Saving the

by Cynthia Graber

hen he was a young boy living in a village in southwest India, Ullas saw wildlife all around. Elephants and leopards roamed the mountains nearby. He spent hours bird-watching.

But, as Ullas grew up, he saw forests cut down all around India. Because animals cannot survive when their habitats, or natural homes, are destroyed, Ullas worried that the animals he loved would soon disappear. Indeed, tigers were already vanishing. In all his years of watching, Ullas had never seen one in the wild.

In the 1970s, other people in India also started worrying about the future of wildlife. The government developed laws and created nature reserves to protect animals. Ullas Karanth saw his first wild tiger in one of those reserves more than 20 years ago. At that thrilling moment, Karanth knew that he would spend the rest of his life trying to save these majestic creatures.

Hunter or Hunted?

Tigers are native to many countries in Asia, including India, China, Cambodia, and Russia. Nobody knows exactly how many are alive today, though scientists agree that their numbers have fallen dramatically in the past hundred years.

Tigers are now one of the most endangered species

in the world.

Tigers evolved
to hunt large prey
such as deer, wild
pigs, and wild
cattle. A skillful
stalker, the big cat
prowls around in dense
underbrush for up to an
hour to sneak up on an
unsuspecting young elephant
or a sick antelope. Once it's crept
close enough (without alerting dinner, of course), the tiger pounces. It kills

Tigers are the largest cats in the world, and they're so strong they can kill animals five times their size. And yet they are disappearing from the wild. Can we save them? That's what tiger researcher Dr. Ullas Karanth wants to know.



the animal it's about to eat by ripping its neck with muscular jaws and razorlike teeth.

But, even with these skills, tigers are no match for the most ferocious hunters of all: humans.

For hundreds of years, men hunted tigers because the cats ate livestock, and sometimes even people. (But because they are more scared of us than we are of them, tiger attacks are rare.) Guns



made killing even easier, and hunters in the 1800s and 1900s showed off their shooting skills by bagging the great cats.

Today, even though laws forbid killing tigers, some people still do. Most tigers are killed by poachers who hunt them illegally. Poachers hope to make money by selling tiger parts, which people in China and Southeast Asia believe can cure a variety of diseases. In India, some people think eating tiger meat promotes good health.

Room to Roam

But something worse than guns is killing tigers today: They are losing their homes. Tigers may live in bright green rainforests thick with huge trees, or in more open areas filled with high, dense grasses. But there are two things a tiger cannot live without: a large area to roam through in search of food, and access to open water, where both tigers and their prey have plenty to drink.

In India, some people share the forests with tigers, living in small villages, collecting wood for fires, and hunting animals. They compete with tigers for food. Areas that have been overhunted are called empty forests. Without food to eat, tigers in

empty forests starve.

Sometimes farmers compete with tigers for land by clearing forests and grasslands to expand their farms. Other people destroy these dense forests and fertile grasslands for roads and dams, so that only a tiny fraction of tiger habitat survives.

"That's a dramatic loss," warns Karanth. "Freeing up space for tigers is the single biggest challenge we have, Ullas Karanth believes. We can't have people grazing their livestock or going into the forests to kill deer and pig if you want to have tigers."

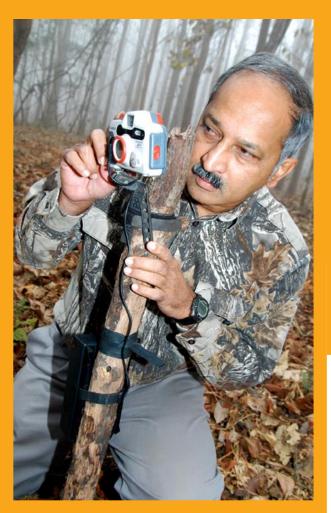
To the Rescue

In the past, most wild animals existed without any human assistance. But with so few tigers left today, we have to step in and protect the animals to prevent them from disappearing forever. Karanth believes that science provides the best tools for saving these endangered cats. Research provides the information for scientists and conservationists to work together with governments to develop plans to save the animals.

The first step in Karanth's research was to count the animals tigers eat. The availability of tiger food told him how many tigers could theoretically survive in the forest.

Then, of course, Karanth counted tigers. But how? One way is to collar them, not an easy thing to do! First he sets a trap with meat. When a tiger eats







its fill and falls asleep, Karanth uses drugs to keep it asleep so he can place a

radio collar around its neck. That collar allows him to follow the tiger through the forest, learning how far it goes and what food it eats. Another way Karanth counts tigers is to set up special cameras along animal paths. When a tiger crosses in front of an infrared sensor, it activates a camera that snaps a picture. Each tiger can has a different stripe pattern, so computers can analyze these photographs, identifying each tiger by its stripes and counting individuals.

Cameras and infrared sensors sound high tech, but Karanth has another plan that uses even more advanced science. He is developing methods to test the DNA in tiger poop, or scat. DNA provides the code for the growth of every living thing, and each animal's DNA is unique. DNA shows up in everything, even scat. Since it's easier to find scat than to catch tigers on camera, Karanth hopes to use these DNA tests to figure out even more precisely how many different tigers are living in the forest.

By counting tigers and their food, Karanth has determined that, although many tigers die every year, many cubs are being born. As long as the mothers have enough habitat to hunt in, the cubs will have enough food to survive. If the

cubs survive to become adults, the number of tigers will increase.

The Indian government could use Karanth's scientific information to create a new plan to save tigers, including outlawing hunting in new areas, hiring enough guards to protect tigers in those places, and providing jobs outside forests for people who today live inside the forests. Only the type of scientific observation Karanth does will tell the government if the conservation plans are working and tiger numbers are increasing.

Subhead TK

Ullas Karanth believes that we should protect tigers because every species on the planet is connected. That means that in some way, we too depend on tigers, as we do all species in the web of life. He explains that if people were to destroy the famous Indian building called the Taj Mahal, it could be rebuilt. "But once we destroy all these intricate ecological webs, there's no bringing them back!"

"What we do today can have a huge influence," Karanth continues with

> enthusiasm. "Kids shouldn't lose hope, because we still have an opportunity to save the world's tigers!"



