

Time for Kids

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TIME/EDGE

Meet the NEIGHBORS

In Botswana, conservationists are helping people learn to live in harmony with elephants.



These elephants live in a national park in Africa.

timeedge.com

PHOTO LEFT: SUPAPORN PONGSIT/GETTY IMAGES; CENTER: JESSICA LORING/ISTOCKPHOTO.COM; RIGHT: JESSICA LORING/ISTOCKPHOTO.COM



EAT UP Avocados are largely free of pesticide residue when they reach grocery stores.

SWEET TREATS Organic strawberries are a better choice for those worried about pesticides.

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HEALTH

FOOD FOR THOUGHT

By Shay Maunz

Avocados, sweet corn, and pineapples are largely free of pesticides when they reach grocery stores. That's according to the Environmental Working Group (EWG). It released its Clean Fifteen list this spring. Each year, the EWG names the 15 fruits and vegetables that it has found to contain the least pesticide residue.

The EWG also ranks the 12 fruits and veggies with the most pesticides. It calls this list the Dirty Dozen. This year, the list includes, from most contaminated to least, strawberries, spinach, kale, nectarines, apples, grapes, peaches, cherries, pears, tomatoes, celery, and potatoes.

The nonprofit EWG creates its lists using results from tests done by the United States Department of Agriculture and the Food and Drug Administration. More than 99% of these government tests found pesticide levels that are acceptable according to federal standards. The EWG believes that these

standards are not strict enough.

Research has shown a link between pesticides and health problems. "Reducing pesticide residue in the diet is a good way to reduce exposure and lower those risks," Alexis Temkin, a toxicologist at EWG, told *TIME*. Some experts recommend eating organic produce. If that is too expensive, the EWG says people can choose fruits and vegetables from the Clean Fifteen.

Some people have pushed back against the EWG lists, saying the health benefits of eating fresh produce far outweigh any risks. The Alliance for Food and Farming represents both conventional and organic farmers. A spokesperson there says that "residues are . . . low on conventionally grown produce, if present at all."

The EWG says just the opposite. Its tests have found that the amount of pesticides sprayed on crops may be increasing every year.

For the Record

66
MILLION
YEARS



Is the estimated time since the landing of a **METEORITE** that may have caused the extinction of nearly all life on Earth, including the dinosaurs. Scientists claim to have found fossils from that very day.

88 pounds

was the weight of the **PLASTIC** inside the belly of a dead whale that was found washed up in the Philippines on March 16.



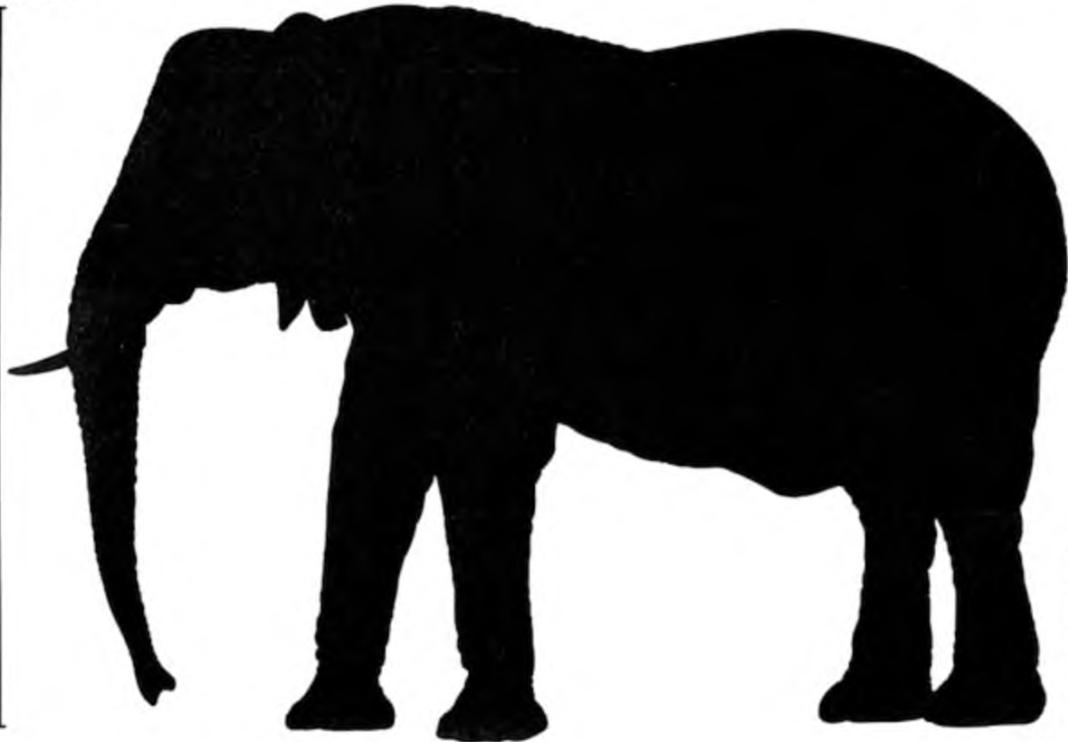
ILLUSTRATIONS BY SHARON BIRD DESIGN FOR TIME LTD.

“The natural world is a wonder and a thrill and an excitement,”

said natural historian **DAVID ATTENBOROUGH**. He spoke to *TIME* about the new documentary series *Our Planet*, which he narrates. It came out on Netflix on April 5.

**DATA
DEEP
DIVE**

13 feet



Imagine meeting an African elephant. It is the world's largest land animal. These pachyderms can weigh seven tons and can stand between eight and 13 feet tall. Take a look at this illustration to see how an elephant's height compares to a kid's.

4½ feet



SOURCE: NATIONAL GEOGRAPHIC

NEWS STORIES MAY INCLUDE REPORTING FROM THE ASSOCIATED PRESS

WILDLIFE LESSONS

In Botswana, conservationists are helping people learn to live in harmony with elephants.

The elephants stood face-to-face in a cloud of dust, with their big ears fanned out and their tusks almost locked.

A group of schoolkids, from a village just outside Makgadikgadi Pans National Park, in Botswana, Africa, gazed in awe from a truck parked on the roadside. "Are the elephants fighting?" someone asked.

"No, it's a game," another child said. "They're playing."

Kolobetso, 13, was quiet. "She'd grown up with a fear that elephants are dangerous," says Walona Sehularo, who was in the truck that day. He works with Elephants for Africa (EFA), a group that is trying to protect elephants and help people live peacefully alongside them.

In parts of rural Africa, elephants roam freely and come into frequent contact with people. Many people fear the animals and some see them as pests. Conflict between people and elephants is common.

EFA wants to change that. It hopes villagers will learn to value the animals in their backyard. One of the group's goals is

to inspire young people to be conservation leaders.

"I want to instill in them a sense of ownership over their environment," Sehularo told *TIME* Edge.

SHARING THE LAND

Threatened by poaching in other parts of Africa, elephants have long found safety in Botswana (see "On the Move"). Conservationists say it is home to more elephants—around 130,000—than any other country in Africa. Much of Botswana's land is protected, which allows the animals to migrate safely. On any given day, herds of them can be found along the Boteti River.

But elephants also wander onto farms, where they eat and trample crops. In some cases, farmers respond by killing them. People have also been hurt or killed in conflicts.

"Farmers don't want to hurt elephants," says EFA founder Kate Evans. "They just want to produce enough crops to feed their families and to sell at market." She and her team work with farmers to guard their land from elephants.

EFA also tracks elephants' movements and supplies data to the government, which uses this information to help



A BIG SPLASH

A group of male elephants takes a dip in the Boteti River, in Botswana.

determine which land is best for farming and which land should be for animals.

CHANGE OF HEART

Botswana's large elephant population attracts wealthy tourists to Makgadikgadi Pans. But few local children can afford to visit. By leading them on expeditions there, EFA aims to teach kids to love the park and its wildlife, and to inspire them to pursue careers as park officers, guides, or researchers. In this way, elephants would become an opportunity, not a threat.

When Kolobetso and her classmates toured the park, they saw elephants drinking from a natural pool. One of the males headed straight for the truck, defending its herd, then turned and walked away, much to the kids' amazement.

"It was one of those moments you cannot explain," Sehularo says. "It fills you with an indescribable joy."

What about Kolobetso? She started to enjoy spotting elephants, and she even said she would like to return to the park someday. For Sehularo, it meant he was making a real difference.

"Many in my country think, 'Why should I care about the animals?' But the only way things get better is if people care. When they own the fight, conservation will win."

—By Brian S. McGrath



ON THE MOVE

In Botswana, the Boteti River flows along the western edge of Makgadikgadi Pans National Park. During the dry season, when water is scarce elsewhere, the river attracts large numbers of elephants.

Researchers say the threat of poaching in surrounding countries has driven more and more elephants into Botswana. Much of the land is protected. For now, the country may be the safest place on Earth for elephants.



LAUGH AND LEARN
Walona Sehularo shares a laugh with local schoolkids.



I SPY Students view wildlife from a covered vehicle on a trip with Elephants for Africa.



TURNING THE TIDE

The world's coral reefs are in trouble. But artificial reefs are helping to keep our oceans healthy.

The Tappan Zee Bridge, north of New York City, carried automobiles across the Hudson River for 62 years. But in 2017, a new bridge replaced it. The next year, the old bridge was demolished. Workers picked apart the structure piece by piece.

Now those pieces are being recycled. Massive chunks of metal and concrete from the Tappan Zee have been cleaned and transported to one of several locations off the New York State coastline and dropped into the Atlantic Ocean. There, the old bridge is beginning a new life as an artificial reef.

UNDER THE SEA

Natural reefs are stonelike underwater ridges made of living things called corals. Coral reefs are an important part of the ocean because they serve as a habitat for marine life. They attract tourists to a region, which is good for local economies. They also help prevent erosion and protect coastal communities from flooding. "Reefs are great for nature and for people," Bill Ulfelder told *TIME* Edge. He's with the Nature Conservancy in New York.

But coral reefs are in trouble (see "Coral Crisis"). That's why people are finding ways to build them from artificial materials. Artificial reefs aren't made of coral, but they can provide many of the same benefits. Over time, coral may even begin to grow on them.

Ulfelder's group works to revitalize New York waterways, which were harmed by pollution in the 20th century. In recent years, the water quality has improved, and artificial reefs are bringing marine animals back to the area.

"Reefs are the big cities of the ocean. They're vibrant places, with an incredible diversity of marine life," Ulfelder says. "By creating artificial reefs, we're able to create new pockets of that kind of habitat."

HELP FOR TROUBLED WATERS

Artificial reefs are created by placing large objects on the ocean floor. Sometimes, objects are built specifically to be used as reefs. They are often made of limestone, steel, and concrete.

Structures that are no longer being used can also be recycled into reefs. That's what happened



NEW LIFE A diver explores a sunken ship that is now an artificial reef.

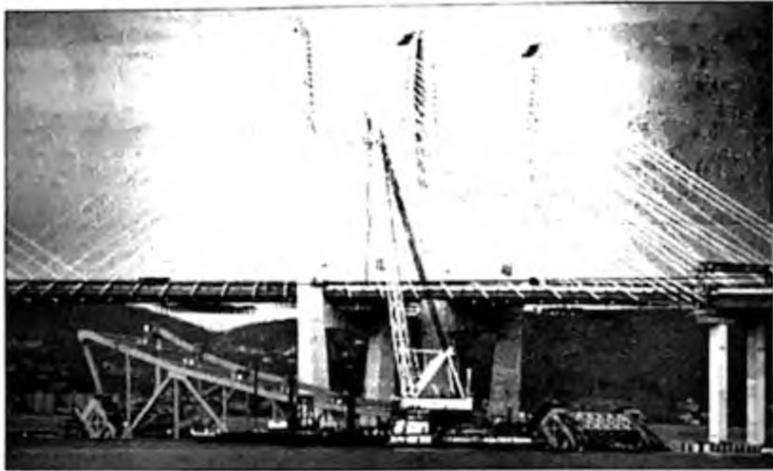
PHOTO: WALTER BOETTCHER

with the Tappan Zee Bridge. Aircraft carriers, subway cars, and military tanks have all been reused in this way. Before being dropped into the ocean, the objects are cleaned and stripped of any materials that could pose a threat to ocean life.

Many artificial reefs are made using decommissioned ships. In 2005, Jim Walsh helped turn a ship called the *Carthaginian II* into a reef off the coast of Hawaii. Now, more than a decade later, it's a popular spot for scuba diving, fishing, and submarine tours. Providing another option for tourists reduces the number of visitors to natural coral reefs and eases pressure on natural habitats.

When the *Carthaginian II* landed on the ocean floor in 2005, it was little more than a chunk of metal on a bare patch of sand. Now, Walsh estimates that the ship is home to at least 75 animal species, including unicorn fish, goatfish, and moray eels.

"It's amazing to see how much life is on that ship," Walsh says. —By Shay Maunz



IT'S GOING DOWN A ship surveys what's left of the old Tappan Zee Bridge (bottom) in early 2018, four days after it was demolished.



KERPLUNK! A new artificial reef is lowered into the water near Marseille, France, on January 30, 2018.



SEA ART With more than 500 life-size sculptures, the Underwater Museum of Art, off the coast of Cancún, Mexico, is also a reef.

CORAL CRISIS

When coral is healthy, tiny, colorful creatures called algae live on it. The coral protects the algae, and the algae are a food source for the coral. But when ocean water gets too hot or too cold, the algae leave the coral. Without algae, the coral has no food. Its color is white. This is called coral bleaching.

The world's largest reef is the Great Barrier Reef, in Australia. About 93% of this reef has been harmed by coral bleaching. Scientists blame climate change and pollution.



REINHARD DIRSCHKE/—GETTY IMAGES