Curriculum Vitae - William Edward Grant

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Education and Academic Appointments

Michigan State University, East Lansing, B.S.
(Wildlife Ecology), 1970.

Colorado State University, Fort Collins, Ph.D.
(Systems Ecology), 1974.

Department of Ecology and Behavioral Biology, University of Minnesota, Minneapolis, Postdoctoral Fellowship, 1974-1976.

Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Assistant Professor, 1976-1981, Associate Professor, 1981-1986, Professor, 1986-2019.

Department of Ecology and Conservation Biology, Texas A&M University, College Station, Professor, 2020-present.

Professional Organizations

International Society for Ecological Modelling

Program Chairman, North American Chapter Annual Meetings 1984 - 1991.
Vice President, North American Chapter, 1987 - 1989.
President, North American Chapter, 1993 - 1996.
President, 1996 - 1998.
Member, Board of Governors, 1998 - 2010.

Editor, Special Annual Meeting Issues of Ecological Modelling, 1985 (Vol.29), 1987 (Vol. 36), 1988 (Vol. 43).
Member, Editorial Advisory Board of Ecological Modelling, 1985 – 1997, 2020 - present.
Associate Editor, Ecological Modelling, 1997 - 2019.

Teaching Experience

University Courses:
Ecology of Natural Resources, 1973-1974.
Ecological Zoogeography, 1973.
Advanced Ecosystem Analysis, 1975.
Fundamentals of Ecology, 1976, 1987.
Animal Ecology, 1976-present.
Wildlife and Fisheries Systems Analysis, 1976-1996.
Wildlife Conserva tion and Management, 1987-1994.
Ecología Animal, Universidad Autónoma de Guadalajara, Guadalajara, Jalisco, México, 1994.
Ecological Modeling, 1997-present.

International Workshop Series Sponsored by International Society for Ecological Modelling and the Department of Wildlife and Fisheries Sciences, Texas A&M University: Ecology and Natural Resource Management: An Introduction to Systems Analysis and Simulation (also offered in Spanish: Ecología y el Manejo de Recursos Naturales: Introducción al Análisis de Sistemas y Simulación)

Universidad Autónoma de Tamaulipas, Ciudad Victoria, Tamaulipas, México, octubre 1992, abril 1993, junio 1996, octubre 2003.

Universidad Autónoma de Nuevo León, Monterrey, Nuevo León, México, septiembre 1993, junio 1997.

Universidad del Valle de Guatemala, Ciudad de Guatemala, Guatemala, abril 1994, agosto 2001.

Universidad Autónoma de Guadalajara, Guadalajara, Jalisco, México, noviembre 1994.

Proyecto Honduras 2050, Tegucigalpa, Honduras, co-sponsored by CARE International, Save the Children/United Kingdom, and Catholic Relief Services, febrero 1995.

Texas Chapter of The Wildlife Society, Kingsville, Texas, July 1995.

Instituto Tecnológico y de Estudios Superiores de Monterrey, Nuevo León, México, julio 1996, agosto 2000, julio 2003.

Annual Joint Meeting of Ecological Society of America, Association of Tropical Biology, American Society of Naturalists, and International Society for Ecological Modelling - North American Chapter, Providence, Rhode Island, August 1996.

Ecological Summit 96 Joint Meeting of International Society for Ecological Modelling, International Ecological Engineering Society, International Society of Ecosystem Health, International Society of Ecological Economics, Copenhagen, Denmark, August 1996.

Universidad del Zulia, Maracaibo, Zulia, Venezuela, marzo 1997, julio 1997, noviembre 1997, mayo 1998, mayo 2000.

Annual Joint Meeting of American Institute of Biological Sciences and International Society for Ecological Modelling - North American Chapter, Montreal, Canada, August 1997.

Instituto Tecnológico de Cuidad Victoria, Tamaulipas, México, abril 1998, enero 2007.

Annual Joint Meeting of American Institute of Biological Sciences and International Society for Ecological Modelling, Baltimore, Maryland, August 1998.

Universidad Autónoma Chapingo, Texcoco, México, México, agosto 1998, junio 1999. enero 2000, junio 2001, diciembre 2001, diciembre 2002, diciembre 2003.

Talleres del Consorcio Técnico Binacional: Tercer Taller, Monterrey, Nuevo León, México, enero 1999; Cuarto Taller, Saltillo, Coahuila, México, agosto 1999; organizado por Uniones Ganaderas Regionales de Nuevo León, Tamaulipas, Coahuila, Universidades Autónomas de Nuevo León, Tamaulipas, Antonio Narro, Instituto Tecnológico y de Estudios Superiores de Monterrey, CONACyT, INIFAP, SAGAR.

Universidad Tecnológica de Panamá, Cuidad de Panamá, Panamá, mayo 1999, septiembre 2000.

Forest Ecosystem Research and Assessment Group, Queensland Department of Natural Resources, Indooroopilly, Queensland, Australia, June 1999.

Information and Decision Support Group, Resource Sciences and Knowledge, Queensland Department of Natural Resources, Indooroopilly, Queensland, Australia, July 1999.

Robert Wicks Pest Animal Research Centre, Queensland Department of Natural Resources, Toowoomba, Queensland, Australia, July 1999.

Taller del Cuarto Congreso Internacional sobre Manejo de Fauna Silvestre en Amazonía y Latino América, Asunción, Paraguay, octubre 1999, organizado por: Cites de Paraguay, Fundación Moisés Bertoni de Paraguay, Universidad de la Florida de Estados Unidos.

Universidad Autónoma de Baja California, Ensenada, Baja California Norte, México, junio 1999, junio 2003, mayo 2007, mayo 2009.

Universidad Autónoma de Baja California, Mexicali, Baja California, México, febrero 2002, marzo 2004.

Centro de Investigaciones Pesqueras, Ciudad de la Habana, Cuba, marzo 2000, abril 2001.

Universidad Autónoma de Morelos, Cuernavaca, Morelos, México, diciembre 2001.

Universidad Austral de Chile, Puerto Montt, Chile, enero 2002.

Corporación de Investigación Agropecuaria de Colombia (Corpoica), Bogotá, Colombia, marzo 2002, mayo 2002, agosto 2002.

Universidad Autónoma de Tlaxcala, Tlaxcala, México, mayo 2002.

Universidad Nacional de Colombia, Bogotá, Colombia, agosto 2002, diciembre 2003, octubre 2008.

Universidad Juárez del Estado de Durango, Durango, México, octubre 2002, julio 2003.

Instituto de Ciencias del Mar y Limnología, Unidad Académica Mazatlán, UNAM, Mazatlán, Sonora, México, febrero 2003.

Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Chihuahua, México, mayo 2003.

Universidad Nacional Autónoma de México, Ciudad de México, Distrito Federal, México, julio 2003.

Corporación para el Desarrollo Sostenible del Archipiélago de San Andrés (CORALINA), San Andrés, Colombia, agosto 2003, noviembre 2003, mayo 2004, febrero 2005.

Ciudad del Saber. Ciudad de Panamá, Panamá, mayo 2005.

Universidad del Valle, Cali, Colombia, septiembre 2007.

Queensland Alliance for Biosecurity Science and Intelligence, Department of Employment, Economic Development and Innovation, Brisbane, Queensland, Australia, July 2011.

Graduate Students

1. Leroy George, M.S. A simulation model of brown shrimp (Penaeus aztecus Ives) growth, movement, and survival in Galveston Bay, Texas. December, 1981.

2. James Gallagher, M.S. Diet, nutrition, and forage requirements of javelina in south Texas. December, 1981.

3. Galen Green, Ph.D. Evidence and importance of subgrouping behavior in javelina populations in south Texas. May, 1982.

4. Clarence Turner, M.S. The effect of removal of Sigmodon hispidus on microhabitat utilization by Baiomys taylori and Reithrodontomys fulvescens. August, 1982.

5. Steven Rawles, M.S. A stochastic migration-death model of marked white shrimp populations in Moses Lake, Texas. May, 1983.

6. Robert Williams, Ph.D. Integrated management of wintering blackbirds and their economic impact at south Texas feedlots. December, 1983.

7. Susan Fraser, M.S. Demographic analysis of the captive Asian and African elephants in North America. December, 1983.

8. Perry Oldenburg, M.S. Structure of collared peccary herds in south Texas: Spatial and temporal dispersion of herd members. December, 1983.

9. Judith Krauthamer, M.S. A sociobioeconomic model: The Texas inshore shrimp fishery. May, 1984.

10. Paul Ettestad, M.S. Analysis of radiotracking data obtained by triangulation with special reference to ecology of collared peccary herds in south Texas, U.S.A. May, 1984.

11. Eric Hellgren, M.S. The effect of diet and season on selected parameters of the reproductive physiology of the collared peccary (Tayassu tajacu). August, 1984.

12. Robert Lochmiller, Ph.D. Nutritional influences on growth and reproduction and physiological assessment of nutritional status in the collared peccary. December, 1984.

13. Paul Carothers, Ph.D. Simulation analysis and management implications of brown shrimp growth, migration, and mortality for Galveston Bay and adjacent offshore regions. May, 1985.

14. Michael Masser, Ph.D. Effects of ammonia and temperature on bioenergetics of channel catfish (Ictalurus punctatus). May, 1986.

15. Patricia Hannon, M.S. The effect of dietary crude protein on post- weaning growth and sexual maturation of collared peccaries. December, 1986.

16. Cynthia Struzik, M.Agr. Analysis of the federal wildlife inspection program with special emphasis on the port of Buffalo, New York. May, 1987.

17. James Wilber, M.S. Effects of seasonally varying dietary crude protein levels on collared peccary population dynamics - A simulation study. May, 1987.

18. Guillermo Jaramillo, M.Agr. Penaeid shrimp mariculture at the Texas A&M University Mariculture Facilities. December, 1987.

19. Danny Lee, Ph.D. A hierarchical approach to modeling the salmon and steelhead fisheries of the Columbia River Basin. August, 1989.

20. John Whitson, M.S. An environmental simulation of a shrimp mariculture pond. December, 1989.

21. James Gallagher, Ph.D. Fecal indices of nutritional status of white-tailed deer based on near-infrared reflectance. May, 1990.

22. Mohamed El Nady, Ph.D. Marine fisheries and aquaculture ecosystem analysis. December, 1990.

23. Mark Miller, M.S. A simulation model of the response of molting pacific black brant to helicopter disturbance. August, 1991.

24. Eduardo Martinez, M.S. A stochastic model of brown shrimp, Penaeus aztecus Ives, burrowing behavior. December, 1991.

25. Michael Killion, M.S. Small mammal response to red imported fire ant removal in a grassland community. December, 1992.

26. Revin Stoker, M.S. A hierarchical perspective on the ecology of biological invasions: Impact of red imported fire ants on grassland ecosystems. December, 1992.

27. David Ferris, Ph.D. Impact of Solenopsis invicta on small mammal habitat utilization and abundance. August, 1994.

28. Kathy Ferris, M.S. Parental responses of hispid cotton rats (Sigmodon hispidus) to intrusion by red imported fire ants (Solenopsis invicta) into simulated nests. August, 1994.

29. Markus Peterson, Ph.D. Factors limiting population size of the endangered Attwater's prairie chicken. May, 1994.

30. Liz Smith, Ph.D. Water-depth and salinity relationships to vegetation dynamics in a Texas coastal marsh: A simulation approach. August, 1994.

31. Ellen Pedersen, M.S. Impact of the red imported fire ant on newly-hatched northern bobwhite. August, 1994.

32. Wendee Holtcamp, M.S. Patch use under predation hazard: Effects of the red imported fire ant on deer mice foraging behavior. May, 1995.

33. Sandra Marín, M.S. Simulation of population dynamics of the parasite Haematoloechus coloradensis Cort 1915 (Digenea: Haematolochidae) in its 3 host species: Effects of environmental temperature and precipitation. August, 1995.

34. Michael Corson, M.S. Simulation of effects of regional pesticide application on grassland bird assemblages. December 1996.

35. Pablo Lavine-Murcio, Ph.D. An ecological analysis of the herpetofauna of a cloud forest community in the El Cielo Biosphere Reserve, Tamaulipas, Mexico. May 1998.

36. Cole Hawkins, Ph.D. Impact of a subsidized exotic predator on native biota: Effect of house cats (Felis catus) on California birds and rodents. May 1998.

37. Ruby Montoya, Ph.D. Simulation of shrimp, Litopenaeus vannamei, production and nitrogen and phosphorous dynamics in intensive culture systems: Effects of feed nutritional quality, feed physical characteristics, and feeding strategies. December 1998.

38. Arnulfo Moreno-Valdez, Ph.D. Ecological studies of the Mexican long-nosed bat (Leptonycteris nivalis). December 2000.

39. Michael Corson, Ph.D. System Analysis and Simulation of tick-cattle-landscape interactions in south Texas. December 2000.

40. Ellen Pedersen, Ph.D. Effect of sheep grazing and fire on sage grouse populations in southeastern Idaho. May 2001.

41. Selma Glasscock, Ph.D. Analysis of vegetation dynamics, wildlife interactions, and management strategies in a semi-arid rangeland system: The Welder Wildlife Refuge model. May 2001.

42. Terry Bedford, M.S. Red imported fire ant impact on native ants and litter removal in the post oak savannah of central Texas. May 2005.

43. Marcelo Pisani, Ph.D. Pesticide impact on non-target wildlife in irrigated crops: Simulated impact of cholinesterase-inhibiting pesticides on white-winged doves in the lower Rio Grande valley of Texas. December 2005.

44. Karine Gil de Weir, Ph.D. Whooping crane (*Grus americana*) demography and environmental factors in a population growth simulation model. May 2006.

45. Edith González Afanador, Ph.D. Urban influence on diversity of avifauna in the Edwards Plateau of Texas: Effects of property sizes on rural landscape structure. May 2006.

46. Todd Swannack, Ph.D. Modeling aspects of the ecological and evolutionary dynamics of the endangered Houston Toad. May 2007.

47. Michael Parkes, M.S. Residential cattle egret colonies in Texas: Geography, reproductive success and management. May 2007.

48. Jiyeon Kim, M. S. The role of naturally occurring waterholes in determining the distribution of Florida Key deer. May 2008.

49. Catherine Engleman, M.S. Ecotoxicological simulation modeling: the effects of agricultural chemical exposure on burrowing owls wintering in south texas cotton fields. August 2008.

50. Michael Kjelland, Ph.D. The future of the Salton Sea under proposed lower Colorado River Basin water management scenarios. December, 2008.

51. Tulia Defex, Ph.D. Evaluating sustainability of endangered species via simulation: a case study of the Attwater's prairie chicken (*Typpanuchus cupido attwateri*). December, 2008

52. Leann Wilkins, M.S. Modeling an endangered species in an urban landscape: Fountain darter (*Etheostoma fonticola*) survival in the upper San Marcos River, Hays County, Texas. May, 2009.

53. Taylor Salzar, MWS. Bias of using baited infrared cameras to estimate deer abundance. August, 2014.

54. Abraham Woodward, MWS. Seasonal rainfall distribution impacts on antler growth of harvested white-tailed deer (*Odecoilious virginianus*) in southern Texas. December, 2014.

55. Jenna Cantwell, MNRD. Certainty in the endangered species act: A case study of the Edwards Aquifer habitat conservation plan. August, 2014.

56. David Poché, M. S. Phlebotomine sand fly control: Predicting the impact of alternative sand fly control methods, using simulation modelling, on the population dynamics of Phlebotomus argentipes (Diptera: Psychondidae) in Bihar, India. December, 2015.

57. Jennifer Leo, Ph. D. Modelling environmental and habitat effects on young brown shrimp production in Galveston Bay, Texas, USA. May, 2017.

58. Amanda Kocmoud, M.S. Kemp's ridley sea turtle population dynamics in the Gulf of Mexico: Evaluation of post-2010 trends and hypotheses using an age-structured simulation model. August 2018.

59. Alexa Swenson, MWS. Wild free-roaming horses and burros act of 1971. December 2018.

60. Sofía Agudelo, Ph. D. Effects of habitat use by native wildlife on cattle fever tick population dynamics in semi-arid rangelands: Simulation of potential control strategies. December 2019.

61. Ryan Nichole Green, MWS. Currently enrolled.

62. Jeremy Jordan, MWS. Currently enrolled.

63. Miranda Peterson, Ph.D. Currently enrolled.

Publications: Books

Zlotin, R. I., and K. S. Khodashova. 1980. The role of animals in biological cycling of forest-steppe ecosystems. English language edition edited by N. R. French. Translated by W. Lewus and W. E. Grant.

Grant, W. E. 1986. Systems Analysis and Simulation in Wildlife and Fisheries Sciences. Wiley, New York. 338 pp.

Grant, W. E., E. K. Pedersen, and S. L. Marín. 1997. Ecology and Natural Resource Management: Systems Analysis and Simulation. Wiley, New York. 373 pp.

Grant, W. E., S. L. Marín, y E. K. Pedersen. 2001. Ecología y Manejo de Recursos Naturales: Análisis de Sistemas y Simulación. Instituto Interamericano de Cooperación para la Agricultura (IICA). San José, Costa Rica. 340 pg.

Grant, W. E., and T. M. Swannack. 2008. Ecological Modeling: A Common-Sense Approach to Theory and Practice. Blackwell, Oxford, UK. 155 pp.

Publications: Book Chapters

Grant, W. E. 1982. Small Mammals in Shortgrass Prairies. pp. 331-334. In David E. Davis (ed.), Handbook of Census Methods For Terrestrial Vertebrates. CRC Press, Inc. Boca Raton, Florida.

Grant, W. E., E. K. Pedersen, and S. L. Marín. 1999. Analysis and Simulation of Environmental Systems. pp. 24-36. In Y.A. Pykh, D. E. Hyatt, and R.J.M. Lenz (eds.), Environmental Indices: System Analysis Approach. International Conference on Indices of Environment Quality. July 7-11, 1997, St. Petersburg, Russia. Oxford, EOLSS Publishers Co.Ltd.

Grant, W. E., E. K. Pedersen, and S. L. Marín. 2000. Ecological Modelling: Systems Analysis and Simulation. pp. 103-109. In S. E. Jorgensen and F. Muller (eds.), Handbook of Ecosystem Theories and Management. Lewis Publishers, New York.

Musacchio, Laura, William E. Grant, and Tarla Rai Peterson. 2003. Adaptive management of complex socio-environmental systems in the southwestern United States: Examples of urbanizing watersheds in Arizona and Texas. Pp. 121-133. In Guhathakurta, Subhro (ed.), Integrated land use and environmental models: A survey of current applications and research, Springer, New York.

Peterson, Tarla Rai, Ann Kenimer, and William E. Grant. 2004. Using mediated modeling to facilitate collaborative learning among residents of the San Antonio watershed, Texas, U.S.A., pp. 136-163, in Van den Belt, Marjan (ed.), Mediated modeling: a system dynamics approach to environmental consensus building, Island Press, Washington D.C.

Pedersen, Ellen K. and William E. Grant. 2004. Sage grouse populations in Southeastern Idaho, U.S.A.; effect of sheep grazing and fire, pp. 187-204, in Van den Belt, Marjan (ed.), Mediated modeling: a system dynamics approach to environmental consensus building. Island Press, Washington D.C.

Swannack, T. M., and W. E. Grant. 2008. Systems ecology, Vol. 4, pp. 3477-3481, in Jorgensen, S. E. (ed.), Encyclopedia of Ecology, Elsevier, Amsterdam.

Publications: Peer-Reviewed Journal Articles

1. French, N. R., W. E. Grant, W. Grodzinski, and D. M. Swift. 1976. Small mammal energetics in grassland ecosystems. Ecol. Monogr. 46:201-220.

2. Birney, E. C., W. E. Grant, and D. D. Baird. 1976. Importance of vegetative cover to cycles of Microtus populations. Ecology 57:1043-1051.

3. Grant, W. E., N. R. French, and D. M. Swift. 1977. Response of a small mammal community to water and nitrogen treatments in a shortgrass prairie ecosystem. J. Mammal. 58:637-652.

4. Heussner, J. C. and W. E. Grant. 1978. Ecological aspects of urban dog management: A simulation model. Animal Regulation Studies 1:355-374.

5. Blomo, V., K. Stokes, W. Griffin, W. Grant, and J. Nichols. 1978. Bio-economic modeling of the Gulf shrimp fishery: An application to Galveston Bay and adjacent offshore areas. Southern J. of Ag. Econ., 10(1):119-125.

6. Grant, W. E. and W. L. Griffin. 1979. A bioeconomic model of the Gulf of Mexico shrimp fishery. Trans. Am. Fish. Soc. 108:1-13.

7. Grant, W. E. and E. C. Birney. 1979. Small mammal community structure in North American grasslands. J. Mammal. 60:23-36.

8. Grant, W. E. and N. R. French. 1979. A simulation model representing the role of small mammals in grassland ecosystems. J. Internat. Soc. Ecol. Modelling 1:91-117.

9. Grant, W. E. and N. R. French. 1980. Evaluation of the role of small mammals in grassland ecosystems: A modelling approach. Ecol. Modelling 8:15-37.

10. Grant, W. E., N. R. French, and L. J. Folse. 1980. Effects of pocket gopher mounds on plant production in shortgrass prairie ecosystems. Southwest. Nat. 25:215-224.

11. Grant, W. E. and J. F. McBrayer. 1981. Effects of mound formation by pocket gophers (Geomys bursarius) on old-field ecosystems. Pedobiologia 22:21-28.

12. Grant, W. E., K. G. Isakson, and W. L. Griffin. 1981. A general bioeconomic simulation model for annual-crop marine fisheries. Ecol. Modelling 13:195-219.

13. Grant, W. E., W. L. Griffin, and J. P. Warren. 1981. A management model of the northwest African cephalopod fishery. Marine Fish. Rev. 43(11):1-10.

14. Howe, J. G., W. E. Grant, and L. J. Folse. 1982. Effects of grazing by Sigmodon hispidus on the regrowth of annual rye-grass (Lolium perenne). J. Mammal. 63:176-179.

15. Grant, W. E., E. C. Birney, N. R. French, and D. M. Swift. 1982. Structure and productivity of grassland small mammal communities related to grazing-induced changes in vegetative cover. J. Mammal. 63:248-260.

16. Warren, J. P., W. L. Griffin, and W. E. Grant. 1982. Regional fish stock management: A model for northwest Africa. Marine Policy 6:121-130.

17. Blomo, V. J., J. P. Nichols, W. L. Griffin, and W. E. Grant. 1982. Dynamic modeling of a natural resource problem: Eastern Gulf of Mexico shrimp fishery. Am. J. Agric. Econ. 64:475-482.

18. Ryan, V. J. and W. E. Grant. 1982. Effects of water and light on the efficacy of 4-aminopyridine (Avitrol) as a cowbird frightening agent. Texas J. Sci. 34:183-190.

19. Lochmiller, R. L. and W. E. Grant. 1982. Intraspecific aggression results in death of a collared peccary. Zoo Biology 1:161-162.

20. Isakson, K. G., W. E. Grant, and W. L. Griffin. 1982. General bioeconomic fisheries simulation model: A detailed model documentation. J. Internat. Soc. Ecol. Modelling 4:61-85.

21. Lochmiller, R. L. and W. E. Grant. 1983. A sodium bicarbonate-acid powered blow-gun syringe for remote injection of wildlife. J. Wildl. Diseases 19:48-51.

22. George, L. C. and W. E. Grant. 1983. A stochastic simulation model of brown shrimp (Penaeus aztecus Ives) growth, movement, and survival in Galveston Bay, Texas. Ecol. Modelling 19:41-70.

23. Carothers, P. E. and W. E. Grant. 1983. Systems analysis and simulation of the NW African marine upwelling region. Ecol. Modelling 19:73-103.

24. Grant, W. E., S. O. Fraser, and K. G. Isakson. 1984. Effect of vertebrate pesticides on non-target wildlife populations: Evaluation through modelling. Ecol. Modelling 21:85-108.

25. Green, G. E., W. E. Grant, and C. E. Davis. 1984. Variability of observed group sizes within collared peccary herds. J. Wildl. Manage. 48:244-248.

26. Hellgren, E. C., R. L. Lochmiller, and W. E. Grant. 1984. Infection of captive adult collared peccaries, Dicotyles tajacu (Woodburne 1968), with the nematode Ascaris suum (Goeze 1782). Proc. Helminth. Soc. Wash. 51:160-161.

27. Lochmiller, R. L., E. C. Hellgren, and W. E. Grant. 1984. Sex and age characteristics of the pelvic girdle in the collared peccary. J. Wildl. Manage. 48:639-641.

28. Lochmiller, R. L., E. C. Hellgren, R. M. Robinson, and W. E. Grant. 1984. Techniques for collecting blood from collared peccaries (Dicotyles tajacu). J. Wildl. Diseases 20:47-51.

29. Gallagher, J. F., L. W. Varner, and W. E. Grant. 1984. Nutrition of the collared peccary in south Texas. J. Wildl. Manage. 48:749-761.

30. Hellgren, E. C., R. L. Lochmiller, M. W. Thomas, and W. E. Grant. 1984. Cyclopia, congenital limb deformity, and osteomyelitis in the collared peccary (Tayassu tajacu). J. Wildl. Diseases 20:354-357.

31. Lochmiller, R. L., E. C. Hellgren, and W. E. Grant. 1984. Selected aspects of collared peccary (Dicotyles tajacu) reproductive biology in a captive Texas herd. Zoo Biol. 3:145-149.

32. Lochmiller, R. L. and W. E. Grant. 1984. Serum chemistry of the collared peccary. J. Wildl. Diseases 20:134-140.

33. Hellgren, E. C., R. L. Lochmiller, and W. E. Grant. 1984. Demographic, morphologic, and reproductive status of a herd of collared peccaries (Tayassu tajacu) in south Texas. Amer. Midl. Nat. 112:402-407.

34. Lochmiller, R. L., E. C. Hellgren, L. W. Varner, and W. E. Grant. 1984. An electrophoretic characterization of serum proteins of the collared peccary (Tayassu tajacu). Comp. Biochem. Physiol. 79B:569-575.

35. Krauthamer, J. T., W. E. Grant, and W. L.Griffin.1984.Characteristics of the Texas shrimp fleet: 1979-1982. Marine Fish. Rev. 46(2):53-59.

36. Griffin, W. L., W. E. Grant, R. W. Brick, and J. S. Hanson. 1984. A bioeconomic model of shrimp mariculture in Texas, U.S.A. Ecol. Modelling 25:47-68.

37. Hellgren, E. C., R. L. Lochmiller, and W. E. Grant. 1985. Pregnancy diagnosis in the collared peccary by ultrasonic amplitude - depth analysis. J. Wildl. Manage. 49:71-73.

38. Oldenburg, P. W., P. J. Ettestad, W. E. Grant, and E. Davis. 1985. Structure of collared peccary herds in south Texas: Spatial and temporal dispersion of herd members. J. Mammal. 66:764-770.

39. Lochmiller, R. L., L. W. Varner, and W. E. Grant. 1985. Hematology of the collared peccary. J. Wildl. Manage. 49:66-71.

40. Putera, J. A. and W. E. Grant. 1985. Influence of behavioral interactions on spatial segregation of sympatric Sigmodon, Baiomys, and Reithrodontomys populations. J. Mammal. 66:380-384.

41. Gallagher, J. F., R. L. Lochmiller, and W. E. Grant. 1985. Immobilization of collared peccaries with ketamine hydrochloride. J. Wildl. Manage. 49:356-357.

42. Lochmiller, R. L., L. W. Varner, and W. E. Grant. 1985. Metabolic and hormonal responses to dietary restriction in adult female collared peccaries. J. Wildl. Manage. 49:733-741.

43. Green, G. E., W. E. Grant, and E. Davis. 1985. Effects of hunting on javelina in south Texas. Wildl. Soc. Bull. 13:149-153.

44. Oldenburg, P. W., P. J. Ettestad, W. E. Grant, and E. Davis. 1985. Size, overlap, and temporal shifts of collared peccary herd territories in south Texas. J. Mammal. 66:378-380.

45. Cuenco, M. L., R. R. Stickney, and W. E. Grant. 1985. Fish bioenergetics and growth in aquaculture ponds: I. Individual fish model development and parameter estimation. Ecol. Modelling 27:169- 190.

46. Cuenco, M. L., R. R. Stickney, and W. E. Grant. 1985. Fish bioenergetics and growth in aquaculture ponds: II. Effects of interactions among size, temperature, dissolved oxygen, unionized ammonia, and food on growth of individual fish. Ecol. Modelling 27:191-206.

47. Cuenco, M. L., R. R. Stickney, and W. E. Grant. 1985. Fish bioenergetics and growth in aquaculture ponds: III. Effects of intraspecific competition, stocking rate, stocking size, and feeding rate on fish productivity. Ecol. Modelling 28:73-95.

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