



IWMC World Conservation Trust



RATIONAL USE:  
**TRADITIONAL MEDICINES AND  
BEAR FARMING IN CHINA**



# INTRODUCTION

Few needs in life are more essential than health care. Everywhere in the world, people desire access to effective medicines, hospitals and care providers so that they can live long and healthy lives.

On average, Americans spend over \$7,000.00 on health care each year, while Europeans spend around half this figure. To put this into perspective, many Americans and Europeans spend more on health care every year than the annual average income of someone living and working in China (around \$5,400.00).

And spending on health care continues to increase as the demand for new products and services expands, medical discoveries are made and technological breakthroughs occur.

Medicines continue to be a significant part of our health care infrastructure. Billions of dollars are invested each year by pharmaceutical companies to develop new drugs. These alleviate medical conditions, improve recovery from illnesses and diseases, control symptoms and slow the progression of diseases. In addition, there is a large demand for homeopathic medicines and traditional treatments, such as acupuncture.

Against this background, the market for traditional Chinese medicines is relatively small. And yet, like medicines prescribed in the western world, they provide proven and valuable treatments for people combating illness and disease. Oftentimes, traditional Chinese medicines offer a lower price alternative to invasive, and potentially risky, surgery.



# NATURAL INGREDIENTS

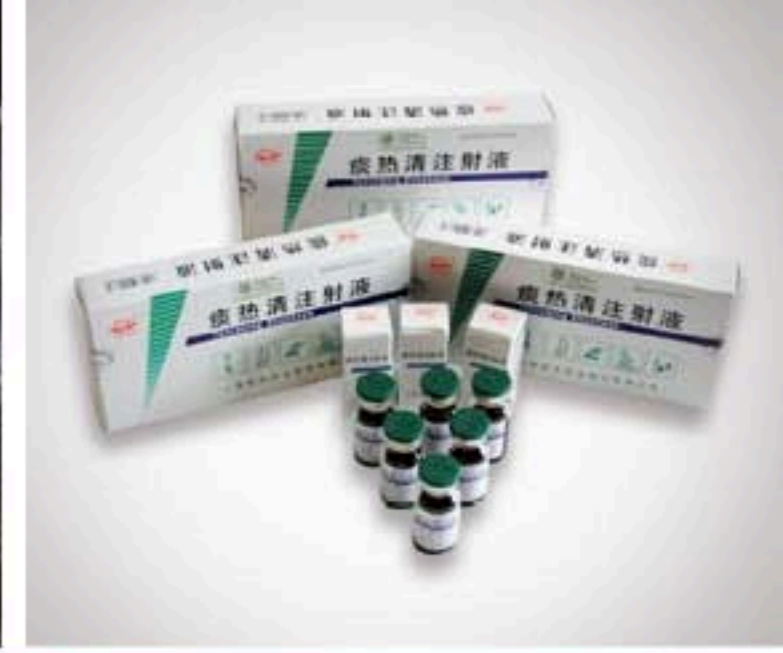
Most modern medicines contain compounds of natural substances, such as those that are found in animals and plants. Pharmaceutical scientists undertake research to identify and develop chemical compounds that provide particular health benefits. Pharmaceutical companies manufacture these as synthetic medicines that can be mass-produced for the health care market.

In this way, many modern western medicines that are manufactured by pharmaceutical companies have similarities to traditional medicines that have been produced in China and other Asian countries for thousands of years. As with western medicine, traditional medicines are prescribed by doctors based on a patient's symptoms.

In China and other parts of Asia, there is a continued demand for animal and plant products for use in traditional medicines to cure or alleviate medical conditions. In addition to their health benefits, these medicines play an important role in regional culture and identity.







## ASIATIC BLACK BEARS

Medium-sized and with distinctive V-shaped white markings on their chests, Asiatic black bears are found in parts of Russia, China, Vietnam and other Asian countries. This omnivore typically lives in the wild for around twenty-five years. The main natural predators of Asiatic black bears are tigers and other wild cats and packs of wolves. As with many species in developing countries, the Asiatic black bear is impacted by deforestation, which causes loss of habitat. One aspect of this problem is that the bears are more vulnerable to predators when they cannot build their dens in trees.

In China, the largest population of Asiatic black bears is found in the conifer forests in the northeast of the country. As a state protected species, special permits are required for the capturing of Asiatic black bears from the wild, although no such permits have been issued for commercial purposes since 1993.

While the Asiatic black bear is not one of the nearly 20,000 species that the IUCN (International Union for Conservation of Nature) lists as endangered on its Red List of Threatened Species, it is listed as vulnerable. This means that it is considered to have a high risk of endangerment in the future. The Asiatic black bear is also listed on Appendix I of CITES, the Convention on International Trade in Endangered Species, and is under "second class" national protection in China (out of three wildlife protection classification levels).

## BEAR BILE

Bile from Asiatic black bears has been used in traditional Chinese medicine for thousands of years, with the first written record reaching back to 659 AD. Bile acts as a neutralizer of poisons – almost like a detergent within our bodies. Bear bile contains ursodeoxycholic acid (UDCA), which has a number of medical applications such as reducing fever, protecting the liver, improving eyesight, breaking down gall stones and acting as an anti-inflammatory. Because of its various therapeutic properties, bear bile is also used as an ingredient in health-boosting tonics.

In western medicine, UDCA is collected from slaughterhouses, purified and manufactured into modern medicines (where it is known as Ursodiol, Ursofalk or Actigall). It is often prescribed to decrease the amount of liver-toxic bile acids in the body, such as with the autoimmune liver condition primary biliary cirrhosis (PBC).

However, just as consumers in the west may choose between trade and generic brands of medicine, many Chinese prefer to use the traditional medicines rather than modern substitutes. Perhaps this is not entirely surprising since scientists do not fully understand the mechanism by which UDCA produces its therapeutic benefits. Indeed, bear bile contains over one hundred separate elements, or ingredients, from five chemical groups and is typically prescribed along with other herbs and animal products. The search for synthetic substitutes for such complex traditional medicines has been undertaken in China for thirty years but still has some way to go.



# CHINESE BEAR FARMS

Farming has been carried out from the earliest days of civilization. It allows us to cultivate food and other products efficiently and in a sustainable manner.

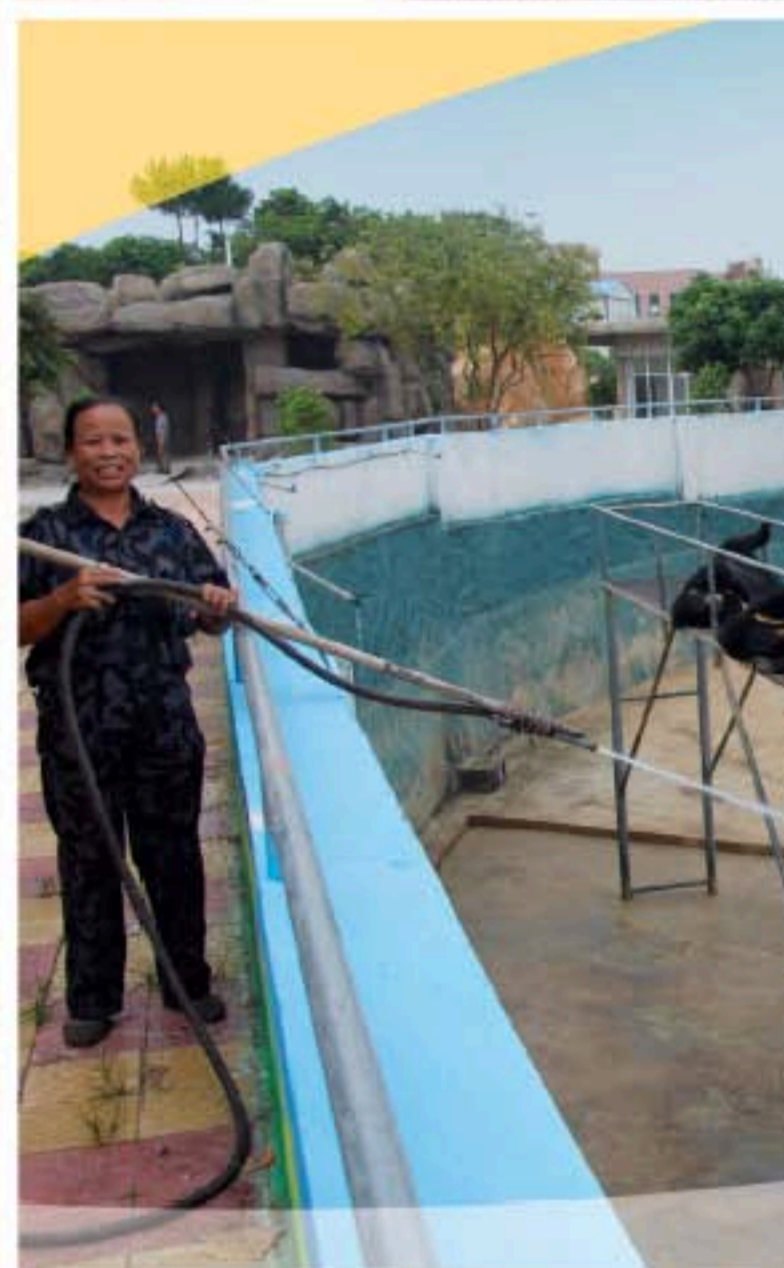
Farming also serves a valuable conservation purpose. It is universally recognized that farming, ranching, aquaculture and the artificial propagation of plants dilutes the pressure on wildlife. Farming animals is typically cheaper, easier to undertake and more predictable than hunting. By supplying the products that we demand, farming provides a critical mechanism for conserving wild species while also meeting the demand for animal products.

Historically, bear bile could only be obtained by first killing the animal. However, over the last twenty-five years, a series of bear farms have been established in China that are able to extract bile from living animals. Many of the farms are located in the north east of the country, where the wild populations are also found. A single farmed bear can produce the same amount of bile as the gall bladders of 230-250 wild bears.

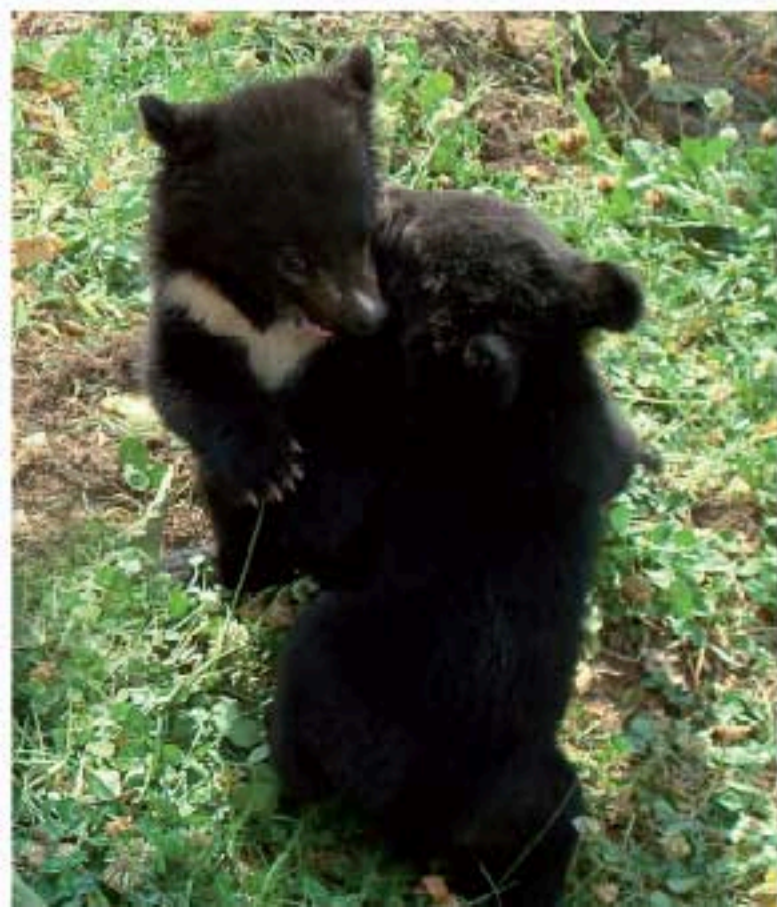
The technology for collecting bile continues to improve, reducing discomfort and pain to the animals. In the most modern facilities, trained technical staff insert a sterilized catheter into a fistula in the lower abdomen of a bear. The bile is drained and collected in a process that takes around 10-15 seconds and prompts no noticeable response from the bear. After the bile has been removed, the animal is free to leave the chamber and join other bears in a large enclosure. The animal's abdominal wall heals naturally where the fistula has been surgically implanted, allowing the bear to run, climb, wrestle and breed without impairment.

Captive animals that suffer stress through cruel treatment tend not to feed, grow or reproduce. IWMC visited three modern Chinese bear farms in 2012 and in each one the bears included nursing females and young offspring, were well-fed and healthy, and displayed no skin lesions or infections. The farms have their own sewage treatment plants to maintain a clean environment.

While these conditions are not uniform in China's bear farms, and standards at the first farms were unsatisfactory, the State Forestry Administration is systematically working to raise standards across its facilities. All three farms visited by IWMC were well-run and were resourced to produce the highest quality final product. Farms that fail to meet today's strict standards have been closed down.







## CONSERVATION

With large numbers of people in China being treated by traditional medicines each year, there is continued demand for bear bile. The quantity collected from captive bears on farms in China is sufficient to satisfy this domestic demand. As a result, the poaching pressure on wild populations of bears in China and elsewhere is at low levels. A rise in human-bear conflicts over crop depredation is an indicator that the wild bear population is increasing.

In addition, many bear farms are now providing third and fourth generations of captive-bred animals, which means that restocking from the wild is increasingly unnecessary.

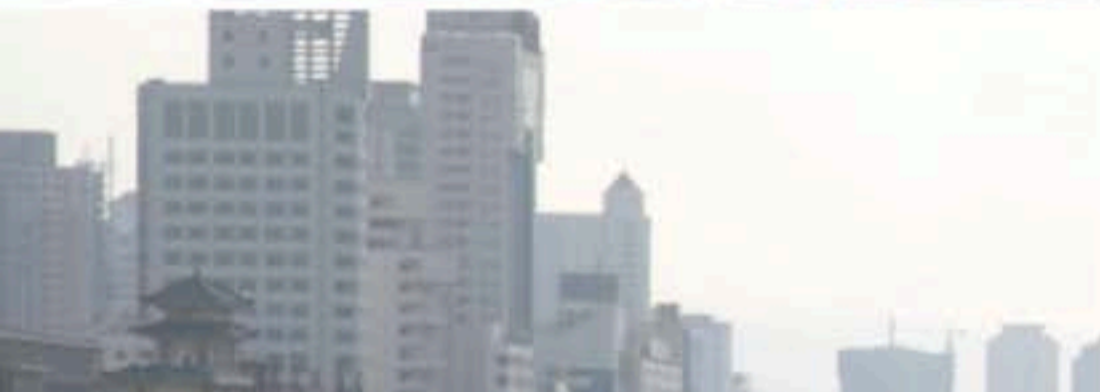
In 2004, China introduced an official marking system for traditional medicines containing bear bile. This allows for effective tracking of production sources and enables wildlife and health care authorities to enforce standards at the farms. Tough penalties can apply if the conditions for the bears and the technology used to extract bile do not meet modern requirements.

This does not satisfy western animal rights campaigners who wish to end all use of animals. They wrongly assert that the supply of wild animal products creates its own demand. But bear bile is not a consumer product like an iPad that brings benefits to consumers that previously did not exist. Rather, it is an established medical remedy that has been used in Asia for thousands of years and for which demand remains relatively constant over time.

It is clear that if only wild bear bile was available in Asia, poaching of the Asiatic black bear would increase dramatically to satisfy demand for the product. Attracted by high black market prices, new illegal suppliers of bear bile would emerge, fueling the collapse of the wild population.

Two of the farms visited by IWMC run public awareness programs that promote the conservation of wild bears. By contrast, in South Korea and Vietnam pressure from campaigners to end bear farming is undermining regional conservation efforts.





# CONCLUSIONS

Bear farming has become more humane and more efficient as technology has advanced and it can continue to provide medicinal and conservation benefits in the future. Against this progress, is it right for westerners to try to arbitrarily limit the use of animals in order to satisfy a narrow political and ideological agenda? The fact is that without traditional Chinese medicines, we would not have some of the synthetic alternatives that have been created in the west.

Bear farms also provide significant economic benefits through their employment and spending. Around seven hundred people work at one bear farm visited by IWMC. The farms contribute to the economy by purchasing food, material and services, by paying taxes and by providing access to effective low-cost medical supplies.

The relationship between people and wildlife, together with the rights of people to use wildlife resources sustainably, are embodied in the philosophy and fundamental principles of both CITES and the Convention on Biological Diversity.

When carried out humanely, closed-cycle captive breeding of Asiatic black bears for the collection of bile and its use in traditional medicines represents an excellent example of the rational use of a wildlife resource. It ensures that an important and functional cultural tradition is preserved while facilitating the conservation of wild bears in China and elsewhere in the world.



# SUMMARY

- Many Americans and Europeans spend more on health care every year than the annual average income of someone living and working in China.
- The market for traditional Chinese medicines is relatively small. Oftentimes, Chinese medicines provide a lower price alternative to invasive surgery.
- Most modern medicines contain compounds of natural substances, such as those that are found in animals and plants. Many modern western medicines that are manufactured by pharmaceutical companies have similarities to traditional medicines that have been produced in China and other Asian countries for thousands of years.
- The largest population of Asiatic black bears in China is found in the northeast of the country. As with many species in developing countries, the Asiatic black bear is impacted by deforestation which causes loss of habitat.
- Bear bile contains ursodeoxycholic acid (UDCA), which has a number of medical applications such as reducing fever, protecting the liver, improving eyesight, breaking down gall stones and acting as an anti-inflammatory. In China, bear bile is also an ingredient in health-boosting tonics. In western medicine, UDCA is often prescribed to decrease the amount of liver-toxic bile acids in the body, such as with the autoimmune liver condition primary biliary cirrhosis (PBC). Scientists do not fully understand the mechanism by which UDCA produces its medical benefits.
- The technology for collecting bile in bear farms in China continues to improve, reducing discomfort and pain to the animals. IWMC visited three modern Chinese bear farms in 2012 and in each one the bears included nursing females and young offspring, were well-fed and healthy, and displayed no skin lesions or infections. All three farms were well-run.
- Many bear farms are now providing third and fourth generations of captive-bred animals, which means that restocking from the wild is increasingly unnecessary.
- The bile collected from captive bears in Chinese farms is sufficient to satisfy domestic demand. As a result, poaching pressure on wild populations of bears in China and elsewhere is at low levels.
- Bear farms provide employment and other economic benefits to their communities. Around seven hundred people work at one bear farm visited by IWMC. The farms contribute to the economy by purchasing food, material and services, by paying taxes and by providing access to effective low-cost medical supplies.
- Western animal rights groups wrongly assert that the supply of wild animal products creates its own demand. But bear bile is not like an iPad. It is an established medical remedy that has been used in Asia for thousands of years and demand for it remains relatively constant over time.
- If only wild bear bile was available in Asia, poaching of the Asiatic black bear would increase dramatically to satisfy demand for the product. Attracted by high black market prices, new illegal suppliers of bear bile would emerge, fueling the collapse of the wild population. In South Korea and Vietnam, pressure from campaigners to end bear farming is undermining regional conservation efforts.
- It is not for westerners to arbitrarily limit the use of animals around the world in order to satisfy a narrow political and ideological agenda. Without traditional medicines, many Chinese people would not be able to afford health care.



"My visits to Chinese bear farms took place sixteen years apart. On my most recent visit, in April 2012, I was impressed by the enormous improvements that have been made to the living conditions of the animals and in the methods to extract the bile. If the standards that I saw at three farms – in Mudanjiang, Chengdu and Juian-Xiamen – are replicated at other farms, then the overall conditions are comparable to those for other captive animals in western countries. I have no doubt that the conservation benefits of farming bears in China is significant and is making an important contribution to the protection of these animals in the wild. While there are threats to bears in the wild, farming is not one of them. When carried out humanely, farming is clearly the preferred means to meet the demand for bear bile."



A handwritten signature in black ink, appearing to read 'E. Lapointe'.


Eugène Lapointe  
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August 2012



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August 2012