



Information Resources on Amphibians, Fish & Reptiles Used in Biomedical Research

August 2001

Updated by: [Information Resources on Amphibians, 2008](#) and [Information Resources on Reptiles, 2008](#)

Updates: [Information Resources for Reptiles, Amphibians, Fish, & Cephalopods Used in Biomedical Research, 1995](#)

AWIC Resource Series No. 10

Compiled by:
Richard L. Crawford
D'Anna Jensen
Tim Allen

U.S. Department of Agriculture
Agricultural Research Service
National Agricultural Library
Animal Welfare Information Center
10301 Baltimore Ave.
Beltsville, MD 20705

Contact us: <http://awic.nal.usda.gov/contact-us>
Web site: <http://awic.nal.usda.gov>

Published in cooperation with the Virginia-Maryland Regional College of Veterinary Medicine.

Table of Contents

- [Introduction](#)
 - [General](#)
 - [Amphibians](#)
 - [General](#)
 - [Amphibians as Biomedical Models](#)
 - [Amphibian Care and Use](#)
 - [Fish](#)
 - [General](#)
 - [Fish as Biomedical Models](#)
 - [Fish Care and Use](#)
 - [Reptiles](#)
 - [General](#)
 - [Reptiles as Biomedical Models](#)
 - [Reptile Care and Use](#)
 - [Useful Websites and Resources](#)
 - [Amphibians and Reptiles](#)
 - [Fish](#)
-

Introduction

Rodents, non-human primates, dogs, cats, and farm animals have long been the preferred animal models in biomedical research. Their behavioral repertoire and physiological responses to stimuli are more similar to human systems than are lower organisms. However, as amphibians, fish and reptiles become better understood in the field and laboratory, their advantages as alternative animal models are being revealed.

While there are about 4,000 known species of mammals, there are over 4,000 species of amphibian, 6,000 species of reptiles, and more than 20,000 species of fish. Such diversity allows for a wide range of research on specific organs, tissues, and systems that are similar in function, but often less complex than in mammals. Due to differential rates of ova maturation and numbers of gametes produced, elasmobranchs (sharks, skates, rays) are used to study fetal nutrition and toxicology as well as gametogenesis. The monkfish is an important insulin resource for researchers since it contains 20 to 40 times more insulin-producing tissue than the laboratory rat.

Reptiles and amphibians contribute to studies in genetics, embryology, developmental biology, ethology, endocrinology, and immunology. Salamanders and newts are models for limb regeneration. Fetal heart cells of the axolotl (Mexican salamander) will divide and beat *in vitro*. Frogs have played a major role in the development of communication theory. The common anole lizard is used in behavioral studies and can be induced to produce the symptoms of Parkinson's disease. Typical reptile and amphibian studies include aggression, stress physiology, reproductive cycles and dysfunction, and the effects of neurotoxins.

In contrast to mammals and birds which are endothermic (their body temperature is regulated and maintained internally), reptiles, amphibians, and fish are ectothermic with body temperature primarily regulated by ambient temperatures. Since metabolism is driven by body temperature, the rate of normal body functions in these species may be artificially increased or decreased. Thus endocrine, immunological, inflammation, cell physiology, and many other pathways can be easily manipulated.

A major concern to those who might use these species is the necessity of providing a suitable laboratory environment. Unlike mammals and birds, reptiles, amphibians and fish require very specific micro environments. For reptiles and amphibians, basking sites, water source and water temperature, relative humidity, photo period and type of lighting, ambient temperature, group density, cover, method of food preparation and presentation are all factors that

influence whether or not the animals will function normally in the laboratory. Fish live in a totally aqueous environment. Type of water (fresh, salt, brackish), pH, salinity, school density, cover, dissolved oxygen, lighting, and filtration are necessary considerations that require monitoring. The animal=s needs are often species-specific and failure to meet them results in stress-induced diseases, low growth rate, poor feed efficiency, cannibalism, and failure to reproduce.

Information Resources on Amphibians, Fish & Reptiles Used in Biomedical Research is an attempt to collect in a single volume much of the current information regarding the care and use of these alternative animal models. It is intended only as an introduction to these species as comprehensive coverage would fill several volumes. The authors have selected sample articles that typify recent research. Each animal group has a section of articles and books pertaining to its use in biomedical research followed by a section on its care and use. The latter section highlights not only husbandry and maintenance of particular species, but also regulations, guidelines, and veterinary aspects such as appropriate anesthesia or euthanasia. Because several citations cross phyla, general sections are provided. A final section provides information resources with names and addresses of organizations and their publications that can provide further information. If the citation can be found at the National Agricultural Library (NAL), its call number is given. Information on how to request materials that are included in the collection of the National Agricultural Library (NAL) may be found on the Collection Services website at <http://www.nal.usda.gov/borrow-materials>. Please read carefully as there are certain restrictions on media and document types.

GENERAL

Gene transfer technology in aquaculture. Levy, J.A.; Marins, L.F.; Sanchez, A., *Hydrobiologia* 2000, v. 420 (1), p. 91-94.
ISSN: 0018-8158.

NAL call no: 410 H992

Descriptors: Biotechnology, fish culture, transgenic fish, gene transfer.

Reptiles & amphibians of Australia. 6th ed. Cogger, Harold G., Chatswood. N.S.W.: Reed, 2000, 808 p., ill. Ref. ISBN: 1876334339.

NAL call no: QL663.A1C63 2000

Descriptors: Reptiles, Amphibians, Australia.

Energetics of free-ranging mammals, reptiles and birds. Nagy, K.A.; Girard, I.A.; Brown, T.A., *Annual Review of Nutrition*, 1999, v. 19 p. 247-277. Annual Reviews Inc., Palo Alto, CA. ISSN: 0199-9885.

NAL call no: QP141.A1A63

Descriptors: energy expenditure, species differences, energy requirements.

Comparison of four monoclonal antibodies reacting with gastric gland mucous cell-derived mucins of rat and frogs.

Kurihara, M.; Ishihara, K.; Ota, H.; Katsuyama, T.; Nakano, T.; Naito, T.; Hotta, K., 1998, *Comparative Biochemistry and Physiology-B*. v. 121B, (3), p. 315-321. ISSN: 0305-0491.

NAL call no: QP501.C6

Descriptors: antibodies, Rana, immunoprecipitation, biochemical composition.

Encyclopedia of reptiles and amphibians. 2nd ed., Cogger, Harold G.; Zweifel, Richard George; Kirshner, David.

McMahons Point, N.S.W.: Weldon Owen, 1998, 240 p., ill., maps. ISBN: 0121785602.

NAL call no: QL641.E63 1998

Descriptors: reptiles, amphibians, encyclopedia.

A key to amphibians and reptiles of the continental United States and Canada. Powell, Robert; Collins, Joseph T.; Hooper, Errol D. Lawrence: University Press of Kansas, c1998, 131 p., ill., map. ISBN: 0700609296.

NAL call no: QL652.P69 1998

Descriptors: reptiles, identification, United States, Canada.

Lymphocyte development in fish and amphibians. Hansen, J.D.; Zapata, A.G. *Immunological Reviews*, 1998, v. 166, p. 199-220, 1998. ISSN: 0105-2896.

NAL call no: QP89.T7

Descriptors: lymphocytes, lymphopoiesis, transcription factors, blood cells.

Use of explant cultures of peripheral nerves of adult vertebrates to study axonal regeneration in vitro. *Progress in Neurobiology*. 1998, v. 54 (4), p. 459-480. ISSN: 0301-0082.

NAL call no: QP361.P7

Descriptors: vertebrates, peripheral nerves, explant cultures, regeneration.

Advances in herpetoculture. Special publication of the International Herpetological Symposium, Inc.: no.1 [s.1.]: c1996, xiii, 167 p., ill.

NAL call no: SF515.A38 1996

Descriptors: amphibian, reptile, culture.

Fish and amphibian models used in laboratory research. Kane, A.S.; Gonzales, J.F.; Reimschuessel, R., *Lab Animal*, 1996, v. 25 (6), p. 33-38. Nature Publishing Co., N.Y., N.Y. ISSN: 0093-7355.

NAL call no: QL55.A1L33

Descriptors: fishes, amphibia, animal models, laboratory animals.

Setting guidelines for the care of reptiles, amphibians and fishes. Pough, F.H., Scientist Center for Animal Welfare (SCAW), Spring 1996, v. 18 (1), p. 3-8. ISSN: 1052-7559.

NAL call no: QL55.N48

Descriptors: reptiles, amphibia, fishes, guidelines, animal care, husbandry.

Veterinary nutritional management of amphibians and reptiles. Donoghue, S. *Journal of the American Veterinary Medical Association*, June 1, 1996, v. 208 (11), p. 1816-1820. ISSN: 0003-1488.

NAL call no: 41.8 Am3

Descriptors: amphibia, reptiles, nutrition, husbandry, metabolism, disorders.

Evaluation of hypothermia for anesthesia in reptiles and amphibians. Martin, B.J., Washington, DC: Institute of Laboratory Animal Resources, National Research Council, v. 37 (4), p. 186-190. 1995. ISSN: 1084-2020.

NAL call no: QL55.A1143

Descriptors: reptiles, amphibia, anesthesia, hypothermia, safety, animal welfare.

Self assessment color review of reptiles and amphibians. Frye, Frederick L.; Williams, David L., Iowa State University Press, 1995, 192 p. col. Ill. ISBN: 0813829909.

NAL call no: SF997.5.R4F797 1995

Descriptors: reptiles, amphibians, diseases, miscellaneous, pictorial works.

Vitellogenin induction by xenobiotic estrogens in the red-eared turtle and African clawed frog. Palmer, B.D.; Palmer, S.K., *Wildlife Development*, 1995, v. 103 (4), Supp. P. 19-25. *Environment and Health Perspectives*, NIH 95-218, v. 103 (4) Supp.

Descriptors: xenobiotics, estrogens, vitellogenin, pollution detection.

Anesthesia of reptiles and amphibians. *Proceedings of the North American Veterinary Conference*, Gainesville, FL: Eastern States Veterinary Association, 1994, p. 863.

NAL call no: SF605.N672

Descriptors: reptiles, amphibia, anesthesia.

Captive management and conservation of amphibians and reptiles. Murphy, James B.; Adler, Kraig; Collins, Joseph T. *Contributions to Herpetology*, v. 11: Society for the Study of Amphibians and Reptiles, 1994, 408 p., ill. ISBN: 0916984338.

NAL call no: SF515.C47 1994

Descriptors: captive, amphibians, reptiles, culture.

The diagnosis and treatment of commonly observed ophthalmic conditions in fishes and frogs. *Proceedings of the North American Veterinary Conference*. Gainesville, FL: Eastern States Veterinary Association, 1994, p. 782-783.

NAL call no: SF605.N672

Descriptors: fishes, frogs, diagnosis.

Medical herpetology. Grenard, Steve. Pottsville, PA: *Reptile & Amphibian Magazine*, 1994, xiii, 139 p. ISBN: 0964103206.

NAL call no: RA1242.S53G74 1994

Descriptors: reptiles, health aspects, amphibians, poisonous snakes.

Reptiles and amphibians in captivity: Breeding, longevity and inventory. Current Jan.1, 1994. Slavens, Frank L.; Slavens, Kate, Seattle, WA: Slaveware, c1994. 532 p. ill.

NAL call no: SF515.S53 1994

Descriptors: reptiles, amphibians, captivity, breeding collections.

Herpetology: An introductory biology of amphibians and reptiles. Zug, George R., San Diego: Academic Press, c1993.

xv, 527 p. ill., maps. ISBN: 0127826203.
NAL call no: QL641.Z84 1993
Descriptors: Herpetology.

The reptile and amphibian keeper=s dictionary: An A to Z of herpetology. Wareham, David C. London: Blandford, 1993, 248 p., ill. ISBN: 0713723181.
NAL call no: SF515.W37 1993
Descriptors: reptile, amphibian, dictionary.

Alternatives to the use of mammals for pain research. Stevens, C.W. *Life Science*, v. 50 (13) p.901-912 (1992).
NAL call no: 442.8 L62
Descriptors: pharmacology, physiology, biochemistry, ethics, lower vertebrates.

The care of reptiles and amphibians in captivity. Rev. 3rd ed. Mattison, Christopher. Distributed in the U.S. by Sterling Pub. Co., 1992, 317 p. 16 p. of plates; ill. ISBN: 0713723386.
NAL call no: SF459.A45M37 1992
Descriptors: reptiles, amphibians, captive.

The Care and Use of Amphibians, Reptiles, and Fish in Research. Schaeffer, D.O.; Kleinow, K.M. and Krulisch, L. (eds.), Scientists Center for Animal Welfare, Bethesda, MD; 1992, 204 pp.
NAL call no: SF406.C35 1992
Descriptors: anesthesia, euthanasia, husbandry, nutrition, behavior, disease, medicine.

Environmental Physiology of the Amphibia. Feder, M.E. and Burggren, W.A. (eds.), University of Chicago Press, Chicago, IL; 1992.
NAL call no: QL669.2.E58 1992
Descriptors: anatomy, endocrinology, neurology, immunology.

Live Animal Regulations. International Air Transport Association, Montreal-Geneva, 19th edition; 1992, 240 pp.
NAL call no: HE9788.4.A55I57
Descriptors: fish, reptiles, amphibians, container requirements, feeding requirements, and documents.

Recognition and Alleviation of Pain and Distress in Laboratory Animals. Institute of Laboratory Animal Resources, National Academy Press, Washington, DC; 1992, 137 pp.
NAL call no: SF996.5.R43
Descriptors: euthanasia, anesthesia, recommendations, animal welfare, hypothermia.

Activity-dependent plasticity in the visual systems of frogs and fish. Cline, H.T. *Trends in Neurosciences*, v.14 (3), p.104-111 (1991).
NAL call no: RC321.T74
Descriptors: model, selective synapse, neurophysiology.

Atlas of Abnormalities. A Guide for Performance of Fetax. Bantle, J.A.; Dumont, J.N.; Finch, R.A. and Linder, G. American Society for Testing and Materials, 1991.
NAL call no: RA1224.45 A85 1991
Descriptors: Developmental toxicology, animal models, atlases, teratogenicity testing.

Atlas of diagnostic radiology of exotic pets: Small mammals, birds, reptiles and amphibians. International edition. Philadelphia, PA. W.B. Saunders, c1991, 224 p. ill. ISBN: 0721634931.
NAL call no: SF757.8 A84 Ov
Descriptors: veterinary radiology atlases, diseases, diagnosis.

The care and use of amphibians, reptiles and fish in research. (Special conference report, part 1) Guttman, H.N. *SCAW*

Newsletter, v. 13 (2), p.5-7 (1991).

NAL call no: QL55.N48

Descriptors: IACUC, husbandry, guidelines.

The care and use of amphibians, reptiles and fish in research. (Special conference report, part 2) Guttman, H.N. *SCAW Newsletter*, v. 13 (3), p.10-11 (1991).

NAL call no: QL55.N48

Descriptors: handling, nutrition, health.

Energy requirements for maintenance and growth of wild mammals, birds and reptiles in captivity. Kirkwood, J.K. *Journal of Nutrition*, v.121 (11), p.S29-S34 (1991).

NAL call no: 389.8 J82

Descriptors: nutrition, diet, metabolism, development.

4th International Colloquium on pathology and medicine of Reptiles and Amphibians. Gabrisch, K.; Schildger, Bernd; Zwart, P.; German Veterinary Association. *Giessen: Deutsche Veterinarmedizinische Gesellschaft*, 1991, 330 p. ill. ISBN: 3924851638.

Language: German, English.

NAL call no: SF997.5.R4I57 1991

Descriptors: reptiles, amphibians, diseases, congresses, veterinary pathology.

Learning and Memory: A Biological View. Martinez, J.L. and Kesner, R.P. (eds.), Academic Press, San Diego, CA; 1991, 563 pp.

NAL call no: QP406.L43 1991

Descriptors: brain-behavior relations, anatomy, pharmacology, lesions, electrophysiology, invertebrates, vertebrates.

National Institute on Aging, NIH, workshop on alternative animal models for research on aging. Anonymous.

Experimental Gerontology, v. 26 (5), p. 411-439 (1991).

NAL call no: QP86.E85

Descriptors: human aging, birds, mammals, fish, reptiles, invertebrates, cost analysis.

Nutrition of aquaculture species. Lovell, R.T., 1991. *Journal of Animal Science*, v. 69 (10), p. 4193-4200, Oct. 1991. American Society of Animal Science, Champaign, IL. ISSN: 0021-8812.

NAL call no: 49 J82

Descriptors: aquaculture, nutrient requirements, fishes, energy requirements, food intake.

Ontogeny of cardiovascular and respiratory physiology in lower vertebrates. Burggren, W.W.; Pinder, A.W., *Annual Review of Physiology*, 1991, v. 53, p. 107-135. ISSN: 0066-4278.

NAL call no: 444.8 AN7

Descriptors: lower vertebrates, cardiovascular, respiratory, physiology, ontogeny.

An overview of animal cancer registries in the United States and suggestions for improved applications. Monsein, D.L. *Compendium on Continuing Education for the Practicing Veterinarian* Princeton Jct., NJ; v.13 (7), p.1139-1146 (1991).

NAL call no: SF601.C66

Descriptors: fish, amphibians, reptiles, collection, storage, interpretation of data, data collecting, computerization.

Production of aquatic animals: Crustaceans, molluscs, amphibians, and reptiles. World animal science. C. Production system approach. Amsterdam; New York: Elsevier Science, 1991, xii, 244 p., ill. ISBN: 0444883126.

NAL call no: SH370.P76 1990

Descriptors: culture, shell fish, amphibian, reptile, aquaculture.

Recommendations for the care of amphibians and reptiles in academic institutions. ILAR News. Institute of Laboratory Animal Resources, National Research Council, Fall 1991, v. 33 (4), p. S1-S22. ISSN: 0018-9960.

NAL call no: QL55.A1I43

Descriptors: amphibia, reptiles, laboratory rearing.

Production of Aquatic Animals: Crustaceans, Molluscs, Amphibians, and Reptiles. Nash, C.E. (ed.), Elsevier Science Publishing Co., New York, NY; 1991, 244 pp.

NAL call no: SH370.P76 1990

Descriptors: herpetoculture, aquaculture, shell fish culture.

Anesthesia of amphibians and reptiles. *Anesthesia and Analgesia in Laboratory Animals Proceedings, 1990 Forum.* American College of Laboratory Animal Medicine, Columbia, MD, May 3-6, 1990, p. 103-105.

NAL call no: SF914.A53 1990

Descriptors: amphibia, reptiles, anesthesia.

Cytogenetics of amphibians and reptiles. World Congress of Herpetology, Canterbury, England. Basel; Boston: Birkhauser, 1990, xi, 270 p. ill. ISBN: 3764323582, 0817623582.
NAL call no: QL668.5.C97
Descriptors: amphibians, reptiles, cytogenetics, Congresses.

The Experimental Animal in Biomedical Research, Vol. I: A Survey of Scientific and Ethical Issues for Investigators. Rollin, B.E. and Kesel, M.L. (eds.), CRC Press, Inc., Boca Raton, FL; 1990, 452 pp.
NAL call no: R853.A53E86 1990
Descriptors: philosophy, pain, animal models, cognition.

Model Patients: Among the inhabitants of the animal world are some that hold the cures for many human afflictions. McCourt, R. *Discover*. August 1990, pp. 36-41.
NAL call no: Q1.D57
Descriptors: fish, models cell culture, diabetes, amphibians, embryonic heart cell, biochemistry.

The relief of pain in cold-blooded vertebrates. Arena, P.C. and Richardson, K.C. *ACCART News*. Australian Council for the Care of Animals in Research and Teaching, v. 3 (1) p. 1-4 (1990).
NAL call no: SF405.5.A3
Descriptors: ectotherms, fish, amphibians, reptiles.

The choice of nonmammalian models in biomedical studies. Kleinzeller, A. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 1-9.
NAL call no: QL55.N66
Descriptors: osmoregulation, electrolytes, absorption, secretion, urine concentration, Krogh Principle.

Ethical and regulatory considerations in the use of cold-blooded vertebrates in biomedical research. Dresser, R. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 369-376.
NAL call no: QL55.N66
Descriptors: Federal law, policy, ethics, issues, care and use.

Euthanasia of amphibians and reptiles: Report of a Joint UFAW/WSPA working party. South Mimms, Potters Bar, Herts, U.K.: Universities Federation for Animal Welfare; London, U.K.: World Society for the Protection of Animals, c1989. 35 p. ill. ISBN: 0900767464.
NAL call no: HV4731.E97
Descriptors: euthanasia, amphibians, reptiles, animal welfare.

Herpetological Husbandry for the Naturalist. Demeter, B. Herpetology Department, National Zoological Park, Washington, DC; 1989.
Descriptors: housing, care, maintenance, disease, general biology.

Humane methods of killing fish, amphibians and birds. Zwart, P.; De Vries, H.R. and Cooper, J.E. *Tijdschrift Voor Diergeneeskunde*. v.114 (10), p. 557-565 (1989).
NAL call no: 41.8 T431
Descriptors: euthanasia, Netherlands.

A molecular, evolutionary perspective of nonmammalian models in biological research. Bitensky, M.W. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 353-367.
NAL call no: QL55.N66
Descriptors: genes, conservative habit, parsimonious habit, extinctions, utility, metabolism, cloning, cell-adhesion, signal transduction, external awareness.

Use of ivermectin in laboratory and exotic mammals and in birds, fish, and reptiles. Soll, M.D. In: *Ivermectin and Abamectin*. Campbell, W.E. (ed.), Springer-Verlag, New York, NY; 1989, pp. 260-286.
NAL call no: SF918.I83I83

Descriptors: snakes, chelonians, copepoda, nematodes, dose, toxicity.

Viruses of Lower Vertebrates. Ahne, W. and Kurstak, E. (eds.), Springer-Verlag, New York, NY; 1989, 518 pp.
NAL call no: QR321.V57
Descriptors: virology, symposium, herpetology, ichthyology.

Field Research Guidelines. Orland, F.B. (ed.), Scientists Center for Animal Welfare, Bethesda, MD; 1988, 23 pp.
NAL call no: HV4704.F5
Descriptors: manipulation, observation, marking.

Guidelines for reptiles and amphibians. Pisani, G. In: *Field Research Guidelines: Impact on Animal Care and Use Committees.* Orland, F.B. (ed.). Scientists Center for Animal Welfare, Bethesda, MD; 1988, p. 8.
NAL call no: HV4704.F5
Descriptors: manipulation, rain, field research, marking.

The care of reptiles and amphibians in captivity. Rev. ed. Poole: Blandford Press, NY: Distributed in the U.S. by Sterling Pub. Co., 1987. 317 p., 16 p. of plates, ill. ISBN: 0713718269.
NAL call no: SF459.A45M37 1987
Descriptors: amphibians, reptiles, care.

Guidelines for the use of live Amphibians and Reptiles in field research. American Society of Ichthyologists and Herpetologists. Lawrence, KS: ASIH, 1987, 14 p.
NAL call no: HV4932.G8
Descriptors: amphibians, reptiles, research, experimentation.

The UFAW Handbook on the Care and Management of Laboratory Animals. Poole, T.B. Bath Press, Avon, Great Britain, 1987, pp. 753-783.
NAL call no: QL55.U5 1987
Descriptors: reptiles, amphibia, fish, environment, anesthesia, analgesia, euthanasia, housing.

The Encyclopedia of Reptiles and Amphibians. Halliday, T.R. Facts on File, New York, NY; 1986, 143 pp.
NAL call no: QL641.H35 1986
Descriptors: models, care and use, taxonomy, physiology, natural history.

Command systems for initiating locomotion in fish and amphibians: Parallels to initiation systems in mammals.
Neurobiology of vertebrate locomotion: Proceedings of an international symposium held at Wenner-Gren Center, Stockholm, June 17-19, 1985, edited by Sten Grillner. Basingstoke: Macmillan, 1986, p. 3-20. ill.
NAL call no: QP301.N48
Descriptors: locomotion, fish, amphibians.

Models for Biomedical Research: A New Perspective. Morowitz, H.J. National Academy Press, Washington, DC; 1985, 180 pp.
NAL call no: R857.M3M9
Descriptors: *in vitro*, nonmammalian vertebrates, invertebrates, models, immunology, learning, disease and aging, development.

Ascaridoid nematodes. *Diseases of amphibians and reptiles.* Edited by Gerald, L. Hoff. Frederick L. Frye and Elliott R. Jacobson. N.Y. Plenum Press. c1984, p. 219-245. ill.
NAL call no: SF997.5.A45D57
Descriptors: ascaridoid nematodes, amphibians, reptiles.

Binding characteristics of a fluorescent analogue of diphosphoglyceric acid to human, amphibian and fish hemoglobins. *Comparative Biochemistry and Physiology.* Oxford: Pergamon Press. 1984, v. 79 (2), p. 195-201.
ISSN: 0123-7399.

NAL call no: QP501.C6

Descriptors: amphibians, fish, hemoglobins.

Comparative studies on the role of calcium in triggering subcellular damage in cardiac muscle. Rudge, M.F. and Duncan, C.J. *Comparative Biochemistry and Physiology. A: Comparative Physiology*, v. 77(3), p. 459-468 (1984).

NAL call no: QP1.C6

Descriptors: caffeine, toxicity, nonmammalian model.

Lung worms. *Diseases of amphibians and reptiles.* Edited by Gerald L. Hoff, Frederick L. Frye, and Elliott R. Jacobson.

N.Y. Plenum Press. c1984, p. 213-217. ill.

NAL call no: SF997.5.A45D57

Descriptors: lung worms, amphibians, reptiles.

Non-hemoparasitic protozoans. *Diseases of amphibians and reptiles.* Edited by Gerald L. Hoff, Frederick L. Frye and Elliott R. Jacobson. N.Y. Plenum Press. c1984, p. 259-384. ill.

NAL call no: SF997.5.A45D57

Descriptors: non-hemoparasitic protozoans, amphibians, reptiles.

Pentastomiasis. *Diseases of amphibians and reptiles.* Edited by Gerald L. Hoff, Frederick L. Frye and Elliott R. Jacobson.

N.Y. Plenum Press. c1984, p. 205-211. ill.

NAL call no: SF997.5.A45D57

Descriptors: pentastomiasis, amphibians, reptiles.

Platyhelminths. *Diseases of amphibians and reptiles.* Edited by Gerald L. Hoff, Frederick L. Frye and Elliott R. Jacobson.

N.Y. Plenum Press. c1984, p. 247-258.

NAL call no: SF997.5.A45D57

Descriptors: platyhelminths, amphibians, reptiles.

Central nervous system regulation of pituitary melanocyte-stimulating hormone: Fishes, amphibians, reptiles, mammals. *Advances in Comparative Physiology and Biochemistry.* N.Y.: Academic Press, 1982, v. 8, p. 53-71, ill. ISSN: 0065-244X.

NAL call no: 444 L952

Descriptors: fish, amphibians, reptiles, pituitary, hormones.

The comparative physiology of calcium regulation in submammal vertebrates: Fishes, amphibians, reptiles, birds.

Advances in Comparative Physiology and Biochemistry. N.Y.: Academic Press, 1982, v. 8, p. 73-110. ISSN: 0065-244X.

NAL call no: 444 L952

Descriptors: fish, amphibians, reptiles, birds, calcium regulation.

The comparative physiology of diving in vertebrates: Amphibians, reptiles, birds, mammals. *Advances in Comparative Physiology and Biochemistry.* N.Y.: Academic Press, 1982, v. 8, p. 179-364, ill. ISSN: 0065-244X.

NAL call no: 444 L952

Descriptors: diving, amphibians, reptiles, birds, mammals.

Drug and chemical control of aquatic animal diseases. Boonyaratpalin, S., *Thai Fisheries Gazette.* 1981, v. 34 (5), p. 509-522.

NAL call no: SH307.T5W3

Descriptors: husbandry diseases, fish diseases, aquaculture, parasites.

Intra-renal renin angiotensin system in primitive vertebrates. Nishimura, H. and Bailey, J.R. *Kidney International.* v. 27(12), p. S185-S192 (1981).

NAL call no: RC902.A1K53

Descriptors: kidney, ion regulation, polypeptide.

- Veterinary biology and medicine of captive amphibians and reptiles.** Marcus, Leonard. Lea & Febiger, 1981, xii, 239 p., ill.
NAL call no: SF997.5.A45M37
Descriptors: biology, medicine, amphibians, reptiles.
- Appendix VIII to XVI.** Canadian Council on Animal Care. *Guide to the Care and Use of Experimental Animals.* Canadian Council on Animal Care, Ottawa, Ontario; 1980, vol. 1, pp. 95-103.
NAL call no: SF406.C36
Descriptors: bleeding sites, tranquilizers, anesthetics, antimicrobial, euthanasia, dosage.
- Comparative studies on the immune system of fishes and amphibians: Antigen localization in the carp *Cyprinus carpio* L.** *Journal of Fish Diseases.* Oxford, Blackwell Scientific, Sept. 1980, v. 3 (5), p. 399-412. ill. ISSN: 0386-2290.
NAL call no: SH171.A1J68
Descriptors: fish, amphibians, immune system, antigen.
- Animals for Research: A Directory of Sources.** Institute of Laboratory Animal Resources, National Research Council, National Academy of Sciences, Washington, DC; 10th edition, 1979, 141 pp.
NAL call no: SF77.S86
Descriptors: wild caught versus captive bred, suppliers, biological materials, availability, sources.
- A Review of Marking Techniques for Amphibians and Reptiles.** Ferner, J.W. Society for the Study of Amphibians and Reptiles, Miscellaneous Pubs., Herpetological Circular No. 9, 1979.
NAL call no: QL60.5.F4
Descriptors: identification, methodology.
- Diseases of lower vertebrates and biomedical research.** Cooper, J.E. *Laboratory Animals.* v. 11(2), p. 119-123 (1977).
NAL call no: QL55.A1L3
Descriptors: pathology, propagation, anatomy.
- Resorption and distribution of drugs in amphibians and reptiles (frogs, toads, python) in varied body temperatures.** Low, George. Munich University, Fachbereich Tiermedizin. Inaugural Dissertation; 1977, no. 32. Munchen:s.n., 1977, 64 p.
NAL call no: 41.2 M9222 1977 no. 32
Language: German with a summary in English.
Descriptors: amphibians, reptiles, drug distribution and resorption.
- Recent advances in biotelemetry and their applications to measurements of pressure and electrical changes in the oviduct *in vivo*.** Mackay, R.S., *Biotelemetry.* v. 1(1), p.60-64 (1974).
NAL call no: QH324.9.B5B5
Descriptors: models, methods, ultrasonics.
- Keeping Reptiles and Amphibians.** Leutscher, A. Scribner Publishing, New York, NY; 1976, 164 pp.
NAL call no: SF459.R4L48
Descriptors: herpetology, maintenance, pets, light, feeding, health.
- Resources in Herpetology.** Wake, D.B., *Copeia*, 1975, 391. ISSN: 0045-8511.
- Chemical Zoology.** Florkin, M. and Scheer, B.T. (eds.), In: *Amphibia and Reptilia.* Academic Press, New York, NY; Vol. 9, 1974.
NAL call no: QL362.F5
Descriptors: thermoregulation, sodium and water balance, seasonal influences.
- Physiology of the Amphibia.** Lofts, B. (ed.), Academic Press, New York, NY; v. 2, 1974.

Descriptors: anatomy, endocrinology, neurology, immunology.

State Laws Regulating the Collecting of Reptiles and Amphibians in the Fifty United States. Czajka, A.F. and Nickerson, M.A.: MPM Press, Milwaukee, WI; 1974, 79 pp.

NAL call no: KF5640.Z95C93

Descriptors: legislation, herpetology.

Biology of the Reptilia. Gans, C. (ed.), Vol. 1-13, Academic Press, London; Vol. 14-15, Wiley Interscience, NY; Vol. 16, Alan R. Liss, NY; Vol. 17, University of Chicago Press, Chicago, IL; 1969 - present.

NAL call no: QL641.B5

Descriptors: immunology, anatomy, endocrinology, behavior, ecology, evolution.

AMPHIBIANS

GENERAL

Horned frogs. Hunziker, Raymond E., Neptune City, N.J.: T.F.H. Pub. c1994, 48 p., 1 p. col. ill.

NAL call no: SF459.F83H85 1994

Descriptors: frogs, pets.

White=s tree frogs. Coborn, John; Neptune City, N.J.: T.F.H. Pub. c1994, 48 p. Col. ill. ISBN: 0793802822.

NAL call no: SF459.F83C63 1994

Descriptors: frogs, pets, Hylidae.

Amphibians. Raphael, B.L., *Veterinary Clinics of North America Small Animal Practice*. Philadelphia, PA: W.B. Saunders Co., Nov. 1993, v. 23 (6), p. 1271-1286. ISSN: 0195-5616.

NAL call no: SF601.V523

Descriptors: amphibia, veterinary medicine.

Environmental physiology of the amphibians. Feder, Martin E.; Burggren, Warren W., Chicago University Press, 1992, viii, 646 p., ill. ISBN: 0226239438 (cloth), 0226239446 (paper).

NAL call no: QL669.2.E58 1992

Descriptors: amphibians, physiology, ecology.

Amphibians. Blommers-Schlosser, R.M.A., *Museum national d=histoire*, 1991, v, ill. maps.

NAL call no: QL337.M2F3 no. 75

Language: French.

Descriptors: amphibians.

A review and evaluation of the amphibian toxicological literature. Technical report series (Canadian Wildlife Service); no. 61, 1989, ii, 222 p. ISBN: 0662168380.

NAL call no: QL669.8.R48 1989

Descriptors: amphibians, water pollution, effect.

Salamanders and newts: A complete introduction. Bjorn, Byron. Neptune, N.J.: T.F.H. Publications, c1988, v. 91 [1] p. col. ill. ISBN: 0866223894 (pbk).

NAL call no: QL668.C2B56 1988

Descriptors: salamanders, newts, pets.

Introduction to amphibians. Frazer, J.F.D., *The UFAW handbook on the care and management of laboratory animals*.

Edited by Trevor B. Poole; Ruth Robinson. 6th ed., 1987, London: Longman. p. 753-758. ISBN: 058240911X.

NAL call no: QL55.U5 1987

Descriptors: laboratory animals, amphibia, taxonomy, husbandry.

Tumors in amphibia. Asashima, M.; Oinuma, T.; Meyer-Rochow, V.B., 1997, *Zoological Science*, v. 4 (3), p. 411-425.

ISSN: 0289-0003.

NAL call no: QL1.Z68

Descriptors: amphibia, tumors, cell differentiation.

Catalog of New World amphibians. Harding, Keith A., Oxford, NY; Pergamon Press, 1983, xiv, 406 p. ISBN: 0080288995.

NAL call no. QL651.H37 1983

Descriptors: amphibians, America.

Biology of amphibians. Duellman, William E.; Trueb, Linda, 1986, N.Y.: McGraw Hill, c1986. xvii, 670 p., ill.

NAL call no: QL667.D84

Descriptors: amphibians, biology.

Amphibians: Guidelines for the breeding, care, and management of laboratory animals. A report of the Subcommittee on Amphibian Standards, Committee on Standards, Institute of Laboratory Animal Resources, National Research Council. 1974. Washington, DC. ISBN: 030902210X.

Descriptors: Amphibians, laboratory animals, breeding, care, management.

Physiology of the Amphibia. Moore, J.A. (ed.), Academic Press, New York, NY; 1964.

NAL call no: 415 M78

Descriptors: anatomy, endocrinology, neurology, immunology.

AMPHIBIANS AS BIOMEDICAL MODELS

Amphibian metamorphosis: From morphology to molecular biology. Shi, Yun Bo, 2000, N.Y.: Wiley Liss, c2000, xiv, 288

p.: 4 p. of plates, ill. ISBN: 0471244759.

NAL call no: QL669.2.S48 2000

Descriptors: amphibian, metamorphosis.

Comparative studies of piscine and amphibian iridoviruses. Hyatt, A.D.; Gould, A.R.; Zupanovic, Z.; Cunningham, A.A.; Hengstberger, S.; Whittington, R.J.; Kattenbelt, J.; Coupar, B.E.H., *Archives of Virology*, 2000, v. 145 (2), p. 301-331. ISSN: 0304-8608.

NAL call no: 448.3 Ar23

Descriptors: fishes, amphibia, iridoviridae, ranavirus.

Effects of imperatoxin A on local sarcoplasmic reticulum Ca²⁺ release in frog skeletal muscle. Shtifman, A.; Ward, C.W.; Wang, J.; Valdivia, H.H.; Schneider, M.F., 2000. *Biophysical Journal*, Aug. 2000, v. 79 (2), p. 814-827. ISSN: 0006-3495.

NAL call no: 442.8 B5238

Descriptors: scorpiones, toxins, calcium ions.

A simplified method of generating transgenic Xenopus. Sparrow, D.B.; Latinkic, B.; Mohun, T.J. Ridgeway, Mill Hill, London, UK. *Nucleic Acids Research*, 2000, v. 28 (4), np. ISSN: 0305-1048.

NAL call no: QD341.A2N8

Descriptors: transgenic, transplantation, frog, embryos, genomes.

Species and age related differences in susceptibility to pesticide exposure for two amphibians, *Rana pipiens*, and *Bufo americanus*. Harris, M.L.; Chora, L.; Bishop, C.A.; Bogart, J.P., 2000. *Bulletin of Environmental Contamination and Toxicology*, Feb. 2000, v. 64 (2), p. 263-270. ISSN: 0007-4861.

NAL call no: RA1270.P35A1

Descriptors: endosulfan, toxicity, mancozeb, nontarget organisms.

The Xenopus clock gene is constitutively expressed in retinal photoreceptors. Zhu, H.; LaRue, S.; Whiteley, A.; Steeves, T.D.L.; Takahashi, J.S.; Green, C.B. *Molecular Brain Research*, 2000, v. 75 (2), p. 303-308. ISSN:

0169-328X.

Descriptors: retinas, photoreceptors, eyes, clock gene, *Xenopus laevis*.

Amphibians as a model to study endocrine disruptors: I. Environmental pollution and estrogen receptor binding.

Lutz, I.; Kloas, W., 1999. *Science of the Total Environment*, 1999, v. 225 (1-2), p. 49-57. ISSN: 0048-9697.

NAL call no: RA565.S365

Descriptors: endocrine system, estrogen receptors, pollution, amphibians.

Amphibians as a model to study endocrine disruptors: II. Estrogenic activity of environmental chemicals on vitro and in vivo. Kloas, W.; Lutz, I.; Einspanier, R., 1999. *Science of the Total Environment*, 1999, v. 225 (1-2), p. 59-68.

ISSN: 0048-9697.

NAL call no: RA565.S365

Descriptors: estrogen receptors, endocrine system, amphibians, pollution.

Controlled anaesthesia of *Rana catesbeiana* (Shaw) and *Rana pipiens* (Schreber 1792) using xylocaine delivered by spray. Aguilar, N.G.; Palcios, C.A.M.; Ross, L. G., 1999. *Aquaculture Research*, 1999, v. 30 (4), p. 309-311. ISSN: 1355-557X.

NAL call no: SH1.F8

Descriptors: frog culture, anaesthesia, *Rana pipiens*, *Rana catesbeiana*.

DNA repair and resistance to UV-B radiation in western spotted frogs. 1999. Blaustein, A.R.; Hays, J.B.; Hoffman, P.D.; Chivers, D.P.; Kiesecker, J.M.; Leonard, W.P.; Marco, A.; Olson, D.H.; Reaser, J.K.; Anthony, R.G. *Ecological Applications*, Aug. 1999, v. 9 (3), p. 100-1105. ISSN: 1051-0761.

NAL call no: QH540.E23

Descriptors: *Rana*, ultraviolet radiation, oocytes.

Distribution of vasoactive intestinal peptide-like immunoreactivity in the brain and pituitary of the frog (*Rana esculenta*) during development. Mathieu, M.; Trabucchi, M.; Vallarino, M.; Pinelli, C.; Rastogi, R.K., *Brain Research*, 1999, v. 851 (1-2), p. 105-115. ISSN: 0006-8993.

Descriptors: brain, biological development, *Rana*, neurons, developmental stages.

The effects of nitrite on behavior and metamorphosis in cascade frogs (*Rana cascadae*). Marco, A.; Blaustein, A.R. *Environmental Toxicology and Chemistry*. SETAC Press. May, 1999, v. 18 (5), p. 946-949. ISSN: 0730-7268.

NAL call no: QH545.A1E58

Descriptors: fertilizers, adverse effects, metamorphosis, *Rana*.

Effect of pentachlorophenol (PCP) on frogs cornea epithelium. Carrasquer, G.; Li, M.; Yang, S.; Schwartz, M.; Dinno, M.A. *Proceedings of the Society for Experimental Biology and Medicine*, Blackwell Science, Inc. Nov., 1999, v. 222 (2), p. 139-144. ISSN: 0037-9727.

NAL call no: 442.9 SO1

Descriptors: electrophysiology, cornea, epithelium, frogs.

Localization and source of gamma-aminobutyric acid immunoreactivity in the isthmus nucleus of the frog *Rana esculenta*. Pollak, E.; Lazar, G.; Gabriel, R.; Wang, Shou Rong. *Brain Research Bulletin*, 1999, v. 48 (3), p. 343-350. ISSN: 0361-9230.

Descriptors: gamma aminobutyric acid, isthmus nucleus, neurophysiology, *Rana*.

Morphological clues from multilegged frogs: Are retinoids to blame. Sessions, S.K.; Franssen, R.A.; Horner, V.L. *Science*. American Association for the Advancement of Science, Apr. 30, 1999, v. 284 (5415), p. 800-802. ISSN: 0036-8075.

NAL call no: 470 SCI2

Descriptors: frogs, retinoids, multilegged.

Nociceptin binding sites in frog (*Rana esculenta*) brain membranes. Benyhe, S.; Monory, K.; Farkas, J.; Toth, G.; Guerrini, R.; Salvadori, S.; Orosz, G.; Wolleman, M.; Borsodi, A. *Biochemical and Biophysical Research Communications*, 1999, v. 260 (3), p. 592-596. ISSN: 0006-291X.

NAL call no: 442.8 B5236

Descriptors: biological membranes, brain, chemoreceptors, *Rana*.

- Ultrastructural studies of dorsal root axons regenerating through adult frog optic and sciatic nerves.** Blanco, R.E.; Rosado, J.; Padilla, J.; Del-Cueto, C. San Juan, P.R. *Microscopy Research and Technique*, 1999, v. 46 (4-5), p. 310-318. ISSN: 1059-910X.
NAL call no: QH212.E4J69
Descriptors: nerves, regeneration, neurons, Rana.
- Basal ganglia organization in amphibians: Chemoarchitecture.** Marin, O.; Smeets, W.J.A.J.; Gonzales, A., 1998. *Journal of Comparative Neurology*, v. 392 (3), p. 285-312. ISSN: 0021-9967.
NAL call no: QP351.J68
Descriptors: basal ganglia, Rana perezi, neurophysiology, immunology.
- Bifurcation Analysis of a Model of Mitotic Control in Frog Eggs.** Borisuk, M.T.; Tyson, J.J., 1998. *Journal of Theoretical Biology*, 1998, v. 195 (1), p. 69-85. ISSN: 0022-5193.
NAL call no: 442.8 J8223
Descriptors: eggs, mitosis, Rana, enzymatic activity.
- Comparative immunotoxicology: A new direction.** Siwika, A.K.; Studnicka, M.; Morand, M.; Pozet, F.; Terech-Majewska, E.; Baranyiowa, E.; Vykusova, B.; Svobodova, Z., 1998. Dept. Fish Pathology and Immunology, IFI, 05-500 Piaszeczno, Poland. *Acta Veterinaria Brno*, 1998, v. 67 (4), p. 295-301. ISSN: 0001-7213.
NAL call no: SF604.B7
Descriptors: immunology, toxicology, haematology.
- Complete replication of human sperm genome in egg extracts from *Xenopus laevis*.** Xu, Yong Sheng; Overton, W.R.; Marmar, J.L.; Lronard, J.C.; McCoy, J.P. Jr.; Butler, G.H.; Li, Honghua. *Biology of Reproduction*. 1998, v. 58 (3), p. 614-647. ISSN: 0006-3363.
NAL call no: QL876.B5
Descriptors: sperm, DNA, biosynthesis, Xenopus.
- Frog genetics: *Xenopus tropicalis* jumps into the future.** Amaya, E.; Offield, M.F.; Grainger, R.M. *Trends in Genetics*, 1998, v. 14 (7), p. 253-255. ISSN: 0168-9525.
NAL call no: QH426.T74
Descriptors: developmental genetics, Xenopus, reviews, laboratory animals.
- Imaging amphibians: Techniques, normal anatomy and pathologic structures.** Stetter, M.D. *Proceedings North American Veterinary Conference: Eastern States Veterinary Association*, 1998, v. 12, p. 818-819.
NAL call no: SF605.N672
Descriptors: amphibia, radiology, ultrasonography.
- Metabolic adaptations of a lower vertebrate to long-term hypothermic hypoxia provide clues to successful clinical liver preservation.** Churchill, T.A.; Fedorow, C.A.; Kneteman, N.M. *Cryobiology*, 1998, v. 36 (2), p. 97-107. ISSN: 0011-2240.
NAL call no: QH324.C7
Descriptors: hypothermia, liver, preservation, hypoxia, vertebrates.
- Turning the frog into a princely model.** Sheets, M.D. *Nat. Biotechnology*, 1998, v. 16 (3), p. 233-234. ISSN: 1087-0156.
NAL call no: QH442.B5
Descriptors: transgenic animals, Xenopus, reviews, Adeno-associated virus.
- The use of the frog palate preparation to assess the effects of oxidants on ciliated epithelium.** Macchione, M.; Lorenzi, Filho G.; Guimaraes, E.T.; Junqueira, V.B.C.; Saldiva, P.H.N. Sao Paulo, Brazil. *Free Radical Biology and Medicine*, 1998, v. 24 (5), p. 714-721. ISSN: 0891-5849.
NAL call no: QP527.F7
Descriptors: toxicity testing, epithelium, cilis, Rana, oxidants.
- Vitellogenin as a biomarker for xenobiotic estrogens in an amphibian model system.** Palmer, B.D.; Huth, L.K.; Pietro, D.L.; Selcer, K.W. *Environmental Toxicology and Chemistry*, Jan. 1998, v. 17 (1), p. 30-36. ISSN: 0730-7268.
NAL call no: QH545.A1E58
Descriptors: contaminants, pollutants, biological indicators, toxicology.
- Basal ganglia organization: Afferent connections to the striatum and the nucleus accumbens.** Marin, O.; Gonzales, A.; Smeets, W.J.A.J., 1997. *Journal of Comparative Neurology*, v. 378 (1), p. 16-49. ISSN: 0021-9967.

NAL call no: QP351.J68

Descriptors: basal ganglia, connections, *Xenopus*, *Rana*, Pleurodeles, brain.

The clawed frog *Xenopus laevis* as a laboratory animal. Hilken, G.; Iglauer, Franz; Richter, H.P.; Crowell, Kathleen M.; Dimigen, Jens; Kahler, H., 1997, Stuttgart: F. Enke, 1997, ix, 117 p., ill. ISBN: 3432295618.
NAL call no: SF407.F74H54 1997

Descriptors: *Xenopus laevis*, frogs as laboratory animals.

Effect of alpha-tomatine and tomatidine on membrane potential of frog embryos and active transport of ions in frog skin. Blankemeyer, J.T.; Whit, J.B.; Stringer, B.K.; Friedman, M. *Food and Chemical Toxicology*, Oxford, UK: Elsevier Science, Ltd. July, 1997, v. 35 (7), p. 639-646. ISSN: 0278-6915.

NAL call no: 391.8 F73

Descriptors: alpha tomatine, steroid alkaloids, cytotoxicity, *Rana pipiens*, cell membranes.

Evolution of nerve development in frogs. II Modified development of the peripheral nervous system in the direct-developing frog *Eleutherodactylus coqui* (Leptodactylidae). Schlosser, G.; Roth, G. *Brain, Behavior and Evolution*, 1997, v. 50 (2), p. 94-128. ISSN: 0006-8977.

Descriptors: evolution, cranial nerves, neurogenesis, nervous system.

Spinal ascending pathways in amphibians: Cells of origin and main targets. Munoz, A.; Gonzales, A.; Ten-Donkelaar, H.J. *Journal of Comparative Neurology*, 1997, v. 378 (2), p. 205-228. ISSN: 0021-9967.

NAL call no: QP351.J68

Descriptors: spinal cord, cortex somatosensory, *Rana*, *Xenopus*, brain.

Transgenic *Xenopus*: Microinjection methods and developmental neurobiology. Seidman, Shlomo; Soreq, H., Totowa, N.J.: Humana Press, c1997. xviii, 198 p., 4 p. of plates, ill. ISBN: 0896034577.

NAL call no: QL668.E265S44 1997

Descriptors: *Xenopus laevis*, frogs genetics, developmental neurobiology.

Evaluation of the analgesic effects of butorphanol tartrate, xylazine hydrochloride, and flunixin meglumine in leopard frogs (*Rana pipiens*). Terril-Robb, L.A.; Suckow, M.A.; Grigdesby, C.F. *Contemporary Topics in Laboratory Animal Science*. Cordova, TN. May, 1996, v. 35 (3), p. 54-56. ISSN: 1060-0558.

NAL call no: SF405.5.A23

Descriptors: *Rana pipiens*, laboratory animals, xylazine, flunixin, analgesics, pain.

GSK3: A shaggy frog story. Welsh, G.I.; Wilson, C.; Proud, C.G. *Trends in Cell Biology*, 1996, v. 6 (7), p. 274-283. ISSN: 0962-8924.

NAL call no: QH573.T73

Descriptors: GSK3 gene, *Xenopus*, reviews, gene regulation, cell fate.

High hopes of transgenic frogs. Slack, J.M.W. *Nature*, 1996, v. 383 (6603), p. 765-766. ISSN: 0028-0836.

NAL call no: 472 N21

Descriptors: developmental, genetics, transgenic, frogs, *Xenopus*.

Relative analgesic potency of mu, delta and kappa opioids after spinal administration in amphibians. Stevens, C.W. *Journal of Pharmacology and Experimental Therapeutics*, 1996, v. 276 (2), p. 440-448. ISSN: 0022-3565.

NAL call no: 396.8 J82

Descriptors: opioid peptides, spinal cord, analgesia, amphibia, *Rana*.

The use of invitro preparations of the isolated amphibian central nervous system in neuroanatomy and electrophysiology. Luksch, H.; Walkowiak, W.; Munoz, A.; Ten-Donkelaar, H.J. The Netherlands. *Journal Neurosci Methods*, 1996, v. 70 (1), p. 91-102. ISSN: 0165-0270.

Descriptors: central nervous system, Anura, brain, amphibia.

- Amphibians as laboratory animals.** Washington, D.C: Institute of Laboratory Animal Resources, National Research Council, 1995, *I.L.A.R. Journal*, v. 37 (4), p. 173-181. ISSN: 1084-2020.
NAL call no: QL55.A1I43
Descriptors: amphibia, laboratory animals, husbandry, anesthesia, euthanasia, surgery.
- An amphibian model for pain research.** Stevens, C.W., Nature Publishing Co., N.Y.: *Lab Animal*, Nov. 1995, v.24 (10), p. 32-36. ISSN: 0093-7355.
NAL call no: QL55.A1L33
Descriptors: amphibia, pain, animal models.
- Effect of potato glycoalkaloids alpha-chaconine and alpha-solanine on sodium active transport in frog skin.** Blankemeyer, J.T.; Atherton, R.; Friedman, M. *Journal of Agricultural and Food Chemistry*. Mar.1995, v. 43 (3), p. 636-639. ISSN: 0021-8561.
NAL call no: 381 J8223
Descriptors: glycoalkaloids, ion transport, membrane potential, food safety.
- Growth of *Xenopus laevis* under different laboratory rearing conditions.** Hilken, G.; Dimigen, J.; Iglauer, F. *Lab Animal*, 1995, v. 29 (2), p. 152-162. ISSN: 0023-6772.
NAL call no: QL55.A1L33
Descriptors: amphibia, *Xenopus*, growth, metamorphosis.
- Microchip implant system used for animal identification in laboratory rabbits, guinea pigs, woodchucks and in amphibians.** Mrozek, M.; Fischer, R.; Trendelenburg, M.; Zillmann, U. *Laboratory Animals*. Royal Society of Medicine Press Ltd. July 1995, v. 29 (3), p. 339-344. ISSN: 0023-6772.
NAL call no: QL55.A1L3
Descriptors: *Xenopus*, amphibia, identification, implantation, microchip.
- Reinnervation of frog sympathetic ganglia with somatic nerve fibers.** Eugene, D.; Taxi, J. *Journal of the Autonomic Nervous System*, Paris, France, 1995, v. 53 (1), p. 16-34. ISSN: 0165-1838.
Descriptors: *Rana*, sympathetic ganglia, membranes, reinnervation.
- Thermal, mechanical and chemical peripheral sensation in amphibians: Opioid and adrenergic effects.** Willenbring, S.; Stevens, C.W. *Life Sciences*, 1995, v. 58 (2), p. 125-133. ISSN: 0024-3205.
NAL call no: 442.8 L62
Descriptors: pain perception, stimuli, morphine, opioid receptors, *Rana*.
- Amphibian sympathetic ganglia: An owner=s and operator=s manual.** Smith, P.A., *Progress in Neurobiology*, 1994, v. 43 (4-5), p. 439-510. ISSN: 0301-0082.
NAL call no: QP361.P7
Descriptors: neurons, stress, brain stem, amphibia.
- Effect of crude extract of roots of *Bredemeyera floribunda* Willd, III. Effect on hormone- stimulated water transport in isolated frog skin.** Bevevino, L.H.; Sanioto, S.M.L. *Journal of Ethnopharmacology*. Elsevier Science Ireland Ltd. Jul. 22, 1994, v. 43 (3), p. 209-215. ISSN: 0378-8741.
NAL call no: RS160.J6
Descriptors: roots, plant extracts, diuretics, vasopressin, oxytocin, skin, frogs.
- Effects of honey containing grayanotoxin I on frog gastrocnemius muscle.** Ozesmi, C.; Aydogan, S.; Asciglu, M. *Veterinary and Human Toxicology*, Apr.1994, v. 36 (2), p. 117-119. ISSN: 0145-6296.
NAL call no: SF601.A47
Descriptors: poisonous honey, toxins, membrane permeability, skeletal muscle.
- Hydrogen peroxide stimulation of active sodium transport in isolated frog skin: Indicative of a possible prostaglandin interaction.** Bjerregaard, H.F. *Alternatives to Laboratory Animals*, May/June 1994, v. 22 (3), p. 163-167. ISSN: 0261-1929.
NAL call no: Z7994.L3A5
Descriptors: frogs, skin, ion transport, in vitro, prostaglandins.
- Learning under partial reinforcement in the toad (*Bufo arenarum*): Effects of lesions in the medial pallium.** Muzio,

R. N. ; Segura, E.T., *Behavioral and Neural Biology*, 1994, v. 61 (10), p. 36-46. ISSN: 0163-1047.

NAL call no: QH301.C63

Descriptors: pallium medial, learning behavior, partial reinforcement, lesions, Bufo.

Membrane receptors for corticosterone: A mechanism for rapid behavioral responses in an amphibian. Moore, F.L.;

Orchinik, M. *Hormones and Behavior*, 1994, v. 28 (4), p. 512-519. ISSN: 0018-506X.

NAL call no: QP801.H7H64

Descriptors: corticosterone receptors, neurons, stress, brain stem, amphibia.

Serotonin-like immunoreactivity in the visual system of the leopard frog *Rana pipiens*. Liu, Qin. 1994, xi, 198 leaves, ill.

PhD Thesis, Univ. Kentucky. Includes bibliographical references.

Descriptors: *Rana pipiens*, eye.

The visual system of the leopard frog: Identification of a neuropeptide Y-containing non-retinal tectal projection and the investigation of activity in transmitter expression. Chapman, Angela., Thesis (M.S.), Univ. of Kentucky. 1994, iv.

89 leaves, ill.

Descriptors: *Rana pipiens*, neuropeptide-Y, eye.

Frog skin: A computer simulation of experiments performed on frog skin in vitro to investigate the epithelial

transport of ions. Dewhurst, D.G.; Williams, A. *Alternatives to Laboratory Animals*, Jul.1993, v. 21 (3), p. 350-358.

ISSN: 0261-1929.

NAL call no: Z7994.L3A5

Descriptors: computer simulation, ion transport, frogs.

Use of fura red as an intracellular calcium-indicator in frog skeletal muscle fibers. Kurebayashi, N.; Harkins, A.B.;

Baylor, S.M. *Biophysical Journal*, 1993, v. 64 (6), p. 1934-1960. ISSN: 0006-3495.

NAL call no: 442.8 B5238

Descriptors: calcium imaging, fura red, skeletal muscle, *Rana*.

Use of mu-conotoxin GIIIA for the study of synaptic transmission at the frog neuromuscular junction. Sosa, M.A.;

Zengel, J.E. *Neuroscience Letters*, 1993, v. 157 (2), p. 235-238. ISSN: 0304-3940.

NAL call no: QP351.N3

Descriptors: mu-conotoxin GIIIA, effects, synaptic transmission, *Rana*.

An assay system for developmental toxicity using embryos and larvae of *Xenopus laevis*. Sakamoto, M.K.; Mima, S.

and Tanimura, T. *Alternatives to Animal Testing and Experimentation*, Japanese Society of Alternatives to Animal Experiments, Nagasaki University, Nagasaki, Japan; 1(3):172-178 (Mar.1992).

NAL call no: QH585.2.A57

Descriptors: embryology, abnormalities, chemical testing, teratogenesis.

Laboratory care and breeding of the African clawed frog. Dawson, D.; Schultz, T.W.; Shroeder, E.C. *Lab Animal*. Nature

Publishing Co., Apr. 1992, v. 21 (4), p. 31-36. ISSN: 0093-7355.

NAL call no: QL55.A1L33

Descriptors: *Xenopus laevis*, animal husbandry, animal breeding.

A quantitative model of phototransduction and light adaptation in amphibian rod photoreceptors. Torre, V.;

Straforini, M.; Campani, M., Genova, Italy. *Seminars in Neuroscience*, 1992, v. 4 (1), p. 5-13. Special Issue: The use of models in the neurosciences.

Descriptors: mathematical models, rods, photoreceptors, amphibia.

Amphibian Cytogenetics and Evolution. Green, D.M. and Sessions, S.K. (eds.), Academic Press, San Diego, CA; 1991,

456 pp.

NAL call no: QL668.5.A56 1991

Descriptors: phylogeny, evolution, cytotaxonomy, DNA sequences, chromosome heteromorphism, meiosis, chromosomes, sex determination, nomenclature, classification, polyploidy.

Evaluation of the frog embryo teratogenesis assay: *Xenopus* (FETAX) as a model system for mixture toxicity hazard assessment. Dawson, D.A. and Wilke, T.S. *Environmental Toxicology and Chemistry*, v. 10(7) p. 941-948 (1991).

NAL call no: QH545.A1E58

Descriptors: small-clawed frog, malformation, lethality.

Genes encoding receptors for insulin and insulin-like growth factor I are expressed in *Xenopus* oocytes and embryos.

Scavo, L.; Shuldiner, A.R.; Serrano, J.; Dashner, R.; Roth, J. and dePablo, F. *Proceedings of the National Academy of Sciences of the United States of America*, v. 88 (14) p. 6214-6218 (1991).

NAL call no: 500 N21P

Descriptors: receptors, embryology, proteins.

Fumonisin, a toxin from the fungus *Fusarium moniliforme* shield, blocks both the calcium current and the mechanical activity in frog atrial muscle. Sauviat, M.P.; Laurent, D.; Kohler, F.; Pellegrin, F. *Toxicon*, Pergamon Press, 1991, v. 29 (8), p. 1025-1031. ISSN: 0041-0101.

NAL call no: 391.8 T66

Descriptors: mycotoxins, toxicity, myocardium, calcium ions.

A minimal cascade model for the mitotic oscillator involving cyclin and CDC2 kinase. (Abstract) Goldbeter, A.

Proceedings of the National Academy of Science of the United States of America, v. 88 (20), p. 9107-9111 (1991).

NAL call no: 500 N21P

Descriptors: mitosis, oscillation, cell cycle.

A model for compound action potentials and currents in a nerve bundle III: A comparison of the conduction velocity distributions calculated from compound action currents and potentials. Wijesinghe, R.S.; Gielen, F.L.H. and Widswo, Jr., J.P. *Annals of Biomedical Engineering*, v. 19 (1), p. 97-121 (1991).

NAL call no: TA164.J6

Descriptors: frog sciatic nerves, CVD variation, neurophysiology.

Somatostatin inhibits pepsinogen secretion via a cyclic AMP-independent pathway. Fong, J.C.; Hong, S.J. and Wang, F.F. *Regulatory Peptides*, v. 32 (3), p. 351-360 (1991).

NAL call no: QP572.P4C66

Descriptors: model, hypothalamic releasing hormones.

Transgenic *Xenopus laevis* tadpoles: A transient *in vivo* model system for the manipulation of lens function and lens development. Brakenhoff, R.H.; Ruuls, R.C.; Jacobs, E.H.M.; Schoemakers, J.G.G. and Lubsen, N.H. *Nucleic Acids Research*, v. 19 (6), p. 1279-1284 (1991).

NAL call no: QD341.A2N8

Descriptors: CAT reporter gene, promoter, small-clawed frog.

Two nonallelic insulin genes in *Xenopus laevis* are expressed differentially during neurulation in prepancreatic embryos. Shuldiner, A.R.; dePablo, F.; Moore, C.A. and Roth, J. *Proceedings of the National Academy of Sciences of the United States of America*, v. 88 (17), p. 7679-7683 (1991). ISSN: 0027-8424.

NAL call no: 500 N21P

Descriptors: physiology, embryogenesis, transcription.

Amphibian experimental systems: Developmental neurobiology and behavioral endocrinology in the clawed frog, *Xenopus laevis*. Kelley, D.B.; Hayes, M., 1990. *Journal of Experimental Zoology*, 1990, suppl. 4, p. 148-149.

NAL call no: 410 J825

Descriptors: *Xenopus*, amphibia, experimental research, behavior.

Amphibian model system for problems in behavioral neuroendocrinology. Moore, F.L. *Journal of Experimental Zoology Suppl.*4, p. 157-158 (1990).

NAL call no: 410 J825

Descriptors: rough-skinned newt, non-mammalian alternatives.

Antibiotic activity in amphibian glandular skin secretions. Foorden, Traute: Hannover: [s.n.], 1990, 126 p., ill.

NAL call no: 41.2 H198 1990 no. 166

Language: German with a summary in English.

Descriptors: amphibian, skin secretions, antibiotic activity.

Characterization of human phagocytic cell receptors for C5A and platelet activating factor expressed in *Xenopus* oocytes. Murphy, P.M.; Gallin, E.K. and Tiffany, H.L. *Journal of Immunology*, v.145 (7) p. 2227-2234 (1990).

NAL call no: 448.8 J8232

Descriptors: immunology, inflammation, anaphylotoxins.

Chromosomes of amphibian oocytes as a model for gene expression: Significance of lampbrush loops. Angelier, N.; Bonnanfant-Jais, M.L.; Herberts, C.; Lautredou, N.; Moreau, N.; N'Da, E.; Penrad-Mobayed, M.; Rodriguez-Martin, M.L. and Sorrouille, P. *International Journal of Development Biology*, v. 34 (1) p. 69-80 (1990).

Descriptors: NP matrix, RNA synthesis, immunology.

The frog spinal cord: A model to study methanethiol-central nervous system interaction. De Santis, A.; Loguericio, C. and Nardi, G. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology and Toxicology*, v. 96C(1) p. 115-118 (1990).

NAL call no: QP901.C6

Descriptors: neurophysiology, interneurons.

Gene transfer of human alpha-1-antitrypsin cDNA in insect and amphibian cell cultures. 1. Aufl. Brautigam, Sandra.

Frankfurt/M: Wissenschafts-Verlag W. Marau, 1990, 130 p., ill. ISBN: 3927548065.

NAL call no: QH448.4.B7 1990

Descriptors: genetic transformation, DNA, cell culture, Gene expression.

Observations on cardiac ultrastructure of the adult Japanese newt, *Cynops pyrrhogaster*. Pfeiffer, C.J.; Asashima, M.; Cho, C.H. and Shimada, K. *Journal of Submicroscopic Cytology*, v. 22 (1) p. 17-26 (1990).

NAL call no: QH573.J62

Descriptors: endocrine cells, prolonged *in vitro* study, myocardium, microscopy.

Amphibian models in endocrine research. Norris, D.O., *Nonmammalian animal models for biomedical research*. Editor: Avril D. Woodhead; Katherine Vivirito, Boca Raton, FL: CRC Press, c1989, p. 279-288. ISBN: 0849347637.

NAL call no: QL55.N66

Descriptors: amphibia, animal models, edocrinology.

Amphibians: A rich source of biological diversity. Pough, F.H., *Nonmammalian animal models for biomedical research*.

Editor, Avril D. Woodhead; Katherine Vivirito. Boca Raton, FL., CRC Press, c1989, p. 245-277. ISBN: 0849347637.

NAL call no: QL55.N66

Descriptors: amphibia, animal models.

Amphibian sympathetic ganglia as a model system for investigating regeneration in the vertebrate peripheral nervous system. Kelly, M.E.M.; Traynor, P. and Smith, P.A. *Comparative Biochemistry and Physiology. A: Comparative Physiology*, v. 93A(1) p.133-140 (1989).

NAL call no: QP1.C6

Descriptors: axotomy, nerve growth factor.

The egg of *Xenopus laevis*: A model system for studying cell activation. Charbonneau, M. and Grandin, N. *Cell Differentiation and Development: The Official Journal of the International Society of Developmental Biologists*, v. 28 (2) p. 71-94 (1989).

NAL call no: QH607.A1C4

Descriptors: embryology, egg plasma membrane.

Experiments on the frog heart: A computer simulation. Dewhurst, David; Johnstone, Sally; Meehan, Anthony. Scheffield Bioscience Programs, [1989?] 1 computer disk, 1 user=s guide. System requirements: IBM PC or compatible.

NAL call no: QP111.D38 1989

Descriptors: heart computer simulation, frogs physiology computer simulation.

- Monoclonal antibody markers for amphibian oligodendrocytes and neurons.** Steen, P.; Kalghatgi, L.; Constantine-Paton, M. *Journal of Comparative Neurology*, 1989, v. 289 (3), p. 467-480. ISSN: 0021-9967.
NAL call no: QP351.J68
Descriptors: oligodendrocytes, brain, Rana.
- Muscle physiology experiments on skeletal muscle: A computer simulation.** Brown, Guy. Sheffield Bioscience Programs, 1989, 1 computer disk, user=s guide.
NAL call no: QA76.8.I2594M8
Descriptors: muscles, physiological aspects, computer simulation, frogs.
- Nerve physiology experiments on the frog sciatic nerve: A computer simulation.** Dewhurst, David; Johnstone, Sally; Meehan, Athony. Sheffield Bioscience Programs, 1989, 1 computer disk, user=s guide.
NAL call no: QA76.8.I2594D48
Descriptors: nerves, physiological aspects, computer simulation, frog.
- Is the supply of axoplasmic proteins a burden for the cell body? Morphometry of sensory neurons and amino acid incorporation into their cell bodies.** von Bernhadi, R. and Alvarez, J. *Brain Research*, v. 478 (2) p. 301-308 (1989).
Descriptors: neuroanatomy, axoplasm, amino acids.
- Distribution and characterization of neuropeptide Y-like immunoreactivity in the brain of the crested newt.** Perroteau, I.; Danger, J.M.; Biffo, S.; Pelletier, G.; Vaudry, H. and Fasolo, A. *The Journal of Comparative Neurology*, v. 275 (3) p. 309-325 (1988).
NAL call no: QP351.J68
Descriptors: Salamandridae, cytology, nerve fibers, mapping.
- The Evolution of the amphibian auditory system.** Fritsch, Bernd. Wiley series in neurobiology, c1988, xiii, 705 p. ill.
NAL call no: QL645.3.E9
Descriptors: amphibian, auditory system, evolution.
- Influence of prostaglandins on electrical and mechanical activities of gastric muscles of *Bufo marinus*.** Shonnard, P.; Ary, T. and Sanders, K.M. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology and Toxicology*, v. 90 (2) p. 325-333 (1988).
NAL call no: QP901.C6
Descriptors: Bufonidae, acetylcholine, indomethacin, contractions, membrane potential, physiology, pharmacology.
- Laboratory Anatomy of the Frog.** 5th ed. Underhill, Raymond Alden; Landis, Charles R., 1988. Dubuque, IA: Wm. C. Brown, c1988. xii, 56 p. ill. ISBN: 069704792X.
NAL call no: QL813.F75U52 1988
Descriptors: frog anatomy, dissection, laboratory manuals.
- Opioid antinociception in amphibians.** Stevens, C.W. *Brain Research Bulletin*, v. 21 (6), p. 959-962 (1988).
Descriptors: Rana pipiens, antinociception, endogenous opioid, endorphin, pain.
- Voltage dependence of cellular current and conductances in frog skin.** Nagel, W.; Garcia- Diaz, J.F.; Essig, A. *The Journal of Membrane Biology*, 1988, v. 106 (1), p. 13-28. ISSN: 0022-2631.
NAL call no: QH573.J6
Descriptors: electrical conductance, skin, sodium.
- Xenopus egg extracts: A model system for chromatin replication.** Almouzni, G. and Mechali, M. *Biochimica et Biophysica Acta: International Journal of Biochemistry and Biophysics* v. 951 (2-3), p. 443-450 (1988).
NAL call no: 381 B522
Descriptors: gene, DNA replication, nucleosomes.
- Xenopus laevis in developmental and molecular biology.** Dawid, I.B. and Sargent, T.D. *Science*, v. 240, p.1443-1448 (1988).
NAL call no: 470 SCI2
Descriptors: polarity determination, cytoplasmic localization, embryonic induction, expression system.

- Anurans (frogs and toads).** Veroeff de Fremery, R.; Griffin, J., *The UFAW handbook on the care and management of laboratory animals*. 1987, Edited by: Trevor B. Poole; Ruth Robinson. 6th ed.: London: Longman, p. 773-783. ISBN: 058240911X.
NAL call no: QL55.U5 1987
Descriptors: laboratory animals, frogs, toads, Anura, biology, husbandry, disease.
- Urodeles (newts and salamanders).** Verhoeff de Fremery, R.; Griffin, J.; Macgregor, H.C., 1987, *The UFAW handbook on the care and management of laboratory animals*, edited by Trevor B. Poole; Ruth Robinson. 6th ed. London: Longman. p. 759-772. ISBN: 058240911X.
NAL call no: QL55.U5 1987
Descriptors: laboratory animals, Caudata, biology, animal husbandry, disease control.
- Amphibian skin as a model in studies on epidermal homeostasis.** Budtz, P.E. In: *Skin Models*, Marks, R. and Plewig, G. (eds.), Springer-Verlag, Berlin, Germany, 1986, p. 58-72.
NAL call no: RL79.S55
Descriptors: *in vivo*, epidermis, influx, efflux, toads, axolotl.
- The breeding of *Xenopus laevis* on a large scale in the laboratory.** Davys, J.S. *Animal Technology: Journal of the Institute of Animal Technicians*. Sussex; the Institute of Animal Technology, v. 37 (3) p. 217-233 (1986).
NAL call no: QL55.I55
Descriptors: African clawed frog, housing, laboratory rearing, husbandry.
- Comparison of two techniques for estimating the maximum aerobic capacity of amphibians.** 1986. *Herpetologica*, v. 42 (3), p. 389-394.
NAL call no: QL640.H4
Descriptors: comparative studies, oxygen consumption, Rana, Bufo, bioenergetics.
- Effects of cyclopiazonic acid on the contractility of organs with smooth muscles and on frog ventricles.** Nishie, K.; Cole, R.J.; Dorner, J.W. *Research Communication in Chemical Pathology and Pharmacology*. PJD Publications, Jul. 1986, v. 53 (1), p. 23-37. ISSN: 0034-5164.
NAL call no: RM1.R4
Descriptors: frog, contractility, organs, smooth muscle, cyclopiazonic acid.
- Cloning of frogs, mice and other animals.** Rev. ed. McKinnell Robert Gilmore; Minneapolis: University of Minnesota Press, c1985. ix, 127 p. ill.
NAL call no: QH442.2.M34 1985
Descriptors: frogs, cloning, mice.
- New amphibian models for the study of 1 methyl-4-phenyl-1,2,3,6-tetrahydropyridine.** Barbeau, A.; Dallaire, L.; Buu, N.T.; Veilleux, F.; Boyer, H.; De Lanney, L.E.; Irwin, I.; Langston, E.B. and Langston, J.W. *Life Sciences*, v. 36 (11) p. 1125-1134 (1985).
NAL call no: 442.8 L62
Descriptors: Parkinson's disease, toxicity, nucleic acids.
- Conditioning laboratory frogs to accept non-living food.** Buttner, J.K., N.Y.: Media Horizons, May/June 1984, v. 13 (4), p. 40-41. ill.
NAL call no: QL55.A1L33
Descriptors: laboratory frogs, non-living food, conditioning.
- External application of antibiotics to improve survival of adult laboratory frogs (*Rana pipiens*).** Menard, M.R. *Laboratory Animal Science*, Feb. 1984, v. 34 (1), p. 94-96. ISSN: 0023-6764.
NAL call no: 410.9 P94
Descriptors: antibiotics, external application, survival, laboratory frogs.
- Frog dissection.** Newby, Larry. 1984. Cross Educational Software, c1984, 2 computer disks. col. 1 manual.
NAL call no: QA76.8.A662N4
Descriptors: frog dissection, computer assisted instruction, animal welfare.
- Half a century of comparative research on biogenic amines and active peptides in amphibian skin and molluscan tissues.** Erspamer, V. *Comparative Biochemistry and Physiology C. Comparative Pharmacology and Toxicology*, 1984, v. 79 (1), p. 1-7, ill.
NAL call no: QP901.C6

Descriptors: amphibian, mollusc, skin, amines, peptides, comparative research.

In vivo sister chromatid exchanges in amphibia: A convenient model for mutagenicity bioassay. Chakrabarti, S.; Banerjee, S.N. and Chakrabarti, A. *Indian Journal of Experimental Biology*, v. 22 (7) p. 347-349 (1984).
NAL call no: 442.8 IN2
Descriptors: genes, alternatives.

Differential activation and blockade of excitatory amino acid receptors in the mammalian and amphibian central nervous system. Davies, J.; Evans, R.H.; Jones, A.W.; Smith, D.A.S. and Watkins, J.C. *Comparative Biochemistry and Physiology C: Comparative Pharmacology*, v. 72 (1) p. 211-224 (1982).
NAL call no: QP901.C6
Descriptors: *in vitro*, *in vivo*, spinal cords, neurons, NMDA receptors, antagonist, quisqualate, kainate polysynaptic, monosynaptic.

Free magnesium in sheep, ferret and frog striated muscle at rest measured with ion-selective micro-electrodes. Hess, P.; Metzger, P.; Weingart, R. *Journal of Physiology*, Cambridge University Press, 1982, v. 333, p. 173-188.
NAL call no: 447.8 J82
Descriptors: frog, magnesium, striated muscle.

Pharmacological studies on the behavioral thermoregulation in the salamander, *Necturus maculosus*. Hutchison, V.H. Dublin (Eire), 1-2 July, 1981, *Effect of Constant and Cycling Temperatures on Ectotherms*. Grainger, J.N.R., ed. v. 6 (4), p. 331-339.
Descriptors: thermoregulation, salamander, drug effects, acclimation.

The amphibian embryo in transplantation immunity. Volpe, Ermino Peter, *Monographs in developmental biology*, v. 14: Basel: N.Y.: Karger, 1980. ix, 148 p., ill.
NAL call no: RD120.7.V6
Descriptors: amphibians, transplantation, immunity.

The use of amphibians in biomedical research. Nace, G.W. In: *Animal Models for Biomedical Research III. Symposium*, National Academy of Sciences, Washington, DC; 1974, p. 103-124.
NAL call no: QL53.S9 1970
Descriptors: experimentation, breeding, review.

The development history of the sympathetic nervous system in salamanders. Hoffmann, Christian Karl.. Amsterdam: J. Muller, 1902, 101 p., 4 leaves of folded plates: ill.
Language: German.
NAL call no: Q57.V47 d.8 no. 3
Descriptors: salamanders, sympathetic nervous system, development history.

AMPHIBIAN CARE AND USE

The effects of trematode infection on amphibian limb development and survivorship. Johnson, P.T.J.; Lunde, K.B.; Ritchie, E.G.; Launer, A.E., *Science*, Washington, D.C. : American Association for the Advancement of Science, Apr. 30, 1999, v. 284 (5415), p. 802-804. ISSN: 0036-8075.
NAL call no: 470 Sci2
Descriptors: hyla, infections, trematode, deformities, mortality.

Identification and management of an outbreak of *Flavobacterium meningosepticum* in a colony of South African clawed frogs (*Xenopus laevis*). Green, S.L.; Bouley, D.M.; Tolwani, R.J.; Waggie, K.S.; Lifland, B.D.; Otto, G.M.; Ferrell, J.E. Jr. *Journal of the American Veterinary Medical Association*, Schaumburg, IL, June 15, 1999, v. 214 (12), p. 1833-1838. ISSN: 0003-1488.
NAL call no: 41.8 Am3
Descriptors: frogs, *Xenopus laevis*, *flavobacterium meningosepticum*, outbreaks.

Improved disease resistance in *Rana rugulosa* (Daudin) after beta-glucan administration. Crumlish, M.; Inglis, V., *Aquaculture Research*, Jun., 1999, v. 30 (6), p. 431-435. ISSN: 1355-557X.
NAL call no: SH1.F8
Descriptors: *Rana*, disease resistance, beta-glucan, stress, bacterial diseases.

A trematode parasite causes some frog deformities. Kaiser, J., *Science*. Washington, D.C.: American Association for the

Advancement of Science, Apr. 30, 1999, v. 284 (5415), p. 731-733. ISSN: 0036-8075.

NAL call no: 470 Sci2

Descriptors: frogs, trematodes, infection, deformities.

Anesthesia of amphibians. Wright, K.M. *Proceedings of the North American Veterinary Conference*. Eastern States Veterinary Association, Jan. 10-14, 1998, v. 12, p. 823.

NAL call no: SF605.N672

Descriptors: amphibia, anesthetics, anesthesia.

Effect of carbohydrates upon insulin secretion in *Bufo arenarum* (Amphibia: Bufonidae). Francini, F.; Gagliardino, J.J.

Comparative Biochemistry and Physiology: B: Comparative Biochemistry. Elsevier Science Inc., Sept. 1998, v. 121B (1), p. 111-115. ISSN: 1096-4959.

NAL call no: QP501.C6

Descriptors: amphibia, toads, pancreas, insulin secretion, carbohydrates.

Enriching the environment of the laboratory bull frog (*Rana catesbeiana*). Bang, D.; Mack, V. *Lab Animal*, Jun. 1998, v.

27 (6), p. 41-42. ISSN: 0093-7355.

NAL call no: QL55.A1L33

Descriptors: laboratory animals, frogs, housing.

Survey of current techniques in the care and maintenance of the African clawed frog (*Xenopus laevis*). Major, N;

Wassersug, R.J. *Contemporary Topics in Laboratory Animal Science*. Memphis, TN: American Association for Laboratory Animal Science, Sept. 1998, v. 37 (5), p. 57-60. ISSN: 1060-0558.

NAL call no: SF405.5.A23

Descriptors: *Xenopus*, laboratory rearing, housing, feeding, temperature, husbandry.

Treating the septic amphibian. Wright, K.M. *Proceedings of the North American Veterinary Conference*. Eastern States Veterinary Association, Jan. 10-14, 1998, v. 12, p. 824-825.

NAL call no: SF605.N672

Descriptors: amphibia, sepsis, treatment.

Amphibian husbandry and medical care. Campbell, T.W. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 65-68. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: amphibia, animal husbandry, veterinary medicine.

Anthelmintic treatment to eradicate cutaneous capillariasis in a colony of South African clawed frogs. Iglauer, F.;

Willmann, F.; Hiken, G.; Huisinga, E.; Dimigen, J. *Laboratory Animal Science*. Cordova, TN: American Association for Laboratory Animal Science, Oct. 1997, v. 47 (5), p. 477-482. ISSN: 0023-6764.

NAL call no: 410.9 P94

Descriptors: *Xenopus*, capillaria, ivermectin, oral, injection, topical.

Hepatitis in the green tree frog (*Litoria caerulea*) associated with infection by a species of *Myxidium*. Hill, B.D.;

Green, P.E.; Lucke, H.A. *Australian Veterinary Journal*. Brunswick, Vic.: Australian Veterinary Association, Dec. 1997, v. 75 (12), p. 910-911. ISSN: 0005-0423.

NAL call no: 41.8 Au72

Descriptors: hylidae, myxidium, protozoal infections, hepatitis, histopathology.

An innovative aquatic non-recirculating system for use in housing African clawed frogs (*Xenopus laevis*). Rogers,

W.P.; Simpson, T.W.; Jones, L.M.; Renquist, D.M. *Contemporary Topics in Laboratory Animal Science*. Cordova, TN: American Association for Laboratory Animal Science, Nov. 1997, v. 36 (6), p. 72-74. ISSN: 1060-0558.

NAL call no: SF405.5.A23

Descriptors: *Xenopus*, aquatic animals, water supply, housing, environment.

Diagnosis and treatment of a parasitic dermatitis in a laboratory colony of African clawed frogs (*Xenopus laevis*).

Cunningham, A.A.; Sainsbury, A.W.; Cooper, J.E. *Veterinary Record*. The British Veterinary Association, Jun. 29,

1996, v.138 (26), p. 640-642. ISSN: 0042-4900.

NAL call no: 41.8 V641

Descriptors: Xenopus, dermatitis, nematode infection, diagnosis, treatment.

Frogs, toads and tree frogs: Everything about selection, care, nutrition, breeding, and behavior. Bartlett, Richard D.;

Bartlett, Patricia Pope. Hauppauge, NY: Barron=s Educational Series, c1996, 104 p., ill. ISBN: 0812091566.

NAL call no: SF459.F83B37 1996

Descriptors: frogs as pets, toads as pets, Hylidae.

Amphibian medicine. Wright, K.M. *Proceeding of the North American Veterinary Conference.* Eastern States Veterinary Association, Jan. 14-18, 1995, v. 9, p. 659-661.

NAL call no: SF605.N672

Descriptors: amphibia, veterinary medicine.

Evaluation of the use of tiletamine/zolazepam for anesthesia of bullfrog and leopard frogs. Letcher, J.; Durante, R.

Journal of the American Veterinary Medical Association. Schaumburg, IL: American Veterinary Medical Association, Jul.1, 1995, v. 207 (1), p. 80-82. ISSN: 0003-1488.

NAL call no: 41.8 Am3

Descriptors: tiletamine/zolazepam, anesthesia, bullfrog, leopard frog.

Isolation of an iridovirus-like agent from common frogs (*Rana temporaria*). Drury, S.E.N.; Gough, R.E.; Cunningham, A.A. *Veterinary Record.* London: The British Veterinary Association, Jul.15, 1995, v. 137 (3), p. 72-73. ISSN: 0042-4900.

NAL call no: 41.8 V641

Descriptors: Rana, iridovirus, mortality, viral diseases.

The diagnosis and interpretation of protozoans commonly found in poison dart frogs. Whitaker, B.R. *Proceedings of the North American Veterinary Conference.* Eastern States Veterinary Association, Jan.15-20, 1994, p. 781.

NAL call no: SF605.N672

Descriptors: frogs, protozoal infections.

Skin lesions associated with herpesvirus-like particles in frogs (*Rana dalmatina*). Bennati, R.; Bonetti, M.; Lavazza, A.; Gelmetti, D. *Veterinary Record.* The British Veterinary Association, Dec. 24-31, 1994, v. 135 (26), p. 625-626. ISSN: 0042-4900.

NAL call no: 41.8 V641

Descriptors: Rana, skin disease, herpesviridae, outbreaks.

An Enriched Environment for the African Clawed Frog (*Xenopus laevis*). Kaplan, Michael L., DVM, *Lab Animal*, May 1993, v. 22 (5), p. 25-29. ISSN: 0093-7355.

NAL call no: QL55A1L33

Descriptors: enrichment, environment, African Clawed Frog, *Xenopus laevis*.

Keeping and breeding amphibians: Caecilians, newts, salamanders, frogs, and toads. Mattison, Christopher. London: Blandford, NY: Distributed in the U.S. by Sterling Pub. Co., 1993, 224 p., col. ill. ISBN: 0713723289.

NAL call no: SF459.A45M38 1993

Descriptors: captive amphibians, breeding.

Unusual mortality associated with poxvirus-like particles in frogs (*Rana temporaria*). Cunningham, A.A.; Langton, T.E.S.; Bennett, P.M.; Drury, S.E.N.; Gough, R.E.; Kirkwood, J.K. *Veterinary Record.* The British Veterinary Association, Aug. 7, 1993, v. 133 (6), p. 141-142. ISSN: 0042-4900.

NAL call no: 41.8 V641

Descriptors: Rana, poxviridae, mortality.

Alternatives to the use of mammals for pain research. Stevens, C.W. *Life Science*, v. 50 (13), p. 901-912 (1992).

NAL call no: 442.8 L62

Descriptors: amphibia, pharmacology, physiology, biochemistry.

- Creature comforters.** University of Calgary. *Future Health/Perspectives Sante*, Westmount, Quebec, Canada, Summer 1992, pp. 14-16.
 Descriptors: improved housing, frogs.
- Ecotoxicity of chemicals to amphibians.** Devillers, J.; Exbrayat, J.M. Philadelphia: Gordon and Breach Science Publishers, c1992, x., 351 p. ISBN: 2881248721; 288124873X.
 NAL call no: QH545.A1H362 v. 1
 Descriptors: amphibians, chemicals, effects, manuals, pesticides.
- Efficacy of ivermectin as an anthelmintic in leopard frogs.** Letcher, J.; Glade, M. *Journal of the American Veterinary Medical Association*. Feb. 15, 1992, v. 200 (4), p. 537-538. ISSN: 0003-1488.
 NAL call no: 41.8 AM3
 Descriptors: Rana pipiens, ivermectin, cutaneous application, dosage, drug toxicity.
- Flavobacterium indologenes infection in leopard frogs.** Olson, M.E.; Gard, S.; Brown, M; Hampton, R.; Morck, D.W. *Journal of the American Veterinary Medical Association*. Dec. 1, 1992, v. 201 (11), p. 1766-1770. ISSN: 0003-1488.
 NAL call no: 41.8 Am3
 Descriptors: Rana pipiens, flavobacterium, bacterial diseases, symptoms.
- Housing, handling, and nutrition of salamanders.** Jaeger, R.G. *SCAW Newsletter*. Bethesda, MD: Scientist Center for Animal Welfare, Fall 1992, v. 14 (3), p. 11-14. ISSN: 1052-7559.
 NAL call no: QL55.N48
 Descriptors: animal housing, husbandry, nutrition, salamanders,
- Nutritional support of the amphibian patient.** Wright, K. *Proceedings of the North American Veterinary Conference*. Eastern States Veterinary Association, Jan. 14-18, 1995, v. 9, p. 666.
 NAL call no: SF605.N672
 Descriptors: amphibia, nutrition.
- Intracelomic use of tricaine methane sulfonate for anesthesia of bullfrogs (*Rana catesbeiana*) and leopard frogs (*Rana pipiens*).** Letcher, J. *Zoo Biology*, Wiley-Liss, Inc., New York, NY; v. 11, p. 243-251 (1992).
 NAL call no: QL77.5.Z6
 Descriptors: MS-222, anurans, intracelomic injection.
- Laboratory care and breeding of the African clawed frog.** Dawson, D.A.; Schultz, T.W. and Shroeder, E.C. *Lab Animal*, University of Tennessee, College of Veterinary Medicine, Knoxville, TN; v. 21 (4), p. 31-36 (April 1992).
 NAL call no: QL55.A1L33
 Descriptors: housing, water quality, breeding, parasite treatment, embryo handling, tadpole care, Xenopus, reproduction.
- Managing a bullfrog research colony.** Culley, D.D. In: *The Care and Use of Amphibians, Reptiles, and Fish in Research*. Schaeffer, D.O.; Kleinow, K.M. and Krulisch, L. (eds.), Scientists Center for Animal Welfare, Bethesda, MD; 1992 (in press), 25 p.
 NAL call no: SF406.C35 1992
 Descriptors: water quality, housing, diet, health.
- A new method for feeding captive frogs (*Xenopus laevis*).** Sackin, N. and Sackin, H. *Lab Animal*, v. 20 (8), p. 44-46 (1991).
 NAL call no: QL55.A1L33
 Descriptors: African clawed frogs, diet.
- Ontogeny of middle ear function in anuran amphibians.** Heatherington, T.E. *American Zoologist*, 1991, v. 31 (5), p. 34A. ISSN: 0003-1569.
 NAL call no: 410 AM3
 Descriptors: ontogeny, morphogenesis, auditory organs, metamorphosis, Anura.
- A man and his frogs.** Zasloff, M. *The Washington Post*, Feb.16, 1988.
 Descriptors: magainin, antibiotic, cancer.
- An economical, balanced diet for *Xenopus*.** Able, D.J. *ILAR News*, v.30 (3), p. 20-21 (1988).

NAL call no: QL55.A1I43

Descriptors: *Xenopus laevis*, South African clawed frog, hormones, guidelines, formulation, ingredients.

Rearing and Breeding Amphibia in the Laboratory and Terrarium. (German) Herrmann, H.J. Naturhistorisches Museum, 1988, 64 pp.

NAL call no: SF407.A45H3

Descriptors: husbandry, feeding, environment.

The I.U. Axolotl Colony's short guide to the care and feeding of axolotls. An overview of the methods used at the Indiana University Axolotl Colony. Duhon, S. *ILAR News*, Institute of Laboratory Animal Resources, National Research Council, Washington, DC; v. 30 (3), p.18-20 (1988).

NAL call no: QL55.A1I43

Descriptors: water quality, housing.

Amphibians. Stewart, K.W. *Guide to the Care and Use of Experimental Animals.* Canadian Council on Animal Care, Ottawa, Canada, v. 2, 1984, p. 11-17.

NAL call no: SF406.C36

Descriptors: housing, nutrition, health care, restraint, thermoregulatory needs.

Anesthetic and sedative drug dosage - amphibians and reptiles. Canadian Council on Animal Care. *Guide to the Care and Use of Experimental Animals.* Ottawa, Canada, 1980, Vol. 1, pp. 99.

NAL call no: SF406.C36

Descriptors: agent, dose, route.

Xenopus laevis: Rearing and Breeding the African Clawed Frog. Etheridge, A.L. and Richter, S.M.A. NASCO, Fort Atkinson, WI; 1978, 14 pp.

NAL call no: QL668.E265E8

Descriptors: feeding, frogs, tadpoles, housing, disease.

Amphibians: Medicine and Husbandry. Ringler, D.H. Health Sciences Learning Resources Center, University of Washington, Seattle, WA; 1975, 64 slides, 23 min. sound cassette.

NAL call no: Slide no. 226

Descriptors: environment, health, maintenance, maintenance.

Amphibians. Guidelines for the Breeding, Care, and Management of Laboratory Animals. Nace, G.W. (ed.), Institute of Laboratory Animal Resources, National Academy of Sciences, Washington, DC; 1974, pp. 153.

NAL call no: SF407.A45N37

Descriptors: husbandry, health, nutrition, anesthesia, analgesia, euthanasia, disease.

FISH

GENERAL

Applied Fish Genetics. Padhi, Bhaja Krishna and Mandal, Radha Kanta, 1st. ed. Visakhapatnam, Fishing Chimes. 2000, 190 p., ill. ISBN: 8186110011. K.K. Agencies Online Store of Indian Publications, H-12 Bali Nagar, New Delhi-110015, India. Fax: +0091-11-5465925. e-mail: info@kkagencies.com <http://www.kkagencies.com>
NAL call no: QL638.99 P34 2000
Descriptors: fishes, genetics, fish culture.

Description of a facility for studying energy metabolism in fish: Application to aquaculture. Rus, A.S.; Enjuto, C.; Morales, A.E.; Hidalgo, M.C.; Garcia-Gallego, M. *Aquacultural Engineering*, 2000, v. 21 (3), p. 169-180. ISSN: 0144-8609.
NAL call no: SH1.A66
Descriptors: calorimetry, nutrition, energy metabolism, fish culture.

Fish feeds and nutrition committee on animal nutrition. Hardy, R.E. *Aquaculture Magazine*, 2000, v. 26 (4), p. 62-66. ISSN: 0199-1388.
NAL call no: SH1.C65
Descriptors: nutritional requirements, food fish, quality control, aquaculture.

Analysis of glycolipids from fish, shellfish, and sea snake lipids by high performance liquid chromatography. Lim, S.Y.; Park, W.K.; Suzuki, H. *Journal of Agricultural and Food Chemistry*, Mar. 1999, v. 47 (3), p. 960-963. ISSN: 0021-8561..
NAL call no: 381 J8223
Descriptors: sardines, mackerels, abalones, lipids, glycolipids.

A decision support software for safely conducting research with genetically modified fish and shellfish. Hallerman, E.; King, D.; Kapuscinski, A. *Aquaculture*, Elsevier, Mar. 1999, v. 173 (1-4), p. 309-318. ISSN: 0044-8486.
NAL call no: SH1.A6
Descriptors: fishes, shellfish, computer software, transgenic animals, risk reduction.

Genetic engineering in aquaculture. Lakra, W.S.; Das, P. *Indian Journal of Animal Sciences*, 1998, v. 68 (8), p. 873-879. ISSN: 0367-8318.
NAL call no: 41.8 IN22
Descriptors: aquaculture, genetics, biotechnology, transgenic fish, aquaculture techniques.

The application of gene transfer techniques to marine resource management: Recent advances, problems and future directions. Sin, F.Y.T.; Mukherjee, U.K.; Walker, L.; Sin, I.L. *Hydrobiologia*, 1997, v. 352 (1-3), p. 263-278. ISSN: 0018-8158.
NAL call no: 410 H992
Descriptors: gene transfer, transgenic fish, genes, genetics, fish culture.

Model finfish guidelines based upon use of finfish in research by the Agricultural research Service, USDA. Guttman, H.N.; Freeman, D.W. *S.C.A.W. Newsletter*. Greenbelt, MD: Scientist Center for Animal Welfare, Spring, 1996, v. 18 (1), p. 9-11. ISSN: 1052-7559.
NAL call no: QL55.N48
Descriptors: fishes, guidelines, research, fish culture, animal welfare.

Guidelines for the care and use of fish in research. DeTolla, L.J.; Srinivas, S.; Whitaker, B.R.; Andrews, C.; Hecker, B.;

Kane, A.S.; Reimschuessel, R. *I.L.A.R. Journal*. Washington, D.C.: Institute of Laboratory Animal Resources, National Research Council, 1995, v. 37 (4), p. 159-173. ISSN: 1084-2020.

NAL call no: QL55.A1I43

Descriptors: fishes, animal experiments, anesthesia, euthanasia, zoonoses, guidelines.

Performance standards for safely conducting research with genetically modified fish and shellfish. United States Agricultural Biotechnology Research Advisory Committee. Working Group on Aquatic Biotechnology and Environmental Safety. Washington, D.C.: U.S. Dept. of Agriculture, Office of Agricultural Biotechnology, 1995, v.: ill.

NAL call no: aTP248.27.M37U5522 1995

Descriptors: marine biotechnology research United States, aquaculture biotechnology.

Ecology and Classification of North American Freshwater Fisheries. Seaman, Jr., W. and Sprague, L.M. (eds.), Academic Press, San Diego, CA; 1991, 285 pp.

Descriptors: taxonomy, niche, habitat, community.

Marine life and medical research. *IIFAR Sighted Report*, v. 5 (1), p. 1-2 (1991).

NAL call no: HV4701.I55

Descriptors: diabetes, squid, cancer, epilepsy, leukemia, monkfish, trout, cardiology, biochemistry, embryology.

Tumors, toxins and diagnostics: Biotechnology and marine invertebrates. Reinisch, C.L. Institute of Marine Biotechnology Conference, Baltimore, MD. Oct. 13-16, 1991. p. 56

Descriptors: monoclonal antibodies, antigen, leukemia, biotechnology, invertebrates.

Marine animals and medical research. *MBL Science*, v. 4 (1), p. 2-4 (1990).

Descriptors: models, fish, invertebrates, squid, epilepsy, diabetes, fertility, leukemia, muscle, Alzheimer's, birth defects, cancer, Marine Biology Laboratory, neurobiology, crustaceans.

Biomedical applications of marine animals. Smith, A.C. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 149-159.

NAL call no: QL55.N66

Descriptors: human disease, pathology, marine products, evolution, marine biology.

Marine models in biomedical research: A report from the Marine Life Resources Workshop at Duke University Marine Laboratory, Beaufort, North Carolina, May 1988. Duke University Marine Laboratory. *Biological Bulletin*, v.176, p. 337-348 (1989).

NAL call no: 442.8 B52

Descriptors: models, workshop, nonmammalian, funding, fish, recommendations, cephalopods, molluscs, aquaculture, resources, toxicology, carcinogens.

Marine models in biomedical research. *The Collecting Net*. Marine Biological Laboratory, Woods Hole, MA; v. 7 (1), p. 1-3 (1989).

Descriptors: Beaufort Symposium, benefits, summary, invertebrates, nonmammalian, vertebrates.

The manual of fish health. Andrews, Chris; Exell, Adrian; Carrington, Neville. Morris Plains, N.J.: Tetra Press, c1988, 208 p. col. ill. ISBN: 3923880375.

NAL call no: SH171.A52

Descriptors: aquariums, fish diseases, handbook, manual.

Marine (and freshwater) models in biomedical research. Marine Life Resources Workshop Beaufort, NC, May 1988.

Anonymous. *The Biological Bulletin*. Marine Biology Laboratory (Informational Bulletin Marine Biological Laboratory) Woods Hole, MA; v.176 (3), p. 337-348 (1989).

NAL call no: 442.8 B52

Descriptors: pharmacology, test organisms, marine organisms.

Recent applications of fish cell culture to biomedical research. Hightower, L.E.; Renfro, J.L. *Journal of Experimental Zoology*, 1988, v. 248 (3), p. 290-302. ISSN: 0022-104X.
NAL call no: 410 J825
Descriptors: cell culture, tissue, Pisces, laboratory culture.

Advantages of using aquatic animals for biomedical research on reproductive toxicology. Mottet, N.K.; Landolt, M.L. *Mechanisms of Pollutant Action in Aquatic Organisms*. Research Triangle Park, N.C.: Pritchard, J.B. ed. 1987, v. 71, p. 69-75.

Funduscopy morphology of selected marine animals as photographed in vivo. Grover, D.A. and Zigmen, S. *Canadian Journal of Zoology*, v. 62, p. 563-566 (1984).
NAL call no: 470 C16D
Descriptors: ophthalmoscopy, histopathology aid, eye photography.

Fish collections in the United States and Canada. Collette, B.B. and Lachner, E.A. *Copeia*, 1976, p. 618. ISSN 0045-8511.

FISH AS BIOMEDICAL MODELS

A Fish Model of Renal Regeneration and Development. Reimschuessel, Renate. *ILAR Journal*, 2001, v. 42 (4), p. 285-291. http://dels-old.nas.edu/ilar_n/ilarjournal/42_4/fish_model.shtml
NAL call no: QL55.A1I43
Descriptors: development, fish, kidney, model, nephron, regeneration, repair.

Development of Sensory Systems in Zebrafish (*Danio rerio*). Moorman, Stephen J. *ILAR Journal*, 2001, v. 42 (4), p. 292-298. http://dels-old.nas.edu/ilar_n/ilarjournal/42_4/sensory.shtml
NAL call no: QL55.A1I43
Descriptors: dorsal root ganglion, inner ear, lateral line, olfactory system, vestibular system, visual system.

Mechanistic Considerations in Small Fish Carcinogenicity Testing. Law, J. McHugh. *ILAR Journal*, 2001, v. 42 (4), p. 274-284. http://dels-old.nas.edu/ilar_n/ilarjournal/42_4/mechanistic.shtml
NAL call no: QL55.A1I43
Descriptors: carcinogenicity, cytochrome P450, diethylnitrosamine, DNA adduct, hepatocarcinogenesis, medaka, small fish models, zebrafish.

Transgenic Fish as Models in Environmental Toxicology. Winn, Richard N. *ILAR Journal*, 2001, v. 42 (4), p. 322-329. http://dels-old.nas.edu/ilar_n/ilarjournal/42_4/Transg.shtml
NAL call no: QL55.A1I43
Descriptors: Fundulus, lambda, medaka, plasmid, transgenic.

Xiphophorus Interspecies Hybrids as Genetic Models of Induced Neoplasia. Walter, Ronald B.; Kazianis, Steven. *ILAR Journal*, 2001, v. 42 (4), p. 299-321. http://dels-old.nas.edu/ilar_n/ilarjournal/42_4/Hybrids.shtml
NAL call no: QL55.A1I43
Descriptors: CDKN2, melanoma, MNU, platyfish, swordtail, UV, Xmrk.

Acute stress response in triploid rainbow trout (*Oncorhynchus mykiss*) and brook trout (*Salvelinus fontinalis*). Benfrey, T.J.; Biron, M. *Aquaculture*, 2000, v. 184 (1-2), p. 167-176. ISSN: 0044-8486.
NAL call no: SH1.A6
Descriptors: blood, hydrocortisone, glucose, stress, fish.

Embryonic stem cells in fish: Current status and perspectives. Hong, Y.; Chen, S.; Schartl, M. *Fish Physiology and Biochemistry*, 2000, v. 22 (2), p. 165-170. ISSN: 0920-1742.
NAL call no: QL639.1.F583

Descriptors: gene transfer, cell culture, stem cells, genomes, fish culture.

Genetics and Breeding: Transgenic fish: Recent reports. Lutz, C.G. *Aquaculture Magazine*, 2000, v. 26 (1), p. 69-71.

ISSN: 0199-1388.

NAL call no: SH1.C65

Descriptors: genetic engineering, transgenic fish, DNA, biotechnology, reviews.

Guidelines for reporting the results of experiments on fish. Brattelid, T.; Smith, A.J. *Laboratory Animals*, Apr. 2000, v. 34 (2), p. 131-135. ISSN: 0023-6772.

NAL call no: QL55.A1L3

Descriptors: fish, results, reporting, experiments.

Use of lipid-emulsion carrier for immunisation of dab (*Limanda limanda*) by bath and oral routes: An assessment of systemic and mucosal antibody responses. Lin, S.H.; Davidson, G.A.; Secombes, C.J.; Ellis, A.E. *Aquaculture*, 2000, v. 181 (1-2), p. 11-24. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: fish immunity, antibody response, lipids, disease control, vaccination.

Studies on morphogenesis and cellular interactions of *Rana grylio* virus in an infected fish cell line. Zhang, Q.Y.; Li, Z.Q.; Gui, J. F. *Aquaculture*. Amsterdam, Elsevier. May 15, 1999, v. 175 (3-4), p. 185-197. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: Rana, animal viruses, fish, cell lines, lysis, virulence.

The acute humoral adrenergic stress response in fish: Facts and fiction. Perry, F.S.; Bernier, N.J. *Aquaculture*. Elsevier. Jul.1, 1999, v. 177 (1-4), p. 285-295. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: fish, stress response, biochemical pathways, reviews, physiology.

Cloning of fish enzymes and other fish protein genes. Macouzet, M.; Simpson, B.K.; Lee, B.H. *Critical Reviews in Biotechnology*, 1999, v. 19 (3), p. 179-196. ISSN: 0738-8551.

NAL call no: TP248.13.C74

Descriptors: hormones, enzymes, antitumor agents, fish, antifreeze, clones.

Coding sequences of the MHC II beta chain of homozygous rainbow trout (*Oncorhynchus mykiss*). Ristow, S.S.; Grabowski, L.D.; Thompson, S.M.; Warr, G.W.; Kaattari, S.L.; De-Avila, J.M.; Thorgaard, G.H. *Developmental and Comparative Immunology*, 1999, v. 23 (1), p. 51-60. ISSN: 0145-305X.

NAL call no: QR180.D4

Descriptors: fish immunity, molecular structure, gynogenesis, genetics, chromosomes.

Current research status of fish immunostimulants. Sakai, M. *Aquaculture*. Elsevier. Mar. 1, 1999, v. 172 (1-2), p. 63-69. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: fish, shrimp, immunostimulants, disease resistance, literature reviews.

Cytokine genes in fish. Secombes, C.J.; Zou, J.; Laing, K.; Daniels, G.D.; Cunningham, C. *Aquaculture*, 1999, v. 172 (1-2), p. 93-102. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: genes, genomes, fish physiology, reviews.

Effect of an osmotic differential on the efficiency of gene transfer by electroporation of fish spermatozoa. Kang, J.H.; Yoshizaki, G.; Homma, O.; Strussmann, C.A.; Takashima, F. *Aquaculture*. Elsevier. Mar. 30, 1999, v. 173 (1-4), p. 297-307. ISSN: 0044-8486

NAL call no: SH1.A6

Descriptors: carp, spermatozoa, osmosis, gene transfer, transgenic animals.

Meeting report symposia A Gene transfer in aquatic organisms: From the laboratory to the market@. Genetically modified fish: From basic science to biotechnology. de la Fuente, J. *Biotechnologia Aplicada*, 1999, v. 16 (1), p. 37-43. ISSN: 0864-4551.

Descriptors: genetic engineering, gene transfer, transgenic fish, biotechnology.

A model to study fish DNA immersion vaccination by using the green fluorescent protein. Fernandez Alonso, M.; Alvarez, F.; Estepa, A.; Blasco, R.; Coll, J.M. *Journal of Fish Diseases*, 1999, v. 22 (3), p. 237-241. ISSN: 0140-7775.

NAL call no: SH171.A1J68

Descriptors: liposomes, vaccines, gene expression, fish diseases, antibodies.

Monoclonal antibodies in fish immunology: Identification, ontogeny and activity of T- and B- lymphocytes. Scapigliati, G.; Romano, N.; Abelli, L. *Aquaculture*, 1999, v. 172 (1-2), p. 3-28. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: fish culture, immunology, disease resistance, lymphocytes.

New ribosomal RNA gene locations in *Gossypium hirsutum* mapped by meiotic FISH. Ji, Y.; De Donato, M.; Crane, C.F.; Raska, W.A.; Islam Faridi, M.N.; McKnight, T.D.; Price, H.J.; Stelly, D.M. *Chromosoma*. Springer-Verlag. Jul.1999, v. 108 (3), p. 200-207. ISSN: 0009-5915.
NAL call no: 442.8 C46
Descriptors: DNA hybridization, ribosomal DNA, molecular mapping.

Specific cell-mediated immunity in fish. Nakanishi, T.; Aoyagi, K.; Xia, C.; Dijkstra, J.M.; Ototake, M. *Veterinary Immunology and Immunopathology*. Elsevier. Dec. 15, 1999, v. 72 (1-2), p. 101-109. ISSN: 0165-2427.
NAL call no: SF757.2.V38
Descriptors: sharks, rainbow trout, cell mediated immunity, immune system.

Development and use of genetically uniform strains of common carp in experimental animal research. Bongers, A.B.J.; Sukkel, M.; Gort, G.; Komen, J.; Richter, C.J.J. *Laboratory Animals*. Royal Society of Medicine Press Ltd., Oct. 1998, v. 32 (4), p. 349-363. ISSN: 0023-6772.
NAL call no: QL55.A1L3
Descriptors: carp, homozygosity, inbred strains, genetic variance, crosses.

DNA-based vaccination of fish. Davis, H.L. Ottawa Civic Hospital Loeb Research. 1998. U.S. Patent 5780448.
Descriptors: disease control, patents, vaccines, DNA vaccines, immunology.

Field trials of investigational new animal drugs. Moffitt, C.M. *Veterinary and Human Toxicology*, 1998, v. 40, p. 48-51. ISSN: 0145-6296.
NAL call no: SF601.A47
Descriptors: fish diseases, disease control, drugs, vaccines, fish culture.

Initial baseline blood chemistry of the oyster toadfish, *Opsanus tau*. O=Neil, M.D.; Wesp, H.M.; Mensinger, A.F. *Biological Bulletin*. Marine Biological Laboratory, Woods Hole, MA. 1998, v. 195 (2), p. 228-229. ISSN: 0006-3185.
NAL call no: 442.8 B52
Descriptors: marine fish, haematology, serum, *Opsanus tau*.

Three continuous fish cell lines of SPH, SPS and RSBF derived from sea perch (*Lateolabrax japonicus*) and red sea bream (*Pagrosomus major*). Tong, S.L.; Miao, H.Z.; Li, H. *Aquaculture*, 1998, v. 169 (1-2), p. 143-151. ISSN: 0044-8486.
NAL call no: SH1.A6
Descriptors: cell culture, tissue culture, chromosomes, histology, fish culture.

Transgenic fish: The future of fish with novel genes. Volckaert, F.; Ollevier, F. *Proceedings of the Symposium on Genetics and Aquaculture in Africa*. Abidjan 1-4 Apr.1997. Agnese, J.F., ed. Paris, France ORSTOM 1998, p. 33-58. ISSN: 0767-2896. ISBN: 2709913909.
NAL call no: SH121.G4613 1998
Descriptors: aquaculture, genetics, genes, fish, biology.

Chromosomal analysis of two established salmonid cell lines: CHSE-214 (*Oncorhynchus tshawytscha*) and RTG-2 (*Oncorhynchus mykiss*). Amaro, R.; Sanchez, L. *In Vitro Cell Dev. Biol. Anim.* 1997, v. 33 (9), p. 662-664. ISSN: 1071-2690.
NAL call no: QH585.A1I58
Descriptors: chromosomes, cell culture.

Production of fish chimeras from embryonic cells. Varadi, L.; Horvath, L. *Acta Biologica Hungarica*, 1997, v. 48 (1), p. 95-104. ISSN: 0236-3583.
NAL call no: 475 Ac85
Descriptors: chimera, fish embryology, fish genetics.

Transgenic fish. Sin, F.Y.T. Dept. of Zoology, Univ. of Canterbury, Christchurch, NZ. *Rev. Fish Biol. Fish*, 1997, v. 7 (4), p.

417-441. ISSN: 0960-3166.

Descriptors: genetics, genes, phenotypes, genotypes, transgenic fish.

The zebrafish swims to fame as an experimental model in biology. Vascotto, S.G.; Beckham, Y.; Kelly, G. *Biochemistry and Cell Biology*, 1997, v. 75 (5), p. 479-485. ISSN: 0829-8211.

NAL call no: QP501.B642

Descriptors: genetics, embryonic development, test organisms, literature reviews,

Fish models for environmental carcinogenesis: The rainbow trout. Bailey, G.S.; Williams, D.E.; Hendricks, J.D. *Environmental Health Perspectives*, Mar. 1996, v. 104, Suppl 1, p. 5-21. ISSN: 0091-6765.

NAL call no: RA565.A1E54

Descriptors: carcinogens, environmental toxicity, neoplasms, disease model.

Goldfish as enrichment for singly housed chimpanzees. Kessel, A.; Brent, L. *Animal Technology: Journal of the Institute of Animal Technology*, Apr. 1996, v. 47 (1), p. 1-8. ISSN: 0264-4754.

NAL call no: QL55.I5

Descriptors: chimpanzees, enrichment, goldfish, behavior patterns, animal welfare.

Asymmetry and variability of meristic characters and spotting in isogenic lines of rainbow trout. Young, W.P.; Wheeler, P.A.; Thorgaard, G.H. *Aquaculture*, 1995, v. 137 (1-4), p. 67-76. ISSN: 0044-8486.

NAL call no: SH1.A6

Descriptors: fish culture, clones, aquaculture techniques.

Care of fish in biological research. Klontz, G.W. *Journal of Animal Science*, Nov. 1995, v. 73 (11), p. 3485-3492. ISSN: 0021-8812.

NAL call no: 49 J82

Descriptors: fishes, fish culture, animal welfare, feeding.

Chromosome manipulation begins to pay off. Thorgaard, G. *Proceedings of Aquatech-95*. Vancouver, BC, Canada, Jan. 28, 1995, v. 95 (2), p. 45-46. ISSN: 0840-5417.

NAL call no: SH37.B8

Descriptors: genetics, fish culture, selective breeding, sex determination.

Genetically modified finfish and shellfish: Prospects for the 21st century. Powers, D.A. *Triennial Meeting of Fish Culture Section of the American Fisheries Society, World Aquaculture Society, National Shellfisheries Association. Journal of Shellfish Research*, 1995, v. 14 (1), p. 275.

NAL call no: SH365.A1J6

Descriptors: population genetics, selective breeding, biotechnology.

Advances in Fish Biology. Sing, H.R.; Khanna, S.S. Delhi: Hindustan Pub. Corp. 1994, xx, 304 p. ill. ISBN: 8170245702.

NAL call no: QL630.1.A38 1994

Descriptors: fishes, physiology.

Cell fate in the developing sea urchin embryo: A model for biomedical research. Cameron, R.A.; Davidson, E.H. *3rd International Marine Biotechnology Conference*. Tromsø, Norway, 7-12 Aug. 1994, p. 95.

Descriptors: embryogenesis, gene expression, sea urchin, models, gene transfer.

Developmental and molecular genetics in fish. Moav, B.; Ar, A.; Vleck, C. *Development in Vertebrate Embryos: Environmental, Parental, and Embryonic Interactions*. Proceedings of a Symposium at the International Joint Meeting of the Society for Experimental Biology, American Society of Zoologists, and Canadian Society for Zoology, 9-13 Aug. 1992. *Journal of Zoology*, 1994, v. 40 (3-4), p. 441-446. ISSN: 0021-2210.

Descriptors: genetics, freshwater fish, embryology, embryonic development.

Gene transfer and expression in farmed fish. Dunham, Rex Alan. *Bet Dagen*, Israel: BARD, 1993, 57 leaves, ill.

NAL call no: QH442.6.G45 1993

Descriptors: fishes, genetic engineering, transgenic animals, gene expression.

Transgenic fish research: A bibliography: A selected bibliography of research in the field of molecular biology and genetic engineering using fresh water fish. Warmbrodt, Robert D.; Stone, Virginia. *Bibliographies and Literature*

of Agriculture; no. 117. Beltsville, MD: National Agricultural Library, 1993. viii, 48 p.
NAL call no: aZ5076.A1U54 no. 117
Descriptors: transgenic fish bibliography.

Arterial response to mechanical injury: Balloon catheter de-endothelialization. Ferns, G.A.A.; Stewart, A.L. and Anggard, E.E. *Atherosclerosis* 92(2-3):89-104 (1992).
NAL call no: RC692.A8
Descriptors: fish, techniques.

Gene transfer in fish: Potential and practice. McEvoy, T.G.; Gannon, F.; Sreenan, J.M. *Animal Biotechnology*. N.Y.: Marcel Dekker, 1992, v. 3 (2), p. 221-243. ISSN: 1049-5398.
NAL call no: SF140.B54A55
Descriptors: fishes, gene transfer.

Methods of marking fish and shellfish. Neilson, Larry A. Special Publication American Fisheries Society, no. 23. Bethesda, MD: American Fisheries Society, 1992, xiv, 208 p., ill. ISBN: 0913235806.
NAL call no: SH156.8.N54 1992
Descriptors: fish tagging, animal marking, fisheries research.

An overview of fish digestive physiology and the relevance to the formulation of artificial fish feeds. 1992. Wee, K.L. Aquaculture Nutrition Workshop, Salamander Bay, NSW, Australia, 15 Apr. 1991. *Proceedings of the Aquaculture Nutrition Workshop*. Allan, G.L.; Dall, W. eds. 1992, p. 17-24. ISBN: 0730597105.
Descriptors: fish culture, digestion, nutrition, artificial feeding.

Acute toxicity of pentachlorophenol (PCP) on goldfish (*Carassius auratus*) under laboratory conditions. Fernandez-Casalderrey, A. *Toxicological and Environmental Chemistry*, v. 31/32, p.395-400 (1991).
NAL call no: QD241.T6
Descriptors: pollution, toxicant, degradation, environment.

Fish as human disease models. Contie, V.L. *Reporter*, v.15 (11), p. 1-4 (1991).
Descriptors: carcinogens, Wilson's Disease, environmental toxicity, medaka, copper metabolism, lysosomes, liver, neurology.

Aging and calcium metabolism. Fujita, I. *Advances in Second Messenger and Phosphoprotein Research*, v. 24, p. 542-547 (1990).
NAL call no: QP801.N82A3
Descriptors: arteriosclerosis, metabolism, calcitonin, diabetes, concentration gradient, deficiency.

Effect of low-temperature culture and L3T4 antibody on the survival of pancreatic islets xenograft (fish to mouse). Morsiani, E. and Lacy, P.E. *European Surgical Research*, v. 22 (2), p. 78-85 (1990).
Descriptors: catfish, diabetes, transplantation, organ culture, monoclonal antibodies.

Fish hepatocytes accumulate herpes: A potential source of error in studies of intracellular pH regulation. Walsh, P.J. *Journal of Experimental Biology*, v.148, p. 495-499 (1990).
NAL call no: 442.8 B77
Descriptors: techniques, physiological techniques, physiological solution, Good's Buffer accumulation, *in vitro*, toadfish, temperature.

The fish pigment cell: An alternative model in biomedical research. Karlsson, J.O.G.; Grundstrom, N.; Elwing, H.; Andersson, R.G.G. *Alternatives to Laboratory Animals (ATLA)*, Fund for the Replacement of Animals in Medical Experiments, Nov. 1990, v. 18, p. 201-224. ISSN: 0261-1929.
NAL call no: Z7994.L3A5
Descriptors: animal testing, alternatives, literature reviews.

Light elements: *Caviar emptor*. Stone, J. *Discover*, Aug.1990, pp. 32-35.

NAL call no: Q1.D57

Descriptors: fish eggs, antimetabolic, embryonic diapause, development, killifish, growth, AIDS, environment toxins, hatchery.

Purification of prosomatostatin-converting enzymes. Mackin, R.B.; Noe, B.D. and Spiess, J. *Metabolism, Clinical and Experimental*, v.39 (9 Suppl.2), p. 30-32 (1990).

NAL call no: 448.8 M56

Descriptors: metabolism, Islets of Langerhans, peptide, chromatography.

The use of an aquatic bioassay in carcinogenicity testing. Bunton, T.E. *Lab Animal*, v. 19 (5), p. 46-47, Jul./Aug. 1990.

NAL call no: QL55.A1L33

Descriptors: environmental pollution, health risk, rainbow trout, guppy, zebra fish, medaka, advantages to use.

Using white perch (*Morone americana*) to study abnormal hepatic copper metabolism. Bunton, T.E., and Frazier, J.M. *Lab Animal*, v.19 (5), p. 48-50, Jul./Aug. 1990.

NAL call no: QL55.A1L33

Descriptors: Wilson's disease, heavy metal, liver disease, copper storage, copper excretion.

Elasmobranchs (sharks, skates, and rays) as animal models for biomedical research. Luer, C.A. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 121-148

NAL call no: QL55N66

Descriptors: carcinogenesis, embryology, cardiology, kidney function.

Electric organ discharge and electrosensory reafference in the little skate, *Raja erinacea*. New, J.G. *Biological Bulletin of the Marine Biological Laboratory*. General scientific meeting of the Marine Biological Laboratory, Woods Hole, MA; Aug. 14-16, 1989. v. 177 (2), p. 324 (1989).

NAL call no: 442.8 B52

Descriptors: nervous system, axons, sensory.

Evolution of urea synthesis in vertebrates. The piscine connection. Mommsen, T.P. and Walsh, P.J. *Science*, v. 243 (4887), p. 72-75 (1989).

NAL call no: 470 Sci2

Descriptors: toad fish, osmolyte, CPS I, CPS III, mitochondrial arginase.

Fresh water fish in research on radiation biology. Shima, A. *Nonmammalian Models for Biomedical Research*. Eds. Avril D. Woodhead; Katherine Vivirito.: CRC Press, Boca Raton, FL. c1989, p. 215-223. ISBN: 0849347637.

NAL call no: QL55.N66

Descriptors: fresh water fishes, animal models, radiation.

Fish as model systems. Powers, D.A. *Science*, v. 246, p. 352-358 (1989).

NAL call no: Q1.A3S3

Descriptors: research, neurobiology, endocrinology, toxicology.

Genetics of melanomas in Xiphophorus fishes. Vielkind, J.R. and Kallman, K.D. *Journal of Aquatic Animal Health*. American Fisheries Society, Bethesda, MD; v.1 (1), p. 69-77 (1989).

NAL call no: SH171.J68

Descriptors: tumorigenesis, cancer heterogeneity, pigment cell development.

The goldfish visual pathway: Intermediate filament proteins in nerve growth and development. Schechter, N.; Jones, P.S.; Quitschke, W. and Tesser, P. In: *Nonmammalian Animal Models for Biomedical Research* Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 225-244.

NAL call no: QL55.N66

Descriptors: classification, structure, synthesis, localization, nerve injury.

In vitro metabolism of the pro-carcinogen aflatoxin B1 by liver preparations of the calf, nurse shark and clearnose skate. Bodine, A.B. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology and Toxicology*, v. 94 (2), p. 447-453 (1989).

NAL call no: QP901.C6

Descriptors: comparative biochemistry, comparative physiology, pharmacology, toxicology.

Nervous control of ventilation and heart rate in elasmobranch fish, a model for the study of the central neural mechanisms mediating cardiorespiratory interactions in mammals. Taylor, E.W. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 161-183.

NAL call no: QL55.N66

Descriptors: chemoreceptor responses, vagal supply, cardiorespiratory.

Properties of detached nerve terminals from skate electric organ: A combined biochemical, morphological, and physiological study. Dowdall, M.; Pappas, G. and Kriebel, M. *Biological Bulletin of the Marine Biological Laboratory*. General scientific meeting of the Marine Biological Laboratory, Woods Hole, MA; Aug.14-16, 1989. v.177 (2), p. 322 (1989).

NAL call no: 442.8 B52

Descriptors: comparative medicine, receptors, anatomy.

Regulation of insulin release from pancreatic islet cells by norepinephrine and neuropeptide Y. Milgram, S.L.; McDonald, J.K. and Noe, B.D. *Biological Bulletin of the Marine Biological Laboratory*. General scientific meeting of the Marine Biological Laboratory, Woods Hole, MA; Aug.14-16, 1989. v. 177 (2), p. 324-325 (1989).

NAL call no: 442.8 B52

Descriptors: nephrology, kidney, insulin regulation.

Use of small fish in biomedical research, with special reference in inbred strains of medaka. Hyodo-Taguchi, Y. and Egami, N. In: *Nonmammalian Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL, 1989, pp. 185-214.

NAL call no: QL55.N66

Descriptors: nonmammalian, models, pisces, gnathostomota, *Oryzias latipes*, carcinogenesis, neural regeneration.

Control of testis function in fish: *In vitro* studies of gonadotropic regulation in the trout (*Salmo gairdneri*). Le Gac, F. and Loir, M. *Reproduction Nutrition Development*, v. 28 (4B), p. 1031-1046 (1988).

NAL call no: 442.8 An75

Descriptors: hormone, gonad, *In vitro*, chemical regulation.

Fish Acute Toxicity Syndromes: Application to the development of mechanism-specific QSARS (Quantitative Structure Activity Relationships). Bradbury, S.P. *Government Reports Announcements & Index (GRA&I)* 1988, issue 19.

NAL call no: 157.8 B47

Descriptors: hazardous chemicals, alternative, fish acute toxicity syndrome, rainbow trout, narcotics, phosphorylation, inhibitors, seizure.

Modification of the vestibulo-ocular reflex (VOR) after 6-OHDA induced catecholamine depletion in the CNS of goldfishes. McElligott, J.G.; Weiser, M. and Baker, R. *The Biological Bulletin*. Marine Biological Lab, General Scientific Meeting of the Marine Biological Lab. (Woods Hole, MA, USA) Aug.22-24, 1988. V. 175, 1988, p. 307-308.

NAL call no: 442.8 B52

Descriptors: sight response, chemical induced, nervous system.

On the shores of medical research. University of Washington School of Medicine. *Medicine Northwest*, v. 4 (1), p. 22-27 (1988).

Descriptors: steelhead, fish, cardiovascular disease, reproduction, growth, movement, behavior, carcinogens, tumors, parasites.

Recent applications of fish cell culture to biomedical research. Hightower, L.E. and Renfro, J.L. *Journal of Experimental Zoology*, v. 248 (3), p. 290-302 (1988).

NAL call no: 410 J825

Descriptors: immune system, cancer, cytology, neoplasm, ion transport, cellular stress response, tissue culture,

teleost, epithelial, *in vitro*, toxicology, heat shock, thermo tolerance.

Simultaneous assessment of prohormone transport and processing in four separate islet cell types: A combined autoradiographic and biochemical study. Noe, B.D.; Amherdt, M.; Perrelet, A. and Orci, L. *Pancreas*, v. 3 (6), p. 700-713 (1988). ISSN 0885-3177.

Descriptors: diabetes, cell culture, anglerfish, transport, metabolism, protein, precursors, proinsulin, pharmacokinetics.

Advantages of using aquatic animals for biomedical research on reproductive toxicology. Mottet, N.K. and Landolt, M.L. *Environmental Health Perspectives. Mechanisms of Pollutant Action in Aquatic Organisms*, Research Triangle Park, NC; v. 71., 1987, pp. 69-75.

NAL call no: RA565.A1E54

Descriptors: gametes, mechanisms, aquatic animals, microtubules, toxicants, toxicology, animal models, trout, sea urchins, flagella, morphology.

Freshwater fish. Buchanan, J.S.; Pell, I.B. *The UFAW Handbook on the Care and Management*

of Laboratory Animals. Eds. Trevor B. Poole; Ruth robinson. 6th ed. p. 796-823. ISBN: 058240911X.

NAL call no: QL55.U5 1987

Descriptors: laboratory animals, fresh water fish, animal husbandry.

Guidelines For Use of Fishes in Field Research. American Society of Ichthyologists and Herpetologists (ASIH); American Fisheries Society (AFS) and American Institute of Fishery Research Biologists (AIFRB). Lawrence, KS; 1987, 12 pp.

NAL call no: QL618.5.G85

Descriptors: euthanasia, anesthesia, analgesia, sampling capture, IACUC, restraint, radiotelemetry, radioisotopes, housing, maintenance, release.

Using fish as models in biomedical research. May, E.B.; Bennett, R.D.; Lipsky, M.M. and Reimschuessel, R. *Lab Animal*, v.16 (4), p. 23-28 (1987).

NAL call no: QL55.A1L33

Descriptors: cephalaspidomorphi, chondrichthyes, osteichthyes, salmondia, design, water quality, aquarium, construction.

Ionic regulation in fish: The influence of acclimation temperature on plasma composition and apparent set points.

Burton, R.F. *Comparative Biochemistry and Physiology. A: Comparative Physiology*, v. 85 (1), p. 23-28 (1986).

NAL call no: QP1.C6

Descriptors: circulatory fluid, blood, plasma, osmotic composition, osmotic relations, temperature relationships, thermal acclimation, plasma ionic concentration, environmental factors, physical environment.

Spermatogenesis and spermatology of some teleost fish species. Billard, R. *Reproduction, Nutrition, Development*, v.26 (4), p. 877-920 (1986).

NAL call no: 442.8 An75

Descriptors: endocrine system, hormones, cyclical functions, seasonal functions, environmental factors, physical environment, light, photoperiod, gametes, sperm, structural complexity, production and yield, testicular structure, lobule organization, endocrine regulation.

Establishment of inbred strains of medaka *Oryzias latipes* and the usefulness of the strains for biomedical research.

Hyodo-Taguchi, Y. and Egami, N. *Zoological Science*, v. 2 (3), p. 305-316 (1985).

NAL call no: QL1.Z68

Descriptors: nonmammalian, models, pisces, gnathostomata, *Oryzias latipes*.

White perch horizontal cells in culture: Methods, morphology and process growth. Dowling, J.E. and Pak, M.W. *Brain Research*, v. 360 (1-2), p. 331-338 (1985).

Descriptors: nerve cells, cell culture, fish.

Debate: Mouse versus minnow: The future of fish in carcinogenicity testing. Dawe, C.J. and Couch, J.A. *NCI*

Monographs U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Bethesda, MD; Vol. 65, 1984, pp. 223-227.

NAL call no: RC261.A1N37

Descriptors: evolutionary theory, branchial cysts, thyroid gland, parathyroid gland.

Serological alterations in carcinogen-exposed teleosts: Procedures for preparation and analysis of samples from small fish. Meador, C.B.; Middlebrooks, R.L. and Martin, B.J. (eds.), *NCI Monographs* U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Vol. 65, 1984.

NAL call no: RC261.A1N37

Descriptors: oncology, cancer, hematology.

The use of fish in biomedical research. Wolke, R. *Comparative Pathology Bulletin*, v. 16 (4), p. 1,5-6 (1984).

NAL call no: QL55.A1C66

Descriptors: laboratory rearing, medical research, disease, physiology, pathology, anatomy, immunology, melanin, carcinogens, biochemistry.

Effects of anaesthesia and surgery on levels of adrenaline and noradrenaline in blood plasma of the eel (*Anguilla anguilla* L.). LeBras, Y.M. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology*, v. 72C (1), p. 141-144 (1982).

NAL call no: QP901.C6

Descriptors: levels, baseline, trauma, post-operative, sampling.

The fishy side. Couch, J.A. *NCI Monographs* U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Bethesda, MD; Vol. 65, 1984, pp. 229-235.

NAL call no: RC261.A1N37

Descriptors: trifluralin, aflatoxin, sensitivity, non-neoplastic lesions.

Ichthyotoxins from the oyster toadfish *Opsanus tau*. Nair, M.S.R. and Leong, I. *Toxicon*, v. 20 (5), p. 933-935 (1982).

NAL call no: 391.8 T66

Descriptors: toxicology, neurology, effects.

In vitro study on the interactive effects of heavy metals on catalase activity of *Sarotherodon mossambicus* (Peters) (Fish, sublethal metal stress, toxicity). Singh, S.M. and Sivalingam, P.M. *Journal of Fish Biology*, v. 20 (6), p. 683-699 (1982).

NAL call no: QL614.J68

Descriptors: metal stress, antagonistic, synergistic, bioaccumulation, mortality, cellular, pollution, liver enzyme catalase, toxicity.

Neuropharmacology of adrenergic neurons in teleost fish. Holmgren, S. and Nilsson, S. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology*, v. 722c (1), p. 289-302 (1982).

NAL call no: QP901.C6

Descriptors: similarities, neurotransmission, parasympathetic, sympathetic, transmitters, adrenoceptors, catecholamines.

Proposal from a plan of study of stress in fish caused by abnormal environmental factors (Ecophysiology, Ecotoxicology). [Proposition d'un plan pour l'étude du "stress" provoqué chez le poisson par des facteurs anormaux de l'environnement.] Peres, G. *Bulletin de la Société des Sciences Vétérinaires et de Médecine Comparée de Lyon*, v. 84 (6), p. 353-355 (1982).

NAL call no: 41.9 L99

Descriptors: stress, pH, heavy metals, osmotic stress, environmental stress.

Effects of low oxygen and pollution on the respiratory systems of fish (Hypoxia, respiratory physiology, stress).

Hughes, G.M. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 121-146.

NAL call no: QL615.S7

Descriptors: responses, hypoxia, heavy metals, pollution.

Reproduction in fish experiencing acid and metal stress. Peterson, R.H.; Daye, P.G.; Lacroix, G.L. and Garside, E.T. *Acid Rain/Fisheries: Proceedings of an International Symposium on Acidic Precipitation and Fishery Impacts in Northeastern North America, Cornell University, Ithaca, NY; August 2-5, 1981* Johnson, R.E. (ed.), American Fisheries Society, Bethesda, MD; 1982, pp. 177-196.

NAL call no: SH174.I5 1981

Descriptors: acidification, reproduction, recruitment failure, populations, low pH, pH toxicity, mortality, larvae, teleost, embryo.

Animal models and systems for risk evaluation of low-level carcinogenic contaminants in water. Kraybill, H.F. In: *Water Chlorination Environmental Impact and Health Effects*. Ann Arbor Science Publishers, Inc., Ann Arbor, MI; v. 3, 1980, pp. 973-982.

NAL call no: TD468.C6 1979

Descriptors: fish, alternative, toxicity, water monitor, bioassay, drinking water.

Biological monitoring of chlorine-induced ventilatory changes in bluegill sunfish (*Lepomis macrochirus*). Miller, W.R.; Gruber, D.; Cairns, J.; Hendricks, A.C. and Hoehn, R.C. In: *Water Chlorination Environmental Impact and Health Effects*. Ann Arbor Science Publishers, Inc., Ann Arbor, MI; v. 3, 1980, pp. 589-597.

NAL call no: TD468.C6 1979

Descriptors: toxicity, water quality, pollution, chlorine, respiration rates.

Comparison of the toxicities of monochloramine and dichloramine to rainbow trout, *Salmo gairdneri*, under various time conditions. Thomas, P.; Bartos, J.M. and Brooks, A.S. In: *Water Chlorination Environmental Impact and Health Effects*. Ann Arbor Science Publishers, Inc., Ann Arbor, MI; v. 3, 1980, pp. 581-588.

NAL call no: TD468.C6 1979

Descriptors: toxicity, disinfectant, anti-fouling, chlorine.

Effects on carp embryos (*Cyprinus carpio*) and *Daphnia pulex* of chlorinated organic compounds produced during control of fouling organisms. Trabalka, J.R.; Tsai, S.C.; Mattice, J.S. and Burch, M.B. In: *Water Chlorination Environmental Impact and Health Effects*. Ann Arbor Science Publishers, Inc., Ann Arbor, MI; v. 3, 1980, pp. 599-606.

NAL call no: TD468.C6 1979

Descriptors: human health, environmental quality, toxicity, chlorine, trihalomethanes, THM's.

A sister chromatid exchange assay for detecting genetic damage to marine fish exposed to mutagens and carcinogens. Maddock, M.B. and Kelly, J.J. In: *Water Chlorination Environmental Impact and Health Effects*. Ann Arbor Science Publishers, Inc., Ann Arbor, MI; v. 3, 1980, pp. 835-844.

NAL call no: TD468.C6 1979

Descriptors: chlorination, pollutant, toxicity, cytogenetic damage.

Evaluation of aquatic pollutants using fish and amphibian eggs as bioassay organisms. Birge, W.J.; Black, J.A.; Westerman, A.G. *Animals as Models of Environmental Pollutants*. Sponsored by Northeastern Research Center for Wildlife Diseases, Un. of Connecticut, Registry of Comparative of Lab Animal Resources, NAS, Washington, D.C., 1979, p. 108-118. ISBN: 030902871.

NAL call no: QP82.2.P6S95

Descriptors: water pollution, indicator species, ova.

Pollution-associated diseases and abnormalities of fish and shellfish: A review. Sindermann, C.J. *Fishery Bulletin*. National Marine Fisheries Service, Washington, DC; v. 76 (4), p. 717-749 (1979).

NAL call no: 157.5 B87

Descriptors: fin erosion, ulcers, environmental stress, toxicology.

Some methods of making realistic fish dummies for ethological research. Rowland, W.J. *Behav. Res. Methods Instrum.* 1979, v. 11 (6), p. 564-566.

Descriptors: Pisces, models.

The use of otoliths for age determination. Williams, T. and Bedford, B.C. *International Symposium on the Ageing of Fish, The University of Reading, England, July 19-20, 1973*. Unwin Brothers Ltd., The Gresham Press, Old Woking, Surrey, England; 1974, 234 pp.

NAL call no: QL639.1.I5 1973

Descriptors: aging, ear, calcareous concretion.

Fish as biomedical research models. Klontz, G.W. In: *Animal Models for Biomedical Research Proceeding*, v. 4, 1970 National Academy of Sciences, Washington, DC; 1971, pp. 27-30.

NAL call no: QL53 .S9 1970

Descriptors: chordates, pisces, vertebrates, laboratory animal, nonhuman vertebrates.

Retinal tapetum lucidum: A novel reflecting system in the eye of teleosts. Arnott, H.J. and Maciolek, N.J. *Science*, v. 169, p. 478-480 (1970).

NAL call no: 470 Sci2

Descriptors: bony fishes, pigment epithelial cells, lipid particles, dim-light vision.

FISH CARE AND USE

- Anesthetic options for fish.** Bowser, P.R. In: *Recent Advances in Veterinary Anesthesia and Analgesia: Companion Animals*. Gleed, R.D. and Ludders, J.W. (eds.), International Veterinary Service, Ithaca, NY; 2001.
www.ivis.org/advances/Anesthesia_Gleed/bowser/chapter_frm.asp?LA=1
Descriptors: physiology, anesthesia, welfare, stress, procedures.
- Fish vaccines.** Vinitnantharat, S.; Gravningen, K.; Greger, E. *Advances in Veterinary Medicine*, 1999, v. 41, p. 539-550.
ISSN: 1093-975X.
NAL call no: SF745.A39
Descriptors: fish diseases, immunology, vaccination.
- Recent developments in fish vaccinology.** Gudding, R.; Lillehaug, A.; Evensen, O. *Veterinary Immunology and Immunopathology*. Elsevier, Dec. 15, 1999, v. 72 (1-2), p. 203-212. ISSN: 0165-2427.
NAL call no: SF757.2.V38
Descriptors: fishes, vaccines, adjuvants, immune response, disease prevention.
- Biotechnology and diagnosis and control of fish pathogens.** Austin, B. *Journal of Marine Biotechnology*, 1998, v. 6 (1), p. 1-2. ISSN: 0941-2905.
NAL call no: TP248.27.M37J68
Descriptors: fish culture, biotechnology, infectious diseases, reviews.
- Method and apparatus for transporting live fish.** Nagaura, Y. 1998. U.S. Patent 5722345.
Descriptors: electrodes, patent, fish transport, shell fish, live storage.
- Medicinal feed for the systematic treatment of ectoparasitical and ectobacterial diseases of fish.** Schmidt, H.; Ritter, G. 1997. U.S. Patent 5670513.
Descriptors: feeds, patents, parasitic diseases, husbandry, food additives.
- Technical aspects of the administration of vaccines.** Horne, M.T. *Developments in Biological Standardization*, 1997, v. 90, p. 79-89. ISSN: 0301-5149.
NAL call no: QR180.3.D4
Descriptors: fishes, vaccines, administration, dosage, immunology.
- Fishy science.** Horton, Robert Louis; Speice, Paul; Manholt, Donna. Aquatic Maestro Publications, 1993, 35 p., ill.
NAL call no: jQL615.H67 1993
Descriptors: fishes, juvenile literature.
- Nutrient requirements of fish.** National Research Council, Committee on Animal Nutrition, Washington, D.C., National Academy Press, 1993, x, 114 p. ISBN: 0309048915.
NAL call no: SH156.N86 1993
Descriptors: fishes, nutrition requirements, feeding, feeds.
- Recirculation systems: Design, construction and management.** Hart, Piers; O=Sullivan, D.B. Workshop series, National Key Center for Teaching and Research in Aquaculture: Turtle Press, 1993, 127 p., ill.
NAL call no: SH155.R43 1993
Descriptors: fish culture, water supply, recycling.
- Use of recirculating surface water and biological filtration for aquaculture.** Davis, W.B.; Thomas, D.R. *Agricultural research to protect water quality, proceedings of the conference*. Feb. 21-24, 1993, p. 460-463.
NAL call no: TD427.A35A49 1993
Descriptors: fish culture, surface water, water reuse, biological filtration.
- Marine fish nutrition.** Tucker, J.W. *Proceedings of the Aquaculture Nutrition Workshop*, Salamander Bay, NSW, Australia. Allan, G.L.; Dall, W. eds. 1992, p. 25-40. ISBN: 0730597105.
Descriptors: marine aquaculture, animal nutrition, feed composition, marine fish.

- Common disorders of marine fish.** Whitaker, B.R. *The Compendium on Continuing Education for the Practicing Veterinarian*, v. 13 (6), p. 961-966 (1991).
NAL call no: SF601.C66
Descriptors: fish disease, anesthetics, drug therapy, stress, bacteria, parasites, diagnosis.
- Laboratory management and husbandry of the Japanese medaka.** Grady, A.W.; Greer, I.E. and McLaughlin, R.M. *Lab Animal*, v. 20 (3), p. 22-28 (1991).
NAL call no: QL55.A1L33
Descriptors: ricefish, biology, husbandry, environmental conditions, reproduction, spawning, diet, cleaning, health, hatching, rearing, oviparous, development, toxicity.
- Non-invasive ventilation monitoring in fish.** Gehrke, P.C. *ACCART News*, v. 4 (4), p. 10-11 (1991).
NAL call no: SF405.5.A3
Descriptors: cannulation, buccal cavity, electrodes, visual monitoring, anaesthesia.
- Prescribing for fish.** *The Veterinary Formulary: Handbook of Medicines Used in Veterinary Practice.* Debuf, Y.M. (ed.), The Pharmaceutical Press, London, 1991, pp. 29-34.
NAL call no: SF916.5.V37 1991
Descriptors: anesthesia, analgesia, euthanasia, antibiotic, infection, preparations, dosages.
- Stress--it's role in fish disease.** Francis-Floyd, R. *Circular - Florida Cooperative Extension Service*, v. 919, 1991, 4 pp.
NAL call no: 275.29 F66C
Descriptors: resistance, prevention, infection.
- Vitamins are important in fish diets.** Webster, C.D. *Ky Fish Farming.* Aquaculture Research Center, Kentucky State University, Oct. 1991, v. 4 (2), p. 4-5.
NAL call no: SH35.K4K46
Descriptors: fish feeding, vitamins, vitamin deficiencies, symptoms.
- Acute correlated changes in plasma T sub(4) and glucose in physically disturbed cannulated rainbow trout (*Oncorhynchus mykiss*).** Himick, B.A. and Eales, J.G. *Comparative Biochemistry and Physiology. A: Comparative Physiology*, v. 97A (2), p. 165-167 (1990).
NAL call no: QP1.C6
Descriptors: fish physiology, blood, biological stress, biochemical composition, *Salmo gairdneri*, *Oncorhynchus mykiss*.
- Animal protection aspects on killing of fish. [Tierschutzaspekte bei der Toetung von Fischen].** Bernoth, E.M. and Wormuth, H.J. *Deutsche Tieraerztliche Wochenschrift.* Institut fuer Veterinaermedizin, Germany, v. 97 (4), p. 154-157 (1990).
Descriptors: animal welfare, euthanasia, pain, humane death.
- Fish diseases and diagnostic services.** Beem, M. *OSU Current Report.* Oklahoma State University, Cooperative Extension Service, v. 9204, Nov. 1990, 4 pp.
NAL call no: S451.O5O8
Descriptors: etiology, handling, nutrition, management, water quality, stress, natural defenses, symptoms, diagnosis, treatment, pesticides.
- Fishes.** American Association for Laboratory Animal Science. In: *Laboratory Animal Technician.* Stark, D.M. and Ostrow, M.E. (eds.), Cordova, TN; Training Manual Series, v. 2, 1990, pp. 87-90.
NAL call no: SF77.L25
Descriptors: behavior, husbandry, diet, handling.
- An introduction to fish hematology.** Campbell, T. and Murru, F. *Compendium on Continuing Education for the Practicing Veterinarian*, v. 12 (4), p. 525-533 (1990).
NAL call no: SF601.C66
Descriptors: piscine hemogram, leukocytes, blood collection, hematologic evaluation, diagnostic tool.
- Laboratory culture of jacksmelt, *Atherinopsis californiensis*, and topsmelt, *Atherinops affinis* (Pisces: Atherinidae), with a description of larvae.** Middaugh, D.P.; Hemmer, M.J.; Shenker, J.M. and Takita, T. *California Fish and Game.* Environmental Research Laboratory, Gulf Breeze, FL; v. 76 (1), p. 4-13 (1990).
NAL call no: 410 C12
Descriptors: aquaculture, husbandry, water chemistry, facility design.
- Phenotypic plasticity in the sailfin molly, *Poecilia latipinna* (Pisces: Poeciliidae). II. Laboratory experiment.** Trexler,

J.C.; Travis, J. and Trexler, M. *Evolution*, v. 44 (1), p. 157-167 (1990).

NAL call no: QH301.B543 J.13, H.1

Descriptors: genetics, variation, selection.

Relationship between ECG, EEG and SPS responses during arousal in the goldfish (*Carassius auratus*). Quick, I.A. and Laming, P.R. *Comparative Biochemistry and Physiology. A: Comparative Physiology*, v. 95A (3), p. 459-471 (1990).

NAL call no: QP1.C6

Descriptors: restraint, environmental stimuli, bradycardia, forebrain, midbrain, hindbrain, physiology, habituation.

Clinical studies of fish blood: Importance of sample collection and measurement techniques. Heming, T.A. *American Journal of Veterinary Research*. American Veterinary Medical Association, Chicago, IL; v. 50 (1), p. 93-97 (1989).

NAL call no: 41.8 AM3A

Descriptors: effects, blood gas tensions, pH, hematology, plasma values, rainbow trout.

Current and power determinations for electrically anesthetized fish. Lolz, M.L. *The Progressive Fish-Culturist*, v. 51 (3), p. 168-169 (1989).

NAL call no: 157.5 P94

Descriptors: zero resistance, ammeter, electrical measurements, direct current, power level.

Efficacy of benzocaine as an anesthetic for salmonid fishes. Gilderhus, P.A. *North American Journal of Fisheries Management*, v. 9 (2), p. 150-153 (1989).

NAL call no: SH219.N66

Descriptors: effective concentrations, water temperature, water hardness, handling, recovery, water quality, fish size.

Heart frequency as stress indicator in fishes. [Hjertefrekvensen som indikator paa stress hos fisk]. Aarstad, I.; Knudsen, F. and Enger, P.S. *Norsk Fiskeoppdrett* (Norwegian), v. 14 (6), p. 50-51 (1989).

Descriptors: heart rate, behavior, distress.

Multiple-tank aquarium system with recirculating water for laboratory studies of freshwater fishes. Rottman, R.W. and Capton, D.E. *The Progressive Fish-Culturist*, v. 51 (4), p. 238-243 (1989).

NAL call no: 157.5 P94

Descriptors: water level, filters, green swordtails, mosquitofish, ammonia concentration, nitrate concentration.

Plasma catecholamine concentrations in rainbow trout (*Salmo gairdneri*) at rest and after anesthesia and surgery.

Gingerich, W.H. and Drottar, K.R. *General and Comparative Endocrinology*, v.73 (3), p. 390-397 (1989).

NAL call no: 444.8 G28

Descriptors: hormones, serological studies, biological stress, steroids, blood, fish physiology, *Salmo gairdneri*.

Some observations on the narcotizing ability of electric currents on the common carp *Cyprinus carpio*. Barham, W.T.; Schoonbee, H.J. and Visser, J.G.J. *The Onderstepoort Journal of Veterinary Research*. University of Zululand, KwaDlangezwa, South Africa v.56 (3), p. 215-218 (1989).

NAL call no: 41.8 ON1

Descriptors: alternating current, electronarcosis, convulsive spasms, hemorrhaging, carp, anesthesia.

The use of electronarcosis as anaesthetic in the cichlid, *Oreochromis mossambicus* (Peters). 3. The effects of changing physical and electrical parameters on the narcotizing ability of half-wave rectified currents. Barham, W.T.; Schoonbee, H.J. and Visser, J.G.J. *The Onderstepoort Journal of Veterinary Research*, v. 56 (1), p. 66-71 (1989).

NAL call no: 41.8 ON1

Descriptors: freshwater fish, electric current, narcosis, South Africa, physiology.

Cage culture: Handling and feeding caged fish. Masser, M.P. *SRAC Publication* v. 164, 1988, 4 pp.

NAL call no: SH151.S62

Descriptors: fish culture, food, growth, stress.

Disease symptoms in pond raised fish. Knaub, R. *Ky fish Farming*, Aquaculture Research Center, Kentucky State University, 1988, v. 1 (3), p. 7-8.

NAL call no: SH35.K4K46

Descriptors: fish diseases, symptoms, water quality, diagnosis.

Effect of stocking density on the growth and stress-response in brook charr, *Salvelinus fontinalis*. Vijayan, M.M. and Leatherland, J.F. *Aquaculture*, v.75 (1), p. 159-170 (1988).

NAL call no: SH1.A6

Descriptors: plasma protein levels, liver glycogen content, hepatosomatic index, splensomatic index, stocking density, cortisol, feed consumption.

Fish Vaccination. Ellis, A.E. (ed.), Academic Press, San Diego, CA; 1988, 255 pp.

NAL call no: SH171.F59

Descriptors: diseases, prevention, inoculation, control.

The Manual of Fish Health. Andrews, C.; Exell, A. and Carrington, N. Tetra Press, Morris Plains, NJ; 1988, 208 pp.

NAL call no: SH171.A52

Descriptors: fish biology, water chemistry, disease prevention, symptom recognition, treatment.

Physiologic mechanisms governing the cardiovascular compensation to gravity in bluefish. Ogilvy, C.S.; Fox, S.H. and

DuBois, A.B. *The Biological Bulletin.* Marine Biological Lab, Woods Hole, General Scientific Meeting of the Marine Biological Lab. (Woods Hole, MA) August 22-24, 1988. Vol. 175, 1988, p. 308.

NAL call no: 442.8 B52

Descriptors: heart, hemodynamics, aqueous environment.

Stress in cultivated fish: Possible causes, biological reactions, preventative measures. [Le stress chez les poissons d'élevage. Origines possible, reactions, elements de prevention]. Bry, C. *Recueil de Medecine Veterinaire* (French), v. 164 (10), p. 863-869 (1988).

NAL call no: 41.8 R24

Descriptors: observation, minimization, fish culture, metabolic changes.

A method to minimize stress during fish transport. Winkler, P. *The Progressive Fish-Culturist.* Southwest Harbor, ME; v.49 (2), p. 154-155 (1987).

NAL call no: 157.5 P94

Descriptors: thermal tolerance, mosquito fish, anaerobic respiration.

Aspects of disease and parasite problems in cultured salmonids in Canada, with emphasis on the Pacific region, and regulatory measures for their control. Margolis, L. and Evelyn, T.P.T. *Parasites and Diseases in Natural Waters and Aquaculture in Nordic Countries.* Stenmark, A. and Malmberg, G. (eds.), Symposium Stockholm, Sweden, December 2-4, 1986, Naturhistoriska Riksmuseet, 1987, pp. 4-19.

Descriptors: parasitology, symptoms, treatments, etiology.

Fish. In: *The UFAW Handbook on the Care and Management of Laboratory Animals.* Poole, T.B. Bath Press, Avon, Great Britain, 1987, pp. 784-847.

NAL call no: QL55.U5 1987

Descriptors: fish, reptiles, amphibia, environment.

Fish and natural protection. [Fisch und Naturechutz]. Reichenbach-Klinke, H.H. *Tieraerztliche Praxis.* Muenchen University, Germany. v.15 (1), p. 99-106 (1987).

Descriptors: toxins, coloration, morphology, behavior.

Fish blood osmolality, gill histology and oocyte atresia as early warning acid stress indicators. McCormick, J.H.;

Stokes, G.N.; Jensen, K.M. and Leino, R.L. *Ecophysiology and Acid Stress in Aquatic Organisms.* Witters, H. and Vanderborgh, O. (eds.), International Symposium, organized by the Belgian Royal Zoological Society, Antwerpen, Belgium, January 13-16, 1987, pp. 309-319.

Descriptors: pH, osmosis, prevention, egg damage.

Recirculation anaesthesia for laboratory fish. Brown, L.A. *Laboratory Animals*, v. 21 (3), p. 210-215 (1987).

NAL call no: QL55.A1L3

Descriptors: tricaine methanesulphonate, surgery, water quality, ammonia, catfish, equipment design.

Using fish as models in biomedical research. May, E.B.; Bennett, R.D.; Lipsky, M.M. and Reimschuessel, R. *Lab Animal*, v.16 (4), p. 23-28 (1987).

NAL call no: QL55.A1L33

Descriptors: cephalaspidomorphi, chondrichthyes, osteichthyes, salmondia, cycle, design, filtration, water quality, construction.

Anesthesia for fish. Sedgwick, C.J. *The Veterinary Clinic of North America: Food Animal Practice.* W.B. Saunders Co., Philadelphia, PA; v.2 (3), p. 737-742 (1986).

NAL call no: SF601.V535

Descriptors: handling, examination, diagnostic sampling, transport, sedation, techniques, biology.

Disease resistance of fish (also include immune system). [Sjukdomsresistens hos fisk]. Lillehaug, A. *Norsk Veterinaertidsskrift* (Norwegian), v.98 (11), p. 855-861 (1986).
NAL call no: 41.8 N81
Descriptors: immunity, disease prevention, disease control.

Immediate influence of tank scrubbing on some blood parameters of cultured European sea bass, *Dicentrarchus labrax* L.: Effect of stress. [Influence immediate du brossage des bacs sur certains parametres sanguins de loup d'elevage, *Dicentrarchus labrax* L.: Effet de stress]. Hadj Kacem, N.; Aldrin, J.F. and Romestand, B. *Aquaculture* (French), v.59 (1), p. 53-59 (1986).
NAL call no: SH1.A6
Descriptors: distress, tank cleaning, blood chemistry.

Propanidid, a new stressless anesthetic to improve fish propagation. Jeney, Z.; Jeney, G.; Olah, J.; Siwicki, A. and Danko, I. *Aquaculture of Cyprinids*, [Papers of the International Colloquium on the Aquaculture of carps and related species held at Evry (France), September 2-5, 1985], 1986, (poster summary), pp. 167.
NAL call no: SH167.C3C6
Descriptors: 3-4/4-methoxyphenyl/propil acetate, MS-222 comparison, handling, stress, adrenalin, noradrenalin, blood glucose, transaminases.

Evolution of the renin-angiotensin system and its role in control of cardiovascular function in fishes. Nishimura, H. *Evolutionary Biology of Primitive Fishes*. Foreman, R.E.; Gorbman, A.; Dodd, J.M. and Olsson, R. (eds.), Plenum Press, New York, NY; 1985, pp. 275-293.
NAL call no: QH301.N32 v.103 1985
Descriptors: protein enzyme, juxtaglomerular cells, renal lymph, venin substrate, L-globulin, octapeptide angiotensin, hydromineral homeostasis, teleost, tetrapods.

Hagfish insulin: Evolution of insulin. Emdin, S.O.; Steiner, D.F.; Chan, S.J. and Falkmer, S. *Evolutionary Biology of Primitive Fishes*. Foreman, R.E.; Gorbman, A.; Dodd, J.M. and Olsson, R. (eds.), Plenum Press, New York, NY; 1985, pp. 363-378.
NAL call no: QH301.N32 v.103 1985
Descriptors: regulation, carbohydrate transport, amino acid transport, biosynthesis, lipids, nutrition, receptors-effectors, anabolic needs.

Niacin requirement for optimum growth, deed conversion and protection of rainbow trout, *Salmo gairdneri* from ultraviolet-B irradiation. Poston, H.A. and Wolfe, M.J. *Journal of Fish Diseases*, v. 8 (5), p. 451-460 (1985).
NAL call no: SH171.A1J68
Descriptors: niacinamide, dermatopathy, UV, depigment, fin erosion, desquamation, sunburn.

Principal Diseases of Farm Raised Catfish. Meyer, F.P. (ed.), Auburn University, Alabama Agricultural Experimental Station, Auburn, AL; 1985.
Descriptors: disease prevention, fish culture, physiology.

Regulation of blood and body fluids in primitive fish groups. NATO Advanced Research Workshop on Evolutionary Biology of Primitive Fishes, Bamfield, British Columbia, Canada, April 14-17, 1985. Faenge, R. *Evolutionary Biology of Primitive Fishes*. Foreman, R.E.; Gorbman, A.; Dodd, J.M. and Olsson, R. (eds.), Plenum Press, New York, NY; 1985, pp. 253-274.
NAL call no: QH302.N32 v.103 1985
Descriptors: ichthyology, non-teleostean fishes, tetrapods, hagfishes, lampreys, agnathans, teleosts, composition, lymph, water balance.

Adaptation to thermal stress in the freshwater eurythermal teleost *Sarotherodon mossambicus*: Lactate dehydrogenase activity (Fish). Radhakrishnaiah, K. *Proceedings of the Indian Academy of Sciences (Animal Sciences)*, v. 93 (2), p. 115-119 (1984).

NAL call no: QL1.I48

Descriptors: LDH activity, osmoregulation, enzyme activity, size, dependence, metabolism.

Anaesthetic and Sedative Techniques for Fish. Ross, L.G. and Ross, B. University of Stirling, Institute of Aquaculture, Scotland, 1984, 35 pp.

NAL call no: SH156.9.R6 1984

Descriptors: physiology, anesthesia, welfare, pain, stress, procedures.

ASFA Aquaculture Abstracts. United Nations Department of International Economic and Social Affairs, Food and Agriculture Organization of the United Nations, and Cambridge Scientific Abstracts, Bethesda, MD; v. 1 no. 1, 1984.

NAL call no: SH135.A8

Descriptors: fish culture, data base, bibliographies.

Disease in marine aquaculture. Sinderman, C.J. *Helgoländer Meeresuntersuchungen*. Biologische Anstalt Helgoland, Hamburg, Germany, v.37, p. 505-532 (1984).

NAL call no: QH91.A1H4

Descriptors: pathogen control, prevention, fish culture, pH, housing, stress.

Fish. Canadian Council on Animal Care. *Guide to the Care and Use of Experimental Animals*. Canadian Council on Animal Care, Ottawa, Ontario, 1984, v. 2, pp. 1-10.

NAL call no: SF406.C36

Descriptors: housing, feeding, anesthesia, analgesia, euthanasia, disease.

Nutritional requirements of experimental fish. Dupress, H.K. (ed.), *NCI Monographs*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Bethesda, MD; 1984.

NAL call no: R261.A1N37

Descriptors: analysis, nutritional breakdown, captive fish.

Principal bacterial diseases of cultured marine fish. Fryer, J.L. and Rohovec, J.S. *Helgoländer Meeresuntersuchungen*. Biologische Helgoland, Hamburg, Germany, v. 37, p. 533-545 (1984).

NAL call no: QH91.A1H4

Descriptors: gram negative bacteria, gram positive bacteria, anaerobic bacteria, etiological agents, pathogen control.

Physiological responses of experimental fish to stressful conditions. Gratzek, J.B. and Reinert, R. *NCI Monographs*. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Bethesda, MD; v. 65, 1984.

NAL call no: RC261.A1N37

Descriptors: glucocorticoids, adrenal, husbandry, housing.

Tables of sample size requirements for detection of fish infected by pathogens: Three confidence levels for different infection prevalence and various population sizes. Simon, R.C. and Schill, W.B. *Journal of Fish Diseases*, v.7 (6), p. 515-520 (1984).

NAL call no: SH171.A1J68

Descriptors: carriers, sublethal infections, detection methods.

The adaptation to salinity: Response of fish gill mitochondria to salinity stress (*Tilapia mossambica*, *Sarotherodon mossambicus*). Suresh, N. and Jayaraman, J. *Journal of Bioenergetics and Biomembranes*, v.15 (6), p. 363-377 (1983).

NAL call no: QH511.A1J68

Descriptors: freshwater fish, response, ion-osmotic shock, phosphorylate, transhydrogenase, salinity adaption, calcium uptake.

Etomidate as an anesthetic for fish: Its toxicity and efficacy (*Ictalurus punctatus*, *Notemigonus crysoleucas*, *Lepomis macrochirus*). Limsuwan, C.; Grizzle, J.M. and Plumb, J.A. *Transactions of the American Fisheries Society*, v.112 (4), p. 544-550 (1983).

NAL call no: 414.9 AM3

Descriptors: channel catfish, golden skinners, LC50, induction, recovery, water hardness, pH, opercular movement,

survival, exposure time.

- Experimental anesthesia of three species of freshwater fish with etomidate (*Notemigonus crysoleucas*, *Morone saxatilis*, *Ictalurus punctatus*).** Plumb, J.A.; Schwedler, T.E. and Limsuwan, C. *The Progressive Fish Culturist*. United States Fish and Wildlife Service, v. 45 (1), p. 30-33 (1983).
NAL call no: 157.5 P94
Descriptors: ethyl-1-methylbenzyl-imidazole-5-carboxylate, non-barbiturate, hypnotic agent, golden skins, channel catfish, sedation.
- The Influence of Stress Factors on the Physiological Status of Cultured Fish. [Die Einwirkung von Stressoren auf den Physiologischen Zustand von Nutzfisichen].** Blum, V. and Borchard, B. West Germany, 1983, 73 pp.
NAL call no: SH171.B5
Descriptors: physiology, pH, housing, nutrition, aquaculture.
- Possibility of applying anesthesia by carbon dioxide in the transportation of live fish.** Takeda, T. and Itazawa, Y. *Bulletin of the Japanese Society of Scientific Fisheries*, v. 49 (5), p. 725-731 (1983).
NAL call no: 414.9 J274
Descriptors: sedation, transport, handling, sodium bicarbonate, sulphuric acid, suitability, safety, labor intensive, effectiveness.
- The role of the pituitary-interrenal axis during osmotic stress in the teleost fish (*Sarotherodon mossambicus*, *Cyprinus carpio*).** Gupta, O.P. and Hanke, W. *Zoologische Jahrbucher: Abteilung fur Allgemeine Zoologie und Physiologie der Tiere*, v. 87 (1), p. 79-91 (1983).
NAL call no: 410 Z751Z
Descriptors: plasma cortisol, urea stress, mannitol stress, response, intoxication, pituitary-interrenal axis, hypophysectomized, acclimation.
- Sustained anesthesia with 2-phenoxyethanol in yearling rainbow trout (fish, *Salmo gairdneri*).** Takashima, F.; Zhaoming, W.; Kasai, H. and Asakawa, O. *Journal of the Tokyo University of Fisheries*, v. 69 (2), p. 737-742 (1983).
NAL call no: 414.9 T57
Descriptors: long-term, appearance, behavior, cortisol levels, agitation, stress, transport.
- Etomidate: Effective dosages for a new fish anesthetic.** Amend, D.F.; Goven, B.A. and Elliot, D.G. *Transactions of the American Fisheries Society*, v.111 (3), p. 337-341 (1982).
NAL call no: 414.9 AM3
Descriptors: dose response, immobilizing fish, paraffin embedding techniques, hematoxylin, eosin, acid-shiff stains, black tetra.
- Hepatic microsomes from freshwater fish, II. Reduction of benzo(a)pyrene metabolism by the fish anesthetics quinaldine sulfate and tricaine (Brook trout, {*Salvelinus fontinalis*}).** Fabacher, D.L. *Comparative Biochemistry and Physiology. C: Comparative Pharmacology*, v. 73 (2), p. 285-288 (1982).
NAL call no: QP901.C6
Descriptors: brook trout, decapitation, in vitro, spectral analysis.
- Levels of CO₂ (carbon dioxide) in arterial blood of carp under carbon dioxide anesthesia (Transportation of live fish).** Mitsuda, H.; Ueno, S.; Mizuno, H.; Ueda, T.; Fujikawa, H.; Nohara, T. and Fukada, C. *Journal of Nutritional Science and Vitaminology*, v. 28 (1), p. 35-39 (1982).
NAL call no: 389.8 J825
Descriptors: transport, PaO₂, PaCO₂, pH, electrocardiogram, opercular rate, *Cyprinus carpio*.
- Physiological effects of acid stress on fish.** Leivestad, H. In: *Acid Rain/Fisheries: Proceedings of an International Symposium on Acidic Precipitation and Fishery Impacts in Northeastern North America*, Cornell University, Ithaca, NY; August 2-5, 1981. Johnson, R.E. (ed.), American Fisheries Society, Bethesda, MD; 1982, pp. 157-164.
NAL call no: SH174.I5
Descriptors: necrotic gill damage, mortality, oogenesis, pH toxicity.
- Respiration of carp under anesthesia induced by mixed bubbling of carbon dioxide and oxygen (*Cyprinus carpio*, means for live transport of fish).** Itazawa, Y. and Takeda, T. *Bulletin - Japanese Society of Scientific Fisheries*, v.

48 (4), p. 489-493 (1982).

NAL call no: 414.9 J274

Descriptors: transportation, anesthetic, reduced stress, CO2.

Use and efficacy of methomidate as an anesthetic on ten Mediterranean fish species. [Utilisation et efficacite du metomidate comme anesthesiant sur dix especes de poissons mediterraneens]. Escoubet, P. *Bulletin de la Societe des Sciences Veterinaires et de Medicine Comparee de Lyon*, v. 84 (6), p. 357-362 (1982).

NAL call no: 41.9 L99

Descriptors: anesthesia, effects, transport, handling, care.

Use of adenylate concentrations and adenylate energy charge as indicators of hypoxic stress in estuarine fish. Vetter, R.D. and Hodson, R.E. *Canadian Journal of Fisheries and Aquatic Sciences [Journal Canadien des Sciences Halieutiques et Aquatiques]*, v. 39 (4), p. 535-541 (1982).

NAL call no: 442.9 C16J

Descriptors: ATP concentrations, stoichiometric, stress assessment.

Adrenergic responses to stress in fish (mortality, osmoregulatory disturbances). Mazeaud, M.M. and Mazeaud, F. *Stress and Fish*. Academic Press, London, England, 1981, pp. 49-75.

NAL call no: QL615.S7

Descriptors: catecholamines, stress actions, physiologic parameters.

Aquarium Systems. Hawkins, A.D. (ed.), Academic Press, New York, NY; 1981, 452 pp.

NAL call no: SF457.A67

Descriptors: laboratory animals, fish culture, shellfish culture.

Aspects of water quality producing stress in intensive fish culture (physiological disturbances). Smart, G.R. *Stress and Fish*. Academic Press, London, England, 1981, pp. 277-293.

NAL call no: QL615.S7

Descriptors: dissolved oxygen, rainbow trout, salmonid farming, nephrocalcinosis.

Effects of stress on osmotic and ionic regulation in fish. Eddy, F.B. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 77-102.

NAL call no: QL615.S7

Descriptors: regulation, endocrinology, effects, pollution, temperature, anaesthesia, handling.

Introduction: The concept of biological stress (fish). Pickering, A.D. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 1-9.

NAL call no: QL615.S7

Descriptors: terminology, stress responses, relevance.

Non-antibody molecules and the defense mechanisms of fish (metabolism, stress). Fletcher, T.C. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 171-183.

NAL call no: QL615.S7

Descriptors: skin, mucous, blood, fever.

Physiological stress in captive fish. Wardle, C.S. In: *Aquarium Systems*. Hawkins, A.D. (ed.), Academic Press, New York, NY; 1981, pp. 403-414.

NAL call no: SF457.A67

Descriptors: osmoregulation, physiology, hypoxia, pH, housing, handling.

The pituitary-interrenal axis as an indicator of stress in fish. Donaldson, E.M. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 11-47.

NAL call no: QL615.S7

Descriptors: hypothalamus, pituitary, interrenal, hypothalamic-pituitary-interrenalaxis, HPI axis, stress evaluation response.

- The Seawater Manual: Fundamentals of Water Chemistry for Marine Aquarists.** Mowka, E.J. Aquarium Systems, Inc., Mentor, OH; 1981, 43 pp.
NAL call no: SF457.5.M68 1981
Descriptors: water quality, salinity, health, marine fishes.
- Some aspects of thermal stress on freshwater teleosts.** Elliott, J.M. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 209-245.
NAL call no: QL615.S7
Descriptors: thermal limits, tolerance, resistance, body temperature, thermoregulation.
- Stress and compensation in teleostean fishes: Responses to social and physical factors.** Schreck, C.B. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 295-321.
NAL call no: QL615.S7
Descriptors: components, stress conceptualization, stress control.
- Stress and the modulation of defence mechanisms in fish (physiological systems).** Ellis, A.E. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 147-169.
NAL call no: QL615.S7
Descriptors: hormones, immunosuppressive factors, macrophages, temperature, antibiotics.
- Stress, environment and reproduction in teleost fish.** Billard, R.; Bry, C. and Gillet, C. In: *Stress and Fish*. Pickering, A.D. (ed.), Academic Press, London, England, 1981, pp. 185-208.
NAL call no: QL615.S7
Descriptors: photoperiod, water quality, synergism, mechanisms.
- Vivisection, anaesthetics and minor surgery.** Tytler, P. and Hawkins, A.D. In: *Aquarium Systems*. Hawkins, A.D. (ed.), University Stirling, Glasgow, UK; 1981, pp. 247-278.
NAL call no: SF457.A67
Descriptors: surgical technique, humane care and use, animal rights.
- Anesthetic and sedative drug dosage - fish and crustaceans.** In: *Guide to the Care and Use of Experimental Animals*. Canadian Council on Animal Care, Ottawa, Ontario, 1980, v. 1, pp. 100.
NAL call no: SF406.C36
Descriptors: housing, stress, handling, analgesia, guidelines.
- Anesthetics for Fish = Bedoevningsmedel Foer Fisk.** Johansson, N. NOAA, Washington, DC; 16 leaves, 1980.
NAL call no: TRANSL 26797
Descriptors: selection, methods, guidelines, suitability, technique.
- Antimicrobial drug dosage - reptile, fish.** In: *Guide to the Care and Use of Experimental Animals*. Canadian Council on Animal Care, Ottawa, Ontario, 1980, v. 1, pp. 102.
NAL call no: SF406.C36
Descriptors: dosages, antifungal, antibacterial, recommendations, guidelines.
- The aquatic environment in health and disease.** Leibovitz, L. *Journal of the American Veterinary Medical Association*. The Association, Ithaca, NY; v. 176 (9), p. 824-826 (1980).
NAL call no: 41.8 AM3
Descriptors: maintenance, water quality, diagnosis, temperature, hemostasis, growth.
- Fish reproduction and stress.** Gerking, S.D. *Environmental Physiology of Fishes*, v. 35, p. 569-587 (1980).
NAL call no: QH301.N32
Descriptors: spawning periodicity, fathead minnow, thermal limit, oogenesis.

- Carbonic acid anesthesia for aquatic organisms.** Post, G. *The Progressive Fish-Culturist*, v. 41 (3), p. 142-144 (1979).
NAL call no: 157.5 P94
Descriptors: sedation, quantity calculation, method of induction, benefits.
- Culture of algae for larval fish and shellfish rearing.** Helm, M.M.; Laing, I.; Jones, E.; Baynes, S.M.; Emerson, L. and Scott, A.P. *Fisheries Research Technical Report No. 53*. Fisheries and Food Ministry of Agriculture Directorate of Fisheries Research (ed.), Lowestoft, Suffolk, Great Britain; 1979.
NAL call no: SH255.F47
Descriptors: fishfood, fish culture, nutrition, larval development.
- Sedation of warm-water fish species in aquaculture research.** Ross, L.G. and Geddes, J.A. *Aquaculture*, v. 16, p. 183-186 (1979).
NAL call no: SH1.A6
Descriptors: anesthesia, benzocaine, dosages, temperature, recommendations, recovery.
- The leukocytes of fish: A review.** Ellis, A.E. *Journal of Fish Biology*, v. 11, p. 453-491 (1977).
NAL call no: QL614.J68
Descriptors: thrombocytes, lymphocytes, immunity, monocytes, macrophages, morphology, mastcells, eosinophils.
- Rapid start-up of a biological filter in a closed aquaculture system.** Carmignani, G.M. and Bennett, J.P. *Aquaculture*, v.11, p. 85-88 (1977).
NAL call no: SH1.A6
Descriptors: nitrifying bacteria, activation time, equilibrium.
- The immune response in fish: A review.** Corbel, M.J. *Journal of Fish Biology*, v. 7, p. 539-563 (1975).
NAL call no: QL614.J68
Descriptors: cell-mediated immunity, humoral antibody system.
- Fishes: Guidelines for the Breeding, Care, and Management of Laboratory Animals: A Report.** Institute of Laboratory Animal Resources (U.S.), National Academy of Sciences, Washington, DC; 1974, 85 pp.
NAL call no: SF407.F5N37
Descriptors: lab animal, standards, use, handling, growth, maintenance.
- Routine hematological methods for use with fish blood.** Blaxhall, P.C. and Daisley, K.W. *Journal of Fish Biology*, v. 5, p. 771-781 (1973).
NAL call no: QL614.J68
Descriptors: normal values, blood sampling.
- The hematological assessment of the health of freshwater fish. A review of selected literature.** Blaxhall, P.C. *Journal of Fish Biology*, v. 4, p. 493-604 (1972).
NAL call no: QL614.J68
Descriptors: hematology, normal values, blood sampling.
- A small unit closed system for catfish.** Lomax, K.M. and Harman, O.R. *Bulletin - University of Delaware, Agricultural Experiment Station*. University of Delaware, Newark, DE; v. 394, 1971, 6 pp.
NAL call no: 100 D37S
Descriptors: design, growth, development, disease, flexibility.
- Differential blood cell counts of 50 species of fishes from the Red Sea.** Saunders, D.C. *Copeia*, 1968 (3), p. 491-498 (1968).
Descriptors: normal values.
- Erythrocyte counts and hemoglobin content in nine species of marine teleosts.** Eisler, R. *Chesapeake Science*. Maryland Department of Research and Education, Chesapeake Biological Laboratory, Solomon, MD; v. 6 (2) p. 119-120 (1965).
NAL call no: 409.6 C42
Descriptors: mean length, erythrocyte number, hemoglobin content

A technique for age determination in the skate, *Raja eglanteria*. Daiber, F.C. *Copeia*, 1960(3), p. 258-260 (1960).
Descriptors: aging, sexing, physical observations.

REPTILES

GENERAL

- Antibiotic therapy in reptiles.** Mader, D.R. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 791-792.
NAL call no: SF605.N672
Descriptors: reptiles, drug therapy, antibiotics.
- Imaging healthy and ill reptiles.** Stetter, M.D. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v.12, p. 819-820.
NAL call no: SF605.N672
Descriptors: reptiles, radiography, ultrasonography.
- Lessons from the bone yard: Necropsy of reptiles.** Raiti, P. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 793-794.
NAL call no: SF605.N672
Descriptors: reptiles, postmortem examinations.
- The lizard.** Grenard, Steve. N.Y., N.Y.: Howell Book House, c1998, 126 p., ill. ISBN: 0876054297.
NAL call no: SF459.L5.G74 1998
Descriptors: lizards as pets.
- Radiographic imaging of reptiles.** Carpenter, J.W. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 873-875.
NAL call no: SF605.N672
Descriptors: radiography, reptiles.
- Boas and pythons.** Corliss, J. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 54-58. ISBN: 1884254330.
NAL call no: SF981.P72 1997
Descriptors: snakes, animal husbandry, animal health.
- A color atlas of blood cells of the yellow rat snake.** Dotson, T.K.; Ramsay, E.C.; Bounous, D.I. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p.211-215. ISBN: 1884254330.
NAL call no: SF981.P72 1997
Descriptors: snakes, blood cells, hematology.
- Color atlas of reptilian parasites. I. Protozoans.** Barnard, S.M. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 75-78. ISBN: 1884254330.
NAL call no: SF981.P72 1997
Descriptors: reptiles, protozoa, infections.
- Color atlas of reptilian parasites. II. Flatworms and roundworms.** Barnard, S.M. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c 1997, p. 79-82. ISBN: 1884254330.
NAL call no: SF981.P72 1997
Descriptors: reptiles, trematoda, eucestoda, helminthosis.

- Color atlas of reptilian parasites. III. Miscellaneous endoparasites and ectoparasites.** Baranard, S.M. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c 1997, p. 83-86. ISBN: 1884254330.
NAL call no: SF981.P72 1997
Descriptors: reptiles, parasites.
- Color atlas of reptilian parasites. IV. Pseudoparasites.** Barnard, S.M. *Practical exotic animal medicine*. Trenton, N.J.: Veterinary Learning Systems, c 1997, p. 87-91. ISBN: 1884254330.
NAL call no: SF981.P72 1997
Descriptors: reptiles, feces, parasites.
- Basic principles of reptilian therapeutics.** Klingenberg, R.J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 13-17, 1996, v. 10, p. 827-829.
NAL call no: SF605.N672
Descriptors: reptiles, drug therapy.
- Computerized tomography scans in reptiles.** Rosenthal, K. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 13-17, 1996, v. 10, p. 836.
NAL call no: SF605.N672
Descriptors: computed tomography.
- The snake.** Flank, Lenny. N.Y., N.Y.: Howell Book House, c 1996, 126 p., ill. ISBN: 0876054904.
NAL call no: SF459.S5.F58 1996
Descriptors: snakes as pets.
- Treating venomous reptiles.** Funk, R.S. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, 1996, v. 10, p. 824.
NAL call no: SF605.N672
Descriptors: reptiles, veterinary services.
- Ultrasound imaging in reptiles.** Schumacher, J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, 1996, v. 10, p. 837.
NAL call no: SF605.N672
Descriptors: ultrasonography.
- The box turtle manual.** De Vosjoli, Phillippe; Klingenberg, Roger J. *The Herptocultural library series 300: Advanced Vivarium Systems*. c1995, 102 p. ill. ISBN: 1882770293.
NAL call no: SF459.T8D39 1995
Descriptors: box turtle, manuals, handbooks.
- Injection sites in reptiles.** Stahl, S.J. *Proceeding of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 14-18, 1995, v. 9, p. 656-658.
NAL call no: SF605.N672
Descriptors: reptiles, injection sites.
- Red tailed boas and other boa constrictors.** Drewnowski, Glen. Neptune City, N.J.: T.F.H. Publications, c1995, 64 p., ill., maps. ISBN: 079380275X.
NAL call no: SF459.S5D74 1995
Descriptors: boa constrictor, snakes as pets.
- Reptilian hematology.** Boyer, T.H. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 14-18, 1995, v. 9, p. 640-641.
NAL call no: SF605.N672
Descriptors: reptiles, blood sampling, blood picture.
- Anesthesia of reptiles and amphibians.** Cooper, J.E. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 863.
NAL call no: SF605.N672
Descriptors: reptiles, amphibia, anesthesia.
- Burmese pythons.** Coborn, John. Neptune city, N.J.: T.F.H. Publications, c 1994, 64 p. ill. ISBN: 0793802636.
NAL call no: SF459.S5C63 1994

Descriptors: Burmese pythons, snakes as pets.

Cranial nerve examination in reptiles. Bennett, R.A. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 862-863.
NAL call no: SF605.N672
Descriptors: reptiles, neurology.

Familia Gekkonidae (Reptilia, Sauria). Bauer, Aaron M.; Henle, Klaus. Berlin: N.Y., N.Y.: W. de Gruyter, 1994, v.: maps. ISBN: 3110141140.
NAL call no: 411 D48 Tielbd. 109
Descriptors: Geckos, classification.

Injection sites in reptiles. Barten, S.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 856-857.
NAL call no: SF605.N672
Descriptors: reptiles, injection, veterinary medicine.

The lizard keeper=s handbook. De Vosjoli, Philippe. *The Herpetocultural library: Advanced Vivarium Systems*, c1994, 175 p., ill. ISBN: 1882770250.
NAL call no: SF515.5.L58D416 1994
Descriptors: captive lizards, manuals, handbooks.

Milk snakes: Every species and sub-species in brilliant color. Mara, W.P. Neptune city, N.J.: T.F.H. Publications, c1994, 63 p. col. ill. ISBN: 0793802504.
NAL call no: SF459.S5M36 1994
Descriptors: Lampropeltis, snakes as pets.

Office protocol and physical examination of reptiles. Barten, S.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 853-855.
NAL call no: SF605.N672
Descriptors: reptile, clinical examination.

Reptilian hematology: The basics. Lane, R.A. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 883-887.
NAL call no: SF605.N672
Descriptors: reptiles, hematology.

Reptile metabolic diseases. Cooper, J.D. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p.866.
NAL call no: SF605.N672
Descriptors: reptiles, metabolic disorders.

Reptile orthopedics. Bennett, R.A. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 860-861.
NAL call no: SF605.N672
Descriptors: reptiles, orthopedics, fracture fixation.

Reptile soft tissue surgery. Bennett, R.A. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 858-859.
NAL call no: SF605.N672
Descriptors: reptiles, surgical operations.

Ultrasonic doppler blood flow detection and echocardiology in herpetological medicine. Frye, F.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 879-882.
NAL call no: SF605.N672
Descriptors: reptiles, heart sounds, ultrasonics.

Viral diseases of reptiles. Cooper, J.E. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 15-20, 1994, p. 867-868.
NAL call no: SF605.N672
Descriptors: reptiles, viral diseases.

Reptiles. *Reptiles magazine* (previous title *Vivarium*). Irvine, CA: Fancy Publications, v. ill., v. 1 (2), Dec. 1993. ISSN: 1068-1965.
NAL call no: SF515.R47
Descriptors: reptiles, periodicals.

Alligator aquaculture. Louisiana State University, Agricultural Center: Louisiana Cooperative Extension Service, c1988, 1 video cassette, 18 min. 35 sec. sd. col.
NAL call no: Videocassette no. 571
Descriptors: alligators, aquaculture.

REPTILES AS BIOMEDICAL MODELS

Adaptations of reptilian paramyxovirus to mammalian cells (vero cells). Mayr, A.; Franke, J.; Ahne, W. *J. Vet. Med. Ser. B.* Berlin: Blackwell Wissenschafts Verlag, Mar. 2000, v. 47 (2), p. 95-98. ISSN: 0931-1793.
NAL call no: 41.8 Z52
Descriptors: cell lines, paramyxoviridae, adaptation, viral replication, host range.

Atrioventricular valvular insufficiency and congestive heart failure in a carpet python.
Rishniw, M.; Carmel, B.P. *Australian Veterinary Journal.* Brunswick, Vic.: Australian Veterinary Association, Sept. 1999, v. 77 (9), p. 580-583. ISSN: 0005-0423.
NAL call no: 41.8 Au72
Descriptors: snakes, heart disease, heart valves, congenital abnormalities.

Establishment and characterization of 13 cell lines from a green turtle (*Chelonia mydas*) with fibropapillomas. Lu, Y.; Nerurkar, V.R.; Aguirre, A.A.; Work, T.M.; Balazs, G.H.; Yangihara, R. *In-Vitro Cellular and Developmental Biology.* Jul./Aug. 1999, v. 35 (7), p. 389-393. ISSN: 1071-2690.
NAL call no: QH585.A1158
Descriptors: cell line, papilloma, tumors, body organs.

Metalloproteins and their contribution to haemolytic effects of snake venom. Imrecke, Claudia. Hannover: [s.n.], 1999, 188 p. ill. Doctoral thesis.
Language: German with a summary in English.
NAL call no: DISS F1999276
Descriptors: metalloproteins, snake venom haemolytic effects.

Replication of reptilian paramyxovirus in avian host systems. Ahne, W.; Adrian, J.; Mayr, A. *Journal of Veterinary Medicine. Ser.B.* Berlin: Blackwell Wissenschafts Verlag, Feb. 1999, v. 46 (1), p. 57-62. ISSN: 0931-1793.
NAL call no: 41.8 Z52
Descriptors: paramyxovirus, chicken, embryos, eggs, immunohistochemistry.

Serum concentrations of various environmental contaminants and their relationship to sex steroid concentrations and phallus size in juvenile American alligators. Guillette, L.J. Jr.; Brock, J.W.; Rooney, A.A.; Woodward, A.R. *Archives of environmental contamination and toxicology.* New York: Springer Verlag, May 1999, v. 36 (4), p. 447-455. ISSN: 0090-4341.
NAL call no: TD172 A7
Descriptors: alligator, pollutants, adverse effects.

Species dependent specificity of platelet aggregation inhibitors from snake venom. Lombardi, P.; Pelagalli, A.; Avallone, L.; d'Angelo, D.; Belisario, M.A.; D'Angelo, A.; Staiano, N. *Journal of Comparative Pathology.* London: W.B. Saunders Company Ltd., Aug. 1999, v. 121 (2), p. 185-190. ISSN: 0021-9975.
NAL call no: 41.8 J82
Descriptors: buffaloes, dogs, horses, snakes, platelet aggregation inhibitors.

Tissue and plasma enzyme activities in juvenile green iguanas. Wagner, R.A.; Wetzel, R. *American Journal of Veterinary Research.* American Veterinary Medical Association. Feb. 1999, v. 60 (2), p. 201-203. ISSN: 0002-9645.
NAL call no: 41.8 Am3A
Descriptors: iguana, blood plasma, liver, kidneys, enzyme activity.

Two-dimensional echocardiographic anatomy of the snake heart (*Python molurus bivittatus*). Snyder, P.S.; Shaw, N.G.; Heard, D.J. *Veterinary Radiology and Ultrasound.* American College of Veterinary Radiology. Jan./Feb. 1999, v. 40 (1), p. 66-72. ISSN: 1058-8183.
NAL call no: SF757.8.A4
Descriptors: python molurus, heart, echocardiography, normal values.

Association of Reptilian and Amphibian Veterinarians guidelines for reducing risk of transmission of *Salmonella* spp. from reptiles to humans. *Journal of the American Veterinary Medical Association.* Jul.1, 1998, v. 213 (1), p. 51-52. ISSN: 0003-1488.
NAL call no: 41.8 Am3
Descriptors: reptiles, *Salmonella*, disease transmission, disease prevention.

Antibiotic effects on cytochromes P450 content and mixed-function oxygenase (MFO) activities in the American alligator (*Alligator mississippiensis*). Mayeaux, M.H.; Winston, G.W. *Journal of Veterinary Pharmacology and Therapeutics*. Oxford, England: Blackwell Scientific Ltd. Aug. 1998, v. 21 (4), p. 274-282. ISSN: 0140-7783.
NAL call no: SF915.J63

Descriptors: alligator, oxytetracycline, ceftazidime, enrofloxacin, drug effects.

Borreliacidal factor in the blood of the western fence lizard (*Sceloporus occidentalis*). Lane, R.S.; Quistad, G.B. *Journal of Parasitology*. Lawrence, KS: American Society of Parasitology, Feb. 1998, v. 84 (1), p. 29-34. ISSN: 0022-3395.

NAL call no: 448.8 J824

Descriptors: Sceloporus, borrelia, infection, immunity, antibacterial properties.

Cardiopulmonary and anesthetic effects of propofol administered intraosseously to green iguanas. Bennett, R.A.; Schumacher, J.; Hedjazi Haring, K.; Newell, S.M. *Journal of the American Veterinary Medical Association*. American Veterinary Medical Association. Jan. 1, 1998, v.212 (1), p. 93-98. ISSN: 0003-1488.

NAL call no: 41.8 Am3

Descriptors: iguana, anesthesia, heart rate, respiration rate, dosage, body temperature.

Fatty acid composition of muscle, liver, and depot fat of wild and cultured common snapping turtles (*Chelydra serpentina*). Mayeaux, M.H.; Reigh, R.C.; Culley, D.D.Jr. *Journal of the World Aquatic Society*. Baton Rouge, LA: World Aquaculture Society, Jun. 1998, v. 29 (2), p. 234-242. ISSN: 0893-8849.

NAL call no: SH138.W62

Descriptors: Chelydra, fatty acids, chemical composition, lipids, nutrient requirements.

Ribotyping of *Salmonella poona* in iguana associated zoonotic salmonellosis. Wu, C.C; Gortari, M.J.de ; Lin, T.L.; Barrett, B. *Journal of Veterinary Diagnostic Investigation*. Turlock, CA. American Association of Veterinary Laboratory Diagnosticians. Apr. 1998, v. 10 (2), p. 188-190. ISSN: 1040-6387.

NAL call no: SF774.J68

Descriptors: iguana, Salmonella, reservoir host, infections, strain differences.

Sex-steroid and thyroid hormone concentrations in juvenile alligators (*Alligator mississippiensis*) from contaminated and reference lakes in Florida, USA. Crain, D.A.; Guillette, L.J. Jr.; Pickford, D.B.; Percival, H.F.; Woodward, A.B. *Environmental Toxicology and Chemistry*. Pensacola, FL.: SETAC Press. Mar. 1998, v. 17 (3), p. 446-452. ISSN: 0730-7268.

NAL call no: QH545.A1E58

Descriptors: pollutants, estrogens, hormones, adverse effects, endocrine disrupters.

The brown tree snake (*Boiga irregularis*) as a laboratory animal. Greene, M.J.; Nichols, D.K.; Hoyt, R.F. Jr.; Mason, R.T. *Lab Animal*. N.Y., N.Y.: Nature Publishing Co. Jul./Aug. 1997, v. 26 (7), p. 28-31. ISSN: 0093-7355.

NAL call no: QL55.A1L33

Descriptors: snakes, laboratory animals, animal models, animal husbandry.

Cembrene A and a congeneric ketone isolated from the paracloacal glands of the Chinese alligator (*Alligator sinensis*). Mattern, D.L.; Scott, W.D.; McDaniel, C.A.; Weldon, P.J.; Graves, D.E. *Journal of Natural Products*. Downers Grove, IL.: American Society of Pharmacognosy. Aug. 1997, v. 60 (8), p. 828-831. ISSN: 0163-3864.

NAL call no: 442.8 L77

Descriptors: alligator, glands, ketones, spectral analysis, chemical structure.

Effects of endocrine disrupting contaminants on reproduction in the American alligator (*Alligator mississippiensis*).

Crain, David Andrew. 1997, vii, 153 leaves. ill. Thesis, Un. of Florida.

Descriptors: American alligator, physiology, reproduction, endocrine glands.

Reference ranges of biochemical and haematological values in farmed saltwater crocodile (*Crocodylus porosus*) yearlings. Millan, J.M.; Janmaat, A.; Richardson, K.C.; Chambers, L.K.; Fomiatti, K.R. *Australian Veterinary Journal*. Brunswick, Vic. Australian Veterinary Association. Nov. 1997, v. 75 (11), p. 814-817. ISSN: 0005-0423.

NAL call no: 41.8 Au72

Descriptors: crocodiles, blood chemistry, hematology, normal values.

Serum AB@ esterases as a nondestructive biomarker for monitoring the exposure of reptiles to organophosphorus

insecticides. Sanchez, J.C.; Fossi, M.C.; Focardi, S. *Ecotoxicology and Environmental Safety*. Orlando, FL.: Academic Press. Oct. 1997, v. 38 (1), p. 45-52. ISSN: 0147-6513.
NAL call no: QH545.A1E29
Descriptors: reptiles, biological indicators, enzyme activity, toxicology.

Serum B esterases as a nondestructive biomarker in the lizard *Gallotia galloti* experimentally treated with parathion. Sanchez, J.C.; Fossi, M.C.; Focardi, S. *Environmental Toxicology and Chemistry*. Pensacola, FL.: SETAC Press. Sept. 1997, v. 16 (9), p. 1954-1961. ISSN: 0730-7268.
NAL call no: QH545.A1E58
Descriptors: esterases, enzyme activity, bioassays, lizards.

Synopsis of the biological data on the green turtle *Chelonia mydas* (Linnaeus 1758). Hirth, Harold. Biological Report 97-1: Washington, D.C.: Fish and Wildlife Service, U.S. Dept. of the Interior, 1997, 120 p., ill. maps.
NAL call no: QH540.U562 no. 971
Descriptors: green turtle, *Chelonia* Genus.

Advanced principles of reptilian therapeutics: The rational selection of empirical antimicrobials. Klingenberg, R.J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 833-835.
NAL call no: SF605.N672
Descriptors: reptiles, anti-infective agents, drug therapy.

Bredemeroside D, a novel triterpenoid saponin from *Bredemeyera floribunda*: A potent snake venom antidote activity on mice. Pereira, B.M.R.; Rosario, M. do; Parente, J.P.; Abreu-Matos, F.J. de. *Phytotherapy Research: PTR* : Sussex: John Wiley & Sons. Dec. 1996, v. 10 (8), p. 666-669. ISSN: 0951-418X.
NAL call no: RS164.P59
Descriptors: Bredemeroside D. snake venom, antidote.

Establishment of an animal model for myoglobinuria by use of a myotoxin from *Pseudechis auatralis* (King brown snake) venom in mice. Ponraj, D.; Gopalakrishnakone, P. *Laboratory Animal Science*. Cordova, TN: American Association for Laboratory Animal Science. Aug. 1996, v. 46 (4), p. 393-398. ISSN: 0023-6764.
NAL call no: 410.9 P94
Descriptors: mice, animal models, myoglobinuria, venom, renal function.

Haematological and biochemical values of 10 green iguanas (*Iguana iguana*). Divers, S.J.; Redmayne, G.; Aves, E.K. *Veterinary Record*. London: The British Veterinary Association. Mar. 2, 1996, v. 138 (9), p. 203-205. ISSN: 0042-4900.
NAL call no: 41.8 V641
Descriptors: iguana, blood sampling, blood analysis, hematology, normal values.

Interaction of environmental chemicals with the estrogen and progesterone receptors from the oviduct of the American alligator. Vonier, P.M.; Crain, D.A.; McLachlan, J.A.; Guillette, L.J. Jr.; Arnold, S.F. DHEW Publication no. NIH 72-218. *Environmental Health Perspectives*. Dec. 1996, v. 104 (12), p. 1318-1322. ISSN:0091-6765.
NAL call no: RA565.A1E54
Descriptors: DDT, pesticides, alligator.

Radiographic and ultrasonographic evaluation of egg retention and peritonitis in two green iguanas (*Iguana iguana*). Love, N.E.; Douglass, J.P.; Lewbart, G.; Stoskopf, M. *Veterinary Radiology and Ultrasound*. American College of Veterinary Radiology. Jan/Feb. 1996, v. 37 (1), p. 68-73. ISSN: 1058-8183.
NAL call no: SF757.8.A4
Descriptors: iguana, peritonitis, radiography, ultrasonography.

Synthesis and conformation studies of Bradykinin-potentiating peptides from snake venoms. Fedele, Christina. Thesis, Tierärztliche Hochschule Hannover, 1996, 129 p., ill.

Language: German with a summary in English.
NAL call no: DISS F1996241
Descriptors: peptides, Bradykinin, snake, venom.

Endocrine regulation of clitero-penis development in the juvenile American alligator (*Alligator mississippiensis*).

Pickford, Daniel E., Thesis, Un. of Florida, 1995, xi, 136 leaves, ill.
Descriptors: alligator, physiology, endocrine glands, reproduction.

Intraocular pressure variation associated with body length in young American alligators (*Alligator mississippiensis*).

Whittaker, C.J.G.; Heaton-Jones, T.G.; Kubilis, P.S.; Smith, P.J.; Brooks, D.E.; Kosarek, C.; MacKay, E.O.; Gelatt, K.N. *American Journal of Veterinary Research*. American Veterinary Medical Association. Oct. 1995, v. 56 (10), p. 1380-1383. ISSN: 0002-9645.
NAL call no: 41.8 Am3A
Descriptors: alligator, eyes, internal pressure, body length, correlation.

Monoclonal antibodies for the measurement of class-specific antibody responses in the green turtle (*Chelonia mydas*).

Herbst, L.H.; Klein, P.A. *Veterinary Immunology and Immunopathology*. Elsevier. Jun. 1995, v. 46 (3-4), p. 317-335. ISSN: 0165-2427.
NAL call no: SF757.2.V38
Descriptors: *Chelonia mydas*, monoclonal antibodies, immunoglobulins, turtles.

Multiple heterogenous isolates of *Cryptosporidium serpentis* from captive snakes are not transmissible to neonatal BALB mice (*Mus musculus*). Fayer, R.; Graczyk, T.K.; Cranfield, M.R. *Journal of Parasitology*. American Society of Parasitologists. Jun. 1995, v.81 (3), p. 482-484. ISSN: 0022-3395.

NAL call no: 448.8 J824
Descriptors: serpentes, cryptosporidium, host specificity, oocysts, mice.

Reptilian microbiology. Boyer, T.H. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 14-18, 1995, v. 9, p. 641-643.

NAL call no: SF605.N672
Descriptors: reptiles, microbial flora, pathogens, infections.

The topography of some endocrine organs in the Nile crocodile. Huchzermeyer, F.W. *Zimbabwe Veterinary Journal*.

Zimbabwe Veterinary Association. Mar. 1995, v. 26 (1), p. 11, 13-15, 17-18. ISSN: 1016-1511.
NAL call no: SF601.R5
Descriptors: crocodiles, endocrine glands, thymus gland, thyroid, parathyroid.

Glucuronidation of flumequine by the turtle *Pseudemys scripta elegans*. Vree, T.B.; Hoeben, U.M.; Ewijk-Beneken, E.W.J. van; Kolmer; Mouws, J.F.M. *Journal of Veterinary Pharmacology and Therapeutics*. Oxford: Blackwell Scientific Publications, Feb. 1994, v. 17 (1), p. 80-82. ISSN: 0140-7783.

NAL call no: SF915.J63
Descriptors: turtles, antiinfective agents, drug metabolism, drug excretion.

Glucuronidation of naproxen by the turtle *Pseudemys scripta elegans*. Vree, T.B.; Vree, M.L.; Biggelaar-Martea, M. van den; Verwey van Wissen, C.P.W.C.M.; Nouws, J.F.M. *Journal of Veterinary Pharmacology and Therapeutics*. Oxford: Blackwell Scientific Publications, Feb. 1994, v. 17 (1), p. 74-76. ISSN: 0140-7783.

NAL call no: SF915.J63
Descriptors: turtles, non-steroidal antiinflammatory agents, drug metabolism.

Surface area to volume relationships of snakes support the use of allometric scaling for calculating dosages of pharmaceuticals. Timm, K.I.; Picton, J.S.; Tylman, B. *Laboratory Animal Science*. American Association of Laboratory Animal Science, Feb. 1994, v. 44 (1), p. 60-62. ISSN: 0023-6764.

NAL call no: 410.9 P94
Descriptors: snakes, body surface area, volume determination, dosage, drugs.

- Seagulls, snakes and scorpions B using non-mammalian species as experimental animals.** Williams, D. *Welfare and Science Proceedings of the Fifth Symposium of the Federation of European Laboratory Animal Science Associations*. Jun.8-11, 1993. London: Royal Society of Medicine Press, 1994, p. 307-311. ISBN: 1853152404.
NAL call no: QL55.F43 1993
Descriptors: laboratory animals, snakes, animal experiments, animal welfare.
- The topography of the thoracic and abdominal organs of the Nile crocodile (*Crocodylus niloticus*).** Van der Merwe, N.J.; Kotze, S.H. *Onderstepoort Journal of Veterinary Research*. Onderstepoort Veterinary Institute, Agricultural Research Council. Sept. 1993, v. 60 (3), p. 219-222. ISSN: 0030-2465.
NAL call no: 41.8 ON1
Descriptors: crocodile, abdomen, thorax.
- Bioactive peptides and serotonin in the gut endocrine cells of the crocodile. *Crocodylus niloticus*: An immunocytochemical study.** Van Aswegen, G.; Kotze, S.H.; Van der Merwe, N.J.; Smith, G.A. *Onderstepoort Journal of Veterinary Research*. Pretoria, South Africa Department of Agriculture and Water Supply. Jun. 1992, v. 59 (2), p.123-127. ISSN: 0030-2465.
NAL call no: 41.8 ON1
Descriptors: crocodile, digestive tract, immunochemistry.
- Effects of anticoagulant and autoanalyzer on blood biochemical values of loggerhead sea turtles (*Caretta caretta*).** Bolton, A.B.; Jacobson, E.R.; Bjorndal, K.A. *American Journal of Veterinary Research: American Veterinary Medical Association*. Dec. 1992, v. 53 (12), p. 224-227. ISSN: 0002-9645.
NAL call no: 41.8 AM3A
Descriptors: caretta, blood chemistry.
- A light microscopical study of the intestinal tract of the Nile crocodile (*Crocodylus niloticus*).** Kotze, S.H.; Van der Merwe, N.J.; Van Aswegen, G.; Smith, G.A. *Onderstepoort Journal of Veterinary Medicine*: Pretoria: South Africa Department of Agriculture and Water Supply. Dec. 1992, v. 59 (4), p. 249-252. ISSN: 0030-2465.
NAL call no: 41.8 ON1
Descriptors: crocodiles, intestines, histology.
- The mating behavior of *Iguana iguana*.** Smithsonian contributions to zoology: no. 534. Washington, D.C.: Smithsonian Institution Press, 1992, iii., 40 p., ill.
NAL call no: QL21.U5S6 no.534
Descriptors: iguana behavior, courtship, sexual behavior.
- Morphine and pethidine antinociception in the crocodile.** Kanui, T.I.; Hole, K. *Journal of Veterinary Pharmacology and Therapeutics*. Oxford: Blackwell Scientific Publications. Mar. 1992, v. 15 (1), p. 101-103. ISSN: 0140-7783.
NAL call no: SF915.J63
Descriptors: crocodiles, morphine, pethidine, pain, anesthesia, dosage.
- Light adaptation in turtle cones: Testing and analysis of a model for phototransduction.** Tranchina, D.; Sneyd, J. and Cadenas, I.D. *Biophysics Journal*. v.60 (1), p. 217-237 (1991).
NAL call no: 442.8 B5238
Descriptors: electrophysiology, sodium, potassium.
- Comparison of two fresh water turtle species as monitors of environmental contamination.** Meyers, Schone L.; Walton, B.T. Environmental Sciences Division publication no. 3454. Oak Ridge, TN: Oak Ridge National Laboratory, 1990, xiv, 164 p., ill., map.
NAL call no: QH541.15.I5M47 1990
Descriptors: turtles, biological indicators, pollution, ecology.
- Iguana iguana*: A model species for studying the ontogeny of behavior/hormone interactions.** Phillips, J.A. *Journal of Experimental Zoology, Suppl.*4, p. 167-169 (1990).
NAL call no: 410 J825
Descriptors: diet, maturation, innate behavior.
- Reptilian and avian follicular hierarchies: Models for the study of ovarian development.** Etches, R.J. and Petitte, J.N. *Journal of Experimental Zoology, Suppl.*4, p. 112-122 (1990).

NAL call no: 410 J825

Descriptors: atresia, androgens, estrogens.

Urinary bladders of freshwater turtles as a renal physiology model potentially biased by monogenean infections.

Hanke, S.E.; Pence, D.B. and Tran, R.M. *Laboratory Animal Science*, v. 40 (2), p. 172-177 (1990).

NAL call no: 410.9 P94

Descriptors: renal physiology, non-mammal alternative.

Vitellogenesis in reptiles as a model for mammalian sex-differentiated hepatic protein synthesis. Callard, I.P.; Riley, D. and Perez, L. *Journal of Experimental Zoology*, Suppl.4, p. 106-111 (1990).

NAL call no: 410 J825

Descriptors: embryo development, cardiovascular disease, estrogen.

Reptile models for biomedical research. Greenberg, N.; Burghardt, G.M.; Crews, D.; Font, E.; Jones, R.E. and Vaughan, G. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 289-308.

NAL call no: QL55.N66

Descriptors: Iguanidae, Teridae, Colubridae, behavior, endocrinology, neurology.

Sulfhydryl-rich hemoglobins in reptiles: A defense against reactive oxygen species. Reischl, E. In: *Nonmammalian Animal Models for Biomedical Research*. Woodhead, A.D. (ed.), CRC Press, Boca Raton, FL; 1989, pp. 309-318.

NAL call no: QL55.N66

Descriptors: turtles, snakes, lizards, crocodylians, physiology, activated oxygen, disease, protective mechanism, augmentation.

Fibrin assembly after fibrinopeptide: A release in model systems and human plasma studied with magnetic birefringence. Torbet, J. *The Biochemical Journal*, v. 244 (3), p. 633-637 (1987).

NAL call no: QP501.B64

Descriptors: retinase, peptide, proteins.

Neurotoxins from *Agkistrodon halys* (Pallas) and *Bungarus fasciatus* venom. Heilbronn, E.; Jiang, M.S.; Zhou, H.; Haggvlad, J. and Rydqvist, B. *Model Systems in Neurotoxicology: Alternative Approaches to Animal Testing: Proceedings of the 31st OHOLO Conference, Held in Tiberias, Israel, Nov. 3-7, 1986*. Shahar, A. and Goldberg, A.M. (eds.), Liss Publishing Co., New York, NY; 1987, pp. 265-275.

NAL call no: RC347.O37 1986

Descriptors: non-mammalian alternative, neurotoxicology, serpentes.

Study of cold-blooded animals helps surgery. Perkins, K. *The NIH Record*. Aug. 25, 1987.

Descriptors: cardiopulmonary bi-pass, pH management.

Muscle necrosis caused by the sub-units of crotoxin. Kouyoumdjian, J.A.; Harris, J.B. and Johnson, M.A. *Toxicon*, v. 24 (6), p. 575-583 (1986).

NAL call no: 391.8 T66

Descriptors: venom, neurosurgery, diagnosis.

Phospholipases in snake venoms and their effects on nerve and muscle. Harris, J.B. *Pharmacology and Therapeutics*, v. 31 (1-2), p. 79-102 (1985).

NAL call no: RM1.P477

Descriptors: drug therapy, central nervous system, neurotoxicity.

The anticoagulant effect of *Bothrops castelnaudi* snake venom (Castelnaud's pit viper). Kamiguti, A.S.; Sousa e Silva, M.C.C.; Morena, P. and Nahas, L. *Toxicon*, v. 23 (3), p. 383-391 (1985).

NAL call no: 391.8 T66

Descriptors: blood clotting, cardiovascular disease, diagnosis.

Alligator metabolism: Studies on chemical reactions in vivo. Coulson, Roland A.; Hernandez, Thomas. Oxford; New York: Pergamon Press, c1983, iii. 182 p., ill. ISBN: 0080297765.
 NAL call no: QL666.C925C68
 Descriptors: alligator, physiology, metabolism.

Blood flow to appendages and the control of heat exchange in American alligators (*Alligator mississippiensis*). Turner, J.S.; Tracy, C.R. *Physiological Zoology*. University of Chicago Press, Apr. 1983, v. 56 (2), p. 195-200. ISSN: 0031-935X.
 NAL call no: 410 P56
 Descriptors: alligator, blood flow, heat exchange.

Parthenogenetic reptiles: New subjects for laboratory research. Cole, C.J. and Townsend, C.R. *Experientia*, v. 33, p. 285-289 (1977).
 NAL call no: 475 Ex7
 Descriptors: model, lizards, snakes, turtles, reproduction, review.

Animal model of human disease. Malignant tumors. Spang Thomsen, M. and Visfeldt, J. *American Journal of Pathology*, v. 84 (1), p. 193-196 (1976).
 NAL call no: 448.8 AM39
 Descriptors: immunology, grafting, cancer.

The effect of diazepam on different patterns of epileptic electrographic activities in the turtle brain. Servit, Z. and Strejckova, A. *Physiologia Bohemoslovaca*, v. 23 (1), p. 29-36 (1974). ISSN: 0014-1291.
 Descriptors: seizure, penicillin, psychotropic drugs.

REPTILE CARE AND USE

Cryptosporidium serpentis oocysts and microsporidian spores in feces of captive snakes. Graczyk, T.K.; Cranfield, M.R. *Journal of Parasitology*. Lawrence, KS: American Society of Parasitologists, Apr. 2000, v. 86 (2), p. 413-414. ISSN: 0022-3395.
 NAL call no: 448.8 J824
 Descriptors: snakes, lizards, turtles, feces, oocysts, cryptosporidiosis, microsporidiosis.

Common bacterial diseases and antibiotic therapy in reptiles. Mader, D.R. *Compendium on Continuing Education for the Practicing Veterinarian*. Trenton, N.J.: Veterinary Learning Systems. 1999, v. 20 (3A suppl.), p. 23-33. ISSN: 0193-1903.
 NAL call no: SF601.C66
 Descriptors: reptiles, immunological deficiency, drug therapy, antibiotics.

Neoplasia in snakes at the National Zoological Park, Washington, D.C. Castao, Dias J.L.; Nichols, D.K. *Journal of Comparative Pathology*. London: W.B. Saunders Company Ltd. Jan. 1999, v. 120 (1), p. 89-95. ISSN: 0021-9975.
 NAL call no: 41.8 J82
 Descriptors: snakes, neoplasms, malignant course, benign course, postmortem.

A sequence of progesterone receptor homologue in freshwater crocodile (*Crocodylus siamensis*). Suwattana, D.; Joerg, H.; Rieder, S.; Chavananikul, V.; Stranzinger, G. *Journal of Animal Breeding and Genetics*. Berlin: Blackwell Wissenschafts Verlag, Jun. 1999, v. 116 (3), p. 243-252. ISSN: 0931-2668.
 NAL call no: 442.8 Z35
 Descriptors: crocodiles, progesterone, receptors, species differences, DNA hybridization.

Association of Reptilian and Amphibian Veterinarians guidelines for reducing risk of transmission of *Salmonella* spp.

from reptiles to humans. *Journal of the American Veterinary Medical Association*. Schaumburg, IL. Jul. 1, 1998, v. 213 (3), p. 51-52. ISSN: 0003-1488.

NAL call no: 41.8 Am3

Descriptors: reptiles, salmonella, disease transmission, prevention, zoonosis.

Aural polyp associated with cryptosporidiosis in an iguana (*Iguana iguana*). Fitzgerald, S.D.; Moisan, P.G.; Bennett, R. *Journal of Veterinary Diagnostic Investigation*. Turlock, CA. Apr. 1998, v. 10 (2), p. 179-180. ISSN: 1040-6387.

NAL call no: SF774.J68

Descriptors: iguana, polyps, cryptosporidiosis, histopathology, lesions.

Common diseases of the green iguana. Stahl, S.J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 806-809.

NAL call no: SF605.N672

Descriptors: iguana, diseases.

Dermatologic problems of reptiles. Rossi, J.V. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 802-803.

NAL call no: SF605.N672

Descriptors: reptiles, skin diseases.

Effects of sexual condition on food consumption and temperature selection in the herbivorous desert lizard (*Uromastix philbyi*). Zari, T.A. *Journal of Arid Environments*. London; New York: Academic Press, Mar. 1998, v. 38 (3), p. 371-377. ISSN: 0140-1963.

NAL call no: QH541.5.D4J6

Descriptors: saudi arabia, lizard, food consumption.

Emergency medicine of reptiles. Rossi, J.V. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 799-801.

NAL call no: SF605.N672

Descriptors: reptiles, emergencies.

Euthanasia in reptiles and amphibians. Boonman, J. 1998. *Lacerta*, v. 56 (4).

NAL call no: QL640.L3

Descriptors: euthanasia, reptilia.

Generation and management of wastewater in an alligator farm. DeLosReyes, A.A. Jr.; Rusch, K.A.; Malone, R.F. *Journal of Applied Aquaculture*. Binghamton, N.Y.: Food Products Press, 1998, v. 8 (2), p. 27-38. ISSN: 1045-4438.

NAL call no: SH135.J69

Descriptors: alligator, aquaculture, waste water, treatment, biological filtration.

Intestinal helminth communities in the green lizard (*Lacerta viridis*) from Bulgaria. Biserkov, V.; Kostadinova, A. *Journal of Helminthology*. Wallingford, Oxon, UK: CAB International, Sept. 1998, v. 72 (3), p. 267-271. ISSN: 0022-149X.

NAL call no: 436.8 J82

Descriptors: helminths, lizard, host-parasite relationship.

Multiple cryptosporidium serpentis oocyst isolates from captive snakes are not transmissible to amphibians. Graczyk, T.K.; Cranfield, M.R.; Geitner, M.E.A. *Journal of Parasitology*. Lawrence, KS: American Society of Parasitologists, Dec. 1998, v. 84 (6), p. 1298-1300. ISSN: 0022-3395.

NAL call no: 448.8 J824

Descriptors: snakes, cryptosporidium, disease transmission, host range, histology.

Practical iguana psychology. Rossi, J.V. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 798-799.

NAL call no: SF605.N672

Descriptors: iguana, animal behavior, stress.

Prevalence of fecal shedding of Salmonella organisms among captive green iguanas and potential public health implications. Burnham, B.R.; Atchley, D.H.; DeFusco, R.P.; Ferris, K.E.; Zicarelli, J.C.; Lee, J.H.; Angulo, F.J. *Journal of the American Veterinary Medical Association*. Schaumburg, IL: Jul. 1, 1998, v. 213 (1), p.48-50. ISSN: 0003-1488.

NAL call no: 41.8 Am3

Descriptors: iguana, salmonella, feces, incidence, shedding, public health.

Reproductive disorders of the green iguana. Stahl, S.J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 810-813.

NAL call no: SF605.N672

Descriptors: iguana, reproductive disorders, treatment.

Regurgitation of snakes: Treat the disease, not the signs. Raiti, P. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 796-797.

NAL call no: SF605.N672

Descriptors: snakes, vomiting, regurgitation, etiology, treatment.

Reptile associated salmonellosis. Austin, C.C.; Wilkins, M.J. *Journal of the American Veterinary Medical Association*. Schaumburg, IL: Mar. 15, 1998, v. 212 (6), p. 866-867. ISSN: 0003-1488.

NAL call no: 41.8 Am3

Descriptors: turtles, salmonella, disease transmission, symptoms, children.

Stuck! Reproductive problems of pet snakes. Raiti, P. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 10-14, 1998, v. 12, p. 795-796.

NAL call no: SF605.N672

Descriptors: snakes, dystocia, diagnosis, treatment.

Concurrent gout and suspected hypovitaminosis A crocodile hatchlings. Ariel, E.; Ladds, P.W.; Buenaviaje, G.N. *Australian Veterinary Journal*. Brunswick, Vic.: Australian Veterinary Association, Apr. 1997, v. 75 (4), p. 246-249. ISSN: 0005-0423.

NAL call no: 41.8 Au72

Descriptors: crocodile, gout, vitamin A deficiency, histopathology, diet.

Diagnosis and treatment of lumps and bumps in snakes. Rosenthal, K.; Russo, E. *Practical Exotic Animal Medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 27-34. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: snakes, medical treatment, swelling, veterinary medicine.

Dietary fiber influences nutrient utilization, growth and dry matter intake of green iguanas (Iguana iguana). Baer, D.J.; Oftedal, O.T.; Rumpler, W.V.; Ullrey, D.E. *Journal of Nutrition*. American Society for Nutritional Sciences, Aug. 1997, v. 127 (8), p. 1501-1507. ISSN: 0022-3166.

NAL call no: 389.8 J82

Descriptors: iguana, fiber, diet, nutrition, physiology, nutrient intake.

Diseases of Iguana iguana. Anderson, N.L. *Practical Exotic animal Medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 20-26. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: iguana, animal diseases, animal health.

Diseases of the integumentary system of reptiles. Jacobson, E.R. *Practical Exotic Animal Medicine*. Trenton, N.J.: Veterinary Learning Systems, c 1997, p. 195-210. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: reptiles, integument, animal diseases.

Husbandry and clinical evaluation of Iguana iguana. Anderson, N.L. *Practical Exotic Animal Medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 14-19. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: iguana, pet care, animal husbandry.

Medical management of reptile patients. Jenkins, J.R. *Practical Exotic Animal Medicine*. Trenton, N.J.: Veterinary

Learning Systems, c1997, p. 7-13. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: reptiles, drugs, medical treatment.

Orbital varix in a green Iguana (*Iguana iguana*). Whittaker, C.J.G.; Schumacher, J.; Bennett, R.A.; Neuwirth, L.; Gelatt, E.N. *Veterinary Comparative Ophthalmology*. Santa Barbara, CA.: Veterinary Practice Pub. Co., c1997, v. 7 (2), p. 101-104. ISSN: 1076-4607.

NAL call no: SF891.P78

Descriptors: iguana, exophthalmos, aneurysm, eyes, symptoms, enucleation.

Reptile anaesthesia and the practising veterinarian. Malley, D. *In Practice*. London: British Veterinary Association. Jul./Aug. 1997, v. 19 (7), p. 351-368. ISSN: 0263-841X.

NAL call no: SF601.I4

Descriptors: reptiles, anesthesia, intravenous injection, inhaled anesthetics, veins.

Reptilian surgery. I. Basic principles. Bennett, R.A. *Practical Exotic Animal Medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 35-42, 91. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: reptiles, anatomy, anesthesia, surgery.

Reptilian surgery. II. Management of surgical diseases. Bennett, R.A. *Practical Exotic Animal Medicine*. Trenton, N.J.: Veterinary Learning Systems, c1997, p. 43-53, 91. ISBN: 1884254330.

NAL call no: SF981.P72 1997

Descriptors: reptiles, surgery, postoperative complications, diseases.

Diseases of the reptilian oropharynx. Barten, S.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 815-816.

NAL call no: SF605.N672

Descriptors: reptiles, pharynx, animal diseases.

Diseases of the green Iguana (*Iguana iguana*). Barten, S.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 811-814.

NAL call no: SF605.N672

Descriptors: iguana, diseases.

Emergency treatment and critical care of reptiles. Schumacher, J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 838.

NAL call no: SF605.N672

Descriptors: reptiles. emergency treatment, critical care.

Husbandry of the little file snake (*Acrochordus granulatus*). Lillywhite, H.B. *Zoo Biology*. New York, N.Y.: Wiley-Liss, Inc., 1996, v. 15 (3), p. 315-327. ISSN: 0733-3188.

NAL call no: QL77.5.Z6

Descriptors: snakes, behavior, feeding, water balance, stress factors, aquatic environment.

New perspectives on reptile antihelmintics, insecticides and parasiticides. Klingenberg, R.J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 831-832.

NAL call no: SF605.N672

Descriptors: reptiles, antihelmintics, insecticides, parasiticides.

Reproductive surgery in reptiles. Barten, S.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 817-820.

NAL call no: SF605.N672

Descriptors: reptiles, reproductive surgery.

- Reproduction in the yellow-bellied sea snake (*Pelamis platurus*) from Panama: Field and laboratory observations.** Vallarino, O.; Weldon, P.J. *Zoo Biology*. New York, N.Y.: Wiley-Liss, Inc., 1996, v. 15 (3), p. 309-314. ISSN: 0733-3188.
NAL call no: QL77.5.Z6
Descriptors: snakes, vivipary, parturition, litter size, length, weight.
- Reptile physical examination.** Barten, S.L. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 13-17, 1996, v. 10, p. 809-810.
NAL call no: SF605.N672
Descriptors: reptiles, clinical examination.
- What's wrong with my snake?** Rossi, John; Rossi, Roxanne. Santee, CA.: Advanced Vivarium Systems, c1996, 150 p. ill. ISBN: 1882770358.
NAL call no: SF997.5.S65R67 1996
Descriptors: captive snake diseases.
- Common pet reptiles.** Boyer, T.H. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 14-18, 1995, v.9, p. 636-637.
NAL call no: SF605.N672
Descriptors: pet reptiles.
- Common problems in reptile neurology.** Rossi, J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 14-18, 1995, v. 9, p. 650-651.
NAL call no: SF605.N672
Descriptors: reptiles, nervous system diseases.
- Growth of Morelet's crocodile (*Crocodylus moreletii*) during the first 3 years of life.** Perez, Higareda, G.; Rangel-Rangel, A.; Chiszar, D.; Smith, H.M. *Zoo Biology*. New York, N.Y.: Wiley-Liss, Inc. 1995, v. 14 (2), p. 173-177. ISSN: 0733-3188.
NAL call no: QL77.5.Z6
Descriptors: *Crocodylus*, growth rate, length, data collection.
- Health and welfare of captive reptiles.** 1st. ed. Warwick, Clifford; Frye, Frederick L.; Murphy, James B. London, New York: Chapman & Hall, 1995, xi, 299 p., ill. ISBN: 0412550806.
NAL call no: SF515.H43 1995
Descriptors: captive reptiles, health, welfare.
- Iguana iguana: Guide for successful captive care.** Original ed. Frye, Frederick L. Malabar, FL: Krieger Pub. Co., 1995, xii. 178 p., ill. ISBN: 0894648926.
NAL call no: SF459.I38F76 1995
Descriptors: green iguanas as pets.
- Metabolic bone diseases in reptiles.** Boyer, T.H. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*, Jan. 14-18, 1995, v. 9, p. 638-639.
NAL call no: SF605.N672
Descriptors: reptiles, metabolic bone diseases.
- Physical examination and restraint of reptiles.** Boyer, T.H. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 14-18, 1995, v. 9, p. 635-636.
NAL call no: SF605.N672
Descriptors: reptiles, restraint, physical examination.
- Practical reptile dermatology.** Rossi, J. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 14-18, 1995, v. 9, p. 648-649.
NAL call no: SF605.N672
Descriptors: reptiles, dermatology.
- To be or not to be: Euthanasia.** Barten, Steven. 1995, *Cold Blooded News*, v. 22 (4), p. 9, 14.
- Aging in snakes: Results of long-term captivity on rattlesnake (*Crotalus viridis oreganus*) predatory behavior.** Alving, W.R.; Kardong, K.V. *Zoo Biology*. New York, N.Y.: Wiley-Liss, Inc. 1994, v. 13 (6), p. 537-544. ISSN: 0733-3188.
NAL call no: QL77.5.Z6
Descriptors: *Crotalus*, aging, predation, feeding behavior.

- Food consumption in relation to body weight in captive snakes.** Kirkwood, J.K.; Gili, C. *Research in Veterinary Science*. London: British Veterinary Association. Jul. 1994, v. 57 (1), p. 35-38. ISSN: 0034-5288.
NAL call no: 41.8 R312
Descriptors: snakes, food consumption, food requirements, body weight.
- The general care and maintenance of garter snakes and water snakes.** Perlowin, David. Lakeside, CA: Advanced Vivarium Systems, c1994, 71 p., ill. ISBN: 1882770269 (pbk).
NAL call no: SF459.S5P476 1994
Descriptors: garter snakes, snakes, care, maintenance.
- Growth of juvenile green iguanas (*Iguana iguana*) fed four diets.** Donoghue, S. *Journal of Nutrition*. Dec. 1994, v. 124 (12S), p. 2626S-2629S. ISSN: 0022-3166.
NAL call no: 389.8 J82
Descriptors: iguana, growth, diet, dry matter, crude fiber, crude protein.
- Medical herpetology.** Grenard, Steve. *Reptile & Amphibian Magazine*. Pottsville, PA., 1994, xiii, 139 p. ISBN: 0964103206.
NAL call no: RA1242.S53G74 1994
Descriptors: poisonous snakes, amphibians, health aspects.
- Euthanasia.** Mader, Douglas A. 1994. *Reptiles*, v. 2 (1), p. 6.
NAL call no: SF515.R47
Descriptors: reptiles, euthanasia.
- Reptile clinician=s handbook: A compact clinical and surgical reference.** Frye, Frederick L. Malabar, FL.: Krieger Pub. Co., 1994, ix, 276 p., ill. ISBN: 0894647830.
NAL call no: SF997.5.R4F796 1994
Descriptors: captive reptiles, diseases, surgery, veterinary clinical pathology.
- Reptilian gout.** Mader, D.R. *Proceedings of the North American Veterinary Conference: Eastern States Veterinary Association*. Jan. 15-20, 1994, p. 890-891.
NAL call no: SF605.N672
Descriptors: reptiles, gout.
- A veterinary guide to the parasites of reptiles.** Barnard, Susan M.; Upton, Steve J. Malabar, FL.: Krieger Pub. Co., 1994, v. 1, ill. ISBN: 0894648322.
NAL call no: SF997.5.R4B37 1994
Descriptors: reptiles, parasites, veterinary parasitology.
- Ask the Vet: Euthanasia.** *Southwest Herpetologists Society Newsletter*, 1993, v.23 (12), p.7.
Descriptors: reptiles, euthanasia.
- Iguanas: A guide to their biology and captive care.** Original ed. Frye, Frederick L; Townsend, Wendy. Malabar, FL.: Krieger Pub. Co., 1993. xii, 145 p., ill. ISBN: 0894646958.
NAL call no: SF459.I38F78 1993
Descriptors: iguanas, captive reptiles, care, biology.
- The medical care of iguanas and other common pet lizards.** Barten, S.L. *Veterinary Clinics of North America, Small animal Practice*. Philadelphia, PS: W.B. Saunders Co., Nov. 1993, v. 23 (6), p. 1213-1249. ISSN: 0195-5616.
NAL call no: SF602.V523
Descriptors: lizards, iguana, veterinary medicine.
- A practitioner=s guide to reptilian husbandry and care.** Boyer, Thomas Huntington. Lakewood, CO: American Animal Hospital Association, c1993, v. 109 p., ill. ISBN: 0941451356.
NAL call no: SF459.R4B69 1993
Descriptors: reptiles, diseases.
- The psychological well-being of reptiles.** Kreger, M.D. *Humane Innovations and Alternatives*. Washington Grove, MD: Psychologists for the Ethical Treatment of Animals. 1993, v. 7, p. 519-523. ISSN: 1062-4805.
NAL call no: QL55.H8
Descriptors: reptiles, animal welfare.
- Reptile diseases and culture.** Jarofke, Dietmar; Lange, Jurgen. Berlin: P. Parey, c1993, 188 p. 4 p. of plates. ill. ISBN: 3489524160.
Language: German.
NAL call no: SF515.J37
Descriptors: reptiles, culture, diseases.

- Ultrasound-guided percutaneous liver biopsy in snakes.** Isaza, R.; Ackerman, N.; Schumacher, J. *Veterinary Radiology and Ultrasound*. Raleigh, N.C.: American College of Veterinary Radiology. Nov./Dec. 1993, v. 34 (6), p. 452-454. ISSN: 1058-8183.
NAL call no: SF757.8.A4
Descriptors: constrictor, python, boidae, liver, biopsy, ultrasound, histology.
- Understanding reptile parasites: A basic manual for herpetoculturists and veterinarians.*** Klingenberg, Roger J. Lakeside, CA: Advanced Vivarium Systems, c 1993, 81 p., ill. ISBN: 1882770218.
NAL call no: SF997.5.R4K58 1993
Descriptors: captive reptiles, parasites, control, handbooks.
- Effects of handling and restraint in the ball python (*Python regius*) and the blue-tongued skink (*Tiliqua scincoides*).** (Abstract) Kreger, M.D. and Mench, J.A. *Journal of Animal Science*, v. 70 (1), p. 173 (1992).
NAL call no: 49 J82
Descriptors: behavior, heterophil/lymphocyte ratio, chronic stress, captivity.
- Environmental influences on the critical oxygen tension, water balance, metabolism, and growth of reptile embryos.*** Kam, Yeong Choy. Thesis, University of Florida, 1992, viii, 114 leaves, ill.
Descriptors: reptiles, eggs, incubation, embryos, physiology.
- Medicine and diseases of reptiles.** Schaeffer, D.O. In: *The Care and Use of Amphibians, Reptiles, and Fish in Research*. Schaeffer, D.O.; Kleinow, K. and Krulisch, L. (eds.), Scientist Center for Animal Welfare, Bethesda, MD; 1992 (in press), 5 pp.
NAL call no: SF406.C35 1992
Descriptors: virus, bacteria, nematodes.
- The Physiological and Behavioral Effects of Handling and Restraint in the ball python (*Python regius*) and the blue-tongued skink (*Tiliqua scincoides*).*** (Thesis) Kreger, M.D. University of Maryland, College Park, MD; 1992.
Descriptors: stress, photoperiod, radioimmunoassay, corticosterone, immunosuppression, activity.
- Regarding reptiles.** Kreger, M.D. *Science and Animal Care*. v. 3 (3), p. 1,4 (1992).
NAL call no: HV4701.S35
Descriptors: welfare, guidelines, policy.
- Anesthesia, analgesia and euthanasia of reptiles and amphibians.** Johnson, J.H. 1991, *Proceedings of the American Association of Zoo Veterinarians*, p. 132-138.
NAL call no: SF605.A4
Descriptors: Reptilia, Amphibia, anesthesia, euthanasia.
- Biomedical and Surgical Aspects of Captive Reptile Husbandry.*** Frye, F.L. Krieger Publishing Company, Malabar, FL; 2 vol., 1991, 637 pp.
NAL call no: SF997.5.R4F78 1991
Descriptors: physiology, pathology, prevention, anatomy, post-operative care, anesthesia.
- Cage design and configuration for arboreal reptiles.** Mason, R.T.; Hoyt, Jr., R.F.; Pannell, L.K.; Wellner, E.F. and Demeter, B. *Laboratory Animal Science*, v. 41 (1), p. 84-86 (1991).
NAL call no: 410.9 P94
Descriptors: policy, biophysics, housing, environment.
- Diagnosis and treatment of infertility in captive alligators.** Cardeilhac, Paul. Florida Dept. of Agriculture & Consumer Services, 1991, 40 p., ill.
NAL call no: SF515.5.A44C37 1991
Descriptors: alligator, infertility, diagnosis, treatment.
- Energy requirements for maintenance and growth of wild mammals, birds and reptiles in captivity.** Kirkwood, J.K. *The Journal of Nutrition*, v. 121(Suppl.11), p. S29-34 (1991).
NAL call no: 389.8 J82

Descriptors: obesity, anorexia, feeding neonates.

Husbandry and clinical evaluation of *Iguana iguana*. Anderson, N.L. *Compendium on Continuing Education for the Practicing Veterinarian*, v. 13 (8), p. 1265-1272 (1991).
NAL call no: SF601.C66
Descriptors: husbandry, exam, diagnosis, treatment, thermoregulation, dietary needs.

Medical management of reptile patients. Jenkins, J.R. *The Compendium on Continuing Education for the Practicing Veterinarian*, v. 13 (6), p. 980-983, 988 (1991).
NAL call no: SF601.C66
Descriptors: pathology, preventative medicine.

A Practical Guide for Feeding Captive Reptiles. Frye, F.L. Krieger Publishing Company, Malabar, FL; 1991, 171 pp.
NAL call no: SF515.F79 1991
Descriptors: health, nutrition, diet.

Prescribing for reptiles. Debuf, Y.M. (ed.), In: *The Veterinary Formulary: Handbook of Medicines Used in Veterinary Practice*. The Pharmaceutical Press, London, England; 1991, pp. 43-45.
NAL call no: SF916.5.V37 1991
Descriptors: antibiotics, dosages, parasites.

Reciprocal changes in corticosterone and testosterone levels following acute and chronic handling stress in the tree lizard, *Urosaurus ornatus*. Moore, M.C.; Thompson, C.W. and Marler, C.A. *General and Comparative Endocrinology*, v. 81 (2), p. 217-226 (1991).
NAL call no: 444.8 G28
Descriptors: handling, captivity.

Recommendations for the care of amphibians and reptiles in academic institutions. Pough, F.H. *ILAR News*. National Academy Press, Washington, DC; 33(4):S1-S21 (1991).
NAL call no: QL55.A1I43
Descriptors: breeding, housing, marking, care, photoperiod, thermoregulation.

A review of anesthesia and chemical restraint in reptiles. Bennett, R.A. *Journal of Zoo and Wildlife Medicine*, v. 22 (3), p. 282-303 (1991).
NAL call no: SF601.J6
Descriptors: pre-anesthetics, local, injectable, hypothermia, inhalants, electro anesthesia.

The Snakes of Thailand and Their Husbandry. Cox, M.J. Krieger Publishing Company, Malabar, FL; 1991, 526 pp.
NAL call no: SF515.5.S64C68 1991
Descriptors: housing, breeding, feeding.

A technique to anesthetize turtles with ether. Bello, A.A. and Bello-Klein, A. *Physiology and Behavior*; v. 50 (4), p. 847-848 (1991).
NAL call no: QP1.P4
Descriptors: cannula, pump, ether.

Use of oxytocin to induce oviposition in a dystocic saltwater crocodile (*Crocodylus porosus*). Carmel, B.P. *Australian Veterinary Journal*. Brunswick, Victoria: Australian Veterinary Association. Jun.1991, v. 68 (6), p. 216-217. ISSN: 0005-0423.
NAL call no: 41.8 AU72
Descriptors: crocodylus, oxytocin, dystocia, oviposition.

Husbandry and Preventative Medicine Practices that Increase Reproductive Efficiency of Breeding Colonies of Alligators. Cardeilhac, P. Florida Dept. of Agriculture and Consumer Services, Tallahassee, FL; 1990, 47 pp.
NAL call no: QL666.C929C37
Descriptors: housing, diet, propagation.

Growth rate and plasma corticosterone levels in juvenile alligators maintained at different stocking densities. Elsey, R.M.; Joanen, T.; McNease, L. and Lance, V. *Journal of Experimental Zoology*, v. 255 (1), p. 30-36 (1990).

NAL call no: 410 J825

Descriptors: stress, juveniles, crowding.

A Step-by-step Book About Iguanas. Harris, J.C., T.F.H. Publications, Neptune City, NJ; 1990, 64 pp.

NAL call no: SF459.I38H37

Descriptors: housing, breeding, feeding, nutrition, maintenance.

Stress in reptiles. Lance, V.A. In: *Progress in Comparative Endocrinology: Proceedings of the Eleventh International Symposia on Comparative Endocrinology held in Malaga, Spain, May 14-20, 1989.* August, E.; Scanes, C.G. and Stetson, M.H. (eds.), Wiley-Liss, Inc., New York, NY; 1990, pp. 461-466.

NAL call no: QP187.A1I52 1989

Descriptors: handling, crowding, physiology.

Alligator Aquaculture in the South. Rollason, S. Louisiana Cooperative Extension Service, Baton Rouge, LA; videocassette (18 min.), 1989.

NAL call no: Videocassette no. 966

Descriptors: care of hatchlings, incubation, transport, feed.

Ketamine as an anesthetic for some squamate reptiles. Font, E. and Schwartz, J.M. *Life Sciences*, v. 2, p. 484-486 (1989).

NAL call no: 442.8 L62

Descriptors: colubrids, iguanids, chloroform.

Reptilian surgery part I. Basic principles. Bennett, R.A. *Compendium on Continuing Education for the Practicing Veterinarian*, v. 11 (1), p. 10-21 (1989).

NAL call no: SF601.C66

Descriptors: skin wounds, aseptic techniques, anatomical variation, anesthetics.

Reptilian surgery part II. Management of surgical diseases. Bennett, R.A. *Compendium on Continuing Education for the Practicing Veterinarian.* Princeton Jct., NJ; v.11 (2), p. 122-133.

NAL call no: SF601.C66

Descriptors: bacterial infections, wound healing, celiotomy, gastrointestinal abnormalities, treatments.

Evaluation of the reptile patient. Jacobson, E.R. *Contemporary Issues in Small Animal Practice*, v. 9, p. 1-18 (1988).

NAL call no: SF601.C64

Descriptors: behavior, maintenance, care.

Hospital care of the reptile patient. Jarchow, J.L. *Contemporary Issues in Small Animal Practice*, v. 9, p. 19-34 (1988).

NAL call no: SF601.C64

Descriptors: post-operative care, maintenance, analgesia, anaesthesia.

Husbandry and Preventative Medicine Practices That Increase Reproductive Efficiency of Breeding Colonies of Alligators. Cardeilhac, P. Florida Department of Agriculture and Consumer Services, Tallahassee, FL; 1988.

NAL call no: SF459.A4C3

Descriptors: reproduction, maintenance, pathology.

Keeping and Breeding Snakes. Mattison, C. Sterling Publishing Co., New York, NY; 1988, 183 pp.

NAL call no: SF515.5.S64M38

Descriptors: husbandry, maintenance, environment, feeding, diseases.

Practical Methodology Reptiles. Mader, D.R. University of California at Davis, School of Veterinary Medicine, Davis, CA; 1988, 2 videocassettes, VHS, 35 minutes.

NAL call no: Videocassette no.414

Descriptors: euthanasia, handling, care.

Use of chemotherapeutics in reptile medicine. Jacobson, E.R. *Contemporary Issues in Small Animal Practice*, v. 9, p. 35-48 (1988).

NAL call no: SF601.C64

Descriptors: methods, pathology, treatment.

- Handbook on the Maintenance of Reptiles in Captivity.** Welch, K.R.G. Krieger Publishing Co., Malabar, FL; 1987, 156 pp.
NAL call no: QL665.W4 1987
Descriptors: care, husbandry, feeding.
- Snakes & Lizards: Their Care and Breeding in Captivity.** Coborn, J. Newton Abbott Publishing, English, 1987, 208 pp.
NAL call no: SF515.5.L58C63 1987
Descriptors: husbandry, environment, maintenance.
- The UFAW Handbook of the Care and Management of Laboratory Animals.** Poole, T.B. Bath Press, Avon, Great Britain, 1987, pp. 716-752.
NAL call no: QL55.U5 1987
Descriptors: reptiles, amphibia, fish, environment.
- Euthanasia of reptiles.** Warwick, C. 1985. *Journal of the American Veterinary Medical Association*, v. 187 (11), p. 1081.
ISSN: 0003-1488.
NAL call no: 41.8 AM3
Descriptors: Reptilia, serpentes, sauria, testudines, euthanasia.
- Euthanasia of tortoises.** Godfrey, C. 1985. *The Veterinary Record*, v. 116, p. 139. ISSN: 0042-4900.
NAL call no: 41.8 V641
Descriptors: Reptilia, testudines, tortoise, euthanasia.
- Anesthetic and sedative drug dosage - amphibians and reptiles.** Canadian Council on Animal Care. *Guide to the Care and Use of Experimental Animals.* Canadian Council on Animal Care, Ottawa, Ontario, 1984, v. 1, pp. 99.
NAL call no: SF406.C36
Descriptors: primary agent, dose, route.
- Antimicrobial drug dosage - reptiles, fish.** Canadian Council on Animal Care. *Guide to the Care and Use of Experimental Animals.* Canadian Council on Animal Care, Ottawa, Ontario, 1984, v. 1, pp. 102.
NAL call no: SF406.C36
Descriptors: penicillin G, chloramphenicol, erythromycin, streptomycin.
- Diseases of Amphibians and Reptiles.** Hoff, G.L.; Frye, F.L. and Jacobson, E.R. Plenum Press, New York, NY; 1984, 784 pp.
NAL call no: SF997.5.A45D57
Descriptors: pathology, medicine, prevention, diagnosis.
- Reptiles.** Canadian Council on Animal Care. In: *Guide to the Care and Use of Experimental Animals.* Ottawa, Canada, v. 2, 1984, pp. 19-28.
NAL call no: SF406.C36
Descriptors: housing, nutrition, health care, restraint.
- Parasites of American alligators (Alligator mississippiensis) in south Florida.** Cherry, R.H.; Ager, A.L. Jr. *Journal of Parasitology.* Lawrence: American Society of Parasitologists. Jun. 1982, v. 68 (3), p. 509-510. ISSN: 0022-3395.
NAL call no: 448.8 J824
Descriptors: Florida, alligators.
- Diseases of the Reptilia.** Cooper, J.E. and Jackson, O.F. Academic Press, New York, NY; 1981, 2 volumes.
NAL call no: SF997.5.R4D57
Descriptors: pathology, parasitology, prevention, epidemiology, treatment.
- Investigatory behavior in snakes, II: Cage cleaning and the induction of defecation in snakes.** Chiszar, D.; Wellborn, S.; Wand, M.A.; Scudder, K.M. and Smith, H.M. *Animal Learning and Behavior*, v. 8, p. 505-510 (1980).
Descriptors: housing, maintenance, substrate, captivity.
- Reproductive Biology and Diseases of Captive Reptiles.** Murphy, J.B. and Collins, J.T. (eds.), Society for the Study of Amphibians and Reptiles, Oxford, OH; 1980, 277 pp.
NAL call no: QL669.3.R4
Descriptors: Congresses, pathology, herpetology, seasonality, territoriality.
- Temperature and light requirements of captive reptiles.** Regal, P.J. In: *Reproductive Biology and Diseases of Captive Reptiles.* Murphy, J.B. and Collins, J.T. (eds.), Society for the Study of Amphibians and Reptiles, 1980, pp. 79-91.
NAL call no: QL669.3.R4
Descriptors: ectothermy, maintenance, thermoregulation.
- Establishment and maintenance of colonies of parthenogenetic whiptail lizards.** Townsend, C.R. *International Zoo*

Yearbook, v. 19, p. 80-86 (1979).
NAL call no: QL76.I5
Descriptors: housing, feeding, temperature.

Laboratory maintenance. Campbell, H.W. and Busack, S.D. In: *Turtles: Perspectives and Research*. Harless, M. and Morlock, H. (eds.), Wiley Publishing, New York, NY: 1979, pp. 109-125.
Descriptors: care, husbandry, nutrition.

A Review of Marking Techniques for Amphibians and Reptiles. Ferner, J.W. Society for the Study of Amphibians and Reptiles, Miscellaneous Pubs., Herpetological Circular No. 9, 1979.
NAL call no: QL60.5.F4
Descriptors: identification, methodology.

Reptiles: Bacterial Diseases of Captive Reptiles. Frye, F.L. Health Sciences Learning Resources Center, University of Washington, Seattle, WA; 1975, 55 slides, 1 sound cassette.
NAL call no: Slide no.222
Descriptors: handling, pathology, medicine, microorganisms, herpetology.

Reptilian Disease Recognition and Treatment. Dobbs, J.S. Curtis Books, Hollywood, FL; 1973, 42 pp.
NAL call no: SF997.5.R4D6
Descriptors: pathology, diagnosis, prevention.

The Temperature and Water Relations of Reptiles. Cloudsley-Thompson, J.L. Merrow Publishing Co., Watford, Herts, England, 1971, 159 pp.
NAL call no: QL669.C63
Descriptors: ectothermy, maintenance, physiology, rhythmicity.

USEFUL WEBSITES AND RESOURCES

AMPHIBIANS & REPTILES

Alexander Koenig Zoological Research Institute & Zoological Museum.

Library, Adenaueralle 160, 53113 Bonn, Germany.

Tel: 49-228-9122217; Fax: 49-228-216979

e-mail: t.bades.zfmk@uni-bonn.de

<http://www.bonn-region.de/english/culture-art/museumsmeile/museum-alexander-koenig.html>

Subjects: birds, fish, zoology, fisheries, reptiles, mammals, insects. 140,00 books and bound periodical volumes.

American Society of Ichthyologists & Herpetologists (ASIH)

<http://www.asih.org/>

Scientists, educators, students, and others interested in the study of reptiles, amphibians and fishes. Publications: *Copeia* (quarterly). Also leaflets on career opportunities.

Amphibians: Guidelines for the breeding, care and management of laboratory animals

<http://www.nap.edu/html/amphibian/preface.html>

As stated.

Amphibia Web

<http://elib.cs.berkeley.edu/aw/resources/biology.html>

Amphibian biology resources, Amphibian web database, Amphibian lists and more.

Anapsid.org

<http://www.anapsid.org>

Reptile & Amphibian information collections. Cyclura research information, Herp care information, Iguana care information, Herp societies and reptile veterinarians. Bibliography, captive care, health and behavior, feeding, breeding, illness & injury.

Animal Welfare Information Center, USDA, ARS, NAL

10301 Baltimore Ave.

Beltsville, MD 20705

Tel: 301-504-6212

Fax: 301-504-7125

[Contact us](#)

<http://awic.nal.usda.gov/>

Can provide information, literature searches, workshops, and referrals related to animals used in biomedical research exhibition. Publications: *AWIC Bulletin* (twice a year); bibliographies and information publications.

Aquatic Research Institute (ARI)

2242 Davis Court

Hayward, CA 94545

Tel: 415-785-2216

Publications: *Aquaculture* (quarterly); *Aquatica* (periodic); *Special Reports* (periodic).

ASFA (*Aquatic Sciences & Fisheries Abstracts*) *Aquaculture Abstracts*

United Nations Department of International Economic & Social Affairs

Food & Agriculture Organization

Rome, Italy and Cambridge Scientific Abstracts, Bethesda, MD.

Publications: *ASFA Aquaculture Abstracts* NAL Call no: SH135.A8

Association of Amphibian & Reptile Veterinarians (ARAV)

<http://www.arav.org>

Grants, Journal of Herpetological Medicine & Surgery, miscellaneous publications.

Australian Herpetological Directory

<http://www.jcu.edu.au/school/tbiol/zoology/herp/herp2.shtml>

A repository for information on Australian herps and herpetological research.

Biol.net: Amphibians

<http://biol.net/Amphibians.htm>

Lots of information, resources and links for amphibians.

Bush Herpetological Supply

P.O. Box 539

Neodesha, KS 66757

Tel: 1-800-451-6178

Equipment and supplies for herps.

Calculating Drug Dosages for Reptiles

<http://www.leaplizard.com/articles/dosage.html>

A good article on calculating drug dosages for reptiles by Marcia Rybak & Stephen L. Barten.

Care Sheets

<http://reptiles2000.8k.com/caresheets>

Information on the care of lizards, snakes, turtles, frogs, toads, salamanders & newts.

Carolina Biological Supply Company

2700 York Road

Burlington, NC 27215-3398

Tel: 1-800-334-5551

Fax: 1-800-374-6714

<http://www.carolina.com>

Supplier of various species of fish, amphibians and reptiles.

Category Based Herpetological Web Index

<http://herpetology.com/webdata.hts>

Index of herpetologic web sites by category.

Cell and Developmental Biology Online

<http://www.uoguelph.ca/zoology/devobio/dbindex.htm>

Lots of good information and links for amphibians and zebra fish, information network.

Center for North American Herpetology (CNAH)

<http://www.naherpetology.org/>

Information and links for North American herps.

Chelonian Research Foundation

<http://www.chelonian.org>

Turtle & tortoise conservation and biology; Newsletters; research monographs; research awards; research institution.

Chicago Herpetological Society

2060 North Clark Street

Chicago, IL 60614

<http://www.chicagoherp.org>

Publications: periodic bulletins. Funding source for research on reptiles and amphibians.

Colorado Herpetological Society's Guide

<http://www.coloherps.org/>

An Internet herp resource guide.

Crocodile Specialists Group

<http://crocodilian.com/cnhc/cnhc.html>

Conservation; newsletter; publications; photo gallery.

Digital Frog International

<http://www.digitalfrog.com/>

Biology; ecology; software; dissection.

Duke University Marine Laboratory

Privers Island

135 Duke Marine Lab Road

Beaufort, NC 28516-9721

Tel: 252-504-7503

Fax: 252-504-7648

<http://www.env.duke.edu/marinelab/>

Marine and freshwater biomedical sciences center specializing in biochemical toxicology.

Dutch Herpetological Society *Lacerta*

English and Dutch; study and specialists groups; terrarian animal husbandry techniques.

Publications: Journal *Lacerta* 6 times/year; newsletter monthly.

NAL Call no: QL640.L3.

Eco Universe Herpetological Publishing & Distribution

915 Seymor Ave.

Lansing, MI 48906

Tel: 517-487-5595

Fax: 517-371-2709

<http://www.ecouniverse.com/1999index.html>

An all reptile magazine index.

Embryology Tutorials for Zebra Fish, Amphibians & Echinoderms for Undergraduates

http://worms.zoology.wisc.edu/embryology_main.html

As stated.

Fluid & Fluid Therapy in Reptiles

<http://www.anapsid.org/>

Good information on fluid therapy in reptiles including administration of oral and injectable medications and fluid requirements for reptiles, plus references.

Fund for the Replacement of Animals in Medical Research (FRAME)

Russell & Burch House

96-98 North Sherwood Street

Nottingham NG1 4EE, England

Tel: (0) 115 950 4740

Fax: (0) 115 950 3570

e-mail: frame@frame.org.uk

<http://www.frame.org.uk>

Publications: *Alternatives to Laboratory Animals*.

Hematology Bibliography

<http://azvt.org/links/hemo.htm>

A hematology bibliography for various species.

Herpetological Contents - Herplit Database

Bibilomania
P.O. Box 58355
Salt Lake City, UT 84158-9355
Tel/Fax: 1-800-453-0489
<http://www.herplit.com/contents/>
Searchable database with about 50,000 herp publications.

The Herpetologists= League
<http://www.herpetologistsleague.org/en/index.php>
Publications: *Herpetologica* Journal (quarterly).
Herpetological Monographs (annually).
HL Communications (Newsletter bi annually).
Research articles, essays, symposia, etc., links.

Herpetological Society Listing
<http://www.mnherpsoc.com/>
Listing of various society and organization web sites.

Herp Web and Database
<http://herpetology.com>
Reptile and amphibian books and reviews, herpetology, links and more.

Houston Herpetological Supply
<http://www.houstonherp.com/>
Snakes, frozen mice and rats, info for hobbyists.

Interactive Frog Dissection
<http://curry.edschool.virginia.edu/go/frog>
As stated.

Institute of Laboratory Animal Resources (ILAR)
National Academy of Sciences
2101 Constitution Ave. N.W.
Washington, D.C. 20418
Tel: 202-334-2590
<http://dels.nas.edu/ilar/>
Publications: *ILAR News* (quarterly).
ILAR Journal (quarterly).
Animals for Research: A Directory of Sources (suppliers).

International Reptile Breeders Association
P.O. Box 85152-279
San Diego, CA 92186
Tel: 619-445-9966
Fax: 619-445-9904
<http://www.irba.com/>
Events, links, shows.

International Zoo Yearbook
Zoological Society of London
London, England
1959-present
Publications: *International Zoo Yearbook* NAL Call no: QL76.I5.
Contains sections on care, breeding and exhibition of zoo and aquarium animals.

Journal of Developmental Biology
<http://www.ijdb.ehu.es/welcome.html>
Journal articles from the Society for Developmental Biology.

Museum of Comparative Zoology

Harvard University, 26 Oxford Street, Cambridge, MA 02138. Tel: 617-495-2460; Fax: 617-496-8308; e-mail:

jmccarthy@mcz.harvard.edu

<http://www.oeb.harvard.edu>

Publications: Brevoria (occasionally); Bulletin (occasionally); Check List of Birds of the World; Johnsonia (Mollusks).

Museum of Zoological Publications

1109 Geddes Road, Ann Arbor, MI 48109-1079; Tel: 734-764-0476; Fax: 734-763-4080; e-mail: Fpaper@umich.edu

<http://www.ummz.lsa.umich.edu/>

Select Resources and then Publications: Occasional Papers; Miscellaneous Publications on birds, fishes, insects, mammals, mollusks, reptiles, and amphibians.

National Museum of Natural History

Smithsonian Institution.

Department of Invertebrate Zoology

Washington, D.C. 20560-0163

Tel: 202-786-2076

Fax: 202-357-3043

<http://www.mnh.si.edu>

NetVet Amphibians

<http://netvet.wustl.edu/amphib.htm>

Lots of good information and links on amphibians.

NetVet Reptiles

<http://netvet.wustl.edu/reptiles.htm>

Good information on reptiles.

NIH Xenopus Initiative Website

<http://www.nih.gov/science/models/xenopus/>

Progress and plans, needs for research, meetings, publications, funding opportunities, resources.

Recommendations for the Care of Amphibians & Reptiles in Academic Institutions

<http://netvet.wustl.edu/species/reptiles/pough.txt>

Reptiles: <http://netvet.wustl.edu/reptiles.htm>

Amphibians: <http://netvet.wustl.edu/amphib.htm>

Reptile & Amphibian Magazine

RD3, Box 3709

Pottsville, PA 17901

1989-present.

Publications: Quarterly. Articles on husbandry methods, advertisements from equipment and animal suppliers.

Reptile, Amphibian Medicine and Veterinary Books

<http://herpetology.com/medbooks.html>

Find your books and order through Amazon.com.

Reptile & Amphibian Resource & Herpetological Information Online

http://www.drsfostersmith.com/pic/category_home.cfm?acatid=160&c=6016

Information, FAQs, equipment, sales.

Reptiles

Fancy Publications, P.O. Box 6050, Mission Viejo, CA 92690. Tel: 949-855-8822,

Toll-free: 800-365-4421; Fax: 949-855-3045. Monthly. ISSN: 1068-1965.

Reptile Resources

<http://www.lib.duke.edu/bes/reptiles/>

Species data, herpetological resources, databases, general biological websites and more.

Salamandra

Deutsche Gesellschaft fr

Herpetologic und Terrarienkunde

Frankfort am Main, Germany

1965-present

Publications: *Salamandra* NAL Call no: QL640.S3.

Scientists Center for Animal Welfare (SCAW)

7833 Walker Drive, Suite 410
Greenbelt, MD 20770
Tel: 301-345-3500
Fax: 301-345-3503
e-mail: info@scaw.com
<http://www.scaw.com>

Purpose: conferences, publications, educational materials on animal welfare.
Publications: Quarterly newsletter, conference proceedings.
The Care and Use of Amphibians, Reptiles, and Fish in Research.

Society for the Study of Amphibians & Reptiles (Herpetology) (SSAR)

<http://www.ssarherps.org>

Purpose: education, conservation, research and grants.

Publications: *Herpetological Circulars* (annual).

Herpetological Review (quarterly) NAL Call no: QL640.H47

Journal of Herpetology (quarterly) NAL Call no: QL640.J6

Also publishes books, reprints, and brochures.

Thermoregulatory Consequences of Transmitter Implant Surgery in a Small Lizard

<http://www.npwrc.usgs.gov/resource/wildlife/telemetry/thermreg.htm>

As stated.

Universities Federation for Animal Welfare

The Old School, Brewhouse Hill
Weathamstead, Hertfordshire AL4 8AN
Tel: 1582 831818
Fax: 1582 831414
e-mail: ufaw@ufaw.org.uk
<http://www.ufaw.org.uk>

Publications: *The UFAW Handbook on the Care and Management of Laboratory Animals*. NAL Call no: QL55.U5
1987.

The UFAW Handbook on the Care and Management of Cephalopods in the Laboratory. NAL Call no:
SF407.M37B68.

UNSW Embryology: Frog Development

<http://anatomy.med.unsw.edu.au/cbl/embryo/OtherEmb/Frog.htm>

Also information of the fly, worm, zebra fish, rat, mouse, chicken, and rabbit.

Useful References on Reptile and Amphibian Captive Breeding and Biology

<http://www.angelfire.com/al/repticare/page18.html>

A list of references on captive breeding and biology of reptiles and amphibians.

The Virtual Embryo

<http://www.ucalgary.ca/UofC/eduweb/virtualembryo/>

Research & learning resources, tutorial, virtual library and a modular resource to facilitate learning in developmental biology.

A Whole-Animal Alternative Model for Pain Research

<http://www.nal.usda.gov/awic/newsletters/v8n3/8n3steve.htm>

Whole animal model alternative and references.

Xenopus Express

<http://www.xenopus.com>

Suppliers, care and feeding, database.

Xenopus tropicalis

<http://faculty.virginia.edu/xtropicalis/>

Amphibian Model for Vertebrate Development Genetics. Lots of good information.

Xenopus laevis Frog Colony Care

<http://www.xlaevis.com>

A lot of information on Xenopus colony care.

FISH

American Fisheries Society (ASF).

5410 Grosvenor Lane
Bethesda, MD 20814-2199
Tel: 301-897-8616
Fax: 301-897-8096
e-mail: main@fisheries.org
<http://www.fisheries.org>

Publications: *AFS Membership Directory and Handbook* (annual).
Fisheries: Bulletin of the American Fisheries Society (bimonthly).
Journal of Aquatic Animal Health (quarterly).
North American Journal of Fisheries Management (quarterly).
Progressive Fish Culturist (quarterly).
Transactions of the American Fisheries Society (bimonthly).

American Institute of Fishery Research Biologists (AIFRB)

c/o Dr. Gary Sakagawa, S.W. Fisheries Science Center, P.O. Box 271,
La Jolla, CA 92038-0271. Tel: 858-546-7177; Fax: 858-546-5653
e-mail: gary.sakagawa@noaa.gov
<http://www.aifrb.org/>

Publications: *Briefs* (bimonthly newsletter).

Aquatic Research Institute (ARI)

2242 Davis Court, Hayward, CA 94545. Tel: 510-785-2216; Fax: 510-784-0945
e-mail: rofen@prado.com

Provides research materials on fish, fisheries, and aquaculture, aquatic sciences and technology. Research on fish nutrition, diseases, and aquaculture.

Aquatic Systems Consultants

1111 Winterton Street, Pittsburgh, PA 15206-1731. Tel: 412-661-6585;
Fax: 412-661-6585; e-mail: AquaDolph@aol.com
Consulting on fish and fisheries, marine biology, hydrobiology.

Aquatic Technology

<http://www.aquatictech.com/>
Saltwater aquarium equipment, information, stock and supplies.

Aqua Web Fish Resources

<http://www.aquaweb.pair.com/>
A variety of information related to fish keeping.

Cornell University

Hydroecology & Fish Biology
Research, ecology, publications.

Enrica Fish Medical Books

814 Washington Ave. SE, Minneapolis, MN 55414. Tel: 612-623-0707;
Fax: 612-623-0539; Toll-free: 800-728-8398. Distributor and wholesaler medical and technical books.

Environmental Health Perspectives: Fishing for Answers

<http://dx.doi.org/10.1289/ehp.94102272>

From NIEHS News. Information on fish used in research and environmental contamination.

FINS - The Fish Information Service

<http://fins.actwin.com/index.php>

Aquarium reference materials, FAQ=s, index of fish/species, links and more.

Fish

<http://www.fishchannel.com/>

A variety of topics about aquariums, aquarium library, aquarium archives, tips and trivia.

Publications: *Aquarium Frontiers On-line*.

FishBase

<http://www.fishbase.org>

Global information system on fishes. Has two searchable databases: FishBase and LarvalBase. Contains information on over 23,800 species. Contains common or scientific names, 109,000 common names, synonyms, pictures, references for fish and larvae.

Aquatic Toxicology and Transgenics Facilities and Services Core

<http://oregonstate.edu/research/multi/Marine.html>

Oregon State University, Marine & Freshwater Biomedical Sciences Center.

Fishing for answers: Fish gene map guides: the search for human genes.

<http://www.stanford.edu/dept/news/report/news/may3/fish-53.html>

From the Stanford Online Report. Gene map guides for fish.

FishLink Central.Com

<http://www.fishlinkcentral.com>

A guide to aquarium resources on the Internet.

Fish Models for Environmental Carcinogenesis: The Rainbow Trout

<http://ehpnet1.niehs.nih.gov/docs/1996/Suppl-1/bailey-abs.html>

Fish models for toxicity in the environment.

Fish & Shellfish Immunity

<http://www.vims.edu/research/departments/eaah/programs/fishimmune/index.php>

The study of immune defense mechanisms in finfish and shellfish.

Fish & Shellfish Immunology

<http://www.academicpress.com/fsi>

Journal of Fish and Shellfish Immunology on-line and searchable.

Fish~Vet2.0

<http://users.jagunet.com/~fishvet/>

Consultation services, aid in fish problem diagnosis.

Ichthyology Web Resources

<http://www.biology.ualberta.ca/jackson.hp/ichthyology/>

On-line ichthyology resources, specimen database, links.

International Association of Fish & Wildlife Agencies

<http://www.iafwa.org/>

Publications, newsletter, Directory of state and province Fish & Wildlife Agencies and Web Sites, grant program.

Marine Biological Laboratory

Woods Hole, MA 02543

Tel: 508-548-3705 X7002 or 508-289-7002 (library).

Maintains extensive materials on the use of marine animals in biomedical research.

Marine/Freshwater Biomedical Sciences Center, Oregon State University, Corvallis, OR

<http://www.science.oregonstate.edu/mfbsc/>

Uses aquatic research models to investigate environmentally related human diseases. Currently focused on the study of cancer and neurotoxicity.

Marine and Fresh Water Biomedical Science Center, Univ. of Wisconsin: Annual Reports for the MFB Sciences Center
<http://www.uwm.edu/Dept/MFB/AnnualReports/>
Research papers on fish toxicity, gene mapping, fish as disease models, neuronal patterns, cloning zebra fish, metabolism, genotype and more. Publications 1978 to present.

Netvet - Fish
<http://netvet.wustl.edu/fish.htm>
Information on fish, aquaculture, aquariums and more.
Information on pond fish care and diseases.

Rosenstiel School of Marine and Atmospheric Science
University of Miami
4600 Rickenbacker Causeway
Miami, FL 33149
Tel: 305-361-4738 (Center No.)
Fax: 305-361-4001
<http://www.rsmas.miami.edu/groups/niehs/>
NIEHS funded Marine and Freshwater Biomedical Sciences Center specializing in seafood borne toxins and biochemical toxicology.

Sea Life Supply
740 Tioga Avenue
Sand City, CA 93995-3034
Tel: 831-394-0828
Fax: 831-899-3399
e-mail: info@sealifesupply.com
<http://www.sealifesupply.com>
Supplier of various marine and freshwater species.

University of Washington - Fish Collection
<http://artedi.fish.washington.edu/>
Searchable databases, collection resources, links and more.

Zebrafish Research Database
<http://zfin.org>
http://zfin.org/zf_info/dbase/db.html
A great deal of information on zebrafish.

Return to:

[Top](#)

[Animal Welfare Information Center](#)

[Policies and Links](#)



Animal Welfare Information Center, <http://awic.nal.usda.gov/contact-us>

Updated April 4, 2005

<http://www.nal.usda.gov/awic/pubs/amphib.htm>