

TRAFFIC

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**ONLINE TRADE
IN HIGH VALUE
MARINE
PRODUCTS**

FROM SOUTH AFRICA: A RAPID ASSESSMENT

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TRAFFIC REPORT

ABOUT US

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Processed dried sea cucumbers on sale in Hong Kong SAR

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EXECUTIVE SUMMARY

Trade in high value marine products from Africa poses a severe threat to wild populations of threatened marine species. This threat is exacerbated by the growing online trade in these products, as the internet provides an open marketplace where the risks of wildlife trafficking are low due to ease of anonymity and the rewards are high due to low transaction costs and poor regulation.

To explore the potential use of online platforms for illicit trade in high value marine products, we surveyed adverts posted by South African seafood traders on the ecommerce platforms 21Food and Alibaba. The ten-day survey revealed a total of 203 unique adverts of which 101 were posted on Alibaba and 102 on 21Food.

The majority (95%) of adverts were for sea cucumbers, abalone, or fish maw (swim bladder). Adverts posted on 21Food included shark fins (n=3), shark meat (n=1), seahorses (n=7), fish maw (n=24), abalone (n=19), and sea cucumbers (n=48). Products advertised on Alibaba were less diverse, comprising only sea cucumbers (n=37), fish maw (n=33), and abalone (n=31).

From the 203 unique advertisements, 34 (17%) advertised products derived from species listed in the appendices of the Convention of International Trade in Wild Species of Fauna and Flora (CITES), including 26 adverts for CITES Appendix II listed *Holothuria* spp. sea cucumbers, seven adverts for Appendix II listed *Hippocampus* spp. seahorses and one advert for fish maws from the Appendix I listed Mexican Totoaba *Totoaba macdonaldi*.

The majority (74%) of adverts linked to CITES-listed species were listed on 21Food. None of the adverts for CITES-listed species provided evidence of CITES export permits for the products advertised or suggested an intention to obtain CITES permits in the event of an international transaction.

Advertisements for CITES-listed species were linked to 23 of the 70 trading company profiles found to be advertising high value marine products. Advertisements for CITES Appendix II listed sea cucumbers were linked to 17 traders, advertisements for CITES Appendix II listed seahorses were linked to six traders, and one trader advertised fish maw derived from the CITES Appendix I listed Mexican Totoaba. 51% of traders had posted adverts for more than one of the high value marine products surveyed.

Traders advertising products from CITES-listed species mainly claimed South Africa (29%) or Vietnam (21%) as the country of origin, although most (47%) did not include information on the origin of the products in their advertisements. Phone numbers were provided by 45 companies and 10 companies provided email addresses. Trading companies were found to be distributed throughout South Africa, with the majority (56%) located in Gauteng province, mostly in the city of Johannesburg (43%). Trading companies advertising CITES-listed species were also mostly located in Gauteng (57%), particularly Johannesburg (43%).

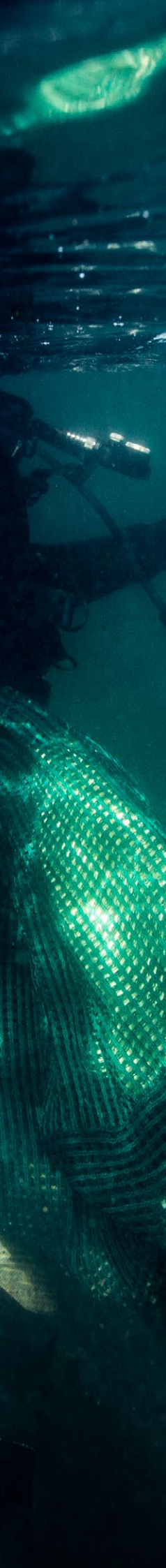
Although definitive conclusions cannot be made from the content of adverts alone, the results highlight the potential international online trade in CITES-listed marine species and their derivatives without the necessary CITES permits. Alibaba and 21food are encouraged to strengthen their counter wildlife trafficking protocols to ensure trade in wild species on their platforms is legal and sustainable. Law enforcement in South Africa are encouraged to consider the findings of this survey, and to further investigate businesses that may be trading in CITES-listed marine species and their derivatives on 21Food and Alibaba without the required CITES permits.

INTRODUCTION

A VARIETY OF LUXURY SEAFOOD PRODUCTS ARE TRADED OUT OF AFRICA, PREDOMINANTLY TO ASIAN CONSUMERS SEEKING STATUS FOODS AND TRADITIONAL MEDICINE (LOUW, 2020).

These include abalone, shark fins, sea cucumbers, and fish maws (swim bladders) which are valued as rare delicacies and symbols of wealth, and seahorses which are mainly processed into powder and used as a traditional medicine for a variety of ailments (Foster et al. 2019).

A diver brings harvested abalone to the surface in South Africa



These products are derived from wild populations in countries where fisheries and trade are typically poorly managed, and long supply chains linking sources in Africa to consumers in Asia make monitoring and regulation challenging (Louw, 2020). This raises the risk of illegal and unsustainable trade and brings marine species under increased threat from overexploitation.

Shark populations are threatened by the demand for shark fins in Asia and shark meat, predominantly in Europe and South America (Dent and Clark, 2015; Sadovy de Mitcheson et al, 2018; Niedermüller et al, 2021). This demand has contributed to a 71% decline in global abundance of oceanic sharks (Pacoureaux et al, 2021).

Illegally harvested abalone continues to be traded relatively freely out of South Africa despite numerous attempted law enforcement interventions (Okes et al, 2018). Continued unregulated trade in *H. midae* has resulted in the collapse of legal fisheries, and control of trade in wild caught abalone from South Africa has fallen into the hands of criminal syndicates (Raemaekers et al, 2011; Okes et al, 2018).

Fish maw is increasingly being used as a substitute for shark fins, and demand for maw derived from sought-after marine species such as the Chinese Bahaba *Bahaba taipingensis* and CITES Appendix I listed Mexican totoaba *Totoaba macdonaldi* has pushed wild populations to near-extinction (Sadovy de Mitcheson et al, 2018, 2019; Ben-Hasan et al, 2021). This overexploitation of priority species has led to an alarming trend of traders expanding the variety of target species to meet market demand (Ben-Hasan et al, 2021; Clarke, 2004). Africa is a growing supplier of fish maw, with over 80% of African coastal states supplying fish maw to Asia (Constant et al, 2020).

Sea cucumbers are slow to mature and breed and are easy to harvest, making them vulnerable to unsustainable catch and trade (Louw and Bürgener, 2020). Their high value has led many poorly managed African fisheries to overexploit wild populations leading to moratoria or complete fisheries collapse (Baker-Médard and Ohl, 2019;

Conand et al, 2022; Bruckner et al, 2003). This not only compromises African marine ecosystems, but threatens the livelihoods of coastal communities dependent on these fisheries (Baker-Médard and Ohl, 2019; Torrecastro et al., 2007).

Seahorse populations have suffered global declines due to overharvesting and habitat degradation (Vincent et al, 2011). Foster et al (2019) found that 95% of global dried seahorse exports are in breach of export prohibitions in the origin country. The endangered and nationally protected Knysna Seahorse *Hippocampus capensis* is endemic to South Africa and one of the most threatened seahorse species in the world, however large volumes of *H. capensis* have been imported by Hong Kong Special Administrative Region (SAR) in recent years (Lockyear et al, 2006; Louw and Bürgener, 2020).

Threats to the marine species from which high value products are derived are further compounded by the rising popularity of online shopping, and the increasing use of online trading platforms by wildlife traders (both legal and illegal). Illegal wildlife trade (IWT) is increasingly moving from physical to online markets (Siriwat and Nijman, 2020; UNODC, 2020).

Trading online makes it easier for wildlife traffickers to remain anonymous and the wide variety of online trading platforms at the disposal of traffickers means they can easily switch platforms to evade law enforcement (UNODC, 2020). Wildlife trafficking through online marketplaces is challenging to police as a lack of adequate regulation mitigates detection and prevention efforts and legislation governing wildlife trade is tailored to physical rather than online markets (Woolloff et al, 2022).

Cases of IWT are difficult to investigate based solely on online advertisements, as proof of sale is difficult to establish. Laws relating to e-commerce rarely prohibit the advertising of illegal wildlife and more often apply only to actual sales, which are more challenging to uncover if transactions are arranged through private messaging.

The Alibaba and 21food ecommerce platforms are both based in China and operate predominantly as business to business (B2B) marketplaces. Alibaba is well known as the largest online B2B trading platform. 21Food is less well known but is a leading B2B platform in the food industry.

Alibaba is one of 47 tech companies that have joined the Coalition to end Wildlife Trafficking Online, an initiative developed by TRAFFIC, IFAW, and WWF to prevent ecommerce platforms being used as marketplaces for illegal wildlife products. Companies that join the Coalition commit to adopting standardised policies on prohibited wildlife, training staff to detect illicit online wildlife trade, developing superior auto-detection filters, and enabling platform users to report suspicious listings.

Growing the Coalition facilitates sharing of best practices between platforms and reduces the chances of traffickers shifting activities to new platforms.

21Food is not a member of the coalition but may be a key candidate to join given the platform's potential to be exploited by traffickers of illicit wildlife looking to access Asian markets for high value marine products from Africa.

The aim of this survey was to gain a better understanding of online trade in high value marine products from South Africa on the Alibaba and 21Food ecommerce platforms and explore potential use of the two platforms for illegal trade in these products.

METHODOLOGY

The survey focused on five categories of marine products known to be traded out of South Africa, namely shark fins, shark meat, fish maw, seahorses, sea cucumbers, and abalone. Apart from shark meat, all the marine products surveyed are considered "high-value". Drawing on the methods used by Ong and Chin (2022) in their TRAFFIC rapid assessment of online trade in sea cucumber and fish maw, we surveyed both websites over a ten-day period for one hour a day for each marine product. We restricted our searches to sellers based in South Africa.

A list of search terms was developed for each product category, which included common, scientific, and local or colloquial names for the different marine products. Data were then analysed to determine what useful information could be gleaned from the online advertisements and to explore trends in the data that may point to potential illicit trade in high-value marine products from South Africa.

RESULTS

The survey yielded a total of 203 unique advertisements (adverts) for high-value marine products (101 adverts on Alibaba and 102 adverts on 21Food). Adverts for sea cucumbers, fish maw, and abalone made up 95% of this total (Figure 1) and 100% of the adverts found on Alibaba (Figure 2). 21Food included a wider range of marine products being advertised (Figure 2), including adverts for seahorses (n=7), shark fins (n=3), and meat (n=1). Shark fins and meat are aggregated in the survey analyses.

Information relating to volumes and values of the marine products being advertised was found to be inconsistent, highly variable, and seemingly arbitrary. It is also not possible to verify whether the supply abilities and price ranges claimed by sellers were reflective of actual trade. For these reasons our analysis did not cover value and volume, and instead focused on the number of adverts for each commodity surveyed and the number of traders associated with these advertisements.

34 adverts included species for which trade is controlled by CITES, comprising 17% of the

adverts surveyed. This included 26 adverts for CITES Appendix II listed sea cucumbers, seven adverts for Appendix II listed seahorses, and one advert for fish maws from the Appendix I listed Mexican Totoaba *Totoaba macdonaldi*. Adverts for CITES-listed sea cucumbers included 18 adverts for White Teatfish *Holothuria fuscogilva*, two adverts for Black Teatfish *Holothuria nobilis*, and six adverts that referred to both black and white teatfish species. Adverts for seahorses were not species-specific and only claimed to have supply of “dried seahorses”, however the higher taxon listing of all seahorse species in Appendix II of CITES means any seahorse being traded internationally requires a CITES permit. The majority (74 %) of adverts linked to CITES-listed species were listed on the 21Food platform. None of the 34 adverts for CITES-listed species mentioned that CITES permits were required for international trade for the species being advertised or provided any evidence of existing permits or an intention to acquire CITES permits.

FIGURE 1
Percentage of adverts for each surveyed marine product (n=203).

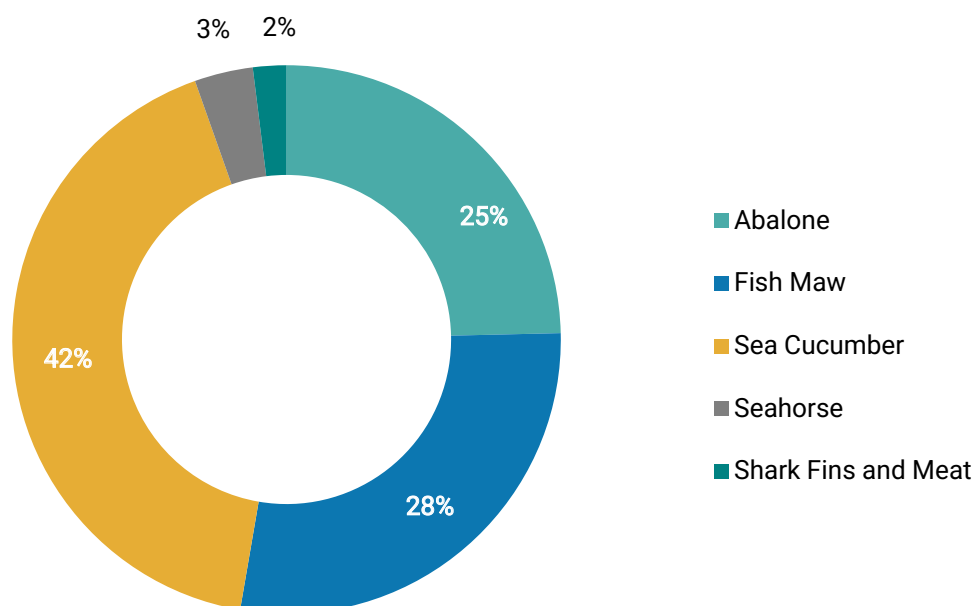


FIGURE 2

Comparison of numbers of adverts for each marine product for 21Food and Alibaba.

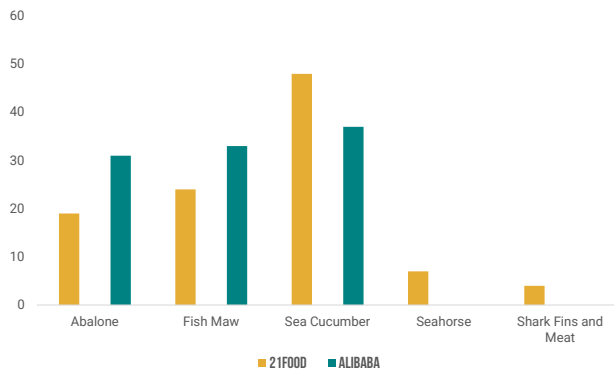
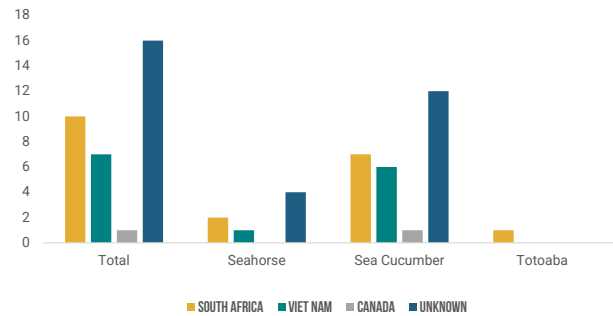


FIGURE 3

Number of adverts for CITES listed species per origin country.



South Africa and Viet Nam were the main countries of origin claimed by sellers advertising CITES-listed species, with one advert claiming Canada as the origin country for White teatfish *H. fuscogilva* sea cucumbers (Figure 3). Most of the adverts (47%) for CITES-listed species did not include information on the country of origin. It must also be noted that it is not possible to verify the countries of origin claimed by sellers. For example, the claimed origin of Mexican Totoaba maw was South Africa, which is not possible as this species is only harvested off the coast of Mexico, and similarly *H. fuscogilva* does not occur in Canadian waters.

A total of 70 trading company profiles were linked to all the advertisements in the survey. The top 20 traders by number of adverts listed accounted for 123 of the 203 adverts (61%). The majority (60%) of traders had multiple adverts captured in the survey. More than half (51%) of the traders advertised two or more of the marine products surveyed, suggesting connectivity between markets for the marine products surveyed (Figure 5). 23 traders advertised CITES-listed species. 17 traders posted adverts for CITES-listed sea cucumbers, six traders advertised seahorses and one trader advertised Mexican Totoaba fish maw. One trader had separate adverts for CITES-listed seahorses and sea cucumbers.

FIGURE 4

Percentage of adverts for CITES listed species per origin country (n=203)

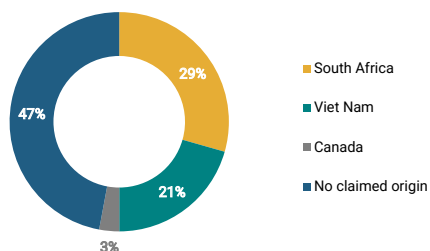
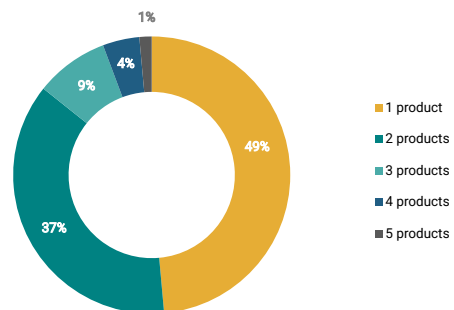


FIGURE 5

Percentage of traders advertising multiple high value marine products.



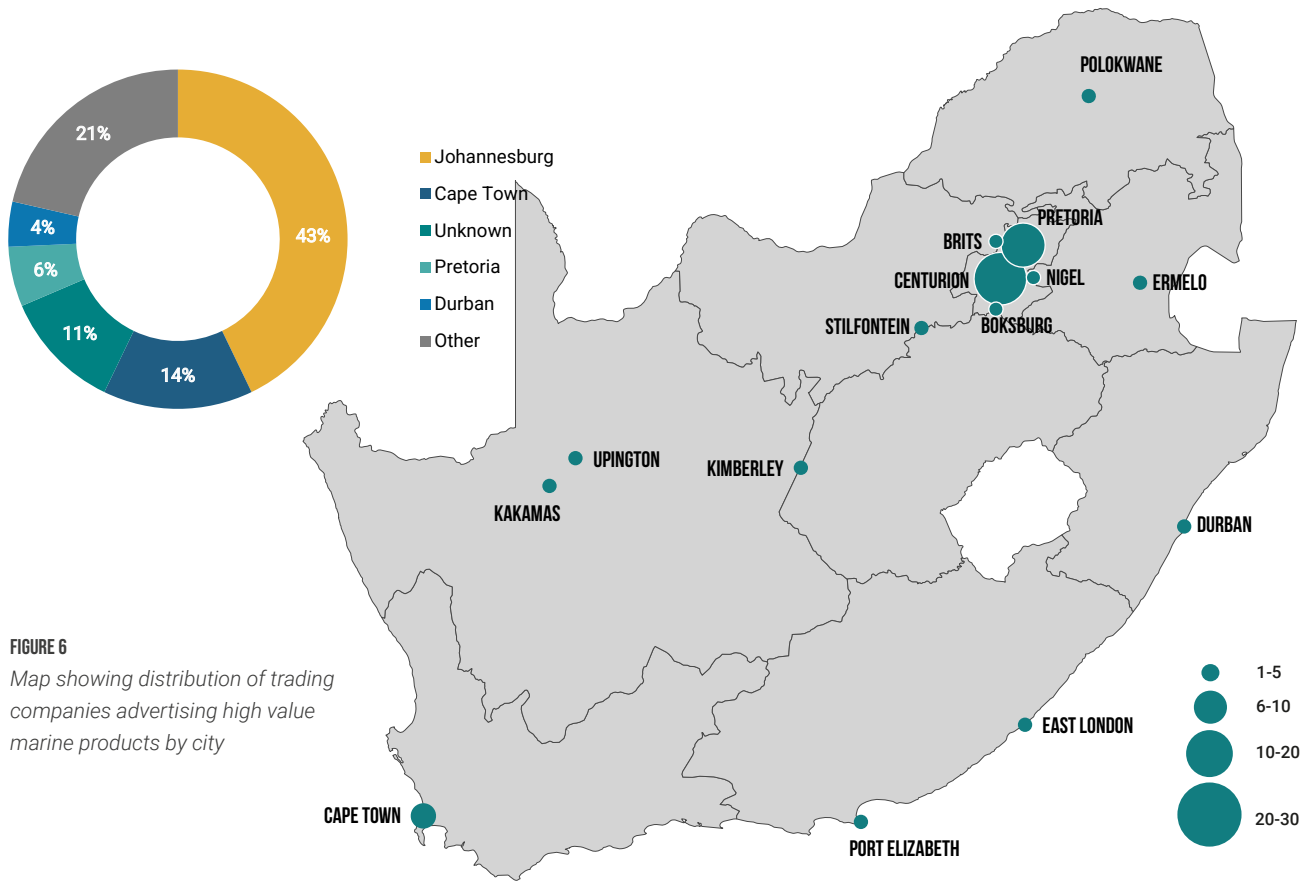


FIGURE 6
Map showing distribution of trading companies advertising high value marine products by city

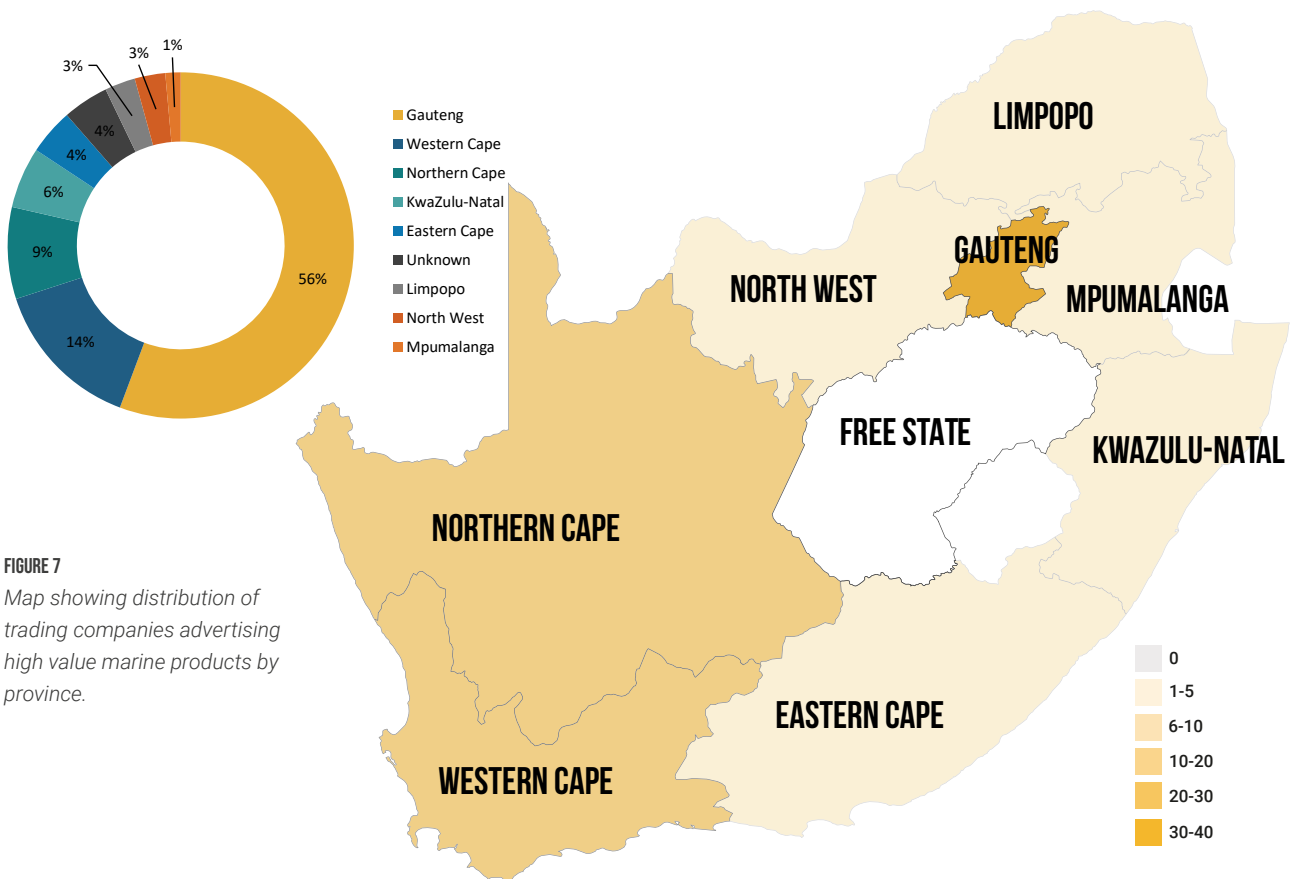
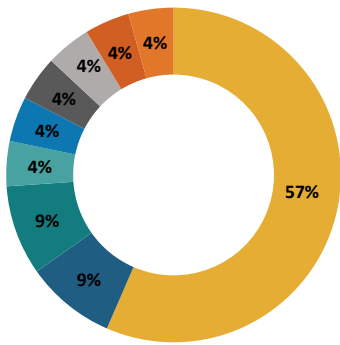


FIGURE 7
Map showing distribution of trading companies advertising high value marine products by province.



- Gauteng
- KwaZulu-Natal
- North West
- Eastern Cape
- Limpopo
- Mpumalanga
- Northern Cape
- Western Cape
- Unknown

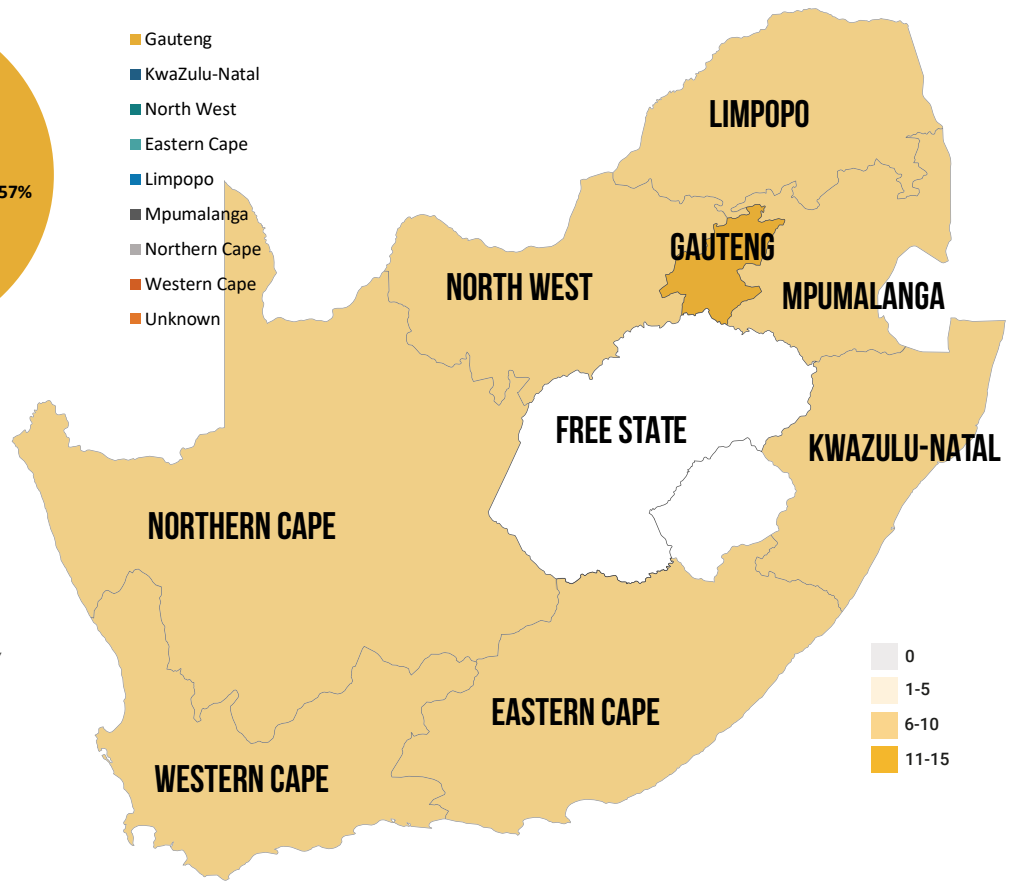
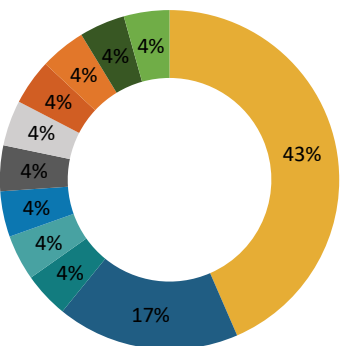


FIGURE 8
Map showing distribution of trading companies advertising CITES listed marine species by province.



- Johannesburg
- Unknown
- Brits
- Cape Town
- Durban
- East London
- Ermelo
- Kimberly
- Nigel
- Stilfontein
- Vereeniging

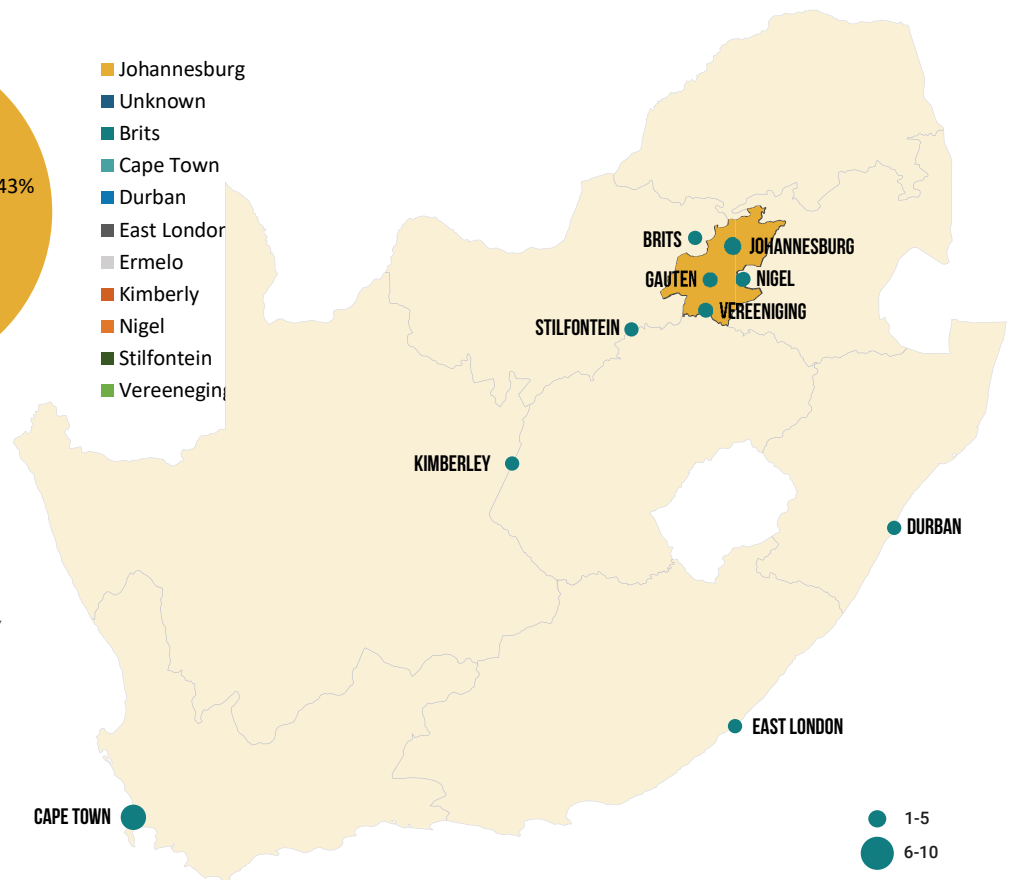


FIGURE 9
Map showing distribution of trading companies advertising CITES listed marine species by city.



DISCUSSION AND CONCLUSION

The results of this rapid assessment highlight the potential international online trade in CITES-listed marine species and their derivatives on 21Food and Alibaba without the necessary CITES permits from South Africa. The high-value products assessed in this survey are all sourced from wild populations of marine species, of which many have experienced population declines due to unsustainable exploitation.

Several irregularities in the claims made by sellers raise suspicions regarding the authenticity of online adverts for high value marine products. Based on the seller's claimed country of origin, many of the marine products advertised are apparently imported to South Africa from Viet Nam, with a view to re-exporting to buyers. However, this would be a seemingly illogical trade route, as consumer markets for these high value marine products are in Asia. Some sellers advertised marine species for which the claimed country of origin falls outside of the natural distribution range of wild populations of these species. Totoaba fish are harvested in the gulf of California and could not have originated in South Africa, and similarly, White Teatfish do not occur in Canadian waters.

Despite increasing awareness and improved implementation of marine trade regulations in many countries, the lack of required monitoring and reporting infrastructure for effective enforcement remains a challenge. The trade in high-value marine products out of Africa is often characterised by poor implementation of trade regulations, insufficient monitoring and law enforcement, and under or misreporting of exports.

Woolloff *et al* (2022) define "illegal wildlife trade online" as "cases in which CITES-listed wildlife

is offered for sale without mention or display of relevant CITES permit". No CITES permits were mentioned or made visible in the 34 advertisements for CITES-listed species found in this survey. The Appendix II listed species offered for sale may potentially be sold with the necessary permits in the event of a transaction, but it is not possible to verify this based on the advertisement alone if no information on CITES permits is provided. Mexican Totoaba fish are listed in Appendix I of CITES and are prohibited from commercial trade, meaning the Totoaba maws found to be advertised for sale on Alibaba are unlikely to have a CITES permit. The findings of this survey provide valuable baseline information on high-value marine products advertised for sale online by South African traders, and can be used to inform the development of improved protocols for regulating online trade. The findings of this study along with details of the online trading companies advertising high-value marine products will be shared with South African fisheries, customs, and law enforcement officials to aid ongoing monitoring and surveillance efforts. The findings of this research have already been shared with a legal representative from 21Food and with the Coalition to End Wildlife Trafficking Online's focal point at Alibaba.

Given this is a rapid assessment based on limited data from online advertisements alone, it is not possible to draw definitive conclusions from the survey. However this research is useful for highlighting areas of online trade that may require further investigation to confirm trade in these products is legal and sustainable. The presence of advertisements for threatened marine species and their derivatives online raises concerns that trade may be taking place illegally and undermining marine conservation and sound fisheries management efforts.

RECOMMENDATIONS

ENGAGE WITH ONLINE COALITION

We recommend that 21Food engage with the Coalition to End Wildlife Trafficking Online to confirm their eligibility to join the coalition, and to introduce protocols and staff training to build capacity to limit the potential for wildlife trafficking on the platform.

INVESTIGATE LOCAL BUSINESS

We encourage law enforcement in South Africa to further investigate local seafood export businesses that may be engaging in international online trade in CITES-listed marine species and their derivatives on 21Food and Alibaba without the necessary CITES permits.

NEW ONLINE PROTOCOLS FOR CITES PERMITS

We encourage law enforcement in South Africa and Alibaba to introduce online protocols that make it mandatory for sellers to verify they have CITES permits for any CITES-listed species being advertised.

ONGOING ONLINE SURVEYS OF ADVERTS

We recommend 21Food and Alibaba conduct regular internal surveys (similar to the survey conducted for this report) to detect any adverts on their respective platforms that may be associated with IWT.

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