CITES: A Toothless Tiger in the Black Market for Traditional Chinese Medicines?

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Traditional Chinese Medicine is a millennia-old ethnic medical system used by an increasing number of adherents of both Asian and non-Asian descent throughout the world, which forms an integral part of the Chinese identity, philosophy and culture. The raw materials used in Traditional Chinese Medical treatments are obtained from naturally-occurring minerals, wild plants, and animals, a percentage of which are, unfortunately, dangerously rare species prohibited from international trade by CITES, (the Convention on the International Trade in Endangered Species of Fauna and Flora). CITES has been declared to be one of the most successful international environmental agreements of all time, yet this has done little to curb the demand for, and international trade in, Traditional Chinese Medicine products created from such endangered species components. This article explores some of the reasons for CITES’ lack of success, the implications for Canada (as both supplier and buyer) in the Traditional Chinese Medicine trade, and some possible solutions by which to remedy the situation, before irreversible harm is done to Canada’s native wildlife and to those who depend upon it.

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I. INTRODUCTION

In the early 1980s, a curious phenomenon appeared in North America: the grisly discovery of poached bear corpses, intact but for their missing paws or their fig-shaped gallbladders.1 At the time, North America enjoyed a surge in interest in traditional, herbal or natural medicines, despite a generally high standard of health care. Dubbed the “Green Sweep,”2 this sudden interest by developed nations in herbal or traditional medicines may have complex roots, including disillusionment with scientific medicine, greater environmental awareness (and a “return to nature” ethic), increased health awareness, and increasing openness to multicultural values. One traditional medical system featured prominently in the trend is Traditional Chinese Medicine (TCM), a medical system rooted in three thousand years of practice and culture.

TCM has numerous adherents of both Asian and non-Asian heritage. Unfortunately, TCM medications can involve complex combinations of plant and animal species, some of them rare or endangered, including those listed in Appendix I of the Convention on the International Trade in Endangered Species of Fauna and Flora (CITES).3 The slain bears and their mysterious missing body parts were the tip of a much larger iceberg. Beneath the surface lay an illicit global trade in traditional medicinal products and poached wildlife.

II. TRADITIONAL CHINESE MEDICINE (TCM)

Recent polls estimate that, after English and French, Chinese is the most commonly spoken language in Canada.4 The country’s major urban...
areas, especially Toronto and Vancouver, have significant Chinese populations, and Canada is justly praised as a social environment where many immigrant cultures coexist in relative harmony, and where the preservation of diverse traditions and beliefs is enshrined in law (e.g., in the *Canadian Charter of Rights and Freedoms*).\(^5\) The accruing benefit is that ethnic groups such as the Canadian Chinese enrich the multicultural fabric of Canadian society.

One aspect of the ancient and deep-rooted culture Chinese immigrants have brought with them and sustained in their communities is TCM, an intricate system of medical belief and practice that may date back two to three millennia. It is credited (by its supporters) with effectively treating every conceivable human ailment (from malaria to deafness), including some deemed incurable by current Western medicine. Radically unlike the scientific and technologically based medical system of Western nations, the TCM system incorporates concepts of *qi* or bio-physical energy, claimed to flow through the body in conduits termed "meridians." The practice involves delicately balancing five different energy components, linked to the elemental properties of earth, wood, fire, water, and metal. Blockage in the energy flow through the meridians, or imbalance among the five component elements, is believed to result in illness, and is treatable with methodologies ranging from acupuncture (the insertion of fine needles into acupuncture points on the meridians), or variants such as *shiatsu* (acupressure) and moxibustion (painless burning of a herbal substance on the acupuncture points), together with preventive physical-mental exercises such as *chi gong* or *tai chi.* TCM can also advise the ingestion of medicinal preparations made from plants, animal parts, and minerals designed to suitably balance the relative strength of the five component energies.\(^6\)

Proponents suggest TCM prevents or cures a wide range of ailments. Part of the recent attraction to TCM in Western countries such as Canada is its touted ability to relieve or cure a variety of ailments that current scientific medicine cannot effectively treat, cure or even explain (such as chronic pain, environmental illness, and incurable or degenera-
tive diseases).\footnote{Ibid. at 5.} Certainly some effectiveness has been demonstrated by TCM in treating certain illnesses,\footnote{Ibid. at 5.} or in the case of acupuncture, in providing pain relief or anaesthesia in dental treatment or major surgery.\footnote{Ibid. at 19.} In 1999, studies at the University of Toronto focused on a potential new anti-malarial drug derived from a TCM herb used since ancient times.\footnote{The TCM herb “qinghao” \textit{(Artemesia capillaris} Thunberg) has been used for centuries in the treatment of cerebral malaria. McNamara, \textit{supra} note 6 at 90.} Other studies at the Chinese University of Hong Kong and elsewhere have looked at the efficacy of TCM medications relative to claims, and found some correlation (e.g., rhino horn, traditionally used in treating fever, has some slight anti-inflammatory properties).\footnote{A. Higgins, “Wanted, a replacement for parts: scientists in China study alternative cures” \textit{Guardian News Service} (18 August 1996) E7.} However, in the case of many medicines, such as tiger bone (which is mostly calcium), while there was slight benefit (less effective than cheaper Western medications such as Tylenol\textsuperscript{TM}), there did not appear to be any unique medicinal properties. In addition, some usages, such as ingestion of tiger penis as an aphrodisiac, seem to have their basis more in folklore than in medicine.\footnote{N. Chalifour, \textit{Canada’s Role in the Tiger Trade: Recommendations for a Tiger Safe Nation}, (Toronto: World Wildlife Fund Canada, 1996) at 14 [Chalifour].}

With its focus on energy and invisible meridians, obscure terminology and requirement of lengthy intensive study, the comprehensive and deep-rooted TCM system is not easily reconciled with the Western scientific medical approach, despite some attempts that have been made. Accordingly, proponents of Western medicine are inclined to dismiss or explain away some of the documented results (perhaps in some cases correctly) as at most either a psychosomatic “placebo effect” resulting from the patient’s strong belief that a cure will result (although widespread use in veterinary care may contradict this), or for acupuncture, as resulting solely from endorphin release.\footnote{McNamara, \textit{supra} note 6 at 138, 141.} The scientific reality remains unknown. As a result, TCM has remained largely unexamined by Western medical investigators.\footnote{McNamara, \textit{supra} note 6 at 48.}
It is perhaps related that, until relatively recently, TCM's use of rare species remained largely invisible outside the Chinese community. Environment Canada reports are quick to point out that only seven percent of some 708 known TCM ingredients actually come from endangered or protected species. However, this usage and the demand it maintains may be significant. In the late 1980s, TRAFFIC, a non-governmental organization (NGO) connected with the World Wildlife Fund and the World Union for the Conservation of Nature (IUCN), began a study of TCM medicines available in Asian pharmacies in major American and Canadian cities. During the mid-1990s, three internationally respected humane societies also hired private undercover investigators of Asian descent to investigate bear-based TCM medicines. Disturbingly consistent results revealed that a significant proportion of Asian pharmacies in both American and Canadian cities openly displayed and sold TCM medications containing rare species of animals and plants long banned from international trade under CITES. Geographic species distribution suggests that many of these products originated and been processed into medicines in Asia. The fact that many were labelled in both Chinese and English demonstrates a contemplation of both Western and Asian markets, which would require them to be smuggled into North America in contravention of CITES.

The extent to which these medicines actually do contain the species they claim has been a matter of debate. In 1989, forensic analyses of

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15 Chalifour, supra note 12 at 14.
16 Gaski & Johnson, supra note 2 at 2, 6, 204-221.
17 The investigation was initiated collaboratively by the Humane Society of the United States, the Humane Society International and the Humane Society of Canada. This private NGO investigation led to “Operation Barlegal”, the largest wildlife law enforcement operation in North America at the time, which confiscated several hundred thousand dollars worth of illegal TCM products containing endangered CITES Appendix I species such as tiger, elephant and rhino, available for sale in Vancouver’s Chinatown. Knights & Fisher, supra note 1 at 1, 7.
18 The most recent 1998 TRAFFIC study found that fifty percent of 110 shops surveyed sold TCM products purportedly containing endangered species such as tiger, leopard or rhino. A.E. Vulpio, “From the Forests of Asia to the Pharmacies of New York City: Searching for a Safe Haven for Rhinos and Tigers” (1999) 11 Georget. Int. Env. L. Rev. 463 at 485 [Vulpio, “Forests of Asia”].
19 There are no known manufacturers of TCM preparations in North America. Chalifour, supra note 12 at 17.
20 Of medicines confiscated by United States customs for various reasons between 1984 and 1992, thirty percent purported to contain protected wildlife species. See Gaski & Johnson, supra note 2 at x.
TCM medicines by TRAFFIC, findings later substantiated by investigations of Chinese TCM manufacturers, revealed that thirty two out of forty medications tested (i.e., eighty percent) did in fact contain the species claimed on the label.21 Other studies by the United States’ Clark R. Bavin National Fish and Wildlife Forensic Laboratory did not find detectable levels of endangered species.22 This leads to one of two conclusions: either the preparations contained no endangered species, or the amounts present were too miniscule for current detection methods. Many experts believe that TCM manufacturers could not afford to produce these medications using such expensive ingredients without attempting to recover this cost by advertising that ingredient on the label.23 However, a recent advertising tactic involves the addition of a secondary English label disavowing the endangered ingredients listed and depicted on the original Chinese labels underneath!24 Regardless of a label’s veracity, the mere advertising of endangered species ingredients helps maintain demand for these ingredients.25

In addition to medicines of Asian origin, the Humane Societies’ investigators discovered a thriving trade in species of North American wildlife – non-endangered but poached animals such as brown and black bears – some of which were being smuggled back to Asia for sale at huge prices for use in TCM medicines.26 Apparently, North America’s protected reserves and relatively healthy wildlife populations had become a magnet for well-financed, profit-motivated criminal gangs27 and the poachers28 who supply them. Given the magnitude of

21 Chalifour, supra note 12 at 15; Gaski & Johnson, supra note 2 at xi.
22 Chalifour, supra note 12 at 15.
23 Chalifour, supra note 12 at 24.
24 N. Read “Animal parts for sale, and it’s legal” The Vancouver Sun (2 December 1995) B2 [Read].
25 Chalifour, supra note 12 at 15.
26 Knights & Fisher, supra note 1 at 1.
27 Such organized criminal syndicates include the Russian mafia, Japan’s Yakuza, and other Asian criminal gangs. Knights & Fisher, supra note 1 at 1.
28 A poacher’s profile: Most are young, adult males, taught to hunt as children, who are also sensation seekers: they are “impulsive, lack conscience, and enjoy high-risk situations...many are not persuadable or educable”. Also: “approximately 60% of poachers are...involved in other criminal activities, including trafficking in drugs, the illegal firearms trade or smuggling contraband across Canadian borders... not the average citizen who...poaches a deer or an extra duck.” L.I. Gregorich, Poaching and the Illegal Trade in Wildlife and Wildlife Parts in Canada, (Ottawa: Canadian Wildlife Federation, 1992) at 61-63 [Gregorich].
demand (both in Asia and in North America) for TCM medicine species, animals were being killed illegally, without regard to license requirements, season, gender, maternity, age, number, wastage, or even humane methods. Perhaps bears have had the most recent publicity, but some environmental investigators believe pregnant deer poached for their foetuses may be the future trend in TCM smuggling from North America to Asia.

Within Asia, the main TCM markets are in the more affluent nations of China, Taiwan, Japan, Macau, and South Korea. In China, the result of Deng Xiaoping’s modernizations aimed at attracting foreign investment has been a dramatic increase in disposable income during the past two decades. Many of the more expensive medicines (i.e., those containing rare and expensive ingredients) are suddenly within reach of a greater number of people. Loyalty to TCM appears little affected by access to or the affordability of Western scientific medicine. For example, in Hong Kong, where seventy-three percent of people enjoyed government subsidized scientific medical advice, sixty-seven percent of the population also paid for TCM drugs (totalling US $2 billion per year in the late 1980s). Consumer demand for TCM appears to continue unchanged in both urban and rural settings in some nations. Unfortunately, many Asians seem unaware of or apathetic about the potential environmental harm of consuming rare species either in TCM preparations or in food: a Hong Kong study in 1993 showed that fifty-two percent of Hong Kong residents had consumed products containing at least one endangered species (according to the study, some Hong Kong restaurants featured only endangered species in their dishes).

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32 “Where previously only a privileged few thousand could afford them, now tens of millions can.”: Knights & Fisher, supra note 1 at 1.
33 Gaski & Johnson, supra note 2 at 4.
34 Gaski & Johnson, supra note 2 at 4.
35 Vulpio, “Forests of Asia”, supra note 18 at 478.
Such consumptive attitudes and relative environmental ignorance\textsuperscript{36} (in an otherwise increasingly technologically sophisticated country) place pressures on wildlife that in some cases rival habitat loss.\textsuperscript{37} Such a mindset bodes ill for the future of wildlife populations and TCM. Seeing the danger ahead, some members of the TCM community have responded. Meanwhile, some practitioners staunchly defend the traditional use of endangered species as TCM ingredients. These arguments range from the anthropocentric ("If your loved one was afflicted with fever – or liver disease, haemorrhoids, acne, etc. – whose life would you spare: a tiger’s or your loved one’s?");\textsuperscript{38} to culturally based claims (that TCM is an essential aspect of an ancient culture and identity, that conservationist attitudes represent Western imperialism, and that China has a ‘right to development’).\textsuperscript{39} The last claim is somewhat ironic as this alleged “right to development” appears to have the effect of compromising the similar rights of much less-developed South-East Asian nations. China’s claim can be seen as a violation of the customary international law principles of equitable use, international co-operation and good neighbourliness\textsuperscript{40} – it is also a contravention of conventional international law (i.e., CITES).

Other TCM practitioners realize they will eventually be forced to switch to non-traditional TCM ingredients (if only due to the extinction of certain species), and have therefore proposed lists of equally effective TCM substitutes, such as non-endangered wild or domestic animal and plant species.\textsuperscript{41} Fraud has been yet another option, passing off cheap look-alike ingredients treated to resemble expensive, rare ones.\textsuperscript{42} Synthetic forms of some ingredients (e.g., bear bile) offer another possibil-

\textsuperscript{36} Unfortunately, in the opinion of a Canadian environmental activist of Asian descent, a similar lack of environmental awareness exists within Asian communities in North America. Read, supra note 24.

\textsuperscript{37} Habitat loss is usually regarded as the major threat to wildlife, yet poaching can have speedier effects.

\textsuperscript{38} L. Pynn “Bear bladder farms touted to curb poaching” The Vancouver Sun (18 September 1995) B2.

\textsuperscript{39} J. Lee, “Poachers, Tigers and Bears...Oh My! Asia’s Illegal Wildlife Trade” (1996) 16 NW. J. Int. L. & Bus. 497 at 499 [Lee, “Poachers, Tigers and Bears”].

\textsuperscript{40} P. Sands, “International Law in the Field of Sustainable Development: Emerging Legal Principles” in W. Lang, ed., Sustainable Development and International Law (London: Graham & Trotman Ltd., 1995) at 60-63 [Sands].

\textsuperscript{41} Knights & Fisher, supra note 1 at 3.

\textsuperscript{42} Knights & Fisher, supra note 1 at 5
ity that finds some acceptance in both North America and Asia. A more unusual and controversial alternative launched in China and other Asian nations during the mid-1980s involves farming endangered species (such as tigers or Asian bears) specifically for the TCM trade.

III. CITES, WILDLIFE POACHING AND THE INTERNATIONAL WILDLIFE TRADE

Since coming into force in 1975, CITES has been declared a huge success for its large number of signatory nations. However, acclaim has not been unanimous. Undoubtedly, with over 150 signatories, CITES is one of the most widely ratified, multilateral environmental agreements of all time. It has had some notable successes. For example, a CITES-imposed worldwide ban on ivory sales between 1989 and 1997 saw elephant populations in southern Africa recover dramatically. Prior to the trade ban, the ivory trade caused African elephant populations to plummet. More generally, CITES has focused global attention on the problem of wildlife conservation and trafficking, and attempted to impose some control on this lucrative trade. In this effort, B. Dickson states that CITES inherently incorporates the high environmental standards of the “precautionary principle.” At least CITES has enjoyed greater respect and success than any previous global wildlife treaty – perhaps owing in part to the consistent involvement of NGOs such as the World Wildlife Fund.

Overall, the function of CITES is to regulate trade in less common species of animals and plants by listing them in one of three appendices.

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43 Knights & Fisher, supra note 1 at 3.
44 Watkins & Yi, supra note 31 at 3.
A system of permits then regulates trade in some of these appendix-listed species. A listing under Appendix I is reserved for the rarest, most critically endangered wildlife (e.g. Asian rhinos and tigers). Appendix I species are effectively banned with respect to international commercial trade. Nonetheless, it is possible to export or import them when they are accompanied by previously granted import and export permits (Art. III), and under certain limited, non-commercial exceptions (Art. VII). Exemptions to the Appendix I commercial trade ban include trading of specimens (or products) which represent ranched or captive-bred populations (Art. VII(4)), are part of travelling exhibits (Art. VII(7)), comprise “personal effects” (Art. VII(3)), or are pre-CITES specimens (Art. VII(2)), or those which are traded non-commercially, e.g., among scientists or museums (Art. VII(6)). Permits require that the transaction be neither “detrimental to species survival” (Art. III(2)a, Art. III(2)c), nor primarily commercial (Art. II(3)c). If live, measures must be taken to assure the organism is not harmed during shipping (Art. III(2)c), that appropriate care is taken upon arrival (Art. III(3)b), and must have been obtained legally in its state of origin (Art. III(2)b).

In contrast, Appendix II lists species that although less threatened, are liable to become extinct should trade continue unregulated. It also lists “look-alike species” – more common species that closely resemble Appendix I species, counterparts which might otherwise be “ laundered” as more common, legal species, if the latter are not listed and closely watched. Appendix II permits some commercial trade, requiring export (or re-export) permits, but does not require import permits (Art. IV). Finally, Appendix III permits signatory nations to list wildlife protected domestically within their territories. Only an export permit is required to trade Appendix III species (Art. V). As listed species change endangered status, member states can suggest amendments to the listings. Ultimately, priority listing depends upon the Fort Lauderdale Criteria, a standardized sorting system agreed to in 1994 to govern the listing of species. Every other year, the CITES Conference of Parties (CoP)

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49 For a listing of species in CITES Appendices I-III see <www.cites.org/eng/append/I_II.shtml> and <www.cites.org/eng/append/III.shtml> [CITES Appendices].

50 Unfortunately, the term “detrimental” has not yet been defined for CITES purposes.

51 Although, it is conceivable that, in a range state with few or inadequate wildlife laws, “legal” might be meaningless.

meets to discuss and review CITES developments, make amendments to the Appendices and express its policy.

Since CITES' coming into force, a major ideological debate has simmered between the signatory parties. This debate focuses on the correct interpretation of CITES, pitting the so-called "preservationist" (generally developed) nations against the "conservationist" (mainly developing) nations. The preservationist ethic advocates unlimited protection for Appendix I species, and holds that national parks should be kept pristine and free of "consumptive human use." This approach has received its share of criticism. Opponents say banning trade creates an illegal black-market trade, in which a "tragedy of the commons" scenario emerges and wildlife is over-harvested. Others counter that black markets have always existed, and they will continue despite CITES-imposed trade bans so long as demand persists, suppliers are available and enforcement is inadequate to keep up with the volume of transactions. Fortunately, not all data substantiate the claim that a strict preservationist interpretation of CITES will let wildlife slip into the maw of black markets: as mentioned above, Africa's elephant populations plummeted when they were listed on the (more conservationist) Appendix II, yet expanded enormously when listed on the (strictly preservationist) Appendix I of CITES.

In contrast, the "conservationist" school advocates "sustainable use" of wildlife. J. E. Carey claims sustainable use is a financial incentive for parties to conform to CITES: creating quasi-private property rights in wildlife encourages the communities in contact with endangered species to engage in wildlife protection and long term management. In this system, revenues from wildlife product sales cycle back to the community to provide incomes, improved infrastructure, a sense

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53 Ibid at 1769.
54 That is, use involving hunting or the removal of species from protected areas.
55 The tragedy of the commons concept describes how a lack of private property rights in a common resource leads to over-exploitation of the resource by individual users, each seeking to maximize their gain and unable to exclude other like-minded users. Carey, "Incentives", supra note 46 at 1305.
56 Carey, "Incentives", supra note 46 at 1307.
57 Gregorich, supra note 28 at 69
58 Carey, "Incentives", supra note 46 at 1309.
59 Carey, "Incentives", supra note 46 at 1307-1308.
of pride in local natural resources and support for further conservation enforcement measures. Conservationist approaches have enjoyed some success — although they vary as to what degree of wildlife consumption is acceptable. At the less consumptive end of the spectrum lies eco-tourist ventures such as Nepal’s Bagmara User Group elephant-back rhino- and tiger-viewing safaris; similarly, in Monteverde, Costa Rica’s CASEM, a women’s craft cooperative, sells sustainable coffee and locally produced items to bird-watching eco-tourists.

At the more consumptive end, supporters point to Zimbabwe’s CAMPFIRE program, which allows sales of locally harvested ivory and other elephant products; or South Africa’s ‘rescue’ of the white rhino, which dedicates proceeds from sport-hunting rights (at $25,000 per rhino) towards programs for its protection. However, while the double-edged sword of commerce can indeed provide the impetus to protect and manage wisely, it can also produce the temptation to over-exploit and poach. The conservationist approach is only effective when controlled by local communities: when out-of-jurisdiction businesspeople are involved, profits exit the community without benefiting local people (or wildlife). In addition, oversight and control are extremely important (and sometimes difficult to achieve): so long as officials can be corrupted or otherwise circumvented, consumptive programs provide poachers with a way to “launder” poached wildlife and pass it off as legally harvested.

CITES’ central focus is on the trade in endangered species — the organization uses trade as a pressure point for species preservation. As noted, trade can be a double-edged sword, providing both the inspiration

60 Carey, “Incentives”, supra note 46 at 1308.
61 Vulpio, “Forests of Asia”, supra note 18 at 477.
62 A recent, innovative and more environmental development in sport hunting is “green hunting”, in which big game are tracked to the “kill”, where they are either photographed for scientific record purposes, or are shot with tranquilizer darts to enable radio collar fitting for scientific tracking. Dianne Zuckerman “Saving the elephants: introduction of ‘green hunting’ may assure mammals’ survival” Denver Post (20 October 1998) E1.
64 Vulpio, “Forests of Asia”, supra note 18 at 477.
65 For example, where wildlife officers in India who were implicated with poachers, beat up a poaching informant and killed his family. IUCN Cat Specialist Group, “Tiger and leopard toll by poachers continues”, 5 Tigers Newsletter (1997) online: The Cat Specialist Group <www.5tigers.org/Newsletters/ CatNews/No.26/en26p08.htm>.
to manage wildlife populations wisely, and simultaneously, the incentive for others to poach valuable wildlife species beyond sustainable limits and even into extinction.66 Accordingly, CITES’ trade-centred approach and other aspects have been widely criticized. Most obviously, as an overall holistic approach to wildlife conservation, CITES could be said to fail from the start, since it only activates once a species becomes rare enough to make extinction a real possibility.67 A preferable approach would ensure a species never reached this dangerous threshold, and some parties initially suggested a reverse listing approach (which proved impractical for other reasons).

Critics claim CITES is not sufficient to preserve wildlife, and that other Conventions are needed to complement it.68 They complain that, as with treaties in most (transformationist) countries,69 to have domestic legal effect, CITES must be implemented by domestic legislation. However, the CITES Secretariat currently has no authority to compel a signatory nation to actually employ CITES domestically. As a result, some nations, such as South Korea, have ratified CITES, but have made no attempt to bring the treaty into domestic law.70 During its first two decades of CITES membership, Canada implemented CITES through pre-existing legislation—legislation not designed to implement CITES. By most accounts, the effects were awkward and fell short of the CITES treaty obligations.

A further criticism is that while CITES requires submission to the Secretariat of annual reports on domestic trade in listed species, compliance by member states has been poor: reports are often not submitted, are submitted late, or are woefully incomplete.71 For example, between 1970 and 1993, South Korea’s customs records reveal that 4136 kg of

69 Not all states are transformationist (i.e., require implementation to have legal effect domestically) in their approach to conventional international law (i.e. treaties), however, the majority are. J. Currie, Public International Law, (Ottawa: Irwin Law, 2001) at 197 [Currie].
70 Knights & Fisher, supra note 1 at 14. This would appear to breach CITES Art. VIII(1), but the Secretariat is powerless to remedy this.
71 Vulpio, “Forests of Asia”, supra note 18 at 466.
Asian) bear bile (representing possibly 70,000 Appendix I bears) was imported from twenty-two different nations. As a CITES listed product, these Asiatic bear bile imports should have been reported to CITES. Up to forty-five percent of CITES trade is believed to go unreported. Once again, the Secretariat lacked power to combat these problems and compel compliance. This lack of a central enforcing agency effectively cripples CITES. Parties (although not the Secretariat) may by mutual consent seek assistance in dispute resolution through the Permanent Court of Arbitration (article XVIII), however, as of 1999, this option had not been exercised. Overall poor enforcement of Appendix I bans has been another issue, evidenced by the precipitous decline of Asian rhino and tiger populations despite their Appendix I listing as early as 1979. Yet similar enforcement problems with CITES are rife in even the wealthiest and most developed nations, such as the United States and Canada.

In Canada, some thirty-five million passengers pass through Toronto’s Lester Pearson Airport every year. In a given week, a single mail-sorting plant in Toronto may process between one and twenty million packages. Such numbers render thorough surveillance virtually impossible, even with adequate resources. Yet resources for this type of work have in the past been typically a low priority. In post-September 11th North America, budgets for customs surveillance may have increased. This may increase the incidental detection of wildlife contraband, but it seems likely that the main focus will not be illegal wildlife products so much as suspicious persons and potential weapons. Certainly, prior to September 11th, the training received by customs officers was far from adequate to detect illegal wildlife products: in 1996 they received twelve to twenty-four weeks of training, most of which focussed on smuggled narcotics, firearms, tobacco and pornography.

72 Knights & Fisher, supra note 1 at 15.
73 Vulpio, “Forests of Asia”, supra note 18 at 466.
74 Vulpio, “Forests of Asia”, supra note 18 at 466.
75 Daniel has suggested that the new International Court of Justice would be unlikely to be used for this purpose, since the Permanent Court of Arbitration is expressly mentioned in CITES. C. Daniel, “Evaluating U.S. Endangered Species Legislation — the Endangered Species Act as an International Example: Can This Be Pulled Off? The Case of the Rhino and Tiger” (1999) 23 Wm. & Mary Evtl. Law and Pol. Rev. 683 at 696 [Daniel, “Example”].
76 Knights & Fisher, supra note 1 at 14.
77 Chalifour, supra note 12 at 24.
and very little on wildlife.\textsuperscript{78} Within Canada, there are just thirty-two wildlife customs officers. Of these, only ten work full-time on \textit{CITES} enforcement.\textsuperscript{79}

Undoubtedly, one can sympathize with customs officers faced with detecting any of the large number of \textit{CITES} listed species, or components thereof — smaller quantities of which may be carried by Asian women acting as “mules.”\textsuperscript{80} On a larger scale, however, while Chinese trade records show that between 1990 and 1992, China exported 1193 shipping containers filled with purported banned tiger-containing products to Canada, none of these was recorded (i.e. detected) by Canadian customs.\textsuperscript{81} Until 1996, Canada implemented \textit{CITES} through two ill-fitting, pre-existing statutes, the \textit{Game Export Act}\textsuperscript{82} and the \textit{Export and Import Permits Act},\textsuperscript{83} neither of which was designed to implement \textit{CITES}. Together the statutes were weak: infractions attracted low penalties; the \textit{GEA} only applied to dead game; it ignored other species and live organisms; possession in and of itself was not prohibited; and the statutes lacked the power to prosecute interjurisdictional offences. Overall, neither statute was as strict or effective as similar laws governing the United States. As a result, Canada became known internationally as a “weak link,” and was a preferred destination for the export of illegal wildlife products, including TCM material.\textsuperscript{84} These materials were intended both for Canadian markets and for re-export to the much larger US markets.\textsuperscript{85} Once through Canadian customs, illegal wildlife products have a much lower chance of subsequent detection and are effectively “laundered” with respect to United States customs officials.\textsuperscript{86}

Fortunately, the situation has changed somewhat. With Canada’s signing of the \textit{Convention on Biological Diversity},\textsuperscript{87} a genuine commit-
ment was made to update the Canadian CITES implementing legislation. The 1996 coming into force of WAPPRIITA, the *Wild Animal and Plant Protection and Regulation of International and Inter-provincial Trade Act*,\(^88\) repealed the GEA and EIPA, and confirmed Canada’s commitment to CITES.\(^89\) WAPPRIITA resembles the United States’ legislation in stringency and effect. With this legislative change, Canada has begun to improve its record of policing illegal wildlife offences, cooperating internationally with Interpol, and establishing a new joint environmental investigation initiative between the RCMP and Environment Canada.\(^90\) One specific difference is that WAPPRIITA makes it illegal not only to smuggle (i.e., bring illicit wildlife products into or out of Canada without the appropriate permits or exemptions), but additionally for shopkeepers to possess (as well as sell) banned wildlife material, such as illegal TCM materials.\(^91\) Penalties for infractions under WAPPRIITA were also increased: the maximum fine under EIPA (for indictable offences) was $25,000; the maximum fine under WAPPRIITA is $150,000 (for individuals) and $300,000 (for corporations).\(^92\)

The United States has some of the most comprehensive legal implementation of any CITES party – namely the highly regarded *Lacey Act*\(^93\) and the *Endangered Species Act*.\(^94\) Under this legislation, the United States has only fifty-five customs wildlife inspectors acting at just nine designated United States ports of entry, where they confiscate some US $1 million of illegal imports each year.\(^95\) Unfortunately, given that much imported wildlife and TCM material is deliberately mislabelled as innocuous-sounding “spare parts” or “beeswax”, or is processed by drying, burning or granulating into unrecognizable powders, and may be mixed into honey or dipped in chocolate, it is not surprising that only an estimated one percent of illegal imports are believed to be detected.\(^96\)

\(^{88}\) *Wild Animal and Plant Protection and Regulation of International and Inter-provincial Trade Act S.C. 1992, c. 52, c.i.f. 14 May 1996 [WAPPRIITA].


\(^{91}\) WAPPRIITA makes it illegal for shopkeepers but not consumers to possess banned wildlife material. Marshall, “Implementation”, *supra* note 63 at 51.

\(^{92}\) Marshall, “Implementation”, *supra* note 63 at 52.

\(^{93}\) *Lacey Act 16 U.S.C. §§ 3371-3378 (1994).*

\(^{94}\) *Endangered Species Act 16 U.S.C. §§ 1538, 1540 (1994).*

\(^{95}\) Marshall, “Implementation”, *supra* note 63 at 42, 46; *supra* note 75 at 695.

The United States has been envisaged as an indicator of CITES' global effectiveness: if even the wealthy United States experiences budgetary problems governing enforcement, how can poorer nations be expected to succeed? 97

The Lacey Act permits the United States to enforce other nations' wildlife laws on American soil, thus denying perpetrators fleeing other jurisdictions (where they have committed wildlife crimes) a safe haven in the United States. The Lacey Act has been described as the "teeth behind CITES" in the United States. Canada has borrowed much of it in WAPPRIITA. The Endangered Species Act, on the other hand, makes it an offence to do a variety of wrongs to endangered species, but has been criticized because it provides no protection for the majority of wildlife, i.e., non-endangered wildlife.98 Maximum penalties under Lacey are $100-250,000 for individuals ($200-500,000 for corporations) and up to five years in prison. Under the Endangered Species Act, maximum penalties are $100,000 (individual) or $200,000 (corporate). Ultimately, however, with respect to certain endangered highly trafficked TCM materials (e.g., tiger and rhino parts), the United States found that even this combination of legislation was inadequate to stem the illegal flow.

Accordingly, from 1993 to 1994, the United States imposed trade sanctions on Taiwan (a major illegal exporter of such products to the United States) under the Pelly Amendment of the Fishermen's Protective Act.99 This drastic measure had the desired result of pressuring Taiwan (and China) into addressing the Asian endangered species trade in TCM products.100 It is unlikely that, given the creation of the World Trade Organization (WTO) in 1995, such trade sanctions could again be imposed on a nation pursuant to CITES without fear of running afoul of the WTO dispute resolution committee as a threat to trade freedom.101 This is especially clear since a further weakness of CITES is that Art. XIV makes CITES subject to all pre-existing and subsequent trade conventions, thus expressly subordinating CITES to the WTO and to any other (less environmentally friendly) trade agreements. In 1994, in

57 Daniel, "Example", supra note 75 at 684.
98 Vulpio, "Forests of Asia", supra note 18 at 470.
100 Lee, "Poachers, Tigers and Bears", supra note 39 at 499
101 Vulpio, "Forests of Asia", supra note 18 at 468.
addition to the sanctions, the United States passed the *Rhino and Tiger Conservation Act*\(^{102}\) (to address the problem of rhino- and tiger-containing medicines still being sold in the United States), and in 1998 the *Rhino and Tiger Labeling Act*\(^{103}\) (which makes it a crime to sell these products based only on the label’s claim that they contain these species — whether they really do is irrelevant). A similar American law has since been proposed to protect bears from the TCM trade.\(^{104}\)

In addition to general enforcement problems which afflict even wealthy nations, *CITES* experiences other difficulties. One loophole is "split-listing", which provides different restrictions for specific geographically delineated populations of a species.\(^{105}\) This provides a legal channel through which poached wildlife from restricted populations can be "laundered" as coming from less restricted regional populations, and sold without fear of penalty or control. This was the fear with the proposed split-listing of the African elephant and the limited ivory sales by five southern African *CITES* parties. As predicted, the limited experimentation with ivory sales in the 1990s led to sharp increases in elephant poaching by those eager to exploit these approved legal markets.\(^{106}\) A similar laundering potential also exists due to non-*CITES* countries, and through the existence of unlisted look-alike species, as mentioned previously.\(^{107}\) One rather controversial problem has been the ability of *CITES* parties to declare (before ratifying) an unlimited number of "reservations" on specific listed species, effectively rendering those species outside *CITES* protection for that nation. For example, South Korea (the largest market for TCM bear products) has reservations on North American bears (currently all Appendix II), rendering them beyond the scope of *CITES* protection and control within South Korea — even should they come to be listed under Appendix I. Some critics feel that such reservations introduce asymmetry in the treaty


\(^{104}\) Vulpio, "Forests of Asia", *supra* note 18 at 471.

\(^{105}\) Granadillo, "Regulation", *supra* note 45 at 454.

\(^{106}\) Granadillo, "Regulation", *supra* note 45 at 440. Yet as of November 2002, the *CITES* Twelfth Conference of Parties has now agreed to allow southern African parties to again legally sell ivory on a limited basis.

\(^{107}\) Knights & Fisher, *supra* note 1 at 14.
terms for signatory nations. While this reservation option likely accounts for CITES extremely broad popularity, it guts the treaty’s effectiveness. At the 1997 Conference of Parties, a suggestion to rescind this clause was raised, although it is deemed unlikely ever to succeed.

Finally, CITES specifically targets international trade, so that domestic trade within a party, even when trading large numbers of critically endangered Appendix I species, is legal and beyond CITES power to regulate. Unfortunately, in China, such ‘domestic’ trade has been observed to include sales of listed products in duty-free areas of international airports and on international Chinese airliners, where these products will most certainly transit international borders, and violate CITES. Also, CITES targets international commercial trade, a term undefined and thus easily abused under the “personal effects” exemption that allows undefined, “personal use” quantities to cross borders without permits. It is believed that gratuitous but wide-spread trading of “personal quantities” of illegal wildlife products among family, friends and other members of close-knit North American Asian communities may have a large, cumulative effect on wildlife poaching. Possibly only a small percentage of illicit wildlife products ever reach retail markets.

Overall, CITES presents a giant loophole for illegal trade. By 1992, Interpol figures revealed a startling trend: the illegal world trade in wildlife had suddenly ballooned to an estimated US $5-10 billion per year, dwarfing the legal trade ($3 billion per year) that CITES aimed to regulate. At that time, the illegal wildlife trade was the third largest illegal trade in the world, after illegal drugs and illegal arms, and exceeding the trade in pirated software and illegal gems. Further investigation revealed that major organized crime syndicates (the Russian mafia, or Organizatsiya, the Yakuza of Japan, and Colombia’s

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108 Currie, supra note 69 at 122.
109 Vulpio, “Forests of Asia”, supra note 18 at 467.
112 Knights & Fisher, supra note 1 at 14.
113 Lee, “Poachers, Tigers and Bears”, supra note 39 at 497.
114 EIPA, supra note 83 at 109.
Medellin Cartel) direct poaching and smuggling, sometimes in connection with drugs or arms smuggling, and use extreme violence against officials attempting to combat the problem. 115 In Canada, some believe that most wildlife crime is controlled by five criminal individuals. 116 As mentioned previously, Environment Canada has commenced a new initiative to gather intelligence about Canadian environmental organized crime such as the illegal wildlife trade. 117

The motives behind the illegal trade are numerous. To begin with, and most obviously, trading illegally avoids time-consuming paperwork and bypasses officials whose involvement and restrictions on quantity lower total profits per shipment. Avoiding import and export taxes and duties also increases potential profits. In addition, illegal trade permits higher quality specimens to be obtained, from larger animals out of season, or from optimal protected areas such as National Parks. Finally, some participants wish to witness the kill either to verify the authenticity of the species or for personal thrills. 118 Overall, the illegal trade in wildlife parts has been described as a “virtually risk-free crime”—one paying high financial dividends, on a par with illegal narcotics. 119 Ounce for ounce, some wildlife parts, especially those in the TCM trade, are worth far more than drugs or gold. For example, bear gall bladder can sell for 18 times the price of gold. 120 TRAFFIC’s 1996 information, listed sample prices: rhino horn fetched up to US$4,100 per kg; tiger bone, US$1,950 per kilogram; bear gall bladder, US$6,800/kg; meanwhile, a single serving of prized bear paw soup may cost between US$400–1,500. 121 While poachers in countries of origin may receive only a few hundred dollars, in some nations (e.g. Ecuador, India), such sums represent a small personal fortune and may greatly exceed any fines that might be levied if caught. For instance, in India a tiger poacher

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115 EIPA, supra note 83 at 114.
116 V. Barnett “Rough trade: poaching of Alberta black bears is part of a $6 million international industry with all the trappings of a thriller” The Calgary Herald (11 January 1996) B7.
118 Knights & Fisher, supra note 1 at 11.
119 Knights & Fisher, supra note 1 at 3.
120 Knights & Fisher, supra note 1 at 2.
121 These prices are those of the ultimate consumer rather than the poaching or supply end; end profits may be as high as 6000%. Gaski & Johnson, supra note 2 at 21.
can allegedly earn $10,000 for the skin alone, while the maximum fine is only $200.\textsuperscript{122}

Overall, the risks and costs involved in wildlife poaching and smuggling are miniscule in comparison to rewards. Officials attempting to combat poaching must first catch the (usually seasoned) poacher, in what are often vast, remote wilderness areas, difficult to patrol even with appropriate transport and large enforcement staff. Perpetrators may poach at night, when patrolling is difficult or minimal, in dense vegetation, and with better arms, equipment and finances than the officials tracking them.\textsuperscript{123} According to statistics, wildlife enforcers are seven times more likely to be assaulted and nine times more likely to be killed than the average police officer. Wildlife enforcers regularly encounter people bearing loaded firearms in areas with few witnesses. Despite some controversy, thirteen of Canada’s seventeen wildlife protection agencies, and all of United States wildlife agents, now carry arms.\textsuperscript{124} One study showed that only one percent of legal hunters reported obvious illegal acts by other hunters (e.g., shooting deer from a parked vehicle on the road). Consider too that to charge a poacher, ill-gotten gains must be discovered or suspected by the officer in obedience of the search and seizure constraints imposed by the \textit{Canadian Charter of Rights and Freedoms} (in Canada), or similar laws.\textsuperscript{125}

Beyond the direct costs to the poacher (i.e., ammunition, transportation, gun, and license, if any), domestic laws implementing \textit{CITES} impose the potential cost of punishment if caught. Sometimes the only punishment is confiscation, especially for apparently “first-time” offenders (although since most poachers learn from their parents as children or adolescents, this is unlikely to be truly a first offence).\textsuperscript{126} Unfortunately, \textit{CITES} stipulates no minimum penalties for member nations to use as guidelines in implementation. Hence penalties may vary widely by country.\textsuperscript{127} In many countries, including Canada, the

\begin{itemize}
\item \textsuperscript{122} N. Maghami “Poaching provides everything from quack cures for bogus doctors to solid incomes with little risk” \textit{The National Post} (19 April 2000) A9.
\item \textsuperscript{123} Gregorich, \textit{supra} note 28 at 61-67.
\item \textsuperscript{124} C. Dawson “A call to arms: park wardens demand the right to carry weapons” \textit{The Calgary Herald} (28 August 1999) B4.
\item \textsuperscript{125} McNamara, \textit{supra} note 5; Gregorich, \textit{supra} note 28 at 61.
\item \textsuperscript{126} Gregorich, \textit{supra} note 28 at 63.
\item \textsuperscript{127} Daniel, “Example”, \textit{supra} note 75 at 695.
\end{itemize}
trend has been lax punishment for both hunters and smugglers: i.e., infrequent, brief prison sentences, and frustratingly low fines, often quite disproportionate to the high value or large numbers of illegally taken and exceedingly rare wildlife.  For example, the fine for smuggling $250,000 worth of several hundred Appendix I star tortoises was a mere $10,000 fine; the first prison sentence, under the new, “tougher” WAPPRIITA penalty system, was seventeen days for importing four entire elephant tusks. To date, the Canadian record jail term for egregious multiple offences involving dozens of animals amounting to a huge street value, was fifteen months (out of possible five year term), and the largest fine to date is $14,000 (out of a possible $150,000). In Canada, conditional sentences are also a possibility if the poacher has another, more respectable daytime career, contributing to both the possibility of re-offence and the image of poaching as a relatively innocuous, stigma-less, victimless, regulatory offence. Such timid punishments have been described as merely “the cost of doing business in the illegal wildlife trade.” Kazmar notes: “Until punishments begin to reflect the financial potential of wildlife trafficking, criminals [having any degree of financial savvy] will gladly accept the risk-benefit trade-off.” In comparison with drug or weapons smuggling offences of comparable weight or dollar amounts, punishments for wildlife smuggling are far more lenient. For example, in one smuggling case (in environmentally progressive Germany), the perpetrator received a (relatively stringent) 46 months’ jail and $10,000 fine, for smuggling $250,000 worth of wildlife. A similar (dollar) amount of smuggled cocaine would have received 121-151 months’ jail and $175,000 fine. Wildlife crimes have a visibility problem in the eyes of judges. Despite the fact that financial losses due to wildlife smuggling exceed those for both pirated computer software and smuggled gem-stones, wildlife does not receive equivalent attention or enforcement.

133 EIPA, supra note 83 at 123.
134 EIPA, supra note 83 at 108.
resources.\textsuperscript{135} Under these fertile conditions, the illegal world trade in plants and animals has blossomed; meanwhile \textit{CITES} has been powerless to control or redirect it.

In view of the disproportionately high rates of Aboriginal incarceration in North America, one complicating and highly controversial issue affecting the illegal wildlife trade in North America is that a relatively high percentage of poachers are people of Aboriginal (i.e., First Nations) ancestry.\textsuperscript{136} On a superficial level, this is understandable: many Native people continue to live close to the land, on reserves where access to wildlife is greater than in urban areas; they often maintain hunting, dietary and occupational preferences based on traditional native resources; when Native people do poach, they are often supplementing relatively impoverished lifestyles, and compensating for systemic conditions which have denied them the opportunities for educational, professional or business advancement that most non-Natives take for granted. The systemic poverty and associated ills, and discrimination faced by Aboriginals have in many cases created deep rifts in a social fabric that traditionally enshrined both deep spiritual connections to nature and a less waste-oriented or exploitative attitude to wildlife.\textsuperscript{137} Potentially, these social rifts can compromise Aboriginals' effective long-term management of their natural resources. Modern Native people must now exist and survive within a dominant, overarching capitalist culture. Inability to conform to this dominant, market-economy culture is a potential source of both cultural conflict and of continued poverty and discrimination for Natives. Yet since the dominant (i.e., non-Native) ideology is an exploitative one, if Native people conform to it completely, they may end up mimicking the same exploitative ethic and environmental problems that ensue from non-native management attempts, or the inadequacy thereof.

\textsuperscript{135} \textit{EIPA}, supra note 83 at 109.

\textsuperscript{136} \textit{EIPA}, supra note 28 at 62, 69-70.

\textsuperscript{137} However, the former belief that native cultures worldwide live in total balance and harmony with nature for unchanged millennia has now been rejected scientifically. On every continent, the arrival of prehistoric humans was followed shortly by major extinctions, usually of large prey or predatory animals, e.g. flightless birds in NZ, the horse and sabre tooth tiger in North America, and giant Australian marsupials. Yet there appears to be no doubt that aboriginal cultures have indeed managed much of their wildlife more sustainably than have the far more exploitative European non-subsistence cultures. B. Freedman, \textit{Environmental Ecology} (New York: Academic Press, 1989) at 275 [Freedman].
Unfortunately, the sheer magnitude and momentum of the TCM trade has the potential to dangerously exploit Native poverty issues. For example, during a 1996 CTV National News panel discussion, Canadian Inuit staunchly defended their right to sell the gallbladders of legally killed polar bears to TCM dealers, defining the issue as one of non-wastage, and the Native right to hunt and earn a reasonable living in a traditional manner, when they otherwise have few lucrative employment options. 138 While these are valid arguments, they oversimplify the situation by ignoring the nature of the “opportunity” represented by the illegal TCM trade. The Native participants appeared unaware of the prodigious scale of the TCM demand awaiting them, and its possible impacts on their traditional homeland environments. As an example of the scale of this demand, the slaughter of every bear currently on earth would be insufficient to meet just one year’s current (but ever-growing) demand for wild TCM bear-based medicine. 139

Significantly, in recent years, much Canadian Aboriginal jurisprudence140 has advanced valid and important Aboriginal issues, such as the right to Aboriginal self-government, the right to hunt wildlife (for both subsistence and commercial purposes) despite conservation-oriented regulations, imposed by non-Natives. Unfortunately, these on-going conflicts with non-Native values may have exploitative potential for the illicit TCM trade. Non-Native conservation strategies have their inadequacies, but to abandon them without substituting some native-imposed scheme for regulation and enforcement may be dangerous. Natives must still survive and compete in an exploitative market economy, and demand is high for native resources in the TCM trade. In a sense, Aboriginal North Americans have more at stake than other North Americans in the battle over wildlife: spiritually, culturally, and in terms of physical survival. It is Natives who stand to lose the most if they participate freely and without restraint in the TCM trade, thereby allowing the ‘rights’ of an Asian cultural tradition to trump and usurp their own ancient cultural interests. They risk sacrificing long-term interests for a short-term financial gain. In an era of increasing awareness of the

139 Knights & Fisher, supra note 1 at 3.
value (in monetary and non-monetary terms) of genetic biodiversity, the loss through illegal means of a region’s native species potentially represents a practical loss far greater than the value in utilitarian, dollars-per-unit weight terms, or even in terms of lost ecological, spiritual or aesthetic value.

IV. Case Study: The International TCM Trade in Bear Parts — Conservationist Sustainable Use Within CITES or International Theft of Priceless Biological Heritage?

In TCM terms, the bear is a “walking apothecary”, whose body provides practitioners with fat, hair, genitalia, bones, paws, and most valued of all, the gall bladder. The demand for bear paws (which tends to coincide with the demand for bear gall bladders) may be more related to gourmet and conspicuous consumption than to TCM. However, some claim it is a “health-generating food.” The paws produce an expensive luxury soup, one esteemed since ancient times as a delicacy of the Chinese elite. It sells in Asia for between $400 and $1,500 per bowl. In some Asian nations, the bear’s paws may be cooked while the animal is still alive and restrained in a special cage. Alternately, the paw may be detached while the bear is still alive.

Demand for the bear’s gall bladder, or “gall”, on the other hand, relates directly to its TCM use: this organ stores “bile”, a natural substance produced by the bear’s liver, which contains (tauro)ursodeoxycholic acid (UDCA). Bears are the only animals that

141 The financial potential of genes is evidenced by the recent growth of markets for biotechnological innovations such as transgenic foods and biomedical products.

142 TRAFFIC Network, supra note 110 at 1; Knights & Fisher, supra note 1 at 2.

143 Gregorich, supra note 28 at 46.

144 Knights & Fisher, supra note 1 at 15.

145 Watkins & Yi, supra note 31 at 8.

146 Also known as Fel ursi (Latin pharmaceutical name) or xiong dan: Gaski & Johnson, supra note 2 at 30.
naturally produce UDCA and all bear species produce it. In TCM, bear bile is used to treat alcohol-induced liver cirrhosis, chronic hepatitis, gallstones, improve eyesight and reduce fever or inflammation. Some sources list other uses but note that while originally TCM advised only “sparing use”, it is now used much more widely, even as a preventative daily tonic, due to increases in both disposable income and the availability of the product. The bile of other more readily available animals (e.g., goats, pigs, or cows) contains compounds related, but not identical, to UDCA; these have some limited TCM usage, but only for specific isolated conditions (e.g. pig bile for sinusitis). Since the 1950s, a synthetic form of UDCA produced from cow bile, and chemically identical to pure natural UDCA has been widely and legally available in pharmacies throughout North America and Asia, and has found some acceptance in both Western medicine and TCM. In east Asia, 100 tonnes of this synthetic UDCA are consumed each year; the rest of the world consumes between seventeen and sixty-seven tonnes per year. However, the preference for natural bear bile remains strong: users claim it has a better taste and superior natural buffering qualities (due to other natural compounds co-occurring with UDCA in natural bear bile).

Accordingly, despite the existence of more environmental and cheaper alternatives, and despite existing Asian wildlife laws, unsustainable levels of wild bear poaching occurred throughout east Asia and in southeast Asia during the 1980s. The result was a precipitous crash in the populations of all Asian bear species: the Asiatic black bear (Ursus (Selenarctos) thibetanus), the Asian brown bear (U. arctos) and its

147 U. Runesson, “Raccoons and Pandas” World Boreal Forests – Mammals (29 June 2002) online: The Boreal Forest Project <www.borealforest.org/world/mammals/panda.htm> as cited in: Knights & Fisher, supra note 1 at 2; TRAFFIC Network, supra note 110 at 1. Some sources note that Giant pandas are the only “bears” that do not produce UDCA and are therefore not hunted for their gall bladders. This is unsurprising however; despite appearances, Giant pandas (Ailuropoda melanoleuca) are related to the raccoon family Procyonidae.

148 Watkins & Yi, supra note 31 at 3.
149 For example it has been recommended as a painkiller, antispasmodic, parasiticid and bactericide.
150 Knights & Fisher, supra note 1 at 3.
151 Marketed in North America as “Acti-Gall” and in Asia as “URSA”. Supra note 2 at 30.
152 Knights & Fisher, supra note 1 at 3; supra note 110 at 2.
153 Gaski & Johnson, supra note 2 at 30.
subspecies the Himalayan brown bear (*U. arctos isebellinus*), the sun bear (*Helarctos malayanus*), and the sloth bear (*Melursus ursinus*)—all four are listed under Appendix I.\(^{154}\) The disastrous decline of bear populations and the concomitant rise in bear bile prices shifted the TCM trade focus to healthier populations further afield (in Russia, South America, and ultimately North America). Bear farms were also contemplated. Ostensibly the farms would only supply the domestic TCM trade (legal under *CITES*).\(^{155}\)

By the 1990s, the collapse of the former Soviet Union had left Russian bear populations highly vulnerable to poaching as economic hardship, lack of enforcement resources, and control by the Russian mafia of the bear bile trade caused a conflagration of conditions. Sources claim that the ongoing decimation of Russian bears has shielded North American bears somewhat from the voracious appetite of the TCM trade until recently.\(^{156}\) Nonetheless, the effects of poaching of North American bears for their gall bladders (and paws) was observed around the same time that bear populations in Asia crashed (in the 1980s).\(^{157}\) By the mid-1990s, it was estimated that for every legally killed North American bear, another was killed illegally (i.e., 40,000 illegal to 40,000 legal). Others claim the ratio (illegal to legal) is at least two to one.\(^{158}\) Yet these figures are mere estimates, since a wildlife population census is difficult to perform with accuracy.\(^{159}\) During the mid-1990s, the number of convictions for bear poaching suggested that bear poaching in North America was becoming widespread. It seems unlikely that demand has decreased since that time.

Canada’s three species of bear are all vulnerable to the TCM bear bile industry: the North American Black Bear (*Ursus americanus*), the Grizzly or Brown Bear (*U. arctos*) and the Polar Bear (*U. maritimus*). All are listed as Appendix II because of their look-alike status. Accordingly, their export from Canada requires a previously granted export

\(^{154}\) *CITES Appendices*, *supra* note 49.

\(^{155}\) *Knights & Fisher*, *supra* note 1 at 2.

\(^{156}\) *Knights & Fisher*, *supra* note 1 at 2.

\(^{157}\) As an example, one of the insurance claims for luggage lost aboard the bombed 1985 Air India Flight 182 from Toronto to Delhi was for a suitcase containing $1 million worth of (presumably Canadian) bear gall bladders. *Supra* note 65 at 3.

\(^{158}\) *Knights & Fisher*, *supra* note 1 at 1-2.

\(^{159}\) *Gregorich, supra* note 28 at 67.
permit to comply with CITES Art. IV(2), unless an exemption under Art. VII can be demonstrated (e.g., the undefined “personal quantities” exemption under article VII(3)). Travellers transporting Appendix II bear bile out of Canada without an export permit in quantities exceeding “personal amounts”, violate CITES and WAPPRIITA. In addition, bear gall bladders may also be illegal either domestically or internationally, depending on how they were obtained (e.g., if killed without a license, or in a protected area, out of season, or without regard for gender or maternity, etc.).

Finally, at the provincial level, there is a patchwork of laws governing whether sale or possession of any bear parts of any origin is legal in that province. Nova Scotia is one of three Canadian provinces in which possessing and selling legally obtained bear gallbladders is legal, as long as the gall bladder is affixed with a non-removable tag purchased with proof of a legal kill.160 Such a system complies with the recommendations of NGOs such as TRAFFIC.161 As not all provinces require this system, however, interjurisdictional evasion is relatively simple. Skeptics note that: “Just as legal channels allowed ivory dealers to halve elephant populations between 1979 and 1989, the legal bear trade channels [in] North America are providing... convenient cover for the growing illegal trade in bear parts.”162 Accordingly, there have been suggestions that Canadian statutes should be enacted (similar to the United States’ Rhino and Tiger Conservation and Labelling Acts) that specifically protect bears and other species from the TCM trade.163

Even less visible to North Americans than the mutilated bear corpse was China’s decision in the mid-1980s to begin farming wild animal species (including bears, tigers, leopards, and other animals) specifically for the domestic TCM trade.164 Some critics were disgusted by the idea of farming magnificent wild creatures, valued for their wildness, like domestic animals. Others noted the impossibility of discerning legal

161 TRAFFIC Network, supra note 110 at 4.
162 Knights & Fisher, supra note 1 at 1.
164 Gaski, Johnson, supra note 2 at 24.
farmed products from illegal poached products without a controlled labelling regime, and the fact that farmed product might thus legitimize and also stimulate the demand for wild product. Yet pragmatists claimed that farming could (by breeding already-captive circus or zoo animals) reduce the pressure on the remaining wild populations and even help re-establish wild populations if breeding was successful. It was also thought that farming might flood the market with cheaper, legal, farmed products, putting poachers out of business. These hopes turned out to be overly optimistic.

As of 1998, there were some 7,000-10,000 bears in Chinese bear farms, with other bear farms existing in South Korea (though currently banned from operating) and in Vietnam. Based on IUCN estimates of Chinese bear populations, it is possible that nearly half of China’s endangered bear population now exists in captivity on these notorious farms. Bears on the farms (mostly Asian black bears, and some brown and sun bears, all listed on CITES Appendix I) are manually “milked” twice daily of their bile, through artificial openings (fistulae) made in their abdomens; the bile is then packaged and sold. Apparently, these bile farms operate with little or no record-keeping (as to reproduction, mortality, etc.), with no regard for acceptable standards of hygiene (considering these medical supplements are meant for human ingestion), in complete contravention of the most basic veterinary care or humane animal welfare standards, and in ignorance of the industry’s environmental impacts.

Adult bears are kept in tiny iron cages (0.6m by 1.2m by 1.2m) with no bedding, no allowance for exercise, socialization or hibernation, little to no veterinary care or anaesthesia, an inadequate diet, and in unhygienic conditions. Bile and paws are regularly “harvested” from the live bears (including ill or moribund bears), raising not only humane concerns but also the possibility that infections could be transmitted to

165 Lee, “Poachers, Tigers and Bears”, supra note 39 at 505.
166 Lee, “Poachers, Tigers and Bears”, supra note 39 at 506.
167 Lee, “Poachers, Tigers and Bears”, supra note 39 at 511.
168 TRAFFIC Network, supra note 110 at 2.
169 IUCN estimates of China’s bear population in 1995 were approximately 20,000; The Chinese Ministry of Forestry’s rather more optimistic estimates were over 60,000. Watkins & Yi, supra note 31 at 5.
171 Watkins & Yi, supra note 31 at 7, 8.
humans via infected products. According to reports, the death rate from the fistula operation (performed without hygiene consideration or veterinary expertise by farm staff) is high: between fifty to sixty percent; and if the operation is successful, the bear’s life span decreases from fifteen to five years.172 Contrary to Chinese government claims that the breeding success on these bear farms is now self-maintaining, farm investigators were allegedly told by bear farmers that poor breeding or cub survival was the greatest obstacle they faced. To offset this difficulty, and the high death rate, the farmers regularly bought wild bear cubs smuggled in from other Asian countries – a clear violation of CITES,173 and which further contradicts the claim that bear farming alleviates the hunting pressure on wild bears.174

Purely from a production perspective, China’s bear bile farms appear to have been a success: by 1998, China was producing 7,000 kg of farmed bear bile per year, thus claiming to save 220 wild bears per year.175 Yet annual production (7,000 kg/year) apparently exceeds demand (4,000 kg/year) for the farmed product, leading farms to aggressively market new bear bile products (e.g. bear bile shampoo) deemed unnecessary by TCM practitioners. Critics believe that the wider availability, lower prices and aggressive marketing strategies associated with farmed bile may (instead of meeting existing demand) have actually legitimized and even increased the demand for all forms of bear bile,176 including the (allegedly superior) wild bear bile. This demand for wild bile, despite its higher price, has resulted in the continued, documented poaching of wild bears, many from outside China.177 In a final insult to CITES, while the bear farming industry was originally claimed to supply solely domestic markets, Chinese-manufactured Appendix I bear bile products (either farmed or poached, since they are indistinguishable) have been found for sale in China’s international airports, airliners, and

172 The Secretary of the IUCN has stated that due to the strict hygiene required, the gall bladder fistula method is incompatible with bile extraction from live bears. B. Maas, “The veterinary, behavioural and welfare implications of bear farming in Asia,” (December 2000) online: World Society for the Protection of Animals <www.wspa/international.org/pdf/welfare_of_asian_bears.pdf> at 57.
173 Watkins & Yi, supra note 31 at 10.
174 Watkins & Yi, supra note 31 at 11.
175 Watkins & Yi, supra note 31 at 2.
177 TRAFFIC Network, supra note 110 at 5.
in TCM shops around the world (including Canada), illustrating that Appendix I Asian bear products are crossing international borders in violation of CITES. China was recently reprimanded for this illegal behaviour by the CITES Secretariat in the Standing Committee’s report on the Trade in Bear Specimens. Yet, surprisingly, in view of this, the same report declared that China’s current legislation and enforcement relating to the bear trade were satisfactory, requiring “no need for any specific additional legislative and enforcement measures needed with regard to bears.”

Its enthusiasm for CITES undiminished, the Chinese government now reportedly seeks to have its bear farms approved under the CITES captive breeding exemption, which would permit China to legally export its bear bile products all over the world (though perhaps requiring expanded production). This intention was announced by China at the International Symposium on the Trade in Bear Parts in South Korea. In this goal, circumstances may mitigate in China’s favour: during recent CITES negotiations between 2000 and 2002, members agreed to amend and simplify the procedure for registering animal captive breeding exemptions under CITES, due to few successful past applicants, and recommended using a scheme similar to that for registering plant production (nursery) operations. The Secretariat has stated that in his opinion, there is no sound reason why captive breeding standards for plants and for animals should be vastly different. This is somewhat remarkable (and insupportable), in view of the large body of internationally recognized scientific information supporting humane standards in animal production operations – a standard which certainly has (and needs) no counterpart in plant production operations. If approved, this amendment will represent a vastly reduced standard of humane animal care required for captive breeding operations, under which China’s bear farms might well qualify.

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Overall, it cannot be maintained that the bear bile industry represents a good faith, sustainable use by China of its (or other nations’) bears – it is certainly out of keeping with a conservationist interpretation of CITES. China’s attitude to CITES with respect to the TCM bear bile trade has not been in keeping with Article 26 of the Vienna Convention on the Law of Treaties: that of carrying out treaty obligations in good faith (pacta sunt servanda), which is also a jus cogens norm. Its repeated violations might even be argued to approach the level of a material breach of China’s CITES obligations. In at least three ways (international poaching of cubs for the farms; supporting the demand for poached wild bear bile from within and outside China; and shipping farmed or poached bile products to other nations), China has widely and repeatedly violated its obligations under CITES.

Those reviewing Chinese applications seeking the benefit of the CITES captive breeding exemption should bear these past violations in mind. They might also keep in mind the fact that approval could serve as an endorsement to the TCM industry to further expand both its bear farming and illegal exploitation to nations with healthy, non-Appendix I bear populations (e.g., Canada). In 1996, one Canadian expressed interest in exporting live (Appendix II) North American bear cubs to Chinese bear farms; this has prompted concern that similar TCM bear bile farms might also be set up in Canada to meet the ever-growing demand. The outcome remains to be determined, but it must be hoped that Canada, as a bear range state, will act swiftly to prevent further over-exploitation of its wildlife by the TCM industry, either through existing or novel legislation. In the long term, prevention will be cheaper and easier than crisis management.

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Measures to address the global TCM wildlife trafficking problem must go beyond mere amendments to *CITES* or its enforcing legislation. A total solution requires synergistic interaction of legislative and practical means.\(^{184}\) This is not to say some changes would not improve *CITES*' efficacy. Ideally, the Secretariat's enforcement powers and sanctions should be sufficient to compel compliance by recalcitrant member states. Additionally, the Secretariat should have the same recourse as parties to take disputes and questions to the World Court for arbitration – and they should *exercise* this power (as has not been done by member parties). With respect to acceptable captive animal breeding requirements, future amendments should bear in mind the fundamental biological differences between plants and animals, and not sacrifice humane considerations to streamline requirements with those of plant nurseries. In addition, clearly defined (and limited) quantities under the “personal use” exemption should be articulated – especially for TCM ingredients, which can be small and easily smuggled in large quantities.\(^ {185}\) Ultimately, *CITES* inherent limitations as a “total solution” or cure-all to wildlife conservation must be recognized; *CITES* was never intended to govern more than international trade or very rare species. As a convention of last resort for species “teetering on the brink” of extinction, it is not equipped to preemptively address the conservation needs of less endangered trade species. A holistic solution requires the coordinated effect of *CITES* with other more “conservation pro-active” treaties such as the *Convention on Biological Diversity*.\(^ {186}\)

At the practical end of the spectrum, how the system will *deter* wildlife trafficking becomes a major issue. Currently, given the involvement of organized criminal syndicates in a growing proportion of wildlife crime, more efforts are needed to investigate this area. Environment Canada has begun a new environmental investigations unit to address the problem of organized criminals in wildlife offences in Canada. In the past, NGOs such as Humane Societies, WSPA and TRAFFIC had to

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\(^ {184}\) Vulpio, “Forests of Asia”, *supra* note 18 at 471.

\(^ {185}\) Lyster, *supra* note 111 at 259.

\(^ {186}\) CBD, *supra* note 68.
finance private investigations, which led to the arrest of major wildlife crime rings (e.g. Operation Barlegal).\textsuperscript{187} The police focus on drug and other crimes has only recently been re-directed by NGOs to the TCM organized crime problem. However, advances have been made in using police sniffer dogs\textsuperscript{188} to find hidden illegal TCM products in Chinatown raids.\textsuperscript{189} Also, the use of DNA and insect-based forensic techniques have aided in prosecuting wildlife crimes.\textsuperscript{190}

Perhaps TCM sniffer dogs should be employed in customs areas of airports. While Canada itself has no wildlife forensic laboratory capable of analyzing suspected illicit TCM material, the Clark R. Bavin National Fish and Wildlife Forensic Laboratory in the United States has offered its services internationally to help combat the illicit trade. These are all positive developments.

Other suggestions include arming all wildlife rangers, as it is they who are most at risk when intercepting armed perpetrators in remote areas. Also, wildlife enforcement has tended to be a low funding priority, as with customs enforcement (at least pre-September 11th). While funding constraints are ubiquitous, a remarkable lack of imagination can also be blamed. Some have suggested fixing enforcement funding deficits by “letting wildlife pay its own way” (i.e., permitting hunting of Appendix I species). But, as noted above, such a system can be abused.\textsuperscript{191} Perhaps a more sensible solution might involve levying more appropriate fines on violators and directing the fine monies to a “wildlife enforcement conservation fund.”\textsuperscript{192} These monies could then be used to support effective enforcement, undercover investigation costs, court-related costs, training of sniffer dogs, or improved training of

\textsuperscript{187} Knights & Fisher, supra note 1 at 7.
\textsuperscript{188} Vancouver Province “What gall” The Vancouver Province (14 September 1997) A12.
\textsuperscript{189} As a result of sporadic police raids, illicit bear bile has now apparently vanished from Vancouver’s Chinatown, with past vendors claiming demand has gone and that it “hasn’t been used in years”. It seems more likely that the supply has simply gone deeper underground, being traded privately and quietly between community members outside of shops and businesses. G. Semmens “Sales of bear parts nearly wiped out” The Calgary Herald (8 December 2000) B12.
\textsuperscript{190} G. Middleton “Bug lady bags poachers” The Vancouver Province (30 March 1997) A2.
\textsuperscript{191} Carey, “Incentives”, supra note 46.
\textsuperscript{192} Currently, under CITES Art. VIII(2), there is only a suggestion that member countries establish a domestic fund to reimburse smugglers for the confiscated goods they attempt to transport internationally in violation of CITES. A conservation-oriented fund seems more appropriate.
customs agents in detecting wildlife products. In order to be effective, however, fines or other penalties must consider and be proportional to: the amount of wildlife destruction caused; the black market value and rarity of the intercepted contraband; recidivism of the offender; plus other biological factors (e.g., time taken to reach breeding age, current reproductive status, ecological significance etc.) of the species. In other words, a $10,000 fine would represent insufficient deterrence to a perpetrator charged with smuggling or killing $250,000 worth of wild-life, especially when one considers the probable investigation costs required to bring the case to trial. All of these costs should be factored into the setting of appropriate fines.

While Canada’s wildlife legislation has indeed improved with WAPPRIITA, many judges have failed to respond to the magnitude of environmental damage being done. Such damage will not be curbed by minimal fines or ludicrously brief prison sentences; and so long as these matters are deemed to be “the cost of business,” deterrence is unlikely to occur. Simple confiscation of contraband and warnings are likewise ineffective when perpetrators are motivated by profit or their enjoyment of killing. To date, little judicial creativity has been exercised in terms of crafting innovative penalties or treatments that might lend a greater sense of societal stigma to these offences. Due to the rates of Aboriginal involvement, such judicial creativity may be vital to avoid exacerbating (already high) Aboriginal incarceration rates (judicial creativity is supported in the sentencing recommendations of section 718.2(e) of the Canadian Criminal Code). Poor judicial response may be rooted in the judiciary’s unfamiliarity with wildlife exploitation and its complexities – especially the involvement of organized crime – or perhaps a lingering, anthropocentric judicial belief that wildlife crimes are more akin to “regulatory offences,” and thus worthy of lesser concern because the victims lack a human face and legal standing. A practical solution to the wildlife trafficking problem must therefore target the judiciary, and attempt to educate them regarding the international TCM trade, its links to organized crime, the potential damage to Canada’s environment, the

193 EIPA, supra note 83 at 123-124; supra note 63 at 53.
195 Gregorich, supra note 28 at 68.
resulting social implications, and the most appropriate means of responding.

However, Canada's domestic strategy on its own will not stem the international trade of illicit wildlife and TCM products. Demand for illegal TCM both in and outside Asia has been described as a "vast engine of commerce" that must also be curbed. Doing so requires a major change in Asian values and deliberation on the environmental ramifications of wildlife poaching and TCM. Some positive efforts in Asia involve celebrities such as Jackie Chan, and are aimed at raising awareness and re-educating TCM vendors, practitioners, and consumers on the problem. Other culturally sensitive solutions involve using Asian religions such as Buddhism or Taoism, to help reconnect consumers with more positive, less exploitative -- yet still traditional -- Asian attitudes to nature's resources.

Within North America, some NGOs have targeted customs pamphlets to Asian populations, and environmentalists of Asian heritage are trying to educate communities through newspaper advertisements. These are first efforts however; much work lies ahead. To be effective in both Asia and elsewhere, nothing less than a near-reversal and total re-education of the attitudes of many TCM consumers is required. Obviously, TCM practitioners should be especially targeted, both as influential community members capable of re-educating customer attitudes and as major buyers of products. Their re-education should address environmental effects, but efforts should also promote synthetic or other sustainable, TCM-approved, substitutes. In time, the traditionally strong internal social bonds and cohesiveness of Asian communities may be of ultimate assistance in raising awareness and changing attitudes.

The supply end of the trafficking problem heavily involves the problem of poverty. Clearly this global issue is not amenable to a single, "quick fix" solution. Obviously the "conservationist" interpretation of CITES, which promotes sustainable, locally directed, and preferably less consumptive approaches (such as ecotourism or green hunting) offers a lot in some situations. Many such approaches spur local jobs that combat poverty and give value to maintaining wildlife. Encouraging innovative grassroots approaches is essential.

197 Vulpio, "Forests of Asia", supra note 18 at 484.
198 Vulpio, "Forests of Asia", supra note 18 at 484.
Canada’s need in this respect involves devising a positive approach to the difficulties of native involvement in poaching for the TCM trade. Among some native peoples, there appears to be a lack of awareness as to the true dynamics and scale of the potential TCM problem. Since native peoples stand to lose the most from uncontrolled trafficking of wildlife, education efforts must engage native people as well.

In particular, there is a dangerous potential for collusion between the insatiable and unsustainable demands of the illegal TCM trade, and valid issues of native hunting and self-government rights (reinforced by the effects of chronic poverty and resistance to a historically oppressive dominant European culture). As in Asian communities, the best way to address the knowledge deficit is to involve members themselves. Ideally, an educational approach will be culturally sensitive, use familiar spiritual and cultural concepts, and be delivered by Native people. Meanwhile, the systemic poverty and associated sociological factors many Aboriginal people face must begin to be eradicated. For this to happen, lucrative choices must be made available and ready to supplant the lure of poaching. Local, grassroots, conservationist approaches described above offer one possibility, but there is a need for more concerted efforts by government and by non-native society generally to aid native people in receiving improved educational, professional and business opportunities.

VI. CONCLUSION: A FUTURE FOR CITES AND WILDLIFE

To achieve its unsustainable ends, the illegal TCM trade exploits the vulnerabilities and needs of impoverished nations (or poorer communities within wealthier nations) under the guise of “cultural survival” or “cultural right.” Under this argument, ancient historical practice by a culture seems to give rise to an unquestioned, estoppel-like right to continue that practice indefinitely, despite the possible existence of other, equally valuable, equally ancient, more resource-efficient, sustainable or humane cultural practices. Yet it is well-recognized within

199 Frequently, “cultural rights” have been used in support of questionable practices within the environmental, human rights and other fields. In a similar development in the United States, non-native hunters now claim hunting rights, arguing they are part of the historic “American way of life,” and a form of “freedom of speech.”
the fields of anthropology and sociology that culture is a dynamic, ever-evolving entity that changes to meet the natural limitations of the environment and in response to other societies and influences.\(^{200}\) Cultures do not remain static or frozen in time; nor should their rights. Within the field of Canadian Aboriginal law particularly, the “frozen rights theory” (that Aboriginal and treaty rights remain identical to those existing solely at the negotiation time centuries ago) has been definitively rejected (in *Sparrow*\(^{201}\)). This fact supports the abandonment of an excuse based on a conception of frozen “cultural right,” if such a concept is used to rationalize the refusal to alter ancient practices no matter how environmentally harmful, inhumane, unsustainable, destructive, or exploitative of other cultures’ more basic survival rights. All cultures are subject to earth’s carrying capacity; thus each is equally responsible for learning to live within those limits.

As a *legal* regulatory means of control, *CITES* cannot be expected to entirely resolve an international illegal trafficking problem, though it must of course address it. One reason organized crime has been able to circumvent *CITES* so successfully relates to the societal values of wealthier nations. Overall, concerned parties need to look upon international illegal wildlife trade, including the illegal TCM industry, as a more significant issue than simply the killing of a few extra animals in a remote, unclaimed corner of the world. Wildlife trafficking has been described as nothing less than a covert and illicit extermination program, a biological genocide that can deplete specific populations of organisms much more rapidly than can habitat loss (the usual claimed major threat to biodiversity).\(^{202}\) The wholesale loss or depletion of entire species in turn alters the functioning, stability and resilience of broader ecosystems in complex ways we cannot predict – but will ultimately have to live with.

Those in a position to address wildlife trafficking problems at the domestic level (especially legislators, the judiciary, enforcement officials, etc.), must begin to view wildlife’s “value” in different ways: as a type of “sacred trust”\(^{203}\) of domestic wealth that encompasses aesthetic

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\(^{201}\) Freedman, *supra* note 137.

\(^{202}\) *EIPA*, *supra* note 83 at 106.

\(^{203}\) “The elite chart the destiny of the [wildlife] that constitutes the public trust.”: *EIPA*, *supra* note 83 at 114.
and spiritual value; as a direct utilitarian worth; as something of ecological importance; and with respect to the organism’s untold genetic and other potential. With the rapid advances in the biotechnology industry, the value of genes honed by evolution over millennia of harsh conditions is far more than mere speculation. This last point should not be underestimated. Valuing, protecting, and managing wildlife according to a concept of fiduciary duty towards this public trust would be in keeping with principles of equitable and sustainable use, and of intergenerational equity towards our future descendents, principles recognized as important markers of sustainable development. 204

Globally, the loss or theft of ancient cultural treasures such as ancient art, artifacts and relics has long been recognized as an offence entitling a nation suffering such loss to high damages and repatriation of the items. 205 Wildlife are at least equally unique and irreplaceable treasures, of considerably more ancient lineage, whose wholesale destruction entitles a similar quality of national moral outrage. It is largely the persistence of antiquated values that has rendered CITES so ineffective in the face of the illegal TCM trade. Unfortunately, without improvement and greater attention to practical measures, CITES may remain as toothless as the last aged tigers being hunted to extinction in the name of acne cream and a cure for laziness.

204 Sands, supra note 40 at 58-60.
205 See e.g. Bumper Development Corp. Ltd. v. Commissioner of the Police of the Metropolis [1991] 4 All ER 638 (CA).