

## MICHAEL THOMAS DIXON

Department of Biology  
Angelo State University  
San Angelo, Texas 76909  
michael.dixon@angelo.edu  
325-486-6636

### EDUCATION

- Ph. D. 1994      The University of Texas at Austin, in Zoology.  
Dissertation Title: "Ribosomal RNA as a Phylogenetic Tool: History, Secondary Structure and Application to Parrot Evolution."
- B. A. 1984      Miami University (Oxford, Ohio) in Zoology
- Also attended Miami-Dade Community College (1979-80), Wilmington College (1982), University of Miami (1986-87)
- Honor Societies      Phi Kappa Phi (Academic)  
Beta Beta Beta (Biology)  
Phi Sigma (Biology)  
Sigma Xi (Research)

### PROFESSIONAL EMPLOYMENT

- 2003 – present      Assistant Professor of Biology  
Angelo State University, San Angelo, Texas
- 2006      Course Director, "The Biology of Bats in Big Bend National Park"  
NSF Chautauqua Short Course
- 2000      University College Distinguished Faculty Award  
Texas Wesleyan University, Fort Worth
- 1992 – 2003      Texas Wesleyan University, Fort Worth  
Associate Professor of Biology, 1997 – 2003  
Chair, Department of Biology, 1997 – 2001  
Chair, Faculty Council and Faculty Assembly, 1997 – 1998  
Director, Tropical Biology Program, 1993 – 2001  
Assistant Professor of Biology, 1992 – 1997
- 1990 – 1991      Teacher  
Kirby Hall School, Austin
- 1987 – 1992      Assistant Instructor, Research Assistant, Teaching Assistant  
Department of Zoology  
The University of Texas at Austin
- 1986 – 1987      Instructor, Research Assistant, Teaching Assistant  
Department of Biology  
The University of Miami (Florida)
- 1984 – 1986      Research Assistant, Teaching Assistant  
Department of Zoology  
Miami University (Ohio)

## TEACHING EXPERIENCE

### Angelo State University, San Angelo

Human Biology (lecture & lab)  
Man and The Environment (lecture & lab)

### Texas Wesleyan University, Fort Worth

#### *Biology*

Introductory Biology (lecture & lab)  
Organismal Diversity (lecture & lab)  
Molecular Biology (lecture)  
Evolution and Ecology (lecture & lab)  
Techniques of Field Zoology (lecture & lab)  
Vertebrate Natural History (lecture & lab)  
Introduction to Tropical Biology (lecture & lab)  
Herpetology (lecture & lab)  
Supervised Projects (independent research)  
Introduction to Molecular Techniques (lecture & lab)  
Senior Seminar

#### *Natural Science (non-science majors courses)*

Animal Life (lecture & lab)  
Contemporary Biology (lecture & lab)

#### *Humanities*

The Human Experience  
The Human Prospect

#### *General Studies*

Freshman Seminar

### Kirby Hall School, Austin

Fifth grade science  
High school biology

### Graduate Student Teaching

Cell and Molecular Biology Honors discussion section (UT)  
Ecology, Evolution, and Society discussion section (UT)  
Genetics Laboratory (UT)  
Genetics (lecture & lab) (UM)  
Herpetology (lab) (MU)

Active participant in interdisciplinary teaching circle for the improvement of undergraduate teaching (TWU, 1996-2001)

## PROFESSIONAL ACTIVITIES

### FUNDING

Texas Army National Guard, with R. C. Dowler - \$31,104, 2006  
ASU Technology Development Grant - \$5,700, 2006  
Texas Army National Guard, with L.K. Ammerman - \$2,000, 2006  
ASU Technology Development Grant - \$3,500, 2004  
Sam Taylor Fellowship - \$2,000, 1998/99  
Bass Research Fellowship - \$2,000, 1998  
Texas Parks and Wildlife Wildscape Grant - \$2,000, 1994-95  
Bass Faculty Development Awards - (numerous) \$125 - \$2,000 1993-99  
Carter Equipment Awards - (numerous) total \$40,000, 1992-99

Richardson Faculty Development Award - \$1,300, 1992  
University of Texas Professional Development Award - \$500, 1989  
Avicultural Research and Breeding Center Grant - \$350, 1989  
Miami University Student Research Award - \$300, 1982

## PUBLICATIONS

### Scholarly Articles

- Dixon, M., R. Rodriguez, and L. Ammerman. *In press*. Comparison of two survey methods used for bats along the Lower Canyons of the Rio Grande and in Big Bend National Park. Proceedings of the Sixth Symposium on the Natural Resources of the Chihuahuan Desert.
- Ferguson, A., and M. Dixon. 2007. Natural History Note. *Elaphe guttata emoryi*. Herpetological Review 38(3): 340.
- Ritzi, C., L. Ammerman, M. Dixon and J. Richerson. 2001. Bat ectoparasites from the Trans-Pecos region of Texas, including notes from Big Bend National Park. Journal of Medical Entomology 38(3): 400-404.
- Higginbotham, J., M. Dixon and L. Ammerman. 2000. Yucca provides roost for *Lasiurus xanthinus* (Chiroptera, Vespertilionidae) in Texas. Southwestern Naturalist 45(3): 338-340.
- Higginbotham, J., L. Ammerman and M. Dixon. 1999. First record of *Lasiurus xanthinus* (Chiroptera: Vespertilionidae) in Texas. Southwestern Naturalist 44(3):343-347.
- McGown, L., M. Dixon and L. Ammerman. 1994. Geographic Distribution. *Syrrophus cystignathoides*. Herpetological Review 25(1):32.
- Hillis, D., L. Ammerman, M. Dixon and R. de Sá. 1993. Ribosomal DNA and the phylogeny of frogs. Herpetological Monographs 7:118-131.
- Stepien, C., M. Dixon and D. Hillis. 1993. Evolutionary relationships of the blennioid fish families Clinidae, Labrisomidae, and Chaenopsidae: congruence among DNA sequence and allozyme data. Bulletin of Marine Science 52(1):496-515.
- Dixon, M., and D. Hillis. 1993. Ribosomal RNA secondary structure: compensatory mutations and implications for phylogenetic analysis. Molecular Biology and Evolution 10(1):256-267.
- Hillis, D., and M. Dixon. 1991. Ribosomal DNA: molecular evolution and phylogenetic inference. Quarterly Review of Biology 66:411-453.
- Hillis, D., M. Dixon and A. Jones. 1991. Minimal genetic variation in a morphologically diverse species (Florida Tree Snail, *Liguus fasciatus*). Journal of Heredity 82:282-286.
- Hillis, D., M. Dixon and L. Ammerman. 1991. The relationships of the coelacanth *Latimeria chalumnae*: evidence from sequences of vertebrate 28S ribosomal RNA genes. Pp. 119-130. In: The Biology of *Latimeria chalumnae* and Evolution of Coelacanths. (J. A. Musick, M. N. Bruton, and E. K. Balon, eds.). Kluwer Academic Publishers, Dordrecht. Reprinted from Environmental Biology of Fishes 32:119-130.
- Hillis, D., and M. Dixon. 1989. Vertebrate phylogeny: evidence from 28S ribosomal DNA sequences. Pp. 355-367. In: The Hierarchy of Life: Molecules and Morphology in Phylogenetic Analysis. Proc. Nobel Symp. 70 (B. Fernholm, K. Bremer, and H. Jornvall, eds.). Excerpta Medica, Elsevier Science Publishers, Amsterdam.

### Popular Articles

- Dixon, M. 2000. A New Bat in Texas. Texas Parks and Wildlife February: 11.

Dixon, M. 1997. The Thrill of Discovery. *Bats* 15(2):5.

Dixon, M. 1996. Frequency Fliers. *Texas Parks and Wildlife* February: 48-52.

#### Book Reviews

Dixon, M. 1995. Cats. *Appraisal* 28(x):xx.

Dixon, M. 1995. Biodiversity. *Appraisal* 28(x):xx.

Dixon, M. 1995. Earth Mirth: The Ecology Riddle Book. *Appraisal* 28(1):72.

Dixon, M. 1994. Microbiology: High-School Science Fair Experiments. *Appraisal* 27(4):17.

Dixon, M. 1994. Water Wars. *Appraisal* 27(2&3):8-9.

Dixon, M. 1994. Vultures. *Appraisal* 27(1):36-37.

Dixon, M. 1994. Birdwatching. *Appraisal* 27(1):20-21.

Dixon, M. 1994. Frogs. *Appraisal* 27(1):16-17.

Dixon, M. 1994. Big Birds. *Appraisal* 27(1):8-9.

Dixon, M. 1993. "Extinct" series. *Appraisal* 26(x):xx.

Dixon, M. 1993. "Animal Behavior" series. *Appraisal* 26(x):xx.

Dixon, M. 1992. You Call That A Farm?: Raising Otters, Leeches, Weeds and Other Unusual Things. *Appraisal* 25(1):23.

Dixon, M. 1991. "Sierra Club Wildlife Library" series. *Appraisal* 24(4):102.

Dixon, M. 1991. The Feather Book. *Appraisal* 24(4):44..

Dixon, M. 1991. "Could You Be a" series. *Appraisal* 24(1): 61.

Dixon, M. 1991. An Owl in the House: A Naturalist's Diary. *Appraisal* 24(1): 28-29.

#### **PROFESSIONAL PRESENTATIONS**

Ammerman, L., and M. Dixon. 2008. Monitoring Changes in the Bat Community of the Big Bend Region: Trends Over the Last 40 Years. *Texas Parks and Wildlife 2008 Wildlife Diversity Conference*. Houston, TX.

Webb, L., L. Ammerman, C. Brown, M. Dixon, R. Dowler, G. Guerra, M. McDonough and R. Rodriguez. 2007. Bat Diversity and Activity: A Comparison Among Texas Army National Guard Sites.

Ammerman, L., T. Kunz, N. Hristov, M. McDonough, M. Dixon, and R. Skiles. 2006. Use of infrared thermal imaging to census the endangered Mexican long-nosed bat (*Leptonycteris nivalis*) in Big Bend National Park, Texas. *Southwestern Association of Naturalists, Colima, Mexico*.  
North American Symposium on Bat Research, Sacramento, CA, 2005.

- Rodriguez, R., L. Ammerman, and M. Dixon. 2004. Comparison of two survey methods used for bats along the Lower Canyons of the Rio Grande and in Big Bend National Park. Sixth Symposium on the Natural Resources of the Chihuahuan Desert Region: U. S. and Mexico, Alpine, TX.
- Hammond, S., L. Ammerman, and M. Dixon. 2003. Phylogenetic Relationships of Cockatoos (Order Psittaciformes) to the Other Orders of Birds. Angelo State University Student Academic Showcase.
- Higginbotham, J., A. Matthews, M. Dixon and L. Ammerman. 2002. Roosting Ecology and Seasonal Dynamics of the Pocketed Free-tailed Bat (*Nyctinomops femorosaccus*) in Big Bend National Park, Texas. American Society of Mammalogists, Lake Charles, LA.
- Dixon, M., and L. Ammerman. 2000. Caño Palma: Seven years of experience. Invited speaker, Canadian Organization of Tropical Education and Rainforest Conservation, Toronto, Canada.
- Dixon, M. 2000. Texas Wesleyan in the Tropics. Mitchell Lecture Series, Texas Wesleyan University, Fort Worth, TX.
- Rainey, E., L. Ammerman and M. Dixon. 2000. Overlap and Diversity in the Diets of Frugivorous Bats in the Lowland Tropical Rainforest of Costa Rica. Southwestern Association of Naturalists, Denton, TX.
- Rodriguez, R., L. Ammerman and M. Dixon. 2000. Geographic Variation and Genetic Substructuring of *Myotis californicus* and *Myotis ciliolabrum*. Southwestern Association of Naturalists, Denton, TX.
- Rainey, E., L. Ammerman and M. Dixon. 2000. Overlap and Diversity in the Diets of Frugivorous Bats in the Lowland Rainforest of Costa Rica. Texas Society of Mammalogists, Junction, TX.
- Higginbotham, J., L. Ammerman, M. Dixon and A. Matthews. 1999. Roosting Ecology and Seasonal Dynamics of Free-tailed Bat Species in Big Bend National Park, Texas. Fifth Symposium on Resources of the Chihuahuan Desert Region: U. S. and Mexico, Alpine, TX.
- Matthews, A., J. Higginbotham, L. Ammerman and M. Dixon. 1999. Observations on the Western Yellow Bat (*Lasiurus xanthinus*) in Texas. Fifth Symposium on Resources of the Chihuahuan Desert Region: U. S. and Mexico, Alpine, TX.
- Richey, R., L. Ammerman and M. Dixon. 1999. Determination of Monophyletic Lineages in the Parrot Family Cacatuidae. Society for the Study of Evolution, Madison, WI.
- Ammerman, L., J. Higginbotham and M. Dixon. 1999. Roosting Ecology and Seasonal Population Fluctuations of Free-tailed Bat Species in Big Bend National Park, Texas. Southwestern Association of Naturalists, Monterrey, Mexico.
- Dixon, M., J. Higginbotham and L. Ammerman. 1999. Observations on the Western Yellow Bat (*Lasiurus xanthinus*) in Texas. Southwestern Association of Naturalists, Monterrey, Mexico.
- Higginbotham, J., L. Ammerman and M. Dixon. 1999. Chiropteran Community Structure and Seasonal Activity Patterns in the Chihuahuan Desert, Big Bend National Park, Texas. Southwestern Association of Naturalists, Monterrey, Mexico.
- Richey, R., L. Ammerman and M. Dixon. 1999. Determination of Monophyletic Lineages in the Parrot Family Cacatuidae. Texas Academy of Sciences, Seguin, TX.
- Ammerman, L., J. Higginbotham and M. Dixon. 1999. Roosting Ecology and Seasonal Population Fluctuations of Free-tailed Bat Species in Big Bend National Park, Texas. Texas Academy of Sciences, Seguin, TX.
- Dixon, M., J. Higginbotham and L. Ammerman. 1999. Observations on the Western Yellow Bat (*Lasiurus xanthinus*) in Texas. Texas Academy of Sciences, Seguin, TX.

- Matthews, A., J. Higginbotham, L. Ammerman and M. Dixon. 1999. Observations on the Western Yellow Bat (*Lasiurus xanthinus*) in Texas. Texas Society of Mammalogists, Junction, TX.
- Dixon, M., and J. Higginbotham. 1998. Using the TreeTop Peeper II Video Camera to View Cliff-Dwelling Bat Roosts. North American Symposium on Bat Research, Hot Springs, AR.
- Higginbotham, J., L. Ammerman and M. Dixon. 1998. The Chiropteran Community Structure, Activity Patterns and Seasonal Dynamics within the Desert Lowlands of Big Bend National Park, and Notes on *Lasiurus xanthinus* in Texas. North American Symposium on Bat Research, Hot Springs, AR.
- Foxworth, S., M. Dixon, J. Higginbotham and L. Ammerman. 1998. A Two Year Analysis of the Reproductive Cycles of the Bats of Big Bend National Park. Southwestern Association of Naturalists, Albuquerque, NM.
- Higginbotham, J., L. Ammerman and M. Dixon. 1998. Roosting Ecology, Activity Patterns and Community Structure of Three Species of Free-tailed Bats in Big Bend National Park, Texas. Southwestern Association of Naturalists, Albuquerque, NM.
- Foxworth, S., M. Dixon, J. Higginbotham and L. Ammerman. 1998. The Reproductive Cycle of Ten Common Species of Bats in Big Bend National Park. Texas Academy of Sciences, Tyler, TX.
- Higginbotham, J., L. Ammerman and M. Dixon. 1997. Noteworthy Records of Several Species of Rare Bats in Big Bend National Park, Texas. North American Symposium on Bat Research, Tucson, AZ.
- Dixon, M., S. Foxworth, J. Higginbotham and L. Ammerman. 1997. Evidence of Early Parturition in Several Bat Species in Big Bend National Park. North American Symposium on Bat Research, Tucson, AZ.
- Foxworth, S., M. Dixon, and J. Higginbotham. 1997. The Reproductive Cycle of Ten Common Species of Bat in Big Bend National Park. Beta Beta Beta Regional Meeting, Lake Texoma, OK.  
SF won a Texas Academy of Sciences award for her presentation.
- Myers, M., M. Dixon, J. Higginbotham and L. Ammerman. 1997. The First Record of *Lasiurus xanthinus* (Mammalia:Chiroptera) in Texas. Beta Beta Beta Regional Meeting, Lake Texoma, OK.
- Dixon, M. 1997. Change in Nature: The First Record of the Western Yellow Bat in Texas. University College Day, Texas Wesleyan University, Fort Worth, TX.
- Foxworth, S., M. Dixon, and J. Higginbotham. 1997. Changing Perspectives For a Better Understanding: A Reanalysis of the Reproductive Cycle of Bats in Big Bend National Park. University College Day, Texas Wesleyan University, Fort Worth, TX.  
SF's presentation recognized as "Outstanding Student Presentation".
- Higginbotham, J., L. Ammerman and M. Dixon. 1997. Rare Bats of the Chihuahuan Desert, Big Bend National Park. Texas Society of Mammalogists, Junction, TX.  
JH won the Packard Award for this presentation.
- Dixon, M. 1996. Texas Wesleyan in the Tropics.  
Texas Christian University, Fort Worth, TX.  
Texas Woman's University, Denton, TX.  
Texas Wesleyan University, Fort Worth, TX.
- Higginbotham, J., L. Ammerman and M. Dixon. 1996. Rare Bats of the Chihuahuan Desert, Big Bend National Park. University of Texas at Arlington Graduate Research Symposium, Arlington, TX.
- Dixon, M. 1995. Evolutionary Relationships Within the Order Psittaciformes: Phylogenetic Analysis of Molecular and Morphological Data. American Ornithological Union, Cincinnati, OH.

- Farha, H., M. Dixon and L. Ammerman. 1995. Small-Mammal Survey of the Fort Worth Nature Center, Tarrant County, Texas. Beta Beta Beta Regional Meeting, Lake Texoma, OK.
- Dixon, M. 1995. A Genetic Look at History. Mitchell Lecture Series, Texas Wesleyan University, Fort Worth, TX.
- Dixon, M. 1994. Ribosomal RNA as a Phylogenetic Tool: History, Secondary Structure and Application to Parrot Evolution. Dissertation defense, The University of Texas at Austin, Austin, TX.
- Dixon, M., and L. Ammerman. 1992. A Survey of the Bat Community and an Analysis of the Diets of Bats at Sirena, Corcovado National Park, Costa Rica. Texas Society of Mammalogists, Junction, TX.
- Dixon, M. 1992. Resolving Relationships Using the Polymerase Chain Reaction. Texas Wesleyan University, Fort Worth, TX.
- Dixon, M., and L. Ammerman. 1991. A Survey of the Bat Community of Corcovado National Park, Costa Rica. North American Symposium on Bat Research, Austin, TX.
- Hillis, D., L. Ammerman, M. Dixon and R. de Sá. 1990. Phylogeny of Amphibians Based on Ribosomal DNA Sequences. The Phylogeny of Amphibia Symposium, American Society of Zoologists, San Antonio, TX.
- Dixon, M., and D. Hillis. 1990. Effects of Secondary Structure on the Evolution of Vertebrate 28S rRNA. American Society of Zoologists, San Antonio, TX.
- Hillis, D., and M. Dixon. 1989. Phylogenetic Relationships of Coelacanths Based on Ribosomal DNA Sequence. Evolution and Biology of Coelacanths Symposium, American Society of Ichthyologists and Herpetologists, San Francisco, CA.

**PROFESSIONAL PRESENTATIONS** (continued)

Hillis, D., and M. Dixon. 1988. Phylogeny of Vertebrates: An Analysis of Ribosomal DNA. Nobel Symposium, The Hierarchy of Life, Karlskoga, Sweden.

Dixon, M., and S. Guttman. 1986. The Apparent Absence of Allozyme Selection by Heavy Metals in a Population of the Earthworm *Lumbricus rubellus*. Ohio Academy of Science, Toledo, OH.