## Smithsonian.com

## New Report Finds at Least One in Five Terrestrial Vertebrate Species Are Traded Globally

The research team also predicts increased trade going forward



Photo shows seized pangolin scales and elephant ivory in Singapore this July (Xinhua/Then Chih Wey via Getty Images)

By Claire Bugos smithsonian.com October 7, 2019 12:39PM 220011

Roughly one in four mammals and birds, one in eight reptiles and one in ten amphibians aren't free to walk, fly or slither, according to findings in a study published last week in *Science*. Per the report, 5,579 of the 31,500 known terrestrial vertebrate species are caught in the global

wildlife trade. This figure is 40 to 60 percent higher than previous estimates.

"We are revealing the sheer magnitude of what this multibillion-dollar industry represents," study co-lead author Brian Scheffers of

ttp://www.imthorainmag.com/matrivess-science/new-report-finds-one-five-terretarial-vertehrate-spocks-are-traded-globally-180971231/hdm source-verithoriandals/dutm medium-emailidam campsign=0391007-daily-responsiveR.goballnigi0=08233218.gci.scnt-0-17s/HTR/TPAMF6/58.gcidoth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-1500840558.gcReport-id-HTV/MCV4ADAM/S/Scarboth-150084058.g

## Smithsonian.com

University of Florida tells Dina Fine Maron at *National Geographic*.

The illegal wildlife trade is valued at anywhere from \$8 to \$21 billion, making it one of the largest illegitimate industries. The effect of trade on any particular species ebbs and flows along with cultural trends and changes in taste. For instance, when the Harry Potter franchise was at peak popularity, so was the owl trade in Asia. With the depletion of tigers, there are greater numbers of lion and jaguar parts in the Chinese black market.

"In wildlife trade, there's this market force that's intensively focused on individual species," Scheffers tells Rachel Nuwer of <u>Scientific American</u>. "A species that was safe 10 years ago can quickly transition to nearing extinction."

In lieu of a comprehensive database, the research team pulled their data from the International Union for Conservation of Nature (ICNU) Red List and the Convention on International Trade in Endangered Species (CITES). Once they determined which species are being impacted, they used species range maps to pinpoint hotspots of exploitation. At the epicenter of the trade are biodiverse tropical regions including South America, South East Asia and Central and Southeast Africa.

While the ICNU and CITES provided the most complete data, the researchers also relied on countries' self-reporting for the study. Because of that, experts estimate that the real numbers of traded species and those at risk are actually higher than this study reports.

"The takeaway is that there are a lot of species in trade or that will be in trade that need to be paid attention to," Susan Lieberman, vice president of international policy for the Wildlife Conservation Society, tells *National Geographic*. "It also highlights there needs to be more attention on amphibians and <u>birds</u> not currently listed in <u>CITES</u>."

The team didn't just chart the diversity of animals involved in this industry, but also analyzed their data to predict what animals may soon fall into the hands of traders. Specifically, by using their findings on which animals are the most coveted, the researchers were able to create a model to predict the species at greatest risk of exploitation in the future, such as animals that are large, have distinct physical characteristics and are genetically similar to popularly traded animals.

The team's analysis warns that more than 3,000 wild species are poised to join the market. With the development of capture and transport technology, some experts believe the wildlife trade may escalate beyond that.

In the study, the team warns that their findings are "especially important because species can quickly transition from being safe to being endangered as humans continue to harvest and trade across the tree of life."

"Our assessment," they add, "underscores the need for a strategic plan to combat trade with policies that are proactive rather than reactive."

 $\label{lem:matter} \textbf{Read more:} \ \frac{\text{https://www.smithsonianmag.com/smartnews-science/new-report-finds-one-five-terrestrial-vertebrate-species-are-traded-globally-180973291/#cTp0GA0AY37pMr0O.99}$ 

Give the gift of Smithsonian magazine for only \$12! <a href="http://bit.ly/lcGUiGv">http://bit.ly/lcGUiGv</a>

Follow us: @SmithsonianMag on Twitter