

COMMENTARY

China's Bear Farming and Long-Term Solutions

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For more than 2,000 years, bear bile has been an important base ingredient in Chinese traditional medicine. Prescriptions containing bear bile are believed to have healing powers for varieties of heat-related illnesses such as eye irritation, liver diseases, hemorrhoids, kidney problems, and even cancers, to name just a few. Various books of medicine circulated in China's dynastic past documented bear bile's medicinal effects. Its recording in *The Compendium of Chinese Materia Medica* (ben cao gang mu) written by a legendary Ming Dynasty doctor, Li Shizhen (1518–1593), solidified its position in Chinese medicine.

Traditionally, bear bile was collected from an entire gallbladder taken from a bear killed in the wild. This method of bile extraction failed to provide a steady bile supply to practitioners of traditional medicine. Consequently, bear bile medicines were exorbitantly expensive. Scarcity helped to mystify bile's healing power. In the late 1970s, however, North Korea succeeded in developing a "technology" for obtaining bile from live bears. Bear farming was born.

Chinese officials saw bear farming as a lucrative business and an enterprise that served the people's health needs ("Commercial Raising," 1994). Government support and the lure of instant profit led to a mushrooming of bear farms across the country. By the mid-1990s, there were as many as 600 farms keeping more than 10,000 bears for bile extraction. For many years, Chinese officials and farm owners had chosen not to see the humanitarian crisis on the farms. What they cared about was a steady flow of the "liquid gold" generated by the incarcerated bears.

In 1993, bear suffering in China was first exposed to the outside world. Tens of thousands of protest letters inundated Chinese diplomatic missions overseas. The international outcry forced Chinese authorities to confront the moral issue of bear farming. To dissipate international condemnation, Chinese authorities announced in 1994 that no new bear farms would be licensed (Chen, 1997). Subsequently, the Chinese Forestry Ministry (1996) issued a special notice stating that no foreign object is allowed to be inserted into a bear body. No bears younger than 3 years of age and lighter than 100 kg can be used for bile extraction. Bears can be confined in cages only during the time of bile extraction. In March 1997, at an international conference on the bear parts trade, Zhiyong Fan of China's Convention on International Trade in Endangered Species Management Authority declared, "[T]he problem of farm bears being maltreated has been basically solved in China" (Roberts, 1998).

Responding to my question about Sichuan farm owners' compliance with the Chinese Forestry Ministry (1996) notice, a provincial forestry official answered assuredly, "They have complied fully" (X. S. Deng, personal communication, November 4, 2003). This study is less a challenge to the official claim than to bear farming itself. Is bear farming or farm bear conditions "improvable"?

METHOD

This study involves two methods of collecting information on China's farm bears. First, an extensive literature review was conducted via the World Wide Web. Books on China's bear farming do not exist, but there is a plethora of special reports, eyewitness accounts, tourists' descriptions, and journalistic reports on China's bear farms. Special attention was focused on the following subjects:

1. Bile extraction methods.
2. General farm conditions.
3. Physical and mental health of the bears.
4. Death of bears and main causes.
5. Bear conditions after 1996 when the Chinese government issued a special notice on improving farm bear conditions.

In the literature review, priority was given to special reports by international nongovernmental organizations (NGOs) involved in Chinese farm bear rescue and investigation: the Animals Asia Foundation (AAF) and the World Society for the Protection of Animals (WSPA). More recent investigative reports in Chinese language newspapers also received greater attention.

Although Internet searches can produce the latest journalistic reports related to bear farms, even the most up-to-date Internet data on farm bear conditions is 7

months old. To make up for the belatedness of the Web sources, telephone and electronic interviews were conducted with international animal welfare activists who are involved in rescuing farm bears in China: Chinese central and provincial wildlife protection administrators, China's animal welfare legal experts, and veterinarians who are directly involved in providing medical care to the rescued bears. In the course of the interviews, specific questions were raised about short-term remedies and long-term solutions to bear farming. The interviewees provided detailed information on a wide range of issues: rescued bear conditions, postrescue medical care, some of the most common reparatory surgeries on the rescued bears, and Chinese public and official attitudes toward bear farming. Information from the two sources is synthesized in the following sections.

BILE EXTRACTION AND BEAR SUFFERING

By mid-2003, farms and use of bears for bile extraction had declined in number (R. S. Chen, personal communication, August 17, 2003). In Sichuan Province, one of the five provinces with the largest number of bear farms, the number of bears declined from 2,700 in 1999 to 2,300 in 2002. Nationwide, the number of farms and bears is estimated at 247 and 7,002, respectively (J. Robinson, personal communication, November 4, 2003). Bear farming features small family farms with as few as four bears or large-scale, state-owned, conglomerate-type operations boasting almost 1,000 bears (Yin, 2002). Are the farm owners complying with the Chinese Forestry Ministry (1996) as Chinese officials have claimed? Eyewitness accounts and investigative reports on the bears for bile extraction have presented a diametrically different picture.

EXTRACTION METHODS

Originally, farm bears were implanted surgically with latex, later replaced with stainless steel, catheters (tubes 10 to 20 cm long) in their stomachs. One end of the tube with a metal disc is inserted surgically into the gallbladder and secured with a purse-string suture. On the other end, the second disc lies within the abdominal cavity supported by the abdominal muscle. An opening or hole is cut in the bear's abdomen for controlled or free bile drainage (Cochrane & Robinson, 2002). Because the insertion of a catheter into the bear's body caused multiple complications and bear deaths, the Chinese Forestry Ministry (1996) banned the use of catheters. Instead, it required the adoption of a free-dripping method.

The use of this so-called humane free-dripping method requires the creation of an artificial fistula between the gallbladder and the abdominal wall. For this purpose, an opening is cut in the gallbladder so that it is stitched to a corresponding

hole in the bear's abdominal wall. Or, a tube made of the abdominal mesentery is created to link the opening in the gallbladder to an open wound cut in the bear's stomach. Through this open wound, the farm worker inserts a tube into the fistula once or twice a day to extract bile. Since the issuance of the Chinese Forestry Ministry (1996) directive, the free-dripping method has been the only bile extraction method allowed (Cochrane & Robinson, 2002).

FARM BEAR TREATMENT

Bears react strongly to either method of bile extraction. To make the bears easier to milk, farm owners have adopted a series of measures to restrain them:

1. *Bodied-sized cages.* Most bears are kept in cages with dimensions that average $129 \times 60 \times 67$ cm (G. M. Cochrane, personal communication, January 15, 2004).
2. *Crush cages.* These are cages with movable sides for moving toward the bears to constrain them during bile extraction procedures.
3. *Metal corset.* Metal corsets are put on the bears to prevent them from taking out the foreign objects inserted in their bodies or from self-mutilation in response to surgery-caused irritation, pain, and inflammation at the open wound.

Additional methods include the following:

1. *Declawing.* The third phalanx of each front digit is often removed to prevent the bears from harming the farm workers and self-mutilation.
2. *Cutting back teeth.* Bear teeth often are forcefully removed to remove their defenses.

Years of confinement and abuse have taken a heavy toll on most bears. Most show injuries caused by the cage bars on their pain-wracked bodies (Cochrane & Robinson, 2002; Wei, Tang, & Wang, 2002). Because of severe mental agony, they exhibit stereotypic behaviors such as "rocking backwards and forwards, banging their heads against the metal bars in a desperate attempt to stimulate their intelligent minds" (Cochrane & Robinson, 2002). Other physical conditions include "gaping holes caused by crude metal catheters or the new 'free dripping' method" and "chronically infected abdomens, weeping blood, pus and bile" (AAF, 2003).

Bile extraction is painful. Bears less than 100 kg and sick bears are not spared for bile extraction. In the process, bears scream at the top of their lungs and shiver incessantly (Wei et al., 2002). Farm bears die in large numbers from infections at

the bile exit site. As a result, wild bears, indicated by their missing limbs and other noticeable signs, are obtained to make up for the farm bear loss (AAF, 2003; Cochrane & Robinson, 2002; Wei et al., 2002). Finally, bears are denied access to water. The bears' diet is reportedly composed of mainly vitamin-poor corn mash (WSPA, 2002).

WHAT DO THE RESCUED BEARS TELL US?

Farm bear suffering in China has attracted the attention of international animal welfare organizations. The International Fund for Animal Welfare (IFAW) was among the first to respond to the farm bear crisis. Since 1998, the AAF has become the single most important international NGO devoted to rescuing China's farm bears and seeking the end of bear farming throughout Asia. In the summer of 2000, the AAF signed a historical agreement with the Chinese officials on rescuing 500 bears in China's southwest Sichuan Province. Since then, 99 bears have been rescued and the 85 surviving bears (27 males and 58 females) are living in AAF's Bear Rescue Center in Chengdu, capital city of Sichuan. The premolars extracted from the bears are yet to be sent to the United States for age determination. They can roughly be classified, however, as young, middle-aged, and old bears. Judging by the latex catheters that were found in four bears, some of them could have been in cages up to 20 years (J. Robinson, personal communication, November 3, 2003).

Cochrane and Robinson (2002), AAF founder and AAF veterinarian, respectively, provided the most authoritative scientific data on the level of suffering the bears had gone through in a span of as many as 22 years. Tables 1, 2, and 3 are snapshots of the bear conditions based on their report, a recent speech by Cochrane, and their correspondence with the author.

All the bears who arrived at the Rescue Center were given immediate medical attention. Bears classified as critical received emergency treatment and surgery. Some of the most often performed medical procedures are as follows:

TABLE 1
Number of Animals Asia Foundation Rescued and Surviving Bears

<i>Time of Arrival</i>	<i>Total Rescued</i>	<i>Total Surviving</i>
July 2002	78	68
December 2002	21	17
November 2003	37	34
Total	136	119

TABLE 2
Death of Rescued Bears and Causes

<i>When</i>	<i>Total Deaths</i>	<i>Causes</i>
Prior to arriving at the Rescue Center	3	Unknown
At the Rescue Center	15	Massive abdominal peritonitis, septicemia, suspected maxillary tumor, oversized kidneys, liver tumor, and self-mutilation

Note. Out of 99 rescued bears.

TABLE 3
Physical Conditions of Bears

<i>Number</i>	<i>%</i>	<i>Medical Conditions</i>	<i>Causes</i>
46	68	Chronic infection around the implant or free-dripping sites	Unsterile surgical conditions Unqualified persons performing the surgeries
12	16	Abdominal hernias	Use of unsterile materials
67	98	Abscesses in mesentery, gallbladder, abdominal musculature, or subcutaneously	Bacteria attack through the "hole" in the abdomen or through the catheter
19	25	Gallstones	Bile leaking into the abdomen Incorrect dispensing of drugs by farmers
14	18	Foreign objects such as rubber tubes and knotted cotton suture materials	Unqualified persons performing the surgery
42	56	Serious damage to the canines	Frantic bar biting due to mental distress or farmer-inflicted teeth damage

Note. Out of total of 68 surviving bears rescued by July 2002.

1. Removal of metal or latex catheters and other foreign objects.
2. Removal of all of the gallbladders.
3. Amputation of trap-damaged limbs.
4. Removal of canine teeth damaged as a result of frantic bar biting or farmer-inflicted tooth damage (G. M. Cochrane, personal communication, November 5, 2003; Cochrane, 2003).

According to G. M. Cochrane (personal communication, November 5, 2003), completing all the medical work on the bears requires 3 months. Depending on the conditions of the bears, different doses of antibiotics are administered for different durations after surgery.

DISCUSSION

The veterinary diagnosis confirms the various observations on bear suffering. Precisely, every one of the three major requirements of the Chinese Forestry Ministry (1996) has been violated: (a) using free dripping instead of catheters, (b) caging bears only during bile extraction, and (c) no extracting for bears younger than 3 years or less than 100 kg in weight. According to the AAF (2003), 85% of the 75 bears rescued by July had metal or latex catheters (Cochrane & Robinson, 2002). Therefore, the report that 600 bears at Chuandian Pharmaceutical Company's bear farm in Yunnan's Longchuan County undergo bile extraction through metal catheters is not baseless (Sheng et al., 2002). Also 34 (45%) of the 75 bears weighed less than 100 kg. Before being rescued, 27 of them already had been used for bile extraction (Cochrane & Robinson, 2002). Terminally ill and aging bears also are not spared from bile extraction at other farms. Most bears remain permanently caged in their iron "torture chambers."

Inflicting the Cruelties

Would strict compliance with the Chinese Forestry Ministry (1996) alleviate farm bear suffering? The answer is an emphatic "no." Life-long confinement; denial of proper food and access to water; and exploitative use of young, underweight, and dying bears are the most noticeable cruelties inflicted on the bears. Medical problems the bears suffer are not easily noticeable. Because the free-dripping method is not a humane procedure, this latter suffering would not disappear even if the notice were strictly enforced. Even if the surgery to create a fistula were done in completely sterile conditions, an open wound cut in the bear's abdomen allows bacteria to enter directly into the body either from the environment or via the extraction tube during the extraction procedure (G. M. Cochrane, personal communication, November 5, 2003). Serious health problems with the free-dripping bears include (a) cholecystitis, (b) polyp formations, (c) abscesses at the connection of the gallbladder to the abdominal wall, (d) gallstone formation, "hole"-like lesions on the inner surface of the gallbladder wall, and (e) partial herniation of the gallbladder into the subcutaneous area (Cochrane, 2003). Of the bears rescued in 2002, 48.1% who had undergone fistula surgery required antibiotics to fight infections at the open wound; 22% of

the free-dripping bears had gallstones (Cochrane & Robinson, 2002). Except for ending bear farming, there is really no solution to China's farm bear suffering.

Making It Worse

Farmer ignorance and wanton brutality make bear suffering worse. Unqualified personnel—human doctors and inappropriately trained veterinarians—have been hired to perform the surgeries of catheter implantation and fistula creation. The farmers themselves often provide the postsurgery care to the bears, often using instinct to guide drug use. The ghastly sight of pus, blood, and bile seeping from the open wounds suggests serious health problems suffered by the bears. Reportedly, 50% to 60% of bears die from complications caused by the crude surgeries and improper postsurgery care (WSPA, 2002). Farmer-inflicted injuries such as chopping off the third phalanx of the front digits and cutting back bear teeth as deep as the gum level cause permanent damage and pain to the bears.

Despite the Chinese official claims of bear population increase in the wild, a considerable number of the farm bears are not bred in captivity. Of the 75 bears rescued to the Chengdu Rescue Center, 24 of them (32%) were believed to be caught in the wild based on their bodily features, such as missing limbs, scarring, and other noticeable signs (Cochrane & Robinson, 2002). The director of Chuandian Pharmaceutical Company's bear farm told reporters that many bears on his farm were purchased from wildlife traders from Burma (Sheng et al., 2002). There is legitimate concern for the fate of the existing wild bears both in China and in neighboring countries if bear farming perpetuates in China.

WHAT CAN BE DONE?

Because bear farms will not close soon, the Chinese authorities and animal welfare groups—both within and outside China—can take a number of actions to alleviate bear suffering in the short term and, in the end, to make bear suffering history.

First, the Chinese authorities should strengthen law enforcement. All bear farms must comply with the Chinese Forestry Ministry (1996) directive or face farm closure. Bears cannot be caged except during bile extraction. The bears' diet must be improved. Access to water must be provided at all times. Sick, old, young, and underweight bears cannot be milked. Bears must be provided with space, toys, and enrichments and allowed to play and socialize (J. Robinson, personal communication, November 4, 2003). Bears who are suffering from surgery-induced illnesses or farmer-inflicted injuries must receive proper medical attention.

Second, the Chinese Forestry Ministry (1996) directive should be revised to include additional articles against cruelty. No bodily injuries such as forceful

declawing, cutting back bear teeth, or causing pain to the bears by any other act should be allowed. In addition, the Ministry must include a new article on obtaining professional postsurgery veterinary care for the bears. Farmers should consult professional veterinarians in administering medication to the bears on their farm.

Third, the international community and Chinese domestic NGOs should encourage Chinese authorities to start the process of animal welfare and anticruelty legislation. Currently, these two topics are debated among interested legal experts, animal welfare NGOs, and the concerned public. It is time to push these two topics onto China's legislative agenda (W. Song, personal communication, September 5, 2003).

Finally, international and domestic Chinese NGOs have a large role to play in fostering a new culture on the Chinese mainland. Anticruelty education in various forms, such as outreach programs oriented to schoolchildren and the traditional medicine community, will help eliminate demand for bear bile in the future.

Bear farming is intrinsically cruel, despite the many "honorable" ends it serves. It is not something that is improvable. The decline in bear farms and in government support seems to confirm an inevitable trend of its slow but steady phasing out. Even though farm owners have been engaged in aggressive marketing strategies to promote new bear bile products such as tonics, wine, and cosmetics, mainland Chinese have reacted negatively to bear farming (IFAW, 1999). R. S. Chen (personal communication, August 17, 2003), General Secretary of the official China Wildlife Conservation Association, expressed his optimism about the eventual end of bear farming in China. The recent findings on bear conditions should help reinforce that conviction among Chinese officials.

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