Policy analysis

Conservation criminalisation and China's evolving wildlife sanctions

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A B S T R A C T

Criminal law remains a ubiquitous part of environmental governance and conservation. However, there is increasing interrogation of the risks of over-criminalisation in conservation. There are also calls for conservation to learn more from criminology, as policies seek to navigate impacts on social justice and biodiversity. This study explores the conservation criminalisation debate through a doctrinal legal analysis of significant, recent (2020−2022) legislative changes in China's wildlife criminal legislation. These reforms which, on the surface, seem like widely expanded criminalisation, actually reflected more nuanced responses that have created more pronounced distinctions between serious and minor offences. We employed the fishing net analogy to discuss this bifurcation that created changes to the thresholds that determine what actions are actually criminalised and that determine the severity of crimes and thus define the corresponding penalties. Much of this was achieved through the introduction of a monetary threshold system that introduced a standardised approach to placing monetary values on different species as a way to define criminal offences. These changes illustrate the complexity of legislative drafting to address and balance biodiversity conservation, social justice and socio-economic interests, and the importance of doctrinal legal analysis to both debates on conservation criminalisation and conservation design.

1. Introduction

The conservation field has long recognised the importance of strong legal frameworks to establish clear formal rules, punish and deter offenders, and protect biodiversity (Doremus, 1991). Criminalisation remains a central part of State-led environmental governance. Efforts to combat environmental crimes such as illegal wildlife trade often emphasise law enforcement, stricter penalties, and criminal prosecution as key conservation tools, reflected in international agreements, donor budgets, national legislation and practices globally (discussed in Duffy et al., 2015; Mogomotsi and Madigele, 2017; Paudel et al., 2019; Wilson and Boratto, 2020). The COVID-19 pandemic further intensified enforcement efforts, as concerns over zoonotic disease transmission fuelled calls for stricter wildlife trade regulations and enforcement measures (Borzée et al., 2020; Evans, 2020).

However, strict enforcement-based conservation strategies have also seen growing debate globally. While stringent measures, including shoot-on-sight policies, have been identified as potentially strong deterrents (Mogomotsi and Madigele, 2017; Sturrock, 2017; Tan, 2021), they have also raised serious concerns about legal due process, human

right violations, conflicts with local communities, and excessive criminalisation in the name of conservation that reproduces historical injustices (Duffy et al., 2015; Duffy et al., 2019; Ashaba, 2020). There is also wide evidence that the social justice impacts of conservation efforts have consequences that shape conservation outcomes (Armstrong, 2024; Pascual et al., 2014; Sandbrook et al., 2023). Conservation scholars increasingly recognise that effective biodiversity protection often requires addressing the root causes of offences rather than over-relying on punitive approaches. Drivers such as poverty, lack of legal awareness, forced participation in illegal activities, and retaliatory killings linked to human-wildlife conflicts also play critical roles in shaping conservation outcomes, and must be considered within and alongside enforcement strategies (Duffy et al., 2015; Cooney et al., 2016; Paudel et al., 2019; Ashaba, 2020). Moreover, evidence suggests that increasing the severity of penalties does not always translate to improved conservation outcomes, and that there is a need for conservation science to further engage with lessons and theory from criminology to help design more effective and just conservation outcomes (Wilson and Boratto, 2020).

These debates have become increasingly salient in China, a country

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Table 1

Overview of key legislation governing wildlife offences.

Law	Summary points
Constitution [Art. 9] (Revised 2018)	● Assigns protected status to plants and animals deemed 'rare'
Wildlife Protection Law (Revised 2022)	● Classifies protected wildlife into 3 categories: ○ Nationally-protected wildlife under 'Special State Protection', precious and endangered species under Class I and Class II level protections; ○ Nationally-protected 'Sanyou animals',[1] terrestrial wildlife of important ecological, scientific or social value ○ Provincially-protected 'Wildlife under special local protection'; ● Regulates trade and use; protection of habitats, and artificial breeding; ● Stipulates administrative punishments (fines, imprisonment), and indicates when the severity of offences means the Criminal Law applies instead; ● Stipulates offenders' civil liabilities to remedy harm
Criminal Law [Art. 151, Para 2; Art. 341 Para 1–3; Art. 344a] (Revised 2020)	● Defines wildlife offences that are criminal in nature, notably: ○ Smuggling precious wildlife and the products thereof whose import and export are prohibited by the State and wildlife listed on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); ○ Endangering precious and endangered species and their products; ○ Illegal hunting of wildlife other than wildlife under 'Special State Protection'; ○ Offences towards terrestrial wildlife (other than wildlife under 'Special State Protection') that grow and reproduce naturally in the wild environment for the purpose of consuming; ○ Illegally importing, releasing or discarding alien invasive species. ● Stipulates criminal pentise for the offences, including fines, asset forfeiture, criminal detention, public surveillance, fixed-term imprisonment, and life imprisonment
Judicial Interpretations related to wildlife crimes (2000, 2014, 2022)	● Guide from the Court on the application of criminal laws in wildlife cases, with further instruction on how these should be applied related to: ○ Circumstances (thresholds) for what constitutes crimes; ○ Circumstances under which different penalties should be applied; ○ Further explanations of key terms or concepts

[1] Transliterated from the Chinese term "三有动物" (literally, "animals with three values"), this term refers to terrestrial animals that have at least one of three specific values: ecological, scientific, or social.

with long-standing cultural and economic traditions of wildlife use (Wong, 2019; Zhu and Zhu, 2020), but also a history of strong approaches to formal enforcement (Cao, 2016; Jiang, 2024). There is active domestic debate over whether wildlife legislation should prioritise biodiversity conservation or emphasise human wellbeing (Qin, 2024). These debates are globally significant, as China is a major actor in the legal and illegal wildlife trades at the domestic and international levels (Evans, 2020; Beirne, 2021; Wong, 2019), with markets spanning traditional medicine, meat consumption, and cultural and luxury products (Jiao et al., 2021; Mallapaty, 2020).

Although China has faced long-term international pressure to strengthen its conservation legislation and enforcement (Stiles, 2004), the COVID-19 pandemic accelerated legislative reforms – including a ban on wildlife consumption, the closure of wildlife farms, and the restrictions on species allowed for artificial breeding for consumption (Beirne, 2021; Huang et al., 2021; Koh et al., 2021; Mallapaty, 2020; Normile, 2023; Tian et al., 2024; You, 2020; Zhu and Zhu, 2020). China has also introduced a number of recent reforms to its criminal law on wildlife offences that could have significant implications for offenders, justice and biodiversity conservation.

In parallel with these changes, however, there have been mounting calls among Chinese conservationists, legal scholars and the public to ensure fair sentences, amidst concerns about the risk of excessive punishment in wildlife crime cases (Chen, 2021; Jiang, 2024; Teller Report, 2023).

This research examines changes to China's wildlife criminal legislation from 2020 to 2022, a period of rapid and significant legal reform that immediately followed the COVID-19 pandemic (Tian et al., 2024). It does this in order to understand how changes in legislation affected the criminalisation of wildlife offences, providing empirical legislative analysis that contributes to debates on conservation criminalisation. It also provides insights for conservationists into the legislative nuances that shape both biodiversity and social justice outcomes of conservation.

1.1. Overview of China's wildlife criminal legislation

China is recognised for its relatively consistent enforcement and strict criminal penalties for offences affecting protected species of wild

animals (Cao, 2016). These species were granted protections under the 1982 Constitution, further governed by two key laws: the Wildlife Protection Law (WPL) and the Criminal Law (Table 1).

The WPL classifies two main groups of animals under national-level protections: wildlife under 'Special State Protection', and 'Sanyou animals' of important ecological, scientific or social values (Table 1). Offences involving these species face sanctions ranging from administrative punishment for minor violations to criminal penalties for more serious offences (Luo, 2023). In this respect, the WPL is a pre-positive law[1] to China's Criminal Law (Liu, 2019; Luo, 2023), which also identifies crimes that apply to several key wildlife categories (Table 1) along a continuum from 'minor' to 'particularly serious' crimes, prescribing corresponding sanctions. The application of sanctions is further guided by Judicial Interpretations, rulings issued by the Supreme Court and/or the Supreme Procuratorate to guide decision-making in the lower courts.

Since this research specifically examines crimes involving wild animals, the term 'wildlife' in this paper refers exclusively to wild animals, unless otherwise stated.

2. Methods

2.1. Collection of legislation

We conducted a systematic review to compile China's national-level wildlife crime-related legislation from 1950 to 2024 (building on Tian et al., 2024). We initially searched for the legislation from China's national legal database (https://flk.npc.gov.cn/) using Chinese keywords and subsequently cross-checked with the professional legal database LexisNexis (https://hk.lexiscn.com/) with English keywords to ensure

[1] The WPL serves as a foundational law that defines protected species and outlines prohibited activities, which may result in either administrative punishments or criminal penalties. Criminal law complements this framework by specifying corresponding criminal penalties. However, the scope of protected species and punishable behaviours under Criminal law cannot extend beyond the boundaries established by the WPL.

Table 2
List of reviewed legislation and official documents.

Document No.	Title	Summary
Laws		
Order of the President of the People's Republic of China No. 41	Amendment VIII to the Criminal Law of the People's Republic of China (25th February 2011)	Changed the penalty for crime of smuggling wildlife and their products.
Order of the President of the People's Republic of China No. 66	Amendment XI to the Criminal Law of the People's Republic of China (26th December 2020)	Introduced criminal offences regarding wildlife consumption and alien invasive species.
Order of the President of the People's Republic of China No. 18	Criminal Law of the People's Republic of China (enacted in 1997, recently amended in 29th December 2023)	Stipulates crimes destroying wildlife and the corresponding penalties; however, the 2023 amendments did not address wildlife crimes.
Order of the President of the People's Republic of China No. 56	Biosecurity Law of the People's Republic of China (17th October 2020)	Regulations to prevent and respond to biosecurity risks, and guarantee public health.
Order of the President of the People's Republic of China No. 126	Law of the People's Republic of China on the Protection of Wildlife (enacted in 1988, recently revised in 30th December 2022)	Fundamental legislation to govern wildlife.
Judicial Interpretations and judicial documents		
Fa Shi [2000] No.37	Interpretation of the Supreme People's Court on Several Issues Concerning the Specific Application of Law in the Trial of Criminal Cases Destroying Wildlife Resources (27th November 2000; expired in 2022)	Guidance on implementation of laws when trying wildlife cases.
Attachment for Fa Shi [2000] No.37	List of 'Smuggling, illegal hunting, killing, acquisition, transportation, and sale of precious and endangered terrestrial wildlife major cases, especially serious case filing standards' (27th November 2000)	Numeric standards for determining severity of wildlife crimes.
Lin An Zi [2001] No. 156	State Forestry Administration and Ministry of Public Security on Jurisdiction and Case Filing Standards for Forest and Terrestrial Wildlife Criminal Cases (9th May 2001)	Numeric standards for determining criminalisation of wildlife crimes.
Fa Shi [2014] No.10	Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Several Issues Concerning the Application of Law to Handling of Criminal Cases Involving Smuggling (12th August 2014)	Guidance on implementation of laws when trying smuggling cases (including cases smuggling wildlife).
Fa Shi [2016] No.17	Provisions of the Supreme People's Court on Several Issues concerning the Trial of the Relevant Cases Occurring in the Sea Areas under China's Jurisdiction (II) (10th August 2016)	Guidance on trying cases involving marine species.
Gong Tong Zi [2020] No.19	Circular of the Supreme People's Court, the Supreme People's Procuratorate, the Ministry of Public Security and the Ministry of Justice on Issuing the Guiding Opinions on Punishing Crimes of Illegal Wild Animal Trade in Accordance with the Law (18th December 2020)	Guidance on punishing illegal wildlife trade crimes.
Fa Shi [2021] No.8	Interpretation of the Supreme People's Court on Several Issues concerning the Application of Laws in the Hearing of Criminal Cases Involving Covering up or Concealing Criminal Gains and the Proceeds Thereof (2015, revised in 13th April 2021)	Including guidance on implementation of laws when trying lower crimes involving wildlife and products.
Fa Shi [2022] No.12	Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Several Issues Concerning the Application of Law in the Handling of Criminal Cases on the Destruction of Wildlife Resources (6th April 2022)	Guidance on implementation of laws when trying wildlife cases.
Departmental documents		
Announcement No. 3 of 2021 from the National Forestry and Grassland Administration and the Ministry of Agriculture and Rural Affairs	List of Wildlife under Special State Protection (1989, revised in 1st February 2021)	980 kinds and 8 categories of wildlife are classified into Class I and Class II (both terrestrial and aquatic species), enjoying special state protection.
Announcement No. 17 of 2023 from the National Forestry and Grassland Administration	List of Terrestrial Wildlife which are Beneficial or of Important Economic or Scientific Value (2000, revised in 26th June 2023 as List of Terrestrial Wildlife of Important Ecological, Scientific or Social Value)	Covers 1924 terrestrial species that enjoy state protection.
Attachment to Order No. 46 of the State Forestry Administration	List of standards for the baseline value of terrestrial wildlife (29th September 2017)	Legislative monetary value of listed wildlife.
Order No. 46 of the State Forestry Administration	Methods for valuing wildlife and products thereof (1st November 2017)	Introduces methods to calculate the value of affected terrestrial wildlife and their products.
Order No. 5 of 2019 from the ministry of Agriculture and Rural Affairs	Measures for Valuation of Aquatic Wild Animals and Their Products (27th August 2019)	Introduces methods to calculate the value of affected aquatic wildlife and their products.
Order of the Ministry of Agriculture and Rural Affairs of the People's Republic of China, the Ministry of Natural Resources, the Ministry of Ecology and Environment, and the General Administration of Customs [2022] No.4	Administrative Measures for Invasive Alien Species (31st May 2022)	Regulations to prevent and respond to the harm caused by invasive alien species.
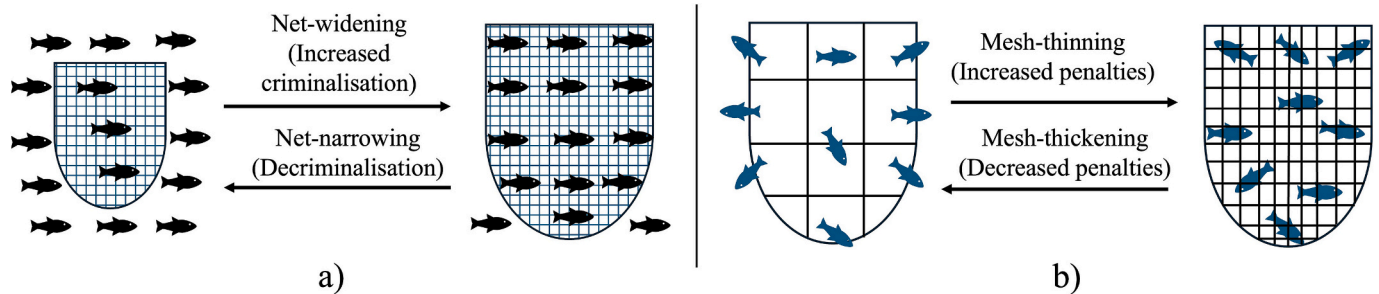
Fig. 1. The fishing net analogy to describe approaches to criminalisation. The mesh symbolises the intensiveness of penalty thresholds, and the fish denote the individuals or actions subjected to criminal control. a) net-widening and net-narrowing represent expanded or reduced scope of criminal justice control, and b) mesh-thinning and mesh-thickening represent harsher or less harsh penalties.

comprehensive coverage. The English versions of the legislation provided by LexisNexis also ensured precise and professional translations (Anderson et al., 2012). To ensure comprehensive identification of wildlife-related legislation, our search terms included both "wildlife" and "wild animal" (野生动物),[2] as well as "biodiversity" (生物多样性) and "endangered species" (濒危物种). Within the collected legislation, we then conducted a targeted search using keywords such as "offence" (罪行), "crime" (犯罪), "criminal liability" (刑事责任), "punishment" (处罚), and "penalty" (刑罚), to further isolate legislation specifically related to criminalisation. Additionally, we gathered any attachments associated with the collected legislation as supportive documents. The searches yielded three types of legislation: Laws, Judicial Interpretations, and Departmental documents (enacted by specific governmental departments, including administrative regulations and supplementary materials to relevant laws) (see Table 2).

We then focused specifically on changes in wildlife legislation between 2020 and 2022, the period following the peak of the COVID-19 epidemic. Although a relatively short time horizon, historical analysis of Chinese wildlife legislation since 1950 highlights this short period as a distinct phase in environmental policy and a significant boom in new legislation (Tian et al., 2024, see also Huang et al., 2021). By comparison, over the preceding ten-year period (2010–2019), 37 pieces of new legislation were enacted, and 24 pieces of existing legislation were revised, while during the two-year period we focus on, 27 new pieces of legislation were introduced, with seven revised (Tian et al., 2024). There were no legislative changes addressing wildlife crime between 2022 and 2024. Notably, during the 2-year target period, China amended the Criminal Law (2020) and had a newly enacted Judicial Interpretation (2022) (Table 2). To understand these legislative changes, we then compared the 2020–2022 legislation with previous related legislation in the dataset (cf. Dubber, 1998).

In order to assess possible changes in judicial practices resulting from legislative changes during 2020–2022, we evaluated crime statistics before (2017–2020) and after (2023) the target time period. We accessed official judicial statistics published by the Environmental and Resources Adjudication of China (SPCPRC, 2018, 2020, 2021, 2022, 2023, 2024) and Report on the Development of Environmental Judiciary in China: 2022 (Lv, 2023), which starting from 2018 reported the annual number of criminal cases by category of offence (details such as sanctions are not reported). We looked at reported case numbers for the three relevant reported categories of crimes: (1) endangering precious and endangered species and their products, and (2) illegal hunting of wildlife not listed under 'Special State Protection'; and (3) smuggling of precious wildlife and their products (for which data are unavailable for the years 2017–2018 and 2022). We then compared the number of criminal

prosecutions before our target 2020–2022 timeframe, with those in 2023.

2.2. Approach to analysing changes in legislation

We applied doctrinal legal analysis to the legislation, a method also known as black-letter analysis that focuses on the legal text of legislation as it is written (Hutchinson and Duncan, 2012), to identify recent changes in the criminalisation and penalties associated with wildlife offences. By comparing the legal texts of new regulations with previous versions (e.g., Criminal Law 2011 vs. 2020; Judicial Interpretations 2000 vs. 2022), we were able to delineate the changes.

In our analysis, one of the key changes we identified was a shift in approach to determining the legal thresholds that define wildlife crime; we observed a change from thresholds based on the number of harmed individual animals to one based on the monetary value of the injured animals or their products. To enable comparison across these two approaches, we converted the current monetary thresholds into the equivalent numbers of individual animals, using the official benchmark prices for each species and the calculation rules set out in legislation (see Supplementary Information).

We then drew on criminological theory to describe and group four key changes identified in the database. In particular, we drew on the fishing net analogy from criminology (Cohen, 1979; Brown, 2004; Rubin, 2012; Aebi et al., 2015; Muncie, 2019). In this framework, the "net" represents the criminal justice system. "Net-widening" refers to expanding criminal justice control over an increasing number of individuals or actions, as new legal provisions are implemented (Siegel and Welsh, 2018; Fig. 1); net-widening indicates increased criminalisation, whereas net-narrowing signifies decriminalisation. The "mesh" in the analogy represents the thresholds that trigger criminal penalties. Mesh-thinning, a reduction in the mesh size (Fig. 1), indicates a reduction in these thresholds, resulting in harsher penalties for even minor offences (O'Brien and Yar, 2008), making it more difficult for offenders to avoid punishment. Conversely, mesh-thickening increases the thresholds, leading to less severe punishment and, in some cases, allowing minor offences to be downgraded to administrative fines, escaping criminal penalties. Consequently, we classified the observed changes in legislation into four categories: net-widening (increased criminalisation), net-narrowing (decriminalisation), mesh-thinning (increased penalties), and mesh-thickening (decreased penalties).

2.3. Green criminology perspective

Our analysis was informed by an expanding body of green criminology research interested in wildlife conservation (cf. Nurse and Wyatt, 2020; Duffy and Brockington, 2022; van Uhm, 2023). Although we do not interrogate the legitimacy of formal wildlife legislation and the view that related offences often merit formal penalties, we acknowledge that the designation and sanctioning of criminal behaviour in the

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[2] When legal databases translate Chinese law into English, or Chinese scholars publish academic articles in English, the term '野生动物' ('wild animal') is often translated as 'wildlife' (Tian et al., 2023; Zeng et al., 2020).

Table 3
Key types of changes in the criminalisation of wildlife offences observed in legislative reforms over 2020–2022.

Theme (see Fig. 1)	Specific changes in legislation
Increased criminalisation (net-widening)	New crime introduced: Illegally hunting, purchasing, transporting or selling other terrestrial wildlife that naturally grows and reproduces in the wild environment for consumption are added as constitutes a crime now (Paragraph 3, Article 341, 2020 Criminal Law)
	Activities under 'Crime of covering up or concealing the criminal proceeds' concerning wildlife expanded from only 'purchasing' to include 'selling illegal gains and other relevant activities' (Article 9, 2022 Judicial Interpretation)
	New crime introduced: Illegally importing, releasing or discarding alien invasive species. (Article 344a, 2020 Criminal Law)
Decriminalisation (net-narrowing)	Minimum threshold for criminalisation under the unified monetary threshold system replaced the previous "one goes to jail" principle, causing possible decriminalisation for some offences. (Articles 2, 6, 7, 8, 2022 Judicial Interpretation)
	Decriminalisation caused by the introduction of mitigating circumstances and obviously minor offence: The newly introduced mitigating circumstances may lead to actions that exceed the minimum sanction threshold and may be downgraded to minor offences and thus exempted from criminal penalties; offences identified as obviously minor shall not be considered as crime. (Article 6, 2022 Judicial Interpretation)
	New exemption about crime involving artificially bred wildlife - If the animal involved in the case is artificially bred and is listed in the list of artificial breeding wildlife under 'Special State Protection'; or the artificial breeding technology is mature with a certain scale, and the animal is being traded or transported as a pet, the case will be generally not handled as a crime. (Article 13, 2022 Judicial Interpretation)
Increased penalties (mesh-thinning)	The introduction of the unified monetary threshold system has lowered the threshold for defining the severity of criminal circumstances when the involved species with high monetary value, thereby increasing penalties (Articles 2, 6, 7, 8, 2022 Judicial Interpretation)
	Introduction of aggravating circumstances justifying heavier penalties leading to increased penalties (Articles 2, 6, 7, 2022 Judicial Interpretation)
Decreased penalties (mesh-thickening)	The introduction of the unified monetary threshold system has increased the threshold for defining the severity of criminal circumstances when the involved species with low monetary value, thereby decreasing penalties (Articles 2, 6, 7, 8, 2022 Judicial Interpretation)
	Introduction of mitigating circumstances degraded the severity of crime, leading to decreased penalties (Articles 2, 6, 7, 2022 Judicial Interpretation)

environmental sector has frequently led to over-criminalisation, especially impacting poor and marginalised communities (e.g., Duffy et al., 2015; Paudel et al., 2019; Shao et al., 2021). Moreover, we recognise that decisions about criminal acts and punishments are often influenced by political pressures and public concerns (Carter and Ward, 2022), and that these changes to criminal regimes and how they define and treat different serious and minor offences are often dynamic and complex (cf. 'bifurcation', Rowe, 2007; 'net-widening', Cohen, 1979). These issues have not only ethical implications, but also impact conservation outcomes (cf. Pascual et al., 2014). As such, we also drew on discussions of the principle of proportionality in criminalisation and punishment to explore how these observed legal revisions rendered penalty severity proportionate to the gravity of criminal behaviours (von Hirsch, 1992; Bagaric, 2000; Goh, 2013).

3. Results

Between 2020 and 2022, changes in China's wildlife criminal legislation reshaped the country's criminal justice responses to wildlife offences. Notably, these changes happened in a short, 2-year time period post-COVID-19 during which a number of legislative changes were made (Tian et al., 2024). These appear to have had significant impacts on enforcement patterns: We identified changes that altered the scope of conduct subject to criminalisation, such as increased criminalisation through the introduction of new offences and some decriminalisation exemptions (Table 3). We also identified notable shifts in the annual number of criminal cases on three types of wildlife crimes from 2017 to 2023, reflecting the possible influence of recent legal amendments on judicial practice (Fig. 2).

3.1. Unified monetary threshold system to define crime

Many of the observed changes were driven by legislative reforms that resulted in the adoption of a unified monetary threshold system to determine conviction thresholds and offence severity, coupled with the incorporation of aggravating and mitigating circumstances under this system.

Historically, offences involving wildlife products[3] were defined by the monetary value of the products, whereas crimes involving intact

wildlife[4] (alive or dead) were determined by the number of individuals harmed (i.e., 'numeric criteria', e.g., 2000 Judicial Interpretation, Fa Shi [2000] No.37; 2014 Judicial Interpretation, Fa Shi [2014] No.10, Table 2). Each species had its own numeric criteria that marked the threshold for criminalisation and that also helped determine the severity of the offence and, thus, its corresponding punishment.

The 2022 Judicial Interpretation introduced a unified monetary standard for both intact wildlife and wildlife products, replacing the numeric criteria. This new standard established minimum thresholds for criminalisation and offence severity, to be uniformly applied across species for a given offence. For example, crimes threatening endangered species newly required that the value of harmed wildlife exceed CNY 2 million (approx. USD 275,440). Each species was also assigned its own official monetary value (Order No. 46 of the State Forestry Administration, Table 2)—for instance, a giant panda *Ailuropoda melanoleuca* was valued at CNY 5 million (approx. USD 688,600), whereas a Tibetan antelope *Pantholops* spp. was valued at CNY 500,000 (approx. USD 68,860). Converting these monetary thresholds into equivalent numbers of individuals indicates how thresholds across species have changed over time. The monetary threshold system influenced both the scope of criminalisation and the severity of offences and penalties, and so has wide impacts on conservation criminalisation.

3.2. Increased criminalisation (net-widening)

Recent reforms created new criminal offences related to the consumption of wildlife as food (as distinct from medicinal consumption); covering up illegal proceeds from wildlife crimes; and the illegal import, release, or disposal of invasive alien species. These new offences significantly widened the criminal net on multiple fronts.

3.2.1. Crimes of illegally hunting, purchasing, transporting or selling terrestrial wildlife for the purpose of eating

The Criminal Law (2020) was amended to include new criminal behaviours aiming to eat wildlife (Table 3). Previously, the purchase of wildlife for consumption and actions to produce, operate or utilise food made from such wildlife were both prohibited for species under 'Special State Protection'. The latter prohibition also applied to actions involving other non-listed species[5] that lacked evidence of legitimate origin

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[3] 'Wildlife products' refers to parts of a species' body and its derivatives, including products (Table 2, L12, Article 2).

[4] 'Wildlife' refers to the entire species body, including spawn and egg (Table 2, L12, Article 2).

[5] Includes 'Sanyou animals', terrestrial wildlife under special local protection, and other terrestrial wildlife not protected by law.
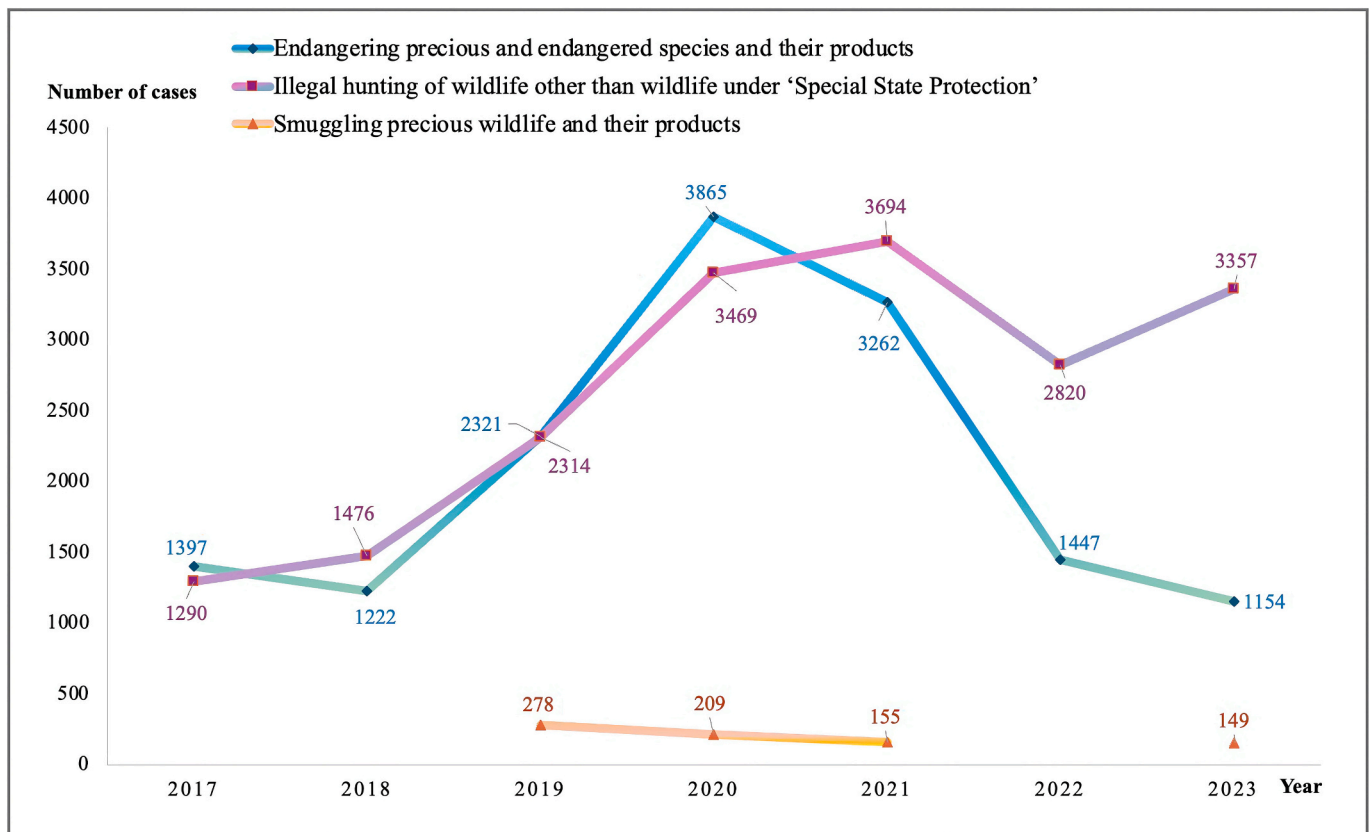
Fig. 2. Annual number of criminal prosecutions for two types of wildlife offences (2017–2023). Data from the Environmental and Resources Adjudication of China.

(Article 30, 2018 version of WPL). Violations were addressed with administrative fines or criminal liability in cases of significant harm. However, at that time, no corresponding offence was explicitly stipulated in Criminal Law.

The 2020 Criminal Law specifically criminalised the illegal hunting, purchasing, transporting or selling of terrestrial species of wild origin for the purpose of eating, including species not covered by 'Special State Protection'. However, actions are only criminalised if they meet the new 'serious circumstances' thresholds (Paragraph 3, Article 341, further clarified in 2022 Judicial Interpretation (Fa Shi [2022] No.12, Table 2). 'Serious circumstances' now refer to the minimum monetary values of the affected wildlife (for 'Sanyou animals' and terrestrial wildlife under special local protection, this minimum is ≥ CNY 10,000, approx. USD 1380, and for other terrestrial species ≥ CNY 50,000, approx. USD 6900).

Consequently, actions related to the consumption of species under 'Special State Protection' are still largely criminalised. However, actions involving most non-listed species are only criminalised if they involve large volumes, given their typically low individual monetary value. For example, cases involving bamboo rats (a 'Sanyou animal') for consumption would need to involve at least 50 individual rats in order to exceed the new criminalisation threshold. Thus, for many of these species, the new provisions are most likely to criminalise commercial-scale harvest, trade and restaurant service, while violations by individuals at lower volumes are more likely to result in administrative penalties under the WPL. The revised WPL (2022) established specific administrative fines for these non-criminal offences.

3.2.2. Crimes of covering up or concealing the criminal proceeds

The 2022 Judicial Interpretation newly criminalised "covering up or concealing the criminal proceeds" related to wildlife offences (Table 3). This expansion recognised that culpability lies not only with 'frontline' actors involved in the illegal trade chain, such as illegal hunters, but also

those who abet and benefit from acts such as buying and selling wildlife (Han, 2022). The 2015 Judicial Interpretation (Fa Shi [2021] No.8, Table 2) had already acknowledged that buying >50 individuals of a species, knowing they were acquired through illegal hunting, fell under this crime. The 2022 Judicial Interpretation went further by including not just buying but also selling and other activities involving the concealment of illegally hunted wildlife. Additionally, it broadened the scope of this crime to include illegal fishing.

3.2.3. Crimes of illegally importing, releasing or discarding invasive alien species

The revision of 2020 Criminal Law added a new provision that criminalises the illegal import, release or disposal of invasive alien species,[6] thereby expanding the actions subject to criminalisation (net-widening, Table 3). Since 2016, the WPL had imposed administrative restrictions on the introduction of alien species[7] into 'nature protection areas', albeit without specified punishments. The 2021 Biosecurity Law extended these controls to include the 'release and discard' of alien species regardless of where they were released, and stipulated administrative fines. Subsequently, the 2022 Measures for Managing Invasive Alien Species reiterated these prohibitions and clarified that administrative punishments should align with the Biosecurity Law, and that the

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[6] 'Invasive alien species' refer to alien species that are introduced to China which threaten or cause damage to ecosystems, habitats and species, affect China's ecological environment, or cause harm to the sustainable development of agriculture, forestry, animal husbandry, fisheries, biodiversity (Table 2., L18, Article 2).

[7] 'Alien species' refer to species that are not indigenous to the territory of the People's Republic of China but are introduced through natural or man-made means, including all parts of the species that may survive and reproduce (Table 2, L18, Article 2).

Criminal Law should apply when a crime is suspected. The result is that the illegal introduction, release, or disposal of alien species is subject to administrative punishment under the Biosecurity Law, and can face additional criminal penalties under the Criminal Law if they involve invasive alien species.

3.3. Decriminalisation (net-narrowing)

Some actions that were previously punishable as criminal offences were recently decriminalised, reflecting net-narrowing. This resulted from the introduction of the unified monetary threshold system, described in Section 3.1, and revisions that eliminated criminal penalties for certain actions related to artificially (captive) bred wildlife.

3.3.1. Decriminalisation under the wildlife monetary threshold system

The introduction of a wildlife monetary threshold system has led to the decriminalisation of certain offences by establishing a minimum threshold for criminalisation and incorporating specific mitigating circumstances (Table 3; Section 3.1).

The previous numeric thresholds were only established for 'serious' and 'particularly serious' crimes, and the minimum thresholds for wildlife crimes were not specified. This was thus widely interpreted as the 'one goes to jail' policy (Wen, 2022), whereby harm to a single individual of a species under legal protection could lead to criminal penalties. In contrast, the new unified monetary thresholds set the minimum thresholds of criminalisation for wildlife crimes. When such monetary thresholds are converted into equivalent numbers of harmed individuals and compared with the previous numeric criteria, it becomes evident that the new standard could bring decriminalisation to offences involving certain species (Supplementary Information). For instance, while harming a single black squirrel was previously considered a crime, its monetary value under the new standard is too low to trigger criminal liability, which would require harm to >13 individuals instead (Supplementary Information). Importantly, this decriminalisation applies only to species with low monetary value; for species with high monetary value, such as pandas, the harm of a single individual exceeds the minimum threshold and remains criminalised under the new regime.

The unified monetary thresholds also introduced decriminalisation measures for offences involving 'Sanyou animals' (Table 3). The official value list for species' monetary values (Order No. 46 of the State Forestry Administration, Table 2) reportedly assigns above-market values for 75 % of species (Luo, 2023). For example, for illegal actions involving the sparrow *Passer domesticus* (a 'Sanyou animal'), the official monetary value is CNY300/individual (approx. USD 41), which implies a criminalisation threshold of >13 individuals. By contrast, using the market price of CNY20 (approx. USD 3) sets the threshold at >500 individuals. Consequently, use of official values under the new system would result in a lower threshold and thus increased criminalisation (Zhou et al., 2022). In response, the 2022 Judicial Interpretation mandates that thresholds for 'Sanyou animal' species should first consider the monetary value of the illegal proceeds obtained by the offender, followed by standard market prices, and only use the official values if the others are unavailable – effectively decriminalising many wildlife offences through net-narrowing.

Decriminalisation also emerged from a specific mitigating circumstance introduced in the 2022 Judicial Interpretation (Table 3) that allowed crimes to receive reduced penalties if the act "does not cause the death of animals, or the inability to recover animals or the products thereof". The exception also applied to cases where the affected products could be recovered, and the offender returned any illegal proceeds and paid compensation, showing repentance.

Under these circumstances, actions that formerly led to imprisonment can be treated as 'minor offences' that may not incur criminal penalties. For example, for actions harming wildlife with an official monetary value of CNY20,000–200,000 (approx. USD 2760-27,600, the minimum threshold for the criminal penalty, equivalent to two

pangolins or four red pandas or 133 black great squirrels, Supplementary Information), if the mitigating circumstances are met, then the actions may only lead to administrative punishments (Wen, 2022). Furthermore, the 2022 Judicial Interpretation also introduced a new offence category, 'obviously minor' (a term that is not yet legally defined), under which certain offences are not considered criminal (Supplementary Information).

3.3.2. Decriminalisation of offences involving artificially bred wildlife

The 2022 Judicial Interpretation also introduced the decriminalisation of offences involving artificially bred wildlife (Table 3). Although China has long promoted breeding programs to meet domestic demand for endangered species (Wang et al., 2019; Zhu and Zhu, 2020), related violations that involved species under 'Special State Protection' were previously criminalised. Under the new interpretation, violations are decriminalised in two circumstances. First, offences involving artificially bred wildlife under 'Special State Protection' (e.g., illegal purchases or sales) are no longer considered criminal. This applies to >30 precious and endangered species (Han, 2022) that have mature breeding technology in place; there is no requirement to source breeding progeny from the wild; the scale of artificial breeding can meet reasonable market demands; and breeding activities help alleviate conservation pressure on wild populations (Hou, 2017). In addition, for artificially bred wildlife that have matured breeding techniques and scaled farming levels, trading and transporting them as pets would also no longer be regarded as a criminal offence, although the specific scope of the species involved is unknown. In cases where criminal liability is still considered, lenient treatment is recommended by the 2022 Judicial Interpretation.

3.3.3. Net-widening and narrowing reflected in judicial practice

Criminal prosecutions for wildlife offences showed a strong upward trend for both categories of crime on which statistics were reported before 2020 (Fig. 2). Following legislative changes during the target 2020–2022 period, criminal cases involving crime endangering precious and endangered species and their products declined by nearly 70 % between 2020 and 2023. Although data for 2022 is unavailable, criminal cases involving wildlife smuggling also show an overall downward trend during the observed period, with an approximately 30 % decline (Fig. 2). Cases of illegal hunting, a category affected by legislative changes involving both the decriminalisation of certain offences and the introduction of new offences, remained relatively stable since 2020 (Fig. 2).

3.4. Increased and decreased penalties (mesh-thickening and mesh-thinning)

There are also changes to penalties caused by the official monetary threshold system and specific circumstances.

3.4.1. Impacts of the unified monetary threshold system on penalties

The unified monetary threshold system changed the thresholds for penalties relative to the previous numeric criteria (Table 3). These adjustments exert differentiated impacts on wildlife crimes: for species with high monetary values, the threshold was lowered, producing a 'mesh-thinning' effect, whereas for species with low monetary values, the threshold was raised, resulting in 'mesh-thickening'.

For example, the threshold for defining a crime of serious circumstance was altered: while harming eight individual pangolins *Pholidota* (species of high-monetary value) was previously considered a serious crime, under the new system this was defined by harm to three individuals, with more severe penalties (Supplementary Information), thinning the mesh of the criminal net.

Conversely, harming five red pandas *Ailurus fulgens* (a species with lower monetary value), was previously classified as a 'particularly serious circumstance'; under the new system, similar severity and penalties would require harm to at least 50 individuals, thereby thickening the mesh. Notably, these changes have little impact on very high-value

species, such as the giant panda *Ailuropoda melanoleuca*, for which harming even one individual remains classified as a 'particularly serious' crime under both systems (Supplementary Information).

3.4.2. Changes caused by new aggravating and mitigating circumstances

The introduction of new aggravating and mitigating circumstances brought changed approaches to penalties (Table 3).

The 2022 Judicial Interpretation introduced aggravating circumstances justifying heavier penalties, thinning the mesh. These circumstances included situations where the offender leads a criminal group, uses special transportation means (e.g., military vehicles) to evade surveillance, significantly impacts wildlife research, violently resists arrest, or causes substantial damage to wildlife habitat, and 'having received administrative punishments for destroying wildlife resources within the last two years.' These have been applied as aggravating circumstances to some or all of the wildlife crimes, such as smuggling wildlife and products, endangering precious and endangered wildlife, and illegally hunting wildlife. When any of these circumstances are met, the offenders shall bear harsher punishment.

On the contrary, the new mitigating circumstances introduced by the 2022 Judicial Interpretation (section 3.3.1) lessened the severity of some offences, expanding the effects of mesh-thickening (Table 3). If these specific circumstances apply, offences initially considered 'particularly serious crimes' were treated as 'serious crimes,' and actions labelled as 'serious crimes' were to be penalised at a level equivalent to the minimum punishment threshold and so on (Supplementary Information).

4. Discussion

The results show that legislative changes in this time period – one characterised by rapid legislative reforms amidst demands for increased enforcement following COVID-19 (Tian et al., 2024) – actually had a significant 'bifurcating' or 'twin-track' effect in China's wildlife crime enforcement, in which some aspects of criminal justice policy became tougher while others became more lenient (cf. Wilson, 2019), the result of complex social, political and ecological considerations (Tian et al., 2024).

Although judicial practice is shaped by many factors, the bifurcation effects of legislative changes during the 2020–2022 period seem to be reflected in the official prosecution statistics. The significant decreases in criminal cases involving precious and endangered species (Fig. 2) were consistent with the identified net-narrowing trend. The decline appeared to be linked to legislative changes such as the implementation of the unified monetary valuation system, which raised the threshold for criminal liability, as well as the decriminalisation of offences involving artificially bred wildlife. In contrast, the number of prosecutions for illegal hunting of wild animals plateaued after 2020, fluctuating within a relatively narrow range (Fig. 2). This may reflect the dual net-widening and net-narrowing legislative effects that influenced this offence: new offences, such as the criminalisation of illegal hunting for consumption, were introduced during this period, while others were partial decriminalisation, including removal of the 'one goes to jail' rule and the introduction of mitigating circumstances. Such bifurcation underscores policymakers' efforts, during this period of rapid policy change, to navigate the balance between social justice and conservation objectives (Tan, 2021).

4.1. Social justice impacts

The reforms have significant impacts on the social justice outcomes of wildlife legislation. Notably, the examples of net-narrowing and mesh-thickening lower the risk of over-criminalisation of small-scale offenders. At the same time, the observed net-widening – particularly the recognition of new offences across the wildlife trade chain – helps to ensure that offenders face shared risks along crime chains, potentially including consumers.

4.1.1. Implications for diverse types of wildlife offenders

Although net-widening within the criminal justice system is often critiqued for resulting in unnecessary social control and wasting judicial resources (Brown, 2004; CJCJ, 2001; McMahon, 1990), it can sometimes enhance fairness by distributing personal risks of criminal justice intervention across the criminal chain.

The reforms criminalised new actions, such as covering up or concealing the proceeds from wildlife crimes, which potentially helps distribute the risks across social groups (Liebling, 2007). Notably, illegal hunting is often linked to poverty and lack of livelihood alternatives in marginalised communities (e.g., Duffy et al., 2015; Paudel et al., 2019; Shao et al., 2021). In contrast, wildlife consumption for many species is concentrated among more affluent socio-economic groups (Chausson et al., 2019; Wang, 2020; Wilson-Wilde, 2010; Shao et al., 2021), and intermediary actors such as vendors and merchants often gain the greatest economic benefits (see Veríssimo and Wan, 2018). Net-widening to cover the entire trade chain means that responsible parties, including more affluent and powerful actors, are more likely to share legal responsibility (Kelly, 2012).

Moreover, the 2022 Judicial Interpretation's focus on proportional punishment is expected to ensure fairer penalties. From 2017 to 2021, 46 % of wildlife smuggling cases were considered 'particularly serious', while only 11 % of *all* prosecuted crimes (across all types of crime) were of this severity, implying that wildlife crimes may have been excessively punished (Zhou et al., 2022). While this may indicate prosecutors' focus on only the most severe wildlife crimes, recent reforms could nonetheless better align punishment to severity (Bagaric, 2000; Goh, 2013) and reduce excessively harsh penalties for minor offences, a point stressed by the head of China's Judicial Research Office[8] (Han, 2022).

4.1.2. Implications for minor offences

The observed mesh-thickening may also help to prevent the risks of over-criminalisation and over-sanctioning, particularly of harmful, but comparatively modest offences. Indeed, a few high-profile wildlife cases have sparked public debate about perceived excessive sentences (Huang, 2015; Teller Report, 2023). In 2014, university student Yan Xiaotian received a 10.5-year prison sentence and an approx. USD 1382 fine for a 'particularly serious crime' involving 16 individuals Class II protected birds. Under the new monetary threshold system, his actions would only meet the threshold for a 'serious' crime. Moreover, since 14 of the birds were alive and potentially recoverable, the new mitigating circumstances would apply, warranting a maximum imprisonment term of 5 years.

Decriminalising also has implications for actions that involve artificially bred wildlife, likely preventing individuals from entering the criminal justice system. For example, on April 18, 2022, the case against Wang Lei for purchasing 30 artificially bred Hermann's tortoises (*Testudo hermanni*, CITES Appendix II species) was dropped due to the legal updates (Jiang, 2022; Wang, 2022), reversing the previous three-year prison sentence and a fine (Wang, 2022). In addition, from 2015 to 2017, the lack of clear regulations on artificially bred wild animals led to inconsistent sentencing, with 32 parrot traders receiving penalties ranging from suspended sentences to 11 years in prison (Jiang, 2022); full decriminalisation may help resolve such inconsistent sentencing in future cases (Huang and Wang, 2022).

4.1.3. Implications for artificially bred wildlife

The legislative reforms decriminalising offences involving artificially bred wildlife may also have impacts on economic opportunities. China has developed an extensive wildlife farming network to satisfy market

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[8] The Research Office of the Supreme People's Court and the Legal Policy Research Office of the Supreme People's Procuratorate

demand for wildlife and its products (Zhu and Zhu, 2020). Over 16 million people work in wildlife breeding in China, and the number has increased to nearly 29 million with the inclusion of related industries (Gao, 2022), with USD 143 billion generated in 2016 (Beirne, 2021). Thus, wildlife farms have been pivotal in poverty reduction efforts as a critical source of jobs and income, especially in economically challenged regions like Yunnan and Jiangxi provinces (You, 2020; Li, 2007). In 2022, the updated WPL made getting approval for breeding 'Sanyou animals' easier, which, coupled with the latest decriminalisation measures, could boost economic activity, including opportunities for people from impoverished and rural areas.

Decriminalising actions involving artificially bred wildlife also raises public health concerns as close interactions at farms and inadequate quarantine measures can foster zoonotic diseases (Gostin and Powers, 2006; Beauchamp, 1976; Beirne, 2021; You, 2020) and the legal pet trade may be exploited to acquire wildlife for consumption, while the transportation and storage of live animals further heighten disease risks (Bush et al., 2014; Ribeiro et al., 2022).

4.2. Conservation impacts

Some of the legal changes seem to try to find a compromise between the conservation of wild populations and respect for traditional and economic wildlife use by increasing the criminalisation of offences against wild populations, while allowing for legal breeding and trade of artificially bred animals. This potentially expands legal protection to more species, but raises the well-known risks of laundering wild-caught wildlife (Jiang and Aron, 2022) and of introducing invasive alien species (Ji et al., 2020). Besides, introducing monetary thresholds into the criminal system could impact the conservation of high- and low-value species differently, potentially increasing the conservation divide between them.

4.2.1. Benefits for conservation

The observed net-widening introduces a number of potentially positive impacts on conservation. These are associated with both expanded legal protections for more species, and expanded criminalisation against targeted groups of offenders who have been historically overlooked.

The changes reduce the legal disparities among species that were previously treated differently based on their perceived economic or ecological values (Nurse, 2013; White, 2013; Huang et al., 2021; Simmons et al., 2023). Traditionally, the legality of wildlife trade has hinged on the species' endangered status (Sollund, 2013; van Uhm, 2018), so that endangered species receive strict protection in China (Zhou et al., 2022). However, illegal harvesting and trade of wildlife affect a much wider range of species (see Scheffers et al., 2019), and trends have often shifted from targeting endangered wildlife to animals with lower levels of protection (Duffy et al., 2015; Roe et al., 2015). New changes may help address this bias and better respond to the dynamic nature of wildlife trade, creating deterrence for illegal impacts on a broader range of species that have historically been under-protected. While differences in legal treatment for endangered versus other species persist, the move towards less species bias could have positive impacts on biodiversity conservation.

The net-widening could also benefit conservation through the criminalisation of actors across the wildlife trade chains. Notably, the reforms help to better target those actors who benefit most from illegal activity (e.g., intermediaries), with potentially disruptive impacts on illegal trade chains and organised crime (Phelps et al., 2016). Moreover, the net-widening creates the risk of enforcement for intermediaries and consumers that have not historically been the subjects of enforcement, for whom increased risks could be a deterrence, and also drive public awareness. Further, the increased legal distinctions between major and minor offences could also have impacts on public support for conservation. Fairness is an increasingly well-recognised factor in shaping attitudes towards conservation (Travers et al., 2019; Wilson and Boratto,

2020), and overcriminalisation has been a hotly debated issue in China that is likely part of the reason for recent reforms (Jiang, 2024). Reforms to better balance social expectations of proportionality and to ascribe sentences to more affluent and powerful actors, could have broader positive impacts on conservation.

4.2.2. Challenges for conservation

New changes also introduce potential challenges for conservation.

Notably, decriminalisation and the establishment of lighter, administrative punishment for more minor wildlife offences may have social justice benefits, but could result in increased offence rates among small and medium-scale actors. If these offences are no longer seriously considered important by the State, this could have unintended consequences for conservation. Meanwhile, the rapid introduction of many new categories of administrative offences could overburden administrative departments, such as the Competent Wildlife Protection Department and the Competent Forestry and Grassland Department, and potentially hinder conservation effectiveness (Jiang, 2022).

Decriminalising the trade of artificially bred wildlife can pose conservation risks, as legal trade does not always equate to sustainability (Bush et al., 2014). Although Chinese law strictly regulates the use of products from artificially bred animals (Wang et al., 2019) and states that such breeding should not impact wild populations (WPL, Art. 26), there are many instances where it has had unintended impacts on wild populations. Among these is the risk that reforms may facilitate wildlife laundering, whereby wild animals are illegally traded as though they were artificially bred (Fischer, 2004; Schuppli et al., 2014; Wang, 2020; Meeks et al., 2024). This is a well-recognised challenge in China (You, 2020) that could accelerate extinction and threaten conservation (Turvey et al., 2018; White, 2020). Reforms that decriminalise artificial breeding and related trade will also face the long-standing difficulty of distinguishing artificially bred from wild-caught animals (Jiang, 2022; Jiang and Feng, 2023), which is now a requirement for establishing criminal liability (Article 13, 2022 Judicial Interpretation).

There are similar concerns regarding the trade in exotic pets, a driver of biodiversity loss (Bush et al., 2014; Ji et al., 2020), as the 2022 Judicial Interpretation legalised the trade in pets bred 'using established technology on a significant scale', a term that currently lacks legal definition (Jiang, 2022). This could facilitate unregulated wildlife pet trade. For instance, 75 % of 155 pet turtle species sold in Hong Kong are endangered, and their origins are hard to trace (Schuppli et al., 2014; Gong et al., 2009). The rise of online pet trade is likely to exacerbate this challenge, including distinguishing wild from artificially bred animals (Ji et al., 2020; Bush et al., 2014; Schuppli et al., 2014). Moreover, the exotic pet trade is also a primary way through which invasive species are introduced, which is a growing issue in China (Ji et al., 2020; Meng et al., 2017; Schuppli et al., 2014). Even though criminal law has started to penalise the release of invasive species, vigilant monitoring of the exotic pet trade is needed, especially with moves towards decriminalisation.

The new reforms are heavily shaped by the introduction of the unified monetary threshold system, which itself has implications for conservation and public understanding of conservation. As value is often conceptualised in terms of human utility (Adams, 2014; White, 2013; Zhu and Zhu, 2020), monetary valuations are unlikely to represent a species' conservation importance or threat (Engeman et al., 2002). For example, red pandas *Ailurus fulgens*, listed as IUCN Red List 'Endangered' since 2008 (Glatston et al., 2015), are legally valued at CNY 40,000 (approx.USD 5500) each, while the giant panda *Ailuropoda melanoleuca*, IUCN Red List 'Vulnerable' since 2016 (Shi, 2016), receives much stricter protection and has a higher official value of CNY 5 million (approx.USD 688,600). The monetary system could unintentionally increase effects targeting species with lower monetary values but high conservation importance (Jiang, 2022; Han, 2022). Moreover, the use of a monetary system retrenches a narrow, economist view of nature, at a time when understanding and broader policy initiatives are challenging

this perspective (Jiang, 2024) and calling for decision-makers to better recognise more diverse values and relationships (Pascual et al., 2017). Although pragmatic, the monetary system will need to be closely monitored to ensure it delivers on broader conservation objectives.

5. Conclusion

The criminal justice system engages a wide range of wildlife offences and holds the potential to influence conservation outcomes. However, there is also growing awareness of its implications for social justice and human well-being. Balancing conservation, social justice, public health and economic demands presents significant challenges.

Although Chinese wildlife legislation has had several significant policy phases since 1950, and enforcement has been a key theme throughout, this most recent period was characterised by widespread increased demands for tightened legislation and enforcement in response to public health concerns following the COVID-19 pandemic (Tian et al., 2024). However, this period was also characterised by strong public and policy demands to account for the economic importance of the wildlife industry and concerns about over-criminalisation. This study explores how China has navigated those pressures amidst competing for decriminalisation and proportionality, providing an important and unique empirical case based in legal analysis to complement a growing body of political ecology and green criminology literature on conservation criminalisation (Duffy, 2010; Massé et al., 2020; Paudel et al., 2019). China's responding legislative changes may seem to be increasing criminalisation, but actually reflect a bifurcation that involves both the widening and narrowing of the criminalisation net, including increased and decreased penalties. By reshaping what actions are deemed criminal offences and establishing a range of new categories of more minor offences that are not criminalised, these changes respond both to demands for stronger conservation and greater social justice implications. These, in turn, will likely indirectly impact wildlife-related economic activities, such as the artificial breeding industry and trade for consumption and pets, with further downstream implications for employment and public health. Equally, by introducing new types of criminal offences and aggravating circumstances, the reforms could help increase fairness and yield broader deterrence impacts by targeting higher-level offenders including intermediaries and consumers.

The impacts on conservation are less certain. Expanded protections for more species, criminalisation of higher-level offenders, decriminalisation of other activities, and new gaps in legal frameworks could all have unintended consequences for biodiversity. It will be incumbent on government bodies, but also on researchers and conservationists, to track and understand how these profound reforms shape both enforcement patterns and longer-term impacts on biodiversity. This example highlights the complexities of legal drafting that seek to further both conservation and social justice goals, and the complexity of related analyses. Although traditionally the ambit of lawyers and judges, legal drafting can have broad, cascading impacts that are of immediate importance to related industries and conservationists, for whom there can be many, often unanticipated consequences. This is not unique to China, and there is a need to strengthen legal literacy among conservationists, and to build greater communication channels among these groups during the legislative process. Moreover, there is now a need for conservationists and the broader public to understand the scale and scope of these recent reforms. Future research needs to explore the real-world impact of these changes by analysing criminal statistics and cases to assess their influence on criminal justice and social justice, as well as examining biodiversity data to evaluate actual conservation outcomes.

CRediT authorship contribution statement

Miaomiao Tian: Writing – review & editing, Writing – original draft, Resources, Methodology, Funding acquisition, Formal analysis, Data

curation, Conceptualization. **Gary R. Potter:** Writing – review & editing, Supervision, Project administration, Methodology, Formal analysis, Conceptualization. **Jacob Phelps:** Writing – review & editing, Supervision, Project administration, Methodology, Funding acquisition, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.biocon.2025.111238.

Data availability

We have uploaded supported materials as appendixes

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