



UNODC

United Nations Office on Drugs and Crime



World Wildlife Crime Report

Summary, conclusions
& policy implications

2024



Key Messages

1. Wildlife trafficking persists worldwide despite two decades of concerted action at international and national levels—more rapid and measurable progress could be achieved if interventions were informed by stronger scientific evidence.
2. With thousands of wildlife species affected and a diverse range of distinct markets driving multiple environmental and societal harms, interventions to reduce wildlife trafficking need to be prioritized and more strategic.
3. Corruption undermines regulation and enforcement while technology accelerates the capacity of traffickers to reach global markets—criminal justice responses should be modernized, strengthened and harmonized from source to end markets.
4. Wildlife crime is interconnected with the activities of large and powerful organized crime groups operating in some of the most fragile and diverse ecosystems from the Amazon to the Golden Triangle—addressing wildlife trafficking in these circumstances requires a broader strategy to address organized crime as a whole.

Key Messages



Wildlife trafficking persists worldwide despite two decades of concerted action at international and national levels—more rapid and measurable progress could be achieved if interventions were informed by stronger scientific evidence.

- » There are signs of progress in reducing the impacts of trafficking for some iconic species, elephants and rhinoceros, but UNODC's assessment of available evidence gives no confidence that wildlife trafficking overall is being substantially reduced.
- » Lessons from where progress is being made indicate that multifaceted interventions at both demand and supply stages can reduce wildlife trafficking. While success is often measured in terms of arrests and seizures, these measures alone do not necessarily have long-term impact in reducing the criminal incentives that drive illicit markets.
- » Wildlife traffickers are adaptable, adjusting their methods and routes in response to regulatory changes and to exploit differences between legal regimes, enforcement gaps and new market trends. Interventions to reduce wildlife trafficking need strong coherence and harmonization across the trade chain. Consideration should also be given to the social and economic dynamics affecting the illicit economy of broader sectors rather than single species. This requires strong international cooperation and a solid evidence base to guide design, implementation and evaluation of remedial action.
- » Research on what works to address other crime types suggests that wildlife crime responses could be strengthened through better geographic and commodity targeting, predictive responses to species and geographical displacement, criminal behaviour forecasting, and focused deterrence.
- » While there is a growing body of evidence around wildlife crime—as shown in the material presented in the current report and the rich scientific literature on wildlife crime—many knowledge gaps persist that limit a full evidence-based approach. More and better investment is needed on building data and analytical capacity at national and international level.



Corruption undermines regulation and enforcement while technology accelerates the capacity of traffickers to reach global markets—criminal justice responses should be modernized, strengthened and harmonized from source to end markets.

- » While corruption is known to enable wildlife crime and undermine the criminal justice response, wildlife crime cases are seldom prosecuted through corruption offences. Greater consideration should be given to prosecution of those organizing or enabling wildlife trafficking under laws directly addressing corruption, which may provide stronger investigative powers and potential for higher penalties than applicable under environmental legislation.
- » More attention is also warranted to sector-specific corruption vulnerabilities related to specialized public sector roles such as harvest, breeding and trade permit issuance, animal health and phytosanitary inspection, and control of specialized retail outlets.
- » Deterring serious criminal engagement requires serious enforcement responses through more incisive investigation of major beneficiaries and targeting enforcement action to undermine the financial motivations for trafficking.



With thousands of wildlife species affected and a diverse range of distinct markets driving multiple environmental and societal harms, interventions to reduce wildlife trafficking need to be prioritized and more strategic.

- » Wildlife crime encompasses a multitude of different actors, species, commodities and driving factors and it has different impact across environmental, social, economic development and governance aspects. No one single perspective, policy or programme can address this multi-faceted crime. Effective responses require the prioritization of concerted efforts at national and international level.
- » Assessment of the level of harm posed by the different forms of wildlife crime is one lens through which interventions can be prioritized and targeted. Among the 4,000 animal and plant species that are affected by recent wildlife trafficking, there are different risks for overexploitation, ecosystem disruption, and potential impacts on climate stability. Socioeconomic harms are also diversified, reducing the benefits derived from nature, threatening human security, health and livelihoods, and having a corrosive influence on governance and the rule of law.
- » This wide range of interlinked environmental and societal harms is typically not explicitly recognized; resolving conflicting perspectives on their relative importance could help strengthen the prioritization and pursuit of remedial action.
- » Another way to target and prioritize interventions is by assessing the diverse factors that drive criminal activity and the different actors operating at various stages of the wildlife trafficking chain, from illegal sourcing to end-market demand. Some communities at source pay the cost of protective regulations as the economic and social benefits of previously legal harvest and trade can vanish, while traffickers continue to enjoy the financial benefits of the illicit economy. Targeted and proportional responses are needed that address specific motivations for involvement in wildlife crime and reduce risks of unintended negative outcomes.



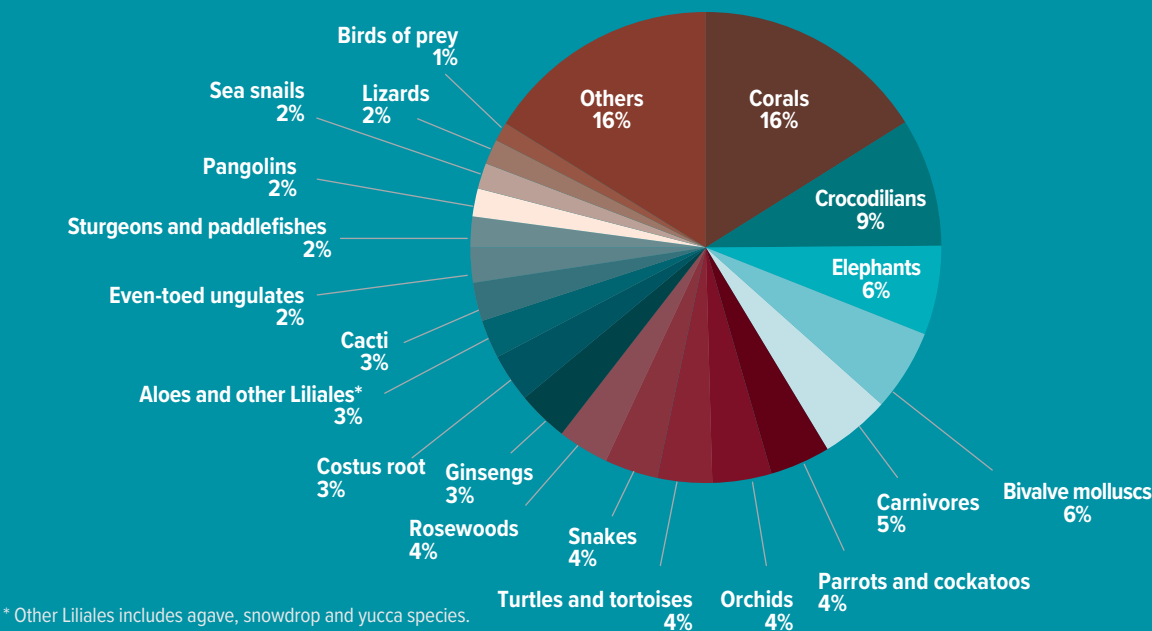
Wildlife crime is interconnected with the activities of large and powerful organized crime groups operating in some of the most fragile and diverse ecosystems from the Amazon to the Golden Triangle—addressing wildlife trafficking in these circumstances requires a broader strategy to address organized crime as a whole.

- » Convergence of wildlife trafficking operations with other criminal businesses can drive rapid change in market circumstances, through dynamics such as exertion of territorial power, exploitation of corrupt relationships, access to illicit firearms and opportunities for money-laundering. When powerful organized crime groups are engaged in wildlife crime in the context of other larger illicit economies, they amplify the negative impact of wildlife crime on the environment and community.
- » Organized crime is evident in various specialized wildlife trafficking roles, such as export, import, brokering, storage, keeping and breeding live specimens or handling the interface with processors. Traffickers can also actively manipulate demand in end markets to sustain or expand business opportunities.
- » Investment in monitoring and analysing new developments in illegal wildlife markets and associated criminality on an ongoing basis is a prerequisite for effective adaptation of wildlife trafficking responses.

Key Figures at a Glance

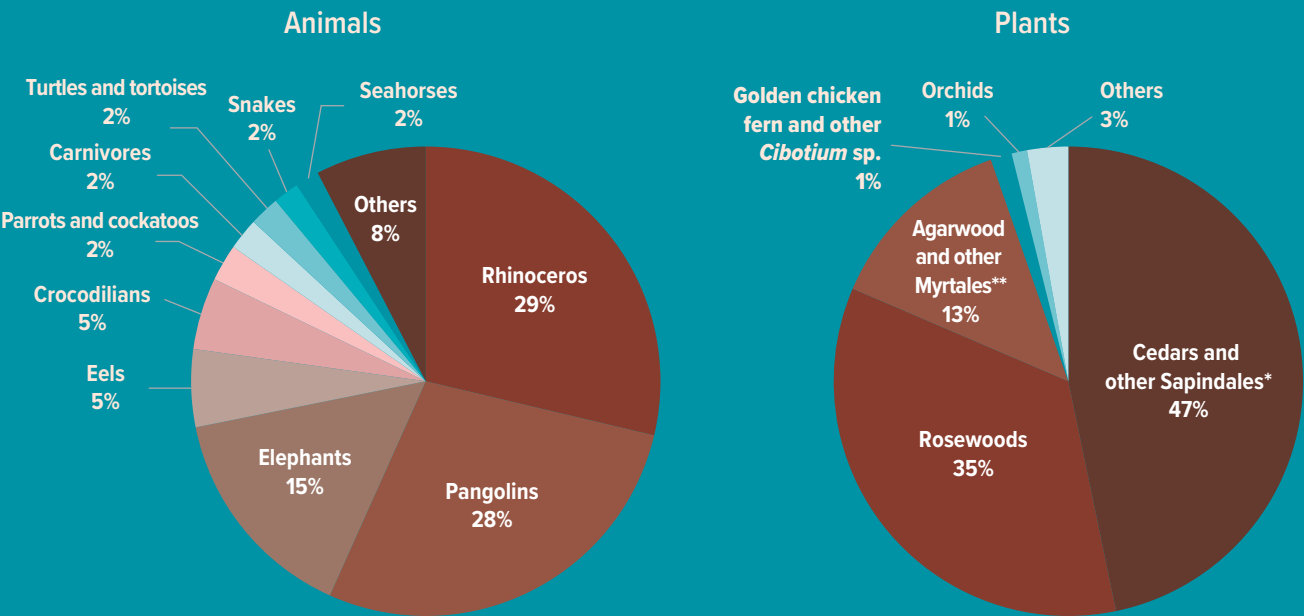
Diversity of species recorded in seizures

Percentage share of all seizure records by species group 2015–2021



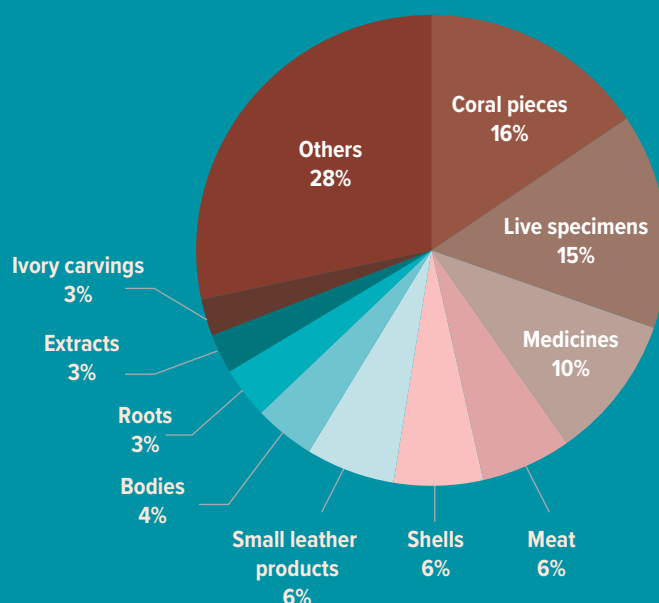
Species most affected

Just 15 broad markets comprised the bulk of the observed illegal wildlife trade during 2015–2021 based on standardized seizure index








Commodities in trade

Top commodities by percentage of seizure records 2015–2021

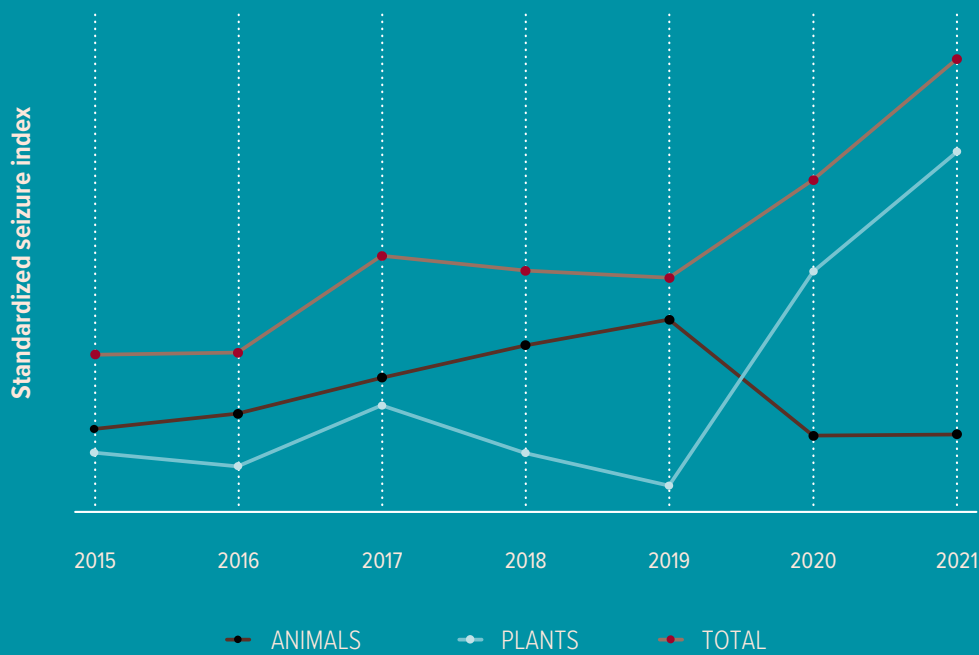


Demand sectors

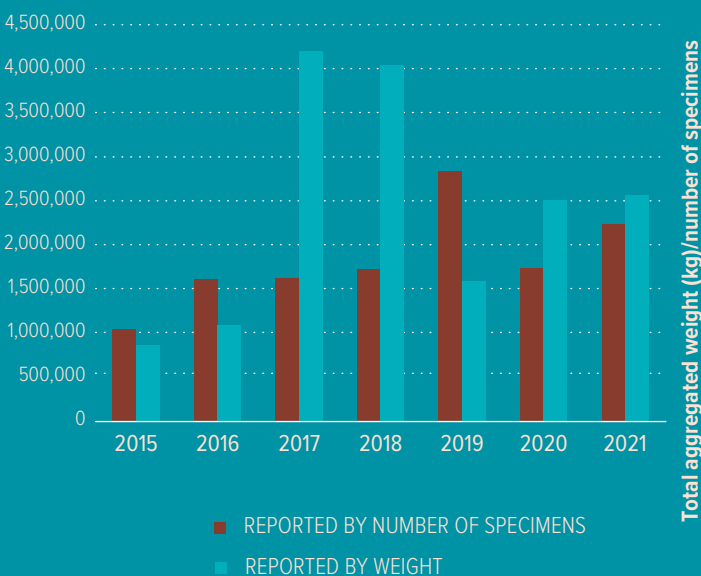
| | Source of demand | Nature of commodities | Scale of demand | Examples of species in seizures used in this sector |
|---|--|--|--|--|
|  | Food | Perishable and consumed | Mostly sought in bulk demand, some niche markets | Shark fins, pangolins, eels, sturgeons, abalone, orchid tubers |
|  | Medicine | Often dried or processed into less perishable form and then consumed | Mostly sought in bulk | Pangolins, seahorses, big cat bones, costus root |
|  | Mass market pets and ornamental plants | Live animals and plants dependent on care | Generally sought in bulk | African grey parrots, iguanas, cacti and orchids |
|  | Specialist market for live animals and plants | Live animals and plants dependent on care | Rarity is at a premium | Orchids and succulents, reptiles, amphibians |
|  | Exclusive market in goods for adornment, display and demonstration of status | Non-perishable and not consumed. Sometimes processed into manufactured goods | Rarity is often a selling point, but some sought in bulk for manufacture of high-value exclusive goods | Elephant ivory, rhinoceros horns, shahtoosh (wool from Tibetan antelopes), rosewoods |

Key Figures at a Glance

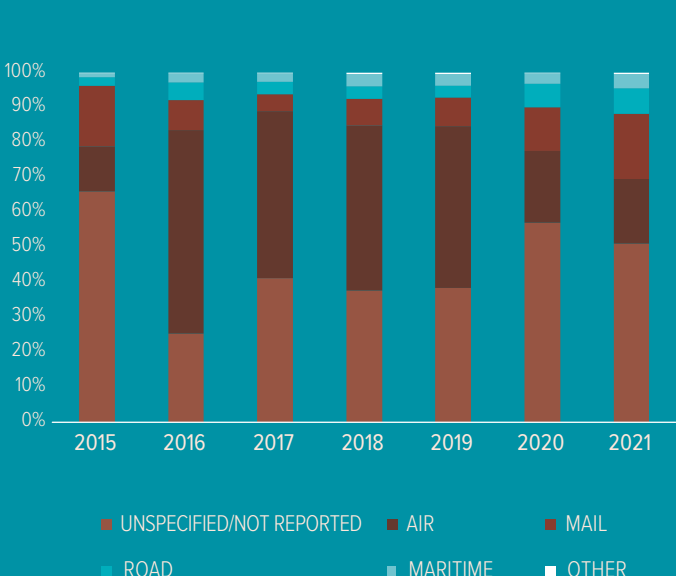
Trends in the standardized seizure index for all seizures and separately for plants and animals 2015–2021



Seizures reported by weight and by number of specimens 2015–2021

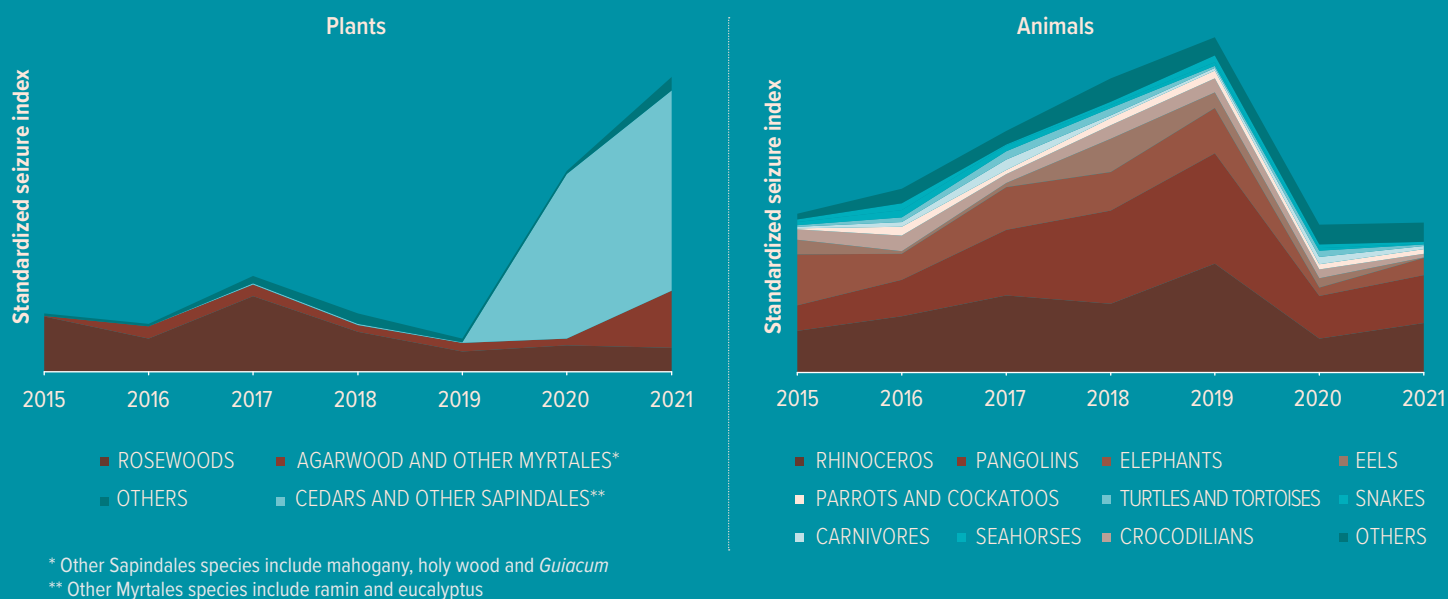


Percentage share of seizures in various means of transport, by number of seizure records, 2015–2021

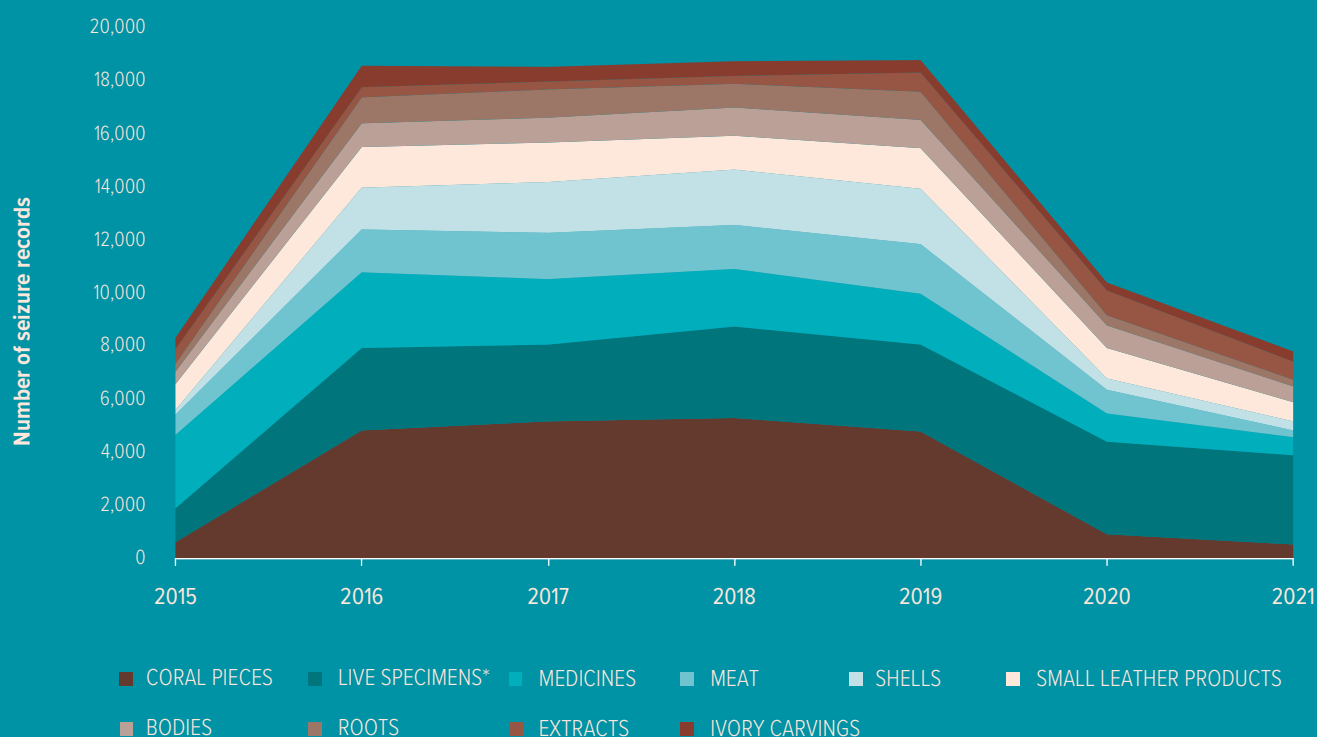


Recent trends

Aggregated standardized seizure index by species group for plants and animals 2015–2021



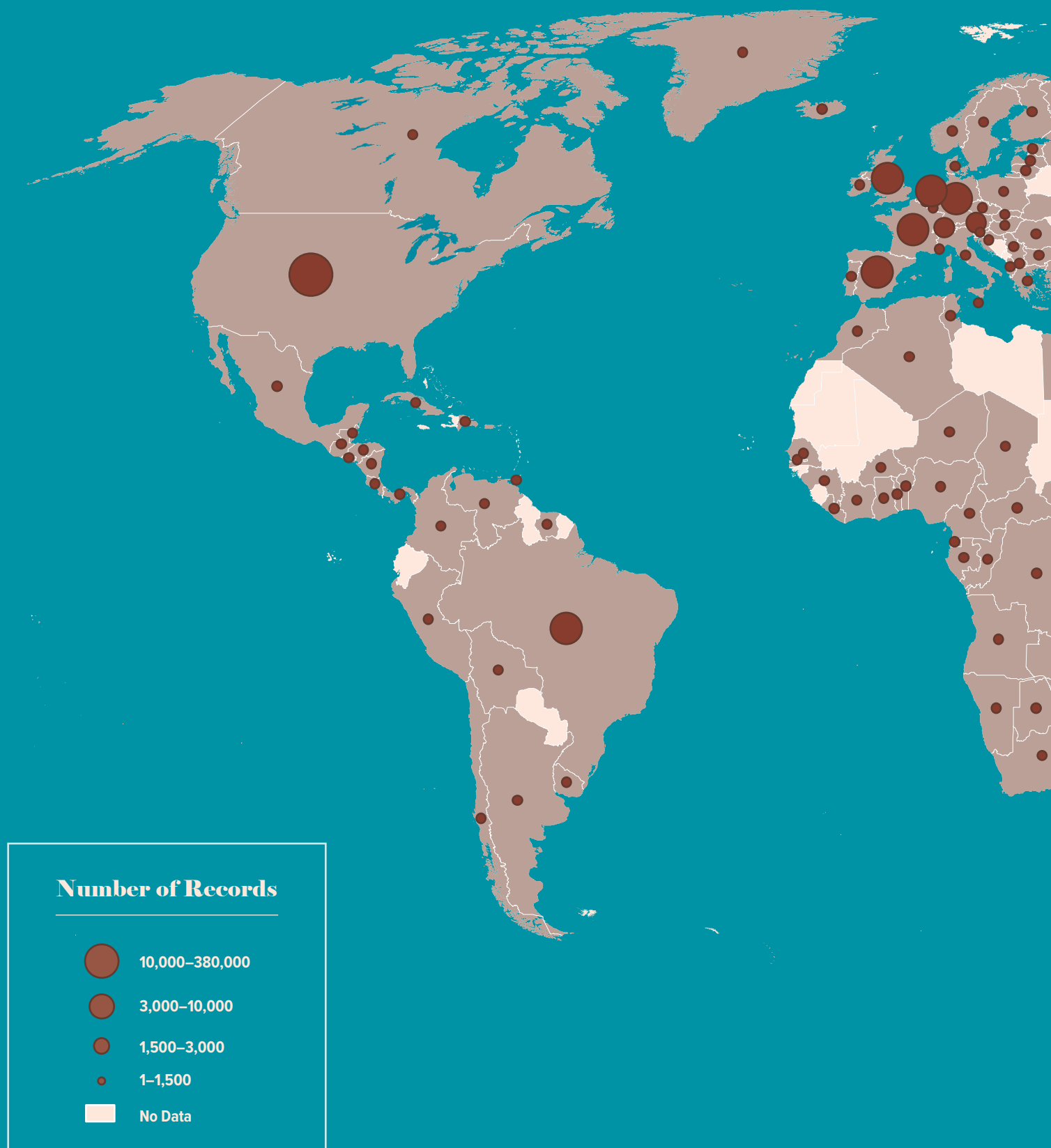
Top commodity types per year based on number of seizure records 2015–2021

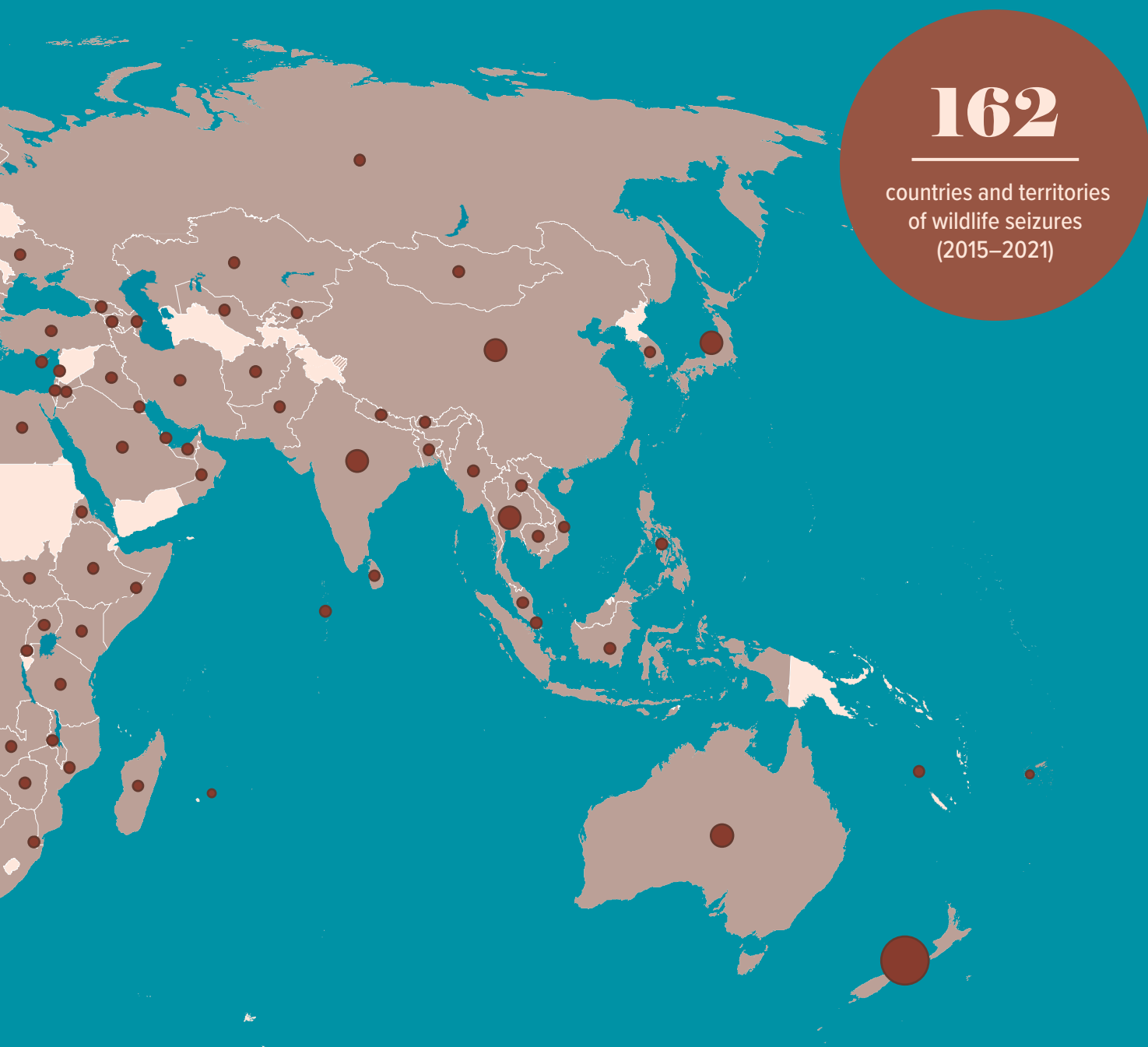


* Both plants and animals

Map

Number of seizure records in the WWC3 analytical dataset per country/territory 2015–2021





The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Certain countries and their territories report separately under CITES. Dots therefore reflect both categories.



Summary conclusions & policy implications

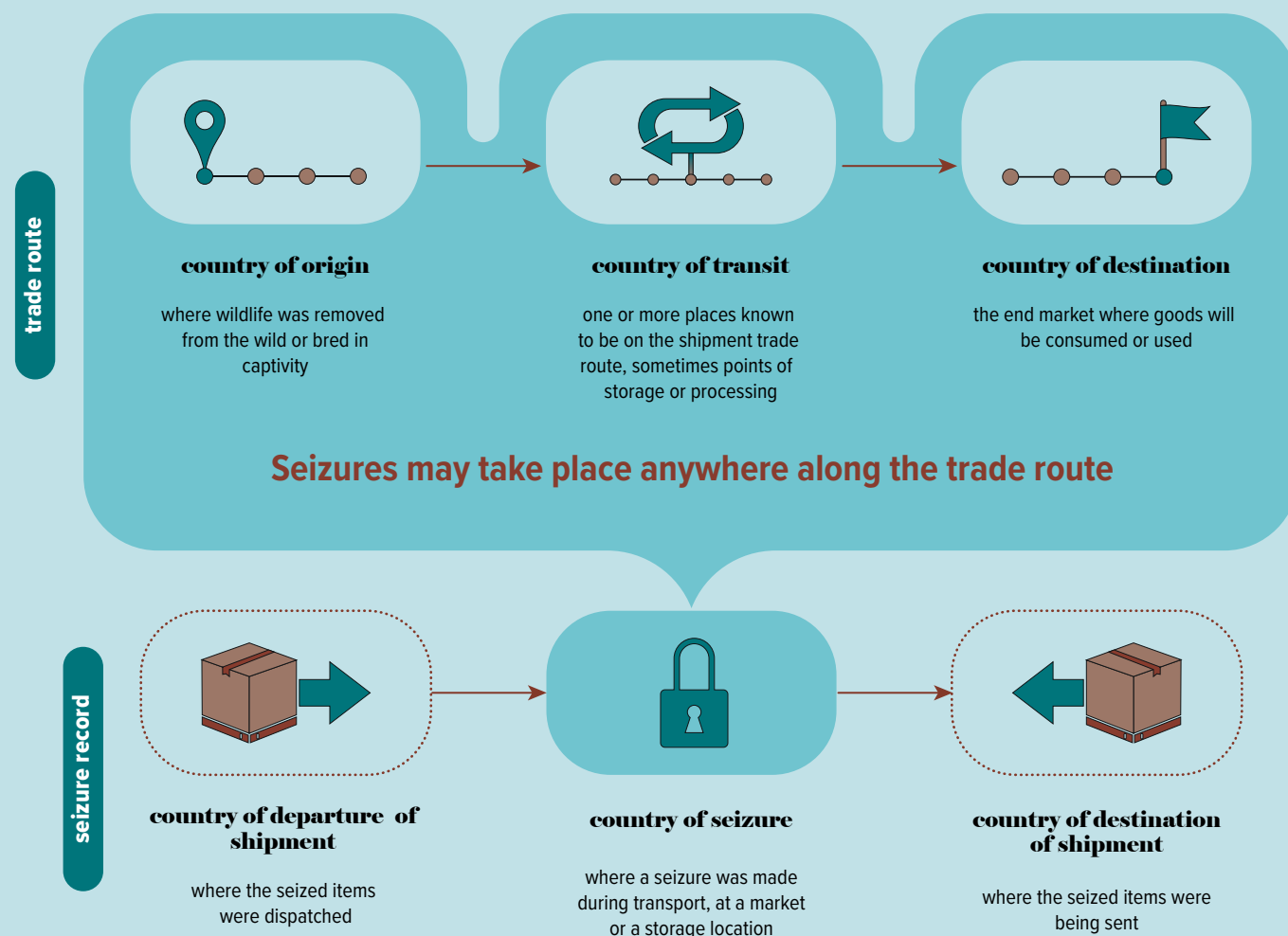
About this report

This third edition of the *World Wildlife Crime Report*, like its predecessors published in 2016 and 2020, probes trends in the illicit trafficking of protected wildlife species. It also presents systematic analyses of wildlife crime harms and impacts, probes the factors driving wildlife trafficking trends, and takes stock of current knowledge about the effectiveness of the different types of intervention being pursued to resolve this problem.

The records of government wildlife seizures that help inform global and thematic analyses in the current report are significantly more comprehensive than was the case for previous UNODC analyses. This is largely due to the availability of national Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Annual Illegal Trade Reports, first submitted in 2016 and

accessible through 2021 for the current report. These records, together with supplementary seizure data collated by UNODC from diverse sources and verified with Member States, form the WWCR3 analytical dataset for the current report. It includes over 140,000 records of wildlife seizures reported to have taken place between 2015–2021. In assessing trends over the period 2015–2021, it is notable that the annual number of seizures reported for 2020 and 2021 was around half the number reported for each of the preceding four years. It is not possible to be sure to what extent this reflects reduced reporting,¹ less enforcement action, a genuine reduction in trafficking levels, or shifts to new modes of marketing and moving illegal wildlife shipments more likely to avoid detection. As discussed below, any of these factors could have been attributed to COVID-19 pandemic disruptions. Such data in any

Shipment routing: a partial view of illegal wildlife trade flows



Sometimes a seizure may include information on the alleged country of departure and/or destination of a shipment, which may provide greater insight into the trade route involved. Triangulation with other records may give some indication whether the country of seizure was the actual origin, a point of transit or an end market.

case cannot provide a full representation of illegal wildlife trade over this period because there are geographical gaps in seizure recording, a strong focus on species listed in the CITES Appendices,² and an unknown volume of illegal trade that evades enforcement interventions.

Understanding wildlife crime through seizures and other indicators

Since seizure data can provide only a partial picture of actual wildlife trafficking flows and trends, the cur-

rent report also draws from a wide variety of additional sources. These include results of new fieldwork by UNODC examining specific wildlife trafficking challenges, supplementary market data, new studies developed in response to CITES decisions, and review of growing academic literature in this field. It also benefits from consultation with a wide range of experts working on related topics. Triangulation of these different sources helps to reveal important insights into the scope and scale of global wildlife trafficking.

Wildlife trafficking continues as a worldwide concern

Findings

The diversity and geographical scope of wildlife trafficking remain enormous

Analysis in the current report demonstrates that the global scope and overall scale of wildlife trafficking remain substantial. Seizures document illegal trade in 162 countries and territories during 2015–2021 affecting around 4,000 plant and animal species, approximately 3,250 of them listed in the CITES Appendices. As a crude depiction of scale, these seizures involved 13 million items reported by number and over 16,000 tons reported by weight during these seven years. This illegal trade flows into a wide range of end use sectors, including food, medicine, live animal and plant keeping, and “luxury” goods. Actual wildlife trafficking levels are of course far greater than the recorded seizures and it is important to keep in mind that there are important gaps in seizure-based evidence of trafficking in timber, fisheries and some other large trade sectors.

Progress to meet the SDG target to end wildlife trafficking is not on track

For the first time in 2024, UNODC has populated an indicator on progress towards target 15.7 to end trafficking of protected species of flora and fauna under the framework of the Sustainable Development Goals (SDGs).³ An initial estimate of the indicator trend for 2016–2021 suggests that globally the intercepted illegal wildlife trade as a proportion of all wildlife trade (legal and illegal) increased from 2017 onwards, reaching its highest levels during the COVID-19 pandemic in 2020 and 2021, when wildlife seizures made up around 1.4–1.9 per cent of global wildlife trade.⁴ For comparison, this proportion had varied between 0.5–1.1 per cent during the previous four years. These estimates give no reason for confidence that SDG target 15.7 is on track to be met by 2030.

The upward indicator trend during the pandemic reflects a sustained reduction in the measure of legal

trade after peak years in 2017 and 2018, coupled with an increase in the measure of seizures after 2019. The seizure trend was heavily influenced by a few very high-value timber seizures made in South America in 2020 and 2021, likely reflecting increased regulatory and enforcement effort. Without this influence, a decline in the measure of seizures of both plant and animal species was apparent in those years. Other global measures providing insights into wildlife trafficking trends during this period also show considerable variation. The volume of wildlife commodities reported in seizures by weight and the volume reported in terms of number of specimens (where no weight was reported) did not vary consistently. This underlines a critical point that wildlife trafficking is not homogenous and encompasses a considerable range of distinct market segments for which trends may vary greatly.

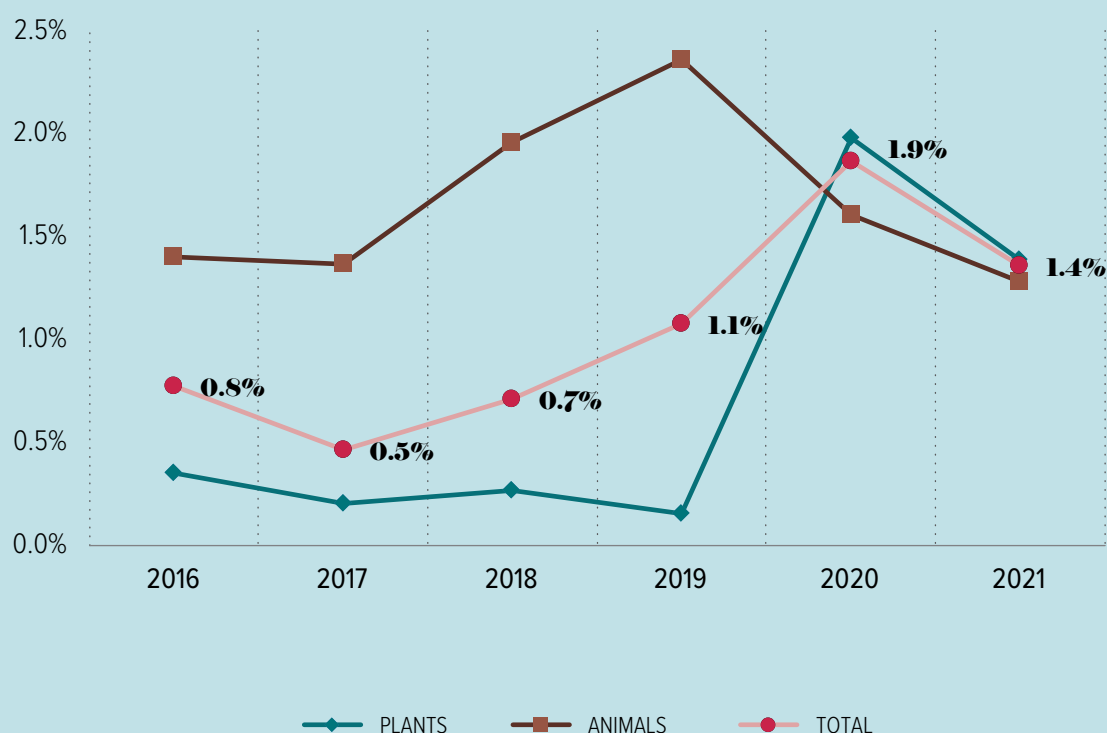
The COVID-19 pandemic partly reshaped but did not stop wildlife trafficking

Understanding the full impact of the economic and social upheavals of the global COVID-19 pandemic on wildlife trafficking remains challenging. It is clear from seizure trends and contextual information that there was a very large reduction in wildlife trafficking from personal baggage in air transport in 2020 and 2021 owing to restrictions on the movement of people in many countries and a massive fall in air passenger numbers. However, the impact of other possible influences of the pandemic on seizure trends, for example market restrictions, different consumer choices, changes in enforcement effort, and interruption of official reporting, require more careful interpretation. Annual wildlife seizure numbers were lower in 2020 and 2021 than in earlier years, but trends in seizure volumes and aggregated measures were not consistently downwards. For comparison, the interception of other illegal markets during the pandemic was also inconsistent. The number of detected victims of trafficking in persons decreased during the pandemic, while the levels of drug seizures did not show a similar decline.

Signs of progress for some wildlife commodities

Elephant ivory and rhinoceros horn trafficking are two examples for which the opportunity to triangulate data on illegal trade, illegal harvest and species population

Trends in the proportion of wildlife trade represented by seizures based on aggregated indices of legal trade and seizures 2016–2021 (SDG indicator on progress towards target 15.7 to end trafficking in protected species)



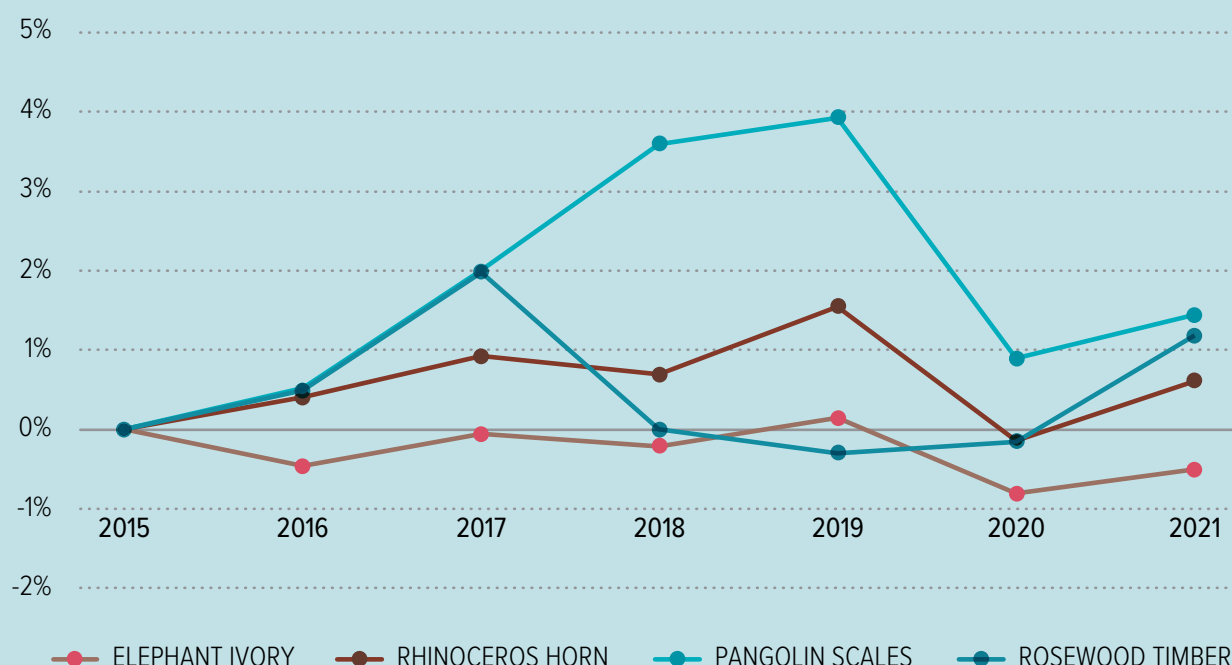
change are far stronger than is typical. Both have been subjects of case studies in past editions of the *World Wildlife Crime Report* and are revisited again in the current edition. The latest analyses provide grounds for some optimism that a combination of efforts from both demand and supply side with high-profile policy attention, greater market restrictions and targeting of high-level traffickers with law enforcement action may be returning positive results. Over the past decade, poaching, seizure levels and market prices have declined solidly for both commodities. However, sporadic large seizures of both elephant ivory and rhinoceros horn continue to occur and these markets have experienced significant declines and revivals in the past, so continued vigilance is warranted. Although far from resolved and requiring ongoing scrutiny, these examples do however demonstrate that substantial progress can be made.

Increased national, regional and international action to combat wildlife crime

Wildlife seizure records are not simply an indicator of trafficking flows, they also demonstrate that enforcement action has been taken. Although there are no reliable measures to assess if and to what extent enforcement and other actions have reduced wildlife trafficking, there are good indications that there has been a substantial increase of these actions globally over the past two decades. The evolution of regional wildlife enforcement networks since the late 1990s,⁵ the establishment of the International Consortium on Combating Wildlife Crime (ICWC) in 2010,⁶ the series of four international illegal wildlife trade conferences held between 2014–2018,⁷ and the adoption of six United Nations General Assembly resolutions on this subject between 2015–2023,⁸ all reflect the growth

Seizure trends for four key commodities 2015–2021

Percentage variance in recorded weight from a 2015 baseline



in practical and policy attention. Many key countries have created specialized enforcement units, multi-agency teams and national strategies, and have recognized wildlife crime as a priority crime.⁹ A forthcoming UNODC legislation analysis indicates that 164 Member States of the United Nations criminalize wildlife crime offences to some degree, with 86 of them having penalties that meet the United Nations Convention against Transnational Organized Crime (UNTOC) definition of a serious crime with a maximum custodial penalty of at least four years.¹⁰ This is the highest level of criminalization across nine environmental crime sectors analysed. In addition, a series of coordinated multi-country counter wildlife trafficking operations have also been carried out since the early 2010s, including three iterations of the multilateral Operation Cobra initiatives between 2013–2015,¹¹ and the seven Operation Thunder initiatives during 2017–2023.¹² Regional initiatives include the five phases of Operation Mekong Dragon during the period 2019–2023, multilateral Asia regional law enforcement pushes targeting both narcotics and

wildlife smuggling.¹³ Also, considerable progress has been made with engagement of private sector businesses in efforts to increase barriers to trade-related wildlife crime, including through task forces for the financial and transport sectors.¹⁴

Challenges in determining the impact of action on wildlife crime

Discerning the impacts of increased attention to and action on wildlife trafficking and associated crime is far from straightforward. If such efforts were successful, illegal trade flows would be expected to decrease, the pressure of illegal harvests would be relieved, and positive wildlife population trends would be realized. However, each of these indicators of success is difficult to discern individually and the chain of cause and effect is complicated. Global analysis of seizure data may provide some insight into the question of whether illegal trade flows have declined if they are triangulated with associated price and market observations. Demonstration of a

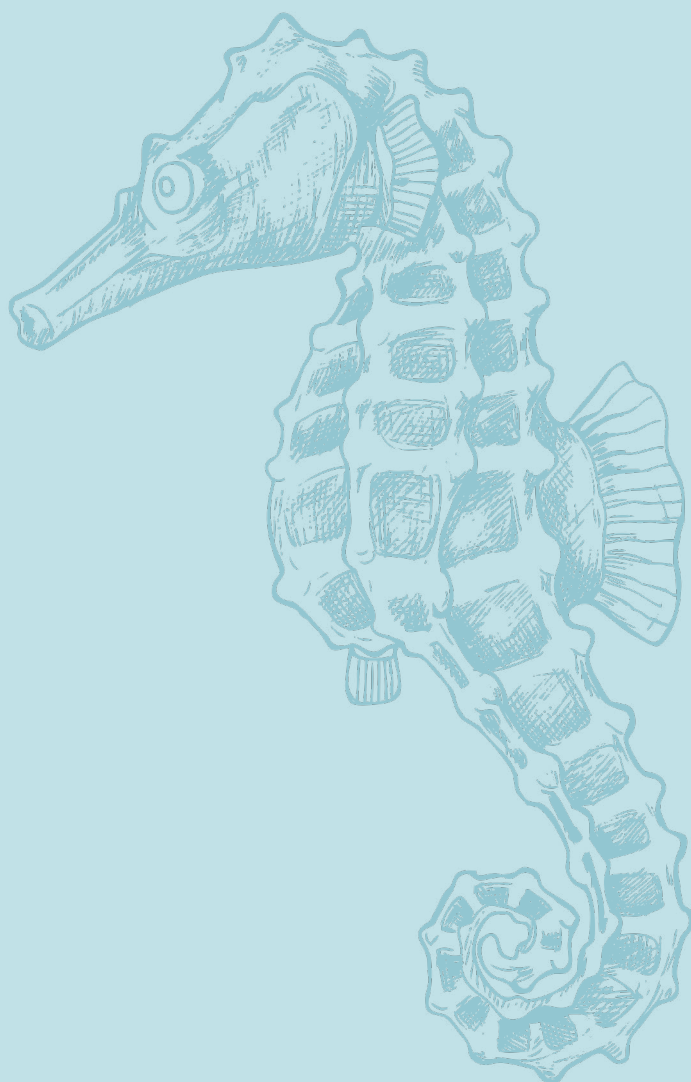
reduction in illegal harvests is more challenging because relevant data are not collected for the vast majority of species subject to wildlife trafficking. Similarly, changes in wildlife population levels are not systematically monitored for most affected species. Even where positive trends can be discerned, it is important to pay attention to the risk that traffickers have moved on to deal in other wildlife commodities under less enforcement and market pressure. Indeed, case studies in the current report demonstrate the establishment of linkages between ivory and pangolin illegal trade chains and other examples of traffickers shifting attention between different species and source countries.

Conclusions and policy implications

- ▶ Despite gaps in knowledge about the full extent of wildlife trafficking and associated crime, there is sufficient evidence to conclude that this remains a significant global problem far from being resolved.
- ▶ Continued commitment to pursue incisive and coordinated action on trade-related wildlife crime is essential. Remedial approaches championed in previous editions of the *World Wildlife Crime Report* remain relevant, including calls for increased local community engagement; investigative follow-up to seizure incidents; action to address corruption; prosecutorial support; consumer demand reduction initiatives; inter-agency coordination at the national level; and international cooperation on criminal matters.
- ▶ The apparent progress with reductions in poaching and illegal trade in elephant ivory and rhinoceros horn over the past decade suggests that multifaceted interventions through policy engagement, law enforcement and market suppression can reap rewards.
- ▶ Important lessons can be derived from these examples about the scale and depth of action required to impact persistent criminal trafficking chains. Major seizures have resulted from multilateral investigations, prosecutions of key traffickers have been pursued and, over time, legal prohibitions have been harmonized across the trade chain from

source to end markets. These cases also demonstrate the benefits of investment in tracking impact indicators in order to assess the impact of different interventions.

- ▶ The diversity of institutions and intensity of initiatives working to reduce wildlife trafficking have increased substantially over the past decade, but to make the most of this effort there is a need for more structured coordination between government and multilateral agencies, civil society organizations, academics and the private sector.



Wildlife crime harms are diverse and pervasive; their understanding can support better prioritization of action

Findings

Thousands of threatened wildlife species are affected by wildlife trafficking and some of those worst affected receive little public attention

The impact of wildlife trafficking on the conservation status of wildlife species is a critical concern driving policy attention to wildlife crime. A review of evidence about harms caused by wildlife crime in the current report makes it clear that thousands of threatened species are affected by wildlife trafficking, a small minority of which, such as elephants, tigers and rhinoceros, attract the majority of policy attention. In fact, some of the clearest examples of conservation harm caused by wildlife crime receive comparatively little attention, such as the illegal collection of succulent plants and rare orchids, and the trafficking of a wide range of reptiles, fish, birds, and mammals for which illegal trade appears to have played a major role in local or global extinctions.

Beyond the threat to individual species, wildlife trafficking harms ecosystems and their climate-related functions

On environmental harms beyond the immediate conservation threat to target species, population reductions caused by wildlife trafficking can play a role in triggering ecosystem-level impacts by disturbing interdependencies between different species and undermining related functions and processes. This also has considerable potential to undermine the role that natural ecosystems play in long-term climate stability and mitigation of climate change impacts. There is an emerging body of research on potential climate impacts of population reductions of various species affected by wildlife crime. It is also critical to keep in mind that this relationship works in both direc-

tions: climate change is likely to exacerbate natural resource conflicts and cause profound social changes that will likely lead to new motivations and opportunities for wildlife crime and new patterns of illegal wildlife trade.

Wildlife crime harms socioeconomic development

Species depletion and ecosystem disruption caused by wildlife crime can undermine the many socioeconomic benefits that people derive from nature. This includes loss of employment and other income from wildlife-based industries and degradation of the material benefits that nature provides to people, such as food, medicines and energy, as well as non-material contributions to identity, culture and learning. Wildlife trafficking can also undermine the role nature plays in life support systems such as agriculture and water supply. Impacts of wildlife crime can extend to reduced security, exposure to violence, undermining community cohesion, and increased vulnerability to abusive employment practices and trafficking in persons. Other potential social and economic impacts include harm to environmental defenders, increased health risks through disease transmission and negative effects on legitimate private sector interests.

Governance is also impacted by wildlife crime

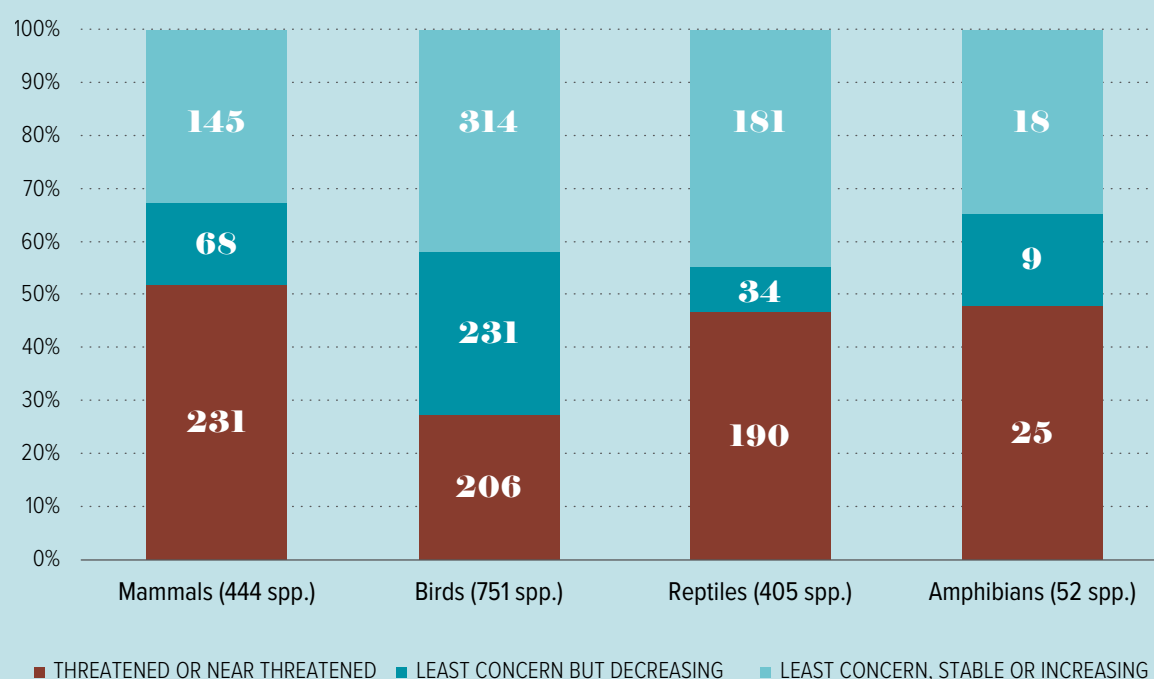
Wildlife trafficking can also have a corrosive influence on governance and the rule of law through corruption, money-laundering and illegal cross-border financial flows. It can also reduce government revenues from legitimate trade, such as licence fees from legal timber harvest and export, and other uses of nature, such as taxation from tourism business. Tackling wildlife trafficking has significant associated government budget costs.

Responses to wildlife crime can themselves be harmful if not well designed

Some harms result from responses to wildlife crime that do not effectively target the core of the problem. For example, criminal justice responses that result in incarceration of lower-level participants in wildlife trafficking can have significant socioeconomic consequences that may not be proportionate to the role such people may have played in comparison to higher-level participants and those operating across

IUCN Red List conservation status of individual mammal, bird, reptile, and amphibian species recorded in seizures 2015–2021

Of the 1,652 mammal, bird, reptile and amphibian species recorded in seizures, 40 per cent have been classified as threatened or Near Threatened species (according to the *IUCN Red List*).



jurisdictions. Although comprehensive data on criminal justice responses are not available, individual studies indicate that low-level offenders tend to be those more likely to be arrested and incarcerated for involvement in wildlife crime. There is a risk that this creates an illusion of progress, with counts of seizures and arrests being poor indicators of the likely impact overall on levels of trafficking activity. Meanwhile, higher-level criminals simply find new people to front their operations.

Lack of consensus on the importance of different wildlife crime harms can hamper effective responses

Analysis revealed tensions between different perspectives of the harm resulting from wildlife crime. Some of the most dangerous illegal trade flows from a conservation perspective may involve low volume trafficking of highly threatened species, such as rare succulent plants and orchids for which this activity presents a genuine extinction risk.

However, the monetary value and the immediately obvious social and institutional harms associated with such trade are likely small compared with those related to species illegally traded in larger quantities. Conversely, lucrative criminality and multiple harms may result from trafficking of species still perceived as relatively plentiful, albeit subject to regulatory control of harvest and trade, such as those exploited in high-value fisheries and timber trades. Dissonance between these different perspectives on wildlife crime harms can challenge prioritization and pursuit of remedial action.

Conclusions and policy implications

- The case for action on wildlife crime would be strengthened by better articulation and quantification of how associated harms are linked to high-level policy concerns, such as climate, biodiversity, health and sustainable development goals.

Wildlife crime harms



- ▶ Greater attention should be paid to improving understanding of the interdependence between environmental, socioeconomic and governance factors in order to strengthen assessment of and responses to the harms of wildlife trafficking. For example, through further research on ecosystem and climate impacts, or on the specific health-related risks of illegal trade.
- ▶ Greater efforts are required to unite different perspectives on wildlife crime harms at a policy level.
- ▶ At a tactical level, there is a need for more comprehensive accounting for the cascade of interlinked environmental, socioeconomic and governance harms in wildlife crime risk assessment, with prioritization of remedial interventions.
- ▶ To enable such accounting, there is a strong need to improve the evidence base and articulation of indicators of risk and severity (such as risk factors for zoonotic disease and a clearer measure of conservation significance of seizures) for all types of harm arising from wildlife trafficking.
- ▶ Design of wildlife crime prevention and reduction strategies would benefit from the use of hybrid indicators that combine measures of different harms. Consideration of these may lead to the emergence of new priorities in terms of species, commodity types and geographies.
- ▶ The proportionality of criminal justice responses should be carefully considered to ensure that the greatest enforcement effort and most severe sanctions are directed to those playing the most serious and harmful roles in organized wildlife crime.

The forces driving wildlife crime are diverse, complex and evolving

Findings

Different factors drive criminality associated with wildlife trafficking at different stages of the trade chain: illegal sourcing, illegal trade, and demand in end markets. Financial gain from the profits of wildlife trafficking is a primary motivation for most participants in illegal sourcing and trade, but the context by which they become involved defines the scale and critical drive of their involvement.

Organized crime groups continue to profit from large wildlife trafficking operations

Case study research and other sources confirm that organized crime remains a significant factor in many illegal wildlife sourcing and trading chains. At source, professional remotely directed gangs have been active in elephant and tiger poaching, and industrial scale illegal fishing and logging operations are well documented. Sometimes convergence with other criminal businesses enables wildlife trafficking through power relationships with local communities, corrupt relationships, access to illicit firearms and opportunities for money-laundering. Along the trade chain, organized crime is evident in various specialized roles, such as export, import, brokering, storage, keeping and breeding live specimens or handling the interface with processors. There is evidence, for example from the rhinoceros horn trade, that traffickers can play an active role in manipulating demand in end markets to sustain or expand business opportunities.

Some participants in the trafficking chain are opportunists driven by basic needs for income

Organized criminal groups may play central roles in orchestrating the illegal sourcing of some commodities, but those doing the legwork may be opportunists, motivated by basic needs for income with limited understanding of the potential consequences of their actions. They may be particularly vulnerable when

regulatory change criminalizes what were previously legal activities and reduces immediate economic opportunities. Furthermore, involvement in poaching of some animal species may result from human–wildlife conflict, such as damage to crops by elephants or predation of livestock by big cats.

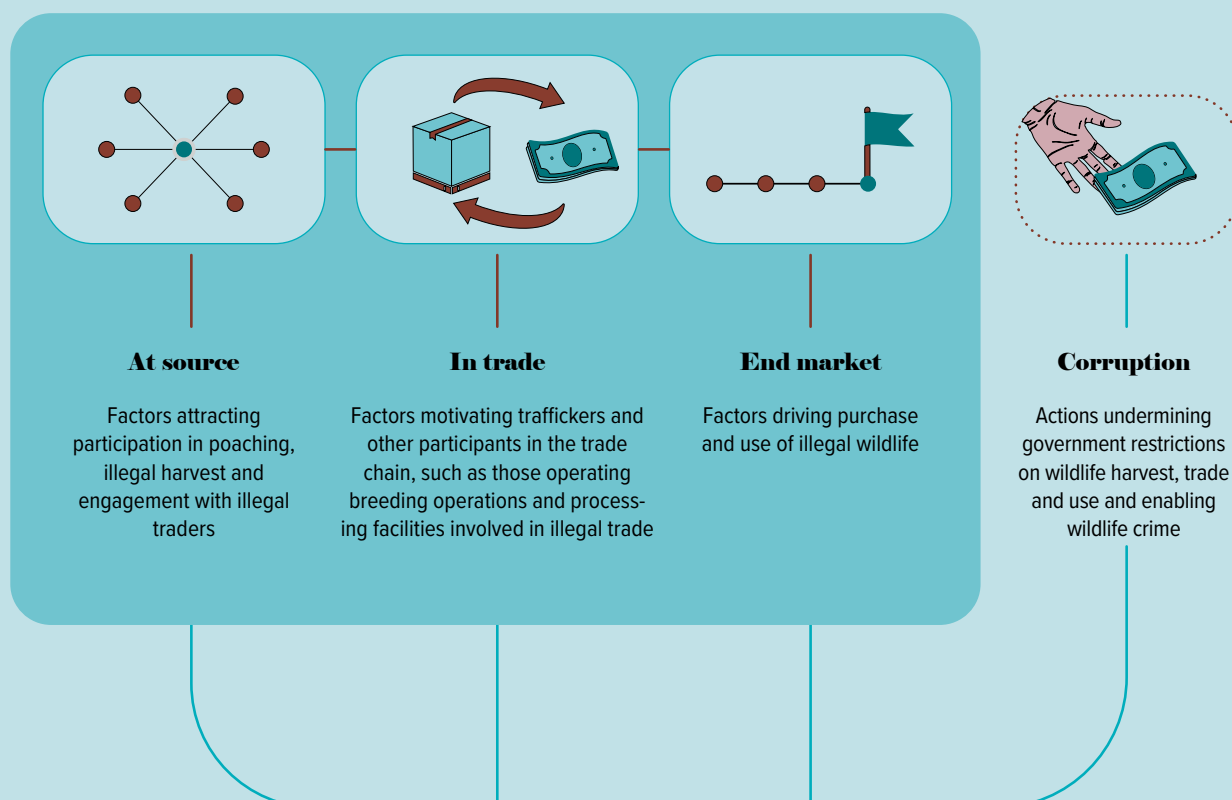
Traffickers exploit inconsistencies and weaknesses in regulation and enforcement

Participants along the illegal wildlife trade chain tend to adapt the methods and routes they employ to shifts in the regulatory and enforcement landscape for different commodities. For some commodities the full trade chain from source to end market operates in contravention of applicable legislation, but for others illegally sourced and traded goods can enter what may appear to be legal trade flows. This can happen when goods are laundered through ostensibly legal stockpiles or breeding operations but may also be because legislation applicable in the end market does not provide jurisdiction over illegal acts outside its territory. For example, timber harvested illegally may be infiltrated into the legal trade chain, then used to manufacture furniture and sold in another country where, even if a crime occurred at the source, there is no legal basis for intervention. However, traffickers exploit not only legislative inconsistencies but also weak law enforcement capacity. Several case studies in the current report show that, even when there is political will, the agencies responsible for implementation and enforcement of wildlife trade regulations may lack the capacity and resources they need to perform effectively.

Wildlife trafficking involves diverse demand clusters with different market drivers; traffickers adapt to and sometimes shape evolving markets to maximise their opportunities for profit

The characteristics of predominant demand clusters for species affected by wildlife trafficking result from different market drivers. For example, products used for food and medicinal uses are typically sought in bulk quantities that meet a particular quality requirement. If the same standard can be maintained, traffickers simply move to alternative species or localities as supplies become scarce to continue to meet the bulk demand. By contrast, for demand sectors in which rarity and exclusivity are key consumer

Drivers of criminality connected with wildlife trafficking



motivations, such as specialist live animal and plant collectors and status-conscious consumers of ivory or big cat skins, scarcity may simply attract more trafficking. In some cases, illegal traders appear to play an active role in shaping end market opportunities, promoting new use types to sustain or grow sales when existing uses lose popularity with consumers or face increased regulatory pressure.

Gender is a factor that shapes roles of people involved in wildlife trafficking

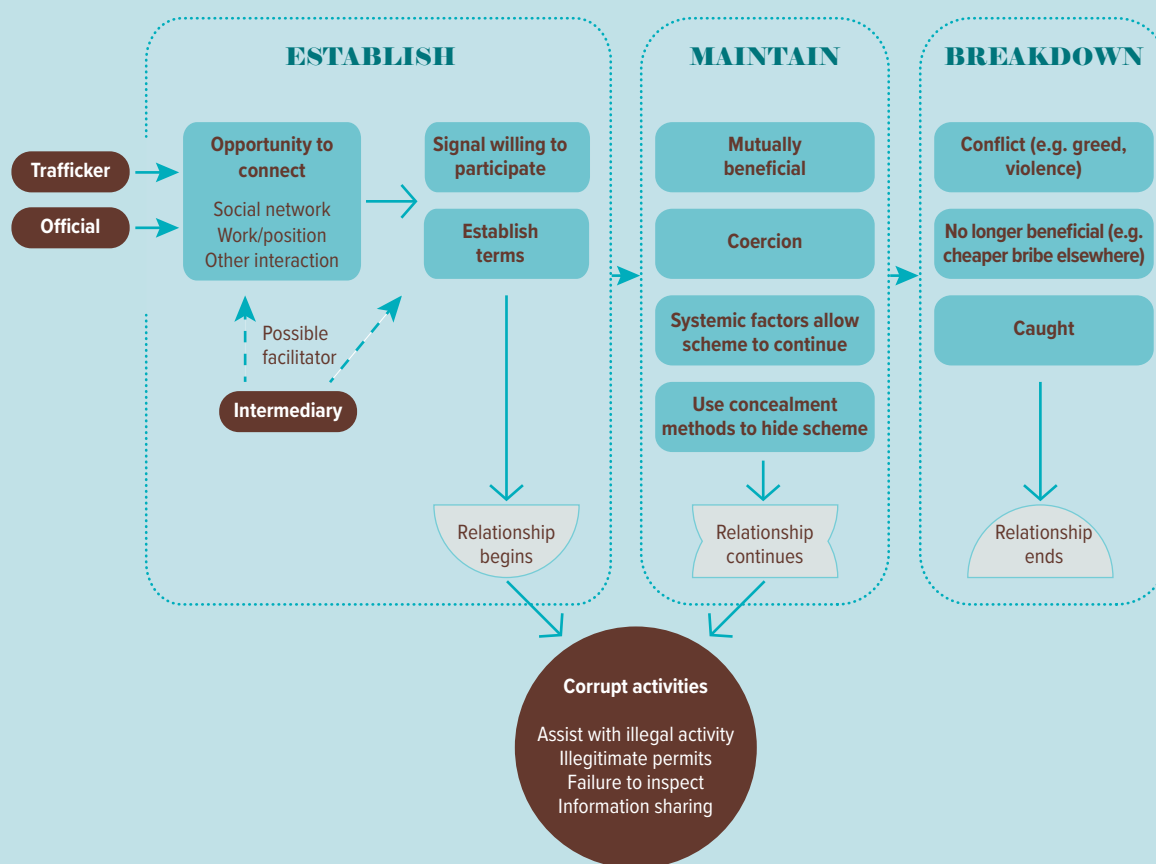
Across the trade chain from source to end market there are important gender-related drivers of involvement in wildlife crime. Research in South America for the current report illustrates how gender norms and roles shape individuals' participation in

wildlife-based economies, both legal and illegal. Influencing factors include different experiences of and access to wildlife, expectations within familial structures, and established role differentiation. In locations surveyed, women played prominent roles in primary processing and local sale of wildlife goods typically harvested by men. Involvement in wildlife crime exposed men and women to different risks, including exploitative practices and violence.

Corruption plays a critical role in undermining efforts to disrupt and deter wildlife trafficking

As highlighted in previous editions of the *World Wildlife Crime Report*, corruption plays a critical role in undermining efforts to disrupt and deter wildlife trafficking. This varies from bribery at inspection

Establishment, maintenance, and breakdown of corrupt relationships that facilitate transnational illegal wildlife trade



points along trade routes to ease the passage of illegal goods through to higher-level influence on permit issuance and criminal justice decisions. A review of case evidence for this report indicated that prosecution of those organizing or enabling wildlife trafficking under laws directly addressing corruption is apparently uncommon, despite such legislation often providing strong investigative powers and potentially higher penalties. Consultation with experts in this field showed that the factors shaping establishment and maintenance of corrupt relationships in relation to wildlife crime has much in common with those affecting other legal and illegal economic sectors. However, the evidence base for specific points of vulnerability to corruption in the wildlife trafficking chain and on the effectiveness of risk mitigation responses remains weak.

Conclusions and policy implications

- ▶ Actions to address wildlife trafficking would likely be more effective if planned and implemented as integrated components of wider strategies to resolve overexploitation of species and other related harms for distinct wildlife trade sectors, such as the rosewood or live reptile markets. The entry of criminal activity into such markets is a predictable by-product of piecemeal regulatory interventions within sectors with common supply and demand drivers. The risks of crime and possible responses should be factored into regulatory planning.
- ▶ If remedial interventions are to be successful, greater attention is needed on the complexity and

diversity of motivations for those involved in wildlife trafficking at different stages of the chain from source to end market. Gender dimensions of wildlife trafficking drivers and responses are also among the factors that require attention.

- ▶ Action on illegal sourcing needs to be designed with attention to the fact that profit-related motives may not always predominate, with basic livelihood imperatives and other social and cultural factors that could also be relevant. For example, prevention or mitigation of human–wildlife conflict can play a critical role in reducing poaching motivations for some species for which local communities may feel they are bearing too great a share of conservation costs.
- ▶ If regulatory interventions related to wildlife harvest and trade are likely to cause loss of economic opportunities for people with limited livelihood alternatives, compensation, or other pre-emptive actions should be considered to reduce the likelihood that they become involved in wildlife crime.
- ▶ Deterring serious criminal engagement requires serious enforcement responses through more incisive investigation of major beneficiaries and targeting enforcement action to undermine the financial motivations for trafficking.
- ▶ Interventions aimed to reduce wildlife trafficking need greater coherence and harmonization across the trade chain and between jurisdictions because there are currently too many opportunities for participants to keep adapting their methods and routes to exploit differences between legal regimes, enforcement gaps and new market trends.
- ▶ A starting point to reduce opportunities for trafficked wildlife to enter legal trade in other jurisdictions is to require stronger proof of legal sourcing for imports of wildlife goods, as provided for under CITES for listed species and, for example, under European Union law applicable to timber trade. Where legal systems allow, another opportunity to strengthen coherence of legal measures between jurisdictions is the enactment of provisions that designate the contravention of any applicable law concerning the protection or management of wildlife in another country as an offence, such as those applicable under laws in Australia and the United States of America.
- ▶ To reduce opportunities for laundering trafficked wildlife goods into legal trade chains further, consideration could be given to widening the range of wildlife trade related activities that are subject to legal control, for example by complementing controls on harvest or cross-border movement of wildlife goods with regulatory oversight of acts such as the offer for sale, purchase or possession.¹⁵
- ▶ There is a need for improved control of breeding operations and stockpile inventories for species subject to wildlife trafficking to reduce opportunities for laundering.
- ▶ Although some of the corruption challenges undermining action to address wildlife trafficking are not unique to this sector and require system-wide responses, more attention is warranted for sector-specific vulnerabilities. Of particular importance is the need to build robust corruption risk responses for specialized public sector roles such as harvest, breeding and trade permit issuance, animal health and phytosanitary inspection, and control of specialized retail outlets.
- ▶ Strengthening the basic capacity of agencies responsible for wildlife trade regulation and related law enforcement remains a critical priority for both deterrence and suppression of wildlife crime.

Counter wildlife trafficking interventions lack guiding evidence

Findings

There are clear advantages to be gained from enhancement of evidence about what measures are effective to address wildlife crime. Such knowledge can be used to prioritize, target, evaluate and refine wildlife crime interventions, employing the wide range of analytical and planning tools already in use in the wider crime prevention community. Such evidence would enable better assessment of the value of capacity and resource allocations and inform decisions about investment of scarce resources.

While evidence on effective interventions is weak, there are some lessons to be learnt

Analysis of available evidence on the effectiveness of different counter wildlife trafficking approaches reveals remarkably few published systematic assessments that draw a clear comparison between the situation before and after remedial interventions are made. Success is typically judged based on outcomes such as seizures, arrests and prosecutions, rather than through assessment of changes in crime levels, illegal trade volumes or relief of associated harms, like recovery of threatened species populations. Even when potentially informative impact data are available, such as on population levels of affected species, the level of resolution and other factors undermine their utility in establishing causal links to specific wildlife crime interventions.

Despite important evidence gaps, there is a growing body of research on the effectiveness of different wildlife crime responses and useful insights are emerging

Effective patrolling

Evidence-based analysis illustrates that the impact of anti-poaching patrolling in certain locations depends on particular circumstances: the habitat's accessibil-

ity; rangers' level of experience and numbers; the time spent patrolling; the longevity of patrols; the type of patrol conducted; the type of target and its mobility; and the bonus/incentives provided to patrollers.

Multi-track interventions

Review of wildlife trafficking case study examples suggests that more successful approaches include sets of mutually supporting interventions such as those that block opportunities, those that increase risks for criminal participants, and those that reduce rewards from crime.

Responses that involve both supply and demand

Multifaceted enforcement and market interventions have contributed to reductions in ivory trafficking and elephant poaching showing that effective responses likely need to involve both supply and demand side interventions.

Lessons can be drawn from evidence-based approaches in other crime sectors

Learning from research into other crime sectors may help with identification of remedial approaches that might have positive impacts in dealing with wildlife trafficking. Examples include geographic and commodity targeting, criminal behaviour forecasting, focused deterrence, and use of restorative justice approaches. Similarly, such research provides useful insights into crime displacement and avoidance of unintended and unhelpful consequences, such as social harms that sustain rather than deter crime motivations. Substantial guidance is already available on how such approaches could be applied more effectively to address wildlife trafficking.

Wildlife crime data resources are inadequate for effective impact assessment

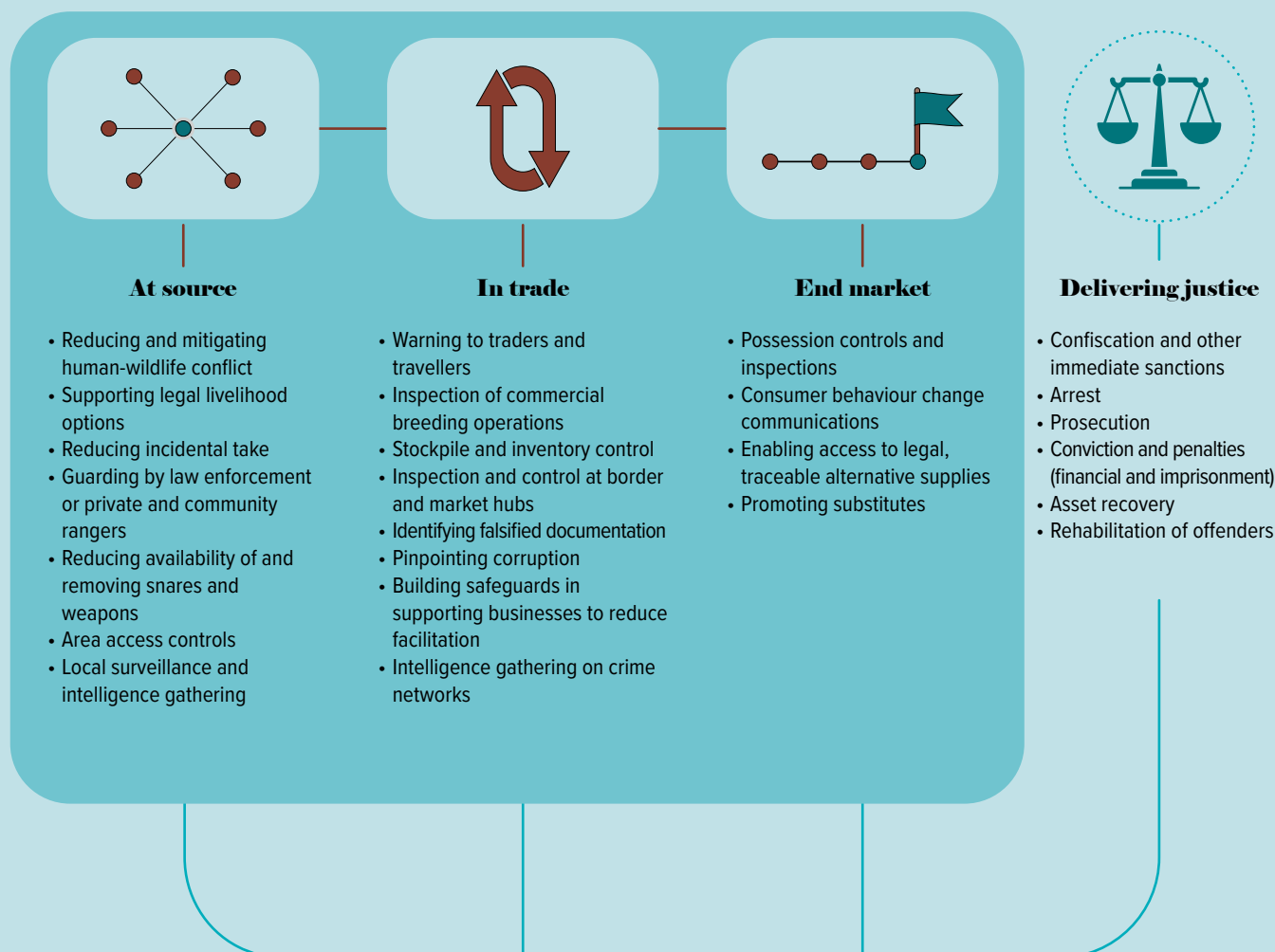
The most significant challenge to accumulation and use of evidence to assess effective responses is the lack of investment in monitoring and evaluation processes, including indicator development, data collection and structured assessment. Within relevant government systems, priority is usually given to direct operational intervention, with limited attention to collection and evaluation of associated crime data.

Evidence reviews indicate that data sources on wildlife crime are currently rather limited in terms of scope and accessibility compared to those available for other crime sectors for which policing results, crime perception and other surveys are available to researchers and the public in many jurisdictions. National datasets on wildlife crime are, in contrast, fragmented, short-term and difficult to access, with a bias towards information on seizures, particularly of illegal shipments of CITES-listed species. Information on enforcement effort, prosecutions, convictions, sentencing, reoffending and differentiation of data by gender or other factors is absent or very difficult to locate.

Conclusions and policy implications

- ▶ Improved approaches to assess what measures are effective need to focus on two levels of evidence and evaluation, the direct process-related results of interventions and the consequent impact on crime levels and associated harms. This will require greater cooperation between different communities of research and practice, including those involved in conservation and socioeconomic assessments, law enforcement and market analysis.
- ▶ A greater emphasis on collation and analysis of evidence on the results from wildlife trafficking responses is needed to guide decisions by policy makers, regulatory and enforcement agencies and funding agencies in deciding which remedial interventions to fund and implement in different circumstances.
- ▶ Action is needed to enhance the quality and coverage of wildlife seizure data, both geographically and in terms of species involved. This requires greater prioritization of seizure data collation and submission by individual government agencies, accompanied by capacity building and other support. Although the highest priority is to improve submissions of CITES Annual Illegal Trade Reports, systematic collation and sharing of seizure data for species not covered by CITES is also important.
- ▶ Seizures alone cannot confirm trends and characteristics of wildlife trafficking and other data types are needed, for example on levels of demand, commodity prices, retail availability and turnover, and metrics on criminal justice outcomes. Better knowledge is also needed about changes in different measures of environmental, socioeconomic and governance harm, and clearer differentiation by gender and other relevant factors.
- ▶ Collation and analysis of evidence could be enhanced by development and dissemination of data standards for different metrics and efforts to improve data interoperability and sharing.
- ▶ When relevant, data sources should be disaggregated by gender and other characteristics that might aid understanding of specific motivations for different participants in wildlife crime.
- ▶ Funding agencies are in a strong position to provide greater incentives and support for collection, sharing and analysis of evidence about the performance and impact of wildlife crime interventions. This cannot be achieved only through project activity monitoring and evaluation as it also requires investment in dedicated longer-term evidence and data collection and analysis.
- ▶ Improved analysis of emerging wildlife trafficking issues and trends will benefit from greater emphasis on triangulation between these different sources of evidence. Communities of practice for sharing both evidence and learning could greatly boost evaluation and refinement of wildlife crime interventions overall.
- ▶ Emerging evidence on successful wildlife crime responses and learning from research into what works in dealing with other crime sectors should be put to immediate use to refine responses to wildlife trafficking.

Wildlife crime operational interventions



Shaping the Enabling Environment

- Strengthening treaties and national laws
- Catalysing international and inter-agency cooperation
- Building capacity of implementing institutions and personnel
- Strengthening the wider criminal justice system
- Building general awareness of harms and impacts
- Researching, evaluating and guiding adaptation of wildlife crime responses

Looking ahead

Analysis in the current report demonstrates that wildlife trafficking is a persistent and ongoing global problem. Criminality continues to undermine the impact of laws aimed to reduce harm to nature from excessive trade in wildlife and causes a wide range of associated environmental, socioeconomic and governance harms. However, the current report also provides grounds for optimism. Some persistent wildlife trafficking sectors do appear to have been suppressed in recent years by multifaceted interventions. Although there is no room for complacency, any such progress warrants careful reflection to draw wider lessons about how the challenge of wildlife trafficking might best be met in the future.

New emphasis in this third edition of the *World Wildlife Crime Report* has been placed on assessment of the causes and impacts of wildlife trafficking and associated crime at a global level. Findings reinforce a critical message that the specific factors driving trafficking from source to end markets vary enormously between different illicit wildlife commodity sectors. Solutions therefore need to be tailored appropriately and there is great potential for ongoing wildlife crime research to assist these efforts by gaining insights into criminal structures, financial incentives, evolving demand patterns, and other diagnostic features of sectorial trafficking chains. Similarly, insights in the current report into the nature of and connectivity between different environmental, socioeconomic and governance harms clarify the need for more comprehensive indicators to enable prioritization and evaluation of the success of future actions.

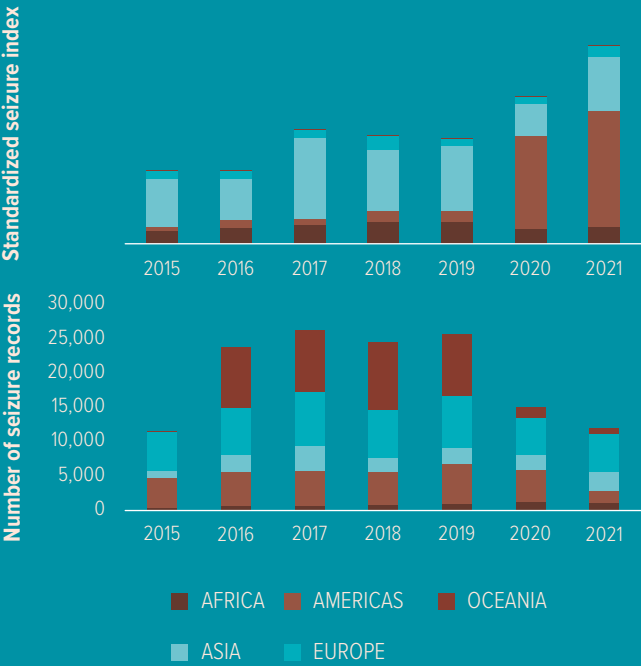
Finally, by probing evidence for what remedial interventions work best to reduce wildlife trafficking and associated criminality, the current report sheds light on major gaps in current knowledge. Looking ahead there is a clear need for comprehensive consideration of data and analytical needs to fill this void. Possibly even more important is the message that the concept of success in tackling wildlife trafficking needs unambiguous definition. Seizures, arrests, successful delivery of behaviour change campaigns and other interventions may all be positive outcomes, but without some insight into whether they are delivering long-term benefits to the wildlife species, people and institutions currently negatively impacted by wildlife crime, they may not be achieving their intended aims.

Endnotes

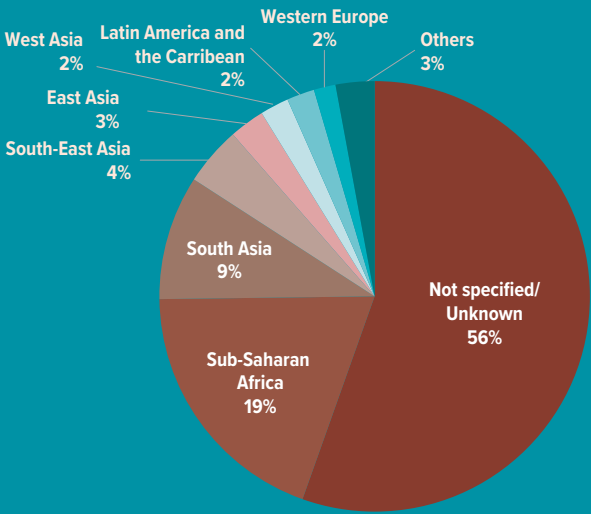
- 1 The number of CITES Annual Illegal Trade Reports received per year remained steady through 2016–2020 and was reduced by only about 10 per cent in 2021.
- 2 CITES Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances. CITES Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival. CITES Appendix III includes species that are protected in at least one country, which has asked other CITES Parties for assistance in controlling the trade.
- 3 Details of Sustainable Development Goal (SDG) indicator 15.7.1 at: <https://unstats.un.org/sdgs/metadata/files/Metadata-15-07-01.pdf>.
- 4 Records of legal trade and seizures were each aggregated using a standardized index of relative value. The scope of the indicator is currently restricted to legal trade and seizures of species listed in the CITES Appendices since data for other species are not available at the same level of resolution. See the methodological annex to this report.
- 5 A European Union enforcement coordination group was established in 1997, the Lusaka Agreement Task Force in 1999 and the ASEAN Wildlife Enforcement Network in 2005. In March 2024 the International Consortium on Combating Wildlife Crime (ICWC) website listed 14 active wildlife enforcement networks. https://icwc-wildlifecrime.org/sites/default/files/files/2024-03/WENs%20Focal%20Points%20-%20March%202024_0.pdf.
- 6 ICWC Letter of Understanding: https://cites.org/sites/default/files/i/icwc/mou_0.pdf.
- 7 The conferences were held in London, United Kingdom of Great Britain and Northern Ireland (2014 and 2018), Kasane, Botswana (2015) and Hanoi, Viet Nam in (2016). Outcomes of the 2018 conference: <https://www.gov.uk/government/publications/declaration-london-conference-on-the-illegal-wildlife-trade-2018/london-conference-on-the-illegal-wildlife-trade-october-2018-declaration>.
- 8 United Nations General Assembly resolutions on tackling illicit trafficking in wildlife: 69/314 of 30 July 2015; 70/301 of 9 September 2016; 71/326 of 11 September 2017; 73/343 of 16 September 2019; 75/311 of 26 July 2021; and 77/325 of 25 August 2023.
- 9 Results from a 2023 UNODC survey of Member State actions on illicit trafficking in wildlife can be found here: https://www.unodc.org/documents/commissions/CCPCJ/CCPCJ_Sessions/CCPCJ_32Reconvened/ECN152023_CRP12_2323139E.pdf.
- 10 Upcoming UNODC report: The Global Analysis on Crimes that Affect the Environment: Part 1 – The Landscape of Criminalization.
- 11 See: <https://icwc-wildlifecrime.org/news/successful-operation-highlights-growing-international-cooperation-combat-wildlife-crime>.
- 12 See: <https://icwc-wildlifecrime.org/news/operation-thunder-2023-2114-seizures-endangered-animals-and-timber-major-international-law>.
- 13 See: <https://www.unodc.org/unodc/en/environment-climate/webstories/omd-v.html>.
- 14 See United for Wildlife transport and finance sector task forces: <https://unitedforwildlife.org/our-taskforces/>.
- 15 UNODC, “Guide on Drafting Legislation to Combat Wildlife Crime” (Vienna, Austria: UNODC, 2018), https://sherloc.unodc.org/cld/uploads/res/guide-on-drafting-legislation-to-combat-wildlife-crime_html/Wildlife_Crime_ebook.pdf.

Regional Insights

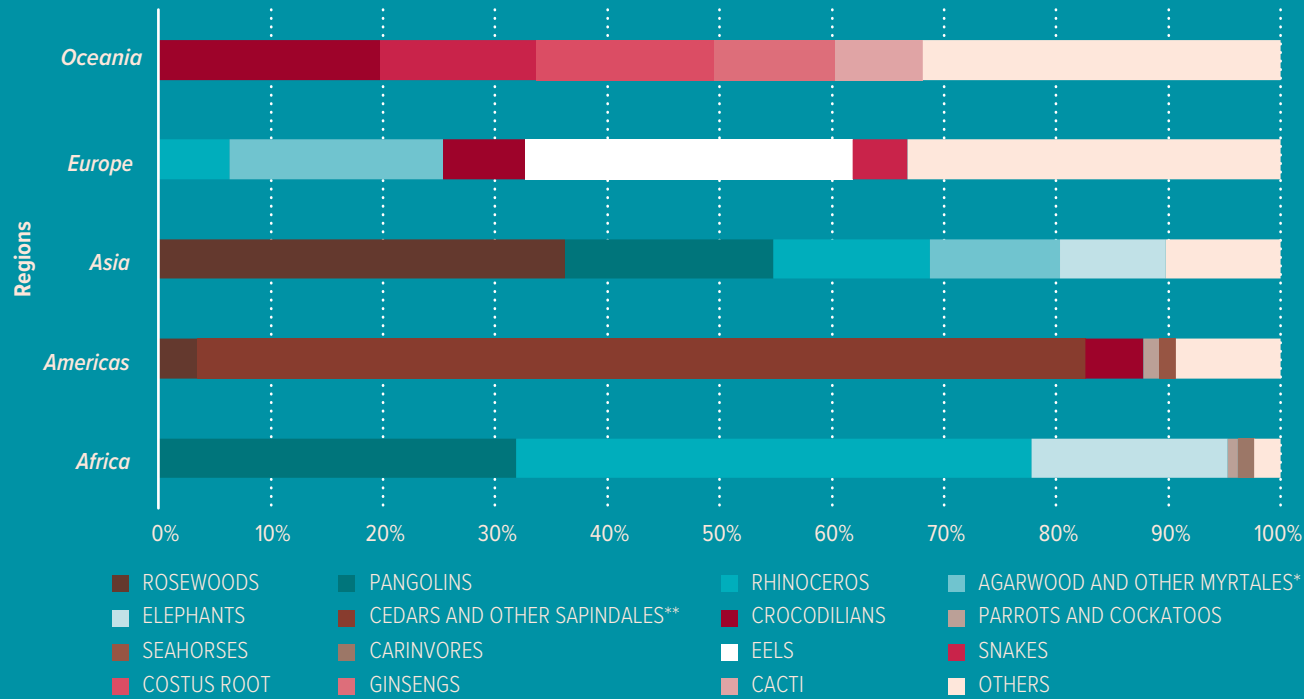
Regions where seizures were made, by standardized seizure index and by number of records 2015–2021



Percentage share of seizure records by subregion of shipping origin aggregated by standardized seizure index 2015–2021

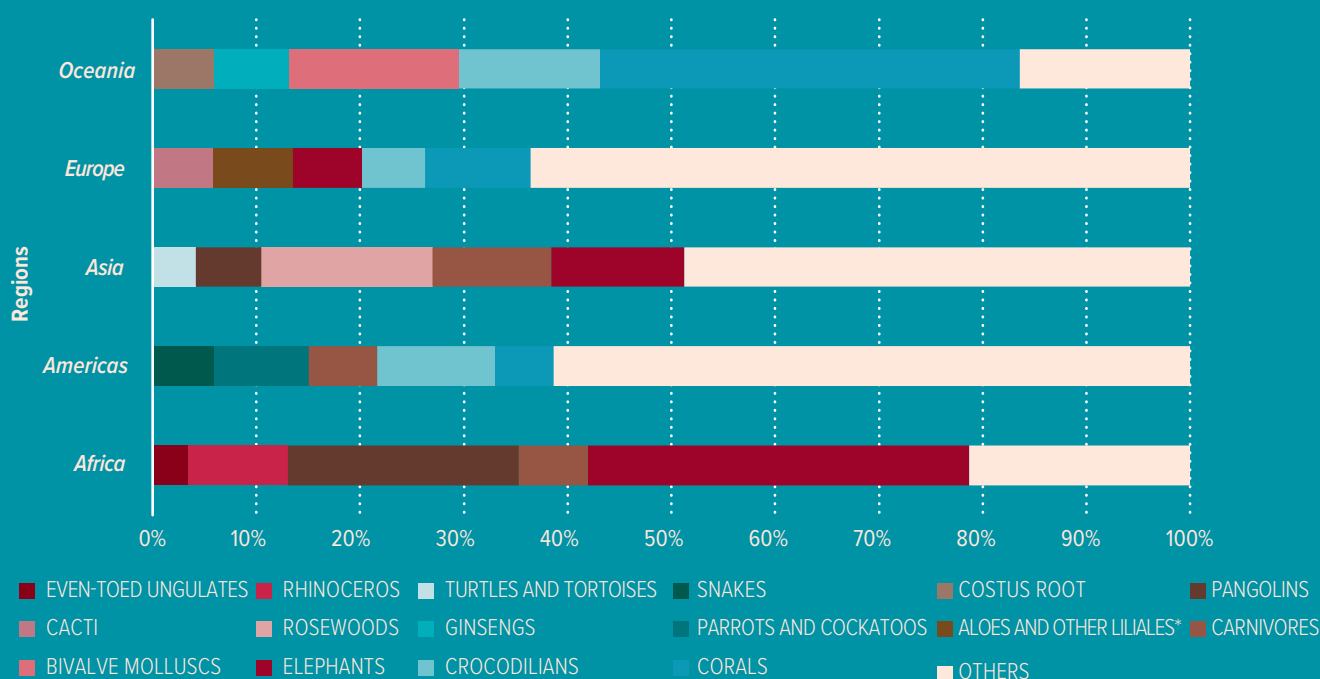


Percentage share of seizures by species group for each region aggregated by standardized seizure index 2015–2021



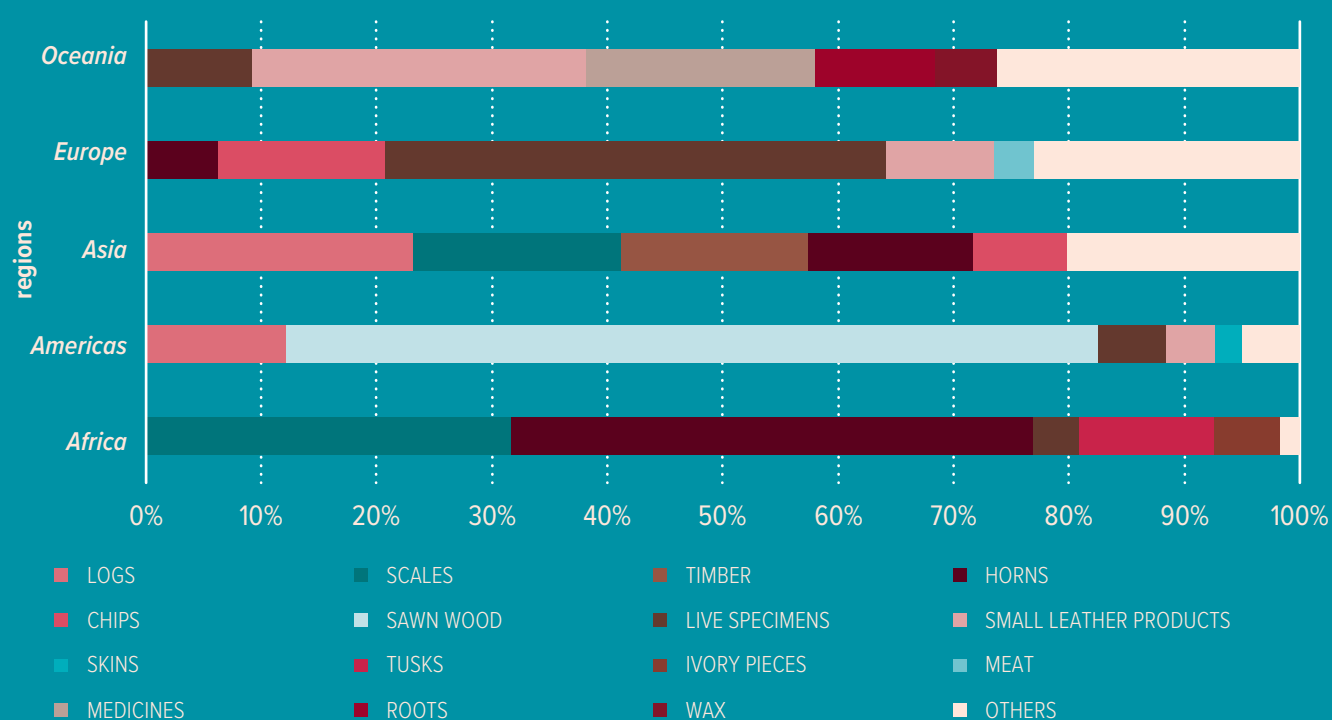
* Other Myrtales species include ramin and eucalyptus
** Other Sapindales includes guaiacum, holy wood and mahogany species

Percentage share of seizure records by species group for each region 2015–2021



* Other Liliales includes agave, snowdrop and yucca species

Percentage share of seizures by commodity type for each region aggregated by standardized seizure index 2015–2021



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This third edition of the *World Wildlife Crime Report* probes recent trends in the illicit trafficking of protected species of wild fauna and flora and provides a broad assessment of current knowledge about the causes and implications of associated crime at a global level.

As with the first two editions, published in 2016 and 2020 respectively, research carried out for this report included quantitative market assessment and a series of in-depth case studies. The findings inform an overview of recent characteristics and trends in global wildlife crime and provide insights into the dynamics of how it is affecting selected wildlife species. Additional emphasis for this edition is on systematic analysis of wildlife crime harms and impacts, factors driving crime trends, and the evidence for what remedial interventions work best.

The report was prepared in response to the United Nations General Assembly Resolution on Tackling Illegal Trafficking in Wildlife adopted in 2021. This resolution requested the United Nations Office on Drugs and Crime (UNODC), in close cooperation and in collaboration with Member States, to continue and strengthen the collection of information on patterns and flows of illicit trafficking in wildlife.

With the support of
The International Consortium on Combating Wildlife Crime (ICCWC)

