

Animals Asia Foundation Report

Bear Farming in China

Veterinary and Welfare discussions
of Bear Farming and Bile Extraction Methods

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ABSTRACT:

The Asiatic Black Bear (*Ursus thibetanus*) is listed under CITES as Appendix I, and is the species most frequently maintained in China's bear farms for bile extraction. Different surgical techniques and catheter implantation are performed in order for bile extraction to occur, all of which have undetermined peri and post-surgical mortality rates. All methods observed involve pain and suffering to the individual animal.

Synthetic and herbal alternatives are readily available to replace bile in both allopathic and Traditional Medicines. Expansion of the bile market due to bear farming has led to bile now being used in many non-Traditional Medicine ways; impacting international bear populations, as other bear species are taken to fuel the trade in Asia and for Asian consumers worldwide.

Bear farming was originally encouraged to protect 'wild' bears, but there is still a demand for 'wild' bear bile.

In July 2000 the Animals Asia Foundation, the Chinese Government departments of the Beijing China Wildlife Conservation Association (CWCA) and the Sichuan Forestry Department, signed an Agreement to allow the rescue of 500 bears from the cruelest farms and to commit to working towards the end of bear farming in China.

The Agreement has been approved by the State Forestry Administration and, since October 2000, 31 Bear Farms have been closed by the Chinese government and over 75 bears confiscated into the care of the Animals Asia Foundation at our Rescue Center in Chengdu, Sichuan Province.

Introduction

Bear bile has been used in Traditional Medicine for over 3,000 years, but the practice of bear farming was only introduced in the 1980's, in an attempt to curb poaching of huge numbers of wild bears killed for their whole gall bladders.

Bear bile is a 'cold' medicine used to clear 'heat' and detoxify various forms of 'fire', including high fever, convulsions, chronic illnesses of the liver and heart disease (Pong, S. ;1999).

Bears are the only animals to produce significant amounts of tauroursodeoxycholic acid or UDCA. The giant Panda is the only exception to this rule. Chinese medicinal texts recommend the Asiatic Black Bear or the Brown Bear as sources of medicinal bile.

UDCA made synthetically and from cow bile is used in Western medicine to dissolve gallstones and in delaying onset of liver cirrhosis. Currently, research is ongoing into its use in the treatment of Parkinson's disease, Huntington's disease, Alzheimer's disease, spinal chord injuries and hemorrhagic strokes. (Majeski, T. ;2002).

Synthetic UDCA can be produced cheaply and easily owing to the fact that the patent on the UDCA molecule has expired, thus making it inexpensive to produce. Between them, China, Japan and South Korea consume nearly 100 tones of synthesised UDCA every year.

Today, many Traditional Medicine doctors agree that bear bile is completely replaceable with herbal and synthetic alternatives, which are both cheap and effective. (Pong, S.;1999, Baik, K.;1999)

During a personal conversation, Clifford J. Steer, M.D. (Professor of Medicine and Genetics, Cell Biology and Development Director, Molecular Gastroenterology Program, University of Minnesota Medical School, USA) stated: "We now have the ability to analyse in detail the constituents of bear bile and reproduce the extract by purchasing the different bile acids from commercial vendors. In fact, the cost is a fraction of the price of farmed bear bile. In addition, we now have the technical ability to synthesise the different bile acids in the laboratory. Although this is more tedious, it does not require the use of animal tissue and thereby reduces the potential contamination and spread of animal diseases which have recently been in the news."

Bear Farming in China

According to the China CITES Management Authority "Less than 1,000 wild bears were sent to bear farms each year on average from 1984 to 1989." (Fan, Z.; 1997). In 1993 there were estimated to be 10,000 bears on farms in China (Cheng, J.; 1994). The latest Government records show 7,002 bears on 247 farms (Fan, Z.; 1999).

"The Notice on Strengthening the Management and Administration of Bear Farms" issued by the then Ministry of Forestry in 1996, states that bile extraction bears must be three years old and weigh more than 100kg before undergoing surgery. Under the Notice, no 'foreign' material is permitted in creating a 'fistula'; therefore, latex or stainless steel catheter implantation is not permitted and only the 'free-dripping' method is now allowed. This Notice also stipulates that the bears must only be confined in cages during the bile extraction procedure. (Fan, Z.; 1999)

Unfortunately, the majority of the bears observed on farms by the Animals Asia Foundation live permanently in small body sized cages and many of them still have latex or stainless steel catheters implanted into their abdomens. Cage dimensions on the farms visited ranged from 2 x 1.5 x 1.5 meters to 1.5 x .7 x .7 meters.

Most of the bears are fed a cereal based or "swill" type diet twice a day and are denied water on a free access basis. Water is generally offered whilst the bears are hosed down for cleaning or during bile extraction, when a water and honey mixture is generally offered as a distraction.

The Animals Asia Foundation also visited larger farms where groups of bears are housed together in concrete pits. These larger farms appear to be performing the 'free-dripping' technique. In one large farm observed the bears were provided with a pool, whilst in another, the pool was kept dry to prevent the free-dripping site from becoming contaminated.

Environmental enrichment was provided in only one farm observed; which had allowed the bears access to a concrete pool and slide. No natural materials were provided.

Surgical Facilities

Only two out of eleven farms visited by the Animals Asia Foundation in 1999 had an 'operation room' - the majority of farms had no proper facilities for surgery. In these farms the surgeries were performed either outside on the dirt ground or in the actual bear rooms.

Only one farm visited employed veterinarians; the others all employed human doctors from the local hospitals to perform the surgery at the farm. In these cases, no follow-up care was provided for the bears - except for the owners providing self-prescribed antibiotics.

One farm was owned by a person trained to perform human sterilisation surgeries - this owner operated on his own bears and did not employ any outside human doctors or veterinarians. This same farmer also routinely de-clawed and cut the canines of his bears to remove their defenses and "make them easier to milk".

Bile extraction techniques

Latex catheters:

One of the original bile extraction procedures developed. These catheters were very narrow and became easily blocked, therefore other techniques were then developed. Bears still found with latex catheters probably had the implant surgery more than 10 years ago.

The end of the latex tube is surgically placed in the gall bladder - generally there is a metal tube tied on with a plastic disc at the end and the structure is held in the gall bladder with a purse-string suture. The other end of the latex is then threaded out through the abdominal muscle incision and passed up and over the flank under the skin to exit over the hip area. On exiting the skin, the latex tube is tied in a knot. To extract bile, the knot is untied and a syringe with needle attached is inserted into the tube and negative pressure is applied. 50 - 80ml of bile is extracted once or twice per day.

Another version of the latex catheter, is a 'Foley' catheter inserted into the gall bladder.

The catheter is threaded through the abdominal muscle and exits the skin in the abdominal area. The end of the catheter is then attached to an empty intravenous fluid bag, into which the bile will constantly drip. The bear is then fitted with a metal corset and the fluid bag sits in a small metal box within the corset. To extract bile the bear must be anaesthetised, the metal box flapped open and the fluid bag is then changed. The 'bile' bags are changed every one to two weeks.

Stainless steel catheters:

A newer method of extraction. All of the stainless steel catheters follow the same basic construction: A tube between 10cm and 20cm long. One end has a metal disc (either cup shaped or flat), which may have a plastic tubing of varying length attached. Three to five centimeters distal to the disc is another flat disc approximately three centimeters in diameter. The opposite end of the catheter may be smooth or have one or two metal projections.

The disc end is surgically inserted into the gall bladder and secured with a purse string suture. The second disc generally lies just within the abdominal cavity, against the abdominal muscle. The remaining part of the catheter projects out of the bear's abdomen.

The metal projections on the end of the catheter appear to have two functions; to prevent the catheter from slipping inside the abdomen, and to deter the bear from chewing on the end.

Frequently a piece of cotton wool or lint is inserted into the end of the catheter to prevent the bile from leaking out between extractions. Prior to extraction, the farmer removes this "bung" and either collects the bile by placing a dish underneath the catheter or, if the bile is not draining or draining slowly, the farmer will insert another thin tube through the catheter into the gall bladder to facilitate drainage.

Free-Dripping Technique:

This is the only extraction method allowed under the Notice from the Ministry of Forestry. A fistula is created between the gall bladder and the abdominal wall. This involves opening the gall bladder and either stitching it directly to a corresponding hole in the abdominal wall, or opening the gall bladder and creating a tube between this organ and the abdominal wall, using the abdominal mesentery.

The farmer inserts a catheter (either a rubber feeding tube or a stainless steel hollow probe) into the fistula once or twice per day to extract bile. If he does not do this regularly the fistula may heal over. "The opening of gall bladder fistula is similar to the anus and can be blocked by muscle contraction." (Fan Z. 1999). This statement displays a general lack of knowledge of anatomy and physiology by those persons performing this surgery.

Farmed Bears presented to the Animals Asia Rescue Center

Between October 2000 and July 2002, 31 bear farms have been closed in China, 78 bears have been confiscated and 75 bears have arrived at the Animals Asia Rescue Center in Sichuan Province.

The bears are transported in their bear farm crush cages on the back of a truck. On arrival the caged bears are moved into quiet rooms and are offered bear food and fresh fruit two to three times per day, and given water every few hours. After resting for a few days the bears are then assessed and prioritised for cutting out of the cages and surgery.

The bears must be anaesthetised in order to remove them from the crush cages. At this time a full health check is performed on the bears, including a full physical examination, weighing, ultrasonography of the gall bladder, complete blood count and biochemistry, cortisol levels, microchip insertion, assessment of range of motion in their joints, ear-tagging, nail clipping, ear cleaning, deworming and ectoparasite spray.

If there is serious infection at the free-dripping or catheter site then administration of antibiotics is begun. The bear is then moved into a roomy transport cage and placed in a recovery room.

At any point from when the bears arrive, any bears which are judged to be critical, are immediately transferred to surgery. In general, most of the bears will be left for at least one month in the transport cage in order for them to rehydrate and improve body condition, before subjecting them to a second anaesthetic and major surgery; which may last from 3 to 7.5 hours.

At the time of surgery the bears are anaesthetised, reweighed, intubated and maintained on gas anaesthetics and intravenous fluids. During surgery the following physiological parameters are constantly monitored: heart rate, respiratory rate, core body temperature and blood oxygen concentration.

Whilst the corrective surgery is being performed, the veterinary nurse takes blood again for complete blood count, biochemistry and cortisol levels, removes a premolar for aging and takes a hair pluck for possible future DNA studies. The remaining teeth are assessed for future dental work, then scaled and polished. Antibiotics and analgesics are administered pre operatively and post operatively.

Results

Physical condition of the bears:

In a joint effort between the Sichuan Forestry Department, China Wildlife Conservation Association, Wildlife Conservation Division of Sichuan Forestry Department and the Animals Asia Foundation, seventy eight bears have been confiscated from thirty one farms.

Three bears died before being transferred to the Rescue Center and therefore, the bodies were not available for post-mortem examination. Two bears died before surgery could be performed and two died post surgery. On post-mortem, three of four bears were suffering massive abdominal peritonitis and septicemia. Three other bears were euthanised for humane reasons; one was diagnosed with massive peritonitis, the second a suspected maxillary tumor and the third as a result of self mutilation of hind legs.

At July 2002 there are a total of sixty eight bears currently housed at the Rescue Center.

Of the seventy five bears presented to the Rescue Center, four had latex catheters (5.3%), thirty seven had stainless steel catheters (49.3%), twenty seven had the free-dripping procedure (36%) and seven had received no previous surgery (9.3%).

Implant and surgery type of the 75 Asiatic Black bears presented to the Rescue Center:

<u>Catheter/Surgery Type</u>	<u>Number of bears</u>	<u>% of bears</u>
Latex catheters	4	5.3%
Stainless steel catheters	37	49.3%
Free-dripping surgery	27	36.0%
No previous surgery	7	9.3%

On presentation to the Rescue Center, the bears were initially visually examined to ascertain if there was obvious bacterial infection around the catheter or free-dripping site.

Forty six out of sixty eight (67.6%) bears who had received previous extraction surgery were judged to be in need of immediate antibiotic coverage due to chronic infection around the implant or free-dripping site. Four of the seven bears (57%) who had received no previous surgery also needed antibiotic coverage due to other problems.

Number of bears requiring antibiotics to control infection at implant or free-dripping site:

<u>Catheter/Surgery Type</u>	<u>Number of Bears</u>	<u>% of bears of individual catheter/surgery type</u>
Latex catheter	3	75%
Stainless steel catheter	29	78.3%
Free-dripping surgery	13	48.1%

In addition to infection around the catheter or free-dripping site, fifteen (22%) of the bears had draining sinuses at a separate site to the catheter or free-dripping site.

On examination thirteen bears (19%) were found to have abdominal hernias due to the original surgery.

Number of bears presented with abdominal hernias:

<u>Catheter/Surgery Type</u>	<u>Number of Bears</u>	<u>% of bears of individual catheter/surgery type</u>
Latex catheter	2	50%
Stainless steel catheter	3	8%
Free-dripping surgery	7	26%

Fifty nine bears underwent surgery to remove either a catheter or a non-healing free-dripping tract. Nine free-dripping, but externally healed, bears underwent exploratory laparotomy. Only one of the nine free-dripping externally healed bears was found to have no internal abscesses.

Of the sixty eight laparotomies performed sixty seven (98%) of the bears were found to have either abscesses in the mesentery, around the gall bladder, in the abdominal musculature or subcutaneously

Gallstones were found in nineteen (25%) of the bears.

Number of bears found with gall stones in the gall bladder:

<u>Catheter/surgery Type</u>	<u>Number of bears with gall-stones</u>	<u>% of bears of individual catheter/surgery type</u>
Latex catheter	0	0%
Stainless steel catheter	11	29%
Free-dripping surgery	8	29%
No surgery	0	0%

Foreign objects were found loose in the gall bladders of fourteen (20.6%) of the bears which had undergone previous surgery.

Number of bears found with foreign objects free in the gall bladder:

<u>Catheter/surgery Type</u>	<u>Number of Bears with a foreign object free in gall-bladder</u>	<u>% of bears of individual catheter/surgery type</u>
Latex catheter	0	0%
Stainless steel catheter	8	21%
Free-dripping surgery	6	22%

The objects were either plastic tubes or rubber washers in those bears which had previously been implanted with stainless steel catheters. In the free-dripping bears, the foreign objects were all knotted cotton suture material.

Six bears are missing front paws. One bear is missing a hind leg. One bear is missing both front paws. One bears is missing four digits on a front foot. Two bears have circular scarring around the carpal joint. Two bears have circular scarring around the neck.

Due to being confined in small cages, bar biting was a very common occurrence. On examination of the teeth, forty two (56%) bears were found to have what was classed as severe damage to the canines; ranging from one fractured canine, to all canines fractured to below gum level due to frantic bar biting.

Four bears were found to be de-clawed. The third phalanx of each front digit had been removed. Two of these bears had their canines sawn off to gum level. One other bear also had her canines sawn off at gum level, but was not declawed.

The Notice issued by the Ministry of Forestry in 1996 states that only bears three years old and 100kg or over can be used for bile extraction. Of the bears received by Animals Asia at the Rescue Centre, thirty four (45%) weighed less than 100kg. Of these bears twenty seven (79%) had a bile extraction procedure already performed.

Mental Condition of the Bears:

All bears showed severe stereotype behavior. One bear was euthanised due to self-mutilation of her hind legs. Stereotypic 'pacing' was not observed in bears within the bear farm cages, as all of the cages were too small. However, stereotyped movements were significant but limited to what could be achieved in their inadequate environment; weaving, bobbing, bouncing, rocking and licking of the forearms.

This stereotype behavior generally increased in the presence of people. If branches and leaves were placed on top of the cages the majority of bears ceased stereotype behavior while these novel objects were being investigated.

Once the bears were transferred into a den area with access to a grass enclosure and enrichment activities, stereotype behavior significantly decreased and was generally only observed when feeding was anticipated.

Captive Bred versus Wild Caught:

A behavioral assessment was made of each bear in an attempt to determine whether it may have been wild caught or captive bred.

Twenty four (32%) of the bears were deemed to have a high probability of being wild caught based on the subjective tests of behavior around people, behavior around other bears and whether they were missing any front feet or have scarring; indicating they had been caught in a trap.

Forty three (57%) were judged to be definitely captive bred or having been raised from an infant in close proximity to humans, based on the above subjective tests. We could not determine the origins of eight bears (10.6%).

Once we have received the results of the age tests on the pre-molars removed from the bears at the Rescue Centre, we should be able to assess how many of these wild caught bears were legally trapped before 1990 and how many have been illegally trapped since then.

DISCUSSION

The abdominal complications found in 98% of the bears; including internal abscesses (liver, gall bladder, mesentery), abscesses in abdominal wall, abdominal herniation, draining sinuses, inflammation of the gall bladder (cholecystitis), gall stones, foreign bodies in the gall bladder, infection around catheter or free-dripping site, are due to a combination of factors:

1) Unsterile surgical conditions including, but not limited to:

- a) Generally no proper sterile surgical rooms to perform the extraction surgeries.
- b) No facilities to effectively sterilize the surgical instruments.
- c) The bears are not properly aseptically prepared for surgery, following modern surgical guidelines.

2) Unqualified persons operating:

- a) Human doctors: are not trained in animal husbandry or care. From our findings, they either do not appear to have any understanding of standard animal surgery procedures or choose to ignore them when operating on bears. The incentive to operate on the bears appears to be financial. The monthly wage for a qualified human doctor in Sichuan Province is approximately RMB2,500, rising to approximately RMB8,000 for the Director of a First Class Hospital. (Dr. Deng, R. ; Pers. comm.). The doctors receive RMB2,000 to 2,500 for each gall bladder surgery they perform.
- b) Lay-People: In China, lay-people have very limited animal husbandry knowledge. They generally have little concept of the fact that to maintain health an animal must be provided with clean drinking water and balanced diet. A lay-person would not generally understand the principles needed to perform successful surgery.
- c) Veterinary Surgeons and Veterinary Technicians: The standard of veterinary training in China is still far behind developed countries and many veterinarians have little or no knowledge of the correct techniques needed to perform these surgeries. In general veterinary education is still based on production animal (cattle, pigs, and poultry) medicine, which is largely economy driven and dependant on the value of the animal.

Animal treatment in China is normally drug based and diagnostic work-up or surgical procedures are not routinely performed. It is only now, as dogs and cats are becoming popular as pets, that some of the major Universities e.g. Beijing Agricultural University, is teaching proper anesthetic techniques, sterilisation techniques, aseptic surgical preparation, operation techniques and diagnostic work-up. We understand that the majority of those veterinary surgeons currently working on bear farms in China have not received formal training equivalent to what is expected in developed countries.

3) Materials Used:

- a) Any unsterile foreign material e.g. stainless steel, rubber, other metals, latex or non-absorbable suture material in the gall bladder will cause localised irritation and inflammation (cholecystitis). The body will reject most of these materials.
- b) Any foreign object in the gall bladder, or repeatedly introduced into the gall bladder e.g. extraction via a free-dripping site, will cause direct damage to the mucosal lining, irritation and inflammation leading to cholecystitis.

Of all the bears at the Animals Asia Rescue Center which had the presence of either a catheter or foreign object within the gall bladder, forty nine (72%) were suffering to varying degrees from cholecystitis. Zang and We, 1994, noted that cholecystitis can cause mortality rates of up to 80% in bears used for bile extraction, but that this can be decreased by treatment. The only way to permanently eliminate the risk of cholecystitis is to remove the catheters or foreign material in the gall bladders and prevent ascending infection through the gall-bladder fistula site.

- c) The cotton suture material used, whether sterile or unsterile, is totally inappropriate for use in any internal surgery. It does not dissolve in the body and, due to being braided, allows infection to tract through the material and infect other tissues. Sterile dissolvable suture material is readily available and relatively cheap in China, but those operating on bears choose not to use it.

4) Incorrect dispensing of drugs:

Every bear farm used numerous types of drugs on the bears and, in most farms observed by the Animals Asia Foundation, none of these drugs were dispensed at the correct dose rates. When the farmers were questioned about antibiotic use post-surgery they were all found to be administering unsuitable antibiotics with incorrect dosage and frequency - and had no idea of complications or side effects from incorrect drug usage. This in itself could lead to a higher mortality rate post-surgery. In fact, it may be this incorrect usage that causes post-operative diarrhoea seen in 25% of the bears at the Yanbian Agricultural College. (Zhang and Wu, 1994).

In China, there are few restrictions on drugs normally classed as 'Poisons' in developed countries; this includes antibiotics and anaesthetics. In addition, many people suffering minor problems in China do not seek out doctors for medical care, but visit a pharmacy and buy whatever antibiotic or drug they perceive to be 'good'. Self-medication with 'Poison' class drugs is common in China.

Therefore, it is normal for bear farmers to purchase the drugs or antibiotics they perceive to be appropriate from a human pharmacy.

GALL BLADDER FISTULA SURGERY IN RESEARCH

In laboratory conditions it is possible to perform the free-dripping surgery in a sterile and correct way, which would prevent immediate post surgery infections. However, such procedures must be carried out by highly trained specialists and require strict aseptic conditions during and after surgery. When this procedure is performed under research conditions the animals must be maintained in sterile conditions while the fistula is patent, to prevent infections ascending through the free-dripping site and entering the gall-bladder, bile duct, liver and pancreas.

The argument that this type of surgery is used in laboratory animals does not mean that it can be applied in a commercial farming operation. Dr Anthony James, Head, Laboratory Animal Unit, Chinese University of Hong Kong states: "In research situations, fistula surgeries are only imposed on domestic animals with significantly different behavioral requirements to bears, and are subject to approval by an Ethics Committee" (Pers. com.)

Dr. Gordon Reynolds, an experimental surgeon, elaborates on the potential problems related to this type of surgery being performed on bears (Mass, B.; April 2000). Some of the problems he predicts when the procedure is carried out by non-specialised surgeons, under non-sterile conditions with an animal which cannot adapt to their captive conditions, have already been published in Chinese literature (Jin, C. ;1994, Zhang Z. , Jin, C, and Xie, Z. ; 1994)

Laboratory researchers in developed countries must abide by country specific animal cruelty legislation - even when their research topic has passed an Ethics Committee.

When all of the bear farmers were questioned about surgical mortality, post-surgical mortality and lifespan expectancy ALL refused to answer. One of the largest bear farms in Chengdu, which is frequently shown as a model farm to foreign visitors and has the support of the China CITES Management Authority, also refused to answer these questions.

"The production of synthetic UDCA does not depend on animals." (Clifford Steer, M.D., Professor of Medicine and Genetics, Cell Biology, and Development Director, Molecular Gastroenterology Programme, University of Minnesota Medical School; Pers. Com).

ANIMAL FARMING LEGISLATION

Bear farming, as it stands in China would not be legal in developed countries. No developed country in the world commercially farms a species where the product extracted from the live animal involves a surgical procedure into the body cavities. (Extracting musk from musk deer and de-horning deer for their antlers does not involve entering a body cavity.)

Farm animal welfare is normally subject to extensive regulations. In the United States and Canada, animal farmers must follow 'Codes of Practice' and 'Guidelines' as well as satisfying animal welfare legislation. In Europe, the Council of Europe and the European Community develop requirements for the care of farm animals that are translated into legislation in the different member countries.

In the United Kingdom, the Farm Animal Welfare Committee has produced a list of recommendations which have been adopted by the European Union Farm Animal Welfare Council.

These recommendations have been termed 'The 5 Freedoms':

- 1) Freedom to display most normal patterns of behavior
- 2) Freedom from hunger, thirst, or malnutrition
- 3) Freedom from inadequate comfort and shelter
- 4) Freedom from disease and injury
- 5) Freedom from fear

Bear farming breaches all of these recommendations.

Apart from "The Notice on Strengthening the Management and Administration of Bear Farms" issued in 1996, which does not appear to have been actively enforced, there is no effective legislation in China protecting the care and welfare of bears in farms, including regulations covering who is qualified to perform the surgical procedures. In addition, there is no animal cruelty legislation protecting any other species within China. There is, however, legislation which protects bears in the wild and prevents hunting and poaching, but this is difficult to enforce. Once a bear is housed on a farm there are no effective ways of proving whether the animal is captive bred or wild caught.

THE 'NEW' USE OF BEAR BILE

Bear farming was introduced by the Chinese government to 'protect' wild bears. However, due to the growth of farming and the production of 'cheap' bile there has been a marked market expansion.

This is disputed by Fan (1997) "The worry and prediction of some extreme conservationists that the production of the farmed bear would stimulate the market demand has not happened." He also states: "The products from bear farms, as a special goods, will be strictly controlled by the State and bear farms will not be allowed to develop unchecked."

However, most of the larger farms visited by the Animals Asia Foundation in August 1999 produced and marketed their own bear bile products. Bear bile is now marketed in shampoos, skin lotions, hangover cures, teas, tonics and wines. It appears that, as a result of over production, the majority of bear bile products now available in China are not for Traditional Medicine use.

In addition, there is now a two-tier demand for bear bile: with the cheaper farmed bile stimulating a demand for the whole gall bladders of wild caught bears - thus causing an impact to bear populations worldwide.

Moreover, the presupposed and promoted health benefits to the consumers who ingest bile from farmed bears, is also questionable following the observance by Dr. Gail Cochrane of rust flakes in some samples of bile - and pus (white blood cells) in the majority of bile samples removed from the bears.

Professionals in China, such as Zu Shu-Xian, Professor of Clinical Epidemiology, Anhui University, are also concerned: "From my point of view, animal remedy is nothing but a placebo, and may do more harm than good. This conclusion is strongly based on scientific medicine, and is mainly for the purpose of humans or patients, not only for animal welfare." (Pers. Com).

CONCLUSION

The findings in this study confirm the problems, which can be predicted to happen, and do happen, when:

- 1) Unqualified people perform the procedure.
- 2) Inadequate sterilisation of instruments and materials is performed.
- 3) Unsuitable materials are used.
- 4) An animal is used which can not adapt to the deprived conditions under which it must be maintained, in order to extract the bile.

The new regulations and the free-dripping procedure were developed to prevent the complications associated with the insertion of a crude catheter, and maintaining the bear in a 'crush cage'. However, whilst these "developments" may have considered a small percentage of the concerns related to in point (4) above, they fail to address the overall significant principle veterinary and welfare concerns and the implications of bear farming itself.

In reality, if all the above points (1) - (4) were satisfied, it is impossible to maintain a bear with a gall bladder fistula in a sterile environment. Bacteria can enter the free-dripping fistula either directly from the environment, or via the catheter used to extract the bile twice a day, which will lead to cholecystitis and gall stone formation. Any infection in the gall bladder can travel to the liver and pancreas and gain access to the blood stream resulting in septicemia and death of the bear.

Bears bred in captivity over generations cannot be considered 'domestic' and do not adapt well to contained environments as found on bear farms in China. The stress caused to farmed bears is significant and cannot be prevented, even on the best farms, due to the inappropriate and inadequate environment.

There is no evidence that past and present regulations are solving the ongoing conservation concerns of whether bear farming is actually increasing the numbers of bears in the wild - or causing their demise.

Finally, even if the bears are provided with an adequate environment, good nutrition and adequate veterinary care, a bear with a gall bladder fistula will have a significantly reduced lifespan and would be likely to die of a secondary problem related to the fistula. It is concluded that sixty seven of the sixty eight bears who have received corrective surgery from Dr. Gail Cochrane would have seen a significantly reduced life span as a direct result of bile extraction, had they remained on the farms.

CLOSING STATEMENTS

""The Notice on Strengthening the Management and Administration of Bear Farms" issued by the Ministry of Forestry in 1996 stipulated that the technique of opening fistula and draining bile without tubes in the belly must be used in all bear farms and that unqualified bear farms must improve their conditions within a limited time or be closed. The enforcement of these policies and stipulations in above government documents has forced bear farms to improve their conditions and techniques and avoided the maltreatment to bears. The problem of farm bears being maltreated has been basically solved in China." (Fan, Zhiyong; CITES Management Authority of China (CNMA), Ministry of Forestry, China. Proceedings of the Second International Symposium on the Trade of Bear Parts. March 1997.).

On the contrary. The overpowering evidence of ongoing physical and mental abuse on bear farms in China, documented by the Animals Asia Foundation, disproves this statement. Despite the claims made above, there is an increased awareness within high-level Government departments, who now recognise that intractable issues still remain within the industry. However, we are optimistic that our work, in cooperation with the mainland authorities, will fulfill the terms of the Agreement signed together in July 2000 - to rescue 500 bears and work towards the end of bear farming.

THE ANIMALS ASIA FOUNDATION IS MOST GRATEFUL TO THE CHINA WILDLIFE CONSERVATION ASSOCIATION (CWCA) IN BEIJING, THE SICHUAN FORESTRY DEPARTMENT AND THE SICHUAN CWCA FOR THEIR GUIDANCE AND HELP IN THE ONGOING RESCUE OF 500 BEARS IN CHINA.

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WHO WE ARE.....

Projects of Animals Asia:

China Bear Rescue

In July 2000 Animals Asia signed a landmark agreement with the Chinese authorities to rescue 500 tortured and endangered Moon Bears from the worst bile farms in Sichuan Province and work towards ending the practice of bear farming forever.

Friends.....or Food?

Addresses the problems of dog and cat consumption in Asia through pioneering programmes which promote animals as ambassadors, whilst progressing the development of long overdue animal welfare legislation.

Dr. Dog

Our unique animal therapy programme, which sees over 300 dog doctors visiting hospitals, homes for the young and elderly, orphanages, schools and disabled centres in Hong Kong, China, the Philippines, Taiwan, Japan and India.

Detective Dog

Detective Dog "Simba" is working with the Incheon Customs Department in South Korea as the first animal parts "sniffer" dog in Asia. Animals Asia is working to expand the programme to airports in China.

Project Asia

By directly responding to and exposing unusually tragic circumstances of exploitation and animal cruelty, Animals Asia is working to alleviate the suffering of individuals, whilst continuing to work with local communities on programmes focussing on animal welfare and education.

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