







## TAILS, YOU WIN

Who knew squirrels were so fierce or clever? In a recent study, Aaron Rundus, at the time a graduate psychology student at the University of California, Davis, found that a ground squirrel defending its pups will wave its tail frantically when snakes get near. But this is no ordinary wagging. Using an infrared camera, Rundus discovered that the squirrels might actually heat up their tails through increased blood flow when facing down a rattlesnake. The rattlers have an organ that detects the infrared glow given off by warm-blooded species, which is what allows them to locate prey at night. In the case of the tail-flagging behavior, however, the snakes are more likely to be on the defensive, knowing they've been detected. In the study, rattlers even reacted defensively to a stuffed squirrel with an artificially heated tail. At the same time, when the squirrels face off with gopher snakes, which lack infrared perception, they don't bother to heat their lashing tails. The researchers chalk this up to co-evolution: As rattlesnakes developed infrared perception, squirrels adapted in a way that helped them protect their young by manipulating their own body heat to deliver an infrared signal to the snakes.—Hilda Brucker

## ALL THE FOREST'S A STAGE

The flying adder's clear, veined wings hover as its yellow-dotted abdomen briefly brushes the stage. Then this dragonfly—or, rather, this child meticulously costumed as one—leaps to an enormous maidenhair fern and glides it across the floor as fairies dance to Felix Mendelssohn's "A Midsummer Night's Dream." Premiering last October in Portland, the new production by the Oregon Ballet Theatre took its stylistic cue from Opal Creek, a rare, pristine ancient forest of damp

## ENDANGERED SPECIES

# Dodging a Bullet

**J**UST BEFORE EASTER last year a female California condor soared across the international border from Mexico into the United States. The historic flight, which marked the first recorded sighting of a condor in San Diego County since 1933, heralded a year of renewal for the endangered species. As the season progressed, wild condor chicks hatched in California, Baja California, and Arizona. The total of nine chicks born in the wild in spring 2007 included the first chick hatched in more than a century in the California redwoods and the first in Mexico since the 1930s.

Whether these birds survive to maturity depends less on this prehistoric species' proven resilience than on how humans affect the steep canyons where they forage on the gut piles of wild boar, deer, and other wildlife left by hunters. For decades lead fragments from the bullets used to bag big game have been killing the condors almost as quickly as new chicks are hatched.

So when Arnold Schwarzenegger, the Republican governor of California, signed landmark legislation in October banning lead ammunition in condor country, that move topped even the auspicious events of last spring. On July 1 a major source of lead will be removed. "It puts wind in the sails of the entire condor recovery program," says Graham Chisholm, conservation director for Audubon California.

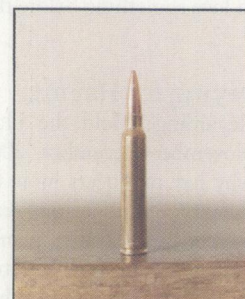
The legislation capped months of pressure on the California Fish and Game Commission to reduce condors' exposure to lead. Despite a population that has increased from 23 individuals in 1982 to about 301 today, a majority of the 154 free-flying condors out there suffer from lead poisoning. Since scientists began releasing captive birds in 1992, at least 12 have died in Arizona and 15 more in California because of lead, but scientists think more deaths could be attributed to that cause. One of the latest victims had a reading 56 times the level considered safe for humans.

"There isn't a shadow of a doubt that lead from ammunition is the leading cause of death and illness in the California condor," says Judd Hanna, a retired Navy pilot and rancher whom Schwarzenegger appointed last February to the Fish and Game Commission. Hanna's certainty cost him his position when Schwarzenegger fired him in September after the gun lobby and 34 Republican legislators complained about his anti-lead stance.

Ironically, the outcry from bird advocates and the national press over Hanna's ouster brought even more attention to poisoning and, environmentalists believe, may have actually spurred the governor to sign the bill. The legislation will not eliminate lead, and the lead ammunition commonly used to hunt small game will still be legal. Nor does it apply to Arizona, where 60 condors in the Grand Canyon area are protected only by a voluntary lead-reduction and hunter education program that includes the free distribution of safer ammunition. But regulating most ammunition in central and southern California is a decisive first step, says Jesse Grantham, condor program coordinator for the U.S. Fish and Wildlife Service.

In the past year he has observed signs of independence in condors he has not seen since the 1980s, when he was Audubon's condor biologist in the years before the last birds were brought into captivity. For example, some condors have begun roosting in remote canyons as they move more widely about their historic range.

Grantham is optimistic that after 25 years, the \$40 million federal condor recovery program may finally establish a self-sufficient population. "The secret is having wild adults naturally fledging chicks into a wild environment," he says. "When they have no contact with human beings, we'll be almost there."—Jane Braxton Little



With California's ban on lead ammunition, the good news could get better for the California condor.

FROM LEFT: GREG MABLY; MISHA GRAVENOR. OPPOSITE: MICHAEL NICHOLS/GETTY IMAGES