



2021 Presentation and Publication Report





At East Foundation, our cattle operation intersects with research opportunities in a unique way. We advance land stewardship and all things related, including wildlife conservation, rangeland health, and ranch productivity. Students that participate in research on our lands become future scientists and managers who are connected to the land.

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Selected Presentations

Texas Chapter of The Wildlife Society, Virtual, 2021

Dykes, J.L., R.W. DeYoung, T.E. Fulbright, D.G. Hewitt, C.A. DeYoung, J.A. Ortega-S., A.M. Foley, and **T.A. Campbell**. Heat Induced Behavioral Adaptations in a Wild Ruminant and the Potential for Competition with Cattle.

Edwards, J.T., **A. Montalvo**, A.D. Ritzell, Z.J. Pearson, **D.A. Woodard**, L.A. Brennan, and F. Hernández. A Practical and Efficient Helicopter Survey Technique to Estimate Bobwhite Abundance on Texas Rangelands – 10 Years Later.

Foley, A.M., R.W. DeYoung, **L.R. Schofield**, and **T.A. Campbell**. Helicopter Surveys for White-tailed Deer: Number of Detections Matter.

Granger, M., C.D. Hilton, S.E. Henke, H.L. Perotto-Baldivieso, and **T.A. Campbell**. Reproductive Capabilities of Nilgai in South Texas.

Granger, M., H.L. Perotto-Baldivieso, C.D. Hilton, S.E. Henke, and **T.A. Campbell**. Habitat Utilization of Nilgai During the Winter in South Texas.

Herschberger, J.E., S. Rainey, F. Hernández, K.G. Stewart, and **A. Montalvo**. Exploring a Plant-diversity Hypothesis to Explain a Latitudinal Gradient in Eyeworm Prevalence in Northern Bobwhite in Texas.

Kiel, C. Seasonal Weather Effects on Avian Productivity in South Texas.

Lombardi, J.V., H.L. Perotto-Baldivieso, M.E. Tewes, **M. Sergejev**, **J.P. Leonard**, **A.M. Veals**, **L.R. Schofield**, and J.H. Young, Jr. Are All Large Patches Created Equal? Landscape Structure of Woody Communities to Inform Ocelot Recovery and Road Mitigation in Texas.

Rankins, S.T., R.W. DeYoung, A.M. Foley, J.A. Ortega-S., T.E. Fulbright, D.G. Hewitt, **L.R. Schofield**, and **T.A. Campbell**. Nutritionally Mediated Size Differences in White-tailed Deer Morphology in the Coaster Sand Sheet Ecoregion of Texas.

Reeves, A., D.L. Miller, W.F. Swanson, C.D. Hilton, J.V. Lombardi, M.E. Tewes, **T.A. Campbell**, and **L.R. Schofield**. Assisted Reproductive Techniques in Free-ranging Ocelot and Bobcat Populations.

Robinson, P.S., D.R. Davis, and R.J. Kline. Development of an Environmental DNA Assay to Detect the State Threatened Black-spotted Newt.

Schrader, E., Z.M. Wardle, J.V. Lombardi, M.E. Tewes, and **L.R. Schofield**. Frequency of Use of Irrigation Canal Bridges by Ocelots, Bobcats, and Coyotes.

Sergejev, M., M.E. Tewes, J.V. Lombardi, and **T.A. Campbell**. Habitat Selection of Ocelots Using LiDAR Derived Canopy Metrics.

Slifka, D., L.A. Brennan, A.A. Conkey, **T.A. Campbell**, J.O. Huerta, and T.N. Housler. Verdin Nesting Ecology in South Texas.

Slifka, D., L.A. Brennan, A.A. Conkey, F. Hernández, H.L. Perotto-Baldivieso, **T.A. Campbell**, J.O. Huerta, and T.N. Housler. Population Trends of Land Birds on East Foundation Ranches: An Analysis of Ten Years of Data.

Thornley, M. A Resident Raptor: A Review and Empirical Study of the White-tailed Hawk in Texas.

Indicates **East Foundation Graduate Student** and **East Foundation Employee**.

Veals, A.M., J.D. Holbrook, M.E. Tewes, **T.A. Campbell**, and J.H. Young, Jr. Long-term Multi-scale Habitat Selection of an Endangered Carnivore: Ocelots in South Texas (1982-2017).

Woodard, D.A., L.A. Brennan, F. Hernández, H.L. Perotto-Baldivieso, and **R.N. Wilkins**. Implementing and Evaluating a Sustainable Bobwhite Harvest Prescription.

Zerlin, R., J. Elissetche, D.B. Wester, and S. Rideout-Hanzak. Effects of Prescribed Burning on Butterfly Populations in Coastal South Texas.

Society for Range Management, Virtual, 2021

Avila-Sanchez, J.S., **V.L. Haynes**, S. Rideout-Hanzak, D.B. Wester, J.A. Ortega-S., and **T.A. Campbell**. Gulf Cordgrass Community Vegetation Response to a 3-year Fire Return Interval of Winter and Summer Prescribed Burning.

Pearson, M., **D.A. Woodard**, L.A. Brennan, D.B. Wester, and **A. Montalvo**. The Effect of Brush Canopy Coverage on the Trap Site Success for Northern Bobwhites.

Texas Society of Mammalogists, Virtual, 2021

Reeves, A., D.L. Miller, W.F. Swanson, C.D. Hilton, J.V. Lombardi, M.E. Tewes, **T.A. Campbell**, and **L.R. Schofield**. Assisted Reproductive Techniques in Free-ranging Ocelot (*Leopardus pardalis*) and Bobcat (*Lynx rufus*) Populations.

Sergeyev, M., M.E. Tewes, J.V. Lombardi, and **T.A. Campbell**. Habitat Selection of Ocelots Using LiDAR Derived Canopy Metrics.

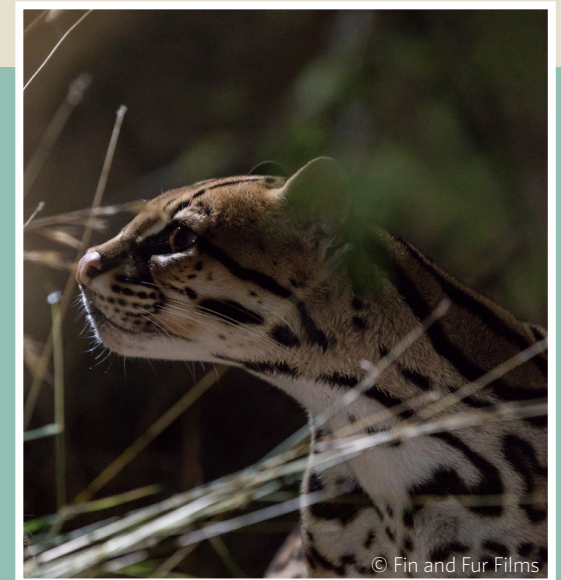
Veals, A.M., J.D. Holbrook, M.E. Tewes, **T.A. Campbell**, and J.H. Young, Jr. Long-term Multi-scale Habitat Selection of an Endangered Carnivore: Ocelots in South Texas (1982-2017).

Southeast Deer Study Group, Virtual, 2021

Rankins, S. Energy Content of Browse: A Regional Driver of White-tailed Deer Size.

Rankins, S. Regional Copper Deficiencies of White-tailed Deer and Other Mineral Abnormalities.

Less than 80 recorded ocelots live in the United States and most of these live on private ranches in South Texas. Together with our research partners, East Foundation collects data on ocelot population size, survival and mortality, movements and activity, prey abundance and food habits, habitat use, and competition with other carnivores to help solidify recovery strategies.



Publications

Refereed Journal Articles

Baumgardt, J.A., M.L. Morrison, L.A. Brennan, **H.T. Davis**, **R.R. Fern**, J.M. Szewczak, and **T.A. Campbell**. 2022. Monitoring Occupancy of Bats with Acoustic Data: Power and Sample Size Recommendations. *Journal of Mammalogy* 103: *in press*. (East Foundation Manuscript 031)

Baumgardt, J.A., M.L. Morrison, L.A. Brennan, **M. Thornley**, and **T.A. Campbell**. 2021. Variation in Herpetofauna Detection Probabilities: Implications for Study Design. *Environmental Monitoring and Assessment* 193:658. <https://doi.org/10.1007/s10661-021-09424-0>. (East Foundation Manuscript 061)

Delgado-Acevedo, J., A. Zamorano, R.W. DeYoung, and **T.A. Campbell**. 2021. Genetic Population Structure of Wild Pigs in Southern Texas. *Animals* 11:168. <https://doi.org/10.3390/ani11010168>.

French, J.T., N.J. Silvy, and J.M. Tomeček. 2022. Divergent Predator Activity Muddies the Dynamic Landscape of Fear. *Ecosphere* 13: *in press*. (East Foundation Manuscript 048)

Fulbright, T.E., **D.J. Drabek**, J.A. Ortega-S., **S.L. Hines**, **R. Saenz, III**, **T.A. Campbell**, D.G. Hewitt, and D.B. Wester. 2021. Forb Standing Crop Response to Grazing and Precipitation. *Rangeland Ecology and Management* 79:175–185. <https://doi.org/10.1016/j.rama.2021.08.007>. (East Foundation Manuscript 059)

Galán, A.P., S. Hamer, H. Folmar, **T.A. Campbell**, J.E. Light. 2022. Baseline Biodiversity Assessment of South Texas Small Mammals and Host Associated Hard Ticks with No Detection of Selected Tick-borne Pathogens. *Western North American Naturalist* 82: *in press*. (East Foundation Manuscript 066)

Gaskamp, J.S., K.L. Gee, **T.A. Campbell**, N.J. Silvy, and S.L. Webb. 2021. Effectiveness and Efficiency of Corral Traps, Drop Nets and Suspended Traps for Capturing Wild Pigs (*Sus scrofa*). *Animals* 11:1565. <https://doi.org/10.3390/ani11061565>.

Hardin, F.O., S. Leivers, J. K. Grace, Z. Hancock, **T. Campbell**, B. Pierce, and M.L. Morrison. 2021. Secondhand Homes: The Multilayered Influence of Woodpeckers as Ecosystem Engineers. *Ecology and Evolution*. 00, 1–15. <https://doi.org/10.1002/ece3.7932>. (East Foundation Manuscript 056)

Hines, S.L., T.E. Fulbright, J.A. Ortega-S., S.L. Webb, D.G. Hewitt, and T.W. Boutton. 2021. Compatibility of Dual Enterprises for Cattle and Deer in North America: A Quantitative Review. *Rangeland Ecology and Management* 74:21–31. (East Foundation Manuscript 043)

Hines, S.L., T.E. Fulbright, J.A. Ortega-S., D.B. Wester, D.G. Hewitt, T.W. Boutton, and **T.A. Campbell**. 2022. Impacts of Large Herbivores, Abiotic Factors, and Site Production on Plant Species Richness in a Semiarid Grassland. *Journal of Arid Environments* 199: *in press*. (East Foundation Manuscript 030)

Huerta, J.O., **D.E. Slifka**, and S.E. Henke. 2021. Field Observation of Texas Horned Lizard, *Phrynosoma cornutum* (Harlan, 1825), Blood-squirting Behaviour Elicited by a Passing Vehicle. *Herpetology Notes* 14:383–384. (East Foundation Manuscript 051)

Huerta, J.O., **D.E. Slifka**, S.E. Henke, and C.B. Eversole. 2021. American Alligator. *Herpetological Review* 52:82. (East Foundation Manuscript 060)

Kramm, M., IV, M. Kramm, III, T.L. Johnson, R.R. Lopez, and J. Uzquiano. 2022. Ivermectin Use in South Texas, El Sauz Ranch. *Texas A&M AgriLife Extension Publication: in press*. (East Foundation Manuscript 075)

Lombardi, J.V., H.L. Perotto-Baldivieso, M. Sergeyev, **A.M. Veals**, **L.R. Schofield**, J.H. Young, Jr., and M.E. Tewes. 2021. Landscape Structure of Woody Cover Patches for Endangered Ocelots in Southern Texas. *Remote Sensing* 13:4001. <https://doi.org/10.3390/rs13194001>. (East Foundation Manuscript 067)

Montalvo, A., L.A. Brennan, M.L. Morrison, E.D. Grahmann, and A.N. Tri. 2022. Distance Sampling Survey Effort to Improve Density Estimates for Northern Bobwhites. *Wildlife Society Bulletin* 46: *in press*. (East Foundation Manuscript 065)

Montalvo, A., L.A. Brennan, M.L. Morrison, E.D. Grahmann, and A.N. Tri. 2022. The Efficacy of Video Cameras to Account for Northern Bobwhites Flushed, but Undetected During Aerial Surveys. *National Quail Symposium Proceedings* 9: *in press*. (East Foundation Manuscript 071)

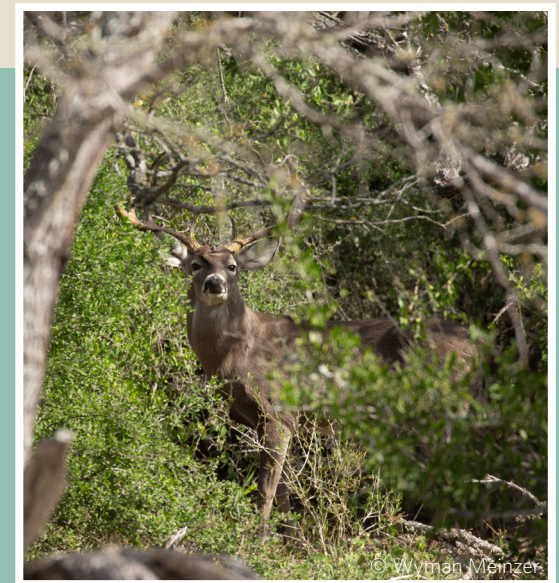
Pistone, J.P., J.E. Light, **T.A. Campbell**, T.A. Catanach, and G. Voelker. 2021. Restricted Geographic Sampling Yields Low Parasitism Rates but Surprisingly Diverse Host Associations in Avian Lice (Insecta: Phthiraptera) from South Texas. *Diversity* 13:430. <https://doi.org/10.3390/d13090430>. (East Foundation Manuscript 019)

Rice, A., M.T. Nadler, I.T. Grosner, M. Gerverni, L. Parr, M.L. Morrison, and **A. Montalvo**. 2022. First Photographic Record of Albinism in *Baiomys taylori* (Rodentia: Cricetidae). *Mammalia* 86: *in press*. (East Foundation Manuscript 069)

Woodard, D.A., L.A. Brennan, F. Hernández, H.L. Perotto-Baldivieso, and R.N. Wilkins. 2022. Spatial and Temporal Analyses of Northern Bobwhite Hunting Dynamics. *National Quail Symposium Proceedings* 9: *in press*. (East Foundation Manuscript 072)

Woodard, D.A., L.A. Brennan, F. Hernández, H.L. Perotto-Baldivieso, **R.N. Wilkins** and **A. Montalvo**. 2022. Evaluating the Harvest Rate Recommendation for Northern Bobwhites in South Texas. *National Quail Symposium Proceedings* 9: *in press*. (East Foundation Manuscript 073)

White-tailed deer are an important component of rangelands and a major economic resource in Texas. Billions of dollars are spent annually on white-tailed deer management and hunting. East Foundation's ranches are home to abundant and healthy deer populations that are not influenced by nutritional supplementation, hunting, or other common management practices. As such, deer herds on Foundation lands reflect a natural state, largely free of human involvement. Our lands are the ideal laboratory to answer questions relating to white-tailed deer populations. Outcomes from these studies often pertain to the region, the state, and in many cases the entire nation.





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