SOUTH TEXAS WILDLIFE

A publication of the Caesar Kleberg Wildlife Research Institute
at Texas A&M University-Kingsville

Winter 2020–2021
Volume 24, No. 4

Ocelot Mother with Kitten © Fin and Fur Films

AMERICAN OCELOT UNVEILS OCELOT CRYPTO-BIOLOGY

by Michael Tewes

The recently released documentary, *American Ocelot*, peeks into the early mother-kitten relationship using amazing natural recordings. This film provides a glimpse of early kitten life by unveiling the hidden "crypto-biology" seldom discovered by biologists.

Ocelots setup their den sites within the densest brush imaginable. Their ability to navigate through a wall of thorny shrubs helps separate their kittens from bobcats and coyotes, which are reluctant to enter the ocelot's fortress. And, it is even harder for a filmmaker to set cameras.

Additionally, ocelots are active mostly at night and exhibit shy behavior, two attributes that further challenge filming mother-kitten interactions. However, director Ben Masters and producer Katy Baldock of "Fin and Fur Films" achieved success by using patience and persistence, and an even larger dose of skill.

To document a mother-young ocelot bond in their natal home is a spectacular cinematographic achievement. And, it was done without disturbing the den site. Cameras were intentionally set at a distance from the known den to avoid disturbance, yet record the early exploratory movements as the mother and her young female kitten expanded their universe of familiarity within the brush.

Kittens are extremely vulnerable to many factors. Born altricial with their eyes closed, kittens are totally dependent on their mother for food, warmth, and protection. A couple of weeks after birth, their eyes open, but simple movements and coordination must still develop. Any predator or enemy—including coyotes, bobcats, and great-horned owls—could quickly kill the kittens if the mother left them exposed.

A long journey of learning for the kittens is about to begin. If the mother lacks the skills and experience to be a good teacher, then the kittens will have little chance to survive, much less excel in meeting

Editor's Note: Dr. Michael Tewes is the Frank Daniel Yturria Endowed Chair for Wild Cat Studies and research scientist at the Caesar Kleberg Wildlife Research Institute and Regents Professor at Texas A&M University-Kingsville.

This Issue

the upcoming environmental challenges. Young ocelots must master complex hunting and social skills to thrive as an independent adult in a seasonally changing world.

Fundamental to success is the level of mother's experience used to identify a valuable territory, and to determine if it can be effectively exploited and successfully defended at the same time. The mother must recognize a home range that is large enough to have a healthy amount of the essential elements needed to successfully raise her young.

The mother ocelot would prefer an area with little coyote scent and thereby few coyotes, multiple quality den sites in the densest cover to move her young between, plenty of escape cover, and perhaps most important, a high abundance of rabbits and rodents. The easier the hunting, the more time she can spend teaching her young.

© Ben Masters

Overall, kittens are lighter in color than mature ocelots. Here, we see a rare glimpse of a kitten's gorgeous white belly, which contrasts dramatically with its head and back, as it plays with an overhead branch.

© Katy Baldock

Fin and Fur Films cameraman Ben Masters following CKWRI researchers Dr. Michael Tewes and Dr. Clayton Hilton into the dense thornshrub in search of an ocelot den site to set up a monitoring station.

One problem is other mother ocelots are searching for the same high quality territory. Consequently, the mother must also have the experience to recognize a territory small enough that she can travel over frequently to spread her scent designating ownership. This important act was frequently shown in the assembled camera footage of ocelot behavior. She must know how to defend her territory from other intruding mother ocelots willing to assert claim for a prime territory. Thus, the success with passing her genetics to future generations depends upon having a valuable territory to raise her young.

The kitten must be near the teacher to watch and learn the important life lessons. Interestingly, the mother would often pause, listen, and look to assess the safety of the area she is about to enter with her young. This reduces the chance of the kitten stumbling into a rattlesnake or bobcat.

For young ocelots to be successful, they must learn to navigate a complex social world of enemies and competitors including bobcats and other ocelots. Consequently, ocelots often compete intensively for good quality habitat. Our past research has documented at least three times where one ocelot has killed another. If the loser survives, it is often forced to use marginal or poor quality home ranges where reproduction often fails, and mortality is high.

Finally, I intend to use the same successful approach used for ocelots to illuminate the natal ecology of other wild cat species. It will provide valuable information to aid in recovery efforts without disturbing an endangered species. We will only conserve something if we know about it. The documentary, *American Ocelot*, has produced a spectacular visual legacy that will inspire future ocelot recovery in the United States for years to come. ~

By The Numbers

15.4 average weight (range 8.8–22) in pounds of the American badger found in Texas (The Mammals of Texas, 7th Edition, D.J. Schmidly and R.D. Bradley, 1994, 2004, 2016, University of Texas Press)

4.5–6 typical length in inches of an adult mesquite lizard, (A Field Guide to Texas Reptiles and Amphibians, R.D. Bartlett and P.P. Bartlett, 1999, Gulf Publishing Co.)

CKWRI NEWS

New Endowment Established

Friends of **Jim** and **Alinda Wikert** recently created a new endowment in their honor—***The James and Alinda Wikert Endowment for Quail Research***. Jim and Alinda have been supporters of the CKWRI for almost two decades. Originally from the Dallas area, Jim first became involved as a lessee on the King Ranch. He became close friends with Tio Kleberg and Fred Bryant over the years, having made several trips together to Alaska for fishing and bear hunting. Jim is an experienced aviator who can fly anything with wings or propellers. Both

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avid golfers, Jim has donated his airplane for four charitable golf trips to Scotland (twice), Bandon Dunes, Oregon, and Pinehurst, North Carolina. These golf outings have benefited the CKWRI in immeasurable ways. Alinda is an avid supporter of many Dallas charities focusing on medical research, the Perot Museum of Nature and Science, and the Frontiers of Flight Museum. We are thankful for this new endowment that will help fund our research activities at the CKWRI.

Researchers Recognized

We are pleased to announce that three out of the seven publication awards given by the Texas Section of the Society for Range Management during the society's business meeting on December 7, 2020 were to CKWRI researchers.

Keith Pawelek, associate director of *Texas Native Seeds*, won first place in the popular publication category for *Land Disturbance: Problem or Opportunity?* This article was published during 2019 in the Texas Wildlife magazine.

First place in the technical publication category was awarded to **Drs. Timothy Fulbright**, **Fidel Hernández**, **Leonard Brennan**, and **David Wester**, and CKWRI graduate student **Holly Kline**, **Eric Grahmann** (El Coyote Ranch), and **Michael Hehman** (Hixon Ranch) for *Non-native Grasses Reduce Scaled Quail Habitat*, which was published during 2019 in The Journal of Wildlife Management (volume 83, pages 1581–1591). Also in this category, second place was awarded to CKWRI graduate student **Justin Wied** and coauthors **Drs. Humberto Perotto-Baldivieso**, **April Conkey**, **Leonard Brennan**, and former graduate student **José Mata** for *Invasive Grasses in South Texas Rangelands: Historical Perspectives and Future Directions*, which was published during 2020 in Invasive Plant Science and Management (volume 13, pages 41–58). ~

Did You Know?

A hummingbird's territory must include ample nectaring plants. (Hummingbirds of Texas, C.E. Shackelford, et al., 2005, Texas A&M University Press)

Alien species are also called exotic, non-native, introduced, or non-indigenous species. (Invasive Species: Texas, https://www.texasinvasives.org/invaders/Trainer_Resources/UOCS_Texas_Invasives.pdf)

WORKING FOR WILDLIFE DURING A WILD YEAR

by David Hewitt

Leroy G. Denman, Jr. Endowed Director of Wildlife Research

Whew, 2020 is over. We look forward to 2021 and less disruption from diseases, hurricanes, fires, and politics. Although last year has been stressful, it forced us to adapt, grow, and be grateful. Below are some upsides of 2020 for the CKWRI.

- CKWRI faculty, staff, and students made the jump to remote work remarkably well and now have skills and technology necessary to remain productive if they cannot come into the office.

- Hurricane Hanna helped us refine our hurricane preparedness when it came ashore 55 miles southeast of Kingsville in July. CKWRI personnel experienced the excitement of a hurricane while dealing with only minor damage.

- CKWRI students and faculty learned how to work together in the field, remaining safe from COVID, while still continuing their valuable research.

© Caroline McAllister

© Gina Cavazos (top); Caroline McAllister (bottom)

- For face-to-face research presentations, CKWRI graduate students gave them spaced for social distancing. Others gave their presentations virtually, where families, friends, co-workers, and funders who would not normally be able to see the presentations, were able to watch and learn.

- Working remotely took our faculty away from the hustle and bustle of campus life, thereby giving them time to focus on writing manuscripts, articles, books, and research proposals. Their productivity was excellent!

- We realized how much we missed regular ranch visits, meetings with our supporters, and all the knowledge and positive feedback that came with these interactions. We look forward to seeing everyone again soon.

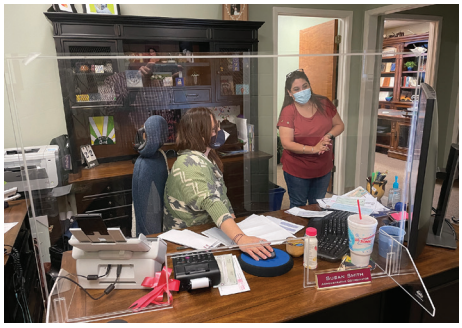
- We were pleased to hear from land stewards who came up with wildlife management questions and ideas after weeks of social distancing on their ranches.

- We realized how special our supporters are when their donations continued despite the tough economic conditions.

- We came to appreciate the value of in-person meetings, but also became comfortable in virtual meetings when they made sense.

© Gina Cavazos

- While working remotely, faculty, students, and staff realized what a special group of people work at the CKWRI and how much we missed being able to see each other regularly. Returning to the office has been a blessing even while working in an enhanced protective environment.



© David Hewitt

Finally, we were given a potent reminder of nature's importance in our lives. Sometimes that importance is clear because nature disrupts our lives as did the hurricanes and fires. Other times nature is important because it provides hope, inspiration, and meaning. Whether the impacts are uplifting or challenging, nature makes us who we are and all of us at the CKWRI feel blessed for our mission of promoting conservation of wildlife and the habitat on which wildlife depends upon. Good bye 2020 and welcome 2021.

Till our paths cross. ~

Consider giving a donation to the CKWRI

What Do They Eat?

Rio Grande leopard frogs are opportunistic predators, feeding on a wide range of arthropods and insects and are known to take small skinks and snakes. (M.L. Parker and M.I. Goldstein, Journal of Herpetology 38(1):127-130)

Royal terns mainly eat small (1—7 inches) fish, but will consume squids, shrimps, and crabs. (Handbook of the Birds of the World, Vol. 3, del Hoyo et al. editors, 1996, Lynx Edicions)

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