



Saving the Panda

▲ Tian Shan, just before his first birthday.

1 July 9, 2005, was an important day at the
Smithsonian National Zoological Park in
Washington, D.C. The zoo had a new arrival
that morning: Tai Shan, the first baby of Tian
5 Tian and Mei Xiang, male and female giant
pandas. Tai Shan's birth, like any panda's,
was a cause for celebration. In the first three
months that the cub was on public display
following his birth, visits to the zoo increased
10 by 50 percent over prior years.

Around the world, conservation centers and
zoos like the Smithsonian are working to
ensure that pandas survive, whatever the cost.
But what makes these animals so special?

15 Aside from their cuteness, their **scarcity** makes
them important: giant pandas are extremely
rare. Even other endangered animals—tigers,
gorillas, Asian elephants—outnumber them,
both in the wild and in captivity. Recently,
20 China reported that about 1,590 of the
black-and-white bears survive in the hills of

Sichuan, Shaanxi, and Gansu provinces.
In captivity, there are only about 200: Some
are in the U.S. and a few others are in Mexico,
25 Japan, Thailand, Germany, and Austria. Most
captive pandas, though, are in zoos and
research centers in their native China.

Their shortage makes pandas **precious**, but
caring for them isn't easy. The cost of
30 hosting a giant panda at each zoo can **exceed**
two and a half million U.S. dollars a year,
and that's without babies. Add a couple of
cubs (nearly a half of all panda births produce
twins), and the bill approaches four million
35 dollars. Of course, at any zoo, the arrival of a
panda or the birth of cubs brings an increase
in attendance, but the crowds rarely translate
into sufficient **revenue**. Even with tickets and
gift shop sales, no zoo has collected enough
40 money to **offset** the costs of hosting one of
these animals.



▲ Tian Shan and his mother.

Why is **accommodating** these bears so expensive? At most zoos these animals get the best of everything: state-of-the-art habitats, the best doctors and keepers, the tastiest food, and a variety of toys to play with. In the U.S. alone, this level of care costs millions of dollars a year. Every year, each zoo also sends China a million dollars for the protection of pandas and their remaining habitat. China uses these funds to create education programs for schools near protected areas and to **restore** the panda's bamboo forests.

Given the enormous cost of caring for these animals, what exactly are the benefits of raising pandas in captivity? For one thing, it has led to a number of successful births. In recent years, the captive-panda population has increased **dramatically**. Record numbers of cubs have been born, with much better chances for survival rates. A decade ago, at the Wolong Nature Reserve in China, at least half the twins and many of the single cubs died as babies. Today, new care and feeding techniques have improved the chances for survival of captive pandas in zoos in China and around the globe. All those cubs have pushed the captive population closer to a magic number: 300. With that many pandas, says population biologist Jon Ballou, “we can have a self-sustaining¹ captive population and maintain 90 percent of known giant panda genetic variation for a century.”

With panda numbers now on the rise, China's goal is to release captive pandas into special nature reserves² and to eventually boost the numbers of these animals in the wild. Scientists **hesitate** to do this just yet, though. As National Zoo biologist David Wildt says, “There may be as many wild pandas out there now as the habitat can support.” However, many pandas born in captivity are being trained to be more self-sufficient and not to rely on their human keepers.

One day, we may be able to **eliminate** altogether the need to raise pandas in captivity. Though this hasn't happened yet, the work being done in China, the U.S., and other countries worldwide is helping to make the goal a reality, one panda at a time.

¹ If something is **self-sustaining**, it is able to support itself without help from others.

² A nature **reserve** is an area of land where animals and plants are officially protected.

▼ Wolong Nature Reserve zoo keeper Hu Haiping carries a four-month-old panda cub back to its mother after a checkup.

