

species. This is big science, involving the work of thousands of botanists over centuries. One of the challenges for the creation of the database was a paucity of available information on the floras of certain regions. The database contains country-level records but also incorporates province-level data for Brazil, China, South Africa and the USA. BGCI encourages submissions from regions where data may not be as readily available, to improve the database. In addition, there is scope for increasing the amount of regional data for other countries as new data become available. For example, island-level data for countries such as Indonesia and the Philippines would be useful for conservation planning and forestry.

BGCI's main reason for undertaking the challenge of documenting tree diversity was to provide a tool for people trying to conserve rare and threatened tree species. GlobalTreeSearch will form the backbone of the Global Tree Assessment (Oryx, 2015, 49, 410–415), an initiative to assess the conservation status of all tree species by 2020. This will allow the prioritization of the tree species that are most in need of conservation action so we can ensure that no tree species is lost forever. Current knowledge suggests that at least one in five tree species are threatened with extinction, although this is likely to be a substantial underestimate.

The database will also be used by forestry and restoration practitioners. GlobalTreeSearch contributes to Target 1 of the Global Strategy for Plant Conservation (An online flora of all known plants) and will have direct uses in monitoring and managing tree species diversity, forests and carbon stocks. The database is not a static entity, and will be updated as new information becomes available.

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### Bycatch and illegal wildlife trade on the dark web

The dark web has caught the attention of the conservation community because of the surge in interest in the illegal wildlife trade. Following our initial systematic study of wildlife trade over the dark web (Harrison et al., *Conservation Biology*, 2016, 30, 900–904), we have continuously monitored it for further evidence.

One year on, the primary form of business is what we term illegal wildlife trade as bycatch. This refers to wildlife products that are being traded illegally over the dark web, but the reason they are being traded in this forum is that they are potentially illegal for other reasons: the fact that they are wildlife or potentially illegal wildlife is incidental. The two primary forms of illegal wildlife trade as bycatch that we have found are cacti traded for their hallucinogenic properties (Harrison et al., op. cit.), and counterfeit high-end products, notably Chanel handbags, that happen to

contain reptile skin. Although it is not possible to verify whether the skins are real or fake, given the price, the high-quality fake Chanel certificates, fake packing tissue paper and the fact that on the dark web a seller's reputation is crucial, the evidence suggests that the skins themselves are likely to be genuine.

There are, however, a few other interesting cases of illegal wildlife trade that are worthy of mention. In our monitoring we focused mostly on high-profile products of conservation concern, principally rhino horn and elephant ivory. So far we have found only three cases of rhino horn for sale. The first appears to be a rather unsophisticated sting operation by a South African investigative journalist group or, less likely, a scam.

The second case is the first credible attempt we have found to sell ivory and rhino horn on the dark web. The items were found on AlphaBay, probably the largest and most popular dark web market. The vendor's store consisted entirely, until mid 2016, of prescription drugs, but in August 2016 a pair of tusks were added, reportedly from the 1960s, and four rhino horns. Having evaluated the information associated with these items, in particular their price and the accompanying image used, and the seller's excellent feedback rating, we conclude the items are genuine. The pictures accompanying the items are cropped from images belonging to the U.S. Fish and Wildlife Service. This may raise questions about the items; however, it is possible that the vendor has merely selected an image from the internet; currently, the items remain unsold.

The third case, also on AlphaBay, is of a seller that seems to have started operations more recently, and most of the items have been on display only since late January 2017. This vendor has a relatively high number of illegal wildlife trade-related items for sale; these include a black rhino horn, an elephant tusk, an ivory statue and an ivory case. Again, and despite their relatively large number of illegal wildlife trade-related products on offer, the vendor has no reported sales. We have not been able to locate copies of the images on the clear web or geo-location data.

So far, we conclude that illegal wildlife trade is occurring over the dark web but only in small quantities. Its most common form is as bycatch, in which the products are potentially illegal for other reasons. We believe we have identified three clear instances of non-bycatch illegal wildlife trade, and therefore continued monitoring is warranted. However, it is unclear whether these few products are on the dark web because of their illegality or whether it is because the vendors are already engaged in other illegal activities that are more prevalent on the dark web. Inadequate enforcement over the clear web means there is still little incentive to move significant quantities of wildlife trade onto the dark web. Again, we warn against sting operations by journalists, conservationists and others (Harrison et al., op. cit.), as this could provide incentive for a move onto

the dark web, where law enforcement faces much greater challenges.

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### Instagram-fuelled illegal slow loris trade uncovered in Marmaris, Turkey

Exploitation of wildlife on social media is becoming a matter of international concern. Even the most commonly used social media platforms, including Facebook, Twitter, YouTube and Instagram, remain unresponsive to the exploitation of protected species illegally kept as pets and featured in hundreds of viral images and videos. Researchers have shown that people who see threatened species in a human context perceive them as less threatened and as suitable pets. Asia's slow lorises (*Nycticebus* spp.) are one taxon heavily exploited on social media and featured as both pets and photograph props for tourists. Until now the latter threat has been largely restricted to Thailand, as made infamous by a selfie of pop singer Rihanna, who posted on Instagram an image of herself in Thailand in 2013 with two illegally traded pygmy slow lorises (*N. pygmaeus*). Here we present the first evidence of the expansion of the tourist photograph prop trade of slow lorises into Europe. Through exploration of Instagram and direct observations in Turkey, we highlight the popular tourist destination Marmaris, Turkey, as a prime location for slow loris photograph props.

We located photographs on Instagram of animal props in Marmaris, including 135 of slow lorises (37% showed *N. pygmaeus* and 63% showed the Bengal slow loris *N. bengalensis*) posted between August 2012 and January 2017. Other wild animals appearing in posts included sugar gliders, macaws, turtles, vervet monkeys and rabbits. In the posts with slow lorises, uploaders hash tagged them as slow loris, lemur, monkey or bushbaby. Although 83% of the photographs were taken at night, the remainder showed the slow loris paraded in bright daylight; 62% of photographs featured

the slow loris dressed in clothing. Females (84%) were much more likely to post a photograph of themselves with a slow loris than males (16%).

To obtain presence data and assess the welfare of slow loris photograph props first hand, we conducted two investigations in Marmaris in April (7 days) and June (4 days) 2016. When we located wildlife photograph props we recorded the species and descriptive information on health and welfare. We collected evidence while posing as normal tourists, without encouraging or promoting the illegal wildlife trade.

We located two Bengal slow lorises (one juvenile and one adult), and one adult pygmy slow loris in a beach bar in Marmaris. The vendor referred to the slow lorises as lemurs, whereas the bar owner referred to them as sloths. For 10 lira (c. USD 2.75) tourists could have their photograph taken by the vendor and printed out to take away, or they could play with the slow loris, and take photographs with their own devices. Although we did not observe slow lorises during daylight, hours, the bar contained bright lights, and flash photography was frequently used, causing both stress and potential damage to the sensitive eyes of the slow lorises.

When not being used to entice tourists or being held by tourists, the slow lorises were stored behind a small DJ booth. They were fed unsuitable foods, including cherries, grapes and even a wedge of orange taken from a cocktail. Feeding by the vendor or the tourists occurred only when tourists paid to play with the animals. Contrary to evidence we gathered from Instagram, we did not observe slow lorises dressed in clothing. Both of the Bengal slow lorises had had their teeth clipped; this is normally done to prevent them from inflicting their venomous bite.

Bengal and pygmy slow lorises are categorized as Vulnerable on the IUCN Red List and included on Appendix 1 of CITES, and capturing them is illegal in all range countries where they occur. According to the CITES Trade Database, no non-human primate has ever been legally imported into Turkey, confirming the illegal import of these individuals. Efforts are needed to continue to raise awareness of the plight of slow lorises. Without a change in attitude from the public, the use of slow lorises as photograph props is likely to continue and to spread.

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### A new seed bank for Hispaniola to support the conservation and sustainable use of the Caribbean native flora

In the Caribbean Islands global biodiversity hotspot, a highly diverse flora (13,000 plant species, of which 6,550 are endemics) struggles to coexist with a high human population