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Historical Perspective to the Bear Trade

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Traditional Chinese Medicine and the growth of the modern trade in bear products

The use of herbs to cure illness can be traced back over 4,000 years in China. The earliest medicinal literature (Shen-nong Ben Cao) dates back to 482 BC and records 365 types of medicinal issues.

One of the most famous Chinese herbals, (Ben Cao Gang Mu) was written by Li Shi-zhen during the Ming dynasty (1590). This work lists 1,892 types of herbs used as medicine. In the above mentioned literature, animal ingredients make up less than 10% of the medicinal ingredients, and the majority of those animal parts are insects. There is very little use of mammal body parts listed in these early Chinese traditional medicines¹.

The use of bear parts in medicines in China dates back over 3,000 years. Medicinal uses for bear gall bladder first appeared in writing in the seventh century A.D. in the *Materia Medica of Medicinal Properties*². The use of bear bile has since spread to other Asian countries such as Korea and Japan where it has been adopted for use in local traditional medicines.

Plant and animal products which are selected for use in Chinese medicine are classified according to their properties. There are four essences (cold, hot, warm, and cool); five flavours (pungent, sweet, sour, bitter, and salty); and four directions of action (ascending, descending, sinking, and floating). Bear gall bladder is classified as cold and bitter. 'Cold' drugs are believed to be effective in reducing fever and inflammation, and by cooling the blood, and detoxifying the body. 'Bitter' drugs are used to dispel heat, to dry dampness, and to purge the body.

According to the 16th century Chinese Herbal, 'Ben Cao Gang Mu', bear gall bladder can be used to eliminate parasites, cool the heart and the liver, and to brighten the eyes. Historically, bear gall bladder has also been used to alleviate spasms and delirium caused by extensive burns; reduce swelling, inflammations and pain in cases of trauma, sprains, fractures, or haemorrhoids; ease pain in hot skin lesions; treat hepatitis and hepatic coma; and to treat hyperaemia, jaundice, convulsions in infants, and chronic diarrhoea². Traditional Chinese Medicine (TCM) today continues to utilise bear gall bladder and bile for these ailments.

Bears are the only mammals to produce significant amounts of the bile acid called Ursodeoxycholic acid, or UDCA, (apart from giant pandas, which do not produce UDCA). It is the UDCA which is the active ingredient believed to have beneficial medicinal effects. UDCA is also found in other species and can be extracted from pig bile and cow bile. Japanese scientists succeeded in chemically synthesising UDCA in the mid 1950's, and today large quantities of UDCA are made synthetically and are widely used in Western medicine to dissolve gallstones. It is estimated that 100,000 kg of this synthetic UDCA is being consumed each year in China, Japan and South Korea, and that the world consumption may be double this figure³.

Traditionally, to obtain bear gall bladder for medicinal use, bears had to be hunted and killed in the wild. In China, killing bears for these products was "legal and encouraged"⁴ until the Chinese Wild Animal Protection Law (1989) made it forbidden to hunt bears for their parts. Sun bears and giant pandas are listed as class I under this Chinese law, and hunting and trade in their specimens is strictly forbidden. However, brown bears and Asiatic black bears found in the wild in China are only given Class II protection which means that "subject to approval of competent state authorities (Provincial wildlife administrations and Ministry of Forestry), they may be caught at specified times and places."⁵



Although the use of bear products in Traditional Chinese Medicine dates back thousands of years, large scale commercial exploitation of bears is a recent development. Commercial bear farming has developed within the last 30 years.

In the early 1980's, North Korea developed a method for extracting bile from the gall bladders of live bears. This practice quickly spread to China, and in 1985 the China News Agency announced that because of the shortage of raw material for medicines, the Chinese Crude Drugs Company planned to raise bears in captivity and extract their bile⁴.

Bears were caught from the wild and through a surgical procedure they had metal or rubber catheters inserted into the bile duct or gall bladder to create a channel for bile fluids to be extracted from a tube exiting the abdomen. In some cases, the bile was continuously drained into a plastic sac, to be collected at regular intervals. In other cases, the exterior tube was opened and the bile drained out daily (around 100 ml can be drained per day). To prevent the bears from scratching at the bile sac or exposed catheter, bears were often fitted with a metal corset or jacket. The liquid bile would be oven-dried to form crystals which are used to make the various commercial bear bile products.

To enable the farm operators to access the exposed tube in the bear's abdomen, the animals are restrained in small cages measuring around 1 metre by 1 metre by 2 metres, to restrict the movement of the bears. These "coffin-like" cages became a standard feature of bear farms. Some farms used squeeze cages to allow easier access to the exposed catheter tubes. The bears used for bile extraction spend months or years restrained in these small cages. This treatment can produce behavioural and physical problems for the bears and lead to infections, injuries, pain and suffering and also death.

Many bear farms quickly developed to benefit from a growing and profitable bear bile industry, resulting in hundreds of small farms being set up where individuals or families would keep several bears in cages in their houses. Most bears in these farms were captured from the wild between 1984 to 1989 before the China Wildlife Protection Law was passed.

The rapid expansion in the number of small bear farms in China led the authorities to attempt to regulate the industry. In 1993 the Ministry of Forestry issued an 'Urgent Notice to Check up and Rectify the Bear Farms'⁶. The law stipulated that any institution breeding or ranching bears or other protected wild animals, must apply for a 'Permit of Breeding and Domesticating Protected Wild Animals', and called for the closure of bear farms not qualifying for this licence.

In 1996, the Ministry of Forestry issued the “Notice on Strengthening the Management and Administration of Bear Farms”. This was aimed at further regulating the bear farm industry, directing the farms to improve their techniques of captive breeding and to standardise the methods of bile collection. It also asks the wildlife administrations to improve captive conditions for farmed bears and to ban the torturing and injuring of bears⁶.

This Notice also stipulated that a new method of bile extraction was to be used, called the “free dripping method”, where a tissue fistula, or tube, is created to form a channel between the bile duct and the outside of the abdomen. Bile is extracted by inserting a metal rod into this tissue opening to allow the bile to run out, into a collecting bottle. Despite claims from the bear farm industry that this method is humane and causes no suffering to the bears, it is clear from reports of the Animals Asia Foundation⁷ that even with the Free Dripping method, the bears can suffer serious infections, septicemia, abscesses, inflammation of the gall bladder and death. Despite this Notice, many farms still use the metal catheters embedded in the bear’s gall bladder.

A few farms now have larger cages and outdoor concrete areas for the bears. However, the general confinement, poor diet and veterinary care, and the disease, infections, injuries and mental distress the bears still suffer indicate that farming bears for their bile can never be accepted from an animal welfare viewpoint.

The aim of eradicating small, unregulated bear farms and to create larger ones has led to the number of bear farms being reduced over the past decade, but the total number of bears in farms during this period has not decreased due to the creation of “superfarms” which hold hundreds of bears.

In 1992 there were 601 bear farms holding 6,632 bears in China, and by 1998 there were 247 farms holding 7,002 bears (6,764 Asiatic black bears, 187 brown bears and 41 sun bears)⁸.

In fact, these most recent published figures show that there are over 5,200 bears being held in just 27 large bear farms in China! This is around 75% of the total number of bears in the farming industry in China².

Bears were not allowed to be caught from the wild for farming after 1990, and no new bear farms have been approved since 1993. All existing farms are now supposed to breed all their animals in captivity¹. However, the high mortality rate in farmed bears, due to illness, injury, infection etc. has meant that bears are still being caught from the wild to supplement their stocks. Investigators from the WSPA found that staff at a number of bear farms admitted to buying wild caught bears to supplement their stocks². There are also numerous reports of bear cubs confiscated in transit to Chinese bear farms from Russia⁹.

21st Century bear products

The TCM industry today utilises whole gall bladders (either from bears caught in the wild or dead bears from farms), and bile from bear farms. Gall bladder may be sold whole, in shavings, or powdered and put into capsules.

Products made from farmed bear bile include powders, capsules, ointments, tablets, tinctures, wines, suppositories, eye drops and bile tea. Bear bile powder is the most common type of product and it is usually produced and packaged by the bear farm itself. In order to avoid the bitter taste and strong smell, the bile powder can also be put into capsules as an oral medicine.

In general, the price of pure bear bile powder in China is higher than any other form of bile products. 4gm of bear bile powder, packed into 2 vial containers (2gm each), would cost around RMB\$100 - 150 (US\$13-20). The cost of the product is high for the general public, when compared to the middle and low level of income in China. For example, a worker in a restaurant would earn around



Above: Bear bile products purchased in 2002 in Australia.
 Left: An intact bear gall in Japan.

RMB\$300 (US\$40) per month. There are other types of products containing smaller amounts of bear bile that only cost 1/3 or 1/4 of the price of pure bear bile powder².

In China, bear gall bladder, bear bile powder and other forms of products are almost always sold in pharmacies, which are mostly run by the State and which sell Chinese medicines and Western medicines. In the pharmacies, the products are either recommended by shop assistants or requested by customers.

These products are not generally demanded by the public, nor are they prescribed in high volume by TCM practitioners. The truth is that they are promoted by the bear farms and pharmaceutical manufacturers purely for considerable commercial profit. They produce such a massive excess of bear bile that they need to fabricate different types of products in order to stimulate the market and consumption.

Alternatives to bear bile products

There are perfectly adequate and cheaper synthetic products on the market which contain the active constituent of bear bile i.e. UrsoDeoxyCholic Acid (UDCA). Many Chinese medical practitioners also state that there are at least 75 herbal alternatives which can replace the use of bear bile¹. Scholars of TCM also claim that herbal alternatives can replace bear bile in TCM. More and more of these TCM practitioners claim they now use herbal alternatives due to their efficacy and due to the concern over animal suffering.

A report by the Chinese Association of Medicine and Philosophy and EarthCare (Hong Kong), funded by the International Fund for Animal Welfare, established that there are at least 54 herbal alternatives to bear bile in its various medical applications. Among these are the Chinese ivy stem, Madagascar periwinkle herb, dandelion, Japanese thistle herb and chrysanthemum. The report also emphasised that plant-derived alternatives are cheaper, more readily available and just as effective.

At a TRAFFIC symposium held in November 1999, Drs Lo Yan Wo, Ho Ka Cheong and Scarlett Pong presented a paper entitled 'Herbal Substitutes for Bear Gall Bladder - Give up Bear Gall Bladder and Use Herbal Substitutes' on behalf thousands of practitioners, herbalists and pharmacists in Hong Kong who do not use products of endangered species due to the involvement of illegal trade

in its acquisition, moral considerations, expense, widespread use of fakes or abundantly available herbal and synthetic alternatives.

It is worth noting the support for herbal substitutes from the TCM community, gathered by the Animals Asia Foundation:

“We definitely do not have to use bear bile as it can be replaced by herbs, which are cheaper too.”

Dr Sun Ji Xian, the Chinese Association of Preventative Medicine, Beijing, China

“Herbal alternatives have the same effect - so why kill the animals?”

Dr Ho Ka Cheong, President Hong Kong Chinese Herbalist Association Ltd

“There are many hundreds of ingredients in our Pharmacopoeia, and whatever beneficial effect may be achieved by using endangered species, there are equally beneficial effects by using other alternatives. Please understand that we are in the business of healing people, not in the business of causing danger to wild animal species.”

Word-Fei Cheung, Assistant Manager of the Institute of Chinese Medicine, China.

“One main reason why I have, all along, participated in the work of protecting endangered animals is to make the public understand that the majority of Chinese medicine made from endangered medicine is not indispensable. We can easily replace them with herbal medicines, which are cheaper and easier to find. If the Chinese medicine community ceases to use endangered animals as medicine, it can not only join in helping to save endangered species from extinction, but can also raise the international reputation of Chinese medicine to that of a sophisticated branch of medicine.”

Dr. Lo Yan Wo, Chinese Association of Medicine and Philosophy, Hong Kong.

The commercialisation of the bear trade

China was the first country to utilise bear bile and gall bladder in traditional medicinal products, and this use was adopted by Korea and Japan centuries ago. Today the use of TCM is widespread not only in Asia but also throughout Asian communities in other areas of the world, including Europe and America. Many of these consumers buy bear bile products, either because they believe it to be a traditional medicine, or because the products are marketed well by local TCM pharmacies.

The trade in gall bladders from wild bears has been extensive over the past few decades. Tens of thousands of bears have been killed in the wild to obtain the gall bladders and other parts, including the paws (a delicacy in some Eastern countries), hide, claws, meat, fat and bones. But the gall bladder has been the prize as it has the greatest commercial value. This has led to an increased threat to bears in the past few decades as prices for bear gall bladder has increased making it a lucrative trade for hunters and middlemen alike.

Prices for bear parts in China have risen partly due to the increased prosperity of people wanting to buy these products. In 1970 one kilo of bear gall bladder cost around US \$200, but by 1990 the price had risen to between US \$3,000 and US \$5,000 per kilo.

Significant levels of trade in Asian bear gall bladders have been documented. For example, 681 kilos of gall bladders, reportedly from sloth bears (*Melursinus ursinus*), were exported from India to Japan between 1978 to 1988¹⁰. This could represent the death of around 10,000 bears (the average dried bear gall bladder can range in size from 50g to 125g).

From 1979 to 1988, TRAFFIC Japan estimated that China exported between 11,000 and 59,000 gall bladders to Japan, and another 1,051 kilos of bear gall bladders were exported from China to Japan between 1988 and 1990¹¹.



An intact bear gall on sale in Tokyo.

Import statistics show that South Korea imported 25,000 grams of bear gall bladder from 1985 to 1989⁴ and imported 382 live bears between 1980 and 1984⁴. These import figures are likely to represent only a fraction of the true trade in bears and bear products at that time.

As bear populations in Asia have become severely depleted due to over hunting and destruction of their habitat, wildlife traders have sought bear gall bladders in other countries, notably in America. Polar bears, grizzlies, American black bears and even South American spectacled bears have all been targeted by hunters for their gall bladders in recent years. The hunters sell on the galls to be used in Asia or amongst the growing Asian communities in America.

By 1988, in California alone, the illegal trade in bear parts was estimated to be worth US\$100 million a year¹¹.

Before bear farms started to produce high volumes of bear bile in the 1980's, the demand for bear gall bladder for use in TCM in China amounted to around 500 kilos annually. This was obtained from bears killed in the wild in China and neighbouring countries such as India, Nepal, Russia, Vietnam, Cambodia etc. When bear farms started to produce bear bile in large volumes, their industry began to aggressively market increasing amounts of bear bile products. This effectively flooded the market and created an increased demand for them. As a result, the annual consumption of bear bile in China has risen to around 4,000 kilos a year. In addition, the annual production of bear bile from farms in China is now totalling over 7,000 kilos annually – which is nearly twice as much as required, even with the massive increase in local consumption⁸. The excess bile is made into non-essential products such as wines, teas, shampoos and tonics, or else it is stockpiled or illegally exported. (Bear products from Chinese bear farms cannot be traded internationally due to CITES regulations – see page 59).

As an example of the domestic increase in bile production, Mr. Fan Zhiyong (CITES Management Authority of China) stated that in 1984 (prior to bear farming) “the actual requirement for bear gall bladders are 50 kg each year in Heilongjiang Province”². Yet by 1998 fifty six bear farms had developed in Heilongjiang Province, containing around 800 bears and producing almost 1,000 kg of bear bile a year⁸. On average, bears in farms are producing 1.5 to 2 kilos of dried bear bile a year from each bear⁸.

Historically, it can be seen that the need for bear bile in TCM has been minimal compared to today’s demand for bear bile products. The ease of high volume production of bile from bear farms has led the bear farm industry to aggressive marketing and development of TCM and non TCM products in order to capitalise on the commercial benefits of the resulting increased demand for bile products. This continues to create an increased interest and demand for bear products which leads in turn to more bears in the wild being hunted for their gall bladder.

Although the market for farmed bear bile within China itself seems to be saturated, due to the massive over production from the farms, there is still a desire for wild gall bladders in China as they are considered to be more potent than the farmed product.

China is also illegally exporting large quantities of farmed bile products, despite the prohibition of such export under CITES (all bears in China are Appendix I species, any export would violate the CITES and Chinese Law). This export is clearly an attempt to profit from the excess bile production. The illegal international trade in farmed bile products from China has been documented world-wide and is the subject of investigation for this report. Not only have these farmed products been found in a high percentage of TCM shops around the world, but it has been shown to be exported on a large scale to pharmaceutical industries in Japan and is also openly on sale at international airport departure lounges in China.

It is clear that bear bile products are not only smuggled out of China by individuals taking a few boxes through customs, but dealers regularly smuggle bear bile from China into Asian regions. In 1998 a businessman illegally imported 25.5 kilos of bear bile crystal powder to Taiwan. This was mixed with other medicines on a shipping container from China. The person admitted he regularly smuggled bile products to supply TCM pharmacies in Taiwan. In South Korea, the customs confiscated 106 kilos of bear bile powder in 1998².

Despite the international criticism of the suffering of bears in bear farms, and the clear availability of synthetic and herbal alternatives to bear bile, China appears to be refining its bear farm industry by closing down small farms and creating ‘superfarms’ each holding up to a thousand bears. The indications are that China intends seeking a legal international trade for its surplus bile stocks. If this were to be allowed it would create a flood of products around the world and stimulate a further demand for wild bear galls, threatening bears in the wild even further.

The impact of bear farming on conservation

Bear farms in China claim that the production of bile from farmed bears will reduce the demand of wild bear galls and therefore lead to their protection in the wild. They claim that the bile produced by a single farmed bear in one year is equal to that obtained by killing around forty wild bears to obtain their gall bladders⁶.

Three species of bear are found in the wild in China. The Asiatic black bear (*Ursus thibetanus*), the brown bear (*Ursus arctos*) and the sun bear (*Helarctos malayanus*). In 1997 the Chinese Ministry of Forestry (MOF) stated that there were 61,700 bears including 46,530 Asiatic black bear in China, but the Bear Conservation Action Plan published by IUCN lists the number of Asiatic black bears in China at fewer than 20,000 individuals¹².



Different fates for bears. Inset : Wild bears considered pests killed and hung in Japan. Main picture: The scarred face of a bear looks out from a cage on a Chinese bear farm.

This indicates that the true bear population in the wild in China is unclear and there is no documented research to prove that the sale of bile from bear farms in China can benefit the protection of bears in the wild, but the negative effects have been shown on the global scale.

Bear galls from China are still illegally exported to many countries, as documented in this report, and there is no indication that bear farming would cause a decrease in demand for bear galls from the wild.

In fact, several cases demonstrate that China has become one of the main consumer countries for bears in the Asian Region. During an international environmental conference held in Cambodia in February 2000, an official claimed that the growing wildlife trade is driving many species, such as the sun bear, towards extinction. In the country, rural military and police commanders are suspected of supporting the illegal trade in tigers, snakes and turtles and Asian sun bears. Wildlife officers have little power to make arrests without risking their lives. While poor Cambodians hunt for subsistence, wildlife poachers are meeting the demands of the country's domestic market and the market abroad in Japan, China, and South Korea².

In the beginning of 2000, a Chinese officer with the Yunan Department of Forest Police claimed "Many animals were confiscated from border-crossing dealers who brought animals and animal parts into the country"¹³. With an abundance of wild animals, in recent years, Yunan has become a hotbed of poaching and other illegal activities involving endangered species.

Bear farming in China also has created an adverse example for global bear conservation. Legitimising Chinese bear farming facilities and bear bile trade would only create more negative effects on the wild bear population worldwide. The countries near China, which still have bear populations in the wild will start to imitate China, and will argue that since China is profiting from

bears, they should also be able to profit. Vietnam is an example of this disaster for wild bear populations.

In Vietnam, at least 500 bears are kept in captivity in bear farms. These bears have been caught illegally from the wild. In the beginning of March 2000 Vietnam's Ministry of Agriculture and Rural Development (MARD) stated *"If we do not stop the holding and raising of bears in captivity, wild bears will be extinct in very near future. Bear bile can fetch up to VND200,000 [\$14,20] per millilitre."*

This will also push countries like Korea into this global dilemma. Korea has banned bear farming since the early 1990s. Bear farms are not allowed to sell or trade bear parts and bile in the country, but they still hold over 1,000 bears. Existing Korean bear farms still expect trade to be allowed in the near future, according to bear farm owners at the 3rd Bear Trade Symposium in Seoul, Korea.

There is evidence of bears being killed in North America, Asia and even in South America for their gall bladders to sell to Asian medicine markets. As Christopher Servheen of the IUCN Bear Specialist Group pointed out, these cases show that:

*"Increased commercial demand (for bear bile) will in turn increase profit potential, with a resulting increased demand for bear for use on farms. Some of this increase could come from captive breeding, but some would also likely be satisfied by capture of live bears from the wild. ... In summary, bear farming will likely increase and legitimise the use of a product that will continue to come from wild bears and therefore negatively impact on their populations."*¹⁴

Similarly, a recent TRAFFIC bulletin stated:

*"There is also fear that widespread availability of farmed bear bile at low prices will stimulate demand not only from farmed bile but also for the gall bladders of wild bears."*¹⁵

Due to high mortality rates in bear farms, bears are continuously poached in Vietnam, Myanmar, Laos, India, Thailand, and Russia and smuggled into China to bear farms. In Yunan and Kuangshi Province bear cubs can be sold to the farms for 2000-3000RMB (US\$280 – 400). The financial incentive for hunting bears is high, as by comparison, a restaurant worker in China earns around RMB\$300 (US\$40) per month².

In Ecuador, local people have been hunting spectacled bears for their gallbladders to sell to Korean businessmen. Each gallbladder was sold for US\$150, and is worth five times the minimum monthly wage in Ecuador.

American black bears, grizzlies and even Polar bears have been found slaughtered in the wild with just the gall bladder removed. Asian bears suffer high losses to poaching for gall bladders. Bears world-wide are under serious threat because of the greed of mankind seeking to profit from trading their bile and gall bladders, when suitable alternative products are already available and widely used.

Wild bear populations are not in a strong enough position to withstand the potential threats of a global market in bear products.

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Even wild polar bears have been killed for their galls.

A brief history of bear hunting

Bear species, historically and today, are hunted, both legally and illegally, for a variety of reasons: including trophy hunting (including North America, Europe); pest control (including Japan); nuisance bears (including the USA); for food and for their body fat (formerly Turkey); and medicinal purposes (world wide). In addition to these reasons, live wild bears, usually caught as cubs, are used for a variety of entertainment purposes, including as dancing bears (India, Pakistan, Bulgaria, and formerly Greece and Turkey), and bear baiting (Pakistan and formerly parts of Europe). Live bear cubs have also been caught in various countries in Asia (including China, Korea and Vietnam) and used to supplement the breeding stocks for the bear bile farms found in those countries¹.

Although bears have been hunted for many thousands of years, for example the Cree Indians of Canada's boreal forest region killed and ate American black bears². However, over the centuries, the scale of hunting and the technologies available to improve efficiency have radically changed. Originally, bears were hunted with spears and axes³. However, by the twentieth century, hunting techniques incorporated shooting, snaring, and the use of leg-hold traps. In cruel leg-hold traps, animals might even chew off their own limbs in order to escape.

Even 'aerial shooting' has been carried out. In the USA, in the 1960s, ranchers claimed that bear damage was suddenly increasing and asked for government help. They even requested a supply of the deadly poison 1080, used so effectively against coyotes, wolves, and other "vermin" elsewhere in the West. Rancher Joe Zentner mounted an M-1 rifle on his Piper aircraft and, without publicity, escalated the bear war. Others caught on and mounted powerful rifles on aircraft. The airborne strafers left numerous bear carcasses to rot across Kodiak Island. Experienced military combat pilots were hired, and the toll of bears mounted. Veteran Kodiak outfitters and hunting guides charge that the pilots were gunning down bears as far as twenty miles (32 km) beyond the ranch leases and into

the National Wildlife Refuge itself. The aerial shooting ended in 1970, only after international attention focused on the airbourne gunners.¹⁴

Hopefully, this hunting method will never be repeated. However, 'recreational', licensed hunting is still carried out in many countries (including Canada, Croatia, Romania, Russia, Slovakia, Slovenia, and the USA). Hunting, of any description but particularly with shooting, can result in the animal not being killed swiftly, and wounded animals suffering either a painful wound that may result in the animal being maimed for life, or a slow painful death, due to blood loss, organ failure or septicemia.

An additional cruelty issue associated with hunting, involves using bears to train hunting dogs. In the summer of 2000, an Estonian newspaper published an article about a bear that was used as a 'training object' for hunting dogs. The fact that such a bear existed came to the public knowledge accidentally as the bear was already at least 12 years old. It had been captured at a very young age and kept imprisoned by humans since then. This kind of treatment to an animal is illegal according to Estonian animal protection legislation. However, despite the legislation, this type of cruelty still exists.

Due to hunting pressure, bears 'are now gone from much of their former range in the western world, yet their name lives on in cities such as Bern (bear), Switzerland, and a grizzly bear is displayed on the California state flag. Both in Switzerland and California, the bear species which is symbolically represented, the brown bear, no longer survives. Only its spirit lives'³. Hunting pressure, in addition to habitat loss, in other parts of the world is having a negative effect on the wild populations of the various bear species, and as a result their distribution is being reduced significantly.

Despite global concern for bears, protection offered to them can vary greatly between countries. For example, in May, 2002 The Balkani Wildlife Society and Semperviva Society challenged a new Regulation governing hunting and game in Bulgaria. The High Administrative Court of Bulgaria, decided that traps cannot be used for hunting predators, that traps and poisons should not be used for hunting game, and that any wolves killed should be recorded. However, the Court did reject the groups' request to change the Regulation's text relating to bears. Under the new Hunting Law and Regulation, the bear, once a protected species, is now a game species.

It is important to note that it is often a combination of factors that (eg hunting, loss of habitat, wild capture, environmental impacts on breeding, poisoning) that will take a species to the brink of extinction or even beyond.

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The current status of wild bear populations

Bears live in all the continents except Africa, the Antarctic, and Australia, and they are classified into eight species including the giant panda. The largest of all is the polar bear, followed by the brown bear, American black bear, Asiatic black bear, spectacled bear, sloth bear, and the sun bear. All of these species are endangered – five are listed on CITES Appendix I, whilst the remaining three are listed on Appendix II.

1. Polar bear (*Ursus maritimus*)

The polar bear is found in the polar region in the Northern Hemisphere, around the Arctic Ocean, Northern Atlantic and the Bering Sea. The number of individuals, of this largest bear species, currently surviving in the world is estimated to be 20,000-30,000. It is listed in Appendix II of CITES.

2. Brown bear (*Ursus arctos*)

The brown bear is the most widespread bear species with a large number of subspecies found in the Northern Hemisphere in Europe, Asia and North America, in a variety of habitat environments and with varying feeding habits. Under CITES the populations found in Bhutan, China, Mexico and Mongolia are listed in Appendix I, with the rest listed in Appendix II.

3. American black bear (*Ursus americanus*)

Most of the American black bears are found in forested areas of North America. With a current estimated total number of 630,000-800,000, the species is listed in Appendix II of CITES.

4. Asiatic black bear (*Ursus thibetanus*)

The Asiatic black bear, found in forested areas of Asia, has the striking white crescent on its chest. The current total population is estimated to be around 50,000, and the entire species is listed in CITES Appendix I.



The Asiatic black bear is the bear most frequently used on Chinese bear farms.

5. Spectacled bear (*Tremarctos ornatus*)

The spectacled bear is found in the area around the Andes of South America. Little is known about this species, but the population is estimated to be in the region of 20,000. They are listed in CITES Appendix I.

6. Sloth bear (*Melursus ursinus*)

This species is found in the grasslands and forests of the Indian sub-continent, mainly in India, Sri Lanka, and Nepal. The current population number is estimated to be between 10,000 to 25,000 and it is listed in CITES Appendix I.

7. Malayan sun bear (*Helarctos malayanus*)

The sun bear is found in the Indochina Peninsular, and on the Islands of Sumatra and Borneo. There may be small numbers in the wild in eastern India. Little is known about its ecology and population number, and the species is listed in Appendix I of CITES.

8. Giant panda (*Ailuropoda melanoleuca*)

Recent research has led to the reclassification of the giant panda as a bear species. It is found in the area around the Sichuan Province of China. The remaining population is said to be less than 1,000, and the species is listed in Appendix I of CITES.

Bear Farming

On overview by **Pei Feng Su**, summarising the findings of two reports:

‘*Chinese bear farming: An assessment of Chinese bear farms and illegal bear bile trade*’ published by WSPA, April 2000.

Authors: **Victor Watkins, Hsieh Yi**

This report is based on a WSPA field study of Chinese bear farming methods involving observations at eleven bear farms in different regions of China.

‘*The veterinary, behavioural and welfare implications of bear farming in Asia*’ published by WSPA, December 2000.

Author: **Dr Barbara Maas**

Dr Maas put the observations by WSPA and others into scientific examination, seeking the opinion of over 50 international experts from disciplines as diverse as veterinary, farm, and laboratory animal science, zoo, biology, applied ethology, animal husbandry, stress biology, experimental surgery, and animal welfare science – many of these specialists had additional expertise in bears.

Background: Numbers of farms and captive bears

China has three native bear species, but the Asiatic black bear is the main species used in the farming operations which have been established since bear farming began in 1984ⁱ.

According to the CITES Management Authority of China (CNMA) and the Ministry of Forestry (MOF), there were 6,632 bears kept in 601 farms in 1992. By 1996 this had risen to 7,642 individuals in 481 farms. Figures for 1998, show 7,002 individuals in 247 farms.ⁱⁱ (See Table 1) This indicates a relatively stable overall captive bear population, but a significant decrease in the number of farms, meaning the average number of bears per farm has risen significantly. In 1999, the MOF stated there were 24 major bear farms, which each owned over 100 bears.

The WSPA field study examined eleven bear farms in six provinces including the southeast, southwest, and northeast regions which are the major areas for the bear farming industry. Of these 11 farms, 2 owned over 600 bears each, 1 farm had around 300-350, 1 had 200-250, 4 had 100-150, 2 had 40-50 and 1 had under 10 bears. These 11 farms had 2,200– 2,500 bears in total. The smallest farm held four bears, whilst the largest held 700.

Record keeping on the farms was generally poor and different personnel on the farms would claim different numbers of animals. However, the figures appear a reasonable approximation of the number of animals actually observed.

All the bear farms had their own patent and brand name for their bile powder and products. Two farms shared the same brand name. Most farms claimed to be approved by the provincial authority and two claimed to be approved at State level.

The findings from the WSPA study are supplemented with the observations by Hong Kong based conservation group, Animals Asia Foundation (AAF) of 34 bear bile farms in China, Korea, and Vietnam.

Table 1: Number of bear farms and animals in China between 1992 - 1998

	1992	1996	1998
No. of bear farms	601	481	247
No. of captive bears	6,632 (6312 Asiatic black bears)	7,642 (7,370)	7,002 (6,764)

Source: MOF (Ministry of Forestry), China



Body fluid and bile is seen seeping from the drainage (milking) site of an Asiatic black bear permanently confined to a small cage on a government-owned bear farm in Heilongjiang Province, China. The bear also has injuries to its chest and neck.



Asiatic black bear wearing an iron corset to aid manoeuvring the bear during the bile milking process. Closely confined in this small cage, the animal has nothing solid to stand upon, just iron bars. This is a government-owned farm in Chinlin Province, China.

Recent developments in Chinese bear farming

In 2000, an agreement was made between the Hong Kong-based animal welfare group, Animals Asia Foundation (AAF), the China Wildlife Conservation Association (CWCA), Beijing, and the State Forestry Department, Sichuan Province, for a series of measures which would close the worst farms in Sichuan Province. 500 endangered Asiatic black bears would be rescued and placed in sanctuaries, it was stated that this “*would create the necessary conditions under which the practice of extracting bile from domestically kept bears be finally and completely brought to an end*”¹⁸.

This was a welcome move, but information obtained by WSPA suggests that rather than moving towards closure, the Chinese bear farming industry is in fact attempting to consolidate. A WSPA investigation the same year, found that several government ‘model’ farms are continuing to breed bears and that industry proponents hope that in few years, bear bile products from these farms will be traded internationally.

To date the relevant authority in China has not provided a clear statement regarding this issue. Furthermore, at the third International Symposium on the Trade in Bear Parts, it was reported that Fan Zhiyoung from the Chinese Ministry of Forestry announced that several larger bear farms met conditions for breeding of CITES Appendix I species and should therefore be allowed to trade internationally.

Despite the number of bear farms being reduced from 600 to approximately 200 in the past six years, the number of bears held on these farms has remained at around 7,000, and may even be increasing.

Unnatural life cycle

Cubs born on farms are taken away from their mother when they are 2–3 months old, which undoubtedly causes stress as in the wild, the cubs would stay with their mothers for 2–3 years.

The bear cubs are then taught a range of circus-type tricks – standing on their hind legs, handstands, carry chairs and so on. On the farms visited by WSPA, it was claimed that this familiarised the bears with human contact, which would help with the milking process. The cubs are also used as a visitor attraction and play a role in marketing bile products, with petting and photographs with the cubs encouraged.

Three farms plan to develop this into a full circus-style performance with intensive training in preparation for the summer season. In China, many zoos and safari parks already use bears to perform circus acts such as walking on tight rope, throwing a ball, riding a bicycle, and even boxing. It is anticipated that such shows will provide additional revenue for the bear farming industry. However, the performing life of a bear is short and may only last until it is one and half years old.



A black bear cub is taught to perform circus-type tricks at a private bear farm in Heilongjiang, China.



An adult Asiatic black bear (left) and an adult Asiatic brown bear (right) held in the same size cages, despite considerable difference in size, on a privately owned bear farm in Heilongjiang, China. Caging on all bear farms inspected by WSPA was extremely restrictive and bereft of environmental enrichment for the animals. It should also be noted that these are naturally solitary animals.

Once a bear reaches two and half or three years old, they will be used for bile extraction, and from three or four years old they may also be used for breeding.

The adult bears used to supply bile are kept in the small cages, where they clearly demonstrate stereotypic behaviour – WSPA observed bears repeatedly shaking their heads or biting the bars of their cage.

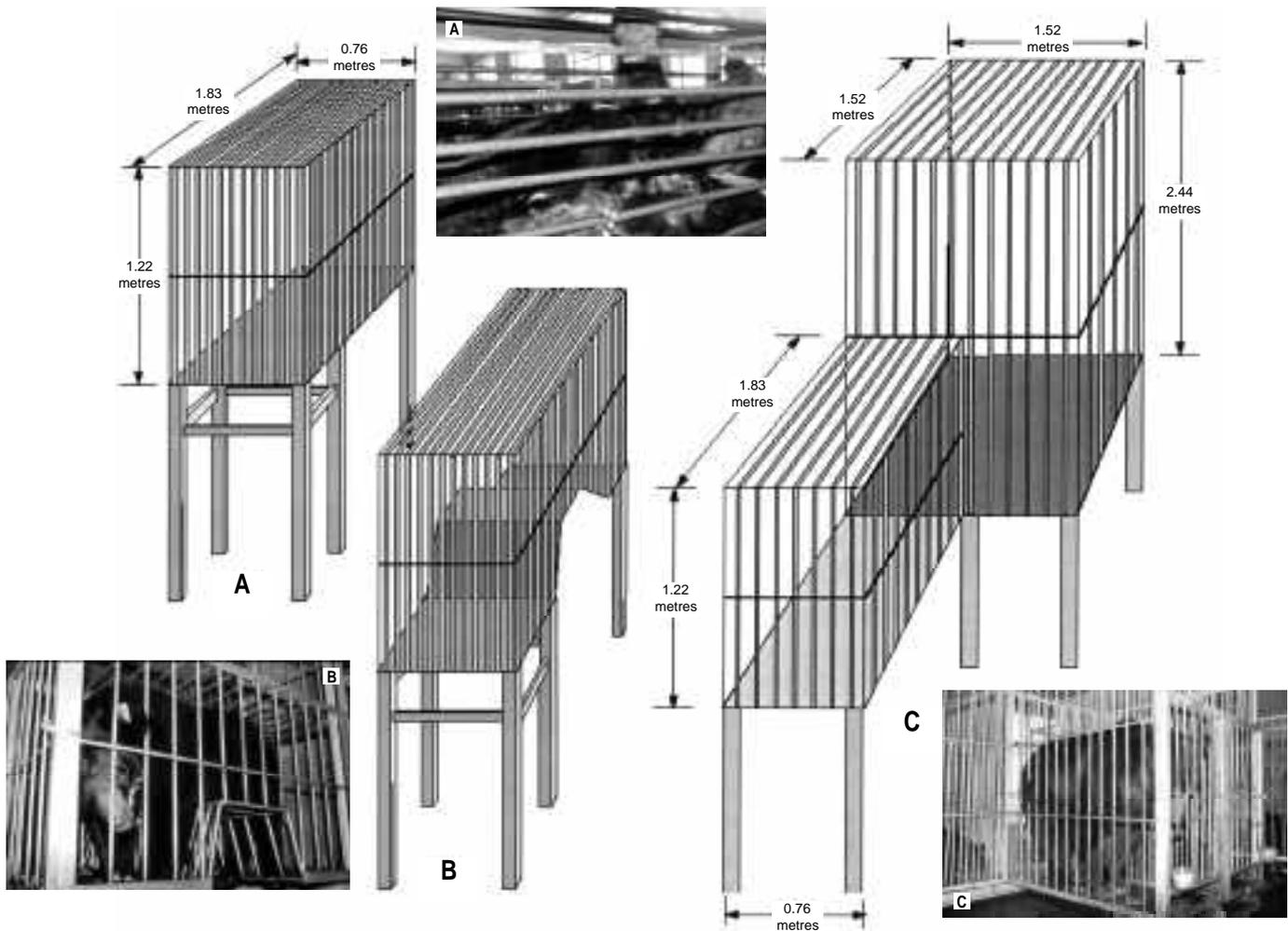
The bears' natural behaviour is further eroded by farmers not allowing them to hibernate in the winter, despite that winter temperatures in northern China can fall to minus 30 degrees.

When a bear can no longer produce sufficient bile, it will normally be moved to another cage to await death through sickness, or to be killed for its paws and gall bladders. Three bear farms stated that bears' paws could also be cut off if the customers requested fresh paw.

Bear paw is eaten as delicacy in China and South East Asia, and the sale provides an additional income for farms. Fresh bear paw was offered at two farms for 2,000 RMB (US\$250). In one Four-Star hotel in Shenyang City, a bear paw dish was on the menu for 3,800 – 4,000 RMB (US\$470).

Since there is no effective enforcement of wildlife conservation law in China and also the sale of farmed bears' gall bladders is not well defined in the law, pharmacies are able to sell gall bladders either whole or in pieces.

The average life expectancy of bears in farms is unknown – each of the farms questioned by WSPA gave different information.



Typical designs of cage used on Chinese bear farms:

- A. The most common design for a bile milking cage – on many farms, bears spend their entire time held in milking cages.
- B. A recent development in milking cage design – note the bear has even less space.
- C. The type of caging employed on a government-approved model farm. Note that although the bear has increased space when not in the milking cage, this is still completely inadequate for an animal of this size.

NB: A male Asiatic black bear can weigh up to 200kg, with a body length of 1.4-2 metres and measure 0.7-1 metre tall at the shoulder. Asiatic brown bears are considerably heavier (females 80-240kg, males 105-390kg) with a longer body length (females 1.2-2.59 metres, males 1.54-2.5 metres, shoulder height 0.9-1.1metres).

Caging & confinement

Throughout the farms visited, bears generally suffered severe environmental deprivation and extreme confinement. Regulations for bear cages vary from 2m x 2m in Korea to 1.7m x 1.5m x 0.8m in China. Cage size in Vietnam is not subject to regulations. The promotional brochure of a Chinese farm where bears are kept in 5ft x 2ft 6in kennels claims that the animals “enjoy themselves in a comfortable environment”.

Zhu Shaorong and colleagues, who are associated with a bear farm themselves, state in a paper published in 1991 that “the construction of the kennels and cages should be based on the convenience of the workers in their daily operation”. They argue that size should also depend on how much space is available and how many bears are to be kept, and recommend a cage size of 1.4 x 0.5 x 0.75m, with bars spaced 7 cm apart. The space between cages should at least be 1m to allow

safe passage of workers. These authors stress the importance for bile bears to be kept in small cages. Others, associated with the Harbin Zoological Garden and the Chinese Medicines United Corporation of Heilongjiang Province, state that bears require 3-4m² and recommend cages of the following dimensions 1.5 x 1.1 x 0.8m. However, they also suggest access to outdoor enclosures and an opportunity for sun bathing.

Cage size varied widely across farms. Although communal cages for eight bears measuring 15m x 7m x 2.5m were seen, the majority of animals were confined individually in cages measuring as little as 0.6m x 0.6m x 1.2 m or 1.5m x 0.7m x 0.7m. In some cases, bears were housed in metal boxes into which small holes had been punched. This cage permitted bears to stand up and turn. In four of the 11 farms visited by WSPA, bears were kept 5ft x 5ft x 8ft metal bar cages with milking cage extensions measuring 2.5ft x 6ft x 4ft. In other farms or compounds milking cages were connected to communal concrete and metal bar outdoor enclosures – again without any form of enrichment or structure. However, not all bears in these compounds had access to outdoor cages and none of the bears held at this facility were able to venture outside during at least four of the coldest winter months, when temperatures can drop to minus 30 degrees. Often pairs of bears used for breeding rather than bile extraction are housed temporarily in these areas. In some instances, bears were kept in particularly poor and unhygienic conditions in small, dusty, dirty, rusty and decrepit cages, away from the main compound and hidden from public view.



A government owned farm in Heilongjiang Province, China. Caged floors constructed from metal bars permanently prohibit bears from resting their feet on flat ground.

In some cases bears were seen permanently immobilised by being pushed flat against the floor of squeeze cages. Farmers claimed that this was to facilitate medicating the animals.

Only in two farms were cubs allowed to access to play areas. The majority of cubs and subadults were housed singly, in pairs or groups in barren metal cages or in concrete outdoor pits. Farmers stated that cubs were housed in this way to ensure they reach milking size (approx. 100kg) earlier.

Because bear cages are constructed from widely spaced metal bars bears are unable to stand or lie on solid substrate. Some animals showed bleeding injuries or lesions on their feet, exacerbated by friction when bears, including cubs attempted to climb cage bars inside the somewhat larger cages.

Most of the farms visited during the WSPA study, claimed to have attempted to make improvements to the ways in which the bears were housed. However, any changes failed to address the key problems with the husbandry employed on bear farms.

Cubs and young adults used as an attraction (for petting or photographs) appear more likely to have access to outdoor enclosures or cages.



Asiatic black bear cubs in a small cage in part of a bile-milking compound on a privately owned bear farm in Yunnan Province, China. Generally on Chinese bear farms, young bears are removed from their mothers at 2-3 months old, whereas in the wild they would remain with them for 2-3 years.

On four of the farms visited by WSPA, the bears had access (when not being milked) to a larger cage or outdoor enclosure behind the standard milking cages. But, even in these ‘model’ farms, injuries to the head, paws and back from repeated rubbing and banging against the cage bars were present on many animals. The bears were clearly mentally stressed due to the cramped conditions and the benefits of some additional space were very limited.

One of these four ‘model-government farms’ claimed to have created the best housing facility for farming bears. While the smallest cage is used for milking twice a day, a connecting cage provides enough space for the bear to stand up, and turn around (see earlier diagram). An outdoor space also connects to the indoor cages, but in winter the temperature could drop to minus 30 degrees in this region, and the outdoor area is closed for up to four months. The outdoor area is used mainly for display. Some bears walk back and forth between two indoor cages. Even where outdoor enclosures were provided, not all the bears were given access to these.

That the environment failed to satisfy the bears was evidenced by abnormal, repetitive, stereotypic behaviours such as chewing or rubbing the cage bars. This farm also invented a new shaped bile extraction cage, so workers do not need to kneel underneath the cage to extract the bile (see earlier diagram); a development apparently geared to efficiency rather than animal welfare.

General animal husbandry

Several Chinese authors who have published on bear farm related husbandry problems maintain that bears can be easily “domesticated”. However, the schedule of such studies tends to be limited to less than a year. In any case domestication of a wild carnivore in the course of two or three generations is impossible. It has to be accepted that the animals on the bear farms are wild.

With the exception of two farms, hygiene in facilities visited by AAF was poor. Most farms did not employ disinfectants, but sometimes used lime around cages or entrances / exits. Many cages were

dirty and rusty. In many farms visited in China, Vietnam, Korea, bears were forced to lie in their faeces, which in several cases, where cage bars were more closely spaced, covered the cage floor several inches deep. In some cases the animals had clearly tried to create latrines in their small spaces.

Despite repeated enquiries about longevity and surgery related / general mortality rates by a visiting AAF veterinarian, farmers consistently avoided to provide this type of information. However, Prof. Ma Yi Qing of the Institute of Natural Resources of PRC maintains that mortality is high.

Although temperatures can sink to minus 30 degrees in some regions, bears are not allowed to hibernate. However, Chinese scientists have recommended that bears are fed more during the summer months, since this is what occurs in the wild. This clearly does not take into account that in the absence of hibernation the animals' energy consumption will increase as temperature drops.

Few farms receive professional veterinary advice and attention, and only two of the 34 farms inspected by AAF seemed to have diagnostic facilities. One bear farmer maintained that he carried out faecal examinations and "tested hair for nutritional problems". The deaths of four bears during an eight months period was attributed to a "transmittable disease from cows and pigs which caused digestive problems and blood in faeces". However, it is difficult to establish cause of death in the absence of proper diagnostic facilities and post-mortem protocol.

Due to infanticide problems and in order to bring females back into oestrus early cubs are removed from their mothers once they are two to three months old. In the wild Asiatic black bears remain with their mothers for a period of two to three years. Once the young bears are about 18 months old they no longer perform circus-style tricks. Instead they are caged up, usually alone until they reach the age of two or three, when bile extraction begins. Early weaning is recognised among developmental ethologists as being associated with a host of subsequent physical and behavioural problems. In one farm the owner stated that he held 30 cubs which he had removed from their mothers at the age of three months. He added that he would generally integrate one male with three to four females and remove him again once mating had taken place. According to his own statements he would generally permit females to remain undisturbed during gestation, but would sometimes continue to use them for bile extraction.

As additional "attractions" for visitors some farms train small cubs to ride bicycles, walk tight ropes, juggle balls, walk on their hind limbs, perform handstands, carry chairs or fight each other in boxing matches etc. The animals appear particularly distressed when subjected to these procedures, vocalising loudly and persistently, unsuccessfully trying to avoid their tasks by running away and hiding. Some had been de-clawed. When not performing or subject to intensive training (which involved wooden sticks) these small cubs were kept in tiny cages inside the performance room. Extremely loud music was continuously played during training and public performances.

Behaviour

Across all the farms inspected by WSPA and AAF many bears exhibited behavioural problems such as chronic stereotypies, aggressive behaviour, agitation, nervousness and unresponsiveness.

Stereotypic behaviours observed included bar biting and licking, head and/or body bobbing, head and/or body weaving, head rolling, cage banging, rocking and stepping back and forth, stepping and space permitting walking back and forth, route tracing in the larger cages and other repetitive rhythmic behaviours. Pre-feeding as well as post-feeding stereotypies occur, as do stereotypic and aggressive behaviours in the presence of people, or in the case of males when oestrus females were housed in the same compound. Other unusual behaviours include masturbation.

All young bears appeared agitated, nervous and stereotyped to varying degrees by weaving, rocking or bouncing up and down in their cages. Repetitive and prolonged arm sucking or chewing, or “humming” as well as ear sucking of cage mates was common. Cubs frequently vocalised by emitting repeated “popping sounds” or loud screeches. The latter was particularly evident during circus training. Some cubs were also aggressive, and many had suffered head wounds.

A group of bears rescued by IFAW in 1995 were aggressive towards human carers at a sanctuary for some time, and only slowly became more trusting.

Nutrition

The bears are fed twice a day to stimulate bile production and extraction. On most farms with individually housed bears the feeding tray was attached to the cage in a corner below the bear’s chin. This forces bears to scrape the food into their cage while lying on their stomachs, which eases bile extraction.

According to relevant Chinese publications, fat intake of bears in bile farms must be strictly controlled. The diet provided is generally poor, for example corn mash, apples, tomatoes or sugar mixed in water which is deficient in necessary vitamins and minerals.

Diets varied from human leftovers to pig swill, but most farms offered various mixtures of rice, vegetables, cereals and fishmeal. Only one farm observed by WSPA, in Heilongjiang Province, mentioned that extra supplements were provided.

A Chinese paper on the nutrition of bears in bile farms states that bears should be provided with seasonally variable amounts of food. The paper recommends 3kg during spring and winter, 4.5kg during autumn and summer and 5kg between September and October. This feeding regime is justified by reference to increased activity during this time as well as feeding patterns in the wild. However, the increased food intake of wild bears during summer is likely to be related to the build up of fat reserves prior to hibernation. Since bears in bile farms are prevented from hibernating this feeding regime with a 40% reduced food intake during the coldest months of the year does not consider increased energy demands for thermoregulation and would thus seem unsuitable.

Most facilities do not provide free access to water (see Section on Bile Extraction). A few farms offered water twice daily, whilst the majority only hosed the bears down once a day. Eight bears rescued by IFAW in 1995 have experienced significant weight gain.

Health care

It is generally considered that the veterinary care available to bears on farms is limited. Even the invasive surgery required for bile extraction is performed by non-veterinarians. The operations are usually conducted by the farm owners or the senior staff, who admitted to WSPA they had no veterinary training. Three farms in northern Province claim they have veterinarian technicians who study either in livestock or agriculture departments. However, in most cases, it was apparent that there was no veterinarian on site, and in many cases there was not even a local vet available. Staff would administer basic drug treatments for ailments, but this was the limit of the care available.

Sick animals were found in nine of the eleven farms studied by WSPA, even on those claiming they had veterinary technicians. Bears were seen with inflamed and bleeding wounds, open incisions for bile extraction and tumour swellings in the abdominal area. Bears could be seen with wounds or scars to the face, head, paws and back caused by rubbing against the cage bars – a common problem in closely confined animals. In two farms, a constant stream of bile seeped from the stomachs of



Above left: Asiatic black bear on a privately owned bear farm in Yunnan Province, China. Gnawing the cage bars is a common repetitive behaviour amongst bile farm bears. Note this animal has missing canine teeth.

Above right: Food preparation on a privately owned bear farm near Chengdu, China. The WSPA study found that bears on farms were generally fed a nutritionally deficient diet.

Below: Asiatic black bear climbing the cage bars in line with the animal's natural semi-arboreal nature. Already such behaviour is severely restricted in this cage, but as the animal grows, the opportunities to exhibit such behaviour will be further eroded. Note that this bear, on a privately owned farm in Heilongjiang, China, has friction injuries on the right hind limb.



bears, where an opening had been made through to their gall bladders. In some farms sick bears simply lay motionless.

Most bears encountered by Animals Asia and WSPA showed signs of poor health. Many bears were still fitted with stainless steel catheters and the majority suffered from chronically infected abdominal wounds around the implantation site. Approximately 95% of bears inspected by a AAF vet suffered inflammation around the catheter exit site. Two or three infected implantation sites were sometimes evident, probably due to repeated surgery. Pus, blood, bile and unidentified fluids was often seen seeping from the wounds surrounding catheters or fistula opening. Bears with noticeably swollen abdomens were also repeatedly observed. These animals appeared uncomfortable and would not lie down or turn over.

Severe ringworm lesions and what was suspected to be mange were not uncommon. The claws of several bears had grown so long that they had grown back into the paw pads. Some bears suffered from hyperkeratotic paw pads, while others, including some cubs had been de-clawed.

Once bears become too old or too sick to produce sufficient bile, they are either killed for their gall bladder, paws and other body parts, or are left to die. In addition, live bears with missing paws were observed in both in China and Vietnam. Some farmers stated that this was due to snare injuries during capture in the wild while others claimed that bears had lost their paws during transport. Three bear farms stated that the animals' paws could be cut off if a customer requested them fresh.

As a result of rubbing or licking during stereotyping most bears had sustained hair loss on their foreheads, ear-tips, rear or lower forelimbs, which in many cases had developed into skin irritations and sores. The latter was also observed as a result of the bears slipping or reaching with their limbs through the floor bars of their cage. In addition, bar biting had led to broken and worn dentition, which was particularly apparent in canine teeth.

Nine bears moved to an AAF run sanctuary were found to be suffering from muscle atrophy, bone deformities in all limbs. The deformed ribcage in one of these bears was so severe that the animal could no longer swallow properly and had to be euthanased. This may have been due to inappropriate diet during early growth, decreased absorption of vitamin D as a result of ongoing bile extraction and extreme confinement. Post-mortem examination of this animal also revealed a poorly healed fracture near the elbow of the left front leg with massive bony proliferation. The bear would most likely have sustained this injury during or after insertion into its tiny cage.

According to Chinese literature on the issue of bile farming health problems are commonly posed by bacterial, viral and parasitic infections, extreme ambient temperatures, coronary heart disease and diabetes. The latter two are related to nutritional imbalances, according to the authors. The occurrence of osteoporosis and anaemia is linked to vitamin deficiencies in these publications.

Specific diseases listed as common in bile farms bears include colds, bronchitis, pneumonia, gastroenteritis, pancreatitis, heat stroke, food poisoning from mouldy dry cereals or onions etc., osteoporosis, anaemia, endoparasites, gallstones, gastrointestinal obstruction, peritonitis and cholecystitis due to bile collection.

A veterinary scientist with experience in cannulation of gall bladders in sheep has in the past expressed concerns over diminished pools of bile salts and concurrent metabolic requirements of taurine, glycine and cholesterol. Further nutritional problems may result through the malabsorption of fats and vitamins. Decreased absorption particularly of fat-soluble vitamins, such as vitamins A, D, K and E can lead to a host of associated pathologies including blood clotting (K), night blindness (A), brittle bones (D) and muscle weakness (E). Others have assumed around that 20% of bile can safely be removed without affecting the animal's digestive capacities.

Researchers associated with the Research and Conservation Centre of the Giant Panda at the Wolong

Nature Research in Sichuan Province and The Deer Farm of Sichuan Chinese Traditional Medicine Company have stated that breeding black bears in captivity is difficult. They found that only 42% of male black bears examined by them had viable sperm. They suggest that this may be linked to diet, small cage size (1.5 x 0.5 x 0.5m), lack of sun and the fact that most were retired “bile bears”.

Surgery for bile collection

It appears two main surgical procedures are involved in facilitating bile extraction from live bears.

1. Catheters: This is an “old” technique, which is nevertheless still the most widely practiced. A steel, stainless steel or latex catheter is inserted into the bear’s gall bladder through an 8-12cm long incision and attached with a purse-string suture. The outer end is left to protrude from the bear’s abdomen by several inches. A subsequently modified variant of this technique involves a 4-6 inch stainless steel tube, which is anchored in the abdomen and around the gall bladder by a series of disks fitted around the catheter’s circumference.

A veterinary surgeon involved in removing implants from nine bears sent to an AAF sanctuary, found internal adhesions between the surgery site on the one hand and abdominal fat and even intestine on the other. She considered this to be suggestive of major post-operative complications. After having spent many years in bile farms five of the nine bears had continued to suffer major inflammation and infection around internal and external surgery sites. The remaining four bears exhibited less severe surgery-related problems (see below)².

2. Fistula: Details of this technique, which was reportedly introduced because of heavy post-operative mortalities associated with indwelling catheters, have not been published. Bear farms practising this method on at least some of their bears are not prepared to divulge details (even to other farms), but it is suspected that the procedure involves the creation of a tissue duct between the gall bladder, which is brought forward, and the abdominal wall. During bile collection a rod is inserted into the fistula up to the gall bladder, which drains its content. Farmers reported that if the duct is not drained twice daily, it is said to close up within approximately two weeks. The new fistula technique was mandated by the Chinese government in 1993 and according to Dr. Fan of the Chinese CITES Authorities “is widely used in most bear farms”³. However, evidence collected by both WSPA and AAF does not bear this out.

Reportedly, only a small fraction of these operations are carried out by qualified veterinarians. One of China’s new ‘model farms’ visited by WSPA had a resident veterinary surgeon, an operating theatre and sterile equipment. In some instances the operation (including anaesthesia) is allegedly



Operating theatre in a privately owned bear farm, holding approximately 300 Asiatic black bears, near Chengdu, China. The WSPA study found that the majority of operation on bears in the Chinese bear farms were performed by unqualified personnel.

performed by human doctors, but generally simply by people working on the farm or veterinary technicians. Sometimes this takes place on the floor indoors or even outside and in the presence of other bears. There is not always sterile equipment and non-absorbable silk or cotton (again not sterile) has been used for suturing. Of the eleven farms inspected by WSPA seven were without even veterinary personnel, while five farms employed veterinary technicians. Multiple operations occur, for example after a bear has managed to pull out its catheter or has ceased to produce bile in desired quantities. Post-operative analgesia is not provided and according to recommendations published by several farm owners, bile extraction can commence 24 hours after surgery.

Examination of nine bears rescued by the International Fund for Animal Welfare in 1995 revealed a swab that had been left in a bear's abdomen. This had led to severe infection, the formation of abscesses and abdominal adhesions. The walls of the gall bladder had thickened in all nine bears examined and appeared more friable than normal. The operating veterinary surgeon attributed this to chronic irritation caused by the implants. Medical complications observed in the course of catheter removal included internal abscesses, adhesions between liver, gallbladder, mesentery and the old incision site and midline abdominal hernias due to improper suturing or post-operative infection. These could have been due to septic procedures, irritation from implants or failure to flush out the abdominal cavity or a combination of these factors. Non-absorbable silk or cotton thread was used as suture material in all these nine cases. It had been used to anchor the catheter in the gall bladder as well as for closing the incision site in the abdominal muscles. This had resulted in grossly viable tissue reaction and abscessation and remained evident years after the initial surgery. The bile of eight of the nine bears was of a darker brown colour. Some of these bears had been removed from farms with very poor conditions overall. The metal catheters removed from these animals had rusted inside the abdomen, leaving rust flakes in the gall bladder, which discoloured the bile.

The average life span of bears with catheters is estimated to be 10 years although some are said to live into their twenties. In contrast, the life span of Asiatic black bears in the wild is approximately 25 years, while this species lives well into its thirties in zoos. No longevity estimates from the potentially more benign 'fistula method' are available yet.

The implications of long-term gall bladder catheterisation are said to be considerable both in terms of infection risk from the surgery itself as well as from ascending infections into the gall bladder, bile duct or liver. There is also a risk of bile leaking into the abdominal cavity causing bile peritonitis, which is said to be quite painful. Long-term gall bladder catheterisation can also lead to biliary cirrhosis and biliary colic, again a condition known to be very painful in man. The long-term effects on the liver are difficult to predict, but some form of liver pathology, including the formation of bile stones, infection and the formation of adhesions seems likely.

Zhu Shaorong and colleagues from a bear farm in Sichuan explain that most bears will invariably suffer varying kinds and degrees of inflammation of the gall bladder as well as the catheter exit site, "festering wounds" and increased discharge from the catheter after a certain period of bile extraction. The ultimate consequences are said to be fatal. The authors explain that these problems have proven difficult to control despite the use of antibiotics. 11 different varieties of *Pseudomonas aeruginosa* were isolated from the animals' faeces, bile, gall bladder, catheter discharge and skin. An antiserum was subsequently developed which has reportedly helped to reduce inflammatory problems.

The surgical placement of percutaneous catheters for bile sampling is apparently not a very complicated procedure if carried out under strict aseptic conditions, and that proper veterinary aftercare is insured. This includes constant attention to the exterior of the catheter or fistula to prevent localised infection. However, information on the effects of permanent bile catheterisation under farming conditions is lacking. It has been emphasised however that this is not a benign procedure requiring strict protocol and individual aftercare.



Above: Bear cages at a privately owned bear farm in Heilongjiang Province, China.

Below: Bear cages hidden from public view and away from the main compound in the same farm, Heilongjiang Province, China.



Bile extraction

Bile is secreted by the liver via the hepatic duct and stored in the gall bladder. During feeding, bile passes through the common bile duct into the duodenum to aid digestion.

On one farm, WSPA observed the yellow to dark brown liquid bile being put directly into vials for sale. However, in general, once milked, the bile was poured into flat containers and is dried in ovens for 24-36 hours to produce concentrated bile crystals.

Chinese regulations stipulate that bears should not be subject to bile extraction before they are three years old and weigh 100kg. Vietnam has no regulations governing age restrictions on bile extraction, but bears are generally tapped from the age of two. Their extraction schedules vary from once a month, once every quarter, to once every year. This is due to the belief that less frequent draining results in bile of superior quality.

Most bears are tapped for bile twice each day. Metal or latex catheters as well as tissue fistulas are all in use (see section on Surgery). Despite government regulations against the use of indwelling catheters, tissue fistulas were used seen in only three farms. Even there this method was not used for all bears. The amount of bile produced apparently depends on environmental and captive conditions including diet. The best time for collection is prior to mealtimes, when the viscosity and density of the bile is higher. Between 30-164ml of yellow-green to yellow-brown bile can then be collected. Some bears are made to wear a plastic bag strapped to their bodies, which is covered by a metal plate attached to a harness. The bile is collected in the bag as it flows through the fistula or catheter. Others just leak bile continuously.

Bile collection occurs either in the bear's permanent living cage if this is small or in milking cage extensions, which afford minimal opportunities for movement to the bears. Where larger living cages were provided (in 4 farms) the animals are lured into these 'milking cages' with water containing sugar or honey. In squeeze cages bears are also fed honeyed water during bile extraction. It is worth noting that the bears have no free access to water at other times and so are likely to be dehydrated and keen to drink – exchanging one discomfort with another. A ration of 800-1,000ml of sweetened water twice a day at bile collection has been suggested in Chinese publications. Alternatively bears may be forced to wear metal harnesses or corsets, to facilitate control during bile extraction. These contraptions are fastened to the sidebars of the cage during bile tapping. Alternatively the animals' neck may be snared with wire. A bear which had its bile drained without restraint while walking around a play area had been de-clawed and its teeth had been cut or filed back. Some observers reported that in some facilities farm workers who collect the bile do so wearing crash helmets.

During extraction bears may gnash their teeth, tremble, kick, bite and utter distress vocalisations. Some bears are reported to curl up after the procedure shivering and holding their paws to their stomach. In one farm, observed by WSPA, almost every bear was stressed and in discomfort, and they were shaking their heads, hitting their cages and moaning after bile extraction.

The two most common bile collection procedures used in Vietnam differ fundamentally from those used in China and Korea. In the first, bears anaesthetised with Ketamine have an incision placed in their abdomen through which bile is extracted directly from the gall bladder with a syringe. According to the country's Forest Protection Department bears survive about four such operations before they die. A team visiting Vietnamese farms saw a bear, which had recently undergone this operation and suffered from a deep infected hole approximately 2 inches in diameter in the centre of the abdomen. The accompanying veterinarian believed that this chronically infected wound have resulted from the bear licking the wound and pulling out the stitches. The second technique used to extract bile from living bears in Vietnam involved guiding a syringe to the gall bladder of an anaesthetised bear with the aid of ultrasound equipment. About 100cc of bile were then extracted



Frustrated and confined a bear in a tiny cage on a Chinese bear farm with bile seeping from an open wound.

via a mechanical pump. It is worth noting that no surgical preparation had been performed, nor had the spinal needle used to carry out the puncture been sterilised.

The WSPA study found, that although bile was generally extracted once or twice a day either in the morning or evening, the largest farm said that bile could be extracted as many as four times a day. Also that demand from the marketplace dictated the regularity of the bile extraction, with extraction stepped up as necessary to meet demand.

Chinese wildlife protection law states only second generation captive bears can be used for bile extraction, but on all the farms visited by WSPA, all the bears were used for bile extraction, regardless of how old they were and where they came from. Bile was extracted until the bears did not produce enough anymore.

Mortality

It is common for the bears to undergo more than one surgical operation, when bile extraction is not successful. Repeat operations also cause inflammation and high mortality rate.

When Chinese bear farming specialists were interviewed by an IUCN expert, they reported that for every two successful bile fistula implantations there are another two to three bear deaths, due to complications and infections, placing the mortality rate for this operation at 50-60%. It was claimed that the mortality rate has been reduced during recent years from around 70-80%. However, even for those bears that survive the operation, their lifespan is still reduced.

Longevity can be affected by stressful environmental conditions (see Hurnik & Lehman, 1988; Broom, 1991a). Professor Ma Yi Qing of the Institute of Natural Resources in China maintains that mortality on bear farms is high. The average lifespan of bears with catheters is estimated to be 10 years, although some are said to live into their twenties (Fan and Song, 1997). Dr Gail Cochrane, one of the veterinary surgeons involved in removing catheters from nine bears in 1995, estimates that as a consequence of confinement and surgery, the lifespan of a bear is shortened by a third (Robinson, 1997). Wild Asiatic bears would normally live for about 25 years, but can survive to 30 (Li, 1994). In zoos the species lives well into its thirties, and occasionally beyond. Dr Maas concludes, in her WSPA report: "... existing evidence strongly suggests that morbidity and mortality related to both husbandry and surgical procedures in Asian bear farms is excessive".

Without detailed records, it is not possible to ascertain the true level of fatalities on bear farms, even though there appears a consensus that they are high. Nor is it clear how the farms are continually restocked – bearing in mind that the overall population is, at least officially, relatively stable.

The Chinese government claims that the breeding rate is good enough for self-maintenance of stock. However, farmers interviewed by WSPA, although claiming there had been improvements in breeding rates, acknowledged that this was still the biggest problem in the business. They acknowledged a problem with infanticide, with mothers killing and devouring their young. Mothers were also known to self mutilate, some chewing their own paws off. In the wild such behaviour is rare and indicates that the mother is under severe stress.

Karin von Schmalz Peixoto and Georgia Mason at the University of Oxford, compiled a comprehensive database covering nine years of information from 600 zoos around the world concerning the captive breeding of carnivores. In Asiatic black bears in zoos, there was a survival rate for cubs over 30 days of 66.12%. Given the extremely limited husbandry and environmental conditions available to the bears on farms, it seems hard to believe that the farms could exceed this. yet Zhiyong Fan reported in 2000, a survival of cubs up to six months of 81.75%.

Based on the scientific literature available, which is reviewed in 'The veterinary, behavioural and welfare implications of bear farming in Asia', by Dr Barbara Maas (WSPA, December 2000), there are serious doubts about whether bear farming could be self sustaining. The answer cannot be found in the selection of Chinese bear farm breeding data presented by Fan (1997, 2000) because they omit crucial variables such as average reproductive output per female per year, cub survival to adulthood, mortality rates or longevity. This view is shared by Dr Lydia Kolter, whose expertise lies in captive population management and bear biology. Therefore Dr Maas concludes there must be serious concerns about the ability of Chinese bear farms to recruit sufficient bears through captive breeding.

Registration & control of Chinese bear farms

In China, all bear farms should be registered with the authorities. However, WSPA's investigations indicated that there were no inspectors to enforce the law and inspect bear farms. The central authorities can only estimate numbers of bears and farms by telephone surveys to the provincial or municipal authorities.

To register a farm as a bear breeding operation and to be granted a licence could mean a huge cost for the farm. So the smaller bear farms try to avoid this. In addition, the farm needs to apply for a trading licence to sell the bile and also needs pharmaceutical permission to sell the bile as medicine to the public. It appears, possibly to avoid this cost, that many of the smaller farms sell their bile to larger farms which do have trading and pharmaceutical licences. For example, the smallest farm WSPA visited, had just four bears, and so used the same packing and patent as a larger bear farm which own 100 bears. The owner of the smaller farm told WSPA that he shared the registration fees



Outside enclosures made from concrete and bars in a privately owned bear farm in Heilongjiang, China. No enrichment is provided and the access doors to indoor cages remain closed during winter, leaving the animals confined indoors to even smaller cages for this period.

for the pharmaceutical licence with the larger farm, so he can use the same patent with the larger farm. Even though the licence was issued to the larger farm, this unlicensed small farm can still package and sell products to the pharmacies. At another farm near Chengdu, the owner claimed that he provides the unpackaged bile crystal powder to north-eastern China, so it is packed under another companies' patent and package.

Bear bile contains an active constituent known as ursodeoxycholic acid (UDCA). In order to prevent sale of fake medicine and control the quality, the bile products are monitored by the Health Department. There, products are tested for medicine registration and are also quality checked annually. According to the farm owners, the percentage of UDCA contained in their bile products is higher and the quality is better. Two bear farms showed WSPA the original state approved certificate for mass production of bile powder and products and four bear farms claimed their products had won the award for top quality bile at state and provincial levels.

These official certificates and awards only prove that the bile powders are not fake. They do not relate to any animal welfare, hygiene and management standards. For example, at a bear farm in Sichuan province the owner was proud of his products and the quality, but the farm's animal welfare, hygiene and pharmaceutical facilities were absolutely appalling. The bears were being kept kept in very small cages and the compound they were in was dirty and dusty. After extraction, the fresh bile was filtered in this dusty area and then dried in a stove. After 24-36 hours the dry bile powder is put into vials.

The WSPA study confirmed a lack of any coherent regulatory and monitoring system for bear farming, that could meaningfully address animal welfare, or related issues such as training, hygiene, or confirming the true source of bile products.

Bear farming: Animal welfare conclusions

The chronic physical and mental stress and distress imposed on these captive and surgically prepared animals is likely to be severe. Surgery (often by non-experts), post-operative complications, long-term gall collection through indwelling catheters or tissue fistulas, lack of veterinary expertise and care, extreme confinement in a barren, unstructured and uncomfortable environment without any form of enrichment, unsuitable social groupings of communally or individually housed animals with visual, audio and olfactory contact (e.g., oestrus females in the same compound with males), very early weaning, isolation and intensive circus training of cubs, dietary problems including lack of water, and the process of chronic bile extraction per se are all important factors for consideration. Chronic stereotypies, critically curtailed longevity, female infanticide, incomplete sexual behaviour, poor cub survival (on average 70% up to six months), and at least in some cases low body weight indicate severe welfare problems.



Bear in small, narrow cage on a farm in Heilongjiang Province, China. The animal's constant rubbing on the cage bars has stripped away the fur, leading to infected skin.

“Having seen bear farming at first hand and removed implants that had been causing extreme pain and inflammation from bears which had been kept in inhumane conditions for many years, it is my view that bile collection from live bears is not a viable long-term proposition due to the extreme and critical requirements that would be need to ensure acceptable humane standards.” Dr Suzanne Boardman, Senior Lecturer, the Royal Veterinary College, London; Chief Executive, Wildlife Information Network.

Dr. Sun Ji Xian, representing the Chinese Association of Preventative Medicine in Beijing stated in February 2000 that: *“Bear bile should only be used to cure a few eye and skin complaints. However, we definitely do not to use bear bile as it can be replaced by herbs, which are cheaper too. I choose not to use bear bile and go to the trouble of replacing it, because I believe that animals should not suffer”*.

In her report for WSPA, Dr Barbara Maas concludes that bear farming for bile extraction, which requires maintaining bears with permanent gall bladder fistulae or cannulae, is incompatible with modern husbandry practices designed to ensure the physical and mental health of bears. For these reasons, this practice should be abandoned.

References and notes:

1. The three species included are: Asian black bear (*Selenarctos thibetanus*), brown bear (*Ursus arctos*), and sun bear (*Helarctos malayanus*).
2. Cochrane, G (2002) Bear Farming in China, Veterinary & Welfare Discussions of Bear Farming and Bile Extraction Methods. Animals Asia Foundation.
3. Fan, Z. (1999) The Development of Bear Farming in China, in 3rd International Symposium on the Trade of Bear Parts, abstracts. pp47.

Profiles of Chinese bear farms examined by WSPA

In a comprehensive study undertaken between 1999 and 2000, WSPA investigators visited eleven Chinese bear farms, accounting for almost a third of China's reported bear farm population. The WSPA team covered thousands of kilometres to ensure that the sample of farms selected was not affected by geographical conditions. In addition, the team examined different sizes of farm, representative of the industry as a whole. The WSPA investigators visited farms in six provinces, ranging in size from as few as four bears, to as many as 700, building a complete picture of Chinese bear farming.

WSPA discovered some of the world's worst examples of factory farming. Average cages measuring less than a metre wide by two metres long; the animals could barely move.

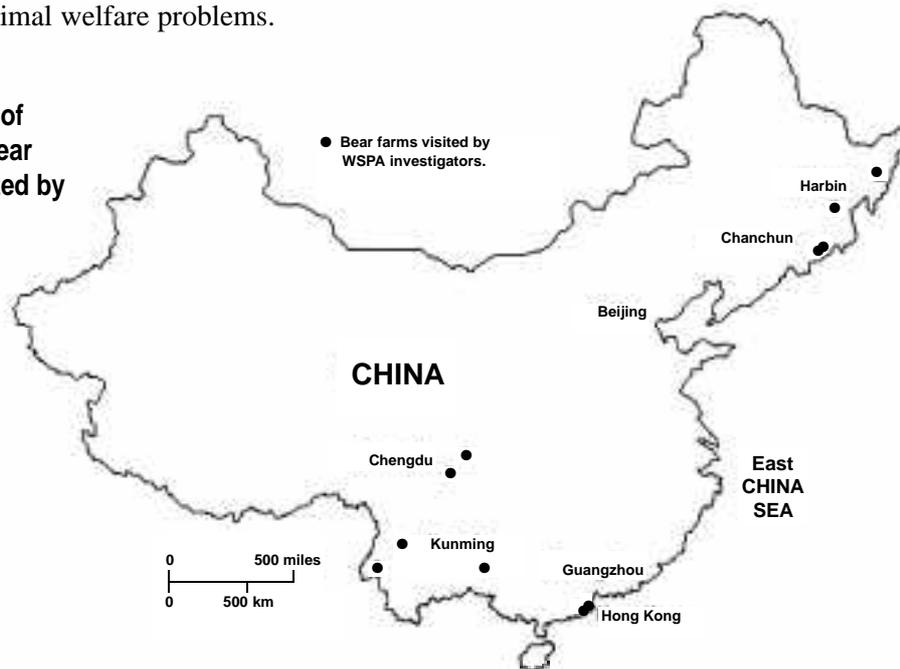
The majority of these bears are likely to be wild caught, whilst the few that are not, are unlikely to be more than two or three generations removed from their poached ancestors. These are wild animals, with wild instincts, and behavioural needs.

In the wild, Asiatic black bears are solitary, inquisitive, and range over a large territory. During the summer, they climb high into the mountains, where they build a platform of broken branches to sleep on during the day. In winter, they return to the valleys and find a den, which they line with leaves and grass. Inside the farm's tiny prisons, they are denied all that is natural and stimulating to them.

As a result, some bears display disturbed behaviour such as pacing, swaying, and biting or rubbing the bars. Animals on every farm had injuries to heads, paws and backs through rubbing against cage bars.

It is hoped by some in China, to obtain CITES (Convention on International Trade in Endangered Species of Wild Flora and Fauna) approval for bear bile production farms as breeding centres. If this were to occur then bears born on farms would be stripped of their CITES Appendix I protection, and a global market of bear bile products would open. It is therefore vital that the conditions on these farms are critically assessed. Importantly, the WSPA team were able to visit government approved facilities and found the minor improvements that had been made to husbandry still failed to address the real animal welfare problems.

Locations of Chinese bear farms visited by WSPA



Chinese bear farm profile

Farm location: South-western Province area, near the Burmese border

Owners: State run

Year established: 1988

Number & species of bear: 100 bears including Asiatic black bears and sun bears

Products: Bear bile powder, tincture, wine, oil

Facilities for bears: Typical milking cage (see page 32)

Number of employees: 18

Veterinary care: No resident veterinarian

Breeding policy: No breeding programme or facility

Remarks:

- Most of their bears were wild caught from either Myanmar (Burma) or in the local province.
- The farm previously had 200 employees and held up to 250 bears. Business has reduced and operations have been scaled down.
- The bears are milked once or twice a day and each time between 8-15 gm of bile is obtained from each animal.
- The farm produces 500 kg bile annually.
- When bears die, their gall bladder, skin and paws are utilised.
- The farm has also sold bear cubs or adult bears (if they could not longer produce bile) to zoos (for around US\$260).
- The saleswoman said that the best gall bladders came from black bears. Brown bears are the second best quality, followed by sun bears.
- Most of their customers are tourists who travel to the area.
- The farm previously exported their products to South Korea, but this trade is now banned. The price was US\$6.6/gm. The seller claimed that it should be no problem to export or carry the products out of the country, but they could not ensure the process. They could only send the products to the farthest city – Guangzhou.

Chinese bear farm profile

Farm location: Well-known tourist city in Yunnan Province

Owners: Private

Year established: 1986

Number & species of bear: WSPA observed 80 bears in the farm, but the owner claimed that they have 110 bears. Mainly Asiatic black bears and a few sun bears.

Products: Bear bile powder, bile pill (tablet)

Facilities for bears: Typical milking cage (see page 32) & outdoor area: 8 ft x 15 ft

Number of employees: 25

Veterinary care: No resident veterinarian

Breeding policy: On-site breeding programme. WSPA observed 2 bear cubs around 2 months old; in two or three more years the third generation's offspring will be bred.

Remarks:

- The owner claimed that she is a TCM doctor and had her own practice in the past.
- The owner said that she had a very good connection with the authorities and many high ranking officials have also visited her farm, so they have approved these products.
- The owner also told WSPA that due to CITES regulations, they have to wait until the third generation of offspring are born. After this they plan to export bear products to Korea, Taiwan, Hong Kong, Japan and Singapore. In two to three more years, the third generation will have been bred and the business will be able to expand.
- However WSPA were told that bile products were already being exported to Taiwan through a broker.
- A large show room is under construction, in order to attract package tours. Asian tourists currently visit the farm when they travel to the city.
- Bile extraction was demonstrated to the WSPA investigators. After extraction most bears were moaning and would bang their heads on the cages. The bears showed many signs of stress.
- The abdominal areas of several bears were swollen where they were operated on for bile production. The owners explained that there were some problems of implantation and that the bile could not be extracted successfully so the bears had a second or third operation which was responsible for the swelling.

Chinese bear farm profile

Farm location: Outskirts of Kunming

Owners: State run

Year established: Unknown

Number & species of bear: 50–60 Asiatic black bears

Products: Bear bile capsules

Facilities for bears: The cages were slightly higher than the standard milking cage (see page 32) so the bears are able stand upright in the cage.

Number of employees: 20-30 people in the manufacturing production line

Veterinary care: No resident veterinarian

Breeding policy: No breeding programme, nor facilities specifically for this purpose.

Remarks

- One building was utilised for production of bear bile capsule, whilst another compound contained the bears.
- The manufacturer mainly produced bear bile capsules containing a mixture of bile with other Chinese medicines.
- There were around 50-60 bears kept in a single brick building without any windows, just small holes as the only source of natural light. The inside of the building was dark and smelled awful.
- Six dog kennels holding around 20 dogs were located in front of the bear building. Two people who were cutting up dog carcasses, said they rented the kennels, RMB\$100 (US\$13) per month and that the dogs in the kennel would be used as dog meat in their restaurant, located near the bear farm.
- The bears would be milked every day around 10 o'clock.

Chinese bear farm profile

Farm location: Two hours from Chengdu City, Sichuan Province

Owners: State run

Year established: 1985

Number & species of bear: 350 Asiatic black bear; 100-150 milked for the bile

Products: Bear bile powder; bear bile suppositories.

**Facilities for bears: Ten bears are displayed for tourists in a small concrete enclosure.
Facilities used to confine the bears for bile production were not observed.**

Number of employees: Unknown

Veterinary care: Resident veterinarian technicians

Breeding policy: Breeding programme.

Remarks

- The company was reported to be one of the biggest farms in the southern province.
- The farm is near a tourist spot in Sichuan Province.
- The bear farm has a big show room and car park and also a small hotel. According to the workers, many tourist coaches stop at the farm so the tourists can buy the products.
- There are also several hundred deer kept in the farm. The antler velvet and deer feet as well as deer penises are also sold in the show room.
- Ten bears were being kept in a concrete yard as an exhibit for tourists. The bears were eagerly begging for food from the visitors.
- According to previous reports on this farm, it had held 450 bears in past, but there are now around 350 bears. The workers claimed that the breeding centre and milking bears were kept elsewhere.

Chinese bear farm profile

Farm location: In a rural area, three – four hours away from Chengdu

Owners: Private owner

Year established: 1984

Number & species of bear: 300 Asiatic black bears

Products: Bear bile powder; bear bile capsules

Facilities for bears: 2 outdoor open concrete pens for cubs and young adult bears under 3 years old. Standard bear farming cage (see page 32) to keep bears for bile extraction.

Number of employees: Approximately 8 people

Veterinary care: No resident veterinarian

Breeding policy: Poorly controlled breeding methods; no separate denning for pregnant females.

Remarks:

- The owner had a small family-run pharmacy in the centre of town and the breeding farm in the countryside. He also said that his relatives owned three other small farms in the area.
- Bear bile powders and other products were displayed in his shop. The pharmacy also sells raw and dried Chinese medicines.
- The farm has around 250-300 bears which were kept inside several dirty, dusty, warehouse building. The bear cages were very close together and it was difficult to stand between the them.
- The extraction of bile was demonstrated to the WSPA team, and the owner was proud that the staff could milk the bears in an outdoor space without chaining the bears. There were two staff members; one feeding the bear, whilst the other kneeled below the bear's abdominal area to extract the bile. The worker pushed a thick steel rod stuck into the fistula in the bear's abdomen, so the bile could be drip into a container below. Not much bile was collected during the demonstration, reportedly because there were too many people around the bear which stressed the animal.
- There were several young bears between 1-2 years, who were kept in a concrete enclosure. In addition, there was also a separate area holding 20–30 bear cubs. The cubs were trained to follow the worker's orders and instructions for different acts. It was claimed this training was to familiarise the bears with human contact and make them more amenable to bile extraction in future.
- It was demonstrated how the bear bile was filtered and produced in the farm, and the surgical room also shown.
- WSPA was told the farm's products were sold throughout China and Asian countries, such as Japan, Singapore, Korea and Taiwan. Also that due to political reasons, products would be sent by post to Guangngzhou, where a dealer would arrange to carry the products out of China. Unpackaged bile crystal powder was supplied to north-eastern China for the bile powder to be packed under another company's patent.

Chinese bear farm profile

Farm location: In one of the major cities in Heilongjiang Province

Owners: Private owner

Year established: 1983

Number & species of bear: 700–800 bears including 40-60 brown, 6-10 sun bears, 600-650 Asiatic black bears; 200 female 150 cubs 100-350 male.
Around 200 bears are used to provide bile

Products: Bear bile powder, capsules, eye drops, wine.

Facilities for bears: A bigger enclosure behind the typical milking cage (page 32); and outdoor shared space. The bears had free access to the two indoor cages. However, some of the larger animals cannot get through the gate into the larger cage behind the milking cage. The outdoor area is closed off during the winter (up to four months in that region). The farm has developed a new milking technique for bile extraction.

Number of employees: 50-70 workers

Veterinary care: 3-4 vet technicians

Breeding policy: Large scale breeding programme undertaken; separate denning area for pregnant females. Attempts to cross breed Asiatic black and brown bears are at an experimental stage.

Remarks

- Claims to be the largest bear breeding farm in the country. There are around 700-800 bears on the farm – different numbers were provided by the sales office and farm director.
- Started with 3 bears. WSPA questioned how they accumulate so many bears so rapidly. It was claimed that there were three sources of bears; poaching from the wild, purchase from other farms, and breeding. Also, that most animals came from farms that had been forced to close; animals have been purchased from farms in Sichuan, Yunan, Liaoning, and Heibei Province. A new building is being constructed and they hope to have 1,000 bears.
- WSPA were also told that brown bears are mainly from the wild because there are wild populations in northern China and sun bears are from Southern China.
- In the past, the farm had attempted to breed mink, deer, and foxes, but these were not profitable enough. Bears and bile products had provided the most profitable investment and business.
- The farm runs over 20 sales outlets all over China.
- Bear cubs are selected for circus-style training and intensively trained and prepared for the summer season.
- Vet technicians are in charge of surgery on bear gall bladders for bile extraction, and a vet explained that each operation takes 20-60 minutes.
- Although a second bigger enclosure is provided, the stress on the animals does not appear to be decreased. Stereotypic behaviours were observed in almost every bear.

Chinese bear farm profile

Farm location: Heilongjiang Province, near Russian border

Owners: State run

Year established: 1986

Number & species of bear: 100 bears including brown bears and Asiatic black bears; 25-35 female, 35-45 male, cubs 15-20.
Around 30-40 bears provide bile

Products: Bear bile powder, capsules, wine

Facilities for bears: A larger enclosure (1.52x1.52x2.59 metres) is used for group housed bear cubs; typical milking cage (see page 32) is used for keeping bears used for bile extraction; Some cubs are displayed for visitors in an outdoor concrete pen in the warmer season.

Number of employees: 20–30 people

Veterinary care: No resident veterinarian

Breeding policy: Breeding programme; separate denning for pregnant females

Remarks:

- The farm is looking for foreign investment and wants to develop new bile products, such as bear bile tea.
- One building had 8 bears in a room which was filthy and dusty. Clearly some of the bears were not being used to provide bile because their cages touched the ground, preventing access for bile extractions.
- Injured bears, and bears with scars on their foreheads and bodies were found. Wounds were also found on one bear cub's paws, due to him constantly rubbing the cage bars. The farm also runs a sub-farm two hours away, which has around 20-30 bears.
- Bear paws can be provided upon request at a cost of RMB\$2000.
- One bear was found with a plastic tube inserted into his abdominal area– an old style operation for collecting bile. Most farms claim they no longer use this procedure. Another bear was found with his bile continuously dripping off his body into a bowl on the ground.

Chinese bear farm profile

Farm location: Chinlin Province, near Korean border

Owners: Private owner

Year established: 1986

Number & species of bear: 650 bears including brown bears, sun bears and Asiatic black bears. 150 cubs. Around 200 bears provide bear bile.

Products: Bear bile powder, capsules, wine, and tea

Facilities for bears: Behind the typical milking cage (see page 32) was a slightly larger cage (1.52x1.52 metres). Outdoor concrete areas are provided for some compounds

Number of employees: Unknown

Veterinary care: Resident veterinary technicians

Breeding policy: Breeding programme; separate denning areas for pregnant females

Remarks

- The farm is close the North Korean border, Korean is spoken extensively in the area, many residents belong to the Chosen Race (the same ethnic group as people in Korea), and the district has become an important base for Korean businessmen. Consequently, the farm attracts many Korean visitors.
- The farm refers to itself as a 'Park' rather than as a bear farm. A large number of bears are kept in outdoor concrete areas, and are shown to visitors in a similar fashion to a Japanese bear park.
- There are circus performances during the summer, and tourists can take pictures with bears and cubs. The 'park' is recommended as a tourist spot by the provincial tourist bureau.
- Bears used for bile extraction were seen wearing iron corsets around their chest and abdomen.

Chinese bear farm profile

Farm location: Chinlin Province, near Korean border

Owners: State run

Year established: 1990

Number & species of bear: 45 bears, including brown bears, Asiatic black bears, and sun bears. No cubs observed on the farm

Products: Bear bile powder

Facilities for bears: Milking cage is slightly bigger than the typical size (see page 32)

Number of employees: 12

Veterinary care: Resident veterinary technicians

Breeding policy: Breeding programme. Separate breeding facility is several miles from the main farm, 6 bears are used in the breeding programme

Remarks

- The bear compound was very dark and damp.
- Some bears used for bile extraction wear iron corsets around the chest and abdomen for 24 hours a day. According to the staff this was to assist with handling the bears and because they were concerned about being bitten by the bears. A metal ring is attached to the corset so that workers can use a metal stick to grab the bear and control it while the bile is extracted.
- Customers can buy bear paws from this farm. If a customer requests fresh paws, they can be cut from a live bear.
- A sick bear was observed by WSPA investigators. The animal could only move his head and was unable to move the rest of his body for 20 minutes before being removed from the milking cage.
- The farm claimed all the workers had a professional background in agriculture and livestock and that the farm director is a senior veterinarian.
- There is no wild bear population in the region, and WSPA were told that most bears were bought and transported from the neighbouring provinces, and even from southern China, e.g. Sichuan.

Chinese bear farm profile

Farm location: 1 hour from Guangzhou

Owners: Private owner

Year established: Unknown

Number & species of bear: 4 Asiatic black bears

Products: Bear bile powder

Facilities for bears: Typical bile milking cage (see page 32)

Number of employees: 1 (the owner)

Veterinary care: No Resident veterinarian

Breeding policy: No breeding

Remarks

- This was the smallest farm found during the WSPA investigation. The farm is located in an industrialised suburb and only a few minutes from a large zoo. The four bears were kept in cages around the concrete building and factories.
- Two bears showed red open wounds in the abdominal area and bile continually dripped from these; one constantly scratched the wound.
- The bears had a large shaved area on their abdominal areas for the bile extraction incisions. This was the first farm where such large shaved areas were seen.
- The owner claimed that he is a senior scientific zoological technician, and is a chairman of the scientific technicians' committee at the zoo near the farm. The bile products from his farm also regularly supply a Taiwanese importer.
- Their bile products use the same patent and packing with another, much larger, bear farm.

Chinese bear farm profile

Farm location: 2 hours away from the Guangzhou

Owners: Private owner

Year established: 1990

Number & species of bear: 100-150 bears including Asiatic black bears and brown bears

Products: Fresh bear bile, Bear bile powder, wine

Facilities for bears: Typical bile milking cage (see page 32) and concrete outdoor pen

Number of employees: 1 (the owner)

Veterinary care: No Resident veterinarian

Breeding policy: Breeding programme undertaken.

Remarks

- The farm is located in a holiday resort centre with a large lake. Part of the resort is still under the construction. According to the workers, some of the capital is invested from Taiwanese people.
- 3-4 bear cubs are put in a show area with cages and visitors can hold the animals and take photos.
- Fresh bile is stored in a fridge in small vials for sale because it can be drunk directly from the vial. Various deer and bile products are displayed in the show room.
- Three zoo type concrete enclosures are built, with only one bear in each enclosure to be used as public view area. Bears used for bile extraction are kept in typical cramped cages. There are several empty cages displayed outside the compound. Several deer pens are also located near the compound.
- There are regular tourists from neighbouring cities, e.g. Shenzhen District, Fujing Province and Hong Kong.

Current Restrictions on International Trade: CITES (Convention on International Trade in Endangered Species)

Philip Wilson

Current status of bear species and background

The international trade in bear species is regulated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international agreement that came into force in 1975. To date 159 countries have signed the treaty and are classified as Parties to CITES. The purpose of CITES is to regulate international trade in order to reduce the threat to the survival of threatened and endangered species.

Species are listed on three Appendices (I, II, or III) depending on the level of threat posed by international trade. These Appendices detail different levels of trade restriction for the species listed on them. The Conference Of the Parties (COP) is the main meeting of the Parties to CITES and is held every 2½ years. At this meeting the listing of species on the Appendices can be amended. Also, Resolutions, which are the ‘working documents’ of CITES that regulate trade, can be introduced, amended or deleted.

A bear on a Chinese bear farm – note that the animal's right front paw is missing. Bears may lose paws due to injury during trapping from the wild, and there have also been reports of animals chewing their own paws off, as well as bears' paws being cut off to order for customers.



A bear's leg found on sale in China at the Myanmar border.



All eight bear species are listed on the Appendices of CITES. The majority of species are listed on Appendix I of CITES, where no commercial trade is allowed: giant panda; Asiatic black bear; Malayan sun bear; sloth bear; spectacled bear; and brown bear (populations in China, Bhutan, Mongolia and Mexico). The other bear species are listed on Appendix II, where regulated commercial trade is allowed with proper permits: American black bear; polar bear; and all other populations of the brown bear.

Conservation of and trade in bear specimens

However, ‘differing international legal status for bear parts in trade and the fact that these parts are indistinguishable, make strict enforcement of various nations’ bear protection legislation specifically, and CITES generally, difficult’¹. In an attempt to resolve this issue, at the 10th meeting of the Conference of Parties to CITES, it was recognised that bear conservation is a global issue and that if action was not taken to eliminate illegal trade, ‘*poaching may cause declines of wild bears that could lead to the extirpation of certain populations or even species*’².

Resolution Conference 10.8 ‘Conservation of and trade in bear specimens’ was passed at this meeting. This resolution ‘urges all Parties, particularly bear range and consuming countries, to take immediate action in order to demonstrably reduce the illegal trade in bear parts and derivatives’². The suggested methods of addressing this issue include: improving national legislation and ensuring penalties are sufficient to deter illegal trade; increase CITES enforcement by providing additional resources; strengthen measures to control illegal export as well as import of bear parts and derivatives; eliminate illegal markets; train personnel and exchange filed techniques; and develop regional agreements for conservation and law enforcement.

The resolutions recommendations include: providing funds for research on the status of endangered bears, especially Asian species; working with traditional-medicine communities to reduce demand for bear parts and derivatives, including the active promotion of research on and use of alternatives and substitutes that do not endanger other wild species; and developing programmes in cooperation with traditional-medicine communities and conservation organisations to increase public awareness and industry knowledge about the conservation concerns associated with the trade in bear specimens and the need for stronger domestic trade controls and conservation measures.

Traditional Medicines

Additionally, at the 10th meeting of the Conference of the Parties, the use of endangered species in traditional medicines was addressed by the Parties to CITES. A resolution was passed on traditional medicines³, which, in addition to other points, re-enforces points made in Resolution Conference 10.8, and recommends that the Parties: work closely with groups of traditional-medicine practitioners and consumers in developing public education and awareness programmes towards the reduction and eventual elimination of illegal use in endangered species, and developing awareness of the need to avoid over-exploitation of other wild species; and promote the development of techniques, including the application of forensic science, for identifying parts and derivatives used in traditional medicines.

An additional point recommends that the Parties: consider, where appropriate and with sufficient safeguards, the application of artificial propagation and, in certain circumstances, captive breeding, to meet the needs of traditional medicines where this would relieve pressure on wild populations of species and is in accordance with their national legislation. However, this final point needs to be addressed with extreme caution as the findings of this report indicate.



Animal welfare experts agree that even the most modern Chinese bear farms, with outdoor caging in addition to milking cages, severely restrict movement, the bears' natural behaviours, and cause suffering.

Any decision to allow the sale of products from captive bred bears, will have profound animal welfare implications and WSPA believe that any moves that fuel the global trade in these products will have a disastrous impact on wild populations.

Guidelines for a procedure to register and monitor operations that breed Appendix-I animal species for commercial purposes

There is an exception in CITES whereby commercial international trade in Appendix I animal species is allowed. The regulations that cover this issue are addressed in Resolution Conference 8.15 and Resolution Conference 11.14 (Guidelines for a procedure to register and monitor operations that breed Appendix-I animal species for commercial purposes^{4,5}). These resolutions detail the requirements that need to be met before an operation, breeding Appendix I animal species, is allowed to register for legal international commercial trade.

This aspect of CITES has been the subject of considerable debate during the past five years. Certain Parties to CITES have argued that the original resolution⁴ is too complex and that a simplified registration system is needed. At the 11th meeting of the Conference of Parties in Kenya in 2000, the text of an amended resolution⁵ was agreed and passed by Parties. However, it was suggested that this resolution would only be applicable for certain Appendix I animal species (those that are considered endangered or difficult to keep or breed in captivity). This, in effect, creates a two-tiered registration system. Facilities breeding species on this list (Annex 3) wishing to trade these species internationally for primarily commercial purposes, would need to be registered with the CITES Secretariat and the application would have to be approved by all of the 159 countries that are Party to CITES. However, facilities breeding Appendix I species that are not included in this Annex,



In a survey of bear product markets, WSPA investigators found the products on sale all over the world (see next section)

would only need to be registered with the CITES Management Authority of the exporting country, and no other Party would be able to object to the registration.

There has been much debate about Annex 3 and the definitions of the criteria. There has been considerable support for the inclusion of all Appendix I animal species in Annex 3. At the time of writing, the situation is still unresolved. However, in the report of the Chairman of the Animals Committee at the 12th meeting of the Conference of the Parties, he states that *'The logical conclusion, according to its Chairman, of trying to put the advice of the Committee into practice therefore is that the registration of commercial captive-breeding operations for all Appendix-I animal species should be conducted in accordance with the procedures outlined in Resolution Conf. 11.14'*⁶.

The resolution is key to the bear farming operations in China, since all three species kept on the bear farms are listed on Appendix I of CITES. Proponents of captive breeding bears for their bile, state that bile extracted from captive bred bears prevents many other wild bears from being killed for their galls. However, in TCM the gall from a wild bear is viewed as more potent than the bile from a farmed bear, and therefore by increasing the demand for farmed bile products, it will only increase the hunting pressure on wild bears for their galls.

In addition to the quantity and detail of the wording between the two resolutions, one key point focuses on animal welfare. This is an important issue that is addressed in several places within the original text of the CITES convention. In the new resolution⁵ it states that: assurance that the operation shall be carried out at all stages in a humane (non-cruel) manner. It should be argued that this clause should be maintained whatever the final outcome of the discussions.

¹ Roberts, A.M. & Perry, N.V. (2001) 'Throwing Caution To The Wind: The Global Bear Parts Trade'.

² Resolution Conference 10.8 Conservation of and trade in bear specimens. CITES

³ Resolution Conference 10.19 Traditional medicines. CITES

⁴ Resolution Conference 8.15 Guidelines for a procedure to register and monitor operations that breed Appendix-I animal species for commercial purposes. CITES

⁵ Resolution Conference 11.14 Guidelines for a procedure to register and monitor operations that breed Appendix-I animal species for commercial purposes. CITES

⁶ Strategic and administrative matters; Committee reports and recommendations; Animals Committee; Report of the Chairman; COP12 Doc. 10.1. CITES