# [***Study Data from Hainan University Update Knowledge of Ecology (The Carbon Sink of Mangrove Ecological Restoration between 1988-2020 in Qinglan Bay, Hainan Island, China)***](https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:66SP-42P1-JBSP-101P-00000-00&context=1516831)

Ecology Daily News

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**Section:** ECOLOGY

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**Body**

2022 NOV 04 (NewsRx) -- By a News Reporter-Staff News Editor at Ecology Daily News -- Current study results on ecology have been published. According to news reporting out of Haikou, People's Republic of China, by NewsRx editors, research stated, "As the world's largest reactive carbon reservoir, the ocean plays a critical role in global climate change."

Funders for this research include National Social Science Found of China.

Our news editors obtained a quote from the research from Hainan University: "Among coastal plant ecosystems, ***mangroves*** have the highest carbon storage efficiency and are prone to the impact of anthropogenic activities. In this study, taking the ***mangrove*** wetland of Qinglan Bay as an example, we extracted information on ***mangrove*** coastal surface change from 1988 to 2020 based on multi-temporal Landsat remote sensing data through field ground surveys and laboratory analysis and used the InVEST model to calculate the spatial and temporal structure of ***blue carbon*** in the ***mangrove*** area to investigate the effects of ***mangrove*** change in an ecological restoration context. The result shows that the overall area of ***mangrove*** forests exhibited a decreasing trend from 1988 to 2020, and the area of ***mangroves*** decreased from 1559.34 ha to 737.37 ha of which 52.71% was transformed into aquiculture, construction, and farm land. Accordingly, the ***mangrove*** carbon sinks from 1988 to 2020 were significantly reduced and the carbon stock decreased at an annual tendency from 1,025,901.71 tons to 712,118.69 tons. With the implementation of ***mangrove*** restoration, the decline of ***mangrove*** forests has decreased since 2003, promoting the stabilization and enhancement of carbon sinks in the ***mangrove*** wetlands of Qinglan Bay."

According to the news editors, the research concluded: "The results of this study provide a technical method to evaluate the carbon sink contribution of ***mangrove*** wetland restoration in Hainan Province, a scientific basis and methodological innovation to monitor the carbon sink of ***mangrove*** cover change in larger regions of China, a theoretical basis to select criteria for ***mangrove*** restoration, and a scientific and systematic management strategy for ecological and ***mangrove*** restoration on Hainan Island."

For more information on this research see: The Carbon Sink of ***Mangrove*** Ecological Restoration between 1988-2020 in Qinglan Bay, Hainan Island, China. Forests, 2022,13(1547):1547. (Forests - http://www.mdpi.com/journal/forests/). The publisher for Forests is MDPI AG.

A free version of this journal article is available at https://doi.org/10.3390/f13101547.

Our news journalists report that additional information may be obtained by contacting Peihong Jia, School of Public Administration, Hainan University, Haikou 570228, People's Republic of China. Additional authors for this research include Weida Huang, Zhouyao Zhang, Jiaxuan Cheng, Yulong Xiao.

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