Survival Takes Many Forms

- KidsPost Reprint: “How do birds survive cold winters?”
- Post Reprint: “Preparing for a massive farewell”
- Tom Toles and Discussion Questions: Animals Aid Commentary
- Animal Card Activity: Venture Into the Animal World
With Care and Endurance

With care and endurance, animals share the environment with human inhabitants.

KidsPost introduces young readers to the adaptations that non-migratory birds have made to survive in cold weather. This may begin an observation project to really see birds or to research the ways other animals survive the very cold weather or changes in their habitats.

Veterinarians and keepers of elephants at the National Zoo are planning ahead for the eventual death of five aging elephants. This may be a very sad topic for your students, but it does answer questions about what happens when animals age or suffer life-threatening illness.

Two Tom Toles editorial cartoons are included to illustrate how art and animals may be used to comment on current issues. Questions are included to guide reading of both.

An observation activity asks students to venture into the animal world. This may be in their backyards, a playground or campground. They are given the templates of cards on which to record their sightings and research.

Whether by the animals themselves or by human intervention the survival of animals takes many forms.
KidsPost

How do birds survive cold winters?

Cardinals, chickadees and others that don’t migrate have a few tricks to keep warm.

BY GINA RICH

• Originally Published January 21, 2020

Against a backdrop of fluffy white snow, a brilliant red cardinal perches on a tree branch. It’s a beautiful sight — but did you ever wonder how feathered friends stay warm and cozy when it’s freezing outside?

Birds’ own winter jackets

Jean Strelka, a naturalist at Schlitz Audubon Nature Center in Milwaukee, Wisconsin, has been studying birds for 30 years. Besides cardinals, other birds that don’t migrate during winter include chickadees, owls and some woodpeckers and robins. Strelka said these birds use different strategies to cope with cold weather.

In fall, birds grow extra feathers — their version of a winter jacket — to prepare for the colder months. When temperatures drop, birds keep warm by shivering, “just like you jumping up and down when you get cold outside,” said Strelka. Some species, such as chickadees and bluebirds, often huddle together to share heat.

Have you ever noticed a bird puffing out its feathers on a chilly day? This is another cold-weather adaptation: By trapping air in its feathers, the bird creates a toasty layer of warmth around itself.

Some birds use a more extreme strategy to survive. In a process called torpor, “birds are actually able to lower their body temperature by as much as 50 degrees,” Strelka said. A bird’s normal body temperature is 105 degrees. By bringing body temperature closer to the air temperature, torpor helps birds conserve heat and energy, especially at night. But it’s risky: Because birds can’t move during torpor, they’re more vulnerable to predators.

How to help birds thrive

Even with these adaptations, birds can still use our help when it’s cold outside.

By providing extra shelter in your backyard, you can protect birds from frigid temperatures and predators. A brush pile built of sticks and evergreen branches offers a cozy place to hide. So does an old Christmas tree, positioned safely away from the wind.

Roost boxes are a special type of birdhouse that you can build or buy. Birds enter these thick-walled boxes through a hole at the bottom and can rest on perches inside.

Harsh winters make it challenging for birds to find food. You can ask a grown-up to help you install a feeder, or make your own using pine cones, peanut butter and seeds.

To protect birds from high-speed window collisions, place feeders either within five to 10 feet of your home or more than 20 feet away, said Dan Panetti, owner of Wild Birds Unlimited in Mequon, Wisconsin. Try to keep your feeders full if you know a storm is coming.

“Birds can sense it and feed like crazy,” Strelka said.

If you choose a seed blend for your feeder, look for peanuts, sunflower seeds or safflower seeds as the main ingredients. These provide nutritious calories, said Panetti. Just like us, birds enjoy a variety of foods, so you might also offer mixed nuts, mealworms or suet, a form of fat that’s an excellent source of energy in the cold.

Want to create the ultimate haven for wintering birds? Consider installing a heated bird bath. Birds need fresh water to survive — for drinking and to keep their feathers in good shape. Not only do clean feathers keep birds warmer, “birds can fly better with clean feathers,” said Panetti.

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Preparing for a massive farewell

With several elderly elephants in its herd, the National Zoo has a plan in place for when one of them dies

Local

The elderly Asian elephant stands dozing in her compound at the National Zoo. The bottom of her trunk is curled on the sand floor, and morning sun streams in through an open door.

Keepers call her “The Queen.”

Her name is Ambika, and she is 72, which is about 100 in human years. She’s had a long life. Captured in India at 8, she worked for years as a logging elephant. She came to the zoo in 1961 and is now in the twilight of her days.

And while she snoozed one recent morning, and birds chirped in the compound, zoo officials said they have made plans for her death.

What happens when a zoo elephant dies? Especially one who has been on her throne, so to speak, for almost 60 years?

The British have a detailed plan, code-named “London Bridge,” for when Queen Elizabeth II dies.

The zoo has no code name for its Queen, but the process is an emotional, physical and logistical ordeal, the zoo’s chief veterinarian, Don Neiffer, and senior curator and elephant specialist, Bryan Amaral, said last week.

Ambika is in decent health, despite some dental issues. But the zoo has been focused on such end-of-life issues because of the advanced age of its herd.

Aside from Ambika, the zoo has four other elephants in their mid-40s. The median life expectancy for Asian elephants in zoos is 46.9, the equivalent of about 77 in humans, Amaral said.

So the zoo is planning.

What happens if Ambika has to be put down — euthanized?

How is that done?

What happens afterward?

Would the other elephants mourn?

It is, of course, dire for the elephant and can be wrenching for the staff. Some of Ambika’s keepers have been with her for decades.

The decision to put an elephant down is made with deliberation and only when the zoo concludes that there is nothing more it can do to keep the animal from suffering, Neiffer said.

Extensive consultations with the staff must take place. A day and time must be picked and the appropriate drugs administered. The other elephants will have a few moments with the deceased.

Arrangements must then be made for the removal of the body by truck from the zoo to a facility where a necropsy — an autopsy for animals — takes place. (Ambika, for example, weighs 6,500 pounds, and the zoo would prefer to do the necropsy off-site.) The zoo has three veterinary pathologists who would help with the job.

The remains will then be
“disarticulated” and incinerated. Physical specimens can be retained for research purposes.

No ashes will be kept for sentimental reasons, the zoo said. It declined to say where the incineration facility is.

The zoo has seven elephants — six females and a male. Females Swarna, Kamala and Bozie are about 45, and Shanthi is 44. Female Maharani is 29, and the male, Spike, is 38.

“A good component of our elephants are geriatric,” Neiffer said.

Elephants of advancing age can suffer from serious dental and foot problems, arthritis and gastrointestinal issues. (In 2014, Bozie was almost killed by a mysterious infection, from which she seems to have recovered.)

Crippling arthritis, for example, can be a cause for euthanasia, Neiffer said. In 2006, the zoo euthanized an elephant named Toni, who had severe arthritis. And in 2000, the zoo euthanized an ailing elephant named Nancy.

“When you get to the point when the animal can’t be made comfortable, can’t interact with its herdmates, can’t move around its enclosure … honestly, we shouldn’t even be at that point,” he said.

“We should have made our call well before that.”

“We expect that at some point in time to have the fortunate burden of giving them the last gift we can give them, which is a humane passing,” he said.

Fortunate, “because it means we’ve done our job right.”

But death can also come to younger elephants.

In 1995, the zoo’s 16-month-old female elephant, Kumari, died unexpectedly. A postmortem investigation by the zoo showed that she had a previously unknown strain of herpes virus that had also killed other elephants.

Earlier this year, the deadly virus, known as elephant endotheliotropic herpesvirus (EEHV), killed two young African elephants at the Indianapolis Zoo.

There is no cure. But the National Zoo has a special lab that studies the malady and has discovered that intense treatment can sometimes save an infected elephant, a spokeswoman said.

Elephants are tough but social and intelligent animals that can size up a keeper in seconds, Amaral said.

They have quirks and personalities. They can be contrary and aggressive with one another. They can also be stoic about health problems.

The object is to intervene before a sick animal is in extremis.

“Death with dignity,” Neiffer said. “I’ve seen animals down … [and] to see an animal that was mobile and is down and is struggling” is awful.

Suffering elephants can get a look in their eyes that is unnerving.

“It’s the white of the eye,” he said, when it looks like a hard-boiled egg. “There’s something about it. When they’re giving you that stare. … It’s something you don’t forget. So I don’t ever want to see one of our elephants down on the ground with that eye.”

The difficulty is trying to figure out when an elephant is seriously ailing.

Amaral said they are often described as a huge black box. “You can get [information] from the toes to the elbows and the nose to the edge of their face, and the tail.”

Because of their size, the rest can be a mystery. “Something as simple as an X-ray is impossible on parts of an elephant,” he said.

Once the decision is made, ideally, the animal is shifted into an area of the zoo where it can be euthanized and easily removed from the compound. If the elephant can’t be shifted, the procedure would take place wherever the animal is.

“One thing we’re not going to do in
her 11th hour is pressure her and freak her out and push her,” he said. “We’ll go to her.”

The animal would first be sedated. Then the euthanasia drugs would be injected via catheters in veins in the elephant’s ears or legs. A ladder might be used to reach the ears.

The same drugs are used that are used to put down a pet dog, Neiffer said.

“It’s a hard thing to watch,” he said. “Even though the animal is anesthetized . . . you’re watching your elephant fall over.”

At that point, other elephants could be given access to the body.

“This sort of emulates what elephants would do in the wild,” Amaral said. “They’re social. They usually investigate. . . . Some will ignore [the body]. Some might give it a nudge, ‘Hey, you going to get up?’ or whatever.”

Do they mourn?

“I think they do to a point,” he said. “But they also move on pretty quickly. Generally speaking, the elephants have moved on before the staff.”

The necropsy, which can take an entire day, would involve several experts and perhaps observers for educational purposes. “It’s not every day you get to necropsy an elephant,” Neiffer said.

He said the goal is to look for a cause of the animal’s disease, for things you didn’t expect, and for broader knowledge to better the lives of elephants.

Afterward, grief counselors are available for the staff.

“We see it all the time,” Neiffer said. “People are fine. The moment that euthanasia solution goes in . . . the tear gates open. They did their job. They kept it together . . . until somebody said, ‘It’s okay to be human again.’”

For additional reading, view these articles.

Zoo’s elephants get spacious new community center

Keepers probe an elephant’s illness and are amazed she survived

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Answer the following questions after reading “Preparing for a massive farewell.”

1. The following words and phrases are found in this article. Discuss their meaning before reading “Preparing for a massive farewell.” After reading Michael Ruane’s article, you may wish to modify your definition.
   a. End-of-life issues
   b. Emotional, physical and logistical ordeal
   c. Euthanasia
   d. Geriatric
   e. In extremis
   f. Logging elephant
   g. Necropsy
   h. Put down — euthanized
   i. Twilight of her years

2. What conditions are considered before an animal is euthanized? What difficulties can be encountered in determining if an animal is seriously ill?

3. “We expect that at some point in time to have the fortunate burden of giving them the last gift we can give them, which is a humane passing,” stated Don Neiffer, chief veterinarian at the National Zoo. How is the zoo planning to accomplish this for its aging elephants?
1. Tom Toles captions this editorial cartoon.
   a. What is a white elephant literally?
   b. Why do you think Toles wants his readers to know those describing the elephant are “non-blind”?

2. Toles uses literary references in his visual commentary. To what Indian fable does this cartoon refer?

3. Elements in the image are labeled to direct readers’ comprehension.
   a. What does the elephant, the largest image in the frame, represent?
   b. Parts of the elephant are labeled. What is Toles’ point of view as expressed in these labels?

4. The elephant is a visual icon.
   a. What does it represent?
   b. The bubbles above each elephant expresses what he perceives the part he feels to be. Explain the juxtaposition of the label and the perceived.

5. Toles’ alter ego appears in the lower right corner. What does his comment add to his visual commentary?

1. Who are the figures in this editorial cartoon? Include details that lead to this conclusion.

2. Labels provide necessary information. What do you know from these labels?

3. The canary is essential to the idea presented by Tom Toles.
   a. What is the relation of a canary to coal mines?
   b. To what current event do the flames in the cage refer?
   c. Toles enjoys word play. Explain his alter ego’s comment.

4. Why has Toles juxtaposed coal miners and fires in Australia?

5. Toles subtitled his Jan. 1 commentary, “Ignore at your peril.” What is his perspective on the issue(s) through a few words and images?
Common name  Gray wolf

Scientific name  Canis lupus

Natural habitat  North America and Eurasia
Forests, inland wetlands, grasslands, deserts and rocky mountains where prey is abundant

Foods  Mainly carnivore: wild hooved mammals such as moose, deer and elk, carrion and also rabbits, rodents and birds

Behavior  Live in packs and mate for life; territorial, they identify their area with scent markings and howling

Status  Threatened
<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
<th>Natural habitat</th>
<th>Foods</th>
<th>Behavior</th>
<th>Status</th>
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| Common name | Scientific name | Date | Description of where seen | Size | Color(s) and markings | Personal comments |