

CURRICULUM VITAE OF

**LOREN G. HILL**

**EDUCATIONAL HISTORY:**

West Texas State University, Canyon, Texas, 1958-1961

B.S. in Biology, Minors: Geography and Geology

University of Arkansas, Fayetteville, Arkansas, 1961-1963

M.S. in Zoology, Minors: Geology and Botany

University of Louisville, Louisville, Kentucky, 1963-1966

Ph.D. in Zoology (Fisheries Biology)

**PROFESSIONAL EXPERIENCE:**

National Science Foundation Research Grant (graduate).

University of Arkansas (1961-1963) Systematics, meristics, and behavioral aspects of fishes of the suborder Percoidei, Dr. Kirk Strawn, Research Director.

Teaching Assistant, University of Louisville, Louisville, Kentucky, 1963-1964.

Instructor of Zoology, University of Louisville, Louisville, Kentucky, 1965.

Instructor of Zoology, Catherine Spalding College, Louisville, Kentucky, 1965-66.

Assistant Professor of Zoology, University of Oklahoma, Norman, Oklahoma, 1966-69.

Assistant Director of Biological Station, University of Oklahoma, Kingston, Oklahoma, 1967-69.

Associate Professor of Zoology, University of Oklahoma, Norman, Oklahoma, 1969-74.

Professor of Zoology, University of Oklahoma, Norman, Oklahoma, 1974-Present.

Director, Biological Station, University of Oklahoma, Kingston, Oklahoma, 1969-Present.

Chairman, Department of Zoology, University of Oklahoma, Norman, Oklahoma, 1980-1984.

Director of the following N.S.F. supported programs:

Grants-in-Aid for Research, 1966, 1967, 1969, 1970, 1971, University of Oklahoma Biological Station.

Research Participation for High School Teachers, 1966, 1967, 1968, University of Oklahoma Biological Station.

Research Participation for College Teachers, 1966, 1967, 1968, 1969, 1970, 1971, University of Oklahoma Biological Station.

Undergraduate Research Participation, 1971, 1972, University of Oklahoma Biological Station.

Student Science Training Program, 1971, University of Oklahoma Biological Station.

Systems Ecology, Institute for College Teachers, 1971, University of Oklahoma Biological Station.

Research Associate, National Science Foundation and the American Institute of Biological Science, 1970.

Local Chairman, Southwestern Association of Parasitologists, 1973-1989.

Editorial Committee, Oklahoma Academy of Science, 1973-1988.

Lecturer, Civil Service Commission (Environmental Assessment and Methodology), 1974-1977.

Editorial Committee, Southwestern Association of Naturalists, 1974-1989.

Editorial Committee, Texas Journal of Science, 1974-1989.

Editorial Committee, American Fisheries Society, 1974-1989.

Planning Commission, National Institute of Ecology, Washington, 1974-1977.

Review Committee, American Institute of Biological Sciences, 1974-1976.

College Teacher Program Evaluator, National Science Foundation, 1974.

Executive Council, Oklahoma Academy of Science, 1974-1975.

Chairman, Oklahoma Reservoir Resources Symposium, Oklahoma Academy of Science, 1974.

Local Chairman, Southwestern Association of Naturalists, 1968, 1975.

Experimental Ecological Reserves Evaluator, National Science Foundation, 1975-1978.

Program Evaluator, National Institute of Ecology, 1975-1979.

Editor, Annals Oklahoma Academy of Science, 1975.

Research Council, University of Oklahoma, 1977-1978.

Executive Council, Oklahoma Chapter, American Fisheries Society, 1979-1984.

State Membership Chairman, American Fisheries Society, 1968-1969.

Ecological Evaluator, Environmental Protection Agency (EPA): Pesticide Standards, 1979-1984.

Chairman, Research Council, University of Oklahoma, 1979-1980.

Experimental Ecological Reserves (Aquatic Resources, Phase II). A.I.B.S. and T.I.E., 1979-1985.

Nominating Committee, Southwestern Association of Naturalists, 1980-1982.

Board of Governors, Southwestern Association of Naturalists, 1968-1972, 1975-1977.

President, Southwestern Association of Naturalists, 1977-1978.

Energy Resources Council, 1980-1983.

Secretary and Treasurer, Organization of Inland Biological Field Stations, 1968-1969.

President, Organization of Inland Biological Field Stations, 1972-1974.

Board of Directors, Bass Research Foundation, 1989-present

National Executive Board, Mercury Marine, 1989-1992.

Executive Advisory Board, U.S. Army Corps of Engineers, 1989-present

Executive Advisory Board, Anglers United, 1992-present.

National Fishing Team, Yamaha, 1992-present.

## RESEARCH INTERESTS:

Environmental behavior and physiology: organismic responses of fishes to water quality parameters.

Sensitivity and locomotor responses of fishes to water quality parameters.

Ecology of striped bass, *Marone saxatilis*

Temperature selection of fishes and amphibians

Adaptations of aquatic organisms to environmental variables.

Chemical communication among fishes.

Color sensitivity of fishes.

## PUBLICATIONS:

Refereed Journal Articles:

Hill, L.G. 1963. *Castroides ohioensus* (rodentia) in Arkansas. Southwestern Nat. 8(3):150-153.

Clemens, Howard P. and L.G. Hill, 1968. The collection and short term storage of milt of white bass. Prog. Fish. Cult. 31:26.

Hill, L.G. 1968. Oxygen preference in the spring cavefish, *Chologaster agassizi*. Trans. Amer. Fish. Soc. 97(4):448-454.

Hill, L.G. 1968. Inter- and intrapopulational variation of vertebral numbers of the yoke darter, *Etheostoma juliae*. Southwestern Nat. 13(2):175-191.

Hill, L.G. and T.A. Jenssen. 1968. A meristic study of the redbelly dace, *Chrosomus erythrogaster* (Cyprinidae), from a stream in southern Oklahoma. Southwestern Nat. 13(1):55-60.

Hill, L.G. 1969. Distribution and populational isolation of the spring cavefish, *Chologaster agassizi* (Pisces: Amblyopsidae). Proc. Okla. Acad. Sci. 57:32-36.

- Hill, L.G. and M.R. Curd. 1969. Additional observations of the striped mullet, *Mugil cephalus* (Mugillidae) in Oklahoma. Proc. Okla. Acad. Sci. 57:36-67.
- Hill, L.G. 1969. Feeding and food habits of the spring cavefish, *Chologaster agassizi*. Amer. Midl. Nat. 82:110-116.
- Hill, L.G. and P. Hampton. 1969. Hydrogen-ion preferences and tolerances of certain freshwater fishes. Proc. Okla. Acad. Sci. 57:37-42.
- Hill, L.G. 1969. Reactions of the American eel to dissolved oxygen tensions. Texas J. Sci. 20:305-315.
- Hill, L.G. 1970. Resistance of the plains killifish, *Fundulus kansae* (Cyprinodontidae), to heat death at various salinities. Proc. Okla. Acad. Sci. 50:75-78.
- Hill, L.G. 1972. Social aspects of aerial respiration of young gar (*Lepisosteus*). Southwestern Nat. 16(3&4):239-247.
- Hill, L.G. 1971. Preference behavior of the Red River pupfish to acclimated salinities. Southwestern Nat. 16(1):55-63.
- Hill, L.G. 1971. Scale development and patterns of squamation on the spring cavefish, *Chologaster agassizi* (Amblyopsidae). Proc. Okla. Acad. Sci. 51:13-15.
- Hill, L.G. 1971. Sensitivity of channel catfish, *Ictalurus punctatus*, to dissolved oxygen tensions. The Catfish Farmer 3(4):29-37.
- Mense, J.B. and L.G. Hill. 1969. Estimating fecundity in Mississippi silversides, *Menidia audens* (Pisces: Atherinidae). Proc. Okla. Acad. Sci. 57:46-48.
- Renfro, J.L. and L.G. Hill. 1971. Factors influencing aerial respiration and metabolism of gars. Southwestern Nat. 15(1):45-54.
- Whittaker, F.H. and L.G. Hill. 1968. *Proteocephalus chologasteri*: sp. n. (Cestoda: Proteocephalidae) from the spring cavefish, *Chologaster agassizi* Putnam, 1782 (Pisces: Amblyopsidae) of Kentucky. Proc. Helminthological Soc. Wash. 35:15-18.
- Renfro, J.L. and L.G. Hill. 1972. Cytological adaptation in the gills of the Red River pupfish, *Cyprinodon rubrofluviatilis*. Southwestern Nat. 17(2):204-206.
- Echelle, A.A. and L.G. Hill. 1971. Diurnal periodicity of activities in the plains killifish, *Fundulus zebrinus kansae*. Proc. Okla. Acad. Sci. 51:3-8.

Echelle, A.A. and L.G. Hill. 1972. Interspecific interactions and limiting factors of abundance and distribution in the Red River pupfish, *Cyprinodon rubrofluviatilis*. Amer. Midl. Nat. 88(1):109-130.

Renfro, J.L. and L.G. Hill. 1971. Osmotic acclimation in the Red River pupfish. Comp. Biochem. Physiol. 40:711-714.

Hill, L.G., J.L. Renfro., and R. Reynolds. 1972. Effects of dissolved oxygen tensions upon the rate of aerial respiration of young spotted gar, *Lepisosteus oculatus* (Lepisosteidae), Southwestern Nat. 17(3):273-279.

Echelle, A.A. and L.G. Hill. 1972. Aspects of the feeding ecology of the cyprinodontid, *Fundulus zebrinus*. Proc. Okla. Acad. Sci. 52:6-9.

Echelle, A.A., S. Wilson, and L.G. Hill. 1973. The effects of four-day length combinations on ovogenesis in *Cyprinodon rubrofluviatilis*. Southwestern Nat. 18:229-239.

Hill, L.G., A.A. Echelle, and G. Schnell. 1973. Effects of dissolved oxygen concentrations on locomotory reactions of the spotted gar, *Lepisosteus oculatus* (Pisces: Lepisosteidae). Copeia (1):119-124.

Renfro, J.L. and L.G. Hill. 1973. Sodium balance of the Red River pupfish, *Cyprinodon rubrofluviatilis*. Comp. Biochem. Physiol. 44A:1353-1367.

Hill, L.G. and G. Schnell. 1975. Thermal acclimation and temperature selection in sunfishes (Centrarchidae). Southwestern Nat. 20(2):177-184.

Echelle, A.A., J. Schenck, and L.G. Hill. 1974. *Etheostoma spectabile*-*E. radiosum* hybridization in Blue River, Oklahoma. Amer. Midl. Nat. 91(1):182-194.

Echelle, A.A., M.H. Smith, and L.G. Hill. 1975. Analysis of genic continuity in a headwater fish, *Etheostoma radiosum* (Percidae). Copeia (2):197-204.

Pigg, Jimmie and Loren G. Hill, 1974. Fishes of the Kiamichi River, Oklahoma. Proc. Okla. Acad. Sci. 54:121-130.

Baglin, R.E. and L.G. Hill. 1976. Age and growth characteristics of white bass, *Morone chrysops* in Lake Texoma, Oklahoma. Texas J. Sci. 27(1):113-125.

Landolt, J.C. and L.G. Hill. 1975. Observations on the gross structure and dimensions of gills of three species of gars (Lepisosteidae). Copeia 3:470-475.

Loring, M.G. and L.G. Hill. 1976. Thermal selection and habitat utilization of the crayfish, *Orconectes causeyi*. Southwestern Nat. 2(2):219-226.

- Hutchison, V.H. and L.G. Hill. 1976. Thermal selection in the hellbender, *Cryptobranchus alleganiensis*, and the mudpuppy, *Necturus maculosus*. Herpetologica 32(3):327-331.
- Matthews, W.J. and L.G. Hill. 1977. Tolerance of the red shiner, *Notropis lutrensis* (Cyprinidae) to environmental parameters. Southwestern Nat. 22(1):89-99.
- Baglin, R.E. and L.G. Hill. 1977. Fecundity of white bass, *Morone chrysops* (Rafinesque), in Lake Texoma. Amer. Midl. Nat. 98(1):233-238.
- Matthews, W.J. and L.G. Hill. 1978. Prey retention in the buccal cavity of largemouth bass, *Micropterus salmoides*. Southwestern Nat. 23:307-308.
- Matthews, W.J., W. Shepard, and L.G. Hill. 1978. Aspects of the ecology of the dusky stripe shiner, *Notropis pilsbryi* (Cyprinidae), in an Ozark stream. Amer. Midl. Nat. 100:247-252.
- Hill, L.G., W.J. Matthews, and G.D. Schnell. 1978. Locomotory reactions of two cyprinodontid fishes to differences in dissolved oxygen concentrations. Southwestern Nat. 23(3):397-400.
- Matthews, W.J. and L.G. Hill. 1979. Age-specific differences in the distribution of the red shiner, *Notropis lutrensis*, over physico-chemical ranges. Amer. Midl. Nat. 101:366-372.
- Schene, M.A. and L.G. Hill. 1980. Interaction of dissolved Mississippi silversides, *Menidia audens*. Southwestern Nat. 25(1):120-122.
- Hutchison, V.H. and L.G. Hill. 1978. Ontogenetic changes in thermal selection of *Rana catesbiana* tadpoles. J. Thermal Biol. 3:57-60.
- Matthews, W.J. and L.G. Hill. 1980. Habitat partitioning in the fish community of a southwestern river. Southwestern Nat. 25:51-66.
- Matthews, W.J. and L.G. Hill. 1979. Influence of physico-chemical factors on habitat selection of the red shiner, *Notropis lutrensis* (Cyprinidae). Copeia 1979:70-81.
- Matthews, W.J. and L.G. Hill. 1978. Habitats of small fishes of the South Canadian River, Oklahoma: occurrence with respect to physico-chemical factors. ASB Bull. 25(2):89.
- Hill, L.G., W.J. Matthews, M.A. Schene, and K. Asbury. 1981. Notes on fishes of Grand River, Chouteau Creek, and Pryor Creek, Mayes County, Oklahoma. Okla. Acad. Sci. 61:76-78.

- Hill, L.G., and W.J. Matthews. 1980. Temperature selection by the darters *Etheostoma radiosum* and *E. spectabile*. Amer. Midl. Nat. 104:412-415.
- Hill, L.G., G.D. Schnell, and W.J. Matthews. 1981. Locomotor responses of striped bass, *Morone saxatilis*, to environmental parameters. Amer. Midl. Nat. 105(1):139-148.
- McCarley, H., and L.G. Hill. 1980. Reproduction of the alligator gar in Lake Texoma. Southwestern Nat. 24(4):683-714.
- Asbury, K., W.J. Matthews, and L.G. Hill. 1981. Attraction of *Notropis lutrensis* (Cyprinidae) to water conditioned by the presence of conspecifics. Southwestern Nat. 25(4):525-528.
- Matthews, W.J., W.E. Surat, and L.G. Hill. 1982. Heat death of *Etheostoma spectabile* in a natural environment as related to their critical thermal maximum. Southwestern Nat. 27:216-217.
- Felley, J.D., and L.G. Hill. 1983. Multivariate assessment of environmental preferences of cyprinid fishes of the Illinois River, Oklahoma. Amer. Midl. Nat. 109(2):209-221.
- Bryan, J.D. and L.G. Hill. 1984. Interdependence of temperature preference and respiration in the plains minnow, *Hybognathus placitus*. Trans. Amer. Fish. Soc. 113:557-562.
- Matthews, W.J. and L.G. Hill. 1984. Vertical distribution of striped bass, *Morone saxatilis*, in Lake Texoma as related to physico chemical profiles in summer months. Trans. Amer. Fish. Soc.
- Matthews, W.J., L.G. Hill, S. Schellhaass. 1985. Depth distribution of striped bass and other fish in Lake Texoma (Okla.-Tex.) during summer stratification. Trans. Amer. Fish. Soc. 114:84-91.
- Matthews, W.J., L.G. Hill, D.R. Edds, J.J. Hoover and T.G. Heger. 1988. Trophic ecology of striped bass, *Morone raxatilis*, in an inland reservoir (Lake Texoma, USA). J. of Fish Biology 33:273-288.
- Matthews, W.J. and L.G. Hill. 1988. Physical and chemical profiles in Lake Texoma (Oklahoma-Texas) in summer 1982 and 1983. Oklahoma Academy of Science 68:11-16.
- Matthews, W.J., L.G. Hill, D.R. Edds, and F.P. Gelwick. 1989. Influence of water quality and season on habitat use by striped bass in a large southwestern reservoir. Trans. Amer. Fish. Soc. 118:243-250.
- Meador, M.R., B.E. Arambula and L.G. Hill. 1990. Fish assemblage structure in an intermittent Texas stream. Texas J. Sci. 42(2):159-165.

Lemmons, R.P., L.G. Hill, J. Wells. 1991. Extension of ranges into Kiowa County, Oklahoma, for the Dusky Darter (*Percina sciera*) and the Freckled Madtom (*Naturus nocturnus*). Proc. Okla. Acad. Sci. 71:47-48 (1991).

Refereed Book Chapters:

Hill, L.G. 1975. (Contributor). Total ecosystem model for a cove in Lake Texoma. Vol. 3, pp. 205-421 IN: Systems Analysis and Simulation in Ecology. Academic Press.

Books:

Hill, L.G., ed. 1976. Oklahoma Reservoir Resources. Annals Okla. Acad. Sci. (5):1-151.

Canter, L.W., and L.G. Hill. 1979. Handbook of Variables for Environmental Impact Assessment. Ann Arbor Science Publishers, Inc., Ann Arbor, MI. 250 pp.

Unrefereed Publications:

Shelton, W.L., and L.G. Hill. 1982. Comparative reproductive biology of the thredfin and gizzard shads (Clupeidae) in Lake Texoma, Oklahoma and Texas. U.S. Fish and Wildlife Bulletin, Special Series. 32p.

Reports:

Biological Field Stations-Their Future in Biological Education and Research. AIBS, 470 pp. (1971)

Analysis of the Biology of the Kiamichi River. Corps of Engineers.

Pre- and Postimpoundment Analysis of Fish Populations in the Mountain Fork River. Corps of Engineers.

Environmental Analysis of Parker Reservoir. Corps of Engineers.

Environmental Analysis of Albany Reservoir. Corps of Engineers.

Environmental Evaluation of Alternate Routes of Mid-Ark Navigation System. Corps of Engineers.

Natural Areas of Oklahoma. AIBS.

Environmental Assessment of White Sands Missile Range. U.S. Army.

Environmental Assessment of Blue Hawk Peak Park. Oklahoma Department of Recreation and Tourism.

Assessment of the Downstream Environmental and Social Effects of Red River Chloride Control Project. Corps of Engineers.

Biological Inventories, Wildlife Ecology, Primary Alternative Sites, Proposed Prairie National Park. National Park Service.

Environmental Assessment of Sooner Generating Station. Oklahoma Gas and Electric Company.

Environmental Assessment of Grand River Dam Generating Power Plant. Technological Research and Development.

Environmental Assessment of the Chiles Storage Dome Project in Coal and Hughes Counties, Oklahoma. Arkansas Louisiana Gas Company.

Aquatic Field Studies Report: Grand River Dam Authority Proposed Site. TECHRAD Laboratories, Oklahoma City, Oklahoma.

Interaction of Striped Bass with Forage Fish Species in Lake Texoma. U.S. Fish and Wildlife Service.

Environmental Assessment of a Natural Gas Pipeline. Arkansas-Louisiana Gas Company.

Environmental Assessment of the Bebee Oil Field, Pontotoc Co., Oklahoma.

Economic Impact Assessment of the Lake Texoma Fishery. Oklahoma Department of Wildlife Conservation.

Impact of Castnetting for Shad on Sportfish in Lake Texoma. Oklahoma Department of Wildlife Conservation.

Transfer of Water from Lake Texoma (Oklahoma-Texas) to Lake Lavon (Texas). North Texas Municipal Water District.

#### MAJOR ADVISOR OF THESE AND DISSERTATIONS:

Master of Natural Science

Ronald Cable, "Predator-Prey Interactions," University of Oklahoma, 1970.

Tom Roelke, "Attempts to Control the Sea Lamprey Population in the Great Lakes," University of Oklahoma, 1973.

Douglas Seibert, "Behavioral and Physiological Responses of the Largemouth Bass to Various Environmental Stimuli," University of Oklahoma, 1973.

W. Howard Johnson, "Some Aspects of the Life History of the Columbia River Smelt, *Thaleichthys*," University of Oklahoma, 1973.

Harold Fox, "Effects of Photoperiod on Temperature Selection of the Largemouth Bass," University of Oklahoma, 1975.

William Meek, "Farm Pond Management," University of Oklahoma, 1977.

#### Master of Science

James P. Henderson, "Food and Feeding of the Walleye, *Stizostedion vitreum*, in Canton Reservoir," University of Oklahoma, 1972.

Jane Y. Barrett, "Salinity Tolerance of the Mosquito-fish, *Gambusia affinis*," University of Oklahoma, 1970.

James L. Renfro, "Factors Influencing Aerial Respiration of the Alligator Gar, *Lepisosteus spatula*," University of Oklahoma, 1969.

Harold J. Smith, "Horizontal Distribution of the Spotted Gar, *Lepisosteus oculatus*, in Lake Texoma," University of Oklahoma, 1973.

Tim Cochnauer, "Seasonal Variations of Benthic Macro-Invertebrates in Buckhead Creek, Cleveland County, Oklahoma," University of Oklahoma, 1973.

James Bryan, "Influence of Dissolved Oxygen on Temperature Selection of *Hybognathus placitus*," University of Oklahoma, 1976.

James Grimshaw, "Color Discrimination in the Longear Sunfish, *Lepomis megalotis* (Pisces: Centrarchidae)," University of Oklahoma, 1976.

Jack Tuberville, "Distribution of Larval Fishes in Canton Reservoir," University of Oklahoma, 1976.

Meleo Anthony Schene, "Tolerance and Preference of *Labidesthes sicculus* and *Menidia audens* (Pisces: Atherinidae) to Selected Environmental Parameters," University of Oklahoma, 1980.

Barry D. Bolton, "A Comparison of Stomach Contents of Largemouth Bass and White Crappie from Turbid and Clear Portions of Thunderbird Reservoir, Oklahoma," University of Oklahoma, 1985.

Mark D. Bowen, "Color and Size of Prey and Experience of the Predator as Components of Prey Selection in *Micropterus salmoides*," University of Oklahoma, 1986.

Doctor of Philosophy in Zoology

Anthony A. Echelle, "Behavior and Ecology of the Red River Pupfish, *Cyprinodon rubrofluviatilis*," University of Oklahoma, 1968.

John Landolt, "Physiology of Aerial Respiration in Gars (*Lepisosteus*)," University of Oklahoma, 1969.

James L. Renfro, "Osmoregulation in the Red River Pupfish, *Cyprinodon rubrofluviatilis*," University of Oklahoma, 1971.

Charles Scalet, "Ecology of the Orangebelly Darter, *Etheostoma radiosum*, in the Blue River, Oklahoma," University of Oklahoma, 1971.

William Shelton, "Comparative Reproductive Biology of the Gizzard Shad, *Dorosoma cepedianum*, and the Threadfin Shad, *D. petenensis*, in Lake Texoma," University of Oklahoma, 1972.

Raymond Baglin, "Subpopulations of White Bass (*Morone chrysops*) in Lake Texoma," University of Oklahoma, 1973.

Michael Stevenson, "A Comparative Chromosome Study in the Pupfish genus, *Cyprinodon* (Teleostei: Cyprinodontidae)," University of Oklahoma, 1975.

William J. Matthews, "Influence of Physico-Chemical Factors on Habitat Selection by Red Shiner, *Notropis lutrensis* (Cyprinidae)," University of Oklahoma, 1977.

Herbert James Grimshaw, "Color Discrimination in the Bluegill Sunfish, *Lepomis macrochirus* (Pisces: Centrarchidae)," University of Oklahoma, 1978.

James D. Felley, "Multivariate Identification of Morphological-Environmental Relationships within the Cyprinidae (Pisces)," University of Oklahoma, 1980.

Henry L. Bart, Jr., "Stability and Resiliency of Fish Assemblages in an Ozark Stream", University of Oklahoma, 1985.

Frank McCormick, "Systematics and Relationships of the *Etheostoma caeruleum* Species Complex," University of Oklahoma, 1991.

#### AWARDS, GRANTS, AND FELLOWSHIPS:

##### AWARDS:

Oklahoma Fellow - Oklahoma Academy of Science, 1970.

Research Fellow - American Institute of Biological Sciences, 1971.

Honorary Kentucky Colonel, 1978.

Regent's Award - Superior Professional Achievement and University Service, 1979.

##### GRANTS AND CONTRACTS:

###### Program Source Support

1966-1967, Grants-in-Aid for Research N.S.F. \$32,500

1967, Faculty Research Grant O.U. Res. Council 700

1968-1970, Grants-in-Aid for Research N.S.F. 20,400

1971-1972, Grants-in-Aid for Research N.S.F. 19,000

1966, Res. Participation College Teachers N.S.F. 10,450

1967, Res. Participation College Teachers N.S.F. 10,450

1968, Res. Participation College Teachers N.S.F. 10,450

1968, Facilities Improvement Grant N.S.F. 71,000

1969, Res. Participation College Teachers N.S.F. 10,450

1970, Res. Participation College Teachers N.S.F. 10,450

1971, Res. Participation College Teachers N.S.F. 10,450

1966, Res. Part. High School Science Teachers N.S.F. 19,900

1967, Res. Part. High School Science Teachers N.S.F. 20,550

1968, Res. Part. High School Science Teachers N.S.F. 20,550

1971, Facilities Improvement Grant N.S.F. 8,000

1971, Systems Ecology Institute N.S.F. 54,000

1971, Student Science Training Program N.S.F. 8,000

1971, Undergraduate Research Participation N.S.F. 14,000

1972, Undergraduate Research Participation N.S.F. 20,430

1972, Dissertation Improvement Program N.S.F. 800

1971-1973, Research Fellowships U.S. Army Engineers 9,600

1971-1973, Research Fellowships St. Dept. Conserv. 7,200

1972-1974, Research Fellowships St. Dept. Conserv. 7,200

1972, Research Vessel O.U. Res. Inst. 3,000

1972, Pre- & Postimpound. Anal. Mt. Fork River U.S. Army Engineers 8,000

1972, Mid-Ark Env. Component Matrix Assess. U.S. Army Engineers 34,000

1972, Env. Assess. Kiamichi River Reservoir U.S. Army Engineers 7,000

1973, Env. Impact of Parker-Albany Reservoirs U.S. Army Engineers 14,000

1973, Env. Impact Assess. White Sands Range Dept. of Army 130,583

1973, Consortium Okla. Science Training O.U. 2,000

1974-1975, Research Fellowships St. Dept. Conserv. 7,200

1973-1975, Ecology Fellowships Sarkeys Foundation 39,000

1974, Environmental Assessment OK Tourism Dept. 5,730

1974, Faculty Research Program O.U. A & S 1,500

1974-1975, Env. Assess. Red River U.S. Army Engineers 82,749

1975, National Grassland Park Nat. Park Serv. 24,200

1975-1976, Water Quality Assess. Lake Texoma U.S. Army Engineers 41,700

1976-1979, Ecology Fellowships Sarkeys Foundation 68,000

1980-1981, Interactions Striped Bass and Forage U.S. Fish & Wildlife 15,498

Fish Species in Lake Texoma

1980-1981, Ecology Research Fellowships Sarkeys Foundation 30,000

1980-1983, Physicochemical Tolerance and N.S.F. 76,000

Selectivity of Freshwater Fish

1981-1982, Env. Assess. Lake Francis, OK E.P.A. 102,000

1982, Thermal Selection by Striped Bass U.S. Fish & Wildlife 20,000

1982, Habitat Assess. Reservoir Fishes O.U. Associates 15,000

1981-1982, Ecology Fellowships Sarkeys Foundation 30,000

1982, Controlled Environmental Chambers O.U. Associates 14,000

1983, Ecol. Studies striped bass Lake Texoma TX Parks Wildlife 5,000

1983-1984, Interactions striped bass U.S. Fish & Wildlife 24,015

& forage fish

1983, Research Scholarships Sarkeys Foundation 15,000

1983-1984, Physicochemical Tolerance and N.S.F. 22,000

Selectivity

1984, Studies in Field Biology O.U. Associates 12,000

1984, Ecology of Lake Texoma F. & B. Wood 5,000

1985, Research Resources, Biol. Station N.S.F 204,000

1985, Facility Improvement, Biol. Station O.U. Foundation 165,000

1985, Assess. Biol. Interactions Striped and Bass Research 158,000  
and Largemouth bass

1985, Research Scholarships Sarkeys Foundation 12,000

1986, Research Scholarships Sarkeys Foundation 12,000

1986, Facility Improvement, OU Biol. Station OU Admin. Affairs 76,000

1986, Striped Bass-Black Bass Interactions Bass Research 30,110

1986-1988, Research Scholarships O.U. Associates 36,000

1987, Research Scholarships Sarkeys Foundation 12,000

1987, Striped Bass-Black Bass Interactions Bass Research 27,772

1987, Young Scholars Program Undergraduates O.U. VP Instr. Svs. 4,000

1987, Striped Bass-Black Bass Interactions Bass Research 28,800

1988, Striped Bass-Black Bass Interactions Bass Research 28,800

1989, University Scholarships O.U. Associates 12,000

1989-1992, Striped Bass Fishery Lake Texoma OK Wildlife Cons. 163,547

1989, Young Scholars Program O.U. VP Instr. Svs. 5,000

1988-1992, Water Diversion of Texoma N. TX Municipal 515,067

1990, IBM PS/2 Computers O.U. 7,452

1991-1995, Centennial RA, Biol. Station O.U. 60,000

1991, Summer Youth Academy Dept. of Ed. 23,900

1991-1992, Aquatic Ecol. Res. Park, Biol. Sta. N.S.F. 21,700

1991-1992, Biol. Station Computer Expansion O.U. Section 13 50,600

1991-1992, Field Studies Multidisciplinary Biol. OK State Regents 43,014

1991-1992, Biol. Station Commissary Renov. O.U. Section 13 17,900

1992, Biol. Station Research Vehicle O.U. Section 13 26,200

1993, Field Studies Miltidisciplinary Biol. Ok. State Regents 53,677

#### CONSULTANTS:

1974-Present Civil Service Commission, Dallas region

1973-Present American Institute of Biological Sciences

1973-Present Williams Brothers Engineering, Tulsa, OK

1973-Present Pollard Associates, Inc., Memphis, TN

1975-Present Benham Blair Affiliates, Oklahoma City, OK

1975-Present Lowrance Electronics, Inc., Tulsa, OK

1975-Present Technological Research and Development, Oklahoma City, OK

1979-Present Lakes Illustrated, Mt. Vernon, MO

1987-Present Plastics Research & Development, Ft. Smith, AR

#### PROFESSIONAL AFFILIATIONS:

Sigma Xi

Phi Kappa Phi

American Society of Ichthyologists and Herpetologists

American Fisheries Society

Southwestern Association of Naturalists

Organization of Inland Biological Field Stations