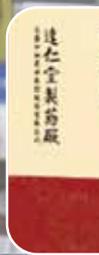


ENVIRONMENTAL INVESTIGATION AGENCY



Wildlife

A Bitter Pill to Swallow:

China's fragrant trade in leopard bone products

April 2020



We would like to thank

EIA would like to thank the following for their support: Network for Social Change, Ernest Kleinwort Charitable Trust and The Rufford Foundation.

ABOUT EIA

We investigate and campaign against environmental crime and abuse.

Our undercover investigations expose transnational wildlife crime, with a focus on elephants and tigers, and forest crimes such as illegal logging and deforestation for cash crops like palm oil. We work to safeguard global marine ecosystems by addressing the threats posed by plastic pollution, bycatch and commercial exploitation of whales, dolphins and porpoises. Finally, we reduce the impact of climate change by campaigning to eliminate powerful refrigerant greenhouse gases, exposing related illicit trade and improving energy efficiency in the cooling sector.

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Above: Leopards have been lost from 85 per cent of their Asian range with poaching for trade in their parts a primary threat

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Introduction

Asia's leopards (*Panthera pardus*) are in danger of quietly slipping into extinction, with illegal killing to meet demand for their body parts a key driver of their rapid decline. Yet authorities in China – the main source of demand for leopard parts – continue to allow legal commercial trade in traditional medicine products containing leopard bone, which are apparently exempt from wildlife trade bans adopted in the wake of coronavirus COVID-19. In this report, EIA names 24 Chinese companies which appear to be producing and selling products listing leopard bone as an ingredient.

It is a measure of the severity of the current biodiversity crisis that the leopard, that most adaptable of big cats, has disappeared from approximately 85 per cent of its Asian range.¹ The figures for several Asian subspecies are even more stark: Indochinese leopards are now absent from 94 per cent of their historical range, extinct or functionally extinct in Laos, Vietnam and Singapore, and almost extinct in Cambodia and China.² In China as a whole, the total population of leopards across the country was estimated in 2015 to be fewer than 450 individuals.³

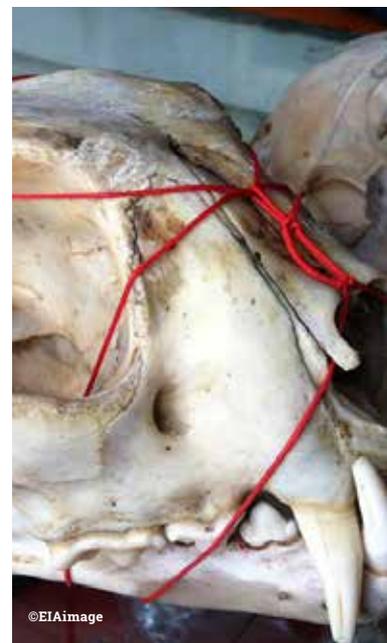
A major factor in the leopard's continuing decline throughout Asia is illegal killing for trade in their body parts. Demand for their bones, primarily from Chinese consumers, is one of the drivers of this trade. Leopard bone is consumed in similar ways to tiger bone, steeped in rice wine to produce health tonics and used in the production of traditional medicines.

Leopard bone has a long history as an ingredient in traditional Chinese medicine (TCM) and, in addition since a 1993 State Council Notification (repealed in 2018) banning use of tiger bone and rhino horn in medicines, leopard bone has been widely used in formulations similar to those which would traditionally have contained tiger bone. Based on testimony from individuals engaged in illegal trade, consumers in China also illegally purchase leopard bone that has been sold to them as tiger.

While decisions adopted by the National People's Congress Standing Committee in February 2020 in the wake of the COVID-19 outbreak have restricted trade in wildlife as food, trade for other purposes such as traditional medicine and ornamental items is still permitted, including for protected species.

As China's own leopard population has been pushed to near extinction, leopards elsewhere in Asia have been targeted for their body parts. Of a minimum 5,332 Asian leopards that have been seized from illegal trade since 2000⁴, 4,151 were seized in India⁵ – approximately five-and-a-half times the number of tigers seized in the country during the same period. These figures comprise seizures of whole leopards, as represented by whole skins, carcasses, taxidermy specimens or live animals; seizures of bone or skeletons are omitted to avoid possible double counting. As much illegal trade goes undetected or unreported, the true number of leopards in trade is likely far higher.

Moreover, the number of leopard skins seized far exceeds the number of animals represented by seizures of bone. For example, between 2014-18, at least 516 leopard skins were seized in Asia.⁶ Based on NGO and media reports, EIA was able to quantify the seizure of only 250.9kg of leopard bone in Asia during the same period – equivalent to the bones of approximately 32 individual leopards.⁷ While this figure is a minimum (with, for example, additional media reports of





seizure incidents indicating leopard bone was seized without stating a weight), this indicates that reported quantities of leopard bone alone seized from illegal trade are not an adequate indicator of the scale of trafficking.

Snow leopards and clouded leopards – both listed as Vulnerable in the IUCN Red List – are also seriously threatened by trade in their body parts. A minimum of 301 snow leopards and 117 clouded leopards have been seized from illegal trade since 2000,⁸ although other estimates of the scale of snow leopard trade⁹ and the visibility of clouded leopards in markets in South-East Asia¹⁰ suggest the true scale of killing for their body parts is far greater. The term used for 'leopard bone' in TCM (豹骨 / bao [leopard] gu [bone]) is ambiguous, as the generic character for leopard – 豹 (bao) – could be used to refer to leopard, snow leopard, clouded leopard or even other species such as jaguar (which translates literally as "American leopard"). The TCM term "bao gu" is sometimes translated into Latin as "Os pardi" on product labelling, this being a non-scientific term used by the industry which has no taxonomic meaning.

In recognition of the threat posed to these species by commercial trade, the leopard, snow leopard and clouded leopard were included on the very first version of Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) when the Convention was adopted in 1975, banning international trade in the species or their parts and derivatives for commercial purposes.

Despite the long-standing international trade ban and a domestic ban on hunting the few wild leopards remaining in China – and thus a lack of any replenishable legal source – Chinese authorities continue to permit large-scale commercial trade in leopard bone products.

The existence of a parallel legal market in leopard bone serves to remove the stigma of consumption and to legitimise use, while also complicating law enforcement efforts. Moreover, there is a total lack of transparency from Government agencies regarding quantities and provenance of leopard bone in stockpiles. This, set against a backdrop of rampant poaching and trafficking of leopards across Asia with comparatively little leopard bone being seized from trade, raises the serious possibility that some of the bone in China's legal trade is derived from animals illegally killed outside China and smuggled into the country in contravention of CITES.

While the majority of TCM practitioners do not use the body parts of threatened wildlife such as leopards, the actions of the companies detailed in this report, as well as the decision-makers who have continued to permit the use of leopard bone, are serving to both exacerbate threats to Asia's imperilled big cats and tarnish the image of traditional Chinese medicine as a whole.

Top left to right: Snow leopard and clouded leopard. Both species are threatened by trade in their body parts. The ambiguous term for leopard bone "Os pardi" used in traditional Chinese medicine is applied to the bones of leopards, snow leopards or clouded leopards

Left: Leopard skulls and bones offered illegally for sale in China

Background

The use of leopard bone in packaged TCM products in China has been reported since at least 1994,¹¹ while in 2007 China first reported to CITES that Government regulations issued in March 2006 stated that “only existing stock of leopard bones could be used” by pharmaceutical manufacturers.¹² Quantities of leopard bone held in such stockpiles and the provenance thereof have never been publicly declared.

Since then, two incidents have attracted the attention of news media. A study published in 2016 reported that a TCM product made by Beijing Tongrentang Co. Ltd and purchased in Australia was found to contain snow leopard DNA, despite not listing any animal products as an ingredient on its packaging¹³, raising serious concerns about illegal international trade in TCM containing leopard parts. Then, in 2018, widespread controversy arose within China in surrounding the source of leopards used in the mass-market Hongmao Medicinal Wine.¹⁴

In our 2018 briefing *Down to the Bone*, EIA reported on this controversy.¹⁵ That year, central Government authorities had issued a permit which allowed the company to purchase 1.23 tonnes of leopard (*Panthera pardus*) bone – equivalent to approximately 150 leopards – for use in production of Chinese medicine products. The permit for this transaction (Forestry Protection Permit 2018 No. 01237 / 林护许准(2018)01237号) appeared to have been issued without proof of legal origin of the bone in question. It is very possible that the bones were sourced illegally from leopards killed outside China.

Right: Sale of traditional medicine products containing leopard bone is still legal in China. The manufacturer website of at least one of these products seen in a pharmacy in China in 2019 listed leopard bone as an ingredient

Far right: Hongmao Medicinal Wine for sale over the counter in a pharmacy in China, 2019. The characters “leopard bone” are visible on the packaging, circled in black

During the course of research on *Down to the Bone*, EIA identified at least 31 manufacturers which were advertising a total of 36 products on their websites, for which the ingredients list explicitly included “leopard bone” [bao gu]. Revisiting this research in 2019, several of these websites appeared to have gone offline. Between August 2019 and January 2020, EIA found 24 TCM companies which were advertising on their websites a total of 31 products which include leopard in their list of ingredients, or for which information relating to Government permits for sales of leopard bone TCM were available online. For six products, we were able to find information relating to the Government permits issued to the company to produce and sell products containing leopard bone.

EIA gave these companies a right to reply before publication of this report. We received no responses. These companies and the products in question are detailed below.

The companies identified include China’s largest TCM manufacturer, which has branches across the world, and companies whose investors include major European and US investment funds.¹⁶



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Methodology

As the full scale of China's domestic leopard bone trade and the companies involved remained largely unknown, EIA determined to document the trade as comprehensively and systematically as possible through desk-based research.

By searching the term "leopard bone" (豹骨) on TCM reference websites such as Zhongyao Baike¹⁷ and Zhongyi Zhongyao Wang¹⁸, EIA was able to draw up a list of packaged and patented TCM formulations which, according to some versions of ingredients lists on these reference websites, may contain leopard bone. In many cases it seems that the specific ingredients used vary between two versions of a TCM formulation which may have the same name: one company may list leopard bone as an ingredient in their "da huoluo wan" pills, while another may not include any big cat products in the product's ingredients list (which may nonetheless include items such as turtle shell and various snakes).

Searching each of these formulations in a database¹⁹ on the website of the China Food and Drug Administration, since renamed the National Medical Products Administration (NMPA), produced a list of companies which had been issued with approval from the administration to produce that formulation. Each record of approval is represented by a code comprising the letter Z and eight numbers, which is printed on the product packaging if manufactured. Repeating this process for each of the formulations identified as potentially including leopard resulted in a spreadsheet comprising 476 combinations of company and product.

As receipt of approval to produce a product does not necessarily mean the product is actually being produced, and as not every version of these products appeared to list leopard bone as an ingredient, EIA then looked for a website for each of the manufacturers in this dataset. Often no website was to be found; where a website was identified, the product of interest was not necessarily listed; when a product was listed, not all websites provided a list of ingredients; and where a list of ingredients was present, leopard bone was not always among them.

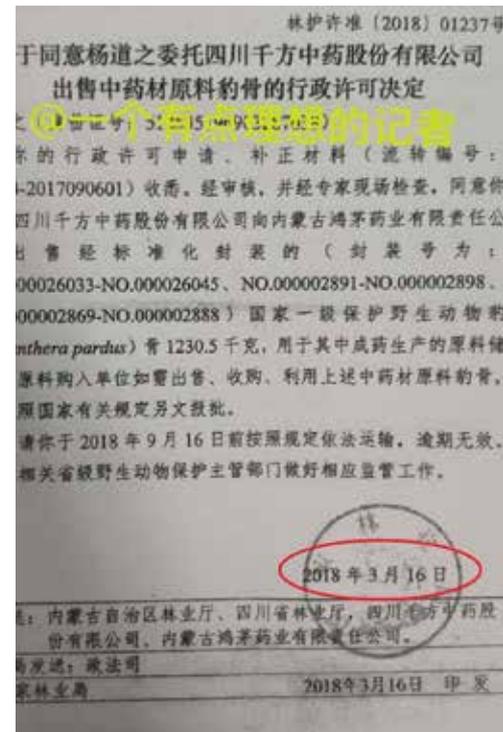
However, by following this exhaustive process, EIA identified 36 products which were listed on the manufacturer websites and for which an ingredients list was provided that included leopard bone. Following this stage of research, several of these websites appeared to go offline. The companies and products detailed in this report represent only those for which the web page in question was online as of August 2019.

EIA also found an additional 26 products for which leopard bone was listed as an ingredient on images of the product packaging and/or package inserts hosted on a third-party website.²⁰ The full list of 62 products labelled as containing leopard bone on packaging or ingredients lists have been provided to Customs agencies and the World Customs Organisation in the event they are exported.

Given the likelihood that additional pharmaceutical companies may well be producing and selling TCM containing leopard bone without publishing details on an easily identifiable website, the 62 products identified thus far represent the absolute minimum number of leopard bone TCM products in trade in China.

Below left: EIA found 36 products advertised on Chinese pharmaceutical company websites that listed leopard bone as an ingredient. In this screengrab, the characters for "leopard bone" are circled in red.

Below right: This permit, issued by China's State Forestry Administration in 2018, allowed the sale of 1.23 tonnes of leopard bone to Hongmao Pharmaceutical Co. Ltd to produce traditional medicines. The permit was issued despite an apparent inability to confirm the source of the bone.



Legitimising consumption: how Government policy permits leopard bone trade

The production and sale of these leopard bone products appears to be happening with the full knowledge and approval of relevant Chinese Government agencies.

China's wildlife legislation allows commercial trade in the parts and products of wildlife species even under the highest levels of protection. Article 27 of the Wildlife Protection Law permits legal trade in protected species for the purposes of "scientific research, captive breeding, public exhibition or performances, heritage conservation or other special purposes".²¹ The "heritage conservation" exemption appears to be being used to sanction commercial trade in protected wildlife, including leopards, for the production of traditional medicines and tonics.

In a submission to the 18th CITES Conference of the Parties in 2019, China claimed that "A regulation from the State Food and Drug administration (2006/118) rules that since January 1, 2006, only the outstanding stockpile of leopard bones held by pharmaceutical factories and verified by the national forestry authorities can be used for medicinal purposes."²² The amounts of leopard bone held in verified stockpiles in 2006 or at any point since have never been made public.

However, in 2018 Chinese journalists uncovered that the 1.23 tonnes of leopard bone purchased by Hongmao Pharmaceutical under Forestry Protection Permit 2018 No. 01237 were reportedly not registered with local authorities until 2010. Moreover, the permit covered the purchase of the bone by a pharmaceutical manufacturer, demonstrating that large-scale procurement by pharmaceutical factories has been allowed to continue, in contravention of the regulations on the trade that China has reported to CITES on multiple occasions, most recently to CoP18 in 2019, that since 2006 manufacturers could only use up existing stocks of leopard bone.²³

Chinese authorities have implemented a labelling scheme (known as a "special marking") since 2003 to authorise and regulate legal trade in products containing parts of protected wildlife species. Issues regarding the application and fallibility of this mechanism have emerged on multiple occasions since. For example, in 2012 traders in China told EIA how they fraudulently reuse a single 'special marking' permit to sell multiple tiger skins, enabling the laundering of illegally-sourced skins, while another trader explained how he also takes delivery of the rest of the tiger carcass and illegally sells on the bones.²⁴ News reports in 2018 also revealed that Hongmao Medicinal Wine, which contains leopard bone, was being sold without a 'special marking', and in many cases no marking is visible in images online of other medicinal products listed as containing leopard bone, raising questions about the consistency with which the mechanism is applied and thus of the oversight of leopard bone trade.

Following the emergence of the novel coronavirus COVID-19, suspected to have originated from trade in wildlife, the Standing Committee of China's National People's Congress (the highest law-making body) adopted decisions in February 2020 to restrict wildlife trade and ban trade in most species for consumption as food. However, the decisions did not ban trade for other uses such as medicine or ornamental items. Planned revisions to the Wildlife Protection Law in 2020 provide an opportunity to prohibit all trade in threatened wildlife in the interests of biodiversity and human health; EIA has submitted detailed recommendations for the Wildlife Protection Law revision process through lawyers, academics and NGOs close to the process.²⁵

Connecting the dots: leopard bone products and Government permits

Where a 'special marking' is visible on product packaging, it is possible to access details of the relevant Government permit issued to the manufacturer by entering a code on the label into a searchable Government database.²⁶ EIA was able to find these codes for products produced by

four companies, all of which then linked to permits for trade in leopard bone issued by the central State Forestry Administration (since renamed the National Forestry and Grasslands Administration or NFGA) between 2009-16.

Company name:

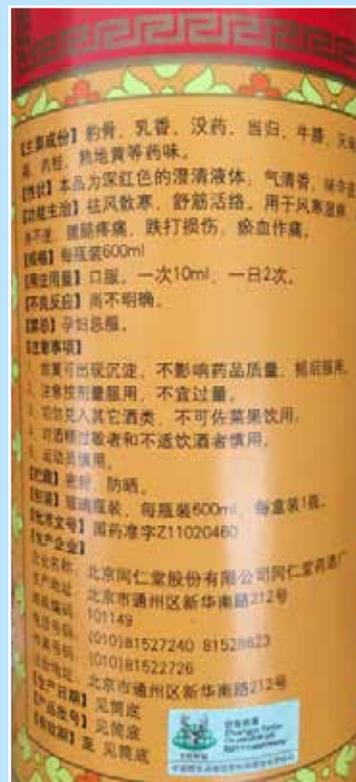
Beijing Tongrentang Co. Ltd (北京同仁堂股份有限公司)

Based in: Beijing.

Subsidiaries or affiliates located in: Australia, Brazil, Brunei, Cambodia, Czech Republic, Germany, Hong Kong, Indonesia, Italy, Macau, Malaysia, Netherlands, New Zealand, Poland, South Africa, Singapore, South Korea, Sweden, Switzerland, Thailand, United Arab Emirates, United Kingdom, United States and Vietnam.

Product 1: Zhuanggu Yaojiu [bone-strengthening medicinal wine]

NMPA approval code: Z11020460



Above: screengrab from web page tongrentanggf.com/product_sd.htm?id=627, including list of ingredients. Chinese text circled in red reads, "leopard bone"

Above: Image of the product found online²⁷, including visible China National Wildlife Marking label, which specifies the product contains leopard bone ("Os paridi") sourced from the wild (code "W")

Searching the code visible on the label [top right] in a database on a Government website results in the information [above right], which specifies a corresponding permit for production/sale of a leopard bone product was issued by the State Forestry Administration to Beijing Tongrentang Co. Ltd in 2011 (permit number: 林许准[2011]2937号).

Product 2: Tongren Dahuoluo Wan²⁸

NMPA approval code: Z11020090

Below: screengrab from web page tongrentanggf.com/product_sd.htm?id=275, including list of ingredients. Chinese text circled in red reads, "leopard bone"

Details on label: Specifies the product contains leopard bone ("Os pardi") sourced from the wild (code "W")

Details of corresponding permit: Permit issued by the State Forestry Administration to Beijing Tongrentang Co. Ltd in 2009



Product 3: Zaizao Wan²⁹

NMPA approval code: Z11020189

Below: screengrab from web page tongrentanggf.com/product_d.htm?id=31, including list of ingredients. Chinese text circled in red reads, "leopard bone"

Details on label: Specifies the product contains leopard bone ("Os pardi") sourced from the wild (code "W")

Details of corresponding permit: Permit issued by the State Forestry Administration to Beijing Tongrentang Co. Ltd in 2011 (permit number 林护许准[2011]2937)



Product 4: Jian Bu Qiang Shen Wan / 健步强身丸

NMPA approval code: Z11020137

As reported in a paper published in 2016, this product was purchased in Australia in 2012 and was found to contain snow leopard DNA on testing.³⁰ While the ingredients list on the company's Chinese website included leopard bone, the list of ingredients on the Australian packaging did not. Export of a product containing leopard bone without relevant permits is in contravention of CITES.

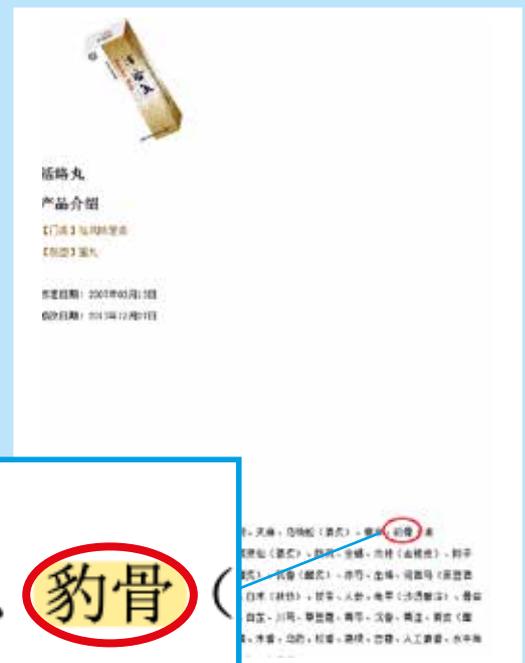
Right: screengrab from web page tongrentanggf.com/product_sd.htm?id=702, including list of ingredients. Chinese text circled in red reads, "leopard bone"



Product 5: Huoluo Wan / 活络丸

NMPA approval code: Z11020546

Right: screengrab from web page tongrentanggf.com/mobile/product_sd.htm?id=615, including list of ingredients. Chinese text circled in red reads, "leopard bone"



Company name:

Beijing Tongrentang Technology Development Co. Ltd (北京同仁堂科技发展股份有限公司)

Product name: Renshen Zaizao Wan³¹

NMPA approval code: Z11020060 NB: two different types of packaging are pictured, but code is consistent

Details on label: Specifies the product contains leopard bone ("Os pardi") and Agkistrodon viper sourced from the wild (code "W")

Details of permit: Permits issued by the State Forestry Administration to Beijing Tongrentang Technology Development Co., Ltd in 2012 (permit number 林护许准[2012]1153) and in 2009 (permit number 林护许准[2009]2207 号)



Company name:

Inner Mongolia Hongmao Pharmaceutical Co. Ltd (内蒙古鸿茅药业有限责任公司)

Based in Liangcheng County, Inner Mongolia. Manufactures and sells at least one product which lists leopard bone as an ingredient. Named as purchasing party in Forestry Protection Permit 2018 No. 01237, which allowed the sale of 1.23 tonnes of leopard bone (*Panthera pardus*) from Qianfang Traditional Chinese Medicine Co. Ltd.³²

Product name: Hongmao Yaojiu [Hongmao medicinal wine]

NMPA approval code: Z15020795

Details on label: Specifies the product contains leopard bone (here given in Chinese characters, "豹骨")

Details of permit: Permit issued by the State Forestry Administration to Hongmao Pharmaceutical in 2016 (permit number 林护许准[2016]0795号)

Right: Hongmao Yaojiu offered over the counter in a Chinese pharmacy, 2019



Company name:

Jilin Zixin Pharmaceutical Co. Ltd

Based in Liuhe County, Jilin Province

Product name: Renshen Zaizao Wan³³

NMPA approval code: Z22024959

Details on label: Specifies the product contains leopard bone ("Os pardi") and Agkistrodon viper, both of 'unknown' origin (code "N")

Details of permit: Permit issued by the State Forestry Administration to Jilin Zixin in 2013 (permit number 林护许准[2013]451号)

Top right: screengrab from web page http://www.jilinzixin.com.cn/products_detail/&productId=42.html, including list of ingredients. Chinese text circled in red reads, "leopard bone"



Company name:

Tianjin Zhongxin Pharmaceuticals Group Co. Ltd
Darentang Pharmaceuticals Factory

(天津中新药业集团股份有限公司达仁堂制药厂)

Based in Tianjin.

Product name: 大活络丸 / Da Huoluo Wan

NMPA approval code: Z12020620 NB images show two different types of packaging but the code is consistent

Top right: screengrab from web page <http://www.darentang.com.cn/zhcw/product/detail/78.html>, including list of ingredients. Chinese text circled in red reads, "leopard bone"

For this product, we were able to find a page on the manufacturer website that listed leopard bone as an ingredient, as well as images on a third-party website which show the product carrying a Government-issued 'special marking' which specifies the product contains leopard bone. The resolution of these images was not high enough to extract the necessary code to cross-reference with government permits.



The tip of the iceberg? Permits to trade in protected wildlife issued since 2017

The permits highlighted above to allow sale of leopard bone products represent only those for which good quality images of the corresponding 'special marking' were readily available. Due to a consistent lack of transparency on the part of China's permitting authorities, the true scale of the domestic market in leopard bone is currently impossible to independently quantify. However, the limited information available on permits issued for trade in protected species indicates the scale of trade among pharmaceutical companies may be far greater than has been revealed to date.

Leopards are included on a shortlist of protected wildlife for which the central NFGA, as opposed to provincial authorities, is responsible for approval of permits for sale, purchase or utilisation under Article 27 of the Wildlife Protection Law.³⁴ This means central authorities should have oversight of the volume of stockpiles and sources thereof for these species, and information relating to the issuance of trade permits, and as such should be able to produce such information to the Parties to CITES and other stakeholders. This list, published in August 2017, uses the generic term 豹 [bao], which could also refer to snow leopards and clouded leopards. The list also includes tiger, elephant, rhino, giant panda, crested ibis, golden snub-nosed monkey, gibbons, apes and bustards.

A publicly accessible database on the NFGA website³⁵ reveals that between September 2017 and October 2019, 46 permits to "buy, sell and/or utilise terrestrial wildlife under first-class state protection or the products thereof" were issued by the NFGA to pharmaceutical companies. While the species, products, quantities and purposes covered by these permits are not divulged in the public dataset, the fact the permits were issued by the central NFGA rather than provincial authorities indicates that these transactions relate to the species in the list above.

Requests to clarify the species, quantities and purposes covered by the permits were denied by the NFGA, which cited 'company secrets' as the reason.

At least 12 of these permits (see Appendix II) were issued to pharmaceutical companies included in this report, which we have identified as apparently producing and selling medicinal products which list leopard bone as an ingredient, including:

- Four to Beijing Tongrentang Co. Ltd
- One to Beijing Tongrentang Technology Development Co. Ltd
- Three to Hongmao Pharmaceutical Co. Ltd
- One to Tianjin Zhongxin Pharmaceuticals Group Co. Ltd Darentang Pharmaceuticals Factory and one to Tianjin Zhongxin Pharmaceutical Co. Ltd Darentang Pharmaceuticals Factory
- One to Jilin Yizheng Pharmaceutical Co. Ltd
- One to Jilin Dongfeng Pharmaceutical Co. Ltd

Of the 46 permits issued to pharmaceutical companies, Forestry Protection Permit 2018 No. 01237 – covering the sale of 1.23 tonnes of leopard bone to Hongmao Pharmaceutical Co. Ltd – is the only one for which the full text is available online, having been obtained by investigative journalists. The fact that just one of these 46 permits permitted the sale of the bones of approximately 150 leopards should raise serious concerns about the true scale of trade being permitted, and the continuing obfuscation on the part of the agencies responsible.



Potential for contributing to illegal international trade

China's domestic trade in leopard bone TCM has a clear potential to contribute to illegal international trade. As noted above, the example of snow leopard DNA found in a TCM product manufactured in China but sold in Australia demonstrates that illegal international trade in TCM containing big cat derivatives has occurred in recent years, enabled by China's legal domestic market.

In addition, over the course of just a few hours in January 2020, EIA was able to find eight websites which offer TCM products contained in this report for international shipping. These included platforms ostensibly based in China and in other countries, such as Poland and Russia.

Above: Asia's disappearing leopards are ending up in markets that are propped up by corporate greed. EIA is urging investors and international trade platforms to steer clear.

International commercial trade in leopards, snow leopards and clouded leopards is prohibited by CITES, including "any readily recognizable part or derivative thereof". CITES Resolution Conf. 9.6 (Rev. CoP16) in turn "AGREES that the term 'readily recognizable part or derivative', as used in the Convention, shall be interpreted to include any specimen which appears from an accompanying document, the packaging or a mark or label, or from any other circumstances, to be a part or derivative of an animal or plant of a species included in the Appendices, unless such part or derivative is specifically exempted from the provisions of the Convention"³⁶.

Given this definition, any processed medicinal product which lists leopard bone as an ingredient or which is affixed a 'special marking' that states the product contains leopard bone is a 'specimen' of the species in question, and as such international trade would be in contravention of CITES.



CITES Parties urge closure of domestic markets for Asian big cats

At the 18th Conference of the Parties in August 2019, CITES Parties adopted amendments to Resolution Conf. 12.5 on Conservation of and trade in tigers and other Appendix-I Asian big cat species.

Paragraph 1c) of the Resolution now urges:

“all Parties in whose jurisdiction there is a legal domestic market for specimens of tiger and other Asian big cats species that is contributing to poaching or illegal trade, take all necessary legislative, regulatory and enforcement measures to close their domestic markets for commercial trade in tiger and other Asian big cat specimens”.

Above: In 2019, the CITES Conference of the Parties adopted language urging all countries to close domestic markets for Asian big cat parts and products, including leopards

In addition, paragraph 5a) of Res. Conf. 12.5 (Rev. CoP18):

“RECOMMENDS that the consumer States of specimens from the tiger and other Asian big cat species ... work with traditional medicine communities and industries to develop and implement strategies for gradually reducing and eventually eliminating the use of Asian big cat parts and derivatives”.

By adopting this text within a CITES Resolution the international community has made clear that the continuing use of Asian big cat specimens in traditional medicine products and the persistence of legal markets for such specimens is not acceptable. It is incumbent upon the Chinese Government to implement these decisions as a matter of urgency.

Recommendations

The Chinese Government should:

- Prohibit trade, including for medicinal purposes, in all parts and products of all big cats, including from captive sources.* This may be achieved by issuing a new State Council order before the 15th Conference of the Parties of the Convention on Biological Diversity, and/or through revision to the Wildlife Protection Law to prohibit trade in the parts and products of wildlife under special state protection and non-native species that are threatened by trade
- Destroy Government- and privately-held stockpiles of the parts and derivatives of these species where they are no longer needed for prosecution purposes
- Revise regulations regarding the keeping and breeding of big cats in captivity to prohibit breeding for commercial purposes and restrict to internationally-recognised conservation breeding programmes
- Publicise the new policy widely, and collaborate with opinion leaders in TCM on evidence-based behaviour change campaigns to reduce demand for and use of threatened wildlife in TCM

The companies named in this report should:

- Immediately cease production and sale of products containing leopard bone
- Revise formulations of these products and replace leopard bone with a herbal alternative from sustainable sources
- Make a public statement that they will no longer use the parts and products of wildlife species that are threatened by trade

Investors in these companies should:

- Withdraw investments in the companies detailed in this report pending assurances that the company will cease use and sales of parts and derivatives of leopard and other wildlife that is threatened by trade
- Review investment portfolios to ensure they are not investing in other companies using or trading in the parts and derivatives of other wildlife that is threatened by trade
- Publicly announce their divestment in companies using leopard bone or other wildlife that is threatened by trade

Traditional Chinese medicine manufacturers, academics and associations inside and outside China should:

- Publicly reject the use of leopard bone and other parts and derivatives of wildlife that is threatened by trade as both unnecessary and harmful to the international image and development of TCM
- Call upon those companies and practitioners still using threatened wildlife to cease doing so

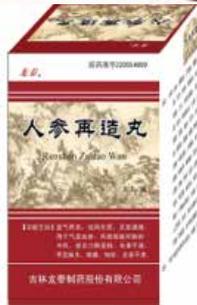
CITES Parties should:

- Request China to provide information regarding actions being taken to implement Res. Conf. 12.5 (Rev. CoP18) and close domestic markets for Asian big cat products at the 73rd meeting of the CITES Standing Committee.

The World Health Organisation should:

- Withdraw its blanket recognition of traditional Chinese medicine in its current form as represented by inclusion of TCM diagnoses in the International Statistical Classification of Diseases and Related Health Problems until such a time as Chinese authorities commit to ending use of wildlife threatened by trade in TCM

* Consistent with the repealed 1993 prohibition on trade in and use of tiger bone and rhino horn, this order should also prohibit trade in rhino horn, including from captive sources. Any policy revision should also prohibit domestic trade in other wildlife that is threatened by trade, such as elephants, pangolins and bears.

Company name	Based in	Product name	Image from company website
Dongzhitang Pharmaceutical (Anhui) Co. Ltd (东芝堂药业(安徽)有限公司)	Based in Huainan, Anhui Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Huisheng Zaizao Wan (回生再造丸)	
Guangzhou Baiyunshan Chen Liji Pharmaceutical Factory Co. Ltd (广州白云山陈李济药厂有限公司)	Based in Guangzhou, Guangdong Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Da Huoluo Wan (大活络丸)	
Jilin Longtai Pharmaceutical Stock Co. Ltd (吉林龙泰制药股份有限公司)	Based in Liuhe County, Jilin Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Renshen Zaizao Wan (ginseng restoration balls) (人参再造丸)	
Jinzhou Hanbao Pharmaceutical Co. Ltd (锦州汉宝药业有限公司)	Based in Jinzhou, Liaoning Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Yaotuitong Wan [lower back and leg pain balls] (腰腿痛丸)	
Lanzhou Foci Pharmaceutical Co. Ltd (兰州佛慈制药股份有限公司)	Based in Lanzhou, Gansu Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Jianbu Wan (健步丸)	
Liaoning Oriental Pharmaceutical Co. Ltd (辽宁东方人药业有限公司)	Based in Benxi, Liaoning Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Yaotuitong Wan [lower back and leg pain balls] (腰腿痛丸)	 <p>主治功能：强筋壮骨，舒筋 风寒湿痹。 用法用量：口服，一次1.2克 酌减。 包装规格：每100粒重12克</p>
Jilin Yizheng Pharmaceutical Group Co. Ltd (吉林一正药业集团有限公司)	Based in Siping, Jilin Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Renshen zaizao wan (ginseng restoration balls) (人参再造丸)	

Company name	Based in	Product name	Image from company website
Nanjing Tongrentang Pharmaceutical Co. Ltd (南京同仁堂药业有限责任公司)	Based in Nanjing, Jiangsu Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Da Huoluo Wan (大活络丸)	 大活 【成 甘草 羌活 沉香 (炒 蔻、
Shandong China Health Bridge Pharmaceutical Co. Ltd (山东中健康桥制药有限公司)	Based in Linyi, Shandong Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Yaotuitong Wan [lower back and leg pain balls] (腰腿痛丸)	 100粒 YAO TUI TONG WAN 腰腿痛丸
Shanghai Leiyunshang Pharmaceuticals Co. Ltd (上海雷允上药业有限公司)	Based in Shanghai. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Renshen Zaizao Wan [ginseng restoration balls] (人参再造丸)	 人参再造丸 RENSHEN ZAIZAO WAN
Sinopharm Zhonglian Pharmaceutical Co. Ltd (国药集团中联药业有限公司)	Based in Wuhan, Hubei Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Da Huoluo Wan (大活络丸)	 大活络丸 Da Huoluo Wan 35gx10丸
Tengzhou Ruizhi Pharmaceutical Co. Ltd (滕州锐志药业有限责任公司)	Based in Tengzhou, Shandong Province In 2019, company website advertised one product which listed leopard bone as an ingredient.	Zheng Gu Gao (正骨膏)	 正骨膏
Zhejiang Dingtai Pharmaceutical Co. Ltd (浙江鼎泰药业有限公司)	Based in Tongxiang, Zhejiang Province. In 2019, company website advertised one product which listed leopard bone as an ingredient.	Shexiang Zhuanggu Gao [musk bone-strengthening plaster] (麝香壮骨膏)	 麝香壮骨膏 浙江鼎泰药业有限公司

Appendix II

Permits issued to companies named above to buy, sell and/or utilise terrestrial wildlife under first-class state protection or the products thereof since 2017						
Company (中文)	Company (English)	Province	Application No.	Permit document number	Date of application	Date of permit
吉林省东丰药业股份有限公司	Jilin Dongfeng Pharmaceutical Company Limited	Jilin	32024-2019102801	林护许准 2019 01754号	24/09/2019	14/10/2019
天津中新药业集团股份有限公司达仁堂制药厂	Tianjin Zhongxin Pharmaceutical Group Company Limited Darentang Pharmaceutical Factory	Tianjin	32024-2019081301	林护许准 2019 01519号	21/06/2019	08/07/2019
吉林一正药业集团有限公司	Jilin Yizheng Pharmaceutical Co. Ltd	Jilin	32024-2019022611	林护许准 2019 01233号	13/03/2019	22/03/2019
北京同仁堂股份有限公司	Beijing Tongrentang Co. Ltd	Beijing	32024-2018122711	林护许准 2019 01027号	27/12/2018	04/01/2019
天津中新药业股份有限公司达仁堂制药厂	Tianjin Zhongxin Pharmaceutical Co. Ltd Darentang Pharmaceutical Factory	Tianjin	32024-2018101801	林护许准 2018 011128号	18/10/2018	13/11/2018
内蒙古鸿茅药业有限责任公司	Inner Mongolia Hongmao Pharmaceutical Co. Ltd	Inner Mongolia	32024-2018032601	林护许准 2018 01336号	26/03/2018	03/04/2018
内蒙古鸿茅药业有限责任公司	Inner Mongolia Hongmao Pharmaceutical Co. Ltd	Inner Mongolia	32024-2017090601	林护许准 2018 01237号	06/09/2017	16/03/2018
北京同仁堂股份有限公司	Beijing Tongrentang Co. Ltd	Beijing	32024-2018012601	林护许准 2018 01114号	26/01/2018	30/01/2018
北京同仁堂科技发展股份有限公司	Beijing Tongrentang Technology Development Co. Ltd	Beijing	32024-2017122702	林护许准 2018 01076号	27/12/2017	19/01/2018
北京同仁堂股份有限公司	Beijing Tongrentang Co. Ltd	Beijing	32024-2017092101	林护许准 2017 01559号	21/09/2017	27/09/2017
北京同仁堂股份有限公司	Beijing Tongrentang Co. Ltd	Beijing	32024-2017092203	林护许准 2017 01562号	22/09/2017	27/09/2017
内蒙古鸿茅药业有限责任公司	Inner Mongolia Hongmao Pharmaceutical Co. Ltd	Inner Mongolia	32024-2017082907	林护许准 2017 01504号	29/08/2017	15/09/2017

References

1. Dasgupta, S. 2016. 'Nobody was expecting this': range loss puts leopards in big trouble. Mongabay, 6 May. Available from: <https://news.mongabay.com/2016/05/leopards-serious-trouble-lost-75-historical-range/>
2. Dasgupta, S. 2016. Indochinese leopard has disappeared from 94% of its historical range. Mongabay, 10 August. Available from: <https://news.mongabay.com/2016/08/indochinese-leopard-has-disappeared-from-94-of-its-historical-range/>
3. Laguardia, Alice & Kamler, Jan & Li, Sheng & Zhang, Chengcheng & Zhou, Zhefeng & Shi, Kun. (2015). The current distribution and status of leopards *Panthera pardus* in China. *Oryx*. -1. 1-7. 10.1017/S0030605315000988
4. Data collated by EIA and the Wildlife Protection Society of India. EIA's Asian big cat dataset includes information reported by Education for Nature Vietnam, Fauna and Flora International, Freeland, NABU, TRAFFIC, Wildlife Conservation Nepal, Wildlife Conservation Society, Wildlife Friends Foundation Thailand, Wildlife Trust of India, WildTiger, WildTeam, WWF, government agencies, court records and media sources.
5. Data collated by Wildlife Protection Society of India. Available from: <http://www.wpsi-india.org/wpsi/index.php>
6. Data collated by EIA (as per sources at 4), and the Wildlife Protection Society of India
7. Based on an average of 8 kg of bone per animal. Source: Wildlife Protection Society of India
8. Data collated by EIA (as per sources at 4), and the Wildlife Protection Society of India
9. A 2016 TRAFFIC report estimated that between 221 and 450 snow leopards have been poached every year since 2008, although notes the true figure could be much higher. An estimated 21% of animals poached were killed specifically for trade, while the report estimates that in 60% of cases where a snow leopard was killed in retaliation for depredation of livestock or by traps or snares that were not targeted specifically at snow leopards, an attempt will be made to sell the carcass or its parts. Source: Nowell, K., Li, J., Paltsyn, M. and Sharma, R.K. (2016). *An Ounce of Prevention: Snow Leopard Crime Revisited*. TRAFFIC, Cambridge, UK
10. For example, TRAFFIC and Min et al. report a minimum of 175 clouded leopard skins observed in markets in Myanmar since 2000. Sources: Oswell, A H. 2010. *The Big Cat Trade in Myanmar and Thailand*. TRAFFIC Southeast Asia. Page 11; Min et al., 2018. *A note on felid trade at local markets in Myanmar*. *CAT News* 67
11. Mills, J.A. (Ed.). 1997. *Rhinoceros Horn and Tiger Bone in China: an Investigation of Trade Since the 1993 Ban*. TRAFFIC International, Cambridge, UK
12. CITES CoP14 Doc. 52 Annex 1. Report on Implementing Resolution Conf. 12.5 of CITES from the CITES Management Authority, People's Republic of China. Available from: <https://www.cites.org/sites/default/files/common/cop/14/doc/E14-52A01.pdf>
13. Coghlan ML, Haile J, Houston J, Murray D, White, N, Moolhuijzen P, et al. Deep sequencing of plant and animal DNA contained within traditional Chinese medicines reveals legality issues and health safety concerns. *PLoS Genet*. 2012;8:e1002657.
14. EIA. 2018. *Down to the Bone: China's alarming trade in leopard bones*. Available from: <https://eia-international.org/wp-content/uploads/Chinese-Government-agency-issuing-permits-for-commercial-trade-in-bone-of-hundreds-of-leopards.pdf>
15. Ibid.
16. Williams, H. 2019. Focus: How Britain's biggest fund managers invest your money in China's trade in rare animals. *Evening Standard*, 20 November. Available from: <https://www.standard.co.uk/business/focus-how-britain-s-biggest-fund-managers-invest-your-money-in-china-s-trade-in-rare-animals-a4291991.html>
17. Zhongyao Baiko, a traditional Chinese medicine reference website: <http://yc.jintonghua.com/>
18. Zhongyi Zhongyao Wang, a traditional Chinese medicine reference website: [Zhzyw.com](http://zhzyw.com)
19. Database on the website of the National Medical Products Administration: <https://tinyurl.com/wgrfbk5>
20. Traditional Chinese medicine reference website: <http://zy.yaozh.com/>
21. EIA. 2019. *China's Wildlife Protection Law*. Available from: <https://eia-international.org/wildlife/saving-tigers/tiger-farming/chinas-wildlife-protection-law/>
22. CITES CoP18 Doc. 71.1 Annex 5
23. Ibid.
24. EIA. 2013. *Hidden in Plain Sight: China's Clandestine Tiger Trade*. Available from: <https://eia-international.org/wp-content/uploads/EIA-Hidden-in-Plain-Sight-med-res1.pdf>
25. EIA. 2020. *Wildlife Protection Law Recommendations 2020*. Available from: <https://eia-international.org/report/wildlife-protection-law-recommendations-2020/>
26. Searchable government database of information relating to China National Wildlife Marking labelling: <http://chaxun.cnwm.org.cn/web/index.jsp>
27. Image of Beijing Tongrentang Zhuanggu Yaojiu, found at: http://www.jiutw.com/upimg-outer/20190818/mot_1323749_20190818225046.jpg
28. Image of Beijing Tongrentang Tongren Da Huoluo Wan, found at: https://www.1pianyi.com/index.php?act=goods&op=index&goods_id=64673
29. Image of Beijing Tongrentang Zaizao Wan, found at: <https://item.jkcsjd.com/25283334296.html#none>
30. Coghlan ML, Haile J, Houston J, Murray D, White, N, Moolhuijzen P, et al. Deep sequencing of plant and animal DNA contained within traditional Chinese medicines reveals legality issues and health safety concerns. *PLoS Genet*. 2012;8:e1002657.
31. Images of Beijing Tongrentang Technology Development Co. Ltd Renshen Zaizao Wan, found at: <http://www.yao010.com/product/19563.html> and <http://yao.xywy.com/goods/34249.htm>
32. EIA. 2018. *Down to the Bone: China's alarming trade in leopard bones*. Available from: <https://eia-international.org/wp-content/uploads/Chinese-Government-agency-issuing-permits-for-commercial-trade-in-bone-of-hundreds-of-leopards.pdf>
33. Image of Jilin Zixin Renshen Zaizao Wan, found at: <http://yao.xywy.com/goods/42367.htm>
34. SFA announcement No. 14, 2017 (informal EIA translation). Available from: <https://eia-international.org/wp-content/uploads/SFA-announcement-No.-14-2017.pdf>
35. Searchable database of permits issued on the website of the National Forestry and Grasslands Administration, available at: <http://www.forestry.gov.cn/xzsp.html>
36. CITES Resolution Conf. 9.6 (Rev. CoP16) Trade in readily recognizable parts and derivatives. Available from: <https://cites.org/eng/res/09/09-06R16.php>



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