*Curriculum vitae*

# Jeffrey N. Mink

## EDUCATION

Ph.D. in Biology, Baylor University, August 2012
M.Sc. in Biology, Southwest Texas State University
B.Sc. in Biomedical Science, College of Veterinary Medicine, Texas A&M University

## TEACHING AND PROFESSIONAL EXPERIENCE

August 2013- Present *Science Chair & Instructional Specialist-Waco HS*

- Chair 17 faculty in science department at Title I high school implementing solutions to improve teacher performance; lead proactive professional learning communities in content area; biology test scores increased by 25% during tenure. Other duties include to prepare, analyze, design curriculum for STAAR and TAKS data interrogation. Proficient in use of Microsoft Office Suite. Upkeep of department supplies, Vernier software, mentoring labs and teachers, facilitating professional development, e.g. conferences, field trips, hiring and interviewing teaching candidates, as well as instruction of sex education.

August 2000- Present *Lecturer- McLennan Community College, Temple College, TVI Community College and Lab Instructor and Coordinator-Texas State University and Baylor University*

- Developed and instructed courses in Vertebrate Histology, Taxonomy of Flowering Plants, Vertebrate Physiology, Comparative Chordate Anatomy, Natural History of the Vertebrates and Ecology
- Full-time faculty member in Biology for majors, non-majors, and Human Anatomy and Physiology students, including lecture and demonstration using prosected human cadavers

February 2004- June 2004 *QA/QC Director- Scientific Lab Division-State of New Mexico*

- Oversee compliance to CLIA lab requirements, Virology, Toxicology, Radiochemistry, Organics and regulations concerning potential select agents of bio or chemical terrorism
- Act on identified deficiencies by implementing corrective action via revision to SOPs

January 1998- Present *Field Biology Research Projects*

- Bat monitoring and bridge roost dynamics (*see* Publications)
- USGS contracted surveyor of mammal populations in various federal lands with Mike Bogan, Paul Cryan & Keith Geluso, Black Bear telemetry work with Hal Black (BYU) in East Tavaputs Plateau of Utah
- Hematology and parasite infection rates of white-winged doves (*see* Publications)
- Wintering ecology of peregrine falcons on South Padre Island Texas (research with Paul Juergens, raptor biologist with The Peregrine Fund, World Center of Birds of Prey)
- Seasonal food habits and dispersal of greater kudu in central Texas (research with Shawn Gray of TPWD)
- Distributional abundance of non-native aquatic macrophytes along Guadalupe river
- Age and growth of red-breasted sunfish and channel catfish in Canyon reservoir

August 1997- August 1998 *Sales Rep., Science Teacher* and *Coach*, Dahill Industries, Pflugerville ISD and Sylvan Learning Center

- Territory sales rep, record holder hill country region, increased previous sales revenue 38%
- Instructed Physics, Chemistry, Biology, and Earth Science
- Student coached in water chemistry won state in Science Olympiad
- Developed innovative geometry program incorporated in Sylvan system
- Organized and coached varsity soccer program

**FIELD AND EXPERIMENTAL RESEARCH PURSUITS**

January 2006 to Present: Vascular Plant Inventory (e.g. Botanical flora of Kerr WMA, Texas. 2010. J. Bot. Res. Inst. Texas 4:497-521). Distributional sampling records and Monitoring with Walter Holmes and Jason Singhurst [– *see* publications]

- Taxonomic treatment, inventory, distributions, noteworthy records and ecology of vascular plants in South America and Texas. Current projects include taxonomy and population genetics of South American *Mikania* (Asteraceae), inventory of vascular flora in McLennan County, *Smilax smallii* life history, Red River County flora, and floral ecology of Caddo Lake, Panhandle and Gulf Coast. [see publications]
- Herbarium curation including collection, identifications, securing loans and specimen mounting work. Current work includes digitization and modernization of modern herbaria organization.

March 2004 to Present:

- Ph.D. research centered on *Tadarida brasiliensis*, Mexican free-tailed bat; demography, and ecology of populations throughout the state.
- Future research will investigate migratory patterns of metapopulations based upon unstable isotopic analysis.
- Mammalian ecology with concentration on southwestern US bats. Previous research completed on this bat, and other bat species, in the Rio Grande valley of New Mexico (see publications).

February 2006- April 2008

- Directed research surveys on small mammals and fire effects in blackland prairies in Texas, collaborating with several agencies (e.g. Texas Forest Service and the Texas Nature Conservancy-[TNC]) including NGOs and land trusts. (Published in American Midland Naturalist, see publications).

January 2004- January 2006: Mammal conservation and management of various species
Assisted in the capture, and placement, of radio-collars on Black bears in the east Tavaputs plateau of Utah with Hal Black and BYU researchers. Den selection, maternal investment and reproductive success were discriminated. Value of sagebrush steppe and ant diet recorded as well as movement implications in black bear conservation and management strategies.

- Research conducted on mammal population abundance and diversity by trapping in National Parks and Monument sites of the western United States with Keith Geluso, Mike Bogan, Ernie Valdez and Paul Cryan. Particular interest focused on previously burned land in Bandelier National Monument in New Mexico and the east and west components of Canyonlands N.P. in Utah. Formal scientific data collection and vouchered curatorial specimens prepared in ongoing investigation of mammalian population census data in public lands by the U.S.G.S. Additional duties included transmitter attachment and range studies of the Mexican long-nosed (*Leptonycteris nivalis*), and lesser long-nosed (*Leptonycteris curasoae*) bats in Hildago County, NM and borderlands with the state of Sonora, Mexico.
- Invited to perform mist-net and mine surveys in the Challis N.F. and BLM lands of central Idaho in determination of abandoned mine occupation and roost use by various bat species (USFS and Idaho Fish & Game).

September 2002 to April 2005: Hematology and blood parasite infection of White-winged Dove
[M.Sc. research - see publications]

- Investigation of hematological effects of various transmitter packages on white-winged doves (*Zenaida asiatica*) and prevalence of the blood parasite *Haemoproteus* spp. on population susceptibility under such treatments. Blood characteristics evaluated as an indicator of physiological stress over time, using white blood cell parameters as an evaluation tool.

October 2000 to 2007: Wintering Ecology of Peregrine Falcons

- Research on the wintering ecology of peregrine falcons (*Falco perergrinus tundrius*) conducted on south Padre Island Texas with Paul Juergens (raptor biologist with Peregrine Fund). This study involved the capture and placement of telemeters on falcons and radio tracking the presence or absence of the birds during the fall, winter, and spring months. Captured birds measured and fitted with a United States Fish & Wildlife (USFW) band. Monitoring performed using ATVs or airplane (Cessna 172 or Cutlass II RG) in the remote regions south of the Mansfield cut on this barrier island.

December 2000 to June 2002: Seasonal Food Habits of the Greater Kudu in Texas

- Ecology study involving identification of plant species in fecal pellets of greater kudu fecal pellets to determine the seasonal diet of this east African antelope using microhistological techniques with Shawn Gray (TPWD). No prior research, in Texas or United States, regarding the food habits of greater kudu; this research was valuable in the evaluation of this browsing species ecology in the United States. This study provided a baseline diet valuable in the ecology of this species in the United States.

March 2001 to March 2002: Home Range Characteristics of Beaver and Nutria

- Research on the home range ecology of beaver and nutria at Spring Lake, a stenothermic reservoir spring fed by the Edward's aquifer. The study involved capture by Conibear traps and outfitting of radio collars on nutria and beaver. Telemetry on foot and canoe monitored individual movements to characterize any sympatric consequences of nutria-beaver association.

January 1999 to August 2004: Herpetological survey work for USFW, USGS and various Conservation permittees.

- General surveys in Utah (Arches and Canyonlands NP), New Mexico (Animas and Peloncillo Mountains; Bandelier NM) and Texas (statewide); specific ecology work on various species including, but not limited to *Rana chiricahuensis*, *R. yavapaiensis*, *Cnemidophorus* spp. (nine sympatric species), *Sceloporus slevini*, *Bufo houstonensis*, *Trachemys gaigae*, *Pseudemys gorzugi*. Work included live capture of lotic and lentic turtle trapping, pitfall trap arrays, and use of drift fences.
- Identification skills and sight ID all species of reptiles and amphibians in the southwestern U.S.

January 1998 to January 2000: Age and Growth Study on Red-breasted Sunfish and Channel Catfish

- Nomogragh method on ctenoid scales, otolith, and pectoral spines used to determine growth rates and age class structure for these fish species in Canyon reservoir, Comal county Texas. Collections performed by electrofishing and gill netting. The study involved the ability to operate electroshocking rig, otolith removal, lab prep of acid solutions, and operation of van Oosten projector.

## EXPERT LEVEL COMPETENCIES & TECHNICAL SKILLS

- Physiology, Anatomy & Vertebrate histology
- Taxonomy of Vascular Plants / Medical Botany
- Natural History of Vertebrates / Comparative Chordate Anatomy
- Phylogenetics / Ecology / Evolution / Avian Epidemiology
- Aseptic technique / Microbiology / Parasitology / Hematology / Blood drawing & differentials
- Biochemistry / HPLC / GC / Mass Spectroscopy / Gel Electrophoresis
- Data analysis / Field sampling methods / Herbarium Curation
- Herpetology / Ichthyology / Mammalogy / Ornithology
- R / SAS / SPSS / MINITAB
- Technical Communication / Telemetry / G.I.S.

## GRANTS, AWARDS AND CERTIFICATIONS

Raising the Power of Education Grant- Waco ISD Education Foundation $5,985
Folmar and Gardner Research Grant – Baylor University c. $4,000,
Research grant for Mexican free-tailed bat research and associated field expense

Share with Wildlife Grant, Co-PI- New Mexico Game and Fish Dept. $3,000
Research grant for bat research in Rio Grande valley of New Mexico and vehicle expense
Lifetime Secondary Biology Teaching Certification – Texas Education Agency
Certified in Instream Flow Incremental Methodology – USGS
βeta βeta βeta, National Biological Honor Society – Treasurer of Texas State Chapter

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**PROFESSIONAL AND SERVICE ACTIVITIES**

Society Member (Past and Present): *American Ornithologists' Union, Texas Society of Mammalogists, East Texas Herpetological Society, West Texas Herpetological Society, Raptor Research Foundation, Audubon, Missouri Botanical Garden*

Volunteer Service: 2005-Present: Lead Christmas counts and other censuses for bird identification with the Central Texas Audubon Society and Corp of Engineers. 2005-Present U.I.L. state track meet official. 2003-Present: Herpetological or bat presentations given to various audiences from public schools to private groups. 2009-2012: city of Waco board member of Animal Welfare Advisory Board. 2004-2006 Assisted in the capture and placement of radio-collars on Black bears in the east Tavaputs plateau of Utah with Hal Black and BYU researchers.

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**PUBLICATIONS:**

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2020. *Eulophia graminea* (Orchidaceae) naturalized in Texas. Phytoneuron 2020-22: 1–5.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2019. *Potentilla indica* (Rosaceae) new to Utah, with discussion of dispersal by the American Robin. Phytoneuron 2019-6: 1–4.

Mink, J.N., W.C. Holmes, J.R. Singhurst and A.T. Kuehn 2018. *Arctium minus* (Asteraceae): historical review, ecological consequences, and addition to Texas flora. J. Bot. Res. Inst. Texas 12:713-720.

Singhurst, J.R., J.N. Mink, D. Verser, K. Emde, L. Shen and W.C. Holmes. 2018. The vascular flora and plant communities of Lawther - Deer Park Prairie, Harris County, Texas, U.S.A. J. Bot. Res. Inst. Texas 12:721-733.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2018. *Ranunculus parviflorus* (Ranunculaceae) naturalized in Kansas. Phytoneuron 2018-22: 1–3.

Mink, J.N., T. Dickschat, J.R. Singhurst, and W.C. Holmes. 2017. *Carica papaya* (Caricaceae) as a probable waif in central Texas. Phytoneuron 2017-53: 1–5.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2017. *Cupaniopsis anacardiodes* (Sapindaceae) naturalized in Texas. Phytoneuron 2017-9: 1-5.

Mink, J.N., W.C. Holmes, and J.R. Singhurst. 2016. *Casuarina equisetifolia* (Casuarinaceae) naturalized in Texas and comments on ecological implications for the Texas coast. Phytoneuron 2016-55: 1–8.

Singhurst, J.R., W.C. Holmes, and J.N. Mink. 2016. *Asparagus aethiopicus* (Liliaceae) naturalized in Texas. Phytoneuron 2016-42:1–3.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2016. *Sansevieria hyacinthoides* (Agavaceae) naturalized in Texas. Phytoneuron 2016-24: 1–3.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2016. *Cyperus haspan* (Cyperaceae) new to Oklahoma. Phytoneuron 2016-14:1–3.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2015. Discovery of *Ajuga chamaepitys* (Lamiaceae) naturalized in Texas. Phytoneuron 2015-52:1-4.

Mink, J.N., J.R. Singhurst and W.C. Holmes. 2015. *Jasminum laurifolium* (Oleaceae) adventive in Texas, with observations on alien plant invasions and distribution on the Texas Gulf Coast by passerines. Phytoneuron 2015-36: 1–5.

Singhurst, J.R., N. Shackelford, W. Newman, J.N. Mink, and W.C. Holmes. 2014. The ecology and abundance of *Hymenoxys texana* (Asteraceae). Phytoneuron 19: 1–19.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2013. *Senna bicapsularis* (Fabaceae) adventive in the USA (Texas). Phytoneuron 96:1–3.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2013. *Acer grandidentatum* (Sapindaceae) in Montana. Phytoneuron 87:1–4.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2013. A short chronicle of *Euphorbia commutata* (Euphorbiaceae) in Texas. Phytoneuron 60:1-6.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2013. *Persicaria capitata* (Polygonaceae) naturalized in Texas. Phytoneuron 51:1-5.

Hannick, V.C., J.N. Mink, J.R. Singhurst, and W.C. Holmes. 2013. Annotated checklist of the vascular flora of McLennan County, Texas. Phytoneuron 29:1-37.

Mink, J.N., J.R. Singhurst and W.C. Holmes. 2012. A new species of *Hymenoxys* (Asteraceae, Helenieae, Tetraneuridinae) from Texas, U.S.A. Novon 22(1):56-59.

Singhurst, J.R., S. Sander, J.N. Mink, and W.C. Holmes. 2012. *Salvia virgata* (Lamiaceae) naturalized in Texas. Phytoneuron 86:1-3.

Holmes, W.C., J.R. Singhurst, J.N. Mink, and M. White. 2012. *Selenia aurea* Nuttall (Brassicaceae) in Texas: a review. Phytoneuron 62:1-8.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2012. *Pinus clausa* (Pinaceae) adventive in Texas. Phytoneuron 24:1-5.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2012. *Sporobolus junceus* (Poaceae) in Oklahoma. Phytoneuron 12:1-4.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2012. Two vascular plant species new to Oklahoma. Phytoneuron 5:1-2.

Singhurst, J.R., J.N. Mink, W.C. Holmes, and G.L. Nesom. 2012. *Bellardia trixago* (Orobanchaceae): 40 years of range expansion in Texas and a first report from Louisiana. Phytoneuron 4:1-4.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2011. Discovery of *Spiraea hypericifolia* (Rosaceae) naturalized in Texas. Phytoneuron 63:1-2.

Mink, J.N., J.R. Singhurst, M. White, and W.C. Holmes. 2011. *Centaurium tenuiflorum* (Gentianaceae) new to Oklahoma and notes on *Centaurium texense* in Mexico. Phytoneuron 49:1-3.

Kirchner, B.N., N. Green, D. Sargent, and J.N. Mink. 2011. Indirect effects of fire on small mammals

and vegetation on blackland prairie. American Midland Naturalist 166:112-125.

Holmes, W.C., J.R. Singhurst, and J.N. Mink. 2011. A commentary on *Cheilanthes lanosa* (Pteridaceae) in Texas. Phytoneuron 34:1-5.

Singhurst, J.R., M. White, J.N. Mink, and W.C. Holmes. 2011. *Castilleja coccinea* (Orobanchaceae): New to Texas. Phytoneuron 32:1-3.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2011. Remarks on *Equisetum arvense* (Equisetaceae) in Texas. Phytoneuron 21:1-3.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2011. *Epilobium leptophyllum* (Onagraceae) in the Texas flora. Phytoneuron 17:1-3.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2011. *Dryopteris celsa* (Dryopteridaceae) and *E.J. Palmer 29404*: Solution of a Texas mystery. Phytoneuron 11: 1–8.

Holmes, W.C., J.R. Singhurst and J.N. Mink. 2011. *Heuchera americana* (Saxifragaceae) in Texas. Phytoneuron 6:1-4.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2010. *Dryopteris marginalis* (Dryopteridaceae): new to Texas. Phytoneuron 53:1-6.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2010. New and noteworthy plants for Texas. Phytologia 92:249-255.

Mink, J.N., J.R. Singhurst, and W.C. Holmes. 2010. *Penstemon oklahomensis* (Scrophulariaceae) new to Texas. J. Bot. Res. Inst. Texas 4:471-472.

Singhurst, J., L.L. Sanchez, J.N. Mink, B. Armstrong, D. Frels, Jr., and W.C. Holmes. 2010. The vascular flora of Kerr wildlife management area, Kerr county, Texas. J. Bot. Res. Inst. Texas 4:497-521.

Geluso, K. and J.N. Mink. 2009. Use of bridges by bats (Mammalia: Chiroptera) in the Rio Grande Valley, New Mexico. The Southwestern Naturalist 54:421-429.

Small, M.F., J.T. Baccus, J. N. Mink and J.A. Roberson. 2005. Hematological responses in captive white-winged doves (*Zenaida asiatica*) induced by various radiotransmitter attachments. J. of Wildlife Disease 41:387-394.

**PUBLICATIONS IN COMPILATION OR EDITORIAL REVIEW:**

Mink, J.N., J.R. Singhurst and W.C. Holmes. 2020. Scrophulariaceae: select species in Texas *TBD*.

Singhurst, J.R., J.N. Mink, and W.C. Holmes. 2020. Hamamelidaceae status in east Texas. *TBD*.

Holmes, W.C., and J.N. Mink. 2021. *Mikania* of Paraná, Brazil. Phytologia *TBD*.