

Ferdinand Fox's First Summer



by Mary Holland

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Follow this photographic journal of a red fox as he explores the world around him during the first few months of his life. He's about a month old when he first comes out of the den. Watch as he learns to hunt through play and by using his senses. See the changes as he grows from a young kit to a young fox. After all, by the next summer, he'll have kits of his own! Naturalist, photographer, and environmental educator Mary Holland has captured *Ferdinand Fox's First Summer* in a way that is sure to grab hearts.

It's so much more than a picture book . . . this book is specifically designed to be both a fun-to-read story and a launch pad for discussions and learning. Whether read at home or in a classroom, we encourage adults to do the activities with the young children in their lives. Free online resources and support at ArbordalePublishing.com include:

- For Creative Minds as seen in the book (in English & Spanish):
 - Red Fox Fun Facts and Adaptations
 - Red Fox Life Cycle Sequencing (by months)
 - Red Foxes: Thinking it Through
- Teaching Activities (to do at home or school):
 - Reading Questions
 - Math
 - Language Arts
 - Geography
 - Science
- Interactive Quizzes: Reading Comprehension, For Creative Minds, and Math Word Problems
- English and Spanish Audiobooks
- Related Websites
- Aligned to State and Core Standards
- Accelerated Reader and Reading Counts! Quizzes
- Lexile and Fountas & Pinnell Reading Levels

eBooks with Auto-Flip, Auto-Read, and selectable English and Spanish text and audio available for purchase online.

Thanks to Amy Yeakel, Education Program Director and Dave Erler, Senior Naturalist, at the Squam Lakes Natural Science Center; Helen Fey Fischel, Associate Director Education, Delaware Nature Society; Kathy Uhler, Director, Pocono Wildlife Rehabilitation and Education Center; and to Doug Jackson, Park Naturalist at Westmoor Park (CT) for verifying the accuracy of the information in this book.

Mary Holland is a naturalist, nature photographer, columnist, and award-winning author with a life-long passion for natural history. After graduating from the University of Michigan's School of Natural Resources, Mary worked as a naturalist at the Museum of the Hudson Highlands in New York state, directed the state-wide Environmental Learning for the Future program for the Vermont Institute of Natural Science, worked as a resource naturalist for the Massachusetts Audubon Society, and designed and presented her own "Knee-High Nature Programs" for libraries and elementary schools throughout Vermont and New Hampshire. Her children's book, *Milkweed Visitors*, received national acclaim when it was placed on the American Association for the Advancement of Science, Science Books and Films' list for the best books of 2006 in the category Children's Books under Zoological Sciences. Mary's book *Naturally Curious: a Photographic Field Guide and Month-by-Month Journey Through the Fields, Woods and Marshes of New England* won the 2011 National Outdoor Book Award for the Nature Guidebook category. Mary lives in Vermont with her lab, Emma.

Visit Mary's blog at naturallycuriouswithmaryholland.wordpress.com

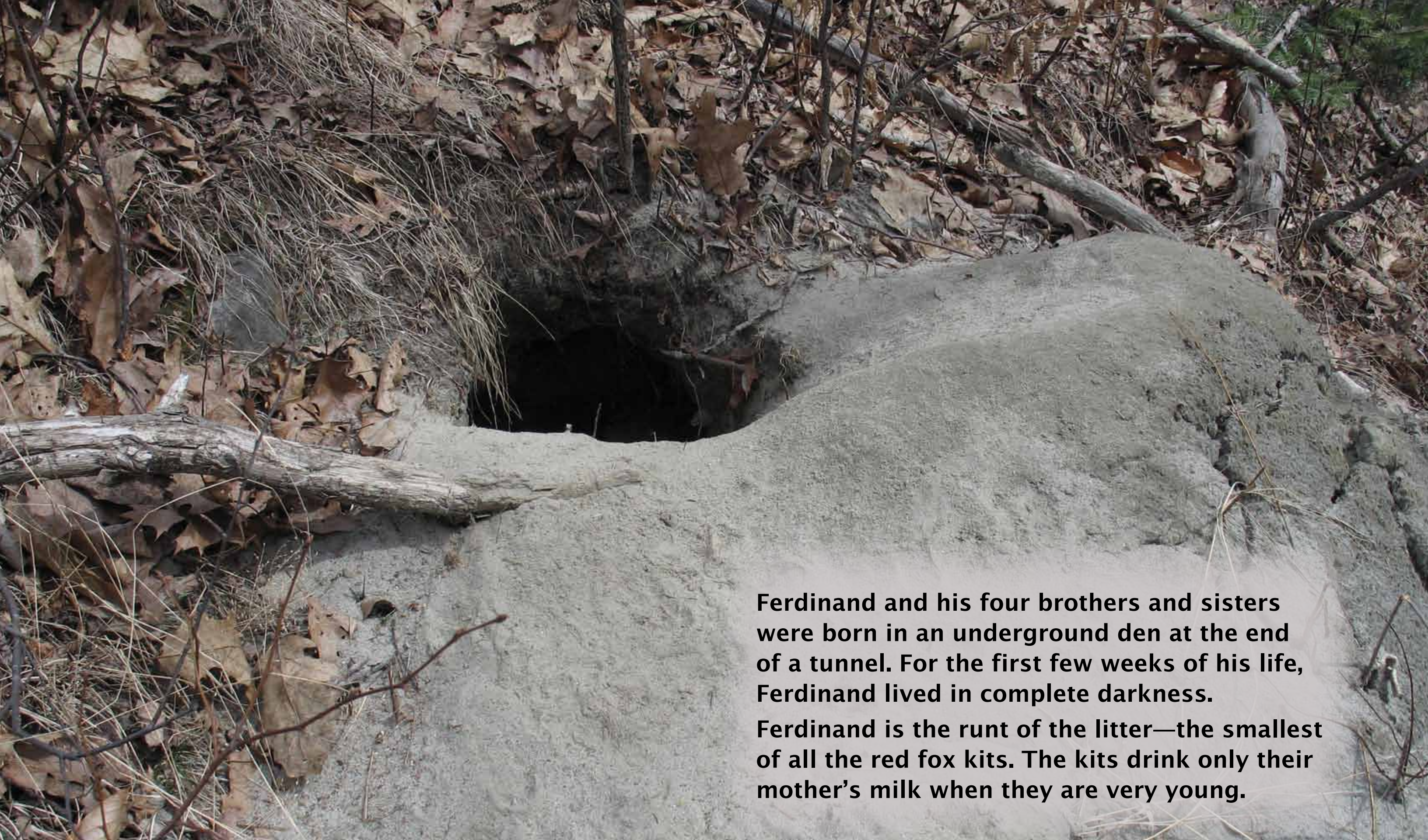


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Ferdinand and his four brothers and sisters were born in an underground den at the end of a tunnel. For the first few weeks of his life, Ferdinand lived in complete darkness.

Ferdinand is the runt of the litter—the smallest of all the red fox kits. The kits drink only their mother's milk when they are very young.

When they are about five weeks old,
the kits decide to see what the world
looks like outside their den.
When they first come above ground,
fox kits stay close to home.



The mother continues to care for and nurse the kits.
Ferdinand is the third in line today.



The mother also spends a lot of time grooming her kits. She uses her teeth to grab bugs and burrs from their fur and then spits them out on the ground.



For Creative Minds

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Red Fox Fun Facts and Adaptations

Young foxes are called kits or pups. Adult female foxes are called vixens, and adult males are called dog foxes.

Foxes are related to pet dogs, but they are wild animals. Pet dogs, foxes, wolves, coyotes, and jackals are all part of the canine family (Canidae). Red foxes are the only North American canid species to have white-tipped tails.

Red foxes eat fruits, berries, grasses, insects, and other animals (prey). Their favorite prey includes mice, chipmunks, squirrels, voles, rabbits, beetles, and grasshoppers.

Red foxes are most active at dusk and dawn (crepuscular). In the summer, they are more active at night (nocturnal) because their prey, mice, are active then. Foxes may hunt during the day (diurnal) in the winter because it's harder to find food.

Red foxes stalk prey and then pounce to capture and kill. They can hear small underground animals and will sometimes dig to get them.

Kits learn to hunt by playing with their siblings. They practice stalking, pouncing, and even nipping or biting each other.

After capturing prey, foxes eat until they are no longer hungry. They'll hide (cache) leftovers in a few different places, often digging a hole to bury it. They'll return to dig it up and eat it a few hours or a few days later.

A fox marks prey it has partially eaten by going to the bathroom on or near it. This warns other animals to stay away from the food.



Adult foxes have huge, bushy tails that are longer than half their bodies.

Foxes use their tails to stay warm, to balance when running and pouncing, and to "talk" to each other. Like pet dogs, they wag their tails when happy and put their tails between their legs when scared.

Foxes rely on their sense of smell. Their noses stick out in front of the rest of their faces so they can easily smell scents carried by the wind. They use scents to track animals. They also use scents to mark and claim their territory and to communicate with each other.



Red foxes use their large, upright ears to find prey. They even point their ears to follow sounds.

Their eyes are set in the front of their heads so they can easily see and judge distances to pounce on prey.

Their teeth are sharp to capture and kill prey. Once they have killed their prey, they use their teeth to eat. They also use their teeth to carry things in their mouths.



When the kits are about two months old, their blue eyes turn brown.

Can you tell which of these kits is older?



Red Fox Life Cycle Sequencing

Use the months of the year to put the red fox life cycle events in order.

By the end of **June and early July**, the kits have shed their fur a second time. Their third coat is usually bright red in color. By the time the kits are about 12 weeks (3 months) old, they are eating solid food and no longer nurse. Their parents begin teaching them how to hunt—usually one or two at a time.

By late **September or October**, the kits are fully-grown foxes. They leave the den area to find and claim their own territory where they'll likely live for the rest of their lives.

Kits are born in **March or April**. A vixen usually has a litter of five kits but can have as many as ten at a time! When born, red foxes have gray-colored fur, are blind and helpless. They drink milk from their mother and rarely leave the den.

By **August** the kits begin to go off with each other on hunting trips and then on their own. They still sleep together in the den.

The male and female foxes usually mate in **January or February**. The female (vixen) prepares her dens. She'll use one as the main den. Once the kits are born, the parents will move them to another den if there is danger.

Even though it is cold and there may be snow on the ground in **November and December**, foxes usually sleep outside curled up with their bushy tails wrapped around them to keep warm. Their fur is thick and warm. The dens are only used to raise young.

When the kits are four or five weeks old (usually in **May or early June**), they come out of the den. At first, the kits stay very close to the den. Their gray fur sheds (molts) and grows back in a sandy color to hide them (camouflage). The mother brings up eaten food out of her stomach (regurgitates) to feed the kits something other than her milk.



What Do Red Foxes Eat?

Which of the following things do foxes eat? Answers are upside down, below.



Answer: All of the above!

To Emma, who patiently sat for hours while I photographed Ferdinand and his family—MH

Thanks to Amy Yeakel, Education Program Director and Dave Eler, Senior Naturalist, at the Squam Lakes Natural Science Center; Helen Fey Fischel, Associate Director Education, Delaware Nature Society; Kathy Uhler, Director, Pocono Wildlife Rehabilitation and Education Center; and to Doug Jackson, Park Naturalist at Westmoor Park (CT) for verifying the accuracy of the information in this book.

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