



# Jurassic Lark

Erick and his dad dig into paleontology. BY ROWAN JACOBSEN

My son Erick was one of those 5-year-olds who could name 40 different dinosaurs before he could pronounce his *l*'s or *r*'s ("Actuawy, Tywanosauwus wex may have been a scavengew.")

The apple doesn't fall far from the tree, but growing up on the East Coast, it never occurred to me that a paleontologist was something to be; I thought it was something you read about in books.

But what if I'd grown up in "Dinosaur Country"—a wind-swept, fossil-studded wedge of Wyoming, South Dakota, Montana, and Colorado? There erosion and geology have teamed up to expose the Jurassic- and Cretaceous-era sediment beneath the surface. With little vegetation in this dusty land, there's not much masking the bones. So Erick and I decided to spend a week on a dig led by the Black



Experts believe only one to two percent of all dinosaur species have been discovered.





## Dig This!

“Dinosaurs are nature’s special effects.” —Robert T. Bakker, a.k.a. Dinosaur Bob.

A tooth in the hand is worth 10 in the dirt. An allosaur cuspid (above) such as this tells scientists an animal’s size (big) and diet (meat).

Hills Institute of Geological Research, the collecting team that has unearthed hundreds of museum-quality fossils, including the famous Sue. The institute has always welcomed volunteers—including kids.

Cofounder Peter Larson’s kids grew up working at the dino quarries. “This is the perfect place for kids,” Larson says. “It’s in the middle of nowhere, it’s dirty, it’s hot and sweaty, it’s life. Many kids get their first glimpse of how science works because they’re interested in dinosaurs. We should use that to get their attention.”

Kids also make good diggers.

“There aren’t many businesses where kids can make a real contribution,” Larson says.

“They can take their friends to a museum and say, ‘You see that bone? I dug that!’ ”

But how would an 8-year-old who gets bored with the chore of putting away his Legos deal with hours of digging? Could he handle living in a tent far from Mom or other pillars of civilization?

We arrive at the Wyoming hilltop where 20 adults and kids are squinting at their own patches of dirt. Erick gets his digging kit: a huge Timber Rattler knife and X-Acto (both for use only under close supervision), a scribe for scraping, a brush, and glue. He may as well have been knighted. We’re assigned a spot and shown how to tell the shiny black bones from the crumbly gray siltstone. On our knees we fillet the hill with our knives, one centimeter at a time, in search of treasure.

Scrape, scrape, brush, brush.

Kids can get their hands dirty while learning paleontology.

**Black Hills Institute of Geological Research**  
[bhigr.com](http://bhigr.com)

South Dakota and Wyoming. Volunteers accepted in July. Kids 5 and up are welcome. The focus is on the bones. The camping is primitive; the only charge is for food. Sign up early and try to stay a week.

**Paleo Park**  
[paleopark.com](http://paleopark.com)

Niobrara County, Wyoming. Be assured of finding something in these rich bone beds. Very kid-friendly; lodging and meals available.

**The Mammoth Site**  
[mammothsite.com](http://mammothsite.com)

Hot Springs, South Dakota. Twice a day one-hour simulated digs in June and July. Kids learn the techniques, then unearth pre-buried fossil replicas. Great for younger kids (4 and up).





If I told Erick to cut up the hill near our house with an X-Acto, he'd look at me like I had three heads.



Baryonix is Erick's primo dino: "It's really cool how it's adapted for spearing and eating fish."

### other paleo hot spots

**American Federation of Mineralogical Societies**  
amfed.org

The best way to begin learning about paleontology is to join your local rock club. Digging can be done anywhere, whether it's for dinos, gems and minerals, or arrowheads.

**Dinosaur State Park**  
dinosaurstatepark.org  
Rocky Hill, Connecticut  
No digging, but trackways (footprints) 200 million years old in the ground where they were discovered, along with dioramas and interpretive centers.

**American Museum of Natural History**  
amnh.org  
New York City  
The country's premiere science museum has an amazing selection of dinos and activities.

Scrape scrape, brush, brush. When the temperature hits 99, we squirt each other with the hose from the water truck.

When it hits 101, we tell ourselves that it is a dry 101.

When it hits 105, Erick says, "We have to keep working until the dinner bell rings," and scrapes his X-Acto around the edges of a fragment. We both feel very grown-up that night around the chuck wagon listening to the pros debate the latest scientific discoveries.

We pull fragments for two more days. Every now and then the kids disappear into the woods. But mostly we stay put, happy to be part of the team.

Until it happens. On our last day, we hit another "fragment." We scrape around it, expecting to find the end, but this one

keeps going. We dig under it. We both feel a shudder of anticipation as it emerges into a foot-long, lustrous black, perfectly preserved bone with a big knob on both ends.

Larson identifies it as a 150-million-year-old camarasaur foot bone. It's clear that there isn't time to remove it, so we turn it over to a 15-year-old who can name every species of dinosaur and pronounce them flawlessly.

That last night at dinner, we tell everyone about our bone. They promise to send us a cast. Tomorrow we'll return to civilization. Maybe we won't tell Mom about the Timber Rattler. But she'll probably see in Erick's confidence that he's figuring out his place in a world 4.5 billion years young. ●



Rowan Jacobsen's latest book is *Fruitless Fall*, about the honeybee collapse. He and Erick are returning to the dig this summer, along with Mom, friends, and an even bigger knife, called a "Redneck Toothpick."

build your own digging kit

You don't even need to leave your backyard to discover fossils. A dulled digging knife, a paint brush, Ziploc baggies, Elmer's glue, and a notebook for recording finds, presented in a special "Digging Kit" (a.k.a. fanny pack), can be a glorious gift. The best places to dig are areas with exposed dirt, such as stream beds. And don't forget a hat, water, and sunscreen.



downtime | going places

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**ADDITIONAL DIG  
LOCATION TO ADD  
TO THE LIST FROM  
THE SIDEBAR:**

Wyoming Dinosaur  
Center  
wyodino.org  
Thermopolis,  
Wyoming  
Offers a one-day  
“Kids Dig” program  
on 10 dates through-  
out the summer. Ages  
8-12.

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web exclusives

Books for the web

*Bones Rock! Everything You Need to Know to Be a Paleontologist*  
\$15, amazon.com  
By Peter Larson and Kristin Donnan (Invisible Cities Press)  
This nifty book includes lists of equipment to add to a digging kit as your little rockhead gets older and wiser.

*Dino Poop & Other Remarkable Remains Of The Past*  
\$10, amazon.com  
By Jane Hammerslough (Tangerine Press)  
A fun guide to dig location—peat bogs, tar pits, amber mines, permafrost—around the world, and an array of the ancient remains, fossilized dung, vomit, and animal guts found in them.

*A Guide to Dinosaurs*  
\$10, vintage-books.com  
By Michael K. Brett-Surman (Fog City Press)  
Fossil hunters are incomplete without a handbook. This guide is a thorough compendium of all things dino.

*Pocket Tutor Guides: Dinosaurs*  
\$6, waterfordpress.com  
(Waterford Press)  
Carry this handy fold-out, laminated guide into the field and have pertinent dino facts at your fingertips.

*Walking with Dinosaurs (DVD)*  
\$18, amazon.com  
(BBC Warner)  
Inspire your diggers with “Walking With Dinosaurs” to see amazing digital effects showing how dinosaurs might have looked and moved millions of years ago.

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