

Online trade poses new threat for wild orchids

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The wild orchid trade in China has extended its reach past physical markets to the Internet. With these rare, endangered plants just a click away, the possibility of extinction has escalated.

Hong Liu, a conservation ecologist in Florida International University's Department of Earth and Environment, is working to disrupt this digital threat.

While conducting the [first-ever study of the wild orchid trade in southern China](#), Liu set her sights on the virtual marketplace. Examining the sale of wild [orchids](#) on a popular Chinese-language website, she found the online [trade](#) may be as pervasive and illegal as it is in the physical markets. The good news is that Liu's research is already informing changes to protect these orchids.

For a year, Liu and FIU undergraduate student Shan Wong monitored Taobao, the Chinese equivalent of Amazon. They used specific keywords to search for wild orchids and monitored more than 50 vendors who were selling wild orchids from 97 unique species. In total, more than 90,700 individual wild orchids were sold during the course of the study.

Unlike those that are artificially propagated and grown in greenhouses, wild orchids face the threat of overharvesting. For Liu, one the most upsetting parts of the study was seeing the great lengths the vendors went to prove they were in possession of *real* wild orchids.

"They would brag about having wild orchids and post videos of the them being harvested to prove it," said Liu.

The study revealed potential breaches of the Convention on International Trade in Endangered Species (CITES), an international agreement protecting animals and plants from over-exploitation in [international trade](#).

Currently, all 29,000 [orchid species](#) are listed by CITES. Some vendors sold orchids that didn't grow in China without proper permits, which is illegal.

To make matter worse, if someone living outside of China wanted to purchase a wild orchid from Taobao, they could have. However, none of the vendors offered proof they had the required CITES permits to ship the wild orchid across borders.



Credit: Florida International University

Currently, only animals listed by CITES are automatically protected under Chinese law. Through her research, Liu is working to help closing this policy gap.

She's already making progress. A representative from Taobao reached out to Liu to discuss methods to stop the sale of wild orchids. One solution that was implemented was key-word triggered pop-up windows. The website's algorithm identified the buyer's location and if they searched for wild orchids, an automatic message would appear explaining the species was rare, endangered and threatened by over collection. It would advise the consumer to purchase artificially propagated—and legal—orchids instead.

"I know I am one person and can only do so much. But I am here to inform as many people as I can through my research so we can work together to take action and make sure this doesn't happen anymore," Liu said.

The findings were published in *Economic Botany*.

More information: Shan Wong et al. Wild-Orchid Trade in a Chinese E-Commerce Market, *Economic Botany* (2019). [DOI: 10.1007/s12231-019-09463-2](https://doi.org/10.1007/s12231-019-09463-2)

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