 6, 10, 11, 50, 69, 102.
Tetraalkyltins: **15** 35, 50.
1,4,8,11-Tetraazacyclotetradecane: **34** 9.
Tetrabutyltins: **15** 22, 46, 52, 62.
2,2',4,4'-Tetrachlorobiphenyl: **7** 4.
2,2',5,5'-Tetrachlorobiphenyl: **7** 7, 48, 55.
3,4,3',4'-Tetrachlorobiphenyl: **7** 8, 53; **8** 6; **31** 20.
Tetrachlorobiphenyls: **31** 4, 5, 17, 21, 25, 32-34, 36, 38, 43, 59.
2,3,6,7-Tetrachlorobiphenylene: **8** 6.
Tetrachlorobornane: **4** 2.
Tetrachlorocatechols: **17** 11.
1,2,3,7-Tetrachlorodibenzodioxin: **8** 9.
1,2,3,8-Tetrachlorodibenzodioxin: **8** 5, 9.
1,3,6,8-Tetrachlorodibenzodioxin: **8** 18.
1,3,7,8-Tetrachlorodibenzodioxin: **8** 9.
2,3,7,8-Tetrachlorodibenzo-para-dioxin (2,3,7,8-TCDD): **8** 1-30; **31** 9, 10, 12, 18, 20, 22, 37, 39, 48, 59, 60; **33** 10.
2,3,7,8-Tetrachlorodibenzofuran: **7** 3; **31** 19, 20.
Tetrachlorodihydroxyl benzenes: **17** 11.
Tetrachlorodiols: **17** 11.
Tetrachlorodioxins: **17** 9.
Tetrachlorohydroquinones: **17** 11, 19.
2,3,4,5-Tetrachlorophenol: **17** 9.
2,3,4,6-Tetrachlorophenol: **8** 5; **17** 8, 9.
Tetrachlorophenols: **17** 8, 11, 40.
Tetraethyl dithiopyrophosphate: **9** 3.
Tetraethyllead: **14** 5-7, 9, 11, 56, 65-67, 69, 76, 78, 87, 93, 96.
Tetraethyltins: **15** 39, 52, 61, 67.
Tetrahydro-5,5-dimethyl-2(1H)-pyrimidine: **1** 34.
Tetramethrin: **24** 2, 11.
Tetramethyllead: **14** 5, 9, 10, 50, 60, 65-67, 69, 87, 96.
Tetramethyltins: **15** 5, 21, 27, 38, 61, 64.
Tetraorganotins: **15** 11, 15, 37, 52, 64, 65.
Tetraphenyltins: **15** 52.
Tetrapropyltins: **15** 64.
Tetrathiomolybdates: **19** 6.
Tetrodotoxin: **24** 12.
TH 6040: **25** 3.
Thallium: **5** 27; **30** 2.
Thallium-206: **29** 6, 9.
Thallium-207: **29** 6, 9.
Thallium-208: **29** 6, 9.
Thallium-210: **29** 6, 9.
Thiomolybdates: **19** 6.
Thorium-227: **29** 7, 9, 89, 96.
Thorium-228: **29** 7, 9, 20, 27, 42, 98, 102, 105.
Thorium-230: **29** 7-9, 13, 20, 98, 101, 102, 105.
Thorium-231: **29** 7, 9.
Thorium-232: **29** 4, 7, 9, 10, 17, 18, 20, 29, 42, 98, 101, 102, 105.
Thorium-234: **29** 7-9.
Thymidine kinase: **25** 27.
Tin: **11** 35; **15** 1-83; **26** 13; **32** 12.
Tin-113: **15** 27.
Tin-123: **29** 5.
Tin-126: **29** 5, 101.
Titanium: **29** 77.
Toluene: **11** 48; **31** 39.
Topiclor 20: **21** 4.
Totacol: **22** 4.
Toxakil: **4** 3.
Toxaphene: **4** 1-26; **21** 2.
Toxer total: **22** 4.
Toxichlor: **21** 4.
Toxon 63: **4** 3.
Trialkyllead: **14** 11, 52, 69, 86, 102.
Trialkyltins: **15** 2, 3, 10, 35, 50, 52, 64.
Tributylmethyltins: **15** 5.
Tributyltin acetate: **15** 59.
Tributyltin fluoride: **15** 65.
Tributyltin oxide: **15** 36, 52.
Tributyltins: **15** 1, 2, 5-11, 13, 16, 20, 22, 24, 26-28, 30, 31, 34, 35, 37, 40, 46, 48, 49, 58, 63, 64, 67, 68, 70; **33** 41.
Trichlorobenzenes: **8** 29.
Trichlorobenzoquinones: **17** 11.
2,2',5-Trichlorobiphenyl: **7** 7.
Trichlorobiphenyls: **31** 4, 17, 21, 25, 32-34, 36, 38.
Trichlorobornane: **4** 2.
2,3,7-Trichlorodibenzodioxin: **8** 25.
Trichlorodiols: **17** 11.
Trichlorohydroquinones: **17** 11.
Cis-N-((trichloromethyl)thio)-4-cycyclohexane-1,2-dicarboximide: **9** 29, 30.
2,4,5-Trichlorophenol: **8** 1, 3; **17** 8.
2,4,6-Trichlorophenol: **8** 5; **17** 8.

Trichlorophenols: **17** 9, 11.
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T): **8** 2, 3, 5, 8, 16, 29.
3,5,6-Trichloro-2-pyridinol: **13** 2.
Trichloropyrophos: **13** 4.
Tricyclohexyltin bromide: **15** 36.
Tricyclohexyltin chloride: **15** 52.
Tricyclohexyltins: **15** 10, 11, 16, 60, 68, 69.
Triethanolamine cacodylate: **12** 68.
Triethylenetetramine: **34** 9.
Triethyllead: **14** 56, 65-67, 84, 96.
Triethyltin acetate: **15** 1.
Triethyltin chloride: **15** 52.
Triethyltin hydroxide: **15** 36.
Triethyltins: **15** 1, 10, 35, 37, 39, 49, 57, 63, 64, 66-68.
Trihexyltins: **15** 60.
Trimethylarsine: **12** 8, 56.
Trimethyllead: **14** 65-67, 69, 84, 96, 103.
Trimethylnaphthalenes: **11** 39.
Trimethylselenomium chloride: **12** 11.
Trimethyltin chloride: **15** 35, 49.
Trimethyltin hydroxide: **15** 36.
Trimethyltins: **15** 5, 7, 10, 20, 23, 25, 28, 30, 32, 37, 38, 49, 55, 63, 66.
Trioctyltins: **15** 61.
Triorganotins: **15** 8, 10, 11, 13, 15, 16, 18, 35, 37, 52, 64-67, 70.
Tripentyltins: **15** 37, 46.
Triphenyltin chloride: **15** 36.
Triphenyltin hydroxide: **15** 36.
Triphenyltins: **15** 6-10, 37, 46-48, 59, 64, 68.
Tripropyltin chloride: **15** 52.
Tripropyltin oxide: **15** 36.
Tripropyltins: **15** 10, 37, 39, 58.
Trithiomolybdates: **19** 6.
Trivalent chromium: **6** 1-46.
Trivalent copper: **33** 5.
Tungsten: **5** 30; **19** 3, 4, 6, 29.
Tungsten-181: **29** 6, 79.
Tungsten-185: **29** 6, 97.
Tungsten-187: **29** 6.
Tyrosinase: **33** 5.
U_3O_8: **29** 12.
Uracil: **28** 21.
Uranium: **6** 42; **12** 5; **19** 1, 3, 4, 9, 19, 42; **32** 11; **33** 32.
Uranium-232: **29** 73, 76.
Uranium-233: **29** 7, 101.
Uranium-234: **29** 7-9, 17-20, 27, 29, 30, 101.
Uranium-235: **29** 4, 7, 9, 13, 14, 17-20, 27, 29, 30, 98, 101, 102, 105.
Uranium-236: **29** 7, 101.
Uranium-238: **29** 3, 4, 7-10, 14, 17-20, 27, 29, 30, 98, 101, 102, 105.
Uranium dioxide: **29** 13.
Uranium hexafluoride: **29** 13.
Uridine diphospo N-acetyl glucosamine: **25** 4, 24.
Vanadium: **6** 18; **19** 3, 6, 23; **26** 13.
Vapotone: **4** 3.
Vectal: **18** 3.
Vectal SC: **18** 3.
Velsicol 1068: **21** 4.
Vinyl acetate: **28** 24.
Warbex: **27** 1-21.
Warfarin: **30** 6.
Weed-beads: **17** 6.
Weedol: **22** 4.
Weedone: **17** 6.
WL 43775: **24** 4.
Wolframate: **19** 29.
Wulfenite: **19** 3.
Wurtzite: **26** 4.
Xanthines: **31** 39.
Xanthones: **31** 39.
Xenon-131: **29** 6, 13.
Xenon-133: **29** 6, 13, 43, 46.
Xenon-135: **29** 6, 43.
Xylene: **1** 2.
Yttrium-90: **29** 4, 5, 73, 74, 76, 78.
Yttrium-91: **29** 5, 13, 78.
Zinc: **2** 1, 16, 24, 26, 31; **5** 6, 26, 37, 38; **6** 25; **7** 53; **10** 60; **12** 5, 12; **14** 9, 15, 45, 49, 54, 57; **15** 49, 63; **19** 6, 19; **20** 11, 13; **23** 11, 28; **26** 1-106; **27** 8; **29** 77; **31** 20; **32** 2, 19, 26, 30, 35; **33** 6-9, 33, 36, 37, 39-41, 69, 74, 79; **34** 4, 8, 9, 37, 59, 64.
Zinc-65: **26** 47, 67, 70, 72; **29** 5, 14, 16, 22, 24-27, 30, 31, 33, 37, 74, 79, 83, 84, 96.
Zinc acetate: **26** 12, 14.
Zinc bicarbonate: **26** 6, 7.
Zinc carbonate: **26** 6, 7, 70.
Zinc chloride: **26** 6, 7, 13, 14, 87.
Zinc chromate: **6** 41.
Zinc humic acid: **26** 7.
Zinc hydroxide: **26** 7, 70.
Zinc oxide: **26** 5, 6, 14, 75-77, 79, 82, 87.
Zinc phosphate: **26** 68.
Zinc phosphide: **26** 76.
Zinc sulfate: **26** 5-7, 13, 14, 72, 78-81; **33** 79.
Zinc sulfide: **26** 6.
Zineb: **26** 13.
Ziram: **26** 13.
Zirconium: **19** 19; **29** 77.
Zirconium-95: **29** 4, 5, 10, 12, 13, 16, 18, 21, 22, 24, 26-28, 30, 33, 46, 53, 96.
$[Zn(H_2O)_6]^{2+}$: **26** 1, 5-7.

Section 2: Index to Species

Common and scientific names of plants and animals listed in the Contaminant Hazard Reviews (CHR) series. Individual species are indexed by scientific name, by **CHR report number** and by page numbers within each CHR report. References are provided from common names to scientific names.

Abalone
  Black, *Haliotis cracherodii*
  Red, *Haliotis rufescens*
  Various, *Haliotis tuberculata*
Abalones: **26** 19.
Abelmoschus esculentus: **3** 18; **19** 22, 45; **24** 6, 10.
Abies spp.: **25** 24, 25; **26** 51; **33** 47.
Acacia georginae: **30** 2, 14.
Acacia spp.: **30** 13.
Acanthogobius flavimanus: **21** 10.
Acartia clausi: **5** 33; **6** 22, 24; **10** 60; **12** 50; **23** 21; **33** 52.
Acartia spp.: **26** 69.
Acartia tonsa: **4** 10; **5** 33; **7** 47; **10** 48; **15** 43; **18** 26, 29; **25** 13, 14; **26** 57; **32** 24; **33** 39, 48, 52.
Accipiter cooperii: **2** 13, 15; **7** 15; **21** 18.
Accipiter fasciatus: **30** 24.
Accipiter gentilis: **10** 31; **31** 41.
Accipiter nisus: **10** 31, 41, 63; **31** 41.
Accipiter sp.: **10** 41.
Accipiter striatus: **21** 18; **31** 41.
Acer macrophyllum: **20** 12.
Acer rubrum: **3** 26; **26** 51, 82; **33** 13, 14, 34, 69; **34** 20.
Acheta domesticus: **26** 10, 12.
Acheta pennsylvanicus: **21** 29; **24** 14, 15.
Acholla multispinosa: **25** 10.
Achyla sp.: **34** 39.
Acipenser nudiventris: **15** 39, 66.
Acipenser oxyrhynchus: **29** 29.
Acipenser stellatus: **15** 39.
Acmaea digitalis: **14** 28.
Acris crepitans: **33** 25; **34** 26, 35.
Acris sp.: **10** 47.
Acrobeloides sp.: **25** 8.
Acrocheilus alutaceus: **29** 28.
Actinomycete, *Nocardiopsis* sp.
Actinomycetes sp.: **23** 26.
Actitis macularia: **7** 15.
Adamussium colbecki: **33** 16.
Adelotus brevis: **22** 13.
Adinia xenica: **1** 14.
Aechmophorus occidentalis: **33** 25.
Aedes aegypti: **8** 19; **25** 11; **27** 8.
Aedes albopictus: **25** 11, 12, 20.
Aedes melanimon: **25** 6, 23.
Aedes nigromaculis: **24** 17; **25** 6, 12, 23.
Aedes sp.: **24** 17.
Aegolius funereus: **31** 41.
Aeolanthus bioformifolius: **33** 14, 39.
Aeolanthus sp.: **33** 39.
Aepyceros melampus: **33** 29, 42, 79.
Aeromonas sp.: **5** 4.
Agapornis roseicollis: **26** 76.
Agaricus bisporus: **25** 7.
Agaricus campestris: **32** 18.
Agelaius phoeniceus: **1** 4, 6, 9; **3** 1, 11, 12, 15; **4** 6; **7** 36, 40; **9** iii, 8, 9, 14; **10** 50; **13** 13; **14** 77; **21** 34, 36; **24** 8; **27** 11, 12; **31** 41.
Agosia chrysogaster: **26** 59.
Agriolimax reticulatus: **9** 25.
Agrobacter sp.: **6** 29.
Agropyron cristatum: **30** 14.
Agropyron smithii: **5** 21.
Agrostis tenuis: **12** 22; **22** 8.
Agrotis ipsilon: **29** 42.
Aix sponsa: **10** 31, 40; **29** 84; **34** 26.
Albacore, *Thunnus alalunga*
Albatross, Laysan, *Diomedea immutabilis*
Albatrosses: **26** 19; **33** 26.
Alburnus alburnus: **15** 46; **24** 21.
Alca torda: **31** 41, 54.
Alcaligenes sp.: **34** 37.
Alces alces: **10** 64; **29** 48, 56, 62, 63, 104; **33** 29; **34** 31, 36.
Alces alces gigas: **19** 16, 42.
Alcidae: **7** 22.
Alcyonia alcyonium: **26** 19.
Aldrichetta forsteri: **6** 22, 24.
Alectoris chukar: **10** 51; **12** 57; **13** 13.
Alectoris graeca: **30** 18.
Alewife, *Alosa pseudoharengus*
Alfalfa, *Medicago sativa*
Algae
  Bladder wrack, *Fucus vesiculosus*
  Blue-green, *Anabaena flos-aquae*, *Aphanizomenon flos-aquae*, *Microcystis aeruginosa*
  Brown, *Ascophyllum nodosum*, *Egregia laevigata*, *Fucus*, *Laminaria*, *Pelvetia canaliculata*
  Red, *Champia parvula*, *Plumaria elegans*
  Various, *Amphidinium* spp., *Amphora coffeaeformis*, *Anabaena*, *Anacystis*, *Ankistrodesmus*, *Asterionella formosa*, *Asteromonas gracilis*, *Bellerochea polymorpha*, *Blidingia minima*, *Chara* sp., *Chlamydomonas*, *Chlorella*, *Chlorococcum* sp., *Chroomonas* sp., *Cladophora*, *Coelastrium cambricum*, *Cricosphaera* sp., *Cyclotella*, *Cylindrotheca fusiformis*, *Cymodocea* sp., *Diatoma* sp., *Dunaliella*, *Enteromorpha*, *Epithemia* sp., *Exuviella baltica*, *Glenodinium halli*, *Gymnodinium splendens*, *Haslea ostrearia*, *Hymenomonas*

carterae, Isochrysis galbana, Microspora sp., *Mougeotia* sp., *Nannochloris oculata, Nitella* spp., *Nitzchia, Nostoc muscorum, Ochromonas danica, Oedogonium, Olisthodiscus lutens, Peridinium gatunense, Phormidium inundatum, Platymonas subcordiformis, Plectonema boryanum, Polygonum* sp., *Procentrum micans, Prorocentrum mariae-lehouriae, Rhizosolenia* sp., *Scenedesmus, Schroederella* spp., *Scripsiella faeroense, Selenastrum capricornutum, Skeletonema costatum, Spirogyra* sp., *Symiodinium* sp., *Synedra* sp., *Tabellaria* sp., *Tetraedron* sp., *Tetraselmis chui, Thallassiosira, Tolypothrix, Ulothrix* sp., *Ulva* sp., *Zygnema* sp.
Alligator, *Alligator mississipiensis*
Alligator mississipiensis: **12** 32; **26** 26; **31** 40.
Allium porrum: **11** 35.
Allium cepa: **34** 20.
Allium sp.: **9** 1; **28** 3; **34** 13, 21.
Allolobophora spp.: **8** 17; **29** 55; **34** 22.
Allorchestes compressa: **19** 25; **26** 11, 57; **33** 52.
Allysum spp.: **34** 21, 34, 37, 39.
Almond, *Prunus amygdalus*
Almond, bitter, *Prunus dulcis*
Alopex lagopus: **29** 63; **30** 5, 26, 40; **33** 30.
Alosa pseudoharengus: **1** 27, 29; **6** 12; **12** 23; **17** 15; **31** 39.
Alpaca, *Lama pacos*
Alphitobius diaperinus: **27** 6, 7.
Amblema sp.: **33** 17.
Ambloplites rupestris: **10** 26; **33** 22; **34** 25, 43.
Amblyomma americanum: **27** 13, 17, 18.
Amblyomma maculatum: **27** 13, 17, 18.
Ambystoma jeffersonianum: **33** 42.
Ambystoma maculatum: **33** 39.
Ambystoma mexicanus: **17** 36.
Ambystoma opacum: **10** 47; **12** 47; **14** 72; **26** 64; **33** 62; **34** 45.
Ambystoma tigrinum: **11** 24, 49.
Ameiurus melas: **4** 9; **31** 25, 33.
Ameiurus nebulosus: **7** 12; **8** 10, 11, 16; **11** 23, 31, 47, 49; **17** 15; **23** 22; **25** 18, 21; **26** 24; **33** 23, 57, 72; **34** 25, 33.
Amia calva: **26** 24; **28** 11.
Amnicola sp.: **6** 23.
Ampelisca abdita: **14** 67.
Amphidinium spp.: **26** 57.
Amphioxus, *Branchiostoma caribaeum*
Amphipods, *Allorchestes, Ampelisca, Corophium, Crangonyx, Elasmopus, Gammarus, Hyalella, Orchestia, Parhallella, Pontoporeia, Rhepoxynius, Talitrus, Talorchestia, Themisto*
Amphora coffeaeformis: **15** 48.
Amrasca biguttula biguttula: **24** 14.
Anabaena flos-aquae: **33** 3.
Anabaena inequalis: **34** 40.
Anabaena spp.: **5** 31; **18** 14, 26; **19** 23, 24; **28** 9; **31** 51.
Anabas testudineus: **3** 8, 20, 21; **34** 43.
Anacardium occidentale: **19** 22.
Anacystis marina: **32** 20.
Anacystis nidulans: **5** 31; **20** 15; **26** 66; **34** 40, 47.
Anadara granosa: **33** 17.
Anadara trapezium: **33** 40.
Ananas comusus: **18** 1, 3, 41.
Anarhichas minor: **14** 32.
Anas acuta: **3** 1; **7** 16; **14** 2, 42, 75; **30** 18.
Anas americana: **3** 1; **30** 18.
Anas carolinensis: **3** 1; **29** 82.
Anas clypeata: **7** 16; **2** l, 34; **29** 82.
Anas discors: **10** 32; **21** 34; **26** 27, 43; **29** 82.
Anas fulvigula: **14** 42.
Anas platyrhynchos: **1** 6, 7, 9, 15, 31; **2** iii, 16, 24, 30, 34; **3** 11, 12, 14; **4** 8, 12, 17; **5** 20, 29, 38, 39; **7** 16, 32, 36, 40, 41, 52; **8** 23; **9** iv, 1, 9, 12, 14; **10** 33, 50, 51, 53, 62, 63, 71; **11** 50; **12** 57; **13** 12, 14, 15, 22, 24; **14** 12, 41, 42, 51, 73, 75-77, 79, 86; **15** 35, 49, 50, 52; **17** 21, 38; **18** 34; **20** 19, 20, 28; **21** 17, 18, 27, 34; **22** 7, 14, 16; **23** 29; **25** 24, 25; **26** 27, 43, 73, 75, 76, 85; **27** 9-12; **28** 13, 14; **29** 33, 83, 84, 105; **30** 11, 16, 18, 24; **31** 52; **33** 25, 42, 73; **34** 14, 26, 35, 47, 61, 64.
Anas rubripes: **1** 31; **2** 24; **4** 17; **6** 14, 27, 37, 38; **7** 16; **9** 1; **10** 62; **12** 32; **14** 2, 42, 51, 77; **21** 18, 27; **27** 12; **33** 25, 42; **34** 27.
Anas spp.: **5** 20, 26, 38; **9** iii, 1, 8, 14; **11** 1; **12** 32, 76; **13** 15; **14** 12, 13, 77; **21** 36; **26** 9, 11, 72, 90; **33** 25, 73.
Anas strepera: **14** 51; **34** 27.
Anas superciliosa: **30** 16, 18, 23.
Anastrepha ludens: **20** 13, 14.
Anastrepha suspensa: **29** 70, 71.
Anchovetta, *Cetengraulis mysticetus*
Anchovy
Adriatic, *Engraulis encrasicolus*
Northern, *Engraulis mordax*
Other, Engraulidae
Ancylus fluviatilis: **18** 32, 33; **26** 54.
Andropogon scoparius: **5** 21.
Anemone
Plumose, *Metridium senile*
Sea, *Anemonia viridis, Anthopleura xanthogrammica*
Anemonia viridis: **33** 49, 69.
Anguilla anguilla: **8** 12; **14** 72; **17** 35.
Anguilla rostrata: **8** 11; **29** 29; **31** 37; **34** 43.
Anguilla sp.: **1** 27; **5** 6, 37; **31** 32.
Anguilla vulgaris: **10** 61.
Anhinga, *Anhinga anhinga*
Anhinga anhinga: **1** 31.
Ankistrodesmus falcatus: **12** 45; **15** 6, 39, 46; **29** 71.

Ankistrodesmus sp.: **13** 18.
Annelids, *Nereis*, *Tubifex*
Anocentor nitens: **27** 6.
Anodonta anatina: **15** 40, 44; **34** 23.
Anodonta cygnea: **25** 13, 20; **26** 11; **33** 8, 49.
Anodonta grandis: **33** 17, 40, 49.
Anodonta nuttalliana: **26** 67.
Anodonta piscinalis: **33** 17, 35.
Anomalocera sp.: **26** 69.
Anopheles quadrimaculatus: **30** 15.
Anopheles stephensi: **24** 15.
Anser anser: **14** 51; **29** 33; **31** 52.
Anser spp.: **9** iii, 1, 14; **12** 76; **18** 36; **26** 27; **33** 26.
Ant
  Big-head, Formicidae
  Fire, *Solenopsis invicta*
  Harvester, *Pogonomyrmex* spp.
  Various, Formicidae, *Liometopum occidentale*, *Veromessor andrei*
Antechinus
  Brown, *Antechinus stuartii*
  Dusky, *Antechinus swainsonii*
Antechinus stuartii: **30** 26.
Antechinus swainsonii: **30** 26.
Antelope, Antilopinae
Anthocidaris crassispina: **6** 37; **14** 67; **20** 16; **26** 59.
Anthonomus grandis: **12** 6; **20** 14; **25** 1, 2, 8, 10, 32.
Anthopleura xanthogrammica: **29** 72.
Antilocapra americana: **6** 14, 17; **29** 42.
Antilopinae: **5** 26; **23** 12; **26** 31.
Antimora rostrata: **1** 24; **10** 26; **32** 19.
Anurans: **10** 47.
Apeltes quadracus: **5** 34.
Apheloria corrugata: **23** 15.
Apheloria kleinpeteri: **23** 15.
Apheloria spp.: **23** 20.
Aphids
  Black bean, *Aphis fabae*
  Various, *Lipaphis erysimi*, *Macrosiphium gei*
Aphinizomenon flos-aquae: **33** 3.
Aphis fabae: **33** 46.
Apis cerama: **24** 15.
Apis mellifera: **9** 1, 13; **12** 42, 44; **20** 14; **22** 7, 8; **24** 14, 15, 37; **25** 1, 2, 7, 8, 32; **26** 18, 40; **30** 15, 41; **33** 16.
Apis spp.: **3** 8, 17; **9** iii; **13** 22; **14** 29; **29** 52.
Apium graveolans: **4** 1; **24** 3; **34** 20, 34, 39.
Aplexa hypnorium: **28** 10.
Aplodinotus grunniens: **10** 26; **21** 12.
Aplodontia rufa: **8** 16; **19** 20.
Apodemus flavicollis: **26** 37.
Apodemus sylvaticus: **10** 35; **14** 42; **33** 30.
Aporrectodea rosea: **33** 35.
Aporrectodea tuberculata: **26** 51.
Apple, *Malus*
Apricot, *Prunus armenaica*
Apteryx spp.: **30** 24.
Aquila audax: **30** 18, 23, 24, 36.
Aquila chrysaetos: **23** 4; **26** 30, 76; **30** 4, 19, 24; **31** 41.
Aquila heliaca adalberti: **31** 41, 45.
Aquipecten irradians: **2** 28.
Ara araruana: **26** 76.
Arabidopsis thaliana: **29** 48.
Arachis hypogea: **3** 1, 19; **4** 19; **20** 11; **24** 3; **30** 14.
Arachnids: **3** 26; **5** 5; **14** 32; **15** 10, 15.
Aramus guarauna: **4** 7.
Araneus umbricatus: **14** 48.
Arbacia lixula: **14** 29; **32** 26.
Arbacia punctulata: **7** 48; **34** 42.
Arbutus menziesii: **20** 12.
Arctica islandica: **33** 17; **34** 23.
Arctocephalus pusillus: **10** 35.
Arcularia gibbosula: **10** 24.
Ardea cinerea: **10** 2, 54; **31** 41.
Ardea herodias: **7** 16; **10** 32; **21** 18; **31** 41, 60.
Arenicola cristata: **1** 8; **15** 44, 47, 48.
Arenicola marina: **26** 23; **29** 27.
Argiope aurantia: **33** 16.
Argopecten irradians: **10** 48; **26** 54; **32** 22; **33** 49, 70.
Arianta arbustorum: **34** 16.
Arion spp.: **26** 19, 50-52.
Arius felis: **4** 6; **11** 48.
Armadillos: **14** 99.
Artemia franciscana: **33** 10.
Artemia salina: **12** 55; **25** 14; **26** 57; **29** 72.
Artemia sp.: **29** 1; **32** 25.
Artemisia tridentata: **6** 13; **20** 8.
Arthrobacter sp.: **6** 29; **17** 11.
Arundinaria spp.: **23** 15.
Arvicola terrestris: **22** 2.
Ascophyllum nodosum: **2** 4; **6** 9; **26** 52, 66; **33** 15; **34** 22.
Asellus communis: **23** 21; **26** 69.
Asellus sp.: **10** 23; **14** 60; **17** 28; **22** 10.
Ash, mountain, *Sorbus aucuparia*
Asio flammeus: **31** 41.
Asio otus: **7** 16.
Asparagus, *Asparagus officinale*
Asparagus officinale: **5** 21.
Aspen
  Largetooth, *Populus grandidentata*
  Trembling, *Populus tremuloides*
  Various, *Populus* sp.
Aspergillus clavatus: **34** 39.
Aspergillus flavus: **34** 39.
Aspergillus fumigatus: **30** 8.
Asplanchna brightwelli: **29** 64.
Asplanchna sp.: **25** 23.
Ass, domestic, *Equus asinus*
Astacus astacus: **33** 20.

Astacus fluviatilis: **10** 61; **17** 28.
Aster, *Aster*, *Astragalus*
Aster spp.: **5** 6, 21.
Aster, tansy, *Machaeranthera* spp.
Asterias forbesi: **6** 22; **34** 42.
Asterias rubens: **19** 26; **26** 59; **34** 24.
Asterias sp.: **26** 45.
Asterionella formosa: **2** 21.
Asteroid, *Echinus esculentus*
Asteromonas gracilis: **15** 38.
Astragalus argillosus: **5** 21.
Astragalus beathii: **5** 21.
Astragalus bisulcatus: **5** 21.
Astragalus confertiflorus: **5** 21.
Astragalus crotulariae: **5** 21.
Astragalus racemosus: **5** 25.
Astragalus spp.: **5** 6, 21, 22, 25.
Astralium rogosum: **6** 33.
Astyanax bimaculatus: **17** 20.
Ateles geoffroyi: **30** 26.
Athene cunicularia: **23** 4, 35; **30** 24.
Atherinasoma microstoma: **6** 22.
Atherinops affinis: **33** 56, 72.
Atherix sp.: **4** 9; **24** 17.
Atriplex spp.: **5** 6, 21.
Auks, Alcidae
Aulosira fertissima: **18** 14.
Aurelia aurita: **29** 72.
Australorbis glabratus: **15** 46, 47; **17** 25; **28** 10.
Australorbis sp.: **32** 22.
Austropotamobius pallipes: **26** 69.
Avena sativa: **5** 21; **14** 56; **18** 12, 14; **22** 8; **24** 36; **32** 20; **34** 34, 39.
Avocet, American, *Recurvirostra americana*
Aythya affinis: **2** 9; **7** 16; **14** 42.
Aythya americana: **14** 42; **33** 26.
Aythya collaris: **34** 27.
Aythya ferina: **14** 51.
Aythya fuligula: **14** 51.
Aythya marila: **31** 41; **32** 16; **34** 27.
Aythya spp.: **12** 32.
Aythya valisineria: **4** 7; **6** 14; **7** 17; **14** 2, 35, 36, 52, 103; **21** 18; **33** 26, 42; **34** 27.
Azotobacter vinelandii: **25** 7.
Babesia caballi: **27** 6.
Baboon, *Papio anubis*
Bacillus cereus: **34** 37.
Bacillus spp.: **5** 4.
Bacillus subtilis: **6** 30; **17** 41.
Bacteria, *Actinomycetes* sp., *Aeromonas* sp., *Agrobacter* sp., *Alcaligenes* sp., *Arthrobacter* sp., *Aulosira fertissima*, *Azotobacter vinelandii*, *Bacillus*, *Clostridium posterianum*, *Escherichia coli*, *Flavobacterium* sp., *Klebsiella pneumoniae*, *Methanobacterium* sp., *Oscillatoria* sp., *Photobacterium phosphoreum*, *Pseudomonas* spp., *Salmonella*, *Streptococcus*, *Tolypothrix*
Badger, *Taxidea taxus*
Baetis pygmaeus: **25** 21.
Baetis sp.: **18** 32.
Baetis thermicus: **33** 6, 20, 70.
Balaenoptera physalis: **12** 33.
Balanus amphitrite: **26** 21.
Balanus balanoides: **26** 21, 68.
Balanus eburneus: **25** 14, 21; **28** 10.
Balanus sp.: **6** 35; **15** 44; **26** 41.
Balistoides viridescens: **26** 25.
Bamboo, *Arundinaria* spp., *Bambusa* spp., *Dendrocalamus* spp.
Bambusa spp.: **23** 3, 12, 15.
Bandicoot
  Golden, *Isoodon auratus barrowensis*
  Gunn's, *Perameles gunni*
  Long-nosed, *Perameles nasuta*
  Northern brown, *Isoodon macrourus*
  Southern brown, *Isoodon obesulus*
Barb, Thai silver, *Puntius gonionotus*
Barley, *Hordeum vulgare*
Barnacle, *Balanus*, *Elminius*, *Semibalanus*
Barnardius zonarius: **30** 19.
Barn-owl, common, *Tyto alba*
Bass
  Barred sand, *Paralabrax nebulifer*
  Black sea, *Centropristes striata*
  European sea, *Dicentrarchus labrax*
  Kelp, *Paralabrax clathratus*
  Largemouth, *Micropterus salmoides*
  Rock, *Ambloplites rupestris*
  Sea, *Lateolabrax japonicus*
  Smallmouth, *Micropterus dolomieui*
  Striped, *Morone saxatilis*
  Various, *Micropterus*
  White, *Morone chrysops*
Bat
  Big brown, *Eptesicus fuscus*
  Common pipistrelle, *Pipistrellus pipestrellus*
  Dutch pond, *Myotis dasycneme*
  Eastern big-eared, *Plecotus phyllotis*
  Gray, *Myotis grisescens*
  Greater horseshoe, *Rhinolophus ferrumequinum*
  Indiana, *Myotis sodalis*
  Little brown, *Myotis lucifugus*
  Schreiber's, *Miniopterus schreibersi*
  Southeastern, *Myotis austroriparius*
Bats: **14** 3, 44, 53, 99; **17** 2; **21** 23; **23** 4; **31** 46.
Bean
  Buck, *Menyanthes trifoliata*
  Castor, *Ricinus communis*

Green, *Phaseolus vulgaris*
Jack, *Canavalia* sp.
Lima, *Phaseolus lunatus*
Various, *Phaseolus* sp., *Vicia faba*
Bear, polar, *Ursus maritimus*
Bears: **23** 12.
Beaver
Common, *Castor canadensis*
Mountain, *Aplodontia rufa*
Becium homblei: **33** 39.
Bee
Alfalfa leaf cutter, *Megachile rotundata*
Alkali, *Nomia melanderi*
Bumble, *Bombus* spp.
Cuckoo bumble, *Psithyrus bohemicus*
Honey, *Apis mellifera*
Indian hive, *Apis cerama*
Beet, *Beta vulgaris*
Beetle
Aquatic, *Hydrophilus triangularis*, *Laccophilus* spp., *Thermonectes basillaris*, *Tropisternus lateralis*
Burying, *Nicrophorus tomentosus*
Colorado potato, *Leptinotarsa decemlineata*
Convergent lady, *Hippodamia convergens*
Ground, *Calosoma* sp.
Leaf, *Paropsis atomaria*
Sawtoothed grain, *Oryzaephilus surinamensis*
Tiger, *Megacephala virginica*
Various, *Cotesia melanoscela*, *Dendroides* sp., *Diachasmimorpha longicaudata*, *Perga dorsalis*
Yellow mealworm, *Tenebrio molitor*
Bellerochea polymorpha: **20** 16.
Bemisia tabaci: **24** 14.
Berardius bairdii: **31** 28.
Beroe cucumis: **20** 9.
Berry
Bil, *Vaccinium myrtillus*
Bog whortle, *Vaccinium uliginosum*
Cow, *Vaccinium vitis-idaea*
Beta vulgaris: **7** 29; **12** 43; **19** 22; **20** 12; **22** 2, 24; **34** 34, 39.
Beta vulgaris cicla: **14** 25; **15** 28.
Bettong
Brush-tailed, *Bettongia penicillata*
Burrowing, *Bettongia leseur*
Bettongia leseur: **30** 26.
Bettongia penicillata: **30** 30.
Betula nana: **29** 54.
Betula papyrifera: **34** 20.
Betula sp.: **29** 48, 50, 56.
Bilberry, *Vaccinium* sp.
Bilby, greater, *Macrotus lagotis*
Billfishes: **10** 40.
Biomphalaria spp.: **15**, 16, 38-41, 45-47; **22** 9; **26** 54; **28** 11; **33** 50.
Birch
Dwarf, *Betula nana*
Paper, *Betula papyrifera*
Various, *Betula* sp.
Birgus latro: **29** 43.
Bison
American, *Bison bison*
European, *Bison bonasus*
Bison bison: **33** 30.
Bison bonasus: **33** 30.
Blaberus giganteus: **29** 70.
Blackbird
Brewer's, *Euphagus cyanocephalus*
Common, *Turdus merula*
Red-winged, *Agelaius phoeniceus*
Blackfish
Common, *Gadopsis marmoratus*
Largescale, *Girella punctata*
Blackfly, *Simulium* sp.
Blacktail, *Diplodus sargus*
Blarina brevicauda: **2** 13, 25; **3** 17; **14** 43, 47, 52, 53; **26** 38; **29** 84.
Blattella germanica: **13** 1; **20** 13, 14; **22** 9; **25** 8.
Bleak, *Alburnus alburnus*
Blepharisma undulans: **24** 14.
Blidingia minima: **14** 25.
Blissus leucopterus listus: **13** 22.
Bloater, *Coregonus hoyi*
Blueberry
Common, *Vaccinium pallidum*
Lowbush, *Vaccinium angustifolium*
Bluebird, eastern, *Sialia sialis*
Bluefish, *Pomatomus saltatrix*
Bluegill, *Lepomis macrochirus*
Bluestem, little, *Andropogon scoparius*
Boar, wild, *Sus scrofa*
Bobcat, *Lynx rufus*
Bobwhite, common, *Colinus virginianus*
Boleophthalmus dussumieri: **5** 36; **6** 20, 31.
Boll weevil, *Anthonomus grandis*
Bollworm, Lepidoptera
Bolti, *Tilapia zilli*
Bombina variegata: **33** 25.
Bombus spp.: **33** 16.
Bombyx mori: **12** 11; **29** 70, 71.
Bonasa umbellus: **14** 37; **15** 32; **29** 32, 41; **32** 16; **33** 26; **34** 27, 35.
Booby
Brown, *Sula leucogaster*
Red-footed, *Sula sula*
Various, *Sula*
Boophilus spp.: **27** 13.

Boreogadus saida: **31** 34.
Bos bovis: **2** 13; **3** 24; **6** 40, 41; **7** 54; **8** 1; **12** 2, 33, 62; **14** 43, 53; **15** 32; **21** 23, 37; **25** 2, 3.
Bos indicus: **27** 1, 3, 12, 14, 16.
Bos spp.: **1** 33; **3** 15, 24; **4** 8, 18, 19; **5** 1, 26, 28, 29, 39, 41, 44; **6** 4, 41; **7** 54; **8** 13; **12** 11, 12, 62, 63, 72, 73; **13** 12, 16; **14** 3, 12, 14, 48, 53, 57, 88, 89, 99, 103, 104; **15** 64; **17** 2, 42-44, 54; **18** 36, 37; **19** iii, 1, 5, 6, 16, 17, 19, 21, 22, 30-33, 41, 42, 44, 46; **20** 4, 10, 21, 26; **21** 5, 24, 42; **22** 4, 17, 23; **23** 4, 12, 33, 36; **24** 10, 29, 30, 36; **25** 27-29, 32; **26** 3, 9, 10, 12, 15, 31, 44, 46-48, 78, 85, 86, 90, 91; **27** 1-3, 6, 9, 11-16, 19, 20; **28** 15, 16; **29** 35, 42, 43, 48-53, 56, 59-61, 63, 64, 67, 84; **30** 26, 37; **33** 4, 8, 9, 12, 30, 43, 44, 65, 74, 77, 79, 80; **34** 1, 8, 9, 28, 30, 37, 38, 49, 57-59, 62, 65.
Bos taurus: **27** 12; **30** 2.
Bosmina longirostris: **12** 45; **25** 22, 23; **33** 53.
Bosmina longispina: **29** 54.
Bothromestoma sp.: **25** 23.
Bothrops jararaca: **26** 12.
Bouteloua dactyloides: **5** 21.
Bovicola crassipes: **27** 16.
Bovicola limbatus: **25** 29; **27** 16.
Bowdleria punctata: **30** 25.
Bowfin, *Amia calva*
Brachidontes exustus, see *Ischadium recurvum*
Brachionus calyciflorus: **33** 49.
Brachionus plicatilis: **7** 46.
Brachydanio rerio: **5** 30; **10** 58; **14** 60; **22** 12; **26** 11, 71; **34** 43.
Brachythecium rivulare: **14** 24.
Brachythecium salebrosum: **34** 34.
Branchiostoma caribaeum: **15** 45; **24** 21.
Brant, *Branta bernicla*
Brant, Atlantic, *Branta bernicla hrota*
Branta bernicla: **9** 1.
Branta bernicla hrota: **14** 51.
Branta canadensis: **3** 1; **7** 17; **9** 1; **13** 13; **14** 2, 51; **27** 12; **30** 6.
Branta canadensis leucopariea: **30** 5, 40.
Branta canadensis maxima: **26** 42, 76.
Branta canadensis minima: **21** 19.
Branta canadensis moffitti: **29** 32, 41.
Brassica juncea: **18** 13, 14.
Brassica napus: **22** 8.
Brassica oleracea acephalia: **11** 35.
Brassica oleracea botrytis: **4** 1; **11** 35; **24** 6, 10.
Brassica oleracea capitata: **9** 5; **11** 35; **25** 7; **30** 14; **34** 21, 22, 34, 39.
Brassica oleracea gemmifera: **11** 35.
Brassica oleracea italica: **4** 1; **20** 12.
Brassica rapa: **7** 29; **32** 20.
Brassica spp.: **19** 22; **24** 3; **25** 7; **32** 20.
Brevoortia tyrannus: **15** 45; **26** 36, 42.
Briareum spp.: **21** 9.
Brittle star, *Ophioderma brevispina*
Broadleaf, *Griselinia littoralis*
Broccoli, *Brassica oleracea italica*
Brome, *Bromus* spp.
Bromus inermis: **7** 11; **19** 22.
Bromus japonicum: **26** 38; **33** 37.
Bromus spp.: **14** 25.
Broomweed, *Gutierezia* spp., *Haplopappus* spp.
Brugia pahangi: **12** 12.
Bruguiera caryophylloides: **15** 28.
Brussels sprout, *Brassica oleracea gemmifera*
Bryoria fuscescens: **29** 56.
Bryozoans, *Bugula*, *Victorella*, *Watersipora*
Bubalus sp.: **5** 1; **14** 3; **33** 30, 78.
Bubo bubo: **10** 33, 41; **31** 41.
Bubo sp.: **10** 41.
Bubo virginianus: **1** 32; **7** 17; **21** 19, 28; **27** 1, 6, 12; **30** 19, 23.
Bubulcus ibis: **1** 32.
Buccinum striatissimum: **12** 27, 35.
Buccinum undatum: **33** 17; **34** 23.
Bucephala clangula: **21** 19; **31** 52; **34** 28.
Budworm, western spruce, *Choristoneura occidentalis*
Buffalo (fish)
  Bigmouth, *Ictiobus cyprinellus*
  Smallmouth, *Ictiobus bubalus*
Buffalo (mammal)
  Indian, *Bubalus* sp.
  Water, *Bubalus* sp.
Bufo americanus: **33** 63, 72; **34** 35.
Bufo arenarum: **21** 30; **26** 10; **34** 8.
Bufo bufo: **10** 30; **21** 34; **33** 25.
Bufo fowleri: **20** 16, 17; **24** 9; **33** 63; **34** 46.
Bufo marinus: **33** 25, 42.
Bufo regularis: **34** 46.
Bufo sp.: **8** 10; **33** 38.
Bufo terrestris: **8** 8.
Bufo valliceps: **29** 81.
Bufo woodhousei fowleri: **22** 13.
Bufo vulgaris: **20** 17.
Bug
  Assassin, *Acholla multispinosa*
  Bed, *Cimex lectularius*
  Bigeyed, *Geocoris punctipes*
  Chinch, *Blissus leucopterus listus*
  Lady, *Coccinella septempunctata*
  Lygus, Lygaeidae
  Milkweed, *Oncopeltus fasciatus*
  Sow, *Asellus*, *Porcellio*
Bugula neritina: **26** 57.
Bulinus spp.: **15** 16; **22** 9; **28** 11; **33** 50.
Bull, *Bos* spp.
Bullfrog, *Rana catesbeiana*

Bullhead
Black, *Ameiurus melas* (formerly *Ictalurus melas*)
Brown, *Ameiurus nebulosus* (formerly *Ictalurus nebulosus*)
Bunting
Indigo, *Passerina cyanea*
Lark, *Calamospiza melanocorys*
Lazuli, *Passerina amoena*
Bupalus sp.: **33** 16, 39.
Bursaphelenchus xylophilus: **9** 25, 28.
Busycon canaliculatum: **33** 17, 50, 70.
Buteo buteo: **26** 30; **31** 41.
Buteo jamaicensis: **10** 54; **27** 9, 12.
Buteo lagopus: **30** 19, 23; **31** 41.
Buteo lineatus: **3** 1, 17; **21** 28.
Buteo regalis: **30** 19, 23.
Buteo sp.: **10** 41.
Butorides striatus: **1** 32; **4** 7; **7** 17; **14** 40.
Butorides virescens: **5** 20.
Butorides virescens virescens: **24** 8.
Butterfly, large white, *Pieris brassicae*
Buzzard
Common, *Buteo buteo*
Honey, *Pernis apivorus*
Cabbage, *Brassica oleracea capitata*
Cabezon, *Scorpaenichthys marmoratus*
Cabomba spp.: **23** 21.
Cacatua galerita: **30** 19, 23.
Cacatua roseicapilla: **30** 16, 19.
Caddisfly, *Triaenodus tardus*
Caenorhabditis elegans: **32** 22; **33** 46, 49, 69.
Cajanus sp.: **23** 15.
Calamospiza melanocorys: **9** 29.
Calamus bajonado: **33** 22.
Calanus marshallae: **19** 25, 28.
Calcarius *mccownii*: **30** 23.
Calcarius ornatus: **9** 29; **30** 23.
Calidris alba: **33** 27.
Calidris alpina: **21** 19.
Calidris canutus: **14** 37.
Calidris sp.: **26** 27.
Callaeas cinera: **30** 25.
Callibaetes skokianus: **17** 28.
Callibaetes sp.: **25** 12.
Callinectes sapidus: **1** 8; **4** 10; **5** 33; **6** 22; **12** 28; **13** 19, 21; **18** 1; **21** 30; **25** 14, 21; **26** 9, 35; **29** 72; **32** 18.
Callinectes similis: **33** 53.
Callipepla californica: **4** 12; **12** 56, 57; **21** 34, 35; **30** 16, 19.
Callipepla gambeli: **30** 21.
Callithrix jacchus: **9** 1, 13; **12** 73; **15** 56; **29** 94; **31** 55.
Callorhinus ursinus: **2** 10; **10** 43.
Calluna vulgaris: **12** 22; **29** 56.
Caloenas snicobarica: **26** 27, 76.
Calosoma sp.: **24** 8, 14.
Cambarus bartoni: **33** 8, 53; **34** 34.
Cambarus latimanus: **2** 21.
Cambarus longulus longirostris: **29** 79.
Cambarus sp.: **14** 29.
Camel, Bactrian, *Camelus bactrianus*
Camelus bactrianus: **33** 30, 45, 80.
Campanularia flexuosa: **15** 44; **33** 49.
Campeloma decisum: **33** 50.
Canary, *Serinus canarius*
Canavalia sp.: **23** 15; **34** 37.
Cancer anthonyi: **10** 20.
Cancer irroratus: **2** 6; **6** 10, 34; **11** 27; **32** 15.
Cancer magister: **3** 10, 11; **5** 33; **6** 35; **10** 48; **11** 38; **12** 28, 50; **14** 67; **20** 9; **21** 30.
Canis aureus: **30** 5.
Canis familiaris: **3** 13; **9** 8, 14, 16, 26; **10** 55; **12** 4, 11, 63; **13** 16; **14** iii, 44, 55, 87, 90, 99; **15** 1, 4, 53, 60, 61, 64, 68; **17** 44; **18** 36, 37, 42; **20** 4, 21, 22, 25, 26; **21** 2, 5, 24, 37, 42, 43; **22** 2, 16, 17, 22; **23** 3, 9, 10, 12, 35, 36, 45; **24** 13, 29, 30, 36; **25** 2, 27, 29; **26** 3, 9, 10, 31, 78, 82, 86; **28** 16; **29** 35, 42, 67, 84, 85, 94, 95; **30** 2, 9, 25, 26, 38-40; **31** 16, 33, 47, 60; **32** 8, 9, 31, 32; **33** 8, 30, 43, 44; **34** 2, 7, 8, 11, 30, 49, 50, 57, 59, 65.
Canis familiaris dingo: **30** 2, 5, 6, 24-26, 38.
Canis familiaris familiaris: **29** 5, 9.
Canis latrans: **2** 13; **6** 15; **23** 4, 12, 35-37; **29** 16, 36; **30** 1-5, 24, 27, 30, 38, 39, 41; **33** 30.
Canis lupus: **29** 62; **30** 4, 5.
Canis mesomelas: **30** 5.
Canis sp.: **1** 6, 7, 10; **3** 16; **4** 8, 18; **5** 5, 26; **6** 19, 27, 39; **7** iv, 58, 60; **8** 1, 25; **9** 13, 24; **10** 12; **12** 73; **30** 4, 5, 10-12, 36; **34** 62.
Canvasback, *Aythya valisineria*
Capitella capitata: **6** 22, 36; **10** 48; **26** 58.
Capra hircus: **4** 12; **13** 14; **30** 3; **33** 31; **34** 29, 50.
Capra sp.: **1** 3; **4** 8; **8** 1, 12; **12** 11, 63; **14** 90, 99; **21** 37; **22** 16, 17; **23** 4, 10, 33; **25** 29; **26** 31, 44, 48, 86, 91; **27** 16, 20; **29** 58, 63, 64, 93, 94; **30** 1, 4, 5, 7, 14, 27; **33** 74; **34** 1, 30, 37, 38, 65.
Capreolus capreolus: **10** 35; **29** 59; **33** 31.
Capreolus sp.: **29** 38; **29** 56.
Carassius auratus: **1** 8, 13; **4** 9, 14, 15; **5** 32, 35; **6** 21, 32; **7** 12; **9** 10; **10** 61; **12** 47, 53, 81; **14** 64; **15** 46; **17** 35; **20** 17; **21** 29, 32, 33; **28** 11; **29** 28, 64; **33** 57, 72; **34** 43, 47.
Carassius carassius: **29** 48.
Carassius carassius grandoculis: **15** 44.
Carcharhinus longimanus: **12** 30; **33** 22; **34** 25.
Carcharhinus spp.: **10** 29.
Carcharodon carcharius: **21** 11.
Carcinus maenas: **15** 45; **19** 25; **26** 69; **29** 72, 73; **33** 6, 9, 53, 71; **34** 24.

Carcinus mediterraneus: **33** 41.
Cardinal, *Richmondena cardinalis*
Carduelis chloris: **30** 25.
Caretta caretta: **1** 24; **7** 15, 32; **10** 30.
Carex spp.: **29** 56.
Caribou, *Rangifer tarandus*
Carnation, *Dianthus* sp.
Carp
  Common, *Cyprinus carpio*
  Indian, *Saccobranchus fossilis*
  Round Crucian, *Carassius carassius grandoculis*
  Various, *Carassius*, *Cyprinus carpo communis*
Carpiodes carpio: **21** 12.
Carpocapsa pomonella: **12** 6.
Carpodacus mexicanus: **3** 12.
Carrot, *Daucus* sp.
Carthamus tinctorius: **22** 2.
Carya illinoensis: **26** 3, 45.
Cashew, *Anacardium occidentale*
Cassava, *Manihot esculenta*
Cassia spp.: **4** 19; **14** 25, 56.
Cassiope sp.: **34** 32.
Castanea sp.: **29** 61.
Castilleja spp.: **5** 6, 21.
Castor canadensis: **5** 23; **10** 36, 43; **15** 32; **29** 35, 42; **34** 29, 35, 36.
Cat
  Bob, *Lynx rufus*
  Domestic, *Felis domesticus*
  Eastern native, *Dasyurus viverrinus*
  Feral, *Felis cattus*
  Northern native, *Dasyurus hallucatus*
  Tiger, *Dasyurus maculatus*
Caterpillar
  Eastern tent, *Malacosoma americanum*
  Gypsy, *Porthetria dispar*
  Saltmarsh, *Estigmene acrea*, *Estigmene* sp.
  Various, *Erannis defoliara*, *Operophtera brumata*, *Plutella xylostella*, *Spodoptera*, *Tortrix viridana*
Catfish
  African, *Mystus vittatus*
  African sharp-tooth, *Clarias gariepinus*
  Air-breathing, *Clarias batrachus*, *Clarias lazera*
  Blue, *Ictalurus furcatus*
  Channel, *Ictalurus punctatus*
  Flathead, *Pylodictis olivaris*
  Indian, *Heteropneustes fossilis*
  Sea, *Arius felis*
  Various, *Clarias* sp., *Cnidoglanis macrocephalus*, *Ictalurus*, *Mystus vittatus*
Catharacta skua: **5** 15.
Catharacta spp.: **10** 41.
Cathartes aura: **23** 29; **26** 27, 43; **30** 19, 23; **34** 28.
Catostomus columbianus: **29** 28.
Catostomus commersoni: **5** 32; **6** 26; **8** 11; **11** 33; **12** 23; **14** 63; **17** 35; **26** 23, 24, 42; **28** 11; **31** 33; **33** 22, 34, 57, 72; **34** 25.
Catostomus macrocheilus: **29** 28.
Cattail, *Typha latifolia*
Cattle, *Bos* spp.
Cauliflower, *Brassica oleracea botrytis*
Cavia cobaya: **2** iii, 19; **3** 13; **6** 18, 27, 39; **9** 14; **14** 90.
Cavia porcellus: **13** 14; **17** 44.
Cavia sp.: **3** 16; **8** 24, 25, 26; **11** 1; **12** 63; **14** 14; **15** 8, 52, 55, 57-59, 61, 64, 68; **17** 5; **19** 31, 33, 34, 41, 46; **20** 4, 22, 25; **21** 37; **22** 2, 4, 16, 17, 23, 24; **23** 8, 10, 35; **24** 13; **26** 12, 48, 78, 79, 86, 90; **28** 15, 16, 23; **29** 64, 67, 84, 85, 94, 97; **30** 11, 27, 37; **32** 31, 32; **33** 9, 44, 80; **34** 7, 11, 12, 30, 50, 57-59.
Cebus apella: **29** 85.
Cedar, eastern red, *Juniperus virginiana*
Celery, *Apium graveolans*
Centipede, *Lithobius variegatus*
Centropristis striata: **12** 30.
Cephalopods: **26** 20.
Cephenomyia trompe: **27** 6, 18.
Cerastoderma edule: **33** 40.
Ceratitis capitata: **29** 70, 71.
Ceratophyllum demersum: **12** 22.
Ceratophyllum sp.: **8** 19; **28** 8, 10.
Ceratopogonidae: **2** 28.
Ceratopteris richardii: **22** 8.
Ceriodaphnia dubia: **33** 53; **34** 41, 64.
Ceriodaphnia lacustris: **24** 17.
Ceriodaphnia reticulata: **17** 24; **26** 57, 84.
Ceriodaphnia sp.: **25** 22.
Cervidae: **4** 18; **5** 26; **23** 12.
Cervus canadensis: **6** 15, 17.
Cervus elephus: **26** 32, 43; **29** 59; **30** 6, 7, 14; **33** 31.
Cervus sp.: **2** 13; **23** 33.
Ceryle alcyon: **7** 17.
Cetaceans: **26** 33.
Cetengraulis mysticetus: **20** 9.
Cetraria nivalis: **34** 32.
Chachalaca, gray-headed, *Ortalis cinereiceps*
Chaenocephalus aceratus: **32** 15; **33** 22; **34** 25.
Chaetognath, *Sagitta elegans*
Chaetognaths: **26** 23, 40.
Champia parvula: **12** 49, 53.
Channa punctatus: **3** 21; **6** 31; **9** 10; **10** 59; **26** 60; **33** 57.
Chaoborus astictopus: **25** 22.
Chaoborus punctipennis: **7** 45.
Chaoborus sp.: **1** 8; **4** 9.
Char, Arctic, *Salvelinus alpinus*
Chara sp.: **17** 22; **22** 3, 10; **28** 8, 13.
Charadrius vociferus: **27** 9.
Chard, Swiss, *Beta vulgaris cicla*
Chelon labrosus: **12** 51.

Chelonia mydas: **1** 24; **7** 15, 32.
Chelydra serpentina: **7** 10, 15, 27, 31, 32; **29** 32; **31** 38-40.
Chenonetta jubatta: **30** 20.
Chenopodium album: **18** 15.
Cherry
Black, *Prunus serotina*
Red, *Prunus avium*
Chestnut, *Castanea* sp.
Chickadee
Black-capped, *Parus atricapillus*
Mountain, *Parus gambeli*
Chicken
Attwater's greater prairie, *Tympanuchus cupido attwateri*
Domestic, *Gallus gallus*, *Gallus* sp.
Prairie, *Tympanuchus cupido*
Chilomonas paramacium: **6** 30.
Chinocetes bairdii: **12** 28.
Chipmunk
Common, *Eutamias townsendii*
Eastern, *Tamias striatus*
Various, *Tamias* spp.
Chiracanthium mildei: **24** 14.
Chironomid, *Chironomus*, *Glyptotendipes*, *Goeldichironomus holoprasinus*, *Labrundinia pilosella*, *Psectocladius* sp., *Tanypus grodhausi*
Chironomidae: **2** 28; **13** 19, 20; **17** 15.
Chironomus decorus: **25** 10, 12, 22.
Chironomus ninevah: **33** 56.
Chironomus plumosus: **4** 11, 15; **7** 11, 29; **25** 12.
Chironomus riparius: **17** 5, 25; **18** 27.
Chironomus sp.: **18** 32; **33** 56.
Chironomus tentans: **6** 30; **18** 27; **24** 17, 18.
Chiselmouth, *Acrocheilus alutaceus*
Chitons: **26** 20.
Chlamydomonas reinhardtii: **6** 30; **14** 58; **24** 17; **33** 48.
Chlamydomonas spp.: **6** 33; **21** 30; **33** 48.
Chlamys ferrei nipponensis: **10** 13.
Chlamys operculis: **33** 17; **34** 23.
Chlamys varia: **32** 22.
Chlorella pyrenoidosa: **9** 19; **17** 22; **18** 26; **20** 15.
Chlorella sp.: **18** 24; **23** 21; **31** 49; **32** 21; **33** 48, 69.
Chlorella vulgaris: **2** 27, 28; **6** 30; **11** 26, 54; **15** 38; **18** 14; **19** 24; **29** 71.
Chloris gayana: **20** 12.
Chlorococcum sp.: **22** 10.
Chlorophyte, *Hydrodictyon*, *Oedogonium*
Choerodon azurio: **10** 14.
Chondrus crispus: **12** 23, 26.
Chorioptes bovis: **24** 16.
Choristoneura occidentalis: **12** 42, 44.
Chromide, orange, *Etroplus maculatus*
Chroomonas sp.: **12** 21.
Chrysanthemum, *Chrysanthemum*
Chrysanthemum cinariaefolium: **24** 2.
Chrysanthemum sp.: **5** 5.
Chrysemys scripta: **1** 21.
Chrysopa carnea: **10** 25; **24** 15; **25** 8.
Chrysopa oculata: **25** 10.
Chukar, *Alectoris chukar*, *A. graeca*
Chydorus sphaericus: **33** 53.
Cicada, 17-year, *Magicicada* spp.
Cicer arietinum: **18** 13.
Cichlasoma bimaculatum: **17** 20.
Cichlasoma cyanoguttatum: **26** 60.
Cichlasoma facetum: **7** 45.
Cichlasoma sp.: **21** 29.
Cichlid
Texas, *Cichlasoma cyanoguttatum*
Various, *Cichlasoma*
Ciconia ciconia: **31** 41.
Cimex lectularius: **27** 18.
Cinclus cinclus: **31** 41, 45.
Ciona intestinalis: **33** 22.
Cipangopaludina japonica: **24** 18.
Cipangopaludina malleata: **9** 20.
Circus approximans: **30** 25.
Circus cyaneus: **30** 20, 23.
Citellus spp.: **30** 27.
Citharichthys stigmaeus: **6** 23, 37; **15** 45.
Citrus limonia osbeck: **20** 12.
Citrus paradisi: **24** 14.
Citrus sinensis: **33** 45, 78.
Citrus tachibana: **10** 21.
Claassenia sp.: **4** 9; **13** 7.
Cladina spp.: **29** 56.
Cladoceran, *Bosmina*, *Ceriodaphnia*, *Chydorus sphaericus*, *Daphnia*, *Moina irrasa*, *Simocephalus*
Cladonia alpestris: **29** 23.
Cladonia uncialis: **26** 51.
Cladophora glomerata: **23** 21; **28** 9; **29** 76.
Cladophora sp.: **14** 25; **17** 15; **28** 8.
Clam
Asiatic, *Corbicula fluminea*
Blood, *Anadara granosa*
False quahog, *Pitar morrhuanus*
Giant, *Tridacna derasa*, *Tridacna maxima*
Hardshell or Quahaug, *Mercenaria mercenaria*
Pullet-shell, *Venerupis pallustra*
Razor, *Ensis minor*
Short-necked, *Tapes phillippinarum*
Softshell, *Mya arenaria*
Southern quahaug, *Mercenaria campechiensis*
Surf, *Spisula solidissima*
Various, *Donax*, *Glebula rotundata*, *Hormomya mutabilis*, *Lamellidens marginalis*, *Macoma*, *Margaretifera margaretifera*, *Paphia undulata*,

Potamocorbula amurensis, Rangia cuneata, Scrobicularia plana, Sphaerium sp., *Strophites rugosus, Tapes, Tellina tenuis, Villorita cyprinoides*
Clams: **2** 11; **6** 5, 33; **7** 8, 27, 47; **18** 32; **19** 28; **20** 9; **21** 8; **26** 20; **34** 32, 36.
Clarias batrachus: **3** 21.
Clarias gariepinus: **26** 24; **33** 22, 35, 57.
Clarias lazera: **26** 11, 60.
Clarias sp.: **33** 57.
Clethrionomys glareolus: **14** 44; **26** 32, 37, 38, 86, 91; **29** 48, 57; **33** 31, 42; **34** 36.
Clethriomomys rufocanus: **33** 42.
Clethrionomys rutilis: **34** 36.
Clibanarius olivaceous: **26** 57.
Clinocardium nuttali: **3** 10.
Clistoronia magnifica: **25** 12; **34** 41.
Cloeon dipterum: **22** 11.
Clostridium posterianum: **34** 37.
Clover, *Lotus* sp., *Melilotus* sp., *Trifolium* sp.
Clupea harengus: **21** 11; **26** 24, 60, 71, 85.
Clupea harengus harengus: **21** 11; **26** 60.
Clupea harengus pallasi: **15** 31; **33** 57.
Cnemidophorus sexlineatus: **8** 8.
Cnemidophorus tigris: **29** 81.
Cnidoglanis macrocephalus: **12** 56.
Coccinella septempunctata: **33** 36.
Cochliomyia hominivorax: **29** 70.
Cockatoo, sulphur-crested, *Cacatua galerita*
Cockles, *Anadara, Clinocardium, Cerastoderma*
Cockroach
American, *Periplaneta americana*
German, *Blattella germanica*
Various, *Blaberus giganteus*
Cod
Arctic, *Boreogadus saida*
Atlantic, *Gadus morhua*
Hump rock, *Notothenia gibberifrons*
Tom, *Microgadus tomcod*
Coelastrium cambricum: **29** 71.
Coenobita sp.: **29** 43.
Coffee, *Coffea arabacia*
Coffea arabacia: **34** 20, 30.
Coleoptera: **1** 21; **3** 26; **4** 19; **6** 42; **8** 8; **12** 42; **13** 18, **14** 9, 57.
Colinus virginianus: **1** 7, 9, 16, 18, 21; **3** 12, 24; **4** 8, 12, 17, 18; **7** 17, 40, 52; **8** 23; **9** iv, 14, 23, 50, 51; **12** 56, 58; **13** 12, 14, 15; **14** 77; **18** 35; **21** 35, 36; **22** 7, 14, 16; **24** 27, 28; **29** 33, 84; **30** 16, 20; **31** 52.
Colisa fasciata: **34** 43.
Collard, *Brassica* spp.
Collembola: **3** 17, 26; **18** 13.
Collembolid, *Onchiurus*
Colluricincla harmonica: **30** 20.
Colpoda cucullus: **24** 14.
Colpoda steini: **33** 46.
Colpophyllia spp.: **21** 9.
Columba livia: **2** 24; **3** 12; **7** 54; **10** 51, 53, 63; **13** 13; **14** 7, 78, 82; **21** 34; **23** 30; **30** 20; **31** 54.
Columba sp.: **15** 50; **23** 10.
Colymbus arcticus (formerly *Gavia arctica*): **7** 22.
Comandra spp.: **5** 6, 21.
Comber, painted, *Serranus cabrilla*
Comptonia peregrina: **34** 20.
Compylium polyanum: **34** 20.
Condor
Andean, *Vultur gryphus*
California, *Gymnogyps californianus*
Contarina medicaginis: **24** 15.
Contopus virens: **25** 24.
Coontail, *Ceratophyllum demersum*
Coot
American, *Fulica americana*
Red-knobbed, *Fulica cristata*
Copepods, *Acartia, Anomalocera* sp., *Calanus marshallae, Cyclops* spp., *Diaptomus, Eucyclops, Eudiaptomus padanus, Eurytemora affinis, Mesocyclops thermocyclopoides, Nitroca spinipes, Pseudodiaptomus coronatus, Temora* spp., *Tigriopus, Tisbe, Tropocyclops prasinus mexicanus*
Coptotermes formosanus: **19** 23.
Coptotermes heimi: **25** 8.
Coptotermes spp.: **33** 47.
Coragyps atratus: **23** 30; **30** 20.
Coral, *Alcyonia alcyonium, Briareum* spp., *Colpophyllia* spp., *Diploria, Gorgonia* spp., *Montastrea annularis, Porites* spp., *Pseudopterogorgia* spp., *Siderastrea* spp.
Corals: **14** 3; **19** 14; **20** 9, 10; **21** 8; **32** 13; **33** 36; **34** 23.
Corbicula fluminea: **5** 16; **21** 9; **26** 54; **32** 22; **33** 50, 70.
Corbicula manilensis: **3** 22.
Corbicula sp.: **32** 13.
Coregonus clupeaformis: **15** 31; **21** 11; **33** 22; **34** 25.
Coregonus fera: **18** 33.
Coregonus hoyi: **31** 24, 36; **33** 22.
Coregonus spp.: **14** 32, 50.
Corixid, *Sigara*
Cormorant
Blue-eyed, *Phalacrocorax atriceps*
Double-crested, *Phalacrocorax auritus*
Various, *Phalacrocorax* spp.
Corn, *Zea mays*
Corophium volutator: **12** 50; **33** 53.
Cortinarius spp.: **10** 21.
Corvidae: **10** 12, 63.
Corvus bennetti: **30** 20, 23, 24.
Corvus brachyrhynchos: **13** 13; **27** 12.
Corvus corax: **26** 27, 43; **34** 28.
Corvus corone: **29** 33.

Corvus coronoides: **30** 20, 24.
Corvus mellori: **30** 20.
Corvus monedula: **10** 54.
Corvus orru: **30** 24.
Corvus spp.: **23** 4.
Costia sp.: **33** 3.
Cotesia melanoscela: **25** 10.
Cotton, *Gossypium hirsutum*
Cottontail
Desert, *Sylvilagus audubonii*
Eastern, *Sylvilagus floridanus*
Cottus bairdi: **18** 32; **32** 26.
Coturnix coturnix: **1** 6, 9; **9** 14; **10** 50, 51-53; **12** 56; **14** 86; **29** 82.
Coturnix japonica: **1** 6, 7; **2** 24; **3** 11, 12, 14, 22; **4** 8; **5** 26, 27, 29; **7** 40, 52, 53; **9** iii, 9; **10** 51, 52, 62; **13** 13, 15; **14** 78; **15** 8, 50-52; **17** 38, 57; **18** 35; **21** 35, 36; **22** 14, 15; **23** 30; **24** 26-28; **26** 13, 46, 73, 85; **27** 9, 10; **30** 20; **31** 51, 52, 54; **34** 47, 48.
Coturnix risoria: **13** 15; **34** 47, 48.
Cow, *Bos bovis*
Cowbird, brown-headed, *Molothrus ater*
Cowpea, *Vigna* sp.
Coyote, *Canis latrans*
Crab
Alaskan king, *Paralithodes camtschatika*
Alaskan snow, *Chionocetes bairdii*
Blue, *Callinectes sapidus*
Coconut, *Birgus latro*
Drift-line, *Sesarma cinereum*
Dungeness, *Cancer magister*
Fiddler, *Uca pugilator*
Green, *Carcinus maenas*
Hermit, *Clibanarius olivaceous*, *Coenobita* sp., *Eupagurus bernhardus*, *Pagurus*
Horseshoe, *Limulus polyphemus*
Lesser blue, *Callinectes similis*
Mud, *Rithropanopeus harrissii*, *Neopanope texana*
Rock, *Cancer irroratus*
Soldier, *Mictyris longicarpus*
Stone, *Menippe mercenaria*
Various, *Carcinus mediterraneus*, *Dorippe granulata*, *Neptunus pelagicus*, *Paragrapsus quadridentatus*, *Podophthalmus vigil*, *Portunus pelagicus*, *Sesarma*
Crabs: **3** 8; **5** 27; **6** 5, 35; **7** 28; **12** 29, 81; **15** 11, 35; **26** 1; **31** 23; **33** 36.
Crane
Lesser sandhill, *Grus canadensis canadensis*
Sandhill, *Grus canadensis*
Crangon allmanni: **34** 24.
Crangon crangon: **2** 16; **12** 29; **14** 66, 67; **15** 44; **33** 53.
Crangon septemspinosa: **21** 30; **24** 18.
Crangonyx pseudogracilis: **17** 28.
Crappie
Black, *Pomoxis nigromaculatus*
White, *Pomoxis annularis*
Crassostrea commercialis: **2** 4; **26** 20.
Crassostrea gigas: **2** 4; **5** 33; **6** 33; **10** 13; **12** 50; **15** 27, 29, 34, 41; **17** 4; **20** 15; **26** 41, 54, 55, 67, 84; **29** 22; **32** 2, 29; **33** 4, 9, 17, 41, 50, 72, 73; **34** 23.
Crassostrea madrasensis: **33** 35.
Crassostrea spp.: **12** 27; **14** 71; **23** 21; **31** 23.
Crassostrea virginica: **2** 27, 28; **4** 10, 14-16; **5** 11; **6** 24, 33; **7** 44, 45; **10** 47; **11** 27, 32, 36, 40, 42, 48; **12** 27, 51, 54; **14** 65; **15** 11, 29, 44; **17** 23, 52; **18** 1, 30; **19** 25; **21** 8, 9, 30; **22** 11; **24** 18; **26** 20, 35, 40, 55, 66; **28** 10; **29** 25; **31** 23, 34; **32** 13, 18, 22, 23, 29; **33** 18, 40, 41, 50, 73; **34** 23, 40.
Crataegus spp.: **14** 28.
Crawfish, *Cambarus* spp.
Crayfish
Red, *Procambarus clarki*
Rusty, *Orconectes rusticus*
Various, *Astacus*, *Austropotamobius pallipes*, *Cambarus*, *Orconectes*, *Pacifastacus* sp., *Procambarus*
Crayfishes: **3** 1; **10** 43, 64; **11** 33; **19** 28; **31** 32; **34** 32, 36, 37.
Crepidula fornicata: **10** 48, 58, 59; **32** 23; **34** 23.
Cricetomys gambianus: **23** 37.
Cricetus spp.: **2** 31; **3** 25; **6** 27, 39; **8** 24-26; **9** 25; **11** 1, 55; **12** 10, 12, 35, 37-39, 64; **13** 12; **15** 56; **17** 44, 54; **19** 41; **21** 37; **22** 18; **24** 30; **25** 27; **26** 14, 15; **28** 24; **29** 85, 94, 95; **30** 27; **33** 8; **34** 8, 10-14, 30, 50, 57.
Cricket, *Acheta*, Gryllidae
Cricosphaera sp.: **26** 52.
Cricotopus spp.: **25** 12.
Cristigera sp.: **14** 67; **26** 53.
Croaker, Atlantic, *Micropogonias undulatus*
Crocodile, American, *Crocodylus acutus*
Crocodylus acutus: **1** 24; **10** 30; **12** 32; **21** 17, 27; **33** 25, 38.
Crocothemis erythryuaea: **13** 7.
Crotaphytus wislizenii: **29** 80, 81.
Crow
American, *Corvus brachyrhynchos*
Australian, *Corvus orru*
Carrion, *Corvus corone*
Little, *Corvus bennetti*
Cryptococcus terrens: **34** 40.
Cryptotis parva: **34** 29.
Ctenocephalides spp.: **13** 6.
Ctenochaetus strigosus: **26** 25.
Ctenophore, *Beroe cucumis*, *Pleurobrachia pileus*
Ctenophores: **26** 35.
Cucumber, *Cucumis sativus*
Cucumis sativus: **18** 12; **24** 3; **33** 45.

Cucurbita spp.: **24** 3; **28** 7.
Culex fatigans: **5** 31.
Culex pipiens pipiens: **24** 18; **25** 12.
Culex pipiens quinquefasciatus: **11** 42; **17** 20; **25** 8, 12.
Culex quinquefasciatus: **24** 18.
Culex spp.: **7** 45, 47; **13** 17, 24; **24** 18.
Culex tarsalis: **25** 23.
Cunner, *Tautogolabrus adspersus*
Cunninghamella blakesleeana: **34** 39.
Cunninghamella elegans: **11** 34.
Curlew
Eurasian, *Numenius arquata*
Long-billed, *Numenius americanus*
Currawong, pied, *Strepera graculina*
Cuterebra spp.: **27** 16, 17, 20.
Cutworm, Lepidoptera
Cuttlefish, *Sepia officinalis*
Cyanea capillata: **33** 16.
Cyanocitta cristata: **21** 19; **29** 33, 84.
Cyclops spp.: **25** 22, 23, 32; **34** 41.
Cyclopterus lumpus: **34** 25.
Cyclotella cryptica: **25** 11.
Cyclotella meneghiniana: **18** 19.
Cygnus buccinator: **14** 2, 51; **26** 27.
Cygnus columbianus: **14** 51.
Cygnus olor: **14** 2, 37, 51; **33** 42.
Cylindrotheca fusiformis: **20** 14.
Cymodocea sp.: **34** 22.
Cynodon dactylon: **12** 40; **19** 12.
Cynodon plectostachyus: **23** 15, 33.
Cynomus ludovicianus: **23** 4; **30** 27, 28, 31, 39.
Cynomus spp.: **30** 1, 3, 4, 37, 38.
Cynoscion nebulosus: **4** 6; **33** 23; **34** 26.
Cynthia claudicans: **32** 15.
Cypericercus sp.: **25** 21.
Cypicerus sp.: **25** 14.
Cypridopsis sp.: **25** 14, 23.
Cyprinion macrostomus: **34** 33.
Cyprinodon macularis: **24** 21.
Cyprinodon variegatus: **3** 8, 10, 11, 21; **4** 10, 11, 16; **5** 34; **7** 39, 48, 50, 51, 57; **9** 11, 19, 21, 22; **11** 38; **13** 9, 10; **15** 6, 42, 43, 48; **17** 33, 34; **18** 31; **19** 26; **21** 32; **24** 21; **32** 26.
Cyprinotus sp.: **25** 21.
Cyprinus carpio: **4** 9; **5** 17, 32, 35-37; **7** 14, 33; **8** 8, 9, 12; **12** 24; **14** 33; **15** 39; **17** 31, 52; **20** 9; **21** 11-13, 32; **22** 7, 9, 12; **24** 6, 21; **26** 10, 42; **29** 29, 73, 76; **32** 26; **33** 57; **34** 43, 47.
Cyprinus carpio communis: **34** 43.
Cypselurus cyanopterus: **31** 24.
Cyrinofus sp.: **25** 22.
Cystophora cristata: **26** 32.
Dab, *Limanda limanda*
Dace
Longfin, *Agosia chrysogaster*
Pearl, *Semotilus margarita*
Speckled, *Rhinichthys osculus*
Various, *Phoxinus*
Dacelo novaguineae: **30** 20.
Dacryodes excelsa: **29** 68.
Dactylus glomerata: **22** 8.
Dama sp.: **29** 38.
Damalina bovis: **27** 15.
Damselflies, Odonata
Daphnia galeata mendotae: **2** 21; **24** 18, 19; **26** 57, 84.
Daphnia hyalina: **22** 11; **34** 41.
Daphnia laevis: **25** 22.
Daphnia longispina: **15** 46, 47.
Daphnia magna: **2** 17, 21, 27; **4** 9, 11, 14, 15; **5** 31; **6** 20, 23, 26, 30; **7** 37, 44, 45, 51; **8** 19; **9** 10, 19; **10** 46, 49; **11** 40-42; **12** 45; **13** 6, 7; **14** 12, 13, 58, 59, 71; **15** 5, 38, 44, 47; **17** 20, 26; **18** 27; **20** 16; **21** 30; **22** 11; **23** 21; **24** 19; **25** 14, 15; **26** 11, 45, 57, 84; **28** 11; **29** 78; **30** 15; **31** 49; **32** 24; **33** 47, 54, 70; **34** 41.
Daphnia pulex: **2** 21; **4** 9; **5** 31; **9** 10; **11** 40-44; **12** 46; **21** 31, 33; **22** 11; **23** 21; **24** 19; **26** 45, 57; **29** 73; **33** 54.
Daphnia pulicaria: **18** 33; **33** 54; **34** 42.
Daphnia sp.: **1** 4, 8, 12; **3** 22; **4** 7; **5** 36; **6** 25; **14** 72; **18** 32; **26** 71; **32** 24; **33** 47, 54.
Daphnids: **11** 45, 48; **14** 57; **25** 15; **26** 13; **34** 46.
Dasyuroides byrnei: **30** 28.
Dasyurus hallucatus: **30** 28, 38.
Dasyurus maculatus: **30** 9, 28, 37.
Dasyurus spp.: **30** 28, 41.
Dasyurus viverrinus: **30** 11, 28, 37.
Date, *Phoenix dactylifera*
Daucus sp.: **9** 5; **14** 56.
Deer
Black-tailed, *Odoicoileus hemionus columbianus*
Fallow, *Dama* spp.
Mule, *Odocoileus hemionus*
Red, *Cervus elephus*
Roe, *Capreolus capreolus*
Various, *Capreolus* sp., Cervidae
White-tailed, *Odocoileus virginianus*
Delphinapterus leucas: **31** 22, 28, 34.
Dendraster excentricus: **26** 59, 85.
Dendrocalamus spp.: **23** 15.
Dendrocygna bicolor: **3** 11, 12; **4** 12; **10** 51.
Dendrodrilus rubidus: **26** 18, 39.
Dendroica spp.: **25** 24.
Dendroica townsendi: **25** 25.
Dendroides sp.: **26** 38.
Dermacentor andersoni: **27** 8.
Dermacentor variabilis: **27** 13, 17, 18.
Deroceras caruane: **26** 19.

Deroceras reticulatum: **26** 18, 40.
Deschampsia flexuosa: **29** 56; **33** 14, 34, 39; **34** 20.
Diachasmimorpha longicaudata: **29** 71.
Dianthus sp.: **5** 5.
Diaptomus oregonensis: **24** 19.
Diaptomus sp.: **22** 11; **25** 22.
Diatoma sp.: **26** 66.
Dicentrarchus labrax: **33** 72.
Dichapetalum cymosum: **30** 2, 13.
Dichapetalum spp.: **30** 2, 13.
Dichapetalum toxicarium: **30** 2.
Dickcissel, *Spiza americana*
Dicranum scoparium: **10** 21.
Didelphis virginiana: **30** 28, 39.
Digitaria sanguinalis: **12** 6.
Dingo, *Canis familiaris dingo*
Diomedea immutabilis: **14** 3.
Diplopoda, Millipedes
Diplodus sargus: **10** 26.
Diploria spp.: **21** 9.
Diploria strigosa: **7** 47.
Dipodomys heermanni: **30** 38.
Dipodomys heermanni morroensis: **30** 40.
Dipodomys spp.: **30** 5, 28, 36.
Dipper, *Cinclus cinclus*
Dog
  Black-tailed prairie, *Cynomus ludovicianus*
  Domestic, *Canis familiaris*
  Prairie, *Cynomus* spp.
  Wild, *Canis familiaris familiaris*
Dogfish
  Lesser spotted, *Scyliorhinus caniculus*
  Smooth, *Mustelus canis*
  Spiny, *Squalus acanthias*
Dolphin
  Bottle-nosed, *Tursiops truncatus*
  La Plata River, *Pontoporia blainvellei*
  Pacific white-sided, *Lagenorhynchus obliquidens*
  Striped, *Stenella coeruleoalba*
  Various, *Tursiops gephyreus*
  White-beaked, *Lagenorhynchus albirostris*
Donax sp: **33** 50, 72.
Donax venustus: **10** 24.
Donkey, *Equus asinus*
Dorippe granulata: **33** 20.
Dorosoma cepedianum: **4** 6, 7; **18** 32; **26** 36.
Dorosoma petenense: **4** 7; **5** 18; **26** 36.
Dorosoma spp.: **21** 11.
Dove
  Laughing, *Streptopelea senegalensis*
  Mourning, *Zenaida macroura*
  Ringed turtle-, *Streptopelia risoria*
  Ring-necked, *Streptopelia capicola*
  Rock, *Columba livia*
Dragon, bearded, *Pogona barbatus*
Dreissena polymorpha: **31** 32, 49, 51; **32** 23; **33** 18, 40, 50.
Drill, oyster, *Ocenebra erinacea*
Dromaius novaehollandiae: **30** 20, 23.
Drosophila melanogaster: **10** 68; **28** 1, 7, 8; **29** 1; **33** 4, 46; **34** 13.
Drosophila sp.: **29** 48.
Drum
  Freshwater, *Aplodinotus grunniens*
  Red, *Sciaenops ocellatus*
Duck
  American black, *Anas rubripes*
  American wood, *Aix sponsa*
  Fulvous whistling, *Dendrocygna bicolor*
  Maned, *Chenonetta jubatta*
  Mottled, *Anas fulvigula*
  Pacific black, *Anas superciliosa*
  Ring-necked, *Aythya collaris*
  Tufted, *Aythya fuligula*
  Various, *Anas*, *Tadorna tadorna*
Duckweed, *Lemna media*, *Lemna minor*
Dugesia sp.: **10** 49, 58; **17** 26; **21** 31; **25** 11.
Dunaliella bioculata: **28** 9.
Dunaliella marina: **12** 55.
Dunaliella salina: **33** 48.
Dunaliella tertiolecta: **14** 65; **17** 22; **22** 10; **26** 67; **33** 48.
Dunlin, *Calidris alpina*
Dunnart
  Fat-tailed, *Sminthopsis crassicaudata*
  Stripe-faced, *Sminthopsis macroura*
Dunnock, *Prunella modularis*
Dysdera crocata: **26** 51.
Eagle
  Australian little, *Hieraetus morphnoides*
  Bald, *Haliaeetus leucocephalus*
  Booted, *Hieraetus pennatus*
  Golden, *Aquila chrysaetos*
  Imperial, *Aquila heliaca adalberti*
  Wedge-tailed, *Aquila audax*
  White-tailed sea-, *Haliaeetus albicilla*
Earthworm
  Australian, *Lumbricus* sp.
  Various, *Allolobophora* spp., *Aporrectodea*, *Dendrodrilus rubidus*, *Eisenia*, *Eisenoides carolinensis*, *Lumbricus*, *Octochaetus pattoni*
Earthworms: **3** 1, 8, 17, 18; **5** 6, 22, 27, 38; **6** 5, 14, 25; **8** 12; **12** 44; **14** 22, 29, 48, 57; **18** 13; **21** 2, 29; **22** 1, 9; **26** 18, 50, 83; **30** 15, 39, 46; **33** 78; **34** 34, 36.
Echinodermata: **6** 36; **10** 59; **15** 37; **26** 59, 65; **34** 38, 65.
Echinoid, *Echinometra*
Echinometra lucunter: **34** 25.
Echinometra mathaei: **33** 56.

Echinus esculentus: **2** 7.
Echium sp.: **33** 10.
Ecklonia radiata: **12** 35.
Ectomyelois ceratoniae: **29** 71.
Eel
American, *Anguilla rostrata*
Electric, *Electrophorus electricus*
European, *Anguilla anguilla*
Eels, *Anguilla*
Eggplant, *Solanum melongena*
Egregia laevigata: **14** 71.
Egret
Cattle, *Bubulcus ibis*
Little, *Egretta garzetta*
Egretta garzetta: **26** 27.
Eichornia crassipes: **10** 21; **23** 21, 26.
Eichornia sp.: **28** 8.
Eider, common, *Somateria mollissima*
Eisenia andrei: **33** 43, 46.
Eisenia fetida: **3** 18; **6** 14; **10** 57, 68; **26** 51; **30** 5; **33** 36, 46, 69; **34** 39.
Eisenia rosea: **14** 29.
Eisenoides carolinensis: **14** 29.
Elaphe obsoleta: **29** 31.
Elasmopus pectenicrus: **11** 38.
Elderberry, *Sambucus* spp.
Electrophorus electricus: **22** 9.
Eledone cirrhosa: **32** 13; **33** 19.
Elephant, Indian, *Elephas maximus*
Elephas maximus: **26** 32.
Elk, *Cervus canadensis*, *Cervus elaphus*, *Cervus* sp.
Elm, *Ulmus americana*
Elminius modestus: **26** 11, 68; **32** 15.
Elodea canadensis: **3** 22; **14** 70; **18** 20; **22** 10; **28** 2, 9; **32** 21; **33** 3.
Elodea sp.: **3** 21; **8** 19; **20** 8; **28** 4, 8.
Elsholtzia spp.: **33** 39.
Emblema temporalis: **30** 21, 23.
Emu, *Dromaius novaehollandiae*
Engraulidae: **14** 34.
Engraulis encrasicolus: **33** 23.
Engraulis mordax: **26** 42.
Engraulis sp.: **29** 73.
Enhydra lutris: **2** 10.
Ensis minor: **17** 24.
Enteropmorpha intestinalis: **28** 10; **33** 34.
Enteromorpha linza: **14** 25.
Enteromorpha sp.: **15** 28; **17** 22; **33** 3, 73.
Entosiphon sulcatum: **14** 59.
Eopsetta grigorjewi: **12** 30.
Epeorus latifolium: **26** 58, 69, 84.
Ephemerella grandis: **32** 25.
Ephemerella sp.: **2** 17, 28; **24** 19.
Ephemerella walkeri: **28** 11.
Ephydatia fluviatilis: **26** 45, 53, 84, 90.
Epicoccum nigrum: **18** 13.
Epilobium angustifolium: **29** 56.
Epithemia sp.: **18** 25.
Epitrimerus pyri: **24** 14.
Eptesicus fuscus: **7** 23, 34; **14** 44; **26** 32.
Equisetum sp.: **29** 50.
Equus asinus: **26** 12; **29** 94.
Equis asinus X *E. caballus*: **26** 12; **30** 28.
Equus caballus: **1** 33; **5** 1, 26, 28, 29, 44; **8** 1, 26; **12** 65; **14** iii, 3, 44, 48, 53, 55, 87, 90, 91, 99, 104; **18** 36; **19** 17, 19, 21, 31, 34, 41, 42; **23** 4, 33; **26** 3, 9, 12, 32, 43, 44, 77, 79, 86, 90; **30** 14, 28, 36; **33** 31, 43, 65, 74; **34** 29, 30.
Erannis defoliara: **31** 39.
Eremophila alpestris: **4** 12; **9** 29; **13** 17, 22, 23; **24** 8; **26** 76; **30** 23.
Erethizon dorsatum: **2** 13; **30** 28; **33** 31.
Erignathus barbatus: **29** 34.
Erithacus rubecula: **7** 53; **27** 9.
Erolia spp.: **3** 1, 27.
Erpobdella octoculata: **26** 23, 58, 59, 70.
Escherichia coli: **8** 17; **17** 41; **22** 6, 8; **26** 53; **28** 8; **29** 78; **32** 21, 31; **34** 12.
Eschrichtius robustus: **33** 27.
Esox lucius: **5** 32; **6** 26; **8** 20, 28; **10** 26, 40, 61; **11** 42, 46; **12** 24; **14** 64; **21** 11, 26; **29** 29, 50, 61; **31** 38; **33** 23, 57; **34** 25, 47.
Esox masquinongy: **34** 25.
Esox niger: **8** 16; **34** 25.
Esox sp.: **34** 25, 47.
Estigmene acrea: **3** 22, 23; **25** 21.
Etroplus maculatus: **43** 44.
Eucalyptus cladocalyx: **23** 33.
Eucalyptus viminalis: **23** 33.
Eucyclops agillis: **2** 21.
Eucyclops sp.: **22** 11.
Eudiaptomus padanus: **26** 57; **34** 42.
Euglena, *Euglena gracilis*
Euglena gracilis: **19** 24; **25** 19; **26** 18, 45, 66; **29** 71; **33** 48, 69.
Eulimnadia spp.: **25** 15.
Eumetopias jubata: **26** 32, 44.
Eupagurus bernhardus: **19** 25; **26** 22.
Euphagus cyanocephalus: **30** 21, 23.
Euphausia pacifica: **19** 25, 28.
Euphausia superba: **21** 9; **26** 22; **33** 21.
Euphausiid, *Euphausia*, *Meganyctiphanes*
Eurotium sp.: **22** 8.
Eurycea bislineata: **33** 63.
Eurytemora affinis: **11** 38, 39; **12** 51; **15** 41; **25** 15.
Eutamias townsendii: **14** 44.
Euthynnus pelamis: **34** 25.
Exuviella baltica: **21** 30.

Fabrea salina: **32** 22.
Falco bevigora: **30** 24.
Falco cenchroides: **30** 24.
Falco columbarius: **1** 32; **31** 42.
Falco mexicanus: **14** 78,79.
Falco naumanni: **33** 26.
Falco peregrinus: **1** 32; **7** 52; **10** 33; **14** 38; **21** 19; **26** 30; **31** 39, 42.
Falco rusticolus: **10** 33, 41; **31** 42.
Falco sp.: **10** 41.
Falco sparverius: **1** 9, 16; **7** 50; **14** 13, 79, 80, 103; **22** 7, 14-16; **23** 30; **24** 27; **31** 51, 52.
Falco tinnunculus: **7** 17; **10** 54; **31** 42.
Falcon
  Brown, *Falco bevigora*
  Peregrine, *Falco peregrinus*
  Prairie, *Falco mexicanus*
  Swedish gyr, *Falco rusticolus*
Fasciola hepatica: **22** 11.
Felis cattus: **30** 5, 6, 28, 37.
Felis domesticus: **3** 13; **4** 8; **6** 27; **8** 1; **10** 12, 15, 36, 54, 55, 64, 65, 68, 74; **12** 65; **14** 91, 99; **15** 61; **17** 2, 46; **19** 35, 41, 46; **20** 25; **21** 2, 24; **22** 4, 16, 18, 23, 24; **23** 35, 45; **24** 31, 36; **26** 3, 9, 77, 79, 87; **28** 16; **30** 2, 12, 38, 40, 41; **31** 16, 33; **34** 12, 30, 49, 50, 59.
Felis lynx: **29** 63.
Fern
  Ostrich, *Matteuccia struthiopteris*
  Sweet, *Comptonia peregrina*
Ferns: **33** 14.
Fernbird, *Bowdleria punctata*
Ferret
  Black-footed, *Mustela nigripes*
  Domestic, *Mustelus putorius*
  European, *Mustela putorius furo*
Fescue, *Festuca arundinacea*
Festuca arundinacea: **6** 13; **22** 8.
Festuca rubra: **14** 25; **22** 8.
Festuca sp.: **34** 20.
Finch
  Green, *Carduelis chloris*
  House, *Carpodacus mexicanus*
  Zebra, *Peophila guttata*
Fir
  Douglas, *Pseudotsuga menziesii*
  True, *Abies* spp.
Firetail, red-browed, *Emblema temporalis*
Fish
  Atlantic guitar, *Rhinobatis lentiginosus*
  Benthic, *Trematomus bernacchii*
  Cyprinofirm, *Labeo rohita*
  Goat, *Upeneus* spp.
  Harlequin, *Rasbora heteromorpha*
  Jelly, *Cyanea*
  Lump, *Cyclopterus lumpus*
  Margined flying, *Cypselurus cyanopterus*
  Monk, *Squatina squatina*
  Parrot, *Scarus* spp.
  Rabbit, *Siganus* spp.
  Scorpion, *Scorpaena* spp.
  Star, *Asterias rubens*
  Surgeon, *Ctenochaetus strigosus*
  Tile, *Lopholatilus chamaeleonticeps*
  Trigger, *Balistoides* spp.
  Various, *Cyprinion macrostomus*, *Lates* sp., *Stolothrissa* sp.
Flagfish, *Jordanella floridae*
Flatworm, *Dugesia* sp.
Flamingo
  Greater, *Phoenicopterus ruber*
  Various, *Phoenicopterus ruber roseus*
Flavobacterium sp.: **5** 4; **17** 11.
Flax, *Linum* spp.
Fleas, *Ctenocephalides* spp., Siphonaptera
Florida coerulea: **24** 8.
Flounder
  Baltic or European, *Platichthys flesus*
  Roundnose, *Eopsetta grigorjewi*
  Southern, *Paralichthys lethostigma*
  Summer, *Paralichthys dentatus*
  Various, *Limanda* sp., *Paralichthys* sp., *Pleuronectes*, *Scopthalmus*
  Windowpane, *Scophthalmus aquosus*
  Winter, *Pleuronectes* (formerly *Pseudopleuronectes*) *americanus*
  Witch, *Glyptocephalus cynoglossus*
  Yellowtail, *Pleuronectes ferruginea* (formerly *Limanda limanda*)
Fluke, liver, *Fasciola hepatica*
Fly
  Black, *Simulium vittatum*
  Bot, *Hypoderma* spp.
  Caddis, *Clistoronia magnifica*, *Hydropsyche bettani*, *Philarctus quaeris*
  Caribbean fruit, *Anastrepha suspensa*
  Crane, *Playtcentropus radiatus*, *Tipula*
  Damsel, *Ischnura*
  Dragon, *Crocothemis erythryuaea*, *Macromia* sp., *Orthemis* sp., *Pantala*, *Pseudagrion* spp.
  Face, *Musca autumnalis*
  Fruit, *Anastrepha*, *Drosophila*
  Horn, *Haematobia irritans*, Muscidae
  House, *Musca domestica*, *Musca* sp.
  Leafmining, *Liriomyza trifolii*
  May, *Baetis*, *Callibaetes*, *Cloeon dipterum*, *Epeorus latifoleum*, *Ephemerella*, *Hexagenia*, *Isonychia bicolor*, *Leptophlebia* sp., *Siphlonurus lacustris*, *Stenonema* sp.

Mediterranean fruit, *Ceratitis capitata*
Reindeer nostril, *Cephenomyia trompe*
Reindeer warble, *Oedemagena tarandi*
Rhagionid, *Atherix* sp.
Rodent bot, *Cuterebra* spp.
Screw-worm, *Cochliomyia hominivorax*
Sheep blow, *Lucilia cuprina*
Snipe, *Atherix* sp.
Stable, *Stomoxys calcitrans*
Stone, *Claassenia* sp., *Isoperla* sp., *Leuctra* sp., *Paragnetina media*, *Pteronarcella badia*, *Pteronarcys*, *Skwala* sp.
Warble, *Hypoderma* spp.
White, *Bemisia tabaci*
Flycatcher
Ash-throated, *Myiarchus cinerascens*
Great crested, *Myiarchus crinitus*
Flyingfish, margined, *Cypselurus cyanopterus*
Folsomia candida: **22** 9.
Fontinalis antipyretica: **23** 21.
Fontinalis squamosa: **26** 18.
Formicidae: **1** 20; **5** 6, 38.
Fox
Arctic, *Alopex logopus*
Desert kit, *Vulpes macrotis arsipus*
Gray, *Urocyon cinereoargentatus*
Kit, *Vulpes macrotis*
Red, *Vulpes vulpes*
San Joaquin kit, *Vulpes macrotis mutica*
Various, *Vulpes* sp.
Foxtail
Giant, *Setaria faberii*
Various, *Setaria* sp.
Fragaria vesca: **3** 4.
Fratercula spp.: **2** 15; **21** 19, 20.
Frog
Bull, *Rana catesbeiana*
Cricket, *Acris* sp.
European, *Rana temporaria*
Gray tree, *Hyla versicolor*
Green, *Rana clamitans*
Green tree, *Hyla cinerea*
Leap, *Rana dalmutina*
Leopard, *Rana pipiens*, *Rana sphenocephala*
Northern cricket, *Acris crepitans*
Northern leopard, *Rana pipiens pipiens*
South African clawed, *Xenopus laevis*
Southern gray tree, *Hyla chrysoscelis*
Southern leopard, *Rana utricularia*
Spotted grass, *Limnodynastes tasmaniensis*
Tree, *Hyla* sp.
Various, *Adelotus brevis*, *Limnodynastes peroni*, *Litoria*, *Pseudis paradoxa*, *Rana*
Western chorus, *Pseudacris triseriata*
Frogs: **3** 1, 22; **13** 22; **22** 7; **26** 15; **29** 67; **30** 17.
Fruitworm, Lepidoptera
Fucus disticus: **14** 26; **26** 36.
Fucus serratus: **26** 84.
Fucus spp.: **11** 32; **12** 26; **26** 52.
Fucus vesiculosus: **2** 4; **6** 9; **12** 26, 53; **14** 26; **29** 22, 24; **34** 22.
Fulica americana: **5** 20, 38; **21** 34; **29** 32, 41; **34** 28.
Fulica cristata: **33** 36, 42.
Fulmars: **26** 30.
Fundulus diaphanus: **34** 44.
Fundulus heteroclitus: **2** 28, 30, 31; **5** 27; **6** 23; **10** 61; **13** 19; **14** 68; **15** 45; **24** 21; **25** 17; **26** 60, 66, 71, 72; **27** 8; **29** 29; **31** 37; **32** 26; **33** 23, 57; **34** 44.
Fundulus kansae: **5** 36.
Fundulus similis: **4** 16; **11** 40; **13** 8; **17** 34; **22** 12.
Fungi: **5** 20; **12** 9; **14** 24, 57; **15** 10, 15; **18** 13; **20** 1-3, 10; **26** 38; **28** 11; **29** 51; **30** 8; **33** 14; **34** 38, 39.
Fungus, *Achyla* sp., *Aspergillus*, *Cortinarius* spp., *Cunninghamella*, *Epicoccum nigrum*, *Eurotium* sp., *Fusarium* spp., *Helminthosporium* sp., *Ophiobolus* sp., *Penicillium* spp., *Phomopsis leptostromiformes*, *Rhizoctonia solani*, *Rhizopus* sp., *Saprolegnia* sp., *Sclerotium rolfsii*, *Thielaviopsis basicola*, *Trichoderma viride*
Fusarium spp.: **18** 13; **22** 8; **23** 19; **30** 8, 9.
Gadopsis marmoratus: **10** 27.
Gadus morhua: **2** 8; **7** 8, 12, 47; **12** 31; **15** 31; **21** 14; **29** 55, 78; **31** 16, 24, 34, 38; **32** 15, 19; **33** 23; **34** 25.
Gadwall, *Anas strepera*
Galah, *Cacatua roseicapilla*
Galeorhinus galeus: **34** 35.
Galleria melonella: **3** 17.
Gallinule, purple, *Porphyrula martinica*
Gallus spp.: **1** 5, 9, 15, 19; **2** iii, 24, 31; **3** 11, 23, 24; **4** 17; **5** 1, 29, 38; **6** 18, 19, 27, 37; **7** 36, 50, 53, 60; **8** 1, 23, 28; **9** iv, 1, 6, 9, 14, 19, 23; **10** 1, 51, 53, 61, 62, 74; **12** 4, 6, 56, 58, 59, 61, 76, 77; **13** 10, 12, 15; **14** 13, 14, 80, 81, 86; **15** 8, 32, 50, 51; **17** 2, 13, 16, 38-40, 57; **18** 33, 34; **19** 1, 16, 29, 30; **20** 5, 18, 19, 28; **21** 20, 34-36; **22** 7, 14-16; **23** 2, 29-32, 47; **24** 10, 28; **25** 6, 24-27, 32; **26** 9-11, 27, 28, 43, 45, 72-76, 85, 90; **27** 6, 10, 11; **28** 13-15; **29** 65, 67, 82-84; **30** 21; **31** 1, 10, 42, 48, 51-54; **32** 9, 30, 31; **33** 8, 44, 48, 73, 78, 89; **34** 1, 10, 14, 28, 30, 37, 38, 48, 61, 65.
Gambusia affinis: **1** 12; **2** 28; **3** 9; **5** 18, 32, 36, 37; **8** 21; **11** 38, 42, 46; **13** 9, 18; **14** 34; **17** 20; **20** 8, 17; **21** 29; **22** 12; **24** 8, 21; **25** 17, 18, 21; **26** 60, 71, 72; **28** 11; **32** 26.
Gambusia holbrooki: **29** 22, 29.
Gammarus duebeni: **10** 49; **26** 57, 58, 69.
Gammarus fasciatus: **9** 10; **18** 27; **21** 31; **22** 11.
Gammarus lacustris: **13** 6, 7; **29** 54.
Gammarus oceanicus: **15** 43.

Gammarus pseudolimnaeus: **7** 37, 45; **10** 46, 61; **11** 37; **12** 46, 53; **14** 59; **17** 27, 28; **18** 32; **23** 21; **24** 19; **25** 15; **31** 49; **32** 25; **33** 47, 54.
Gammarus pulex: **23** 20, 21; **26** 10; **33** 54.
Gammarus spp.: **1** 4, 8; **4** 9, 11; **6** 20; **7** 51; **18** 32; **19** 25; **29** 78; **34** 42.
Gannet, northern, *Morus bassanus*, *Sula bassanus*
Gar
Longnose, *Lepistoseus osseus*
Spotted, *Lepisosteus oculatus*
Garra rufa: **34** 33.
Gasterosteus aculeatus: **2** 17; **4** 10; **14** 64; **21** 32; **26** 12, 72; **32** 26.
Gastrolobium grandiflorum: **30** 14.
Gastrolobium spp.: **30** 2, 13, 16.
Gastrophryne carolinensis: **10** 47; **12** 44, 47, 81; **26** 64, 72, 84; **33** 63; **34** 40, 46, 64.
Gastropods: **3** 24; **4** 7; **5** 27, 36; **6** 12; **12** 53, 81; **14** 31.
Gavia arctica: **7** 22.
Gavia immer: **5** 19; **10** 63; **14** 38; **34** 28.
Gazelle, Antilopinae
Geissosis prainosa: **34** 21.
Gelochelidon nilotica: **31** 42.
Geocoris punctipes: **25** 10.
Geomys breviceps: **30** 29.
Geomys bursarius: **23** 35.
Geomys floridanus:**30** 29.
Geomys personatus: **30** 25.
Geomys spp.: **30** 1, 3.
Geranium, *Geranium* spp.
Geranium spp.: **28** 8.
Gerbil, *Gerbillus* sp., *Meriones*
Gerbillus sp.: **15** 56; **29** 94.
Geukensia demissa: **22** 9, 11; **31** 37.
Gifblaar, *Dichapetalum cymosium*
Gillia altilis: **17** 27.
Ginger, *Zingiber officinale*
Girella punctata: **10** 14.
Glebula rotundata: **3** 22, 23.
Glenodinium halli: **26** 52, 85.
Globicephala macrorhynchus: **2** 10; **5** 15.
Globicephala melaena: **21** 24; **26** 33; **33** 28.
Glossiphonia complanata: **18** 28.
Glycera dibranchiata: **23** 8.
Glycine max: **2** 12; **4** 19; **12** 39, 40, 43; **14** 48, 56; **18** 1, 12, 15; **20** 12; **22** 2, 8; **23** 8; **24** 3, 10, 36; **25** 7; **30** 14; **32** 20; **33** 45; **34** 9, 37, 39.
Glyptocephalus cynoglossus: **12** 66.
Glyptotendipes barbipes: **7** 47.
Glyptotendipes paripes: **25** 12.
Gnat, *Chaoborus* spp.
Gnatcatcher, blue-gray, *Polioptila caerulea*
Goat, domestic, *Capra hircus*, *Capra* sp.
Goatfish, *Mullus*, *Upeneus*
Goby
Edible, *Boleophthalmus dussumieri*
Lizard, *Rhinogobius flumineus*
Various, *Acanthogobius flavimanus*
Godwit, bar-tailed, *Limosa lapponica lapponica*
Goeldichironomus holoprasinus: **25** 13.
Goldeneye, common, *Bucephala clangula*
Goldenrod, *Solidago graminifolia*
Goldfish, *Carassius auratus*
Gonatopsis borealis: **21** 9.
Goose
Aleutian Canada, *Branta canadensis leucopariea*
Cackling Canada, *Branta canadensis minima*
Canada, *Branta canadensis*, *Branta canadensis moffitti*
Giant Canada, *Branta canadensis maxima*
Greylag, *Anser anser*
Various, *Anser* spp.
Goosefish, *Lophius piscatorius*
Gopher
Breviceps pocket, *Geomys breviceps*
Texas pocket, *Geomys personatus*
Tuza pocket, *Geomys floridanus*
Various, *Geomys*, *Thomomys* sp.
Gopherus polyphemus: **29** 32.
Gorilla, *Gorilla gorilla gorilla*
Gorilla gorilla gorilla: **26** 33.
Gorgonia spp.: **21** 9.
Goshawk
Brown, *Accipiter fasciatus*
Various, *Accipiter gentilis*
Gossypium hirsutum: **3** 19, 23; **4** iii, 1, 3, 4, 19; **12** 6, 14, 39; **20** 11, 13; **22** 2, 24; **24** 2, 3, 6, 8, 36; **25** 7; **28** 7.
Gourami, giant, *Colisa fasciata*
Grackle
Common, *Quiscalus quiscula*
Great-tailed, *Quiscalus mexicanus*
Grallina cyanoleuca: **30** 21, 24.
Gram, *Cicer arietinum*
Grape, *Vitis* sp.
Grapefruit, *Citrus paradisi*
Grass
Arrow, *Triglochin* spp.
Bahia, *Paspalum notatum*
Barley, *Hordeum glaucum*
Bent, *Agrostis tenuis*
Blue, *Poa annua*
Brome, *Bromus inermis*, *Bromus* spp.
Buffalo, *Bouteloua dactyloides*
Colonial bent-, *Agrostis tenuis*
Common Bermuda, *Cynodon dactylon*
Crested wheat, *Agropyron cristatum*
Crab, *Digitaria sanguinalis*
Eel, *Zostera* spp.

Hair, *Deschampia flexuosa*
Johnson, *Sorghum halepense*
Kentucky blue, *Poa pratensis*
Marsh, *Spartina* sp.
Orchard, *Dactylus glomerata*
Perenniel rye, *Lolium perenne*
Red fescue, *Festuca rubra*
Redhead, *Potamogeton perfoliatus*
Reed canary, *Phalaris arundinacea*
Rhodes, *Chloris gayana*
Saltmarsh, *Spartina alterniflora*
Sea, *Heterozostera tasmanica*
Shoal, *Halodule wrightii*
Star, *Cynodon plectostachyus*
Sudan, *Sorghum sudanense*
Turtle, *Thalassia testudinum*
Western wheat, *Agropyron smithii*
Widgeon, *Ruppia maritima*
Grasshopper
Various, *Oxya velox*
Western, *Melanoplus* spp.
Grasshoppers: **4** 7, 19; **9** iv, 29; **22** 16; **24** 9; **33** 10, 79, 80.
Grayling, Arctic, *Thymallus arcticus*
Grebe
Eared, *Podiceps nigricollis*
Great crested, *Podiceps cristata*
Pied-billed, *Podilymbus podiceps*
Western, *Aechmophorus occidentalis*
Grebes, Podicipediformes
Greenfinch, *Carduelis chloris*
Grindelia spp.: **5** 6.
Grindelia squarrosa: **5** 21.
Griselinia littoralis: **30** 6, 9.
Groundnut, *Arachis hypogea*
Grouse
Black, *Tetrao tetrix*
Ruffed, *Bonasa umbellus*
Sharp-tailed, *Tympanuchus phasianellus*
Grunion, California, *Leuresthes tenuis*
Grus canadensis: **13** 13; **14** 2; **27** 12.
Grus canadensis canadensis: **4** 12.
Gryllidae: **1** 21; **6** 42.
Guava, *Psidium gaujava*
Gudgeon, topmouth, *Pseudorasbora parva*
Gull
Audouin's, *Larus audouinii*
California, *Larus californicus*
Common black-headed, *Larus ridibundus*, *L. r. ridibundus*
Franklin's, *Larus pipixcan*
Glaucous, *Larus hyperboreus*
Glaucous-winged, *Larus glaucescens*
Great black-backed, *Larus marinus*
Grey, *Larus modestus*
Herring, *Larus argentatus*
Kelp, *Larus dominicanus*
Laughing, *Larus atricilla*
Lesser black-blacked, *Larus fuscus*
Ring-billed, *Larus delawarensis*
Various, *Larus*
Yellow-legged herring, *Larus cachinnans*
Gulo gulo: **29** 63.
Gum
Manna, *Eucalyptus viminalis*
Sugar, *Eucalyptus cladocalyx*
Gumweed, *Grindelia* spp., *Grindelia squarrosa*
Guppy, *Poecilia reticulata*
Gutierezia spp.: **5** 6, 21.
Gymnodinium splendens: **26** 52, 53.
Gymnogyps californianus: **14** 3; **23** 4, 31; **26** 28, 43; **30** 4, 40; **34** 28.
Gymnorhina tibicen: **30** 7, 21, 24.
Haddock, *Melanogrammus aeglifinus*
Haemaphysalis longicornis: **27** 6.
Haematobia irritans: **13** 16; **24** 36; **25** 6; **27** 6.
Haematopinus eurysternus: **27** 6, 15.
Haematopinus spp.: **27** 6.
Haematopus ostralegus: **5** 14; **29** 34, 41, 58; **33** 27.
Hagfish, Atlantic, *Myxine glutinosa*
Hake
Argentinian, *Merluccius merluccius hubbsi*
Blue, *Antimora rostrata*
Pacific, *Merluccius productus*
Red, *Urophycus chuss*
Halfbeak, *Hemiramphus marginatus*
Haliaeetus albicilla: **10** 63; **26** 28; **31** 40, 42, 45.
Haliaeetus leucocephalus: **1** 31; **7** 17, 32, 52; **10** 33, 41, 74; **14** 2, 38, 51, 74, 81, 103; **21** 20, 21, 27; **23** 4; **26** 28; **27** 12; **30** 4; **33** 26.
Haliaeetus sp.: **10** 41.
Haliastur sphenurus: **30** 24.
Halibut, Atlantic, *Hippoglossus hippoglossus*
Halichoeres grypus: **10** 43; **21** 24; **26** 33; **29** 34, 42; **31** 28, 34; **33** 28; **34** 32.
Halichondria sp.: **34** 23.
Haliotis cracherodii: **33** 50.
Haliotis rufescens: **2** 5; **6** 9; **14** 71; **26** 55; **32** 13; **33** 50; **34** 23.
Haliotis tuberculata: **34** 23.
Halobates spp.: **34** 24.
Halocynthia roretzi: **34** 25.
Halodule wrightii: **18** 22.
Hamster
Chinese or Syrian, *Cricetus* spp.
Golden, *Cricetus* spp.
Syrian golden, *Mesocricetus auratus*
Haplopappus spp.: **5** 21.

Hardy head, small-mouthed, *Atherinasoma microstoma*
Hare
Blue, *Lepus timidus*
Brown, *Lepus capensis*
European, *Lepus europaeus*
Snowshoe, *Lepus americanus*
Harrier, northern, *Circus cyaneus*
Haslea ostrearia: **33** 72.
Hawk
Australian harrier, *Circus approximans*
Cooper's, *Accipiter cooperii*
Ferruginous, *Buteo regalis*
Pigeon, *Falco columbarius*
Red-shouldered, *Buteo lineatus*
Red-tailed, *Buteo jamaicensis*
Rough-legged, *Buteo lagopus*
Sharp-shinned, *Accipiter striatus*
Various, *Falco*
Hawthorn, *Crataegus* spp.
Heather, Scotch, *Calluna vulgaris*
Hediste diversicolor: **33** 56.
Helianthus spp.: **4** iv, 21; **20** 11, 12; **22** 24.
Heliotropium sp.: **33** 10.
Helisoma campanulata: **12** 46.
Helisoma sp.: **8** 19; **28** 13.
Helisoma trivolvis: **13** 7; **24** 19.
Helix aspersa: **3** 23; **26** 52.
Helix pomatia: **29** 78.
Helix spp.: **14** 57.
Helminthosporium sp.: **22** 8.
Helobdella stagnalis: **18** 28.
Hemicentrotus sp.: **6** 37.
Hemichromus bimaculatus: **15** 46.
Hemifusus spp.: **12** 27, 81.
Hemiramphus marginatus: **26** 25.
Hen, guinea, *Gallus* sp.
Hermione hystrix: **6** 35, 36.
Heron
Black-crowned night-, *Nycticorax nycticorax*
Gray, *Ardea cinerea*
Great blue, *Ardea herodias*
Green-backed, *Butorides virescens virescens*
Green-backer (also known as Green, or Striated), *Butorides striatus*
Little blue, *Florida coerulea*
Little green, *Butorides virescens*
Yellow-crowned night-, *Nycticorax violaceus*
Herring
Atlantic, *Clupea harengus harengus*
Baltic, *Clupea harengus*
Pacific, *Clupea harengus pallasi*
Heteropneustes fossilis: **21** 32; **33** 57, 72.
Heterotermes indicola: **25** 8, 9.
Heterotermes spp.: **33** 47.
Heterozostera tasmanica: **33** 69.
Hexagenia bilineata: **11** 38; **31** 23.
Hexagenia limbata: **31** 23.
Hexagenia sp.: **5** 16; **9** 19; **11** 41; **31** 23, 34.
Hieraetus morphnoides: **30** 24.
Hieraetus pennatus: **26** 30; **31** 42.
Himantopus mexicanus: **5** 20.
Hinnites multirugosus: **10** 20.
Hippodamia convergens: **25** 10.
Hippoglossoides elassodon: **31** 36.
Hippoglossus hippoglossus: **15** 31.
Hirundo neoxena: **30** 25.
Hirundo nigricans: **30** 25.
Hirundo rustica: **14** 38, 39, 52; **29** 32, 33, 41.
Hog, *Sus* spp.
Hogchoker, *Trinectes maculatus*
Holmesimysis costata: **33** 54.
Holothurian, sea cucumber, *Holothuria mexicana, Stichopus*
Holothuria mexicana: **34** 32.
Homalium spp.: **34** 21, 34.
Homalothecium sericium: **29** 51.
Homarus americanus: **2** 7, 29; **10** 24; **11** 27, 31, 32; **12** 29, 35; **14** 67; **15** 29, 44; **21** 9; **24** 19; **26** 22, 58, 68; **32** 15, 25; **33** 54; **34** 24.
Homarus gammarus: **26** 69.
Homarus vulgaris: **33** 21.
Homo sapiens: **1** iii, 1, 18, 27, 30, 33; **2** 1, 16, 26, 27, 31-34; **3** iii, 3, 15, 16, 25, 27; **4** iii, iv, 4, 13, 14, 18, 20, 21; **5** iv, 1, 2, 5-7, 26, 27, 40-44; **6** iii, 1, 14, 18, 27, 38, 41, 46; **7** iii, 1, 5, 33, 54, 55, 57-59, 61; **8** iii, 1-3, 16, 24, 28; **9** iii, 1, 18; **10** iii, 1, 2, 4, 10-12, 17, 40, 44, 54, 56, 62-65, 67-69, 72, 74; **11** iv, 1, 2, 9, 10, 12, 25, 40, 50, 51, 58-60, 62, 63; **12** iii, iv, 1-5, 12, 14, 20, 35, 37, 38, 61, 65, 72-74, 77, 81; **13** 1, 24; **14** iii, 1, 2, 5, 7, 11-14, 86, 104-108; **15** 1-4, 12, 34, 56, 63, 65, 66, 68, 69; **17** iv, 1, 2, 16, 40, 41, 44-46, 54, 55, 57; **18** iv, 7, 42; **19** 1, 4, 17, 31, 32, 41-44, 47-49; **20** 1, 2, 4, 5, 9, 10, 21-23, 26-28; **21** 2, 4-6, 24, 25, 28, 36, 37, 43, 44; **22** 2, 4, 5, 16, 18, 22-24; **23** 1, 3, 9, 11, 15, 16, 33-35, 37-39, 46, 48, 49; **24** 36-39; **25** 2, 32; **26** 3-5, 8, 11-15, 33, 43-47, 77, 79, 80, 82, 87, 90, 91; **27** 3, 12, 19, 21; **28** 1-4, 15-17, 23-27; **29** 2, 4, 10-12, 15, 36, 41-43, 47, 48, 51, 53, 60, 61, 65, 67, 85-87, 93-105; **30** 2-4, 12, 13, 24, 29, 36, 40; **31** 16, 33, 47, 48, 58, 59, 61; **32** 2-5, 8, 9, 12, 16, 17, 31, 32, 34, 35, 37; **33** 4, 7, 10, 11, 31, 32, 43, 44, 65, 73, 77, 79-81; **34** 1-5, 7, 8, 10-14, 29, 30, 34, 36-39, 50, 51, 56-66.
Honeybee, *Apis mellifera*, *Apis* spp.
Hoopoe, *Upupa epops*
Hop, *Humulus* spp.
Hoplias sp.: **29** 39.
Hoplosternum littorale: **17** 20.

Hordeum glaucum: **22** 8.
Hordeum vulgare: **12** 39; **18** 14; **19** 12; **20** 11, 12; **22** 2, 8; **24** 36; **26** 50, 51; **29** 49.
Hormomya mutabilis: **10** 13.
Hornworm, tobacco, *Manduca sexta*
Horse, *Equus caballus*
Horsetails, *Equisetum* sp.
Human, *Homo sapiens*
Humulus spp.: **22** 24.
Hyacinth, water, *Eichornia crassipes*
Hyalella azteca: **5** 31; **11** 45; **21** 29, 31; **25** 15, 22; **32** 25; **33** 47, 54; **34** 42.
Hyalella sp.: **29** 78.
Hybanthus spp.: **34** 21, 34.
Hydra, *Hydra oligactis*, *Hydra* sp.
Hydra oligactis: **7** 37; **25** 11.
Hydra sp.: **1** 8; **17** 24.
Hydrilla verticillata: **33** 73.
Hydrodictyon reticulatum: **6** 30.
Hydrodictyon spp.: **28** 8.
Hydroid, *Campanularia flexuosa*
Hydromys chrysogaster: **30** 29.
Hydrophilus triangularis: **25** 12.
Hydropsyche bettani: **25** 21.
Hydrurga leptonyx: **32** 17; **33** 28.
Hyla chrysoscelis: **33** 63.
Hyla cinerea: **24** 9.
Hyla crucifer: **34** 35.
Hyla sp.: **10** 47.
Hyla versicolor: **33** 25; **34** 26, 35.
Hylocichla mustelina: **25** 24.
Hymenomonas carterae: **12** 54.
Hypnum cupressiforme: **11** 25, 26; **14** 24; **19** 12; **33** 14; **34** 20.
Hypoderma bovis: **27** 14.
Hypoderma lineatum: **27** 14, 20.
Hypoderma spp.: **27** 2, 6, 9, 15.
Hypogymnia physodes: **10** 21.
Hystrix indica: **30** 5.
Ibis, white-faced, *Plegadis chihi*
Icefish, blackfin, *Chaenocephalus aceratus*
Ichthyopthirius sp.: **33** 3.
Ictalurus furcatus: **4** 6, 7; **21** 12; **26** 36; **31** 25.
Ictalurus melas, see *Ameiurus melas*
Ictalurus punctatus: **1** 7, 8; **2** 20; **3** 9; **4** 4, 6, 9, 11, 14, 15, 16; **5** 18, 32, 35; **6** 26; **7** 38; **8** 9, 11, 12, 22; **10** 28, 46; **12** 25, 47; **13** 9; **14** 63; **15** 45; **17** 20, 34; **18** 32; **20** 17; **21** 12, 13, 32; **22** 12, 13; **24** 22, 26; **25** 18; **26** 11, 72, 84; **31** 25, 51; **33** 58; **34** 40, 44.
Ictalurus spp.: **8** 16; **29** 29.
Ictiobus bubulas: **21** 12.
Ictiobus cyprinellus: **21** 12.
Illex illecebrosus argentinus: **31** 23.
Ilyanassa obsoleta: **33** 19.
Impala, *Aepyceros melampus*
Indoplanorbis exustus: **9** 20.
Ipomoea batatas: **9** 1; **23** 3, 12; **29** 23.
Ipomoea sp.: **24** 3; **28** 8, 10.
Ischadium recurvum: **26** 35; **32** 18.
Ischnura sp.: **2** 28.
Ischnura verticalis: **7** 37.
Isochrysis galbana: **22** 10; **24** 17; **26** 53.
Isonychia bicolor: **32** 25, 30.
Isoodon auratus barrowensis: **30** 29.
Isoodon macrourus: **30** 29.
Isoodon obesulus: **30** 29.
Isoperla sp.: **10** 23.
Isopod, *Asellus* sp.
Isurus oxyrinchus: **12** 31; **26** 25.
Jacana jacana: **17** 40.
Jacana, wattled, *Jacana jacana*
Jackal
  Asiatic, *Canis aureus*
  Black-backed, *Canis mesomelas*
Jackdaw, *Corvus monedula*
Jackrabbit, black-tailed, *Lepus californicus*
Jararaca, *Bothrops jararaca*
Jassid, *Amrasca* sp.
Jay, blue, *Cyanocitta cristata*
Jellyfish, *Aurelia* spp.
Jewelfish, *Hemichromus bimaculatus*
Jird, tristram, *Meriones tristrami*
Jordanella floridae: **5** 32; **9** 10, 22; **12** 47, 55; **26** 60, 84; **32** 26.
Juga plicifera: **25** 13; **34** 41.
Juniperus virginiana: **22** 8.
Jussiaea sp.: **28** 8.
Kakapo, *Strigops habroptilus*
Kale, *Brassica oleracea acephala*
Kangaroo
  Eastern gray, *Macropus giganteus*
  Red, *Macropus rufus*
  Western gray, *Macropus fuliginosus*
Kelletia kelletia: **10** 20.
Kelp
  Brown, *Ecklonia radiata*
  Giant, *Macrococystis pyrifera*
Kestrel
  American, *Falco sparverius*
  Australian, *Falco cenchroides*
  Lesser, *Falco naumanni*
  Various, *Falco tinnunculus*
Killdeer, *Charadrius vociferus*
Killifish
  Banded, *Fundulus diaphanus*
  Diamond, *Adinia xenica*
  Freshwater, *Fundulus kansae*
  Longnose, *Fundulus similis*

Kingfisher, belted, *Ceryle alcyon*
Kinglet, golden-crowned, *Regulus satrapa*
Kinosternon sabrubrum: **29** 32.
Kite
Black, *Milvus migrans*
Snail, *Rostrhamus sociabilis*
Whistling, *Haliastur sphenurus*
Kittiwake, black-legged, *Rissa tridactyla*
Kiwi, *Apteryx* spp.
Klebsiella pneumoniae: **12** 73; **28** 23.
Knifejaw, striped, *Oplegnathus fasciatus*
Knot, red, *Calidris canutus*
Knotted wrack, *Ascophyllum nodosum*
Kokako, *Callaeas cinera*
Kogia breviceps: **33** 28.
Konosirus punctatis: **21** 15.
Kookaburra, laughing, *Dacelo novaeguineae*
Kowari, *Dasyuroides byrnei*
Krill, *Euphausia superba*
Krobia, *Cichlasoma bimaculatum*
Kwi kwi, *Hoplosternum littorale*
Labeo rohita: **26** 60.
Labrundinia pilosella: **18** 32.
Laccophilis spp.: **25** 12.
Lacewing
Common green, *Chrysopa carnea*
Various, *Chrysopa oculata*
Lactarius spp.: **29** 55.
Lactuca sativa: **11** 25, 26, 35; **14** 26, 57; **19** 45; **22** 2; **23** 19; **30** 14; **32** 20; **34** 21, 22, 39.
Lactuca spp.: **2** 12; **4** 1; **19** 22; **24** 3, 6.
Lagarosiphon major: **12** 69.
Lagenorhynchus albirostris: **21** 25; **26** 33.
Lagenorhynchus obliquidens: **31** 28.
Lagodon rhomboides: **1** 7, 12; **4** 10; **5** 34; **7** 39, 46; **17** 32; **21** 32; **29** 73.
Lagopus lagopus: **10** 41; **14** 81, 82; **29** 58; **33** 8, 9, 26; **34** 28.
Lagopus mutus: **10** 41; **14** 100.
Lagostrophus fasciatus: **30** 30.
Lama pacos: **33** 43.
Lamellidens marginalis: **21** 31; **33** 51; **34** 41.
Laminaria digitata: **12** 26; **26** 53.
Laminaria hyperborea: **12** 27; **26** 53.
Lamprey, Petromyzontidae, *Petromyzon marinus*
Lanistes carinatus: **13** 7.
Lanius ludovicianus: **31** 42.
Lanternfishes, Myctophidae
Laomedea loveni: **2** 23.
Lark
Australian magpie-, *Grallina cyanoleuca*
Eastern meadow, *Sturnella magna*
Horned, *Eremophila alpestris*
Southern meadow, *Sturnella magna argutula*
Western meadow, *Sturnella neglecta*
Larus argentatus: **1** 26-29, 32; **4** 6; **5** 15; **7** 19; **8** 1, 8, 13, 16, 23; **10** 34; **21** 21; **29** 42; **31** 15, 39, 42, 43, 53, 60; **34** 28, 32.
Larus atricilla: **2** 9; **4** 6.
Larus audouinii: **31** 43, 45.
Larus cachinnans: **31** 43, 45.
Larus californicus: **10** 34.
Larus delawarensis: **4** 6; **7** 33, 36.
Larus dominicanus: **33** 27.
Larus fuscus: **6** 14; **32** 16; **33** 26; **34** 28.
Larus glaucescens: **21** 21.
Larus hyperboreus: **26** 28.
Larus marinus: **1** 32; **21** 21; **29** 33.
Larus modestus: **33** 27.
Larus pipixcan: **4** 6; **33** 27.
Larus ridibundus: **29** 33, 41; **31** 53.
Larus ridibundus ridibundus: **29:** 58, 82.
Larus spp.: **33** 26.
Lasallia papulosa: **26** 19, 51.
Lasiorhinus latifrons: **30** 29, 38.
Laspeyresia pomonella: **24** 14.
Lateolabrax japonicus: **21** 15.
Lates sp.: **33** 23.
Laurel, cherry, *Prunus laurocerasus*
Lecanora conizaeoides: **14** 48.
Ledum sp.: **10** 21; **34** 30, 36.
Leech, *Erpobdella, Glossiphonia, Helobdella*
Leeches: **3** 1; **5** 6, 37; **9** 19.
Leek, *Allium porrum*
Leiopotherapon unicolor: **26** 61, 71.
Leiostomus xanthurus: **4** 15; **7** 39, 46; **18** 31; **26** 36, 61, 65; **33** 58; **34** 44.
Lemming, *Lemmus* sp.
Lemmus sp.: **33** 42; **34** 36.
Lemna media: **15** 46.
Lemna minor: **6** 30; **17** 23, 52; **18** 25; **20** 15, 16; **22** 10; **32** 21; **33** 3; **34** 22.
Lemna sp.: **33** 69.
Lemon, *Citrus limonia osbeck*
Lens esculenta: **18** 13; **26** 8.
Lentil, *Lens esculenta*
Lepidoptera: **3** 26; **4** 1, 19; **14** 30; **30** 15.
Lepisosteus oculatus: **4** 7; **26** 36.
Lepisosteus osseus: **23** 22, 27.
Lepomis auritis: **29** 78.
Lepomis cyanellus: **3** 9; **4** 9; **5** 18, 30, 35; **12** 25, 55; **13** 20; **22** 12; **23** 27; **33** 58, 72.
Lepomis gibbosus: **6** 12; **7** 12; **10** 28; **44** 44.
Lepomis gulosus: **26** 24.
Leopomis humilis: **26** 24; **33** 36.
Lepomis macrochirus: **1** 8, 12, 13; **2** 31; **3** 9; **4** 7, 9; **5** 17, 32, 37; **6** 21, 26, 31, 41; **7** 37; **9** 8, 10; **11** 37, 40-

43, 45; **12** 25, 47, 53, 55, 75; **13** 8, 18, 20; **14** 33, 63; **15** 45; **17** 20, 32; **18** 28, 29, 32; **19** 26; **20** 9, 17, 27; **21** 15, 29, 32, 33; **22** 12, 13; **23** 22, 26; **24** 22; **25** 18, 20, 22; **26** 61, 71; **27** 8; **28** 12, 13; **29** 67, 73, 79; **30** 15; **32** 26, 30; **33** 58, 72; **34** 32, 44.
Lepomis megalotis: **14** 33.
Lepomis microlophus: **4** 9; **26** 25; **34** 32.
Lepomis punctatus: **8** 8.
Leptinotarsa decemlineata: **12** 5.
Leptonychotes weddelli: **7** 34; **21** 25; **32** 17; **33** 8, 9, 28.
Leptophlebia sp.: **25** 21.
Lepus americanus: **29** 42; **34** 30.
Lepus californicus: **29** 16, 36, 42; **30** 29.
Lepus capensis: **29** 59.
Lepus europaeus: **7** 24; **14** 82; **22** 23.
Lepus sp.: **1** 6; **3** 15; **4** 8; **5** 28; **6** 27, 38, 39; **7** 42, 54, 55; **8** 1, 12, 13, 24-26; **9** 13, 16; **10** 64; **11** 1, 12; **12** 72, 73; **14** 91; **15** 58, 59, 61; **22** 16, 18; **29** 38; **30** 2, 5.
Lepus timidus: **29** 59.
Lerista puctorittata: **21** 33.
Lethrinus spp.: **26** 25.
Lettuce
Common, *Lactuca sativa*, *Lactuca* spp.
Sea, *Ulva lactuca*
Leuciscus hakonensis: **25** 23.
Leuciscus idus melanotus: **15** 40, 46.
Leucospius delineatus: **2** 27.
Leuctra sp.:**32** 25.
Leuresthes tenuis: **13** 6, 8, 11; **24** 22.
Lichens, *Bryoria fuscescens*, *Cetraria nivalis*, *Cladina* spp., *Cladonia*, *Compylium polyanum*, *Hypogymnia physodes*, *Lasallia papulosa*, *Lecanora conizaeoides*, *Parimelia baltimorensis*, *Ramalina fraxinea*, *Umbilicaria* sp.
Lily
Water, *Nuphar luteum*
Yellow pond, *Nuphar* sp.
Limanda sp.: **12** 35.
Limnodrilus hoffmeisterei: **3** 10; **15** 27; **29** 78.
Limnodrilus sp.: **11** 45; **33** 41.
Limnodynastes peroni: **22** 13.
Limnodynastes tasmaniensis: **30** 17.
Limosa lapponica lapponica: **29** 34.
Limpet
Common, *Patella vulgata*
Slipper, *Crepidula fornicata*
Various, *Acmaea digitalis*, *Littorina littorea*, *Patella caerulea*
Limpkin, *Aramus guarauna*
Limulus polyphemus: **25** 13; **26** 45.
Linognathus vituli: **27** 6, 15.
Linseed, *Linum* sp.
Linum sp.: **23** 3, 12, 14, 19.
Liometopum occidentale: **30** 24.
Lipaphis erysimi: **24** 14.
Liriodendron tulipifera: **25** 24.
Liriomyza trifolii: **29** 71.
Lissorhopterus oryzophilus: **25** 23.
Lithobius variegatus: **14** 57.
Litoria caerulea: **21** 33.
Litoria peronii: **21** 33.
Littorina littorea: **2** 5; **6** 10; **12** 28; **26** 55, 67; **32** 7, 13.
Lizard
Blotched blue-tongued, *Tiliqua nigrolutea*
Leopard, *Crotaphytus wislizenii*
Shingle-back, *Tiliqua rugosa*
Side-blotched, *Uta stansburiana*
Spiny tailed, *Uromastix hardwickii*
Western whiptail, *Cnemidophorus tigris*
Loach
Stone, *Noemacheilus barbatulis*
Various, *Misgurnis fossilis*, *Noemacheilus barbatulus*
Lobodon carcinophagus: **32** 17; **33** 28.
Lobster
American, *Homarus americanus*
Caribbean spiny, *Panulirus argus*
Spiny, *Nephrops norvegicus*, *Panulirus*
Various, *Homarus*
Western rock, *Panulirus cygnus*
Lobsters: **6** 35; **11** 32; **12** 29, 81.
Locoweed, *Astragalus* spp.
Loligo vulgaris: **12** 28.
Lolium perenne: **7** 11; **18** 41; **19** 13; **22** 8; **29** 51, 60, 61.
Longspur
Chestnut-collared, *Calcarius ornatus*
McCown's, *Calcarius mccownii*
Loon
Arctic, *Gavia arctica*
Common, *Gavia immer*
Lophius piscatorius: **6** 37.
Lophodytes cucullatus: **7** 19; **34** 28.
Lopholatilus chamaeleonticeps: **31** 25, 26, 38; **34** 35.
Lotus sp.: **19** 11.
Louse
Angora goat biting, *Bovicola limbatus*
Cattle, *Haematopinus* spp.
Cattle-biting, *Damalina bovis*
Hairy goat, *Bovicola crassipes*
Long-nosed cattle, *Linognathus vituli*
Short-nosed cattle, *Haematopinus eurysternus*
Wood, *Oniscus asellus*, *Porcellio*
Lovebird, peach-faced, *Agapornis roseicollis*
Lucilia cuprina: **25** 30.
Lugworm, *Arenicola cristata*
Luidia clathrata: **32** 15.
Lumbriculus variegatus: **33** 56, 71; **34** 42.
Lumbricus herculeus: **3** 18.
Lumbricus rubellus: **8** 17; **26** 18, 38, 39; **29** 55; **33** 35.

Lumbricus sp.: **3** 18.
Lumbricus rubellus: **33** 16, 37, 47, 69.
Lumbricus terrestris: **3** 18; **14** 30; **22** 7; **33** 47.
Lungfish: **23** 27.
Lupinus spp.: **33** 74.
Lutianus fulviflamma: **26** 25.
Lutianus griseus: **11** 43.
Lutjanus griseus: **11** 43.
Lutra canadensis: **5** 23; **7** 10, 24, 33, 34; **10** 36, 43, 54, 55, 64; **21** 25; **34** 30.
Lutra lutra: **26** 43; **31** 46, 47.
Lycastis ouanaryensis: **33** 21.
Lycium andersonii: **20** 8.
Lycopersicon esculentum: **4** 1; **10** 25; **11** 35; **20** 8; **21** 5; **22** 2; **24** 3, 6, 10; **28** 7, 8; **32** 20; **33** 14.
Lycosa sp.: **25** 23.
Lygaeidae: **4** 1.
Lymantria dispar: **20** 14; **25** 1, 2, 9, 21, 25; **33** 45, 47, 78.
Lymnaea calliaudi: **22** 9.
Lymnaea palustris: **14** 59.
Lymnaea peregra: **14** 72.
Lymnaea stagnalis: **15** 39; **17** 26.
Lymnaea sp.: **15** 45; **17** 25, 26; **22** 10; **26** 55; **28** 13.
Lynx, *Felis lynx*
Lynx rufus: **10** 36; **23** 12; **29** 36; **30** 29, 38, 41.
Lysmata caudata: **5** 37.
Lysmata seticaudata: **5** 13; **12** 54, 55.
Lytechinus pictus: **26** 45; **34** 42.
Lytechinus variegatus: **34** 32.
Macaca fascicularis: **14** 94; **15** 56.
Macaca fuscata: **22** 18.
Macaca iris: **14** 94.
Macaca mulatta: **1** 17; **3** 8, 15; **7** iv, 54, 55, 58, 60; **8** 25, 26; **10** 54, 55, 65; **14** 95; **17** 40, 41, 46; **26** 33, 48, 87; **29** 87, 96; **30** 12, 29, 39; **31** 1, 48, 55, 61.
Macaca sp.: **3** 16; **10** 66; **12** 66; **20** 23; **21** 37; **23** 39, 46; **34** 62.
Macadamia nut, *Macadamia* sp.
Macadamia sp.: **18** 3, 41.
Macaw, blue and gold, *Ara araruana*
Machaeranthera spp.: **5** 6.
Mackerel
  Atlantic, *Scomber scomber*
  King, *Scomberomorus cavalla*
  Spanish, *Scomberomorus maculatus*
Macoma balthica: **12** 51; **14** 86; **26** 20, 65; **29** 21; **32** 13, 29; **33** 10, 19, 40, 51.
Macoma liliana: **33** 51.
Macoma nasuta: **3** 10; **31** 51; **32** 13.
Macrobrachium hendersodyanum: **26** 68.
Macrobrachium lamarrei: **6** 20, 30.
Macrobrachium rosenbergerii: **1** 4; **33** 55.
Macrobrachium rude: **33** 55.
Macrobrachium sp.: **34** 33.
Macrocystis pyrifera: **6** 33; **34** 40.
Macromia sp.: **7** 37.
Macronectes giganteus: **32** 16; **33** 26; **34** 27.
Macrophytes, aquatic, *Cabomba* spp., *Chara* sp., *Elodea*, *Lemna*, *Myriophyllum*, *Polygonum* sp., *Potamogeton*, *Ruppia*, *Spirodella oligorrhiza*, *Typha latifolia*, *Zannichellia* sp., *Zostera*
Macropus agilis: **30** 29.
Macropus eugenii: **30** 29.
Macropus fuliginosus: **30** 30.
Macropus giganteus: **30** 30.
Macropus irma: **30** 30.
Macropus rufogriseus: **30** 5-7, 30, 37.
Macropus rufus: **30** 30.
Macrosiphium gei: **10** 25.
Macrotus lagotis: **30** 30.
Madrone, *Arbutus menziesii*
Magicicada spp.: **33** 16, 39.
Magpie
  Australian, *Gymnorhina tibicen*
  Black-billed, *Pica pica*
  Yellow-billed, *Pica nuttalli*
Mahoe, *Melicytus ramiflorus*
Makaira indica: **2** 8; **5** 14; **10** 28.
Makaira nigricans: **5** 14; **10** 28; **33** 23.
Malacosoma americanum: **14** 30, 48.
Mallard, *Anas platyrhynchos*
Malus domestica: **23** 3, 4.
Malus malus: **5** 5; **12** 6; **15** 65, 69; **20** 8.
Malus spp.: **23** 15; **24** 3, 6, 38; **25** 7; **26** 5.
Malus sylvestris: **12** 22; **23** 4, 10.
Mamestra brassicae: **25** 9.
Manatee, *Trichechus manatus*
Manduca sexta: **9** 25.
Mangifera indica: **29** 68.
Mango, *Mangifera indica*
Mangrove, *Bruguiera*, *Rhizophora*
Manihot esculenta: **23** 2-4, 9, 13-15, 19, 31, 34, 35, 37, 45.
Maple
  Bigleaf, *Acer macrophyllum*
  Red, *Acer rubrum*
Margaretifera margaretifera: **19** 26.
Marlin
  Black, *Makaira indica*
  Blue, *Makaira nigricans*
Marmoset, *Callithrix jacchus*
Marmot, *Marmota flaviventris*
Marmota flaviventris: **19** 20.
Marmota monax: **5** 23; **15** 32; **33** 32.
Marphysa sanguinea: **32** 15.
Marsupials: **30** 1-41.
Marten, *Martes martes*

Martes martes: **10** 64; **30** 30.
Martin
Purple, *Progne subis subis*
Tree, *Hirundo nigricans*
Mastotermes darwinensis: **1** 20, 33.
Matteuccia struthiopteris: **7** 44.
Meadowlark, *Sturnella* spp.
Mealworm, lesser, *Alphitobius diaperinus*
Medaka, *Oryzias latipes*
Medicago lupulina: **19** 12.
Medicago sativa: **3** iii, 1, 23, 27, 28; **4** 1, 18; **9** 1; **10** 21; **12** 22, 39; **18** 12; **19** 12; **20** 11, 12; **21** 4, 5; **22** 3, 8, 23, 24; **24** 8, 16; **28** 7; **29** 51; **30** 14; **33** 43; **34** 39, 61.
Megacephala virginica: **23** 20.
Meganyctiphanes norvegica: **5** 12, 37; **26** 22; **33** 21.
Megachile rotundata: **24** 15, 16, 37.
Melanitta perspicillata: **32** 16; **33** 27, 42.
Melanoides sp.: **34** 33.
Melanperes formicivorus: **30** 24.
Melanogrammus aeglifinus: **5** 34; **10** 48; **29** 78.
Melanoplus spp.: **12** 56.
Meleagris gallopavo: **4** 7; **9** iii, 8, 14; **12** 4, 56, 59, 76, 77; **13** 10, 12, 15; **14** 2; **15** 8; **19** 1, 29, 30; **22** 16; **23** 4; **26** 9, 10, 28, 43, 46, 73; **28** 3; **30** 21; **31** 53, 54; **32** 9, 30; **33** 27, 44, 48, 73, 80; **34** 28.
Melicytus ramiflorus: **30** 14.
Melilotus sp.: **19** 6.
Melomys burtoni: **30** 30.
Melospiza melodia: **25** 24.
Menhaden, Atlantic, *Brevoortia tyrannus*
Menidia beryllina: **13** 8, 11; **24** 22.
Menidia menidia: **5** 34; **6** 22; **13** 8, 11; **24** 22; **32** 26; **33** 58; **34** 44.
Menidia peninsula: **13** 8, 11; **24** 22; **26** 61; **33** 58; **34** 44.
Menippe mercenaria: **12** 29; **25** 15.
Menyanthes trifoliata: **29** 56, 57.
Mephitis mephitis: **30** 30, 39.
Mercenaria campechiensis: **26** 67.
Mercenaria mercenaria: **4** 10; **6** 10, 33; **10** 47; **11** 40; **12** 28; **26** 55, 65; **32** 23, 29; **33** 51; **34** 23, 41.
Merganser
Common, *Mergus merganser*
Hooded, *Lophodytes cucullatus*
Red-breasted, *Mergus serrator*
Mergus merganser: **7** 19.
Mergus serrator: **5** 20; **7** 19; **21** 21; **23** 32; **26** 29; **29** 34; **31** 39, 43.
Mergus spp.: **7** 22.
Meriones hurrianae: **21** 37.
Meriones tristrami: **30** 30.
Meriones unguiculatus: **12** 12.
Merlangius merlangius: **29** 78.
Merlin, *Falco columbarius*
Merluccius merluccius hubbsi: **31** 26.
Merluccius productus: **26** 26.
Mesocricetus auratus: **28** 17, 23.
Mesocyclops thermocyclopoides: **25** 15.
Mesotoma sp.: **25** 23.
Metamysidopsis elongata: **15** 44.
Metapenaeus ensis: **33** 55.
Methanobacterium sp.: **34** 37.
Metridium senile: **26** 19.
Mice
Deer, *Peromyscus maniculatus*
Field, *Microtus arvalis*
White-footed, *Peromyscus leucopus*
Microcystis aeruginosa: **14** 58; **23** 21; **33** 3.
Microgadus tomcod: **11** 47.
Micropogonias undulatus: **6** 37; **26** 36; **34** 26.
Micropterus dolomieui: **8** 11; **12** 25; **14** 33, 64; **22** 12; **34** 26.
Micropterus ochrooaster, see *Microtus ochrogaster*
Micropterus salmoides: **4** 7, 9, 15; **5** 17, 37; **6** 41; **7** 12; **10** 28, 46; **11** 45; **12** 25; **13** 20; **17** 20, 31, 52; **20** 27; **21** 33; **23** 22; **26** 25; **28** 12; **29** 29, 78; **31** 33; **32** 26, 30; **34** 26, 32, 40, 44.
Micropterus sp.: **28** 13.
Microspora sp.: **26** 66.
Microstomus pacificus: **34** 26.
Microtermes obesi: **21** 28.
Microtermes spp.: **33** 47.
Microtus agrestris: **5** 6, 23; **22** 23; **26** 36, 37.
Microtus arvalis: **8** 12, 16; **22** 23.
Microtus guentheri: **30** 31.
Microtus haydeni: **30** 31.
Microtus miurus: **29** 88.
Microtus oregoni: **29** 88.
Microtus ochrogaster: **1** 5, 7, 11, 18, 30, 33; **14** 44.
Microtus pennsylvanicus: **2** 13; **14** 47; **24** 9; **29** 88; **30** 31; **33** 37; **34** 30.
Microtus pinetorum: **14** 91; **29** 88, 89, 96.
Microtus spp.: **30** 41; **33** 42.
Mictyris longicarpus: **33** 71.
Midge
Flower, *Contarina medicaginis*
Phantom, *Chaoborus puntipennis*
Various, *Chaoborus*, *Chironomus*, *Cricotopus* spp., *Procladius* sp., *Tanytarsus*
Midshipman, plainfin, *Porichthys notatus*
Milkvetch, *Astragalus* spp.
Millet, *Panicum millaceum*
Millipede, *Apheloria* spp.
Millipedes: **3** 26; **14** 30, 48; **23** 14, 20; **26** 39; **30** 15.
Milo, *Sorghum* spp.
Milvus migrans: **26** 30; **30** 21, 24; **31** 43.
Mimus polyglottos: **12** 56.
Miniopterus schreibersi: **31** 47.
Mink, *Mustela vison*

Minnow
Cyprinid, *Phoxinus*, *Puntius*
Eastern mud, *Umbra pygmaea*
Fathead, *Pimephales promelas*
Mud, *Umbra limi*
Sheepshead, *Cyprinodon variegatus*
Various, *Leuciscus*, *Poeciliopsis* spp.
Mint plant
Copper, *Aeolanthus biformifolius*
Various, *Aeolanthus* sp., *Elsholtzia* spp.
Misgurnis fossilis: **15** 39.
Mite
European red, *Panonychus ulmi*
McDaniel spider, *Tetranychus mcdanieli*
Northern fowl, *Ornithonyssus sylvilarum*
Oribatid, *Platynothrus peltifer*
Pear rust, *Epitrimerus pyri*
Two-spotted spider, *Tetranychus urticae*
Various, *Chorioptes bovis*, *Typhlodromus* sp.
Mizuhopecten yessoensis: **33** 51.
Mnesampla privata: **30** 15.
Mockingbird, northern, *Mimus polyglottos*
Mohoua ochrocephala: **30** 25.
Moina irrasa: **33** 55.
Mole, *Talpa europaea*
Molly, shortfin, *Poecilia mexicana*
Molothrus ater: **3** 12; **7** 36, 40; **10** 54; **12** 56, 59; **21** 34, 36; **24** 8; **27** 12.
Monitor
Gould's, *Varanus gouldi*
Lace, *Varanus varius*
Monkey
Black-handed spider, *Ateles geoffroyi*
Cynomolgus, *Macaca* spp.
Japanese, *Macaca fuscata*
Rhesus, *Macaca mulatta*
Marmoset, cotton top, *Callithrix jacchus*
Squirrel, *Saimiri sciurea*, *Saimiri* spp.
Various, *Cebus apella*
Monkeys: **4** 18; **5** 26; **7** 55; **8** 24, 28, 29; **9** iii, 27; **11** 1; **14** iii, 3, 87, 99, 108; **15** 4, 61; **22** 5, 16; **24** 13; **26** 10, 46, 91; **28** 23; **29** 67, 93, 94; **30** 11, 12, 36; **31** 59, 60; **32** 8, 9, 31, 32; **33** 74; **34** 51.
Montastrea annularis: **14** 31; **21** 9.
Moose, *Alces alces*
Morethia boulengeri: **21** 33.
Morning glory, *Ipomoea* sp.
Morone americana: **29** 29; **33** 41; **34** 44.
Morone chrysops: **21** 12; **34** 33.
Morone saxatilis: **2** 8, 17, 23; **4** 10; **5** 14; **6** 21; **7** 13, 31, 47, 60; **10** 28, 40, 59; **12** 26, 31; **13** 6, 7; **18** 1; **21** 33; **26** 61; **29** 29; **31** 20, 26, 37, 51; **32** 15; **33** 58; **34** 44.
Morus bassanus: **31** 44.
Mosquito, *Aedes*, *Anopheles*, *Culex*, *Psorophora*
Mosquitofish, *Gambusia affinis*, *Gambusia holbrooki*
Moss
Irish, *Chondrus crispus*
Sphagnum, *Sphagnum* sp.
Various, *Brachythecium*, *Fontinalis*, *Homalothecium sericium*, *Hypnum cupressiforme*, *Pleurozium schreberi*, *Rhacomitrium* sp., *Rhynchostegium riparioides*, *Tamenthypnum* sp.
Moth
Cabbage, *Mamestra brassicae*
Codling, *Carpocapsa pomonella*, *Laspeyresia pomonella*
Diamondback, *Plutella xylostella*
Douglas fir tussock, *Orgyia pseudotsugata*
Greater wax, *Galleria melonella*
Gypsy, *Lymantria dispar*, *Porthetria dispar*
Pine, *Bupalus* spp.
Pineapple gummosis, see Lepidoptera
Pine noctuid, *Panolis flammea*
Various, *Ectomyelois ceratoniae*
Zygaenid, *Zygaena filipendulae*, *Z. trifolii*
Mougeotia sp.: **18** 25; **26** 66; **33** 3.
Mouse
Beach, or Oldfield, *Peromyscus polionotus*
Deer, *Peromyscus maniculatus*, *Peromyscus* spp.
Domestic, *Mus* spp.
Eastern harvest, *Reithrodontomys humulis*
Field, *Microtus arvalis*
Great Basin pocket, *Perognathus parvus*
House, *Mus musculus*
Little pocket, *Perognathus longimembris*
Long-tailed, *Pseudomys higginsi*
Meadow, *Microtus haydeni*
Mitchell's hopping, *Notomys mitchelli*
Plains, *Pseudomys australis*
Pocket, *Perognathus inornatus*
Salt marsh harvest, *Reithrodontomys raviventris*
Sandy inland, *Pseudomys hermannsburgensis*
Spinifex hopping, *Notomys alexis*
Western chestnut, *Pseudomys nanus*
Western harvest, *Reithrodontomys megalotis*
Western jumping, *Zapus princeps*
White-footed, *Peromyscus leucopus*
Wood, *Apodemus sylvaticus*
Yellow-necked field, *Apodemus flavicollis*
Mouth brooder, southern, *Pseudocrenilabrus philander*
Moxostoma duquesnei: **14** 33.
Mudalia potosensis: **11** 38.
Mudpuppy, *Necturus maculosus*
Mugil cephalus: **1** 15; **4** 6; **12** 31; **13** 8; **17** 36; **21** 33; **22** 12; **24** 22; **31** 26.
Mugil curema: **26** 36.
Mule, *Equus asinus* X *Equus caballus*

Mullet
Gray, *Chelon labrosus*
Striped, *Mugil cephalus*
Yellow-eye, *Aldrichetta forsteri*
Various, *Rhinomugil corsula*
White, *Mugil curema*
Mullus barbatus: **15** 27; **31** 26; **33** 23.
Mummichog, *Fundulus heteroclitus*
Murex brandaris: **22** 10.
Murre
Common, *Uria aagle*
Thick-billed, *Uria lomvia*
Murrel, *Channa punctatus*
Mus musculus: **24** 8; **29** 48, 89; **30** 31; **33** 36; **34** 30.
Mus musculus domesticus: **29** 52, 62.
Mus spp.: **1** 4, 6, 7, 10; **2** 24, 26, 31; **3** 11, 13, 24, 25; **4** 8, 18; **5** 39; **6** 27, 38, 39, 44; **7** 41, 49, 55; **8** 24-27; **9** iv, 8, 13, 16, 18, 24-26; **10** 67; **11** 1, 51-56, 62, 63; **12** 12, 36, 38, 66, 73; **14** iii, 12, 53, 55, 87, 92, 99, 104; **15** 4, 8, 10, 52-55, 57, 59-61, 64, 65; **17** 41, 47, 54; **18** 36, 37; **19** 35, 41; **20** 5, 23, 25; **21** 2, 33, 34, 36, 38, 42; **22** 2, 16, 19, 22, 23; **23** 11, 35, 39, 40; **25** 2, 27, 29; **26** 11, 12, 14, 48, 77, 80, 82, 88, 91; **27** 1, 3, 7, 12, 16, 17, 20; **28** 7, 15, 17, 18, 23, 24; **29** 65-67, 84, 89, 90; **30** 6, 12, 31, 36, 39, 42; **31** 54-56, 58, 59, 61; **32** 31-33; **33** 8, 10, 32, 44, 66, 75; **34** 6, 9, 12-14, 35, 49, 51, 57, 59, 62, 64.
Musca autumnalis: **24** 36; **25** 6, 28.
Musca domestica: **3** 17, 18; **9** 13; **20** 13, 14; **24** 15, 16, 36; **25** 7, 10, 28, 32; **27** 7.
Musca sp.: **3** 23; **21** 33.
Muscidae: **1** 21; **9** iii, 1, 3; **13** 1.
Mushroom, *Agaricus, Lactarius*
Muskellunge, *Esox masquinongy*
Muskox, *Ovibus moschatus*
Muskrat, *Ondatra zibethicus*
Mussel
Brown, *Perna indica*
Common, *Mytilus edulis*
Duck, *Anodonta anatina, A. nuttalliana*
Green-lipped, *Perna viridis*
Hooked, *Ischadium recurvum* (formerly *Brachidontes exustus*)
Lagoon, *Mytella strigeta*
Lake, *Anodonta piscinalis*
Ribbed, *Geukensia demissa*
Various, *Amblema* sp., *Anodonta, Mytilus, Perna, Villosa iris*
Zebra, *Dreissena polymorpha*
Mussels: **5** 16; **6** 88; **10** 61; **11** 25, 28; **12** 53; **15** 20, 37; **20** 9; **26** 20; **31** 24; **33** 36, 70.
Mustard, *Brassica juncea*
Mustela nigripes: **30** 4.
Mustela putorius: **23** 45; **29** 90; **30** 31, 38, 40; **31** 46-48.
Mustela putorius furo: **7** 41, 43, 54; **10** 64; **14** 99; **26** 3, 77, 80, 88; **30** 31, 39.
Mustela vison: **7** iv, 10, 24, 33, 41-43, 53, 54, 58, 60, 61; **10** 37, 43, 54-56, 64, 66, 74; **26** 46, 49, 88, 91; **30** 9, 13; **31** 1, 46, 48, 56-58, 61; **32** 39, 40; **33** 45, 66, 80; **34** 30, 31, 35.
Mustelus antarcticus: **12** 35.
Mustelus canis: **6** 11; **32** 15.
Mya arenaria: **6** 33, 34; **10** 25, 47; **11** 27, 29, 32; **14** 52, 66; **15** 45; **17** 13; **26** 56, 66, 67; **32** 13, 23; **33** 48, 51; **34** 41, 47.
Myiarchus cinerascens: **30** 24.
Myiarchus crinitus: **25** 24; **29** 82, 83.
Myctophidae: **14** 100.
Myocastor coypus: **30** 32.
Myotis austroriparius: **26** 34.
Myotis dasycneme: **17** 16.
Myotis grisescens: **7** 24; **21** 25, 28; **26** 34.
Myotis lucifugus: **7** 25, 34; **14** 44, 53; **21** 28.
Myotis sodalis: **25** 9.
Myotis spp.: **14** 44.
Myoxocephalus quadricornis: **21** 15.
Myoxocephalus scorpius: **2** 9.
Myriophyllum sp.: **18** 23; **20** 8; **23** 21; **33** 15.
Myriophyllum spicatum: **6** 30; **18** 16, 21, 22; **22** 10; **33** 3.
Mysidaceans, *Mysidopsis, Mysis relicta, Praunus flexuosus*
Mysidopsis bahia: **4** 10, 15; **5** 33; **6** 26; **9** 11, 22; **10** 48, 59; **12** 51; **13** 6, 7; **14** 66; **15** 45; **17** 27; **18** 29; **19** 26; **23** 22; **24** 19, 20, 26; **25** 15, 16; **26** 58; **32** 25; **33** 55; **34** 42.
Mysidopsis bigelowi: **34** 42.
Mysidopsis formosa: **34** 42.
Mysidopsis spp.: **2** 16, 23; **7** 27.
Mysis relicta: **7** 11, 29; **21** 9; **26** 41, 69; **31** 49, 51.
Mystus gulo: **26** 26.
Mystus vittatus: **3** 9, 20, 21; **24** 22.
Mytela strigata: **33** 19.
Mytilus californianus: **10** 25, 43; **11** 48; **26** 67; **32** 13, 14, 18.
Mytilus edulis: **2** 5; **3** 10; **5** 12; **6** 10, 34; **10** 25, 48; **11** 28, 32, 45; **12** 28, 51; **14** 31, 65, 66; **15** 30, 41, 42, 48; **17** 13, 15; **19** 26, 28; **23** 14, 22; **26** 13, 20, 36, 41, 56, 66, 67; **28** 4, 11; **29** 22, 25, 26; **31** 21, 23, 24, 34; **32** 14, 23, 24, 29; **33** 19, 40, 51, 70; **34** 23, 41.
Mytilus edulis aoteanus: **19** 14; **32** 14.
Mytilus edulis planulatus: **2** 5.
Mytilus galloprovincialis: **5** 12, 30, 37; **12** 53; **29** 54; **32** 24; **33** 35, 52.
Mytilus smarangdium: **33** 19.
Mytilus spp.: **28** 13; **31** 23; **33** 19, 40, 69.
Myxine glutinosa: **11** 47.
Nais sp.: **6** 23.

Najas spp.: **28** 8, 10.
Najus guadalupensis: **14** 71.
Nannochloris oculata: **18** 22.
Nassarius obsoletus: **12** 51; **15** 45, 49; **26** 56; **32** 13, 24; **33** 73; **34** 41.
Nassarius sp.: **34** 24.
Natrix sp.: **5** 17; **29** 78.
Navicula sp.: **14** 70; **26** 66; **34** 40.
Neanthes arenaceodentata: **6** 22, 24, 26, 36; **11** 37-39, 43; **14** 66; **17** 27; **21** 10; **26** 59, 70; **29** 73.
Necturus maculosus: **23** 8; **26** 10; **29** 80.
Necturus sp.: **29** 80.
Nematode, *Acrobeloides* sp., *Brugia pahangi*, *Bursaphelenchus xylophilus*, *Caenorhabditis elegans*, *Panagrellus redivivus*, *Parafilaria bovicola*
Nematodes: **9** iii, 1; **15** 15; **33** 35.
Neopanope texana: **18** 31.
Neophocaena phocaenoides: **31** 28, 29.
Neotoma albigula: **30** 32.
Neotoma intermedia: **30** 32.
Neotoma lepida: **30** 38.
Nephrops norvegicus: **10** 24; **33** 55.
Nephtys hombergi: **2** 7.
Neptunus pelagicus: **10** 13.
Nereis diversicolor: **2** 7; **6** 10; **26** 23, 42, 59, 66, 70; **29** 27, 79; **32** 15; **33** 27, 56, 71; **34** 24, 32, 42.
Nereis virens: **5** 36; **6** 22; **7** 47; **11** 45; **21** 29, 31; **31** 51.
Neritina sp.: **15** 45.
Nerodia cyclopion: **7** 15.
Nerodia rhombifera: **7** 17.
Nerodia sipedon: **14** 35; **21** 17.
Nerodia taxispilota: **29** 31.
Newt
California, *Taricha torosa*
Eastern, *Notophthalmus viridescens*
Rough-skinned, *Taricha granulosa*
Various, *Triturus cristatus*
Nicotiana tabacum: **2** 12; **3** 4, 23; **5** 22; **6** 13, 42; **10** 22; **12** 6; **20** 11; **22** 8; **23** 13; **24** 3; **29** 68, 69; **34** 29, 37.
Nicrophorus tomentosus: **14** 31.
Nitella spp.: **19** 24.
Nitroca spinipes: **15** 44, 47; **24** 20; **34** 42.
Nitzchia angularis: **24** 17.
Nitzchia closterium: **29** 71.
Nitzchia spp: **15** 48; **26** 53; **33** 48.
Nocardia spp.: **30** 8.
Nocardiopsis sp.: **21** 4.
Noemacheilus barbatulus: **26** 15, 61.
Nomia melanderi: **24** 16.
Nostoc muscorum: **3** 18; **18** 14; **19** 24.
Notemigonus crysoleucas: **24** 9; **26** 25; **29** 30; **31** 51.
Notiomystis cincta: **30** 25.
Notomys alexis: **30** 32.
Notomys mitchelli: **30** 32.
Notopterus notopterus: **10** 46, 59.
Notophthalmus viridescens: **29** 65, 80.
Notornis mantelli: **30** 24.
Notothenia gibberifrons: **32** 15; **33** 24; **34** 26.
Notropis cornutus: **17** 36.
Notropis hudsonius: **8** 11; **12** 48.
Notropis venustus: **4** 7.
Nucella lapillus: **15** 49.
Nucellus lapillus: **15** 30, 40.
Numenius americanus: **21** 21, 28.
Numenius arquata: **29** 34.
Numenius phaeopus: **33** 27.
Nuphar luteum: **2** 10.
Nuphar sp.: **20** 8; **34** 22.
Nuthatch, white-breasted, *Sitta carolensis*
Nutria, *Myocastor coypus*
Nycticorax nycticorax: **1** 32; **7** 19, 32, 52; **8** 1; **26** 29, 43; **31** 43, 45, 60; **34** 28.
Nycticorax violaceus: **4** 7; **21** 21.
Oak
Red, *Quercus rubra*
Various, *Quercus* spp.
Oat, *Avena sativa*
Oceanodroma furcata: **1** 32.
Ocenebra erinacea: **26** 20, 41.
Ochotona princeps: **19** 20.
Ochotona sp.: **23** 12.
Ochrogaster lunifer: **30** 15.
Ochromonas danica: **33** 48.
Octochaetus pattoni: **10** 57, 68.
Octopus, *Eledone cirrhosa*, *Octopus vulgaris*, *Paroctopus* sp., *Polypus bimaculatus*
Octopus vulgaris: **33** 19.
Odobenus rosmarus: **2** 10; **21** 25.
Odocoileus hemionus: **4** 12; **10** 54, 56, 64; **12** 68, 72; **14** 53, 104; **19** iii, 17, 42, 46; **26** 34; **29** 36, 42, 67.
Odocoileus hemionus hemionus: **29** 42; **30** 32.
Odocoileus hemionus columbianus: **29** 36, 42.
Odocoileus sp.: **23** 33; **33** 32.
Odocoileus virginianus: **2** 14; **5** 23; **12** 34, 68; **14** 45, 53; **15** 32; **19** 42; **26** 34, 43; **29** 36, 37, 42; **30** 7, 14; **33** 32, 37, 42; **34** 31.
Odonata: **9** 19.
Odontotermes obesus: **21** 28.
Odontotermes spp.: **33** 47.
Odontotermes transvaalensis: **34** 23.
Oedemagena tarandi: **27** 6, 18.
Oedogonium cardiacum: **3** 22; **5** 31; **8** 19; **11** 42; **17** 20; **25** 17.
Oedogonium sp.: **6** 30; **18** 25; **33** 3.
Oikomonas termo: **24** 14.
Okra, *Abelmoschus esculentus*
Olea spp.: **20** 13.
Oligochaetes: **7** 29; **15** 27, 48.

Olisthodiscus lutens: **6** 32.
Olive, *Olea* spp.
Ommastrephes bartrami: **2** 5; **33** 19.
Onchiurus apuanicus: **18** 13.
Oncopeltes fasciatus: **27** 7.
Oncorhynchus clarki: **7** 38; **9** 10; **13** 8; **21** 15, 33; **23** 23; **25** 18; **26** 61; **29** 28; **32** 18; **33** 58.
Oncorhynchus gorbuscha: **11** 38; **12** 52.
Oncorhynchus keta: **12** 49; **21** 15; **32** 26.
Oncorhynchus kisutch: **1** 7, 8, 27, 29; **2** 18; **3** 9; **4** 9; **5** 18, 32; **6** 31; **7** 14, 30, 31, 49; **8** 11, 12, 18, 21; **11** 38; **12** 26; **14** 69; **17** 15, 34; **19** 28; **20** 15, 17; **21** 33; **23** 23; **25** 18; **26** 61; **29** 29, 74; **31** 33; **32** 27; **33** 58; **34** 44.
Oncorhynchus mykiss: **1** 8; **2** 11, 18, 27, 28; **3** 9; **4** 3, 9; **5** 26, 33, 35, 36, 40, 41; **6** 20, 24-26, 31, 32; **7** 31, 37, 47-49, 57, 60; **8** 8, 11, 18, 20, 28; **9** 8, 10; **10** 46, 49, 59-61; **11** 15, 37, 41, 43, 44, 48; **12** 26, 48, 53, 55; **13** 8; **14** 13, 55, 57, 60-62, 69; **15** 37, 43, 47; **17** 15, 28, 29, 52; **18** 29; **19** iii, 15, 16, 19, 27-29, 44; **20** 10, 15, 18; **21** 27, 33; **22** 12, 13; **23** 4, 23, 24, 26, 29; **24** 12, 23; **25** 18, 19; **26** 9, 45, 46, 61, 62, 72, 84; **27** 8; **28** 12, 13, 25; **29** 28, 74, 75, 78; **30** 15; **31** 26, 49, 50; **32** 7, 27, 30; **33** 6, 59, 71, 72, 76; **34** 14, 26, 40, 44, 46, 47, 60, 64.
Oncorhynchus nerka: **17** 30, 31, 52; **19** 19; **20** 9, 15, 18; **26** 62; **29** 28.
Oncorhynchus spp.: **6** 21, 23, 25.
Oncorhynchus tshawytscha: **1** 27; **2** 17; **5** 18; **6** 31; **7** 30, 61; **15** 34; **17** 35; **21** 33; **23** 24; **26** 62, 72; **28** 12; **29** 65, 75; **31** 1, 26, 36, 37, 48; **32** 27; **33** 47, 60.
Ondatra zibethicus: **10** 37, 43; **14** 45; **15** 32; **29** 37, 42; **33** 32, 43.
Onion, *Allium* sp.
Oniscus asellus: **14** 57; **26** 19.
Oonopsis spp.: **5** 6.
Operophtera brumata: **31** 39.
Ophiocephalus punctatus: **33** 61.
Ophioderma brevispina: **15** 42.
Ophiolobus sp.: **22** 8.
Ophryotrocha diadema: **17** 24.
Oplegnathus fasciatus: **9** 8, 11.
Oporornis tolmiei: **25** 25.
Opossum, *Didelphis virginiana*
Opsanus beta: **13** 9, 10, 11.
Opsanus tau: **24** 24.
Orange
  Mandarin, *Citrus tachibana*
  Southern mock, *Philadelphus* spp.
  Sweet, *Citrus sinensis*
Orchestia gammarellus: **26** 21; **33** 21, 41.
Orchestia mediterranea: **26** 21.
Orchestia traskiana: **15** 45.
Orcinus orca: **31** 29.
Orconectes immunis: **13** 7.
Orconectes limosus: **10** 46.
Orconectes nais: **7** 37, 45; **14** 71; **21** 31; **33** 36.
Orconectes rusticus: **24** 20; **33** 71.
Orconectes sp.: **18** 32.
Orconectes virilis: **10** 23; **26** 22, 58, 69.
Oreochromis mossambicus: **33** 8.
Oreochromis niloticus: **33** 61, 72; **34** 45.
Orfe, golden, *Leuciscus idus melanotus*
Ornithonussus sylvilarum: **27** 6, 10.
Ortalis cinereiceps: **26** 76.
Orthemis sp.: **25** 13.
Oryctolagus cuniculus: **13** 14; **15** 10, 11, 52, 64; **17** 47, 48, 53; **18** 40; **19** 37, 42; **20** 4, 23-26; **23** 34; **25** 2; **30** 2, 5, 6, 32, 33, 37.
Oryctolagus sp.: **21** 39, 42; **22** 19, 23; **23** 10, 11, 35, 40-42, 45; **24** 12, 33; **25** 27, 29, 30; **26** 77, 80; **27** 7, 8, 12, 17; **28** 7, 15, 18, 23; **29** 42, 52, 53, 59, 63, 94, 95; **30** 10-12, 25, 36, 39; **32** 9, 31, 33; **33** 8, 9, 32, 66; **34** 2, 7-9, 12, 30, 31, 49, 52, 58, 59.
Orygia pseudotsuga: **25** 24, 25.
Oryza sativa: **3** iii, 1, 8, 19, 27; **5** 22; **8** 29; **9** 1; **10** 22; **12** 39, 40; **14** 26; **17** 1, 19; **20** 12; **24** 2; **26** 8; **34** 21, 37.
Oryzaephilus surinamensis: **13** 1.
Oryzias latipes: **2** 22; **22** 13; **29** 75, 77.
Oryzomus palustris: **29** 90.
Oscillatoria sp.: **34** 37.
Osmerus mordax: **1** 29; **8** 11; **15** 31; **17** 15.
Osprey, *Pandion haliaetus*
Ostracods, *Cypericercus* sp., *Cypicerus* sp., *Cypridopsis* sp., *Cyprinotus* sp., *Cyrinofus* sp.
Ostrea edulis: **15** 2, 30, 42; **26** 20.
Ostrea equestris: **32** 14.
Ostrea sinuata: **32** 14.
Ostrea sp.: **31** 23.
Otter
  River, *Lutra canadensis*
  Sea, *Enhydra lutris*
  Various, *Lutra* spp.
Otus asio: **7** 52, 60; **21** 19; **23** 31.
Ovenbird, *Seiurus aurocapillus*
Ovibus moschatus: **33** 33.
Ovis aries: **3** 13; **9** 14, 27; **10** 37; **12** 68, 69; **14** iii, 3, 12, 45, 55, 87, 92-94, 99; **15** 33; **17** 48; **18** 12, 37; **19** 1, 5, 6, 17-19, 21, 22, 30, 31; **21** 39; **22** 16, 20; **23** 4, 10, 12, 33, 35, 42; **24** 34; **25** 2, 3, 30; **26** 80, 81, 88; **27** 12, 17-20; **28** 18; **29** 38, 42, 52, 59, 60, 63, 64, 90, 91, 94; **30** 1-6, 33, 37; **32** 9; **33** 1, 66, 77; **34** 31, 38.
Ovis canadensis: **6** 15.
Ovis sp.: **1** 33; **3** 24; **4** 8, 18, 19; **5** 1, 26, 28, 29, 41; **9** 1, 24; **10** 43; **12** 3; **15** 15, 60, 64, 68; **18** 36; **19** 36, 37, 41, 47, 49; **25** 27; **26** 3, 8-10, 12, 34, 39, 46, 49, 77,

90, 91; **29** 63, 67, 100; **30** 38, 39; **33** 4, 8-11, 33, 43, 44, 45, 65, 74, 78, 79, 81; **34** 1, 37, 59.
Owl
Burrowing, *Athene cunicularia*
Common barn, *Tyto alba*
Eagle, *Bubo bubo*
Great horned, *Bubo virginianus*
Laughing, *Sceloglaux albifacies*
Long-eared, *Asio otus*
Screech, *Otus asio*
Short-eared, *Asio flammeus*
Tawny, *Strix aluco*
Tengmalm's, *Aegolius funereus*
Oxya velox: **33** 11.
Oxylobium spp.: **30** 16.
Oyster
American, *Crassostrea virginica*
European flat, *Ostrea edulis*
Pacific, *Crassostrea gigas*
Rock, *Saccostrea cucullata*
Sydney rock, *Crassostrea commercialis*
Various, *Crassostrea*, *Ostrea*, *Saccostrea* sp.
Oystercatcher, Eurasian, *Haematopus ostralegus*
Oysters: **5** 27; **6** 17, 34, 44; **7** 48, 49; **11** 40; **15** 11, 20, 27, 34, 43, 70; **17** iv; **20** 9, 27; **21** 2, 10; **26** 11, 20, 65, 82, 90; **34** 29.
Pachymetopan grande: **6** 37.
Pacifastacus sp.: **10** 23; **19** 26; **33** 21.
Paddlefish, *Polyodon spathula*
Pademelon, *Thylogale billardierii*
Pagophilus groenlandica: **10** 54, 56, 65, 74.
Pagurus longicarpus: **2** 16; **26** 58; **34** 42.
Pagurus sp.: **22** 10.
Paintbrush, Indian, *Castilleja* spp.
Palaemon elegans: **26** 58, 68, 69.
Palaemon macrodactylus: **4** 10; **21** 31.
Palaemon serratus: **26** 11, 41.
Palaemon spp.: **26** 69.
Palaemonetes kadiakensis: **4** 9; **7** 37, 45.
Palaemonetes pugio: **2** 7; **4** 10; **6** 35; **7** 38; **11** 37-39; **13** 7; **14** 31; **15** 45, 48; **17** 27; **18** 30; **21** 31; **24** 20, 26; **25** 16; **26** 22; **31** 37, 51; **32** 25, 29.
Palaemonetes varians: **26** 69.
Palaemonetes vulgaris: **1** 12, 15, 21, 22; **2** 16; **27** 8.
Palicourea marcgravii: **30** 2, 13.
Palm, Iraqi date, *Phoenix* sp.
Panagrellus redivivus: **9** 25, 28.
Pandalus borealis: **12** 29, 35.
Pandalus jordani: **33** 21.
Pandalus montagui: **2** 7; **14** 31; **26** 11, 23, 58, 69; **34** 24.
Pandalus spp.: **12** 29.
Pandion haliaetus: **4** 7; **6** 14; **10** 34; **12** 21, 32; **21** 21, 22, 27; **26** 29, 43; **31** 43; **34** 28.
Panicum millaceum: **18** 41; **23** 3, 12.
Panolis flammea: **33** 16, 39.
Panonychus ulmi: **15** 65.
Pantala hymenea: **2** 28.
Pantala sp.: **25** 13.
Panthers: **14** 99.
Panulirus argus: **34** 24.
Panulirus cygnus: **12** 35.
Panulirus interruptus: **2** 7.
Panulirus japonicus: **24** 12.
Papaver orientale: **33** 14.
Paphia undulata: **33** 19.
Papio anubis: **14** 95, 99; **21** 39; **23** 10; **28** 18; **30** 5.
Paracentrotus lividus: **14** 31; **17** 25; **33** 56.
Parafilaria bovicola: **12** 12.
Paragnetina media: **25** 21.
Paragrapsus quadridentatus: **33** 55.
Paralabrax clathratus: **33** 24; **34** 26.
Paralabrax nebulifer: **31** 36.
Paralichthys dentatus: **5** 34; **32** 27; **33** 48, 61.
Paralichthys lethostigma: **26** 36; **33** 24; **34** 26.
Paralichthys sp.: **33** 6, 61.
Paralithodes camtschatica: **12** 29; **26** 41.
Paramecium spp.: **11** 48; **26** 53; **34** 12.
Paranais sp.: **8** 19.
Paratya australiensis: **33** 10, 55.
Pardosa sp.: **25** 23.
Parhalella natalensis: **33** 55.
Parimelia baltimorensis: **14** 23, 24; **33** 14.
Paroctopus sp.: **12** 35.
Parophrys vetulus, see *Pleuronectes vetulus*
Paropsis atomaria: **23** 20.
Parrot
Port Lincoln, *Barnardius zonarius*
Red-rumped, *Psephotus haematonotus*
Partridge, gray, *Perdix perdix*
Parus atricapillus: **25** 24.
Parus biocolor: **25** 24.
Parus gambeli: **25** 25.
Parus major: **25** 24; **31** 39.
Paspalum notatum: **1** 21, 23.
Passer domesticus: **3** 12, 15; **5** 23; **9** 9; **10** 52; **13** 13; **14** 39; **30** 21; **32** 8.
Passer montanus: **25** 24.
Passerina amoena: **25** 25.
Passerina cyanea: **25** 24.
Passiflora spp.: **22** 24.
Passion fruit, *Passiflora* spp.
Patella caerulea: **15** 27, 30.
Patella vulgata: **32** 14; **33** 52; **34** 24.
Pea, *Pisum sativum*
Peach, *Prunus persica*
Peanut, *Arachis hypogea*
Pear, *Pyrus communis*
Pear scylla, *Psylla pyricola*

Pearsonia metallifera: **34** 21.
Pecan, *Carya illinoensis*
Pecten alba: **12** 35.
Pecten jacobeus: **33** 20.
Pecten maximus: **2** 6; **15** 30, 34.
Pecten novae-zelandiae: **19** 15.
Pecten spp.: **26** 20.
Peewee, eastern wood-, *Contopus virens*
Pelecanus occidentalis: **2** 10; **4** 7; **5** 14; **6** 14; **10** 34; **12** 21, 32; **14** 39; **21** 22; **26** 29; **33** 27; **34** 28.
Pelecanus sp.: **4** 14; **7** 34, 53.
Pelican
Brown, *Pelecanus occidentalis*
Various, *Pelecanus* sp.
Pelvetia canaliculata: **33** 15.
Penaeopsis joyneri: **9** 20.
Penaeus aztecus: **5** 34; **7** 38; **9** 11; **11** 38, 40; **12** 29; **13** 6; **18** 30; **21** 31; **22** 11; **26** 35; **28** 11; **33** 21; **34** 24.
Penaeus brasiliensis: **26** 23.
Penaeus duorarum: **4** 10; **7** 38; **11** 40, 43; **18** 30; **19** 26; **21** 31; **24** 20, 26.
Penaeus indicus: **10** 48; **33** 72.
Penaeus latisulcatus: **12** 35.
Penaeus setiferus: **10** 61; **12** 29; **13** 21; **26** 23.
Penaeus spp.: **2** 7.
Penaeus vannamei: **17** 20.
Penguin
Adelie, *Pygoscelis adeliae*
Chinstrap, *Pygoscelis antarctica*
Gentoo, *Pygoscelis papua*
Penguins: **26** 30; **33** 26.
Penicillium spp.: **30** 8, 9.
Peophila guttata: **30** 21.
Pepper, *Piper* spp.
Perameles gunni: **30** 33.
Perameles nasuta: **30** 33.
Perca flavescens: **3** 9; **4** 9; **5** 32; **7** 38, 48; **8** 11, 16; **10** 29; **12** 26; **15** 31; **17** 15; **23** 24; **25** 19; **26** 25, 26; **29** 29, 50; **31** 33, 37; **33** 24; **34** 33.
Perca fluviatilis: **33** 35.
Perch
Climbing, *Anabas testudineus*
Spangled, *Leipotherapon unicolor*
Various, *Perca fluviatilis*
White, *Morone americana*
Yellow, *Perca flavescens*
Perga dorsalis: **30** 15.
Perdix perdix: **4** 12; **7** 20; **10** 2, 52, 62; **12** 60.
Peridinium gatunense: **29** 64.
Periplaneta americana: **20** 14; **24** 14, 16; **25** 9; **27** 7.
Periwinkle, *Littorina littorea*
Perna canaliculus: **32** 14.
Perna indica: **33** 52.
Perna viridis: **26** 21, 56; **33** 20, 52.
Pernis apivorus: **14** 2, 3.
Perognathus inornatus: **30** 33.
Perognathus longimembris: **30** 38.
Perognathus parvus: **29** 91.
Peromyscus leucopus: **2** 25; **3** 15; **7** 41, 56; **9** iv, 2, 23, 24, 26; **14** 45, 47, 53; **15** 61; **24** 8; **26** 38; **29** 91, 96; **30** 39; **34** 31.
Peromyscus maniculatus: **11** 54; **14** 45, 46, 53; **15** 33; **24** 8, 9; **29** 91; **33** 37.
Peromyscus polionotus: **1** 7, 17; **3** 13-15; **8** 8; **29** 91.
Peromyscus spp.: **30** 33, 38.
Petrel
Grey-faced, *Pterodroma macroptera*
Southern giant, *Macronectes giganteus*
Storm, *Oceanodroma furcata*
Petrels: **26** 30; **33** 26.
Petrogale penicillata: **30** 8, 25.
Petromyzon marinus: **17** 37; **21** 15, 33; **29** 75.
Petromyzontidae: **11** 33.
Phaeodactylum tricornutum: **2** 22; **14** 65, 70; **22** 10; **26** 53; **34** 40.
Phalacrocorax atriceps: **32** 16; **33** 26; **34** 27.
Phalacrocorax auritus: **7** 20, 32; **8** 8, 13; **31** 39, 43.
Phalacrocorax carbo: **7** 21, 36; **31** 44.
Phalacrocorax sp.: **1** 32; **31** 44, 45.
Phalaris arundinacea: **29** 23, 41.
Phaseolus lunatus: **23** 3, 12, 14, 15, 20; **25** 7.
Phaseolus sp.: **3** 23; **4** 1; **17** 19; **22** 24; **23** 15; **24** 3, 10; **28** 8; **32** 20.
Phaseolus vulgaris: **7** 29; **14** 56; **20** 13; **23** 19.
Phasianus colchicus: **1** 6, 7; **2** 12; **3** 12, 14; **4** 8, 12, 17; **5** 23; **7** 21, 33, 40; **9** iv, 1, 14, 23, 30; **10** 2, 34, 50, 52, 54, 63, 71; **12** 60; **13** 13, 15; **14** 12; **17** 21, 39; **18** 34; **21** 34, 35; **22** 16; **26** 76; **27** 10; **30** 21; **31** 53.
Phasianus sp.: **3** 8, 16; **5** 6; **7** 52, 53; **14** 86.
Pheasant, ring-necked, *Phasianus colchicus*
Philadelphus spp.: **23** 12.
Philarctus quaeris: **17** 28.
Philesturnus carunculatus: **30** 25.
Philodena acuticornis: **6** 20; **26** 54; **34** 40.
Philohela minor, see *Scolopax minor*
Phleum pratense: **7** 11; **18** 12; **34** 34.
Phoca groenlandica: **6** 12; **10** 43.
Phoca hispida: **5** 15; **7** 25; **10** 61, 64; **26** 34, 44; **31** 34; **34** 32.
Phoca hispida saimensis: **21** 25.
Phoca largha: **29** 35.
Phoca spp.: **5** 15, 25.
Phoca vitulina: **5** 15; **7** 34; **10** 37; **12** 34; **14** 53; **15** 33; **20** 9; **21** 25; **31** 29, 30; **33** 28; **34** 32.
Phocoena phocoena: **26** 34; **31** 22, 30, 31; **33** 28.
Phocoena sinus: **34** 31.
Phocoenoides dalli: **21** 25; **26** 34; **31** 31.

Phoenicopterus ruber: **26** 29, 30, 43.
Phoenicopterus ruber roseus: **33** 27.
Phoenix dactylifera: **20** 8.
Phoenix sp.: **13** 23.
Phomopsis leptostromiformes: **26** 12.
Phormidium inundatum: **32** 21.
Photobacterium phosphoreum: **33** 9.
Phoxinus lagowski: **25** 23.
Phoxinus phoxinus: **7** 48; **12** 48; **26** 62; **29** 54.
Phragmites sp.: **22** 9; **33** 36.
Physa heterostropha: **6** 20; **23** 22; **26** 56; **29** 72.
Physa sp.: **5** 31; **8** 19; **11** 42, 46; **17** 20, 24; **18** 32; **25** 13, 17, 23; **28** 11; **33** 47, 52.
Physeter catodon: **29** 35.
Physeter macrocephalus: **7** 25; **23** 8; **34** 32.
Pica nuttalli: **30** 25.
Pica pica: **10** 54; **23** 12; **27** 1, 2, 9, 11, 20; **30** 22, 25, 39.
Pica sp.: **23** 4.
Picea abies: **14** 26, 48; **33** 15.
Picea alba: **12** 22.
Picidae: **17** 4.
Pickerel
  Chain, *Esox niger*
  Various, *Esox*
Pieris brassicae: **9** 6, 13; **25** 9; **30** 14.
Pig
  Domestic, *Sus* spp.
  Feral, *Sus scrofa*
  Guinea, *Cavia* spp.
Pigeon
  Domestic, *Columba livia*
  Nicobar, *Caloenas nicobarica*
Pika, *Ochotona princeps*, *Ochotona* sp.
Pike
  Northern, *Esox lucius*
  Various, *Hoplias* sp.
Pimephales promelas: **1** 8, 12, 13, 18; **2** 31; **3** 9; **4** 9, 11, 14-16; **5** 32; **6** 24-26; **7** 51; **8** 18, 22; **9** 10, 18, 22; **10** 58; **11** 38, 41; **12** 48, 55; **13** 6, 7, 20; **14** 64; **15** 46; **17** 32, 33; **18** 29; **19** 27; **21** 33; **23** 24, 27, 28; **24** 24; **25** 19; **26** 62, 63, 71; **28** 12; **29** 75, 76; **31** 26, 50; **32** 27, 30; **33** 9, 10, 61, 72; **34** 45, 46.
Pine
  Digger, *Pinus sabiniana*
  Lodgepole, *Pinus contorta*
  Longleaf, *Pinus palustris*
  Maritime, *Pinus pinaster*
  Mugho, *Pinus* sp.
  Shortleaf, *Pinus echinata*
  Slash, *Pinus elliottii*
  Stone, *Pinus pinea*
  Sugar, *Pinus lambertiana*
  Southern, *Pinus* sp.
  White, *Pinus strobus*
Pineapple, *Ananas comusus*
Pinfish, *Lagodon rhomboides*
Pinna nobilis: **6** 33; **34** 24.
Pinnipeds: **14** 99; **26** 33.
Pintail, northern, *Anas acuta*
Pinus contorta: **33** 69.
Pinus echinata: **14** 26.
Pinus elliottii: **29** 69.
Pinus lambertiana: **29** 69.
Pinus palustris: **29** 69.
Pinus pinaster: **33** 46.
Pinus pinea: **33** 46.
Pinus sabiniana: **20** 13.
Pinus silvestrus: **12** 22, 41; **29** 48, 56.
Pinus sp.: **3** 4, 15, 23; **12** 41; **20** 11; **29** 69; **33** 45, 69, 78.
Piper spp.: **20** 8; **22** 2; **24** 3; **34** 29.
Pinus strobus: **33** 69.
Pipilo erythrophthalmus: **25** 24.
Pipilo spp.: **30** 23.
Pipistrellus pipestrellus: **17** 48; **31** 47.
Piranga olivacea: **25** 24.
Piranha, *Seerasalmus* sp.
Pisaster brevispinus: **33** 21.
Pistia sp.: **28** 8.
Pisum sativum: **4** 19; **12** 39, 41; **18** 13; **19** 13; **22** 5; **24** 3; **26** 8; **29** 69; **34** 13, 21.
Pitar morrhuana, see *Pitar morrhuanus*
Pitar morrhuanus: **6** 10; **26** 21; **32** 14.
Pituophis catenifer: **30** 17.
Pitymys pinetorium, see *Microtus pinetorum*
Placopecten magellanicus: **2** 6; **11** 28; **12** 28; **32** 14.
Plaice, *Platichthys flesus*, *Pleuronectes platessa*
Planchonella oxyedra: **34** 21.
Planorbis corneus: **29** 76.
Plant
  Copper-tolerant, *Becium homblei*
  Floating, *Eichornia*, *Jussiaea* sp., *Pistia* sp.
  Heliotrope, *Echium* sp., *Heliotropium* sp., *Senecio*
  Lupinosis , *Lupinus* spp.
  Marine flowering, *Posidonia oceanica*
  Nickel hyperaccumulator, *Allysum* spp., *Geissosis prainosa*, *Homalium* spp., *Hybanthus* spp., *Pearsonia metallifera*, *Planchonella oxyedra*, *Psychotria douarrei*, *Sebertia acuminata*
  Perennial, *Rubus* spp.
  Poisonous (fluoroacetate-containing), *Acacia*, *Dichapetalum*, *Gastrolobium*, *Oxylobium* spp.
  Vascular, *Cassiope* sp.
Platalea leucorodia: **31** 44.
Platichythys flesus: **2** 8; **7** 31, 48, 60; **11** 40; **14** 33; **31** 26, 27, 38; **33** 61.

Platycentropus radiatus: **25** 24.
Platycercus elegans: **30** 25.
Platymonas subcordiformis: **14** 70.
Platynothrus peltifer: **33** 43, 47, 78.
Plecotus phyllotis: **25** 9.
Plectonema boryanum: **25** 11, 20, 21.
Plegadis chihi: **5** 14.
Plethodon cinereus: **33** 37.
Pleurobrachia pileus: **33** 49.
Pleuronectes americanus: **2** 23; **5** 34; **8** 18; **11** 29; **15** 31; **31** 27, 36, 37; **32** 16, 19, 27, 28; **33** 24, 62; **34** 26.
Pleuronectes ferruginea: **2** 8; **12** 52; **15** 38; **20** 17; **31** 25, 38; **33** 23; **34** 25.
Pleuronectes flesus: **10** 61; **29** 55.
Pleuronectes platessa: **14** 67; **17** 34; **26** 9, 42, 71; **29** 21, 30; **29** 78; **32** 30; **33** 72.
Pleuronectes vetulus: **11** 45, 46, 48; **12** 32; **31** 33.
Pleurozium schreberi: **34** 21.
Plum, *Prunus* spp.
Plumaria elegans: **12** 50.
Plutella xylostella: **24** 6, 15.
Poa annua: **12** 6, 39.
Poa pratensis: **22** 8.
Poa spp.: **26** 38; **33** 37.
Pochard, *Aythya ferina*
Podiceps cristata: **10** 35.
Podiceps nigricollis: **5** 20.
Podiceps spp.: **7** 22.
Podicipediformes: **10** 12.
Podilymbus podiceps: **4** 6.
Podoclavella moluccensis: **6** 11.
Podophthalmus vigil: **6** 34.
Poecilia mexicana: **22** 12.
Poecilia reticulata: **3** 21; **4** 9; **5** 6, 37; **8** 18, 21, 28; **10** 61; **14** 71; **15** 46; **17** 36, 37; **22** 13; **26** 62, 71; **27** 8; **31** 50, 51; **32** 27; **33** 61; **34** 9, 45.
Poeciliopsis spp.: **11** 36, 48.
Pogona barbatus: **30** 17.
Pogonomyrmex spp.: **30** 15.
Polecat, *Mustela putorius furo*
Polioptila caerulea: **25** 24.
Pollack, walleye, *Theragra chalcogramma*
Polycarpa peduculata: **26** 37.
Polychaetes, *Capitella capitata, Glycera dibranchiata, Lycastis ouanaryensis, Marphysa sanguinea, Neanthes arenaceodentata, Nereis, Ophryotrocha diadema, Sabella pavonina*
Polygonum sp.: **22** 10.
Polyodon spathula: **21** 12; **31** 27, 37.
Polypus bimaculatus: **20** 9.
Pomacea paludosa: **33** 36, 52, 73.
Pomacea spp.: **17** 20, 39.
Pomatomus saltatrix: **2** 8; **10** 40; **34** 35.
Pomoxis annularis: **2** 11; **17** 34; **25** 19; **31** 34.
Pomoxis nigromaculatus: **23** 25; **25** 21, 23; **26** 25; **31** 34.
Pompano, Florida, *Trachinotus carolinus*
Pontoporeia affinis: **2** 23, 29.
Pontoporeia hoyi: **11** 45; **21** 10; **31** 49.
Pontoporia blainvillei: **33** 29.
Poplar, tulip, *Liriodendron tulipifera*
Poppy, *Papaver orientale*
Populus grandidentata: **29** 23.
Populus sp.: **29** 48.
Populus tremula: **29** 56; **34** 35.
Populus tremuloides: **7** 11; **29** 23.
Porcellio scaber: **14** 48, 57; **26** 19, 40, 50-52; **33** 76, 78.
Porcellio sp.: **5** 22.
Porcupine
  Indian crested, *Hystrix indica*
  North American, *Erethizon dorsatum*
Porgy, *Pachymetopan grande*
Porgy
  Black, *Sparus macrocephalus*
  Jolthead, *Calamus bajonado*
  Various, *Pachymetopan grande*
Porichthys notatus: **23** 25.
Porites spp.: **21** 9.
Porphyra sp.: **29** 25; **34** 22.
Porphyrula martinica: **4** 7.
Porpoise
  Dall's, *Phocoenoides dalli*
  Finless, *Neophocaena phocaenoides*
  Harbor, *Phocoena phocoena*
  Various, *Phocoena sinus*
Porthetria dispar: **14** 31; **20** 3, 13; **26** 38; **34** 22, 34.
Portunus pelagicus: **26** 68.
Porzana carolina: **14** 40.
Posidonia oceanica: **10** 22.
Possum, brush-tailed, *Trichosurus vulpecula*
Potamocorbula amurensis: **32** 14, 24.
Potamogeton carinatus: **28** 10.
Potamogeton crispus: **2** 3; **15** 4; **28** 10.
Potamogeton foliosus: **14** 71.
Potamogeton pectinatus: **18** 24, 25; **33** 36.
Potamogeton perfoliatus: **18** 16, 17, 20, 21.
Potamogeton pusillus: **22** 10.
Potamogeton richardsoni: **2** 10.
Potamogeton spp.: **12** 23; **14** 27; **18** 23; **20** 8; **23** 21; **28** 4, 8, 13; **33** 3, 15; **34** 32.
Potamogeton tricarinatus: **28** 2, 10.
Potato
  Common, *Solanum tuberosum*
  Sweet, *Ipomoea batatas*
Praunus flexuosus: **26** 58.
Prawn
  Deep sea, *Pandalus borealis*
  Freshwater, *Macrobrachium* spp.

Various, *Pandalus*, *Penaeus*
White, *Penaeus indicus*
Prionace glauca: **12** 35; **26** 26; **34** 35.
Pristina sp.: **2** 21.
Procambarus acutus acutus: **3** 9; **26** 69.
Procambarus blandingi: **1** 4, 12, 21.
Procambarus clarki: **1** 14, 18; **9** 19; **13** 7; **21** 10; **22** 11; **24** 12, 20, 26; **33** 55, 71.
Procambarus spp.: **4** 7.
Procentrum micans: **26** 53.
Prorocentrum mariae-lehouriae: **32** 21.
Procladius sp.: **25** 22.
Procyon lotor: **1** 21; **5** 24; **7** 41, 56; **10** 38, 43; **14** 46, 99, 104; **21** 26; **30** 33, 37, 39; **33** 33; **34** 31.
Progne subis subis: **24** 8.
Pronghorn, *Antilocapra americana*
Prosopium cylindraceum: **10** 29; **15** 31.
Prosopium williamsoni: **23** 12; **29** 28.
Prosthemadera novae-seelandiae: **30** 25.
Prototheca zopfi: **23** 21.
Protozoan, *Blepharisma undulans*, *Chilomonas paramecium*, *Colpoda*, *Costia* sp., *Cristigera* sp., *Entosiphon sulcatum*, *Fabrea salina*, *Ichthyopthirius* sp., *Oikomonas termo*, *Paramecium* spp., *Spirostomum ambiguum*, *Tetrahymena pyriformis*, *Trichodina* sp., *Uronema*, *Vorticella* sp.
Protozoans: **26** 19; **29** 72; **34** 23, 38.
Prune, *Prunus domestica*
Prunella modularis: **27** 9.
Prunus amygdalus: **22** 24; **23** 11, 12, 15, 19.
Prunus armenaica: **23** 3, 4, 12, 13.
Prunus avium: **10** 22.
Prunus domestica: **20** 8.
Prunus dulcis: **23** 3.
Prunus laurocerasus: **23** 3.
Prunus persica: **23** 3, 4, 12; **26** 5.
Prunus serotina: **14** 27, 48.
Prunus spp.: **23** 3, 4, 12, 19; **26** 5.
Psectocladius sp.: **22** 11.
Psephotus haematonotus: **30** 22.
Psettichthys melanostictus: **11** 40, 42.
Pseudacris triseriata: **22** 13.
Pseudagrion spp.: **13** 7.
Pseudemys floridana hoyi: **29** 32.
Pseudemys floridana penisnularis: **29** 32.
Pseudemys scripta: **29** 32.
Pseudis paradoxa: **17** 20.
Pseudocrenilabrus philander: **33** 24.
Pseudodiaptomus coronatus: **33** 56.
Pseudomonas spp.: **3** 6; **5** 4; **9** 3; **15** 4; **23** 13; **26** 53; **30** 8, 9.
Pseudomys australis: **30** 33.
Pseudomys hermannsburgensis: **30** 33.
Pseudomys higginsi: **30** 33.
Pseudomys nanus: **30** 33.
Pseudopleuronectes americanus: see *Pleuronectes americanus*
Pseudopterogorgia spp.: **21** 9.
Pseudorasbora parva: **9** 20.
Pseudotsuga menziesii: **25** 24, 25; **33** 69.
Psidium guajava: **18** 41.
Psithyrus bohemicus: **33** 16
Psorophora columbiae: **24** 20; **25** 23.
Psychotria douarrei: **34** 21.
Psylla pyricola: **24** 14.
Ptarmigan
Common, *Lagopus mutus*
Willow, *Lagopus lagopus*
Pterodroma macroptera: **30** 6.
Pteronarcella badia: **7** 37; **13** 6, 7.
Pteronarcys californica: **9** 10; **12** 46; **13** 7; **21** 31; **22** 11; **32** 25; **33** 70.
Pteronarcys dorsata: **12** 46; **24** 20.
Pteronarcys sp.: **4** 9.
Ptychocheilus oregonensis: **10** 40.
Puccinia graminis: **28** 3.
Puffer, northern, *Sphoeroides maculatus*
Puffins, *Fratercula* spp.
Puffinus pacificus: **5** 14.
Pumpkinseed, *Lepomis gibbosus*
Puntius conchonius: **14** 64.
Puntius gonionotus: **22** 12.
Pupfish, desert, *Cyprinodon macularis*
Pusa hispida: **31** 29, 31.
Pusa vitulina: **31** 60.
Pygoscelis adeliae: **2** 9; **21** 22; **32** 16; **33** 26; **34** 27.
Pygoscelis antarctica: **32** 16; **33** 26; **34** 27.
Pygoscelis papua: **32** 16; **33** 26; **34** 27.
Pylodictis olivaris: **21** 12; **31** 25.
Pyrethrum flower, *Chrysanthemum cinariaefolium*
Pyrus communis: **4** 1; **5** 22; **15** 65, 69; **20** 8, 13; **23** 3.
Pyrus spp.: **23** 15; **24** 3.
Pytiscidae: **2** 28.
Quahog or quahaug
Northern, *Mercenaria mercenaria*
False, *Pitar morrhuanus*
Ocean, *Arctica islandica*
Southern, *Mercenaria campechiensis*
Quail
California, *Callipepla californica*
Common, *Coturnix coturnix*
Coturnix, *Coturnix risoria*
Gambel's, *Callipepla gambeli*
Japanese, *Coturnix japonica*
Quelea, *Quelea quelea*
Quelea quelea: **3** 12, 15.
Quercus rubra: **34** 21.

Quercus spp.: **12** 41; **25** 24, 25; **26** 17, 51, 82; **29** 48; **31** 39; **33** 13.
Quiscalus mexicanus: **4** 6.
Quiscalus quiscula: **3** 12, 17; **7** 36, 52; **10** 54; **13** 13; **21** 19, 34, 36; **27** 12.
Quokka, *Setonix brachyurus*
Quoll
  Eastern native, *Dasyurus viverrinus*
  Tiger, *Dasyurus maculatus*
  Various, *Dasyurus*
Rabbit
  European, *Oryctolagus cuniculus*
  Various, *Lepus*, *Oryctolagus* sp., *Sylvilagus*
Raccoon, *Procyon lotor*
Racerunner, six-lined, *Cnemidophorus sexlineatus*
Radish, *Raphanus sativus*, *Raphanus* spp.
Ragwort, tansy, *Senecio jacobaea*
Rail
  Clapper, *Rallus longirostris*
  Sora, *Porzana carolina*
Raja clavata: **32** 30.
Raja erinacea: **8** 18.
Raja sp.: **12** 32, 35.
Rallus longirostris: **1** 32; **4** 7.
Ramalina fraxinea: **29** 51.
Rana catesbeiana: **8** 20; **9** 10; **10** 30; **13** 6; **14** 34, 50, 72; **18** 32; **30** 17.
Rana clamitans: **14** 50; **33** 25, 37; **34** 26.
Rana dalmutina: **26** 64.
Rana esculenta: **24** 12.
Rana japonica: **28** 7.
Rana pipiens: **6** 12; **10** 30, 47, 59; **11** 49; **14** 72; **20** 18; **22** 13; **29** 79, 81; **30** 17; **32** 28; **33** 63.
Rana pipiens pipiens: **24** 24.
Rana sphenocephala: **4** 9.
Rana spp.: **12** 32; **14** 34; **21** 17; **26** 72; **29** 80; **32** 7.
Rana temporaria: **15** 46; **22** 9; **33** 25.
Rana temporia: **10** 31.
Rana utricularia: **14** 72; **24** 9.
Rangia cuneata: **3** 10, 22; **6** 34; **11** 36, 41, 43, 44; **29** 27.
Rangifer tarandus: **10** 64; **14** 100; **27** 1, 6, 18-20; **29** 41, 49, 50, 55, 57, 61, 62, 67, 88, 104; **32** 34; **33** 33; **34** 31, 32, 36.
Rangifer tarandus granti: **29** 49, 62.
Rape, *Brassica napus*
Raphanus sativus: **14** 56.
Raphanus spp.: **25** 7; **28** 8; **34** 34, 39.
Rasbora daniconus neilgeriensis: **17** 32
Rasbora heteromorpha: **15** 46; **28** 12.
Raspberry
  Blooming red, *Rubus strigosus*
  Various, *Rubus*
Rat
  African giant, *Cricetomys gambianus*
  Alexandrine, *Rattus alexandricus*
  Black, *Rattus rattus*
  Bush, *Rattus fuscipes*
  Canefield, *Rattus sordidus*
  Cotton, *Sigmodon hispidus*
  Desert wood, *Neotoma lepida*
  Grassland melomys, *Melomys burtoni*
  Heermann's kangaroo, *Dipodomys heermanni*
  Kangaroo, *Dipodomys* spp.
  Laboratory white, *Rattus* spp.
  Marsh rice, *Oryzomus palustris*
  Morro Bay kangaroo, *Dipodomys heermanni morroensis*
  Norway, *Rattus norvegicus*
  Roof (see black), *Rattus rattus*
  Swamp, *Rattus lutreolus*
  Thick-tailed, *Zyzomys argurus*
  Tunney's, *Rattus tunneyi*
  Water-, *Hydromys chrysogaster*
  White-throated wood, *Neotoma albigula*
  Wood, *Neotoma intermedia*
Ratsbane, *Dichapetalum toxicarium*
Rattus alexandricus: **30** 33.
Rattus fuscipes: **30** 33.
Rattus lutreolus: **30** 33.
Rattus norvegicus: **5** 24; **7** 41; **13** 14; **14** 46, 47; **17** 48-50; **29** 91; **30** 6, 34, 39.
Rattus rattus: **29** 43-45; **30** 34, 39.
Rattus sordidus: **30** 34.
Rattus spp.: **1** 3-7, 10, 16; **2** iii, 19, 31; **3** 11, 13, 15, 16, 23-25; **4** 4, 8, 18; **5** iv, 26-29, 39, 41, 43, 44; **6** 18, 27, 38-40; **7** 41-43, 49, 54, 55, 58, 60; **8** 24-29; **9** iv, 8, 13, 14, 24, 26, 30; **10** 12, 65, 66; **11** 1, 49, 51-53, 55, 63; **12** 11, 69, 70, 73; **14** iii, 12-15, 55, 87, 95-97, 99, 108; **15** 3, 4, 8, 10, 11, 52-64, 68; **17** 2, 40-42, 53, 54; **18** 12, 36-38, 42; **19** 18, 29-31, 38-42, 44, 47; **20** 24-26, 28; **21** 4, 5, 36, 39-43; **22** 2, 4, 16, 20-24; **23** 9-11, 14, 35, 42-45, 48; **24** 10, 11, 13, 28, 29, 34-36; **25** 2, 3, 27, 30-32; **26** 3, 9-15, 35, 44, 46, 49, 50, 77, 81, 82, 88-91; **27** 1, 3, 6, 12, 18-20; **28** 1, 6, 7, 15, 19-25; **29** 42, 67, 84, 91, 92, 96, 97; **30** 10-13, 34, 39, 41; **31** 1, 11, 12, 54, 57-61; **32** 8, 9, 31, 33, 34; **33** 7-11, 33, 44, 45, 65, 67, 75, 76, 79-81; **34** 1, 7-14, 30, 31, 35, 37, 38, 49, 52-59, 61, 62, 64, 65.
Rattus tunneyi: **30** 34.
Raven
  Australian, *Corvus coronoides*
  Common, *Corvus corax*
  Little, *Corvus mellori*
Ray
  Electric, *Torpedo* sp.
  Thornback, *Raja clavata*
  Various, *Raja* sp.
Razorbill, *Alca torda*

Recurvirostra americana: **5** 20.
Redhead, *Aythya americana*
Redhorse, black, *Moxostoma duquesnei*
Redshank
Common, *Tringa totanus*
Icelandic, *Tringa totanus robusta*
Regulus satrapa: **25** 25.
Reindeer, *Rangifer tarandus*
Reithrodontomys humulis: **29** 92.
Reithrodontomys megalotis: **30** 38.
Reithrodontomys raviventris: **30** 40.
Reticulitermes flavipes: **19** 22.
Rhacomitrium sp.: **34** 32.
Rhepoxynius abronius: **19** 28.
Rheumobates spp.: **34** 24.
Rhinichthys osculus: **32** 28.
Rhinobatis lentiginosus: **33** 24.
Rhinogobius flumineus: **21** 15.
Rhinolophus ferrumequinum: **31** 47.
Rhinomugil corsula: **17** 35, 36.
Rhizoctonia solani: **18** 13; **23** 19.
Rhizophora mangle: **34** 32.
Rhizophora spp.: **1** 12; **10** 20.
Rhizopus sp.: **22** 8.
Rhizosolenia sp.: **26** 53, 85.
Rhodotorula sp.: **34** 40.
Rhyncostegium riparioides: **23** 21; **33** 48.
Rice
Domestic, *Oryza sativa*
Wild, *Zizania aquatica*
Richmondena cardinalis: **24** 8.
Ricinus communis: **23** 19; **28** 7.
Rissa tridactyla: **7** 21.
Rithropanopeus harrisii: **4** 10; **15** 36, 45; **22** 10; **25** 16; **26** 12, 58, 85.
Rivulus, mangrove (fish), *Rivulus marmoratus*
Rivulus marmoratus: **33** 62.
Roach (fish), *Rutilus rutilus*
Robin
American, *Turdus migratorius*
European, *Erithacus rubecula*
Rosella, crimson, *Platycercus elegans*
Rostrhamus sociabilis: **17** 39, 40; **33** 73.
Rotifer, *Asplanchna*, *Brachionus*
Rubus frondosus: **26** 38.
Rubus sp: **33** 37.
Rubus strigosus: **24** 15.
Rudd, *Scardinus erythrophthalmus*
Ruppia maritima: **20** 8, 19.
Ruppia spp.: **18** 23; **23** 21.
Rutilus rutilus: **29** 50.
Rye, *Secale cereale*
Rye, perennial, *Lolium perenne*
Rynchops niger: **7** 21, 32; **21** 22.
Sabella pavonina: **32** 25.
Saccharomyces cervisiae: **21** 42; **25** 27; **28** 8.
Saccharomyces spp.: **17** 19, 41.
Saccharum officinarum: **3** 1; **8** 29; **18** 1, 3, 41; **22** 7, 24; **24** 3, 10; **28** 7.
Saccobranchus fossilis: **3** 9; **21** 33; **33** 62, 72.
Saccostrea cucullata: **26** 9, 21; **33** 20.
Saccostrea sp.: **32** 14.
Saddleback, *Philesturnus carunculatus*
Safflower, *Carthamus tinctorius*
Sagebrush, big, *Artemisia tridentata*
Sagitta elegans: **20** 9.
Saguinus fuscicollis: **9** 1.
Saimiri sciurea: **28** 22, 23.
Saimiri spp.: **6** 18; **29** 92.
Salamander
Eastern red-backed, *Plethodon cinereus*
Jefferson, *Ambystoma jeffersonianum*
Marbled, *Ambystoma opacum*
Spotted, *Ambystoma maculatum*
Tiger, *Ambystoma tigrinum*
Two-lined, *Eurycea bislineata*
Various, *Necturus*
Salix spp.: **29** 54, 56.
Salmo clarki, see *Oncorhynchus clarki*
Salmo gairdneri, see *Oncorhynchus mykiss*
Salmo salar: **1** 12, 13; **2** 22; **5** 26; **7** 31, 48; **11** 41, 43; **12** 26; **15** 32, 34; **17** 33; **21** 15; **23** 12, 25, 26, 28, 29; **24** 25; **25** 19; **26** 5, 26, 42, 63, 71, 84; **29** 76; **31** 27; **33** 41, 62.
Salmo spp.: **10** 29.
Salmo trutta: **3** 9; **4** 9; **5** 36; **7** 47, 49; **8** 11; **11** 33; **17** 15; **21** 33; **22** 13; **23** 12, 25; **26** 63, 70, 84; **28** 12; **29** 28, 54, 61, 76, 79; **31** 27; **32** 28; **33** 8, 62.
Salmon
Atlantic, *Salmo salar*
Chinook, *Oncorhynchus tshawytscha*
Chum, *Oncorhynchus keta*
Coho, *Oncorhynchus kisutch*
Kokanee, see Sockeye
Pink, *Oncorhynchus gorbuscha*
Sockeye, *Oncorhynchus nerka*
Various, Salmonidae
Salmonella sp.: **2** 31; **3** 25; **4** 18; **26** 14; **28** 24; **32** 31.
Salmonella typhimurium: **3** 25; **6** 30; **7** 55; **8** 17; **11** 34, 49; **12** 35; **17** 41; **20** 5; **21** 42; **25** 27; **28** 8.
Salmonidae: **5** iii, 18; **7** 10, 47, 54; **10** 40; **15** 34, 70; **17** 18, 21.
Saltbush, *Atriplex* spp.
Salpa fusiformes: **20** 9.
Salvelinus alpinus: **31** 38.
Salvelinus fontinalis: **1** 13, 18, 27; **2** 18, 20, 22; **4** 14, 15, 16; **5** 33; **6** 26; **7** 12, 31, 48, 49, 51; **9** 10, 18, 20, 22; **10** 29, 46, 49, 59-61, 70, 74; **12** 49; **14** 62, 63; **17** 36;

18 28; **19** 29; **21** 33; **23** 25, 26; **25** 19; **26** 26, 64; **29** 28; **33** 62; **34** 45.
Salvelinus namaycush: **1** 27; **3** 9; **4** 5; **5** 27, 35; **6** 12, 26; **7** 27, 31, 47, 60, 61; **8** 8, 11; **9** 10; **10** 29; **12** 26; **13** 9; **14** 62; **15** 32; **17** 15; **20** 8; **21** 16; **29** 28; **31** 27, 28, 36; **33** 62; **34** 26, 45.
Sambucus spp.: **23** 4.
Sand dollar, *Dendraster excentricus*
Sanddab, speckled, *Citharichthys stigmaeus*
Sanderling, *Calidris alba*
Sandpiper
Solitary, *Tringa solitaria*
Spotted, *Actitis macularia*
Various, *Calidris, Erolia* spp.
Saprolegnia sp.: **34** 39.
Sarcophilus harrisii: **30** 11, 34, 37.
Sarcorhampus papa: **14** 3.
Sargassum fluvitans: **12** 27.
Sargassum sp.: **12** 27; **34** 22, 33.
Sauger, *Stizostedion canadense*
Scallop
Antarctic, *Adamussium colbecki*
Bay, *Argopecten irradians*
Pacific, *Chlamys ferrei nipponensis*
Rock, *Hinnites multirugosus*
Sea, *Placopecten magellanicus*
Various, *Chlamys, Mizuhopecten yessoensis, Pecten*
Scaphirhynchus platyrynchus: **21** 12, 13, 16, 26.
Scardinus erythrophthalmus: **6** 31.
Scarus gyttatus: **26** 25.
Scaup
Greater, *Aythya marila*
Lesser, *Aythya affinis*
Sceloglaux albifascies; **30** 24.
Scenedesmus acutiformes: **33** 49; **34** 40.
Scenedesmus costatum: **17** 22.
Scenedesmus obliquus: **12** 44, 45; **29** 71.
Scenedesmus quadricauda: **7** 48; **15** 38; **18** 26; **21** 29, 30; **23** 21; **26** 53.
Scenedesmus spp.: **31** 51; **32** 21.
Scenedesmus subspicatus: **33** 49.
Schistosoma mansoni: **28** 11.
Schroederella spp.: **26** 53, 66, 85.
Sciaenops ocellatus: **33** 3, 24, 62; **34** 26.
Sciurus carolinensis: **2** 14; **10** 38; **21** 26; **33** 33; **34** 31.
Sciurus hudsonicus, see *Tamiasciurus hudsonicus*
Sciurus spp.: **30** 1.
Sclerotium rolfsii: **18** 13.
Scolopax minor: **1** 31; **3** 18; **7** 21; **29** 63.
Scolopax rusticola: **29** 59.
Scomber scombrus: **26** 26.
Scomberomorus cavalla: **26** 26.
Scomberomorus maculatus: **33** 24
Scombridae: **5** 13.
Scopthalmus aquosus: **7** 13, 31; **11** 30; **12** 32; **32** 16.
Scopthalmus maeoticus maeoticus: **29** 78.
Scopthalmus maximus: **26** 72.
Scorpaena porcus: **29** 78.
Scorpaenichthys marmoratus: **26** 64, 65.
Scoter, surf, *Melanitta perspicillata*
Screech-owl, eastern, *Otus asio*
Scripsiella faeroense: **10** 59; **33** 49.
Scrobicularia plana: **2** 6; **32** 7, 14, 24; **34** 24, 32.
Scud, *Gammarus, Hyalella*
Sculpin
Fourhorn, *Myoxocephalus quadricornis*
Mottled, *Cottus bairdi*
Shorthorn, *Myoxocephalus scorpius*
Scup, *Stenotomus chrysops*
Scyliorhinus caniculus: **26** 26, 64.
Sea cucumber, *Stichopus*
Sea-eagle, white-tailed, *Haliaeetus albicilla*
Sea lion
California, *Zalophus californianus*
Northern, *Eumetopias jubata*
Sea star (Asteroidea), *Pisaster brevispinus*
Sea urchins, *Anthocidaris crassispina, Arbacia, Echinometra, Hemicentrotus* sp., *Lytechinus, Paracentrotus lividus, Strongylocentrotus, Tripneustes esculentus*
Seal
Australian fur, *Arctocephalus pusillus*
Bearded, *Erignathus barbatus*
Crabeater, *Lobodon carcinophagus*
Gray, *Halichoerus grypus*
Harbor, *Phoca groenlandica, Phoca vitulina, Pusa vitulina*
Harp, *Pagophilus groenlandica*
Hooded, *Cystophora cristata*
Leopard, *Hydrurga leptonyx*
Northern fur, *Callorhinus ursinus*
Ringed, *Phoca hispida, Pusa hispida*
Saimaa ringed, *Phoca hispida saimensis*
Spotted, *Phoca largha*
Weddell, *Leptonychotes weddell*
Seaskaters (oceanic insects), *Halobates* spp., *Rheumobates* spp.
Seatrout, spotted, *Cynoscion nebulosus*
Sebertia acuminata: **34** 21.
Secale cereale: **5** 2; **6** 13; **11** 26; **12** 12; **24** 36.
Sedges, *Carex* spp.
Seerasalmus sp.: **29** 39.
Seiurus aurocapillus: **25** 24.
Selenastrum capricornutum: **12** 45; **14** 58, 71; **17** 5, 22; **25** 11; **26** 53; **29** 78; **31** 51.
Semibalanus balanoides: **33** 56.
Semotilus margarita: **33** 62.
Senecio jacobaea: **19** 41.

Senecio sp.: **33** 10.
Sepia officinalis: **32** 13; **33** 20, 52.
Sepiotheuthis australis: **12** 35.
Sergestes lucens: **12** 30.
Serinus canarius: **17** 39, 57; **23** 31.
Seriola quinqueradiata: **9** 9.
Serranus cabrilla: **33** 24.
Sesarma cinereum: **4** 10; **18** 33.
Sesarma heamatocheir: **6** 24.
Sesarma reticulatum: **25** 17.
Setaria faberii: **26** 38.
Setaria sp.: **33** 37.
Setonix brachyurus: **30** 34.
Shad
  Gizzard, *Dorosoma cepedianum*
  Threadfin, *Dorosoma petenense*
  Various, *Dorosoma* spp., *Konosirus punctatis*
Shag, imperial, *Phalacrocorax atriceps*
Shark
  Blue, *Prionace glauca*
  Shortfin mako, *Isurus oxyrinchus*
  Tope, *Galeorhinus galeus*
  Various, *Carcharhinus* spp., *Mustelus*, *Sphyrna* spp.
  White, *Carcharodon carcharius*
  Whitetip, *Carcharhinus longimanus*
Sharks: **10** 40, 74; **34** 26, 35.
Shearwater, wedge-tailed, *Puffinus pacificus*
Shearwaters: **26** 30; **33** 26.
Sheep
  Bighorn, *Ovis canadensis*
  Domestic, *Ovis aries*, *Ovis* sp.
Shelduck, *Tadorna tadorna*
Shell
  Ivory, *Buccinum striatissimum*
  Pen, *Pinna nobilis*
  Spindle, *Hemifusus* spp.
Shiner
  Blacktail, *Notropis venustus*
  Common, *Notropis cornutus*
  Golden, *Notemigonus crysoleucas*
  Spottail, *Notropis hudsonius*
Shoveler, northern, *Anas clypeata*
Shrew
  Common, *Sorex araneus*
  Least, *Cryptotis parva*
  Long-tailed, *Sorex minutus*
  Masked, *Sorex cinereus*
  Short-tailed, *Blarina brevicauda*
  Various, *Sorex* sp.
Shrike, loggerhead, *Lanius ludovicianus*
Shrimp
  Aesop, *Pandalus montagui*
  Brine, *Artemia salina*, *Artemia* sp.
  Brown, *Penaeus aztecus*
  Clam, *Eulimnadia* spp.
  Freshwater, *Paratya australiensis*
  Glass, *Palaemonetes kadiakensis*
  Grass, *Palaemonetes pugio*, *P. vulgaris*
  Korean, *Palaemon macrodactylus*
  Mysid, *Holmesimysis*, *Metamysidopsis*, *Mysidopsis*, *Mysis*
  Pink, *Penaeus duorarum*
  Sand, *Crangon allmanni*, *C. crangon*, *C. septemspinosa*
  Tadpole, *Triops longicaudatus*
  Various, *Crangon*, *Lysmata*, *Metapenaeus ensis*, *Palaemon*, *Paratya australiensis*, *Penaeopsis joyneri*, *Penaeus*, *Sergestes lucens*
  White, *Penaeus setiferus*
Shrimps: **5** 17, 37; **6** 35; **7** 38, 47, 48; **9** iii, 8; **10** 24; **12** 29, 30, 81; **13** 19; **15** 37; **18** 30; **26** 21; **32** 15; **34** 29, 33.
Sialia sialis: **21** 19; **29** 83.
Sicklepod, *Cassia* spp.
Siderastrea spp.: **21** 9.
Siganus cramin: **26** 25.
Sigara sp.: **22** 11.
Sigmodon hispidus: **6** 5, 15, 42; **24** 8; **29** 36, 42, 92, 93; **30** 35.
Silkworm, *Bombyx mori*
Sillago bassensis: **12** 56.
Silverside
  Atlantic, *Menidia menidia*
  Inland, *Menidia beryllina*
  Tidewater, *Menidia peninsula*
Simocephalus serrulatus: **2** 17; **9** 10; **12** 47; **21** 31; **22** 11.
Simocephalus sp.: **4** 9; **17** 26.
Simulium sp.: **14** 31.
Simulium vittatum: **25** 13, 21.
Siphamia cephalotes: **26** 37.
Siphlonurus lacustris: **29** 54.
Siphonoptera: **9** 3; **13** 1.
Sirenians: **26** 33.
Sitophilus granarius: **23** 20.
Sitta carolinensis: **30** 24.
Skate, little, *Raja erinacea*
Skeletonema costatum: **2** 22; **12** 50; **14** 65; **15** 38-40, 43, 45, 47; **17** 22; **20** 16; **24** 17; **25** 11; **26** 53, 85; **32** 20, 21, 72.
Skimmer, black, *Rynchops niger*
Skink, *Lerista puctorittata*, *Morethia boulengeri*, *Tiliqua*
Skipper, mud, *Boleophthalmus dussumieri*
Skua, great, *Catharacta skua*
Skuas: **26** 30
Skunk, striped, *Mephitis mephitis*
Skunks: **23** 12; **30** 38.
Skwala sp.: **25** 13.

Slippersnail, common Atlantic, *Crepidula fornicata*
Slug
Grey field, *Deroceras reticulatum*
Various, *Agriolimax reticulatus*, *Arion* spp., *Deroceras*
Smelt
Rainbow, *Osmerus mordax*
Top, *Atherinops affinis*
Sminthopsis crassicaudata: **30** 35.
Sminthopsis macroura: **30** 35.
Snail
Apple, *Pomacea paludosa*
Land, *Helix aspersa, Arianta arbustorum*
Mud, *Ilyanassa obsoleta*, *Nassarius obsoletus*, *Nassarius* sp.
Pond, *Cipangopoludina malleata*
Ram's horn, *Helisoma trivolvis*
Red, *Indoplanorbis exustus*
Various, *Amnicola* sp., *Ancylus fluviatilis*, *Aplexa hypnorium*, *Arcularia gibbosula*, *Arion* spp., *Australorbis*, *Biomphalaria* spp., *Bulinus* spp., *Campeloma decisum*, *Gillia altilis*, *Helisoma*, *Helix*, *Juga plicifera*, *Lanistes carinatus*, *Lymnaea*, *Melanoides* sp., *Mudalia potosensis*, *Murex brandaris*, *Neritina* sp., *Physa*, *Planorbis corneus*, *Pomacea*, *Thiara tuberculata*, *Viviparus*
Snake
Garter, *Thamnophis* sp.
Gopher, *Pituophis catenifer*
Northern water, *Nerodia sipedon*
Various, *Elaphe obsoleta*
Water, *Natrix* sp., *Nerodia*
Western ribbon, *Thamnophis proximos*
Snakehead, green, *Ophiocephalus punctatus*
Snapper
Mangrove, *Lutjanus griseus*, *Lutianus griseus*
Various, *Lutianus fulviflamma*
Solanum melongena: **24** 3.
Solanum sp.: **24** 3.
Solanum tuberosum: **5** 22; **12** 6, 12; **14** 27; **17** 19; **21** 5; **22** 2, 24; **28** 3.
Sole
Dover, *Microstomus pacificus*
English, *Pleuronectes vetulus* (formerly *Parophrys vetulus*)
Flathead, *Hippoglossoides elassodon*
Sand, *Psettichthys melanostictus*
Various, *Limanda* sp., *Solea solea*, *Trinectes maculatus*
Solea solea: **7** 8; **15** 44.
Solenopsis invicta: **1** iii, 1, 11, 20, 21, 23, 24, 33; **13** 1; **21** 28; **24** 14, 16.
Solenopsis sp.: **19** 23.
Solidago graminifolia: **7** 11.
Somateria mollissima: **1** 32; **2** 9; **6** 14; **31** 53; **32** 16, 19; **33** 27; **34** 28.
Sorbus aucuparia: **29** 56.
Sorex araneus: **14** 47; **26** 36, 37; **29** 39, 57; **33** 68; **34** 31, 35.
Sorex cinereus: **34** 31.
Sorex minutus: **34** 31.
Sorex sp.: **22** 23; **33** 33.
Sorghum, *Sorghum halepense*, *Sorghum* spp., *Sorghum vulgare*
Sorghum halepense: **3** 22; **12** 68; **21** 6, 8; **22** 2; **23** 4, 12.
Sorghum spp.: **23** 14, 15, 19; **24** 36; **28** 7; **33** 69.
Sorghum sudanense: **23** 4, 12, 19, 33; **33** 69.
Sorghum vulgare: **18** iii, 1, 3, 12, 41.
Soybean, *Glycine max*
Sparrow
Chipping, *Spizella passerina*
House, *Passer domesticus*
Song, *Melospiza melodia*
Tree, *Passer montanus*
Sparrowhawk, European, *Accipiter nisus*
Spartina alterniflora: **10** 20; **12** 53; **18** 22, 26, 33; **34** 22.
Spartina spp.: **6** 9; **34** 33, 35.
Sparus macrocephalus: **10** 14.
Spermophilus beecheyi: **30** 23, 35, 38.
Spermophilus spp.: **30** 1, 3, 4, 38, 41.
Spermophilus variegatus: **5** 24; **33** 34.
Sphaerium sp.: **33** 20.
Sphagnum spp.: **10** 22; **29** 58.
Sphoeroides maculatus: **27** 8.
Sphyngidae: **12** 6.
Sphyrna spp.: **10** 29.
Spiders, *Araneus umbricatus*, *Argiope aurantia*, *Chiracanthium mildei*, *Dysdera crocata*, *Lycosa* sp., *Pardosa* sp.
Spiderwort, *Aribidopsis thaliana*
Spilosoma spp.: **30** 15.
Spinach, *Spinacia oleracea*
Spinacia oleracea: **11** 35; **24** 6, 10; **32** 20; **34** 21.
Spirodella oligorrhiza: **22** 10; **30** 15.
Spirogyra sp.: **22** 3; **28** 8; **33** 3.
Spirorbis lamellora: **26** 59.
Spirostomum ambiguum: **32** 22.
Spisula solidissima: **26** 57; **32** 24, 29.
Spiza americana: **24** 6, 8.
Spizella passerina: **2** 27; **25** 24.
Spodoptera eridania: **23** 20.
Spodoptera littoralis: **25** 9, 10.
Spodoptera litura: **24** 6.
Sponge
Freshwater, *Ephydatia fluviatilis*, *Spongilla* sp.
Various, *Halichondria* sp.
Spongilla sp.: **26** 5.
Spoonbill, white, *Platalea leucorodias*

Spot, *Leiostomus xanthurus*
Springtails, *Folsomia candida*, *Tullbergia granulata*
Spruce, *Picea* spp.
Squalus acanthias: **12** 32; **15** 32; **33** 25; **34** 9, 45.
Squash, *Cucurbita* spp.
Squatina squatina: **26** 26.
Squawfish, northern, *Ptychocheilus oregonensis*
Squid, *Gonatopsis borealis*, *Illex illecebrosus argentinus*, *Ommastrephes bartrami*, *Sepioteuthis australis*, *Symplectoteuthis oualaniensis*
Squids: **6** 10; **34** 33.
Squirrel
California ground, *Spermophilus beecheyi*
Gray, *Sciurus carolinensis*
Ground, *Citellus* spp., *Spermophilus* spp.
Red, *Tamiasciurus hudsonicus*
Rock, *Spermophilus variegatus*
Various, *Sciurus*
Srieba, *Astyanax bimaculatus*
Stanleya spp.: **5** 6.
Starfish, *Asterias*, *Luidia clathrata*
Starling, European, *Sturnus vulgaris*
Steelhead, *Oncorhynchus mykiss*
Stelgidopteryx serripennis: **14** 40.
Stenella coeruleoalba: **10** 38, 43; **26** 35; **31** 22, 31; **33** 29.
Stenonema sp.: **32** 25.
Stenotomus chrysops: **31** 50, 51; **34** 26.
Sterna caspia: **31** 40, 44.
Sterna forsteri: **4** 6; **8** 8, 13; **21** 22; **31** 44, 45, 60.
Sterna fuscata: **5** 14.
Sterna hirundo: **2** 10; **10** 63; **14** 82; **31** 44, 53; **34** 28, 35.
Sterna maxima: **5** 14.
Sterna nilotica: **21** 20.
Sterna paridisaea: **7** 22; **31** 39, 44.
Sternotherus minor minor: **29** 32.
Sternotherus odoratus: **29** 32.
Stichopus japonicus: **12** 35.
Stichopus tremulus: **26** 70.
Stickleback
Fourspine, *Apeltes quadracus*
Threespine, *Gasterosteus aculeatus*
Stilt, black-necked, *Himantopus mexicanus*
Stitchbird, *Notiomystis cincta*
Stizostedion canadense: **2** 11; **21** 12.
Stizostedion vitreum vitreum: **2** 11, 20; **6** 26; **7** 14; **10** 29; **28** 13; **31** 37; **33** 62.
Stolothrissa sp.: **33** 23.
Stomoxys calcitrans: **24** 6; **25** 10.
Stork, white, *Ciconia ciconia*
Strawberry, *Fragaria vesca*
Strepera graculina: **30** 22, 24.
Streptococcus faecalis: **32** 21.
Streptococcus zooepidemicus: **28** 23.
Streptopelia capicola: **1** 9.
Streptopelia risoria: **2** 24; **7** 36, 50, 53, 60; **8** 23; **13** 14; **14** 82, 83; **31** 53.
Streptopelea senegalensis: **30** 22.
Strigops habroptilus: **30** 24.
Strix aluco: **31** 44.
Strongylocentrotus franciscanus: **26** 59.
Strongylocentrotus nudus: **33** 56.
Strongylocentrotus purpuratus: **26** 45, 59, 85; **29** 27; **34** 43.
Strophites rugosus: **18** 32.
Sturgeon
Atlantic, *Acipenser oxyrhynchus*
Sevyuga, *Acipenser stellatus*
Sheep, *Acipenser nudiventris*
Shovelnose, *Scaphirhynchus platyrynchus*
Sturnella magna: **24** 8.
Sturnella magna argutula: **8** 8.
Sturnella neglecta: **9** 29; **30** 24.
Sturnus vulgaris: **1** 6; **2** 13; **3** 12; **7** 22, 32, 36, 40; **9** 14; **10** 54, 62; **12** 33; **13** 13; **14** 40, 41, 52, 84, 107; **21** 19, 23, 27, 34-36; **23** 14, 32; **27** 9-12; **29** 83; **30** 16, 22.
Stylodrilus sp.: **11** 45.
Sucker
Bridgelip, *Catostomus columbianus*
Largescale, *Catostomus macrocheilus*
River carp, *Carpiodes carpio*
White, *Catostomus commersoni*
Sudex, *Sorghum bicolor* X *Sorghum sudanense*
Sugarcane, *Saccharum officinarum*
Sula bassanus: **21** 23, 27.
Sula leucogaster: **7** 23.
Sula sp.: **26** 42.
Sula sula: **5** 14.
Sunfish
Green, *Lepomis cyanellus*
Longear, *Lepomis megalotis*
Orangespot, *Lepomis humilis*
Redbreast, *Lepomis auritis*
Redear, *Lepomis microlophus*
Spotted, *Lepomis punctatus*
Sunflower, *Helianthus* spp.
Sus scrofa: **29** 38; **30** 2, 5-7, 35, 37-39; **33** 34.
Sus spp.: **5** 26, 28-30, 39, 44; **8** 1, 5; **9** iv, 8, 13, 14, 16, 24, 27; **10** 12, 54, 55; **12** 6, 11, 70, 77, 81; **13** 12; **14** 86, 98, 99; **17** 2, 16, 50; **18** 36; **19** 21, 31, 40, 42; **20** 5; **21** 5, 42; **23** 4, 33, 34, 45; **25** 2, 27, 31; **26** 9, 10, 12, 35, 46, 50, 77, 81, 89; **29** 42, 49, 63, 67, 93, 94, 96; **30** 16, 24, 25, 35, 38, 41; **32** 9; **33** 2, 4, 9, 34, 39, 44, 45, 65, 68, 74, 75, 77, 80, 81; **34** 1, 30, 31, 37, 38, 62.
Swallow
Barn, *Hirundo rustica*
Northern rough-winged, *Stelgidopteryx serripennis*

Tree, *Tachycineta bicolor*
Welcome, *Hirundo neoxena*
Swan
Mute, *Cygnus olor*
Trumpeter, *Cygnus buccinator*
Tundra, *Cygnus columbianus*
Swine, *Sus* spp.
Swordfish, *Xiphias gladias*
Sylvilagus audubonii: **30** 38.
Sylvilagus floridanus: **2** 14; **7** 41; **29** 36; **33** 37.
Sylvilagus sp.: **12** 71; **30** 2.
Symiodinium sp: **29** 65.
Symplectoteuthis oualaniensis: **33** 20.
Synedra sp.: **26** 66; **31** 51.
Tabellaria sp.: **26** 66.
Tachycineta bicolor: **21** 23; **29** 83; **31** 44; **33** 27, 42; **34** 28, 35.
Tadorna tadorna: **29** 41.
Tadpoles: **12** 11.
Takake, *Notornis mantelli*
Talitrus saltator: **26** 21.
Talorchestia deshayesii: **26** 21.
Talpa europea: **5** 24; **34** 31.
Tamarin, *Saguinus fuscicollis*
Tamenthypnum sp.: **34** 32.
Tamias spp.: **30** 3.
Tamias striatus: **17** 51; **19** 20; **29** 93, 94.
Tamiasciurus hudsonicus: **2** 14; **34** 31.
Tanager, scarlet, *Piranga olivacea*
Tanypus grodhausi: **25** 10.
Tanytarsus dissimilis: **2** 17; **5** 31; **7** 51; **14** 60; **26** 58, 84; **28** 11; **32** 25; **33** 56.
Tanytarsus sp.: **25** 22.
Tapes decussatus: **10** 61.
Tapes japonica: **32** 13.
Tapes philippinarum: **17** 25; **21** 10.
Tapes sp.: **31** 23.
Tapeworm: **12** 3.
Taricha granulosa: **29** 79, 80.
Taricha torosa: **21** 17, 27.
Tasmanian devil, *Sarcophilus harrisii*
Tautog, *Tautoga onitis*
Tautoga onitis: **34** 35.
Tautogolabrus adspersus: **32** 20, 28.
Taxidea taxus: **19** 20; **23** 4, 12; **30** 4, 35, 39.
Tea, Labrador, *Ledum* sp.
Teal
Blue-winged, *Anas discors*
Green-winged, *Anas carolinensis*
Tellina tenuis: **33** 72.
Temora spp.: **26** 69.
Tench, *Tinca tinca*
Tenebrio molitor: **25** 10.
Termite
Australian, *Mastotermes darwinensis*
Rhodesian, *Trinervitermes dispar*
Various, *Coptotermes*, *Heterotermes*, *Odontotermes*, *Reticulitermes flavipes*, *Microtermes*
Tern
Arctic, *Sterna paradisaea*
Caspian, *Sterna caspia*
Common, *Sterna hirundo*
Forster's, *Sterna forsteri*
Gull-billed, *Gelochelidon nilotica*, *Sterna nilotica*
Royal, *Sterna maxima*
Sooty, *Sterna fuscata*
Terrapene carolina: **1** 21; **14** 35; **29** 32.
Tetraedron sp.: **13** 18.
Tetrahymena pyriformis: **5** 35; **7** 45; **33** 49.
Tetranychus mcdanieli: **15** 65.
Tetranychus urticae: **15** 65; **22** 9; **24** 14; **25** 10.
Tetrao tetrix: **29** 59.
Tetraselmis chui: **12** 54.
Thais lapillus: **2** 6.
Thais sp.: **33** 73.
Thalassia testudinum: **34** 32.
Thalassiosira aestivalis: **12** 50.
Thalassiosira nordenskioldi: **25** 11.
Thalassiosira pseudonana: **15** 37, 39; **17** 23; **24** 17; **26** 53, 67; **33** 49.
Thalassiosira rotula: **34** 40, 47.
Thalassiosira sp.: **32** 20.
Thalassiosira weissflogii: **25** 11; **26** 10.
Thamnophis proximos: **24** 6, 8.
Thamnophis sp.: **11** 49; **21** 17, 27.
Themisto spp.: **26** 21; **33** 21.
Theragra chalcogramma: **21** 17.
Thermonectes basillaris: **25** 12.
Thiara tuberculata: **33** 52.
Thielaviopsis basicola: **23** 13.
Thomomys sp.: **9** 1.
Thorn, box, *Lycium andersonii*
Thrush
Grey shrike, *Colluricincla harmonica*
New Zealand, *Turnagra capensis*
Song, *Turdus philomelos*
Wood, *Hylocichla mustelina*
Thunnus spp.: **5** 14; **10** 40.
Thunnus albacares: **20** 9; **29** 31.
Thunnus alalunga: **29** 30, 31.
Thunnus thynnus: **28** 3; **33** 25.
Thylogale billardierii: **30** 5, 35, 37.
Thymallus arcticus: **26** 15, 64; **32** 28; **33** 62; **34** 45.
Tick
American dog, *Dermacentor variabilis*
Cattle, *Haemaphysalis longicornis*
Fever, *Boophilus* spp.

Gulf Coast, *Amblyomma maculatum*
Lone star, *Amblyomma americanum*
Rocky mountain wood, *Dermacentor andersoni*
Tropical horse, *Anocentor nitens*
Tigriopus californicus: **25** 17.
Tigriopus japonicus: **33** 56.
Tilapia
Mozambique, *Tilapia* (also *Oreochromis*) *mossambica*
Nile, *Oreochromus niloticus*
Various, *Tilapia*
Tilapia mossambica: **14** 49; **15** 46; **24** 25; **33** 41.
Tilapia nilotica: **34** 45, 47.
Tilapia sp.: **17** 35.
Tilapia sparrmanii: **26** 64.
Tilapia zilli: **26** 64.
Tiliqua nigrolutea: **30** 17.
Tiliqua rugosa: **30** 11, 16, 17.
Timothy, *Phleum pratense*
Tinca tinca: **33** 6.
Tipula abdominalis: **25** 24.
Tipula sp.: **4** 9; **5** 22.
Tisbe furcata: **33** 56.
Tisbe holothuriae: **6** 22; **26** 12, 58, 84.
Tit, great, *Parus major*
Titmouse, tufted, *Parus biocolor*
Toad
American, *Bufo americanus*
Egyptian, *Bufo regularis*
European, *Bufo bufo*
Fowler's, *Bufo fowleri*, *Bufo woodhousei fowleri*
Giant, *Bufo marinus*
Gulf coast, *Bufo valliceps*
Narrow-mouthed, *Gastrophryne carolinensis*
Various, *Bombina variegata*, *Bufo*
Toadfish, Gulf, *Opsanus beta*, *Opsanus tau*
Toadflax, bastard, *Comandra* spp.
Tobacco, *Nicotiana tabacum*
Tolypothrix sp.: **18** 25.
Tolypothrix tenuis: **18** 14.
Tomato, *Lycopersicon esculentum*
Tomcod, *Microgadus tomcod*
Torpedo sp.: **24** 12.
Tortoise, gopher, *Gopherus polyphemus*
Tortrix viridana: **31** 39.
Torulopsis glabrata: **34** 40.
Towhee
Rufous-sided, *Pipilo erythrophthalmus*
Various, *Pipilo* spp.
Trachemys scripta: **29** 31, 80, 81.
Trachinotus carolinus: **33** 62.
Tree, tropical rainforest, *Dacryodes excelsa*
Trematodes, *Schistosoma*
Trematomus bernacchii: **21** 17.
Triaenodus tardus: **3** 21.
Trichechus manatus: **7** 25, 34; **33** 29, 38, 42, 79.
Trichoderma viride: **18** 13.
Trichodina sp.: **33** 3.
Trichogaster pectoralis: **3** 21.
Trichosurus vulpecula: **30** 2, 5, 6, 8, 10, 15, 24, 36-38, 40.
Tridacna derasa: **33** 52, 70.
Tridacna maxima: **11** 28; **12** 35.
Trifolium sp.: **4** 1; **19** 13; **22** 8, 24; **33** 43.
Triggerfish, *Balistoides* spp.
Triglochin spp.: **23** 4.
Trinectes maculatus: **1** 14.
Trinervitermes dispar: **6** 14.
Tringa solitaria: **7** 23.
Tringa totanus: **33** 27.
Tringa totanus robusta: **12** 33.
Triops longicaudatus: **25** 17.
Tripneustes esculentus: **34** 25.
Triticum aestivum: **2** 12; **5** 22; **9** 25; **10** 1; **11** 25, 26; **12** 12, 43; **18** 1, 4, 41; **19** 13; **22** 2, 8; **28** 3; **29** 60, 69; **34** 22.
Triticum cristatus: **11** 49.
Triticum spp.: **25** 7; **29** 49.
Triticum vulgare: **15** 28.
Triturus cristatus: **26** 64.
Troglodytes aedon: **29** 83.
Tropisternus lateralis: **25** 12.
Tropocyclops prasinus mexicanus: **26** 58.
Trout
Brook, *Salvelinus fontinalis*
Brown, *Salmo trutta*
Cutthroat, *Oncorhynchus clarki* (formerly *Salmo clarki*)
Lake, *Salvelinus namaycush*
Rainbow, *Oncorhynchus mykiss* (formerly *Salmo gairdneri*)
Spotted sea, *Cynoscion nebulosus*
Trumpeter, six-lined, *Siphamia cephalotes*
Tubifex costatus: **12** 51.
Tubifex sp.: **6** 30; **14** 32; **29** 78.
Tubifex tubifex: **3** 10; **15** 27, 45; **17** 26; **33** 21; **34** 42.
Tui, *Prosthemadera novae-seelandiae*
Tullbergia granulata: **22** 9.
Tuna
Bluefin, *Thunnus thynnus*
Japanese, Scombridae
Skipjack, *Euthynnus pelamis*
Various, *Thunnus* spp.
Yellowfin, *Thunnus albacares*
Tunas: **10** 30; **14** 34; **29** 31.
Tunicates, *Ciona intestinalis*, *Cynthia claudicans*, *Halocynthia roretzi*, *Podoclavella moluccensis*, *Polycarpa peduculata*, *Salpa fusiformes*

Turbellarians, *Bothromestoma* sp., *Mesotoma* sp.
Turbot, *Scopthalmus maximus*, *S. maeoticus maeoticus*
Turdus merula: **5** 23; **26** 30.
Turdus migratorius: **2** 12; **7** 23; **12** 56; **14** 41; **19** 16; **21** 19; **34** 28.
Turdus philomelos: **29** 55, 63.
Turkey, *Meleagris gallopavo*
Turnagra capensis: **30** 25.
Turnip, *Brassica rapa*
Tursiops gephyreus: **33** 29.
Tursiops truncatus: **26** 35; **33** 29.
Turtle
  Atlantic green, *Chelonia mydas*
  Common box, *Terrapene carolina*
  Common mud, *Kinosternon sabrubrum*
  Common musk, *Sternotherus odoratus*
  Loggerhead, *Caretta caretta*
  Loggerhead musk, *Sternotherus minor minor*
  Missouri slider, *Pseudemys floridana hoyi*
  Peninsula cooter, *Pseudemys floridana peninsularis*
  Pond slider, *Pseudemys scripta*
  Slider, *Chrysemys scripta*, *Trachemys scripta*
  Snapping, *Chelydra serpentia*
Turtle-dove, ringed, *Streptolia risoria*
Turtles: **29** 80.
Tuskfish, scarbreast, *Choerodon azurio*
Tympanuchus cupido: **10** 52.
Tympanuchus cupido attwateri: **7** 23
Tympanuchus phasianellus: **4** 12.
Typha latifolia: **20** 8; **22** 9, 10.
Typhlodromus sp.: **22** 9.
Tyto alba: **7** 53; **21** 35; **27** 9, 10; **30** 24.
Uca minax: **3** 22.
Uca pugilator: **2** 23; **10** 48, 61; **15** 37, 43; **25** 17, 20; **26** 10, 68.
Uca sp.: **13** 19, 21; **18** 30; **26** 68; **33** 73.
Uca tangeri: **23** 22.
Ulmus americana: **15** 28; **33** 15.
Ulothrix sp.: **26** 66.
Ulva lactuca: **29** 25.
Ulva sp.: **14** 27; **26** 53; **33** 73.
Umbilicaria sp.: **34** 21.
Umbra limi: **9** 18.
Umbra pygmaea: **6** 13; **11** 48.
Upeneus moluccensis: **15** 27.
Upeneus tragula: **26** 25.
Upupa epops: **26** 30, 43.
Uria aalge: **7** 23; **31** 44, 45; **33** 9, 42.
Uria lomvia: **21** 23, 27.
Urocyon cinereoargentatus: **29** 36; **30** 36.
Uromastix hardwickii: **29** 81.
Uronema marinum: **10** 47.
Uronema nigricans: **10** 61.
Uronema sp.: **14** 59.
Urophycus chuss: **11** 30; **33** 25.
Ursus maritimus: **7** 1, 25; **26** 35; **31** 34, 46, 48; **32** 17; **33** 8, 29, 38, 42.
Ursus spp.: **23** 12; **30** 4, 36.
Uta stansburiana: **29** 81.
Vaccinium angustifolium: **12** 22; **33** 34; **34** 22.
Vaccinium myrtillus: **29** 56, 63.
Vaccinium pallidum: **14** 27.
Vaccinium sp.: **29** 50.
Vaccinium uliginosum: **29** 56.
Vaccinium vitis-idaea: **29** 56.
Vallisneria americana: **18** 17, 19.
Vallisneria gigantia: **28** 2, 10.
Vallisneria spiralis: **28** 10.
Vallisneria spp.: **28** 10.
Vaquita (porpoise), *Phocoena sinus*
Varanus gouldi: **30** 16, 17.
Varanus varius: **30** 17.
Venerupis pallustra: **19** 26.
Veromessor andrei: **30** 24.
Vespula germanica: **30** 15.
Vespula vulgaris: **30** 15.
Vicia faba: **29** 69; **33** 46; **34** 13.
Victorella sp.: **32** 14, 24, 25.
Vigna sp.: **12** 41; **23** 15.
Villorita cyprinoides: **33** 52.
Villosa iris: **33** 52.
Vireo
  Red-eyed, *Vireo olivaceous*
  Warbling, *Vireo gilvus*
Vireo gilvus: **25** 25.
Vireo olivaceous: **25** 24.
Vitis sp.: **5** 22; **24** 3.
Viviparus ater: **14** 14.
Viviparus bengalensis: **17** 28.
Vole
  Bank, *Clethrionomys glareolus*
  Brown-backed, *Clethrionomys rufocanus*
  Creeping, *Microtus oregoni*
  Field, *Microtus agrestris*
  Levant, *Microtus guentheri*
  Meadow, *Microtus pennsylvanicus*
  Pine, *Pitymys pinetorium* (now *Microtus pinetorum*)
  Prairie, *Micropterus ochrogaster*, *Microtus ochrogaster*
  Singing, *Microtus miurus*
  Various, *Arvicola terrestris*, *Clethrionomys rutilis*, *Lemmus* sp.
Vombatus ursinus: **30** 36, 38.
Vorticella sp.: **26** 53.
Vulpes fulva: **29** 36.
Vulpes macrotis: **30** 5.
Vulpes macrotis arsipus: **30** 36.
Vulpes macrotis mutica: **30** 40.

Vulpes sp.: **12** 34; **14** 99; **15** 33; **23** 12; **30** 38; **31** 46.
Vulpes vulpes: **10** 39, 43, 64; **29** 60; **30** 5, 36, 37; **31** 48; **33** 34.
Vultur gryphus: **14** 2; **23** 32.
Vulture
Black, *Coragyps atratus*
King, *Sarcorhampus papa*
Turkey, *Cathartes aura*
Wallaby
Agile, *Macropus agilis*
Bennett's (also known as red-necked), *Macropus rufogriseus*
Banded hare-, *Lagostrophus fasciatus*
Rock, *Petrogale penicillata*
Tammar, *Macropus eugenii*
Western brush, *Macropus irma*
Walleye, *Stizostedion vitreum vitreum*
Walrus, *Odobenus rosmarus*
Warbler
MaGillivray's, *Oporornis tolmiei*
Townsend's, *Dendroica townsendi*
Various, *Dendroica* spp.
Warmouth, *Lepomis gibbosus*
Wasp
Common, *Vespula vulgaris*
German, *Vespula germanica*
Watermilfoil, Eurasian, *Myriophyllum spicatum*
Watersipora cucullata: **26** 57.
Weed
Duck, *Lemna*, *Spirodella oligorrhiza*
Fire, *Epilobium angustifolium*
Hydrilla aquatic, *Hydrilla verticillata*
Lake, *Lagarosiphon major*
Loco, *Astragalus*
Pond, *Ceratophyllum*, *Najus guadalupensis*, *Navicula* sp., *Potamogeton*
Rat, *Palicourea marcgravii*
Sargassum, *Sargassum fluvitans*
Sea, *Chondrus crispus*, *Fucus*, *Porphyra* sp., *Sargassum*, *Ulva*
Submerged, *Elodea*, *Hydrodictyon*, *Najas* spp., *Spirogyra* sp., *Zannichellia* sp.
Ribbon, *Vallisneria spiralis*
Water, *Elodea*
Various, *Chenopodium album*, *Cladophora*
Weevil
Cotton boll, *Anthonomus grandis*
Granary, *Sitophilus granarius*
Rice water, *Lissorhopterus oryzophilus*
Whale
Beluga, *Delphinapterus leucas*
Cuvier's goosebeaked, *Ziphius cavirostris*
Fin, *Balaenoptera physalis*
Giant bottlenosed, *Berardius bairdii*
Gray, *Eschrichtius robustus*
Killer, *Orcinus orca*
Long-finned pilot, *Globicephala medaena*
Pilot, *Globicephala macrorhynchus*
Pygmy sperm, *Kogia breviceps*
Sperm, *Physeter catodon*, *Physeter macrocephalus*
Various, *Ziphius* sp.
White, *Delphinapterus leucas*
Wheat, *Triticum aestivum*, *Triticum* spp., *Triticum vulgare*
Whelk
Channeled, *Busycon canaliculatum*
Common dog, *Nucella lapillus*, *Nucellus lapillus*
Various, *Kelletia kelletia*, *Thais lapillus*
Waved, *Buccinum undatum*
Whelks: **26** 21.
Whimbrel, *Numenius phaeopus*
Whistling-duck, fulvous, *Dendrocygna bicolor*
Whitefish
Lake, *Coregonus clupeaformis*
Mountain, *Prosopium williamsoni*
Round, *Prosopium cylindraceum*
Various, *Coregonus* spp.
Whiting, *Merlangius merlangius*, *Sillago bassensis*
Wigeon, American, *Anas americana*
Wildcelery, *Vallisneria americana*
Willow, *Salix* spp.
Wolf, *Canis lupus*
Wolffish, spotted, *Anarhichas minor*
Wolverine, *Gulo gulo*
Wombat
Common, *Vombatus ursinus*
Southern hairy-nosed, *Lasiorhinus latifrons*
Woodchuck, *Marmota monax*
Woodcock
American, *Scolopax minor*
Eurasian, *Scolopax rusticola*
Woodlice: **14** 32, 48.
Woodpeckers
Acorn, *Melanerpes formicivorus*
Various, Picidae
Worm
Black cut, *Agrotis ipsilon*
Cotton leaf, *Spodoptera littoralis*
Earth, *Allolobophora*, *Eisenia*, *Lumbricus*, *Octochaetus*
Horn, Sphyngidae
Lesser meal, *Alphitobius diaperinus*
Lug, *Arenicola cristata*
Manure, *Eisenia foetida*
Marine, *Nereis*, *Nephtys*
Oligochaete, *Lumbriculus variegatus*
Rag, *Hediste diversicolor*
Sand, *Nereis diversicolor*

Silk, *Bombyx mori*
Southern army, *Spodoptera eridanea*
Tiger, *Eisenia foetida*
Tobacco horn, *Manduca sexta*
Various, *Limnodrilus*, *Nais* sp., *Neanthes arenaceodentata*, *Paranais* sp., *Spirorbis lamellora*, *Stylodrilus* sp., *Tubifex*
Worms: **6** 44; **7** 8, 28, 50; **14** 35; **15** 8, 15; **17** 15; **21** 8; **31** 19.
Wren
Bush, *Xenicus longipus*
House, *Troglodytes aedon*
Rock, *Xenicus gilviventris*
Xenicus gilviventris: **30** 24.
Xenicus longipes: **30** 6, 24.
Xenopus laevis: **5** 31, 35; **11** 49; **17** 36; **26** 9, 64, 65; **28** 12; **29** 79, 81; **30** 17; **34** 13, 14.
Xiphias gladias: **5** 14; **10** 30; **33** 25; **34** 30.
Yeast, *Cryptococcus terrens*, *Rhodotorula* sp., *Saccharomyces*, *Torulopsis glabrata*
Yeasts: **3** 26; **12** 9, 41; **17** 19; **34** 13, 38, 65.
Yellowtail, *Seriola quinqueradiata* (also *Seriola lalandei*)
Yellowhead, *Mohoua ochrocephala*
Zalophus californianus: **2** 10; **5** 25, 49; **10** 39, 43; **14** 52; **32** 17, 19.
Zannichellia sp.: **18** 23, 24; **28** 8.
Zapus princeps: **6** 15.
Zea mays: **3** iii, 1, 4, 5, 15, 17, 21, 26-28; **4** 19; **5** 22; **6** 13; **8** 16; **9** 1; **12** 12, 43; **14** 48, 56; **15** 28; **18** iii, 1, 3, 6-8, 12, 15, 33, 41; **19** 22, 45; **20** 11, 13; **21** 6; **22** 2, 8; **23** 3, 12, 19, 33; **24** 2, 3, 15, 36; **25** 7; **26** 51; **28** 7; **32** 20; **33** 15, 39, 43; **34** 22.
Zebrafish, *Brachydanio rerio*
Zenaida (also *Zenaidura*) *macroura*: **7** 23, 50, 60; **10** 35; **14** 2, 85; **30** 23.
Zingiber officinale: **29** 24.
Ziphius cavirostris: **7** 26; **31** 31, 32.
Ziphius sp.: **31** 34.
Zizania aquatica: **14** 70.
Zostera marina: **18** 25; **26** 18, 40, 66.
Zostera spp.: **33** 15, 38.
Zygaena filipendulae: **23** 15.
Zygaena trifolii: **23** 20.
Zygnema sp.: **34** 32.
Zylorhiza spp.: **5** 6.
Zyzomys argurus: **30** 36.

Publications in the Patuxent Wildlife Research Center Contaminant Hazard Reviews (CHR) series.[a]

CHR Report Number and Subject (year of publication)[b]	NTIS Order Number and Price Code[c]	FWRS MIN no.[d]
1. Mirex (1985)	PB85-203081, PC A04	809680131
2. Cadmium (1985)	PB86-116779, PC A04	809680132
3. Carbofuran (1985)	PB86-126885, PC A03	809680133
4. Toxaphene (1985)	PB86-127354, PC A03	809680134
5. Selenium (1985)	PB86-137346, PC A04	809680135
6. Chromium (1986)	PB86-141298, PC A04	809680136
7. Polychlorinated Biphenyls (1986)	PB86-170057, PC A05	809680137
8. Dioxins (1986)	PB86-173903, PC A03	809680138
9. Diazinon (1986)	PB86-235074, PC A03	809680139
10. Mercury (1987)	PB87-179115, PC A06	809680140
11. Polycyclic Aromatic Hydrocarbons (1987)	PB87-189825, PC A05	809680141
12. Arsenic (1988)	PB88-169404, PC A06	809680142
13. Chlorpyrifos (1988)	PB88-187885, PC A03	809680143
14. Lead (1988)	PB88-193081, PC A07	809680144
15. Tin (1989)	PB89-139620, PC A05	809680145
16. Index to Species (1989)	PB89-165161, PC A04	809680146
17. Pentachlorophenol (1989)	PB89-187173, PC A05	809680147
18. Atrazine (1989)	PB89-204671, PC A04	809680148
19. Molybdenum (1989)	PB89-235998, PC A04	809680149
20. Boron (1990)	PB90-240821, PC A03	809010009
21. Chlordane (1990)	PB91-114223, PC A04	809110035
22. Paraquat (1990)	PB31-114231, PC A03	809110036
23. Cyanide (1991)	PB94-120144, PC A04	809220091
24. Fenvalerate (1992)	PB92-205541, PC A03	809210027
25. Diflubenzuron (1992)	PB94-120136, PC A03	809210022
26. Zinc (1993)	PB93-197853, PC A06	809320139
27. Famphur (1994)	PB94-156767, PC A03	809420253
28. Acrolein (1994)	PB94-215910, PC A03	809480099
29. Radiation (1994)	PB95-192225, PC A07	809520114
30. Sodium Monofluoroacetate (1080) (1995)	PB95-189007, PC A04	809520113
31. Planar PCBs (1996)	PB97-150742, PC A06	809780006
32. Silver (1996)	PB98-112352, PC A05	809780155
33. Copper (1998)	ADA 347472, PC A07	809880055
34. Nickel (1998)	pending	809880089

[a] Copies of individual reports, if available, may be obtained free from the author, Ronald Eisler, USGS Patuxent Wildlife Research Center, Laurel MD 20708-4017; telephone 301-497-5724; FAX 301-497-5744; email Ronald_Eisler@usgs.gov

[b] Printed supply exhausted of CHR 1-12, 14, 20, 22-24, and 26; photocopy will be supplied as staff time permits. A CD ROM disc of CHR 1-28 is now available; please contact Librarian at PWRC (telephone 301-497-5550/5551; FAX 301-495-5545; email Wanda_Manning@usgs.gov or Lynda_Garrett@usgs.gov) for ordering.

[c] Copies may be purchased from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161 (telephone 800-553-6847 or 703-605-6000; FAX 703-605-6900; email orders@ntis.fedworld.gov; internet www.ntis.gov). NTIS order number and paper copy price code is given above; contact NTIS for microfiche price codes. Copies may also be purchased from the Defense Technical Information Center, 8725 Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218.

[d] Fish and Wildlife Reference Service, 5430 Grosvenor Lane, Bethesda MD 20814 (telephone 800-582-3421; FAX 301-564-4059; email fwrs@mail.fws.gov; internet www.fws.gov/search/fwrefser.html); use their MIN number for photocopy or microfiche.

REPORT DOCUMENTATION PAGE

Form approved
OMB No. 0704-0188

Public reporting burden for this collection is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)

2. REPORT DATE
March 1999

3. REPORT TYPE AND DATES COVERED
Biological Science Report

4. TITLE AND SUBTITLE
Cumulative Index to Chemicals and to Common and Scientific Names of Species Listed in Contaminant Hazard Reviews 1 through 34

5. FUNDING NUMBERS

6. AUTHOR(S)
Ronald Eisler

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESSES
U.S. Department of the Interior
U.S. Geological Survey
Biological Resources Division

8. PERFORMING ORGANIZATION REPORT NUMBER
USGS/BRD/BSR—1999-0002

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESSES
U.S. Department of the Interior
U.S. Geological Survey

10. SPONSORING, MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
Release unlimited. Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (1-800-553-6847 or 703-487-4650). Available to registered users from the Defense Technical Information Center, Attn: Help Desk, 8722 Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218 (1-800-225-3842 or 703-767-9050).

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

The Contaminant Hazard Reviews (CHR) series—sponsored by the U.S. Geological Survey Patuxent Wildlife Research Center—synthesizes ecotoxicological data for selected environmental contaminants, with emphasis on hazards to native species of flora and fauna. From 1985 through 1998, 34 reviews were published in various report series of the U.S. Department of the Interior on agricultural pesticides (acrolein, atrazine, carbofuran, chlordane, chlorpyrifos, diazinon, diflubenzuron, famphur, fenvalerate, mirex, paraquat, toxaphene), metals and metalloids (arsenic, boron, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, tin, zinc), mammalian biocides (sodium monofluoroacetate), organic industrial and municipal wastes (dioxins, pentachlorophenol, polycyclic aromatic hydrocarbons, polychlorinated biphenyls), mining wastes (cyanide), and ionizing radiations. This current report is a cumulative index to the common and scientific names of all biological species listed in the first 34 reports in the CHR series, with individual species cross-referenced by contaminant and corresponding page numbers. A similar index for chemicals is included.

14. SUBJECT TERMS (Keywords)
Index, mirex, cadmium, carbofuran, toxaphene, selenium, chromium, polychlorinated biphenyls, dioxins, diazinon, mercury, nickel, polycyclic aromatic hydrocarbons, arsenic, chlorpyrifos, lead, tin, pentachlorophenol, atrazine, molybdenum, boron, chlordane, paraquat, cyanide, fenvalerate, diflubenzuron, zinc, famphur, acrolein, radiation, sodium monofluoroacetate, silver, copper, wildlife, birds, mammals, amphibians, reptiles, fish, invertebrates, plants

15. NUMBER OF PAGES
iii+66 pp.

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	Unlimited

National Wetlands Research Center

Production Staff

Chief, Technology and Informatics Branch Gaye S. Farris

Writer/Editor Beth A. Vairin

Visual Information Specialist Susan M. Lauritzen

Editorial Assistant Rhonda F. Davis

Other Production Assistance

Technical Editors Tammy Charron, Daryl S. McGrath, and Shannon E. Price, Johnson Controls World Services

Technical Illustrator Natalie Gormanous Trahan, Johnson Controls World Services

NOTE: Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the U. S. Government.

U.S. Department of the Interior
U.S. Geological Survey

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This responsibility includes fostering the sound use of our lands and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities.