

CLARK HUBBS

PERSONAL DATA

Birth date and place

March 15, 1921; Ann Arbor, Michigan

Married

Catherine V. Symons

Military Service

Served from 1942-46, 3 1/2 years in the Infantry of the U.S. Army

EDUCATION

A.B.	University of Michigan	1942
Ph.D.	Stanford University	1951

PROFESSIONAL EXPERIENCE

Clark Hubbs Regents Professor Emeritus 1991- 2008
Clark Hubbs Regents Professor, 1988-91
Faculty Advisor, Graduate Program, Universidad de Nuevo Leon, 1985-
Curator of Ichthyology, Texas Memorial Museum, 1978- 2008
Chairman, Department of Zoology, 1978-1986
Visiting Professor, University of Oklahoma, 1970-1984
Member, Graduate Faculty, Texas A&M University, 1969-1983
Graduate Studies Committee, Marine Sciences, U.T. Austin, 1977-79
Chairman, Division of Biological Sciences, U.T. Austin, 1974-1976
Professor, University of Texas, 1963
Associate Professor, 1957
Assistant Professor, 1952
Instructor, Department of Zoology, University of Texas, 1949
Acting Instructor in Biology, Hopkins Marine Station, 1948

PROFESSIONAL SOCIETIES

American Institute of Biological Science
American Society of Ichthyologists and Herpetologists
American Fisheries Society
American Association for the Advancement of Science
Society of Systematic Zoologists
National Audubon Society
Texas Academy of Science

Southwestern Association of Naturalists
Ecological Society of America
American Society of Naturalists
American Society of Zoologists
Indian Society of Ichthyologists
Desert Fishes Council
Southeastern Fishes Council
Ichthyology Society of Japan
American Institute of Professional Fisheries Research Biologists
International Society of Ecology
Texas Water Conservation Association
Bass Angler Sportsmans Society
Texas Organization of Endangered Species
American Elasmobranch Society
Sociedad Ictiológica Mexicana A.C.

PROFESSIONAL AND PUBLIC SERVICE

Committee to Review the Bases for Instream Flow Standards for Rivers in Texas, National Research Council 2003-2007
Promethan Society, College of Natural Sciences, The University of Texas at Austin, 1999-
Member, San Juan River Technical Review Committee, 1998-2002
Member, Environmental Defense Texas Board, 1995-2008
President, American Institute of Fisheries Research Biologists, 1995-1997
Exotic Aquatic Organisms Committee, Texas Parks and Wildlife, 1994-1998
Fisherman's Hall of Honor Committee, Texas Parks and Wildlife, 1993-1998
Consensus - Based Water Planning Committee, Ecological Needs Technical Advisory
Committee, State of Texas, 1993-1998
Advisory Board, Marine Science Institute, The University of Texas, 1992-2000; Emeritus 2000-
Glen Canyon Environmental Studies Committee, National Research Council, 1991-1996
Chancellor's Council, The University of California at San Diego, 1991-2008
Environmental Advisory Committee, Texas Parks and Wildlife, 1991-2008
Littlefield Society, The University of Texas, 1990-2008
Trustee, Texas Nature Conservancy, 1988-1995, Chairman, Conservation Committee, 1990-
1994
President's Council, The University of Michigan, 1988-2008
Director, Hubbs Sea World Research Institute, 1985-2008, Chairman, Research Committee,
1989-2008
Chancellor's Council, the University of Texas, 1985-2007
Leader, Rio Grande Fishes Recovery Team, U.S.D.I., 1978-2008
Fish Advisory Committee, Union Internationale pour la Conservation de la Nature, 1976-80
Scientific Advisory Committee, B.A.S.S., 1974-1985
Environmental Steering Committee, Texas Utilities Generating Company, 1971-2007
Board of Governors, American Society of Ichthyologists and Herpetologists, 1951-56; 1957-62;
1964-69; 1971-84; 1985- 2008
U.S. Representative, European Ichthyological Congress, 1985-88
President, American Society of Ichthyologists and Herpetologists 1987
Biology Consultant, Board of Higher Education, State of Arkansas, 1987
Managing Editor, Copeia, 1971-1984
Biology Advisor, Board of Higher Education, State of Mississippi, 1983

Consultant, Man and the Biosphere Program, 1981-82
 Member, Nuclear Power Advisory Committee, Texas Energy Advisory Council, 1978-80
 Director Ecology Panel, Texas Water Conservation Association, 1971-80
 Consultant, Pan American Health Organization, 1979
 President, Texas Organization of Endangered Species, 1978-79
 Natural Resource Preservation Committee, CAPCO, 1977-78
 Committee on Environmental Quality, American Society of Ichthyologists and Herpetologists,
 1970-72, 1976-78
 Advisory Committee, Fish and Wildlife and Parks, U.S. Department of the Interior, 1975-77
 Chairman, Exotic Fishes Committee, American Fisheries Society, 1975-76
 Chairman, Chihuahuan Desert, Desert Fishes Council, 1974-76
 Conservation Committee, Texas Academy of Science, 1969-72, Chairman 1974-75
 President, Texas Academy of Science, 1972-73
 Committee on Environmental Quality, American Fisheries Society, 1968-, Chairman 1970-72
 Endangered Species Committee, American Fisheries Society, 1968-74, Chairman, 1970-72
 Chairman, Inland Task Force, Power Plant Siting Committee, Governor's Office, 1971-72
 Council, Society for the Study of Evolution, 1968-70
 President, Southwestern Association of Naturalists, 1966-67
 Council, Society of Systematic Zoology, 1962-64
 Editor, Texas Journal of Science, 1957-61

AWARDS AND HONORARY SOCIETIES

Robert K Johnson Award, American Society of Ichthyologists, 2004 (the initial award)
 Clark Hubbs Student Award, Texas Chapter American Fisheries Society, 2003
 Clark Hubbs Student Poster, Southwestern Association of Naturalists, 2000
 Socio Honorario, Sociedad Ictiológica Mexicana A.C., 1998
 Texas Distinguished Scientist, 1998
 Clark Hubbs Aquarium at Barton Springs, 1998
 George M. Sutton Best Paper Award, Southwestern Association of Naturalists, 1997
 Golden Membership, American Fisheries Society, 1997
 Honorary Membership, American Fisheries Society, 1997
 Clark Hubbs Scholarship, Angelo State University, 1995
 Lifetime Achievement Award, American Society of Ichthyologists and Herpetologists, 1992
 W. Frank Blair Eminent Naturalist, Southwestern Association of Naturalists, 1990
 Floyd Potter Award, Texas Organization for Endangered Species, 1990
 Award of Excellence, American Fisheries Society, 1988
 Educator and Researcher of the Year, Texas Chapter, American Fisheries Society, 1978
 Distinguished Life Fellow, Texas Academy of Science, 1961

SIGNIFICANT ACTIVITIES IN STUDENT AFFAIRS

Advisor, B.S. Aquatic, 1986-91

UNDERGRADUATE INDIVIDUAL INSTRUCTION SUPERVISION

Lee Stavenhagen	Location unknown
Charles Michael Laritz	Location unknown
Neal E. Armstrong	U.T. Faculty

Robert S. Jones
Michael Lieppman
Chris Bryan

Retired U.T. Faculty
M.D.
Louisiana Fish and Game

GRADUATE SUPERVISION

Ph. D. Degrees Supervised

Charles W. Laidley	1995 Postdoc, U. Cal. Berkeley
Susan Safford	1992 Postdoc, U. Kentucky
Hong-Young Yan	1991 Director, Marine Laboratory Taiwan
Nellie Morales	1991 Faculty, U. Indiana
Keryea Soong	1990 Faculty, National Sun Yat-sen University, Taiwan
Danielle Ippolito	1985 Faculty, Illinois College
S. Michael Dean	1983 M. D.
Gary P. Garrett	1982 Texas Parks & Wildlife
Edie C. Marsh	1981 Faculty, University of Oklahoma
Robert J. Edwards	1980 Faculty, U.T. Pan American
Kenneth W. Thompson	1978 Faculty, College in Pennsylvania
John G. Williams	1978 Retired Faculty, U. Wyoming
Elsie Sorenson	1974 Consultant
Jerry W. Gerald	1970 Consultant
Alex E. Peden	1968 Retired Curator, British Columbia Museum
E. David Lane	1967 Retired Faculty, British Columbia University
F. Douglas Martin	1965 Retired, Savannah River National Laboratory
George Drewry	1965 Retired, U.S. Fish & Wildlife, Washington
Exalton A. Delco, Jr.	1962 Retired Vice President, Austin Community College
R. Kirk Strawn	1957 retired Faculty, Texas A&M
Victor G. Springer	1957 Curator, U.S. National Museum
Hilmi Saber al-Uthman	1955 retired Faculty, University of Baghdad

M.A. Degrees Supervised

Thomas Lucier	1978 Location unknown
Shirley Lee Stone	1977 Austin Parks
Fred Stevens (Ed.D.)	1977 Faculty Schreiner College
David Willhite	1975 DDS
Paulette S. Martin	1972 Technician, U.C. Medical School
Thomas Pietsch	1969 Deceased
Barbara Harris	1969 Deceased
Michael M. Stevenson (Ph.D. Oklahoma)	1968 Retired, University of New Orleans
Jana Velderman	1968 Location unknown
Martha V. Johnson	1966 housewife
Ronald C. Baird	1965 Head, Sea Grant Education Committee
Barbara Warburton	1965 Deceased
Darrel K. Yardley (Ph.D. Georgia)	1965 Retired Faculty, Clemson University
William F. Hettler	1964 Retired NOAA Beaufort, NC
Donald W. Hagen (Ph.D. British Columbia)	1963 Faculty Canadian University
Charlie R. Powell (Ph.D. Marine Studies)	1961 Location unknown
George G. Henderson, Jr.	1960 Once Parks and Wildlife

William Renfro	1958 Retired, Administrator, New England Power Co.
Luciano V Guerra	1956 Retired, Parks & Wildlife (Deceased)
Billy D. Cooper	1954 Consultant
Kenneth C Jurgens	1952 Retired, Parks & Wildlife (Deceased)
Robert J. Kemp	1952 Retired, Parks & Wildlife (Deceased)

Postdoctoral Fellows Supervised

C.S. Hsiung	Faculty, Wuhan University
Hugo H. Campos	Faculty, University of Valdivia

PUBLICATIONS AND CONTRIBUTIONS

Articles

- 2008 Juvenile survival in a unisexual/sexual complex of mollies. *Environmental Biology of Fishes* (online) DOI 10.1007/s10641-008-9343-9
- 2005 The Science of Instream Flows: A review of the Texas Instream Flow Program. National Academies Press, Washington, D.C. National Research Council - With G.E. Mallard, K.L. Dickson, T.B. Hardy, C. Hubbs, D.R. Maidment, J.B. Martin, P.F. McDowell, B.D. Richter, G.V. Wilkerson, K.O. Winemiller, and D.A. Woolhiser.
- Threatened fishes of the world: *Cyprinodon eximius*. Girard 1859. *Environmental Biology of Fishes* 72(1):98 (with Gary P. Garrett and Robert J. Edwards).
- 2004 Guidelines for the use of fishes in research. American Fisheries Society. With J.G. Nickum, H.L. Bart, Jr., P.R. Bowser, I.E. Greer, J.A. Jenkins, J.R. MacMillan, J.W. Rachlin, T.D. Rose, P.W. Sorensen, and J.R. Tomasso. American Fisheries Society: 53 pp.
- Discovery of a new population of Devils River minnow (*Dionda diaboli*). *The Southwestern Naturalist* 49(4):435-441 (with Gary P. Garrett and Robert J. Edwards)
- 2003 Spring-endemic *Gambusia* of the Chihuahuan Desert. In: Aquatic fauna of the northern Chihuahuan Desert (G.P. Garrett and Nathan L. Allen eds.): 127-133.
- 2002 Geographic variation in interbrood interval in *Poecilia*. Salvador Contreras-Balderas Memorial Volume (with Laurie Dries), 35:41.
- Threatened fishes of the world: *Dionda diaboli* Hubbs and Brown, 1956 (Cyprinidae). *Environmental Biology of Fishes* 65(4): 478 (with Gary P. Garrett and Robert J. Edwards)
- Threatened Fishes of the World: *Gambusia heterochir* Hubbs, 1957 (Poeciliidae). *Environmental Biology of Fishes* 65(4): 422 (with Robert J. Edwards and Gary P. Garrett)
- Threatened fishes of the world: *Gambusia georgei*. Hubbs and Peden, 1969 (Poeciliidae). *Environmental Biology of Fishes* (with Robert J. Edwards and Gary P. Garrett).

- Threatened fishes of the world: *Cyprinodon pecosensis*. Echelle and Echelle 1978 (Cyprinodontidae). Environmental Biology of Fishes 65: 366 (with Gary P. Garrett and Robert J. Edwards).
- Threatened fishes of the world: *Cyprinodon elegans*. Baird and Girard 1853 (Cyprinodontidae). Environmental Biology of Fishes 65: 288 (with Gary P. Garrett and Robert J. Edwards).
- Threatened fishes of the world: *Gambusia gaigei*. Hubbs 1929 (Poeciliidae). Environmental Biology of Fishes 65: 82 (with Robert J. Edwards and Gary P. Garrett).
- Threatened fishes of the world: *Gambusia nobilis*. Baird and Girard 1953 (Poeciliidae). Environmental Biology of Fishes 64: 428 (with Robert J. Edwards and Gary P. Garrett).
- Threatened fishes of the world: *Cyprinodon bovinus*. Baird and Girard 1853 (Cyprinodontidae). Environmental Biology of Fishes 64: 442 (with Gary P. Garrett and Robert J. Edwards).
- Threatened fishes of the world: *Gambusia amistadensis* Peden 1973 (Poeciliidae). Environmental Biology of Fishes 64: 460 (with Robert J. Edwards and Gary P. Garrett).
- Preliminary Checklist of Fishes of Caddo Lake in Northeast Texas. Texas Journal of Science 54: 11-124.
- 2001 Environmental correlates to the abundance of spring-adapted versus stream-adapted fishes. Texas Journal of Science 53: 299-326.
- 2000 Early use of rotenone in the U.S. waters. Fisheries 25(9): 34.
- Survival of *Gambusia affinis* in a hostile environment. Southwestern Naturalist 45: 521-522.
- 1999 Additional data on habitat partitioning in *Gambusia*. Texas Journal of Science 51:339-341 (with John Karges).
- Effect of light intensity on *Gambusia* brood production. Transactions American Fisheries Society 128: 747-754.
- 1998 Large spring gambusia (*Gambusia geiseri*) produces young in all seasons. Texas Journal of Science 50:343-344.
- 1997 Fish stocks at risk in Texas. Proceedings Texas Chapter of American Fisheries Society 19:6-8 (with Gary P. Garrett, Robert J. Edwards, Loraine T. Fries, Steward Jacks and Don Wilhelm).
- Changes in fish assemblages in East Texas streams from 1953 to 1986. Texas Journal of Science 49:67-84 (with Edie Marsh-Matthews, William J. Matthews and Allison A. Anderson).
- Addendum to geographic variation in life history traits of *Gambusia* species. Proceedings of Desert Fishes Council 28:1-4.
- Sperm retention in poeciliids. Livebearers, Bulletin of American Livebearer Association 146:9.

- 1996 River resource management in the Grand Canyon. Nat. Res. Council (with William M. Lewis Jr., A. Dan Tarlock, Trevor C. Hughes, David Dawdy, Ian Goodman, Bonnie G. Colby, Robert Euler, Garrick A. Bailey, and William Graf). xv + 226 pp.
- Geographic variation of interbrood intervals in *Gambusia affinis*. Sp. Publ. Charles Univ. Praha, Acta Universitatis Carolinae—Biologica (Czech Republic) 39 (3-4). 1995 (1996): 169-172..
- Geographic variation in life history traits of *Gambusia* species. Proceedings of Desert Fishes Council 27:1-22.
- An annotated checklist of the Freshwater Fishes of Texas, with keys to the identification of species (Revised). Special supplement. Texas Journal of Science (with Robert J. Edwards and Gary P. Garrett): 1-56 +2.
- 1995 Springs and spring runs as unique aquatic systems. Copeia 1995:989-991.
- Texas freshwater fish assemblages following three decades of environmental change. Southwestern Naturalist 40:314-321. (with Allison A. Anderson, Kirk O. Winemiller, and Robert J. Edwards).
- Habitat partitioning between *Gambusia nobilis* and *G. geiseri*. Texas Journal of Science 47:325-326 (with Alice A. Echelle and George Devine).
- 1994 Status review of construction, native species introductions, and operation of an endangered species refugium channel, Phantom Lake Spring, Texas. Proceedings of Desert Fishes Council 25:22-25. With D.A. Young, K.J. Fritz, and G.P. Garrett.
- Review of the draft environmental impact statement on operation of Glen Canyon Dam. National Research Council. 26 pp. With William M. Lewis Jr., Garrick A. Bailey, Bonnie Colby, David Dowdy, Robert C. Euler, Ian Goodman, William Graf, Trevor C. Hughes, Roderick Nash, and A. Dan Tarlock.
- Review of the draft federal long-term monitoring plan for the Colorado River below Glen Canyon Dam. National Research Council. vii + 30 + 25 pp. With William M. Lewis Jr., Garrick A. Bailey, Bonnie Colby, David Dowdy, Robert C. Euler, Ian Goodman, William Graf, Trevor C. Hughes, Roderick Nash, and A. Dan Tarlock.
- Fishes. In: *Birds and Other Wildlife of South Central Texas* by Edward A. Kutac and S. Christopher Caran. University of Texas Press. pp. 129-145. With S. Christopher Caran.
- Freshwater and marine fishes of Texas and the northwestern Gulf of Mexico: Taxonomic and distributional inventory with bibliography. TSNL Laboratory Index Series No. FTX/NWGM-94. xvii + 270 pp. With John D. McEachran and Charles R. Smith.
- Big Bend *Gambusia* Recovery Plan. USDI Albuquerque: 43 pp. With Gary Garrett, David Probst, Anthony Echelle, Salvador Contreras-Balderas and James Brooks.
- 1993 Forward in *Fish* by Peter Moyle. University of California Press, 272+x. ix-x.

- 1992 Recovery of Pecos River fishes from a red tide fish kill. *Southwestern Naturalist* 37:178- 187. With Kevin Rhodes.
- Geographic variation in cannibalism of congeneric young by *Gambusia* adults. *Proceedings Desert Fishes Council*:43-52.
- Pecos bluntnose shiner recovery plan. U.S. Fish and Wildlife Service Region 2; iii + 57 pp. With Anthony Echelle, Salvador Contreras-Balderas, David Propst, Gary Garrett, and James Brooks.
- 1991 Annotated check list and key to the fresh water fishes of Texas, with keys to the identification of species. Special supplement *Texas Journal of Science*. (with Robert J. Edwards and Gary P. Garrett):1-56.
- Ichthyological exploration of the American west: The Hubbs-Miller era, 1915-1950. In: *Battle Against Extinction* by W.L. Minckley and James E. Deacon (with Robert R. Miller and Frances H. Miller):19-40.
- Intrageneric "cannibalism" in *Gambusia*. *Southwestern Naturalist* 36:153-157.
- 1990 Snails as a food source for *Gambusia*. *Texas Journal of Science* 42:245-256.
- Declining fishes of the Chihuahuan Desert. 3rd Chihuahuan Desert Symposium 89-96.
- Reestablishment of *Cyprinodon eximius* (Cyprinodontidae) and status of *Dionda diaboli* in the vicinity of Dolan Creek, Val Verde County, Texas. *Southwestern Naturalist* 35:446-448. (with Gary P. Garrett).
- 1989 Status and conservation of poeciliid fishes. In: *Biology of the Poeciliids* by Gary Meffe and Franklin B. Snelson Jr. (with James E. Johnson) : 301-317.
- 1988 Occurrence of natural hybrids between *Etheostoma* and *Percina* (Pisces: Percidae). *Southwestern Naturalist* 33:97-99. (with Frank B. Cross and Fred Stevens).
- Guidelines for field research using fishes. In: *Field Research Guidelines: Impact on Animal Care and Use Committees* by Barbara Orlans : 9 (and discussion).
- 1987 Leon Springs pupfish recovery plan. U.S. Fish and Wildlife Service, Albuquerque, NM, vi +26 pp. (with Anthony Echelle, Floyd E. Potter, Jr., Salvador Contreras-Balderas, Buddy Jensen and Michael D. Hatch).
- Summary of the Symposium. In: *Ecology of Stream Fishes*. William J. Matthews and David Heins (eds.) University of Oklahoma Press: 265-267.
- Guidelines for use of fishes in field research. *Copeia* Supplement. (with John E. McCosker, John G. Nickum, and John R. Hunter). 12 pp.
- 1986 An enigmatic population of *Gambusia gagei*. *The Southwestern Naturalist* 31:121-123. (with Gerard Hoddenbach and C. Mike Fleming).

- 1985 Darter reproductive seasons. *Copeia* 1985: 56-68.
- Temporal changes in the *Gambusia heterochir* x *G. affinis* hybrid swarm following dam reconstruction. Endangered Species Report No. 13, U.S. Fish and Wildlife Service, Albuquerque, NM. iv + 31pp. (with Robert J. Edwards).
- Fecundity of *Gambusia gaigei*, an endangered species. *Copeia* 1985:1063-1064 (with Doyle T. Mosier).
- Use of darter hybrids in home aquaria. *The American Currents*. November 1985: 7-10.
- This week's citation classic (Hybridization between fish species in nature, *Systematic Zoology* 4: 1-20 by Carl L. Hubbs) *Current Contents* 16(46):20.
- William Franklin Blair (obituary). *Copeia* 1985: 529-531.
- 1984 Systematic review of the percid fish, *Etheostoma lepidum*. In: Henry S. Fitch, Memorial Volume, *Herpetologist League* 243-255. (with Alice F. Echelle and Anthony A. Echelle).
- Extinction of *Gambusia amistadensis*, an endangered fish. *Copeia* 1984: 529-530. (with Buddy Lee Jensen).
- Changes in fish abundance with time of day and among years at a station in Lake Texoma. 1983 *Transactions Texas Chapter American Fisheries Society* 42-57.
- TOES watch list of threatened and endangered vertebrates of Texas. Publication 4, Texas Organization for Endangered Species 1-15 (with R. Edwards, G. Powell and others).
- Big Bend gambusia recovery plan. U.S. Fish and Wildlife Service, Albuquerque, NM. iv +93pp., 1984 (with Anthony Echelle, Floyd E. Potter, Jr., Salvador Contreras-Balderas, Buddy Jensen and Michael D. Hatch).
- 1983 Pecos gambusia recovery plan. U.S. Fish and Wildlife Service, Albuquerque, N.M. 30 pp. (with Floyd E. Potter, Jr., Anthony Echelle, Salvador Contreras-Balderas, Buddy Jensen and Michael D. Hatch).
- A checklist of Texas fresh water fish. *Texas Parks and Wildlife Technical Series*, No. 11. i + 14 pp.
- Designation of a lectotype for the Amazon molly, *Poecilia formosa* (Pisces: Poeciliidae). *Copeia* 1983: 816-817 (with Robert R. Miller).
- 1982 Life history dynamics of *Menidia beryllina* from Lake Texoma. *American Midland Naturalist*. 107: 1-12.
- Occurrence of exotic fishes in Texas waters. *Pearce-Sellards Series*, Texas Memorial Museum. 36: i + 1-19.

- Clear Creek gambusia recovery plan. U.S. Fish and Wildlife Service, Albuquerque, N.M. 29 pp. (with Floyd E. Potter, Jr., Anthony Echelle, Salvador Contreras-Balderas, Buddy Jensen and Michael D. Hatch).
- 1981 Rjesenje problema geneticke kontaminacije koji rezultiraju iz prirodne hibridizacije (Solution to problems of genetic contamination resulting from natural hybridization). Internacionalni Simpozijum: Problemi Hibridizacije Riba (International Symposium: Problems of Fish Hybridization): 98-101.
- Comanche Springs pupfish recovery plan. U.S. Fish and Wildlife Service, Albuquerque, N.M. 25 pp. (with Anthony Echelle, Salvador Contreras-Balderas, Michael D. Hatch, Floyd E. Potter, Jr. and Buddy Jensen).
- 1980 The solution to the *Cyprinodon bovinus* problem: Eradication of a pupfish genome. Proceedings of 10th Desert Fishes Council: 9-18.
- The status of the San Marcos gambusia, *Gambusia georgei*. Endangered Species Report 9, U.S. Fish and Wildlife Service, Albuquerque. iii + 34 pp. (with Robert J. Edwards and Edie Marsh).
- Notes on fishes inhabiting streams of North Yemen. *Matsya* 6: 80-82 (with Hilmi Saber al-Uthman).
- 1979 Module III Instream Fishery Ecosystems. Workshop Instream Flow Habitat Criteria and Modeling: 139-166 (with Bernard C. Patten, Robert Boling, Charles F. Cole, Ed Herricks, Jeff Johnson, Hiram W. Li, James W. Miller, Edward J. Rykiol, James V. Ward, Jackson R. Webster, Thomas A. Wesche, and Robert G. White).
- A review of circumstances affecting the abundance of *Gambusia gaigei*, an endangered fish endemic to Big Bend National Park. In: *Proceedings First Conference on Scientific Research in the National Parks, Vol. 1*, Robert Linn (ed.): 631-635 (with John G. Williams).
- Growth and reproductive responses of *Menidia beryllina* (Atherinidae) inhabiting Lake Texoma. *The Southwestern Naturalist* 24:546-549 (with S. Michael Dean).
- Carl L. Hubbs (obituary). *Copeia* 1979:756 (with Frances H. Miller and Earl L. Hubbs).
- Fishes of North America endangered, threatened, or of special concern. *Fisheries* 4(2):29-44 (with James E. Deacon and others).
- TOES watch-list of endangered, threatened, and peripheral vertebrates of Texas. Publication 2, Texas Organization for Endangered Species: 1-14 (with G. Langley, R.C. Telfair, II, J. Baccus and F. Potter).
- 1978 Comparative chromosome morphology of the black basses. *Copeia* 1978:172-175 (with Kenneth W. Thompson and Robert J. Edwards).
- State park spring haven for endangered pupfish. *Texas Parks and Wildlife* 36(6):9-11 (with Anthony A. Echelle).

Introduction (to Ichthyofauna); Summary and Conclusion. In: *Symposium on the Biological Resources of the Chihuahuan Desert Region, United States and Mexico, Sul Ross State University*, 17-18 October 1974. David H. Riskind and Roland H. Wauer (eds.). National Park Service, Transactions and Proceedings Series 3: 363-364; 433-434.

Result of an eradication program on the ecological relationships of fishes in Leon Creek, Texas. *The Southwestern Naturalist* 23: 487-496 (with Thomas Lucier, Edie Marsh, Gary P. Garrett, Robert J. Edwards, and Elizabeth Milstead).

Fish. In: *Before and After Studies on the Effects of a Power Plant Installation on Lake Lyndon B. Johnson--After Studies*; Final report. (Edited by E. Gus Fruh, Bassett Maguire, Jr., and Philip S. Schmidt). Technical Report EHE-77-04 CRWR-151 University of Texas Environmental Health Engineering Research Laboratory. pp. VIII, 1-84 + Appendix XI (with John G. Williams).

Survival and abundance of introduced fishes near San Antonio, Texas. *Texas Journal of Science* 30: 369-376 (with Thomas Lucier, Gary P. Garrett, Robert J. Edwards, S. Michael Dean, Edie Marsh and Denton Belk).

1977 An analysis of the potential environmental factors, especially thermal, which would influence the survivorship of exotic Nile perch if introduced into artificially heated reservoirs in Texas. *Texas Parks and Wildlife Technical Series No. 22*: v + 1-37 pp. (with Kenneth W. Thompson and Barry W. Lyons).

Karyotypic similarities between the Mexican and blind tetras. *Copeia* 1977: 578-580 (with Robert F. Kirby and Kenneth W. Thompson).

Effects of temperature on the termination of breeding season of *Menidia audens*. *The Southwestern Naturalist* 22: 544-547 (with Horace H. Bailey).

Possible rationale and protocol for faunal supplementations. *Fisheries* 2(2): 12-15.

Habitat Management Plan for Big Bend Gambusia, Big Bend National Park, Texas. National Park Service (with James E. Johnson and Roland H. Wauer).

Fishes inhabiting the Rio Grande, Texas-Mexico, between El Paso and the Pecos confluence. In: *Importance, Preservation and Management of Riparian Habitat A Symposium*. U.S.D.A. Forest Service, General Technical Report RM-43. R. Roy Johnson and Dale Jones (eds.) 91-97 (with Robert Rush Miller, Robert J. Edwards, Kenneth W. Thompson, Edie Marsh, Gary P. Garrett, Gary L. Powell, D.J. Morris and Robert W. Zerr).

1976 An electrophoretic study of two species of mosquitofish with notes on genetic subdivision. *Copeia* 1976: 117-120 (with Darrell K. Yardley).

The diel reproductive pattern and fecundity of *Menidia audens*. *Copeia* 1976: 386-388.

Effects of impoundments on threatened fishes of Oklahoma. In: *Oklahoma Reservoir Resources* by Loren G. Hill and Robert C. Summerfelt (eds.), Publication 5. *Annals of the Oklahoma Academy of Sciences*: 113-117 (with Jimmie Pigg).

- Baseline environmental evaluations at power plant sites. *Journal American Water Works Association* 68: 375-384 (with E. Gus Fruh, Phillip S. Schmidt and Bassett Maguire, Jr.).
A checklist of Texas freshwater fish. *Texas Parks and Wildlife Technical Series No. 11*: ii + 12 pp.
- The effects of a halocline on fish distribution in the Red River Arm at Lake Texoma. *Proceedings of the Oklahoma Academy of Science* 56: 32-37 (with James D. Bryan, Jean Cox, Everett M. Grigsby, Timothy R. Lawrence, David L. McNeely, Douglas A. Nieman, Jack Smith, Greg L. Steele, Maryanne Van Buskirk, Stan Wilson, and Darryl Altman).
- A review of circumstances affecting the abundance of *Gambusia gaigei*, an endangered fish endemic to Big Bend National Park. In: *Proceedings of the First Conference on Scientific Research in the National Parks*. Vol. I. Robert M. Linn (ed.): 631-635 (with John G. Williams).
- 1975 VI. Vertebrate submodel. In: *Total Ecosystem Model for a Cove in Lake Texoma* (pp. 205-421) by Bernard C. Patten, David A. Egloff, Thelma H. Richardson and others. In: *Systems Analysis and Simulation in Ecology, Vol. III*. Bernard C. Patten (ed.). Academic Press. Chapter pages 268-289 (with William S. Gaud, James R. Koplín, Kenneth R. Kramm, Philip T. Northen, Jan Savitz, Damian Schmelz, and Jerome H. Woolpy).
- The biology of the Guadalupe, Suwannee, redeye bass. In: *Black Bass Biology and Management* by Richard Stroud and Henry Clepper (eds.). Sport Fishing Institute: 47-57 (with Harold Hurst and Gray Bass).
- Ontogenetic rates and tolerances of the channel darter, *Hadropterus copelandi*. *Texas Journal of Science* 26: 623-625 (with Chris Bryan).
- Baseline evaluations in the energy area. In: *Water Management by the Electric Power Industry* by E.F. Gloyna, H.H. Woodson, and H.R. Drew (eds.). Water Resources Symposia Series Center for Research in Water Resources, U.T. Austin 8: 338-357 (with Philip S. Schmidt, Bassett Maguire, Jr., and E. Gus Fruh).
- 1974 Biological effects of nuclear power plants: thermal discharges. In: *The Implications of Nuclear Power in Texas* by E.L. Draper (ed.): 133-145, 172.
- Effects of parental temperature experience on thermal tolerance of eggs of *Menidia*. In: *Early Life History of Fish* by J.H.S. Blaxter (ed.). Springer-Verlag Berlin-Heidelberg 431-435 (with Chris Bryan).
- Maximum incubation temperature of the threadfin shad, *Dorosoma petenense*. *Transactions of the American Fisheries Society* 103: 369-371 (with Chris Bryan).
- 1973 Seasonal changes in the fish fauna of Tornillo Creek, Brewster County, Texas. *The Southwestern Naturalist* 17:375-379 (with Roland Wauer).
- Taxonomic implications of the karyotype of *Opsopoeodus emiliae*. *Copeia* 1973: 161-163 (with Hugo H. Campos).
- Evolution. *Compton's Encyclopedia* 7:343-345b (with Leslie E. Orgel).

- Observations in the development of pirate perch, *Aphredoderus sayanus* (Pisces: Aphredoderidae) with comments on yolk circulation patterns as a possible taxonomic tool. *Copeia* 1973:377-379 (with F. Douglas Martin).
- Endangered non-game fishes of the Upper Rio Grande Basin. In: *Endangered Vertebrates in the Southwest* by William C. Huey (ed.). New Mexico Game and Fish 147-167 (with Anthony A. Echelle).
- Developmental events and manipulation. In: *Report of the International Symposium on the Early Life History of Fish* by J.H.S. Blaxter (ed.). FAO Fisheries Report 141: 10 (with C.C. Lindsey).
- 1972 A checklist of Texas freshwater fishes (revised). Texas Parks and Wildlife Department Technical Series, No. 11: i+1-11.
- Developmental rates and tolerances of the Red River pupfish, *Cyprinodon rubrofluviatilis*. *The Southwestern Naturalist* 17: 55-60 (with Anthony A. Echelle and Alice F. Echelle).
- Developmental rates and tolerances of the plains killifish, *Fundulus kansae*, and comparison with related fishes. *Texas Journal of Science* 23: 371-379 (with Stan Wilson).
- Habitat preferences of the harlequin darter, *Etheostoma histrio*, in Texas and Oklahoma. *Copeia* 1972: 1930194 (with Jimmy Pigg).
- The impact of fish introductions on aquatic communities. *Tropical Fish Hobbyist* 20(8): 22-28.
- Some thermal consequences of environmental manipulation of water. *Biological Conservation* 4: 185-188. Reprinted. *Impact* 1(3): 11-14.
- The dilemma of environmental activism. *Texas Academy of Science Newsletter* 10(2): 3.
- Culturing fruit flies and other live food. *African Aquarist (Afrikaanse Akwaris)* 5(3): 13-15; (6): 11-13; (7): 11-12; (8): 6-12 (with Kirk Strawn) (reprint of 1954 paper).
- Discussion. In: *A Symposium on Ecosystematics*. R.T. Allen and F. James (eds.). University of Arkansas Museum, Occasional Papers 4: 8-10, 73, 74, 220, 222-225, 227, 228.
- Developmental sequences of *Zygonectes notatus* at several temperatures. *Copeia* 1972: 862-865 (with Dale F. Burnside).
- The changing values associated with increased reservoir construction, *Texas Academy of Sciences Newsletter* 10(13): 1.
- Report of the Inland Waters Task Force. In: *Electric Power in Texas* by Howard R. Drew, P. Burgess Griesenbeck, J.R. Maxfield, Jr., F.C. Repper, D.E. Simmons, and R. Kirk Strawn (eds.). Appendix A: 39-43 (with Gus Fruh, John Spinks, John Tilton, and R. Kirk Strawn).
- 1971 Teleost hybridization studies. *Proceedings California Academy of Science* 38: 289-297.

- Diel capture rates of a freshwater shrimp. *Southwestern Naturalist* 6: 122-123 (with Jana Velderman).
- Competition and isolation mechanisms in the *Gambusia affinis* x *G. heterochir* hybrid swarm. *Bulletin Texas Memorial Museum* 19: iii+47pp.
- Texas cave fishes. In: *Natural History of Texas Caves* by E.L. Lundelius and B.H. Slaughter: 91-93.
- Cytomorphology of six species of gambusiine fishes. *Copeia* 1971: 566-569 (with Hugo H. Campos).
- Developmental rates of *Menidia audens* with notes on salt tolerance. *Transactions of the American Fisheries Society* 100: 603-610 (with H. Bryan Sharp and Joel F. Schneider).
- Survival of intergroup percid hybrids. *Japanese Journal of Ichthyology (Percidae tribes)* 18, 2(1971): 65-75.
- 1970 Introduction to symposium on fish cytogenetics. *Transactions of the American Fisheries Society* 99: 98-99.
- Ecological dangers in aquaculture. *The American Fish Farmer* 1 (no. 6): 18-19.
- 1969 Comments on the "cytologically verified" hybrids between *Bufo* and *Rana*, two genera of anura amphibians. *Cytogenetics* 8: 30-34 (with James P. Bogart and W. Frank Blair).
- Gambusia georgei* sp. nov. from San Marcos, Texas. *Copeia* 1969: 357-364 (with Alex E. Peden).
- A karyological analysis of two species of cyprinid minnows, *Notemigonus crysoleucas* and *Notropis lutrensis*. *Texas Reports on Biology and Medicine* 27: 427-435 (with Michael Lieppman).
- 1968 An opinion on the effects of cichlid releases in North America. *Transactions of the American Fisheries Society* 97: 197-198.
- Fecundity and egg size in two central Texas darter populations. *The Southwestern Naturalist* 13: 301-324 (with Michael M. Stevenson and Alex E. Peden).
- Notes on the distribution of black bass (*Micropterus*) in the San Marcos River, Hays County, Texas. *Texas Journal of Science* 20: 193-194 (with Alex E. Peden).
- The developmental rate of the greenthroat darter, *Etheostoma lepidum*. *The American Midland Naturalist* 81: 182-188 (with Alex E. Peden and Michael M. Stevenson).
- 1967 Analysis of phylogenetic relationships using hybridization techniques. *Symposium Newer Trends in Taxonomy. Bulletin National Institute of Sciences of India* 34: 48-59.
- Geographic variations in survival of hybrids between etheostomatine fishes. *Bulletin Texas Memorial Museum* 13: 1-72.

- Bufo valliceps* breeding in artificial pools. The Southwestern Naturalist 12: 105-106 (with F. Douglas Martin).
- Effect of dissolved oxygen concentration and light intensity on activity cycles of fishes inhabiting warm springs. American Midland Naturalist 77: 104-115 (with Ronald C. Baird and Jerry W. Gerald).
- 1966 Fertilization, initiation of cleavage, and developmental temperature tolerance of the cottid fish, *Clinocottus analis*. Copeia 1966: 29-42.
- 1965 Developmental temperature tolerance and rates of four southern California fishes, *Fundulus parvipinnis*, *Atherinops affinis*, *Leuresthes tenuis*, and *Hypsoblennius* sp. California Fish and Game 51: 113-122.
- Effects of darkness on egg deposition by *Etheostoma lepidum* females. The Southwestern Naturalist 4: 302-306 (with Paulette S. Martin).
- 1964 Interactions between a bisexual fish species and its gynogenetic sexual parasite. Bulletin Texas Memorial Museum 8: 1-72.
- Effects of thermal fluctuations on the relative survival of greenthroat darter found from stenothermal and eurythermal waters. Ecology 45: 376-379.
- Some effects of introduced fishes on the native fish fauna of southern Nevada. Copeia 1964: 384-388 (with James E. Deacon and Bernard J. Zahuranec).
- Observations on the toleration of high temperatures and low dissolved oxygen in natural waters by *Crenichthys baileyi*. The Southwestern Naturalist 9: 245-248 (with William F. Hettler).
- Additional introductions of tropical fishes into southern Nevada. The Southwestern Naturalist 9: 249-251 (with James E. Deacon).
- 1963 An evaluation of the use of rotenone as a means of "improving" sports fishing in the Concho River, Texas. Copeia 1963: 199-203.
- Differences in the developmental temperature tolerance of central Texas and more northern stocks of *Percina caprodes* (Percidae, Osteichthyes). The Southwestern Naturalist 8: 43-45 (with Kirk Strawn).
- Current abundance of *Gambusia gagei*, and endangered fish species. The Southwestern Naturalist 8: 46-48 (with Harold J. Brodrick).
- Developmental temperature tolerance of central Texas populations of two anuran amphibians *Bufo valliceps* and *Pseudacris streckeri*. The Southwestern Naturalist 8: 142-149.
- The use of hybridization in the determination of phylogenetic relationships. Proceedings XIV International Congress of Zoology 4: 103-105.

- 1962 Artificial hybridization of *Crenichthys baileyi* with related cyprinodont fishes. Texas Journal of Science 14: 107-110 (with George E. Drewry).
- Gila pandora*, a cyprinid new to the Texas fish fauna. Texas Journal of Science 14: 111-113 (with Robert R. Miller).
- Courtship preferences of *Gambusia affinis* associated with the sympatry of the parental populations. Copeia 1962: 396-400 (with Exalton A. Delco, Jr.).
- Effects of maternal death on survival of fertilized eggs of the fish, *Etheostoma spectabile*. Texas Journal of Science 14: 319-322 (with Robert S. Jones and William F. Hettler).
- Effects of a hurricane on the fish fauna of a coastal pool and drainage ditch. Texas Journal of Science 14: 289-296.
- Developmental temperature tolerance of Texas and Arkansas-Missouri *Etheostoma spectabile* (Percidae, Osteichthys). Ecology 43: 742-744 (with Neal E. Armstrong).
- 1961 Biological species and phylogenetic taxonomy. Systematic Zoology 10: 42-43 (with W. Frank Blair).
- Differences in the egg complement of *Hadropterus scierus* from Austin and San Marcos. Southwestern Naturalist 6: 9-12 (with Martha V. Johnson).
- Developmental temperature tolerances of four etheostomatine fishes occurring in Texas. Copeia 1961: 195-198.
- Differences in the incubation period of two populations of *Etheostoma lepidum*. Copeia 1961: 198-200.
- Occurrence of a natural intergeneric etheostomatine fish hybrid. Copeia 1961: 231-232 (with Charles Michael Laritz).
- A checklist of Texas fresh-water fishes. Texas Game and Fish Commission IF Series - No. 3., Revised, 1-14.
- Minimum developmental temperature tolerance of two anurans, *Scaphiopus couchi* and *Microhyla olivacea*. Texas Journal of Science 13: 358-362 (with Neal E. Armstrong).
- Differences between the gamete compatibility of *Etheostoma lepidum* sperm and eggs of related percid fishes from allopatric and sympatric populations. Texas Journal of Science 13: 427-433.
- Natural hybridization between *Hadropterus scierus* and *Percina caprodes*. Southwestern Naturalist 6: 188-192 (with Charles Michael Laritz).
- 1960 Survival of F1 hybrids between cyprinodont fishes, with a discussion of the correlation between hybridization and phylogenetic relationship. Publications Institute of Marine Science, The University of Texas 6: 81-91 (with George E. Drewry).

- Reduced survival of young etheostomatine fishes and hylid tadpoles due to ammonia fumes produced by a rodent colony. *Copeia* 1960: 68-69 (with M.J. Littlejohn and P.G. Littlejohn).
- Duration of sperm function of the percid fishes *Etheostoma lepidum* and *E. spectabile*, associated with sympatry of the parental populations. *Copeia* 1960: 1-8.
- Mate preference in males of four species of gambusiine fishes. *Evolution* 14: 145-152 (with Exalton A. Delco, Jr.).
- Geographic variations in egg complement of *Etheostoma lepidum*. *Texas Journal of Science* 12: 3-7 (with Exalton A. Delco, Jr.).
- 1959 High incidence of vertebral deformities in two natural populations of fishes inhabiting warm springs. *Ecology* 40: 154-155.
- Artificial production of an intergeneric atherinid fish hybrid. *Copeia* 1959: 80-81 (with George E. Drewry).
- Laboratory hybrid combinations among etheostomatine fishes. *Texas Journal of Science* 11: 49-56.
- Fluctuations of some central Texas fish populations. *Southwestern Naturalist* 3: 13-16 (with William F. Hettler).
- Occurrence and morphology of a phenotypic male of a gynogenetic fish. *Science* 129: 1227-1229 (with George E. Drewry and Barbara Warburton).
- Population analysis of a hybrid swarm between *Gambusia affinis* and *G. heterochir*. *Evolution* 13: 236-246.
- 1958 Fertility of F1 hybrids between the percid fishes, *Etheostoma spectabile* and *E. lepidum*. *Copeia* 1958: 57-59.
- Geographic variations in egg complement of *Percina caprodes* and *Etheostoma spectabile*. *Copeia* 1958: 102-105.
- Gambusia senilis* from the Devil's River, Texas, an addition to the fish fauna of the United States. *Copeia* 1958: 239.
- Effects of maternal carotenoid deficiency on the viability of darter (Osteichthyes) offspring. *Physiological Zoology* 31: 280-283 (with Lee Stavenhagen).
- A checklist of Texas fresh-water fishes. Texas Game and Fish Commission IF Series No. 3 Revised: 1-14.
- Occurrence of the American molly, *Mollienesia formosa*, at San Marcos, Texas. *Texas Journal of Science* 10: 489-490 (with George E. Drewry and Exalton A. Delco, Jr.).
- Notropis saladonis*, a new cyprinid fish endemic in the Rio Salado of northeastern Mexico. *Copeia* 1958: 297-307 (with Carl L. Hubbs).

- Long duration of sperm function in two euryhaline fishes and its lack of significance in hybridization. *American Naturalist* 92: 278-380 (with George E. Drewry).
- 1957 A checklist of Texas fresh-water fishes. IF Series Texas Game and Fish Commission No. 3: 1-11.
- Survival of F1 hybrids between fishes of the sub-family Etheostominae. *Journal of Experimental Zoology* 134: 31-60 (with Kirk Strawn).
- Relative variability of hybrids between the darters *Etheostoma spectabile* and *Percina caprodes*. *Evolution* 11: 1-10 (with Kirk Strawn).
- Gambusia heterochir*, a new poeciliid fish from Texas, with an account of its hybridization with *G. affinis*. *Tulane Studies in Zoology* 5: 1-16.
- A revision of the *Gambusia nobilis* species group, with descriptions of three new species, and notes on their variation, ecology, and evolution. *Texas Journal of Science* 9: 279-327 (with Victor G. Springer).
- The effects of light and temperature on the fecundity of the greenthroat darter, *Etheostoma lepidum* (Girard). *Ecology* 38: 596-602 (with Kirk Strawn).
- Reproductive behavior of *Gambusia heterochir*. *Copeia* 1957: 299-300 (with Barbara Warburton and Donald W. Hagen).
- Distributional patterns of Texas fresh-water fishes. *Southwestern Naturalist* 2: 89-104.
- Copulatory function of the modified pectoral fin of gambusiine fishes. *American Naturalist* 91: 333-335.
- Duration of sperm viability as a factor in frequency of fish hybridization. *Texas Journal of Science* 9: 472-474.
- 1956 Observations on stripping small fishes for experimental purposes. *Copeia* 1956: 114-116 (with Kirk Strawn).
- Three shiners, *Notropis ortenburgeri*, *N. maculatus*, and *N. blennioides*, added to the known east Texas fauna. *Texas Journal of Science* 8: 110-112 (with Robert J. Kemp, Jr. and Charles E. Gray).
- Interfertility between two sympatric fishes, *Notropis lutrensis* and *Notropis venustus*. *Texas Journal of Science* 8: 463-469.
- A new minnow, *Dionda diaboli*, from Texas. *Southwestern Naturalist* 1: 69-77 (with William H. Brown).
- 1955 The yellow perch invades Texas. *Texas Game and Fish* 13, No. 3: 17 and 27.

- The distribution of the suckermouth minnow, *Phenacobius mirabilis*, in Texas. Texas Journal of Science 7: 69-71 (with William F. Herzog).
- On a Texas record of *Notropis boops* based on an apparent hybrid between *N. venustus* and *N. fumeus*. Texas Journal of Science 7: 346-348.
- 1954 Additional records of clinid fishes, with a description of a new species of *Cryptotrema* from the Gulf of California. Copeia 1954: 17-19.
- Nomenclatorial notes on Texas fishes of the genus *Notropis*. Copeia 1954: 72-73.
- First record of the cypress minnow (*Hybognathus hayi* Jordan) in Texas. Texas Journal of Science 6: 113-114 (with Robert J. Kemp, Jr.).
- Culturing fruit flies (*Drosophila*), and other live fish food. The Aquarium Journal 25: 135-140 and 162-166 (with Kirk Strawn).
- A new Texas subspecies, *apristis*, of the darter *Hadropterus scierus*, with a discussion of variation within the species. American Midland Naturalist 52: 211-220.
- Corrected distributional records for Texas freshwater fishes. Texas Journal of Science 6: 277-291.
- The taxonomic position of *Gobioclinus gobio* and *Ctenichthys interrupta*, two names for blennioid fishes. Bulletin Marine Science Gulf and Caribbean 4: 346-350 (with V.G. Springer).
- 1953 Revision and systematic position of the blennioid fishes of the genus *Neoclinus*. Copeia 1953: 11-23.
- A checklist of Texas freshwater fishes. Texas Game and Fish 11, No. 4: 12-15 (with Kenneth C. Jurgens).
- An improved graphical analysis and comparison of series of samples. Systematic Zoology 2: 49-56 and 96 (with Carl L. Hubbs).
- The fishes of the upper Guadalupe River, Texas. Texas Journal of Science 5: 216-244 (with Robert A. Kuehne and Jack C. Ball).
- Revision of the eastern Pacific fishes of the clinid genus *Labrisomus*. Zoological 38: 113-136.
- 1952 A contribution to the classification of the blennioid fishes of the family Clinidae, with a partial revision of eastern pacific forms. Stanford Ichthyological Bulletin 4: 41-165.
- Records from east Texas of three species of fish, *Hadropterus maculatus*, *Etheostoma histrio*, and *Etheostoma barratti*. Texas Journal of Science 4: 486.
- 1951 Don't throw grandpa back. Texas Game and Fish 9: No. 4: 16-17.
- Records from east Texas of three species of fish, *Semotilus atromaculatus*, *Notropis cornuta*, and *Microperca proelialis*. Texas Journal of Science 3: 490.

Observations on the breeding of *Dionda episcopa serena* in the Nueces River, Texas. Texas Journal of Science 3: 490-492.

Minimum temperature tolerances for fishes of the genera *Signalosa* and *Herichthys* in Texas. Copeia 1951: 297.

1947 Mixture of marine and fresh-water fishes in the lower Salinas River, California. Copeia 1947: 147-149.

1943 Fall spawning of the mud pickerel, *Esox vermiculatus* Lesueur. Copeia 1943: 131 (with Karl F. Lagler).

1941 Pacific cutlassfish *Trichiurus nitens* Garman. California Fish and Game 27: 29-30 (with Carl L. Hubbs).

Manuscripts in Progress

Differences in egg morphology among species at *Menidia*. (With Douglas Middaugh and Doyle Mosier).

Stochastic regulation of fish community structure in Oscar Creek, Oklahoma (with Bruce Wagner and David Edds).

Book Reviews (published)

1997 Historical Portrait of the Progress of Ichthyology, from Its Origins to Our Own Time. By Georges Cuvier. The Johns Hopkins University Press, xxiv + 366 pp. Quart. Rev. Biol. 71:59-60.

1993 The Endangered Fishes of Florida. Edited by Carter R. Gilbert. Quarterly Review of Biology 68:

1991 Biological Invasions in Europe and the Mediterranean Basin. Monog. Biol. 65, edited by F. di Castri, A.J. Hansen, and M. Debussche. 463 pp.; Dynamics of Biological Invasions. By Rob Hengeveld, New York: Chapman and Hall, 160 pp., 1989; Eingebürgerte Fischarten: Zur Biologie und Verbreitung Allochthoner Wildfische in Europa. Die Neue Brehm-Bücherei 62, By Andreas Arnold, Wittenberg Lutherstadt: Z. Ziemsen Verlag, 144 pp., 1990. Quart. Rev. Biol. 66:226-227.

1987 Ecology of Biological Invasions of North America and Hawaii Ecological Studies: Analysis and Synthesis 84: xvii + 321 pp. Quarterly Review of Biology 341-343.

1985 Ontogeny and Systematics of Fishes. By H.G. Mason, W.J. Richards, D.M. Cohen, M.P. Fahey, A.W. Kendall, Jr., and S.L. Richardson. Sp. Publ.1, American Society of Ichthyologists and Herpetologists. ix + 760 pp. Copeia 1985: 523.

1984 Fishes of Wisconsin. By George C. Becker, University of Wisconsin Press. xii + 1052 pp. Copeia 1984: 274-276.

- The American Darters. By Robert A. Kuehne and Roger W. Barbour. University of Kentucky Press. vi + 177 pp. Copeia 1984: 562.
- Distribution, Biology, and Management of Exotic Fishes. By Walter J. Courtney, Jr., and Jay R. Stouffer, Jr. The Johns Hopkins University Press. xiv + 430 pp. Copeia 1984: 1032-1033.
- 1983 Handbook of Darters. By Lawrence M. Page. TFH Publications. 271 pp. Copeia 1983: 581. Reprinted Tropical Fish Hobbyist 31(12):76.
- Fishes of Pennsylvania. By Edwin L. Cooper. Penn State University Press. vii + 243 pp. Copeia 1983: 1114-1115.
- Vanishing Fishes of North America. By R. Dana Ouo, James P. Williams and Anne Wagner. Stockpole Books. xiii + 257 pp. Copeia 1983: 1115.
- 1982 An Atlas of Distribution of the Freshwater Fish Families of the World. By Tim M. Berra, Univ. of Nebraska Press. xxix + 197 pp. Copeia 1982: 242.
- Distribution and Ecology of Stream Fishes of the Sacramento-San Joaquin Drainage System. Univ. Calif. Publ. Zool. 15. viii + 256 pp. Copeia 1982: 383.
- 1981 Charrs. Edited by Eugene K. Balon, Jr. W. Junk. ix + 928 pp. Copeia 1981: 249-251.
- A list of Common and Scientific Names of Fishes. By C. Richard Robins, Reeve M. Bailey, Carl E. Bond, James R. Brooker, Ernest A. Lachner, Robert N. Lea and W.B. Scott. Amer. Fish. Soc. Sp. Publ. 12, 174 pp. Copeia 1981: 747.
- 1979 Development of Fishes from the Mid-Atlantic Bight. Vol. 1, Acipenseridae through Ictaluridae, by Philip W. Jones, F. Douglas Martin and Jerry D. Hardy, Jr., 366(+7) pp.; Vol. 2, Anguillidae through Syngnathidae, by Jerry D. Hardy, Jr., 458 (+7) pp.; Vol. 3, Aphredoderidae through Rachycentridae, by Jerry D. Hardy, Jr., 394 (+7) pp.; Vol. 4, Carangidae through Ehippidae, by G. David Johnson, 314 (+7) pp.; Vol. 5, Chaetodonidae through Ophidiidae, by Ronald A. Fritzsche, 340 (+7) pp.; Vol. 6, Stromateidae through Ogcocephalidae, by F. Douglas Martin and George E. Drewry, 416 (+7) pp. Fish and Wildlife Service. Copeia 1979: 182-183.
- The Natural History of Native Fishes in the Death Valley System. By David L. Soltz and Robert J. Naiman. Natural History Museum of Los Angeles County, Science Series 30. 76 + ix pp. Copeia 1979: 184-185.
- The Fishes of Illinois. By Philip W. Smith. University of Illinois Press. xxix + 314 pp. Copeia 1979: 376-377.
- 1978 Sound Production in Fishes. Edited by William N. Tavolga. Benchmark Papers in Animal Behavior 9. John Wiley & Sons, xv + 363 pp. Quarterly Review of Biology 53: 79.
- The Eel. By F.-W. Tesch. John Wiley & Sons, xiv + 434 pp. Copeia 1978: 554.
- 1977 Inland Fishes of California. By Peter B. Moyle. University of California Press. 405 + 7 pp. Copeia 1977: 197-198.

- The Connecticut River Ecological Study, The Impact of a Nuclear Power Plant. By Daniel Merriman and Lyle M. Thorpe. Monograph 1, American Fisheries Society. 252 pp. Copeia 1977: 202-203.
- Ichthyology, 2nd Ed. By Karl F. Lagler, John Bardach, Robert R. Miller and Dora R. May Passino. John Wiley and Sons. 506 + 17 pp. Copeia 1977: 603-604.
- Fishes of the Gulf of Mexico, Texas, Louisiana, and adjacent waters. By H. Dickson Hoese and Richard H. Moore. W.L. Moody, Jr., Natural History Series 1. 327 + 15 pp. Copeia 1977: 801.
- 1976 Marine Ecology, Vol. II. Physiology Mechanisms. Edited by O. Kinne. John Wiley and Sons. Parts I and II. 992 + 23 pp. Copeia 1976: 215-216.
- The Fishes of Missouri. By William L. Pflieger. Missouri Department of Conservation. 343 + 8 pp. Copeia 1976: 844.
- 1975 Freshwater Fishes of Louisiana. By Neil F. Douglas. Claitor's Publishing Division. 443 + 13 pp. Copeia 1975: 191-192.
- Fishes of the Northern Gulf of Mexico. By Jerry G. Walls. TFH Publications. 32 pp. Copeia 1975: 597.
- The Black Basses in America and Overseas. By William H. Robins and Hugh R. MacCrimmon. Biomanagement and Research Enterprises. 196 pp. Copeia 1975: 789-790.
- 1974 The Fishes of Oklahoma. By Rudolph J. Miller and Henry W. Robinson. Oklahoma State University Museum of Natural History Service _ 1. 248 + 15 pp. Copeia 1974: 288-290.
- Dictionary of Sharks. By Patricia E. Pope. Great Outdoors Publishing Co. 88 pp. Copeia 1974: 290.
- Genetics and Mutagenesis of Fishes. J.H. Schroder (ed.). Springer-Verlag. 356 + 7 pp. Copeia 1974: 809.
- Endemism in Fishes in the Clear Lake Region of Central California. University of California Publications in Zoology 16. 135 pp. By John D. Hopkick. Copeia 1974: 808-809.
- 1973 Symposium on Salmonid Communications in Oligotrophic Lakes. Edited by K.H. Loftus and H.A. Regier. Journal of the Fisheries Research Board of Canada 25: 511-986. Copeia 1973: 185-187.
- Key to the Fishes of Arkansas. By Thomas N. Buchanan. Arkansas Game and Fish Commission. 175 + 6 pp. Copeia 1973: 829.
- 1972 Fishes of Montana. By C.J.D. Brown. Big Sky Books. 207 pp. Copeia 1972: 197-198.
- Red Data Book. Vol. 3 - Amphibia and Reptilia. By Rene H. Honegger. Vol. 4 - Pices. By Robert Rush Miller. International Union for the Conservation of Nature. Copeia 1972: 396.

Rivulins of the Old World. By Jorgen Scheel. TFH Publications 473 + 7 pp. Copeia 1972: 903-904.

- 1970 Freshwater Fishes of Alabama. By Williams F. Smith-Vaniz. Auburn University Agricultural Experimental Station. 211 + 7 pp. Transactions of the American Fisheries Society 99: 616.
- 1965 Familiar Freshwater Fishes of America. By Howard T. Walden. 2d. Harper and Row. 324 + 7 pp. Transactions of the American Fisheries Society 94: 102.

The following articles recurred annually in the Encyclopedia Britannica. The citations are from the 1967 edition.

Alewife, I:566

Anchovy, I:883-884

Barbel, III:148

Bass, III:253-254

Blenny, III:774

Bluefish, III:815

Bonito, III:915

Bowfin, IV:32

Bullhead, IV:404

Burgot, IV:418-419

Butterfish, IV:487

Butterflyfish, IV:500

Carp, IV:945

Catfish, V:70-71

Char, V:282

Chub, V:735

Cichlid, V:763

Coalfish, V:795

Cyprinodont, V:949

Filefish and Triggerfish, IX:266

Fish-introduction, IX:319-322

-distribution habitats and geography, IX:324-326 (with J.T. Nichols)

-ecology and behavior, IX: 326-329 (with J.T. Nichols)

-structure and function, IX: 329-332

-reproduction and development, IX:332-333

-survey of the bony fishes, IX: 333-352 (with J.T. Nichols)

-classification, IX:352-354

Flatfish, IX:421-422

Grunion, X:972

Guppy, X:104

Jewfish, XII:1040

Lungfish, XIV:431-432

Miller's thumb, XV:467

Mormyr, XV:844

Mullet, XV:982-983

Perch, XVII:595

Pilot fish, XVII:1080

Pipefish, XVII:1097
Piranha, XVII:1104
Plaice, XVII:1148
Puffer, XVIII:857
Remora, XIX:122