

Crested Ibis
Its wild population increased from seven in 1981 to more than 6,000 in 2021. More than 10 crested ibis breeding centers have been founded in six provinces and municipalities since 1981.

Whooper Swan
Its population has increased from about 10,000 in the 1990s to 23,000 in January 2022 due to ecological restoration projects for their habitats.

Black-tailed Godwit
As summer migratory birds, some of the shorebirds in China breed in the Inner Mongolia autonomous region, the Xinjiang-Uygur autonomous region and the northeast area of the country. Some spend winter in Shanghai and Hainan province among others.

Pure David's Deer
After disappearing from China due to wars at the end of the Qing Dynasty (1644-1911), the species indigenous to China was reintroduced to its homeland in the 1980s.

Black-faced Spoonbill
The spoonbills breed in a conservation area in Liaoning province and overwinter in other conservation regions in Zhejiang, Fujian, Guangdong, Hainan, Hong Kong and Taiwan.

Saunders's Gull
The former State Forestry Administration launched the first specific research into the birds' population and their habitats during 1997-98. Its population has risen from fewer than 3,000 in the mid-1990s to more than 20,000 currently.

Black-necked Crane
Out of the world's 15 breeds of crane, they are the only one that can be seen in plateau areas. They mainly live in Tibet and breed in the Qinghai-Tibet Plateau.

Baer's Pochard
The current population of these ducks is about 1,000. The area of their habitats was unknown before but is now nearly 2,930 square kilometers.

Oriental White Stork
Most of the birds are found in eastern China. They breed in the Yellow River Delta in East China, as well as Sanjiang and Songnen plains in Northeast China. The country works to guarantee their migration safety.

ILLUSTRATION BY LIU XIAOTIAN / CHINA DAILY

WETLAND ECOSYSTEM

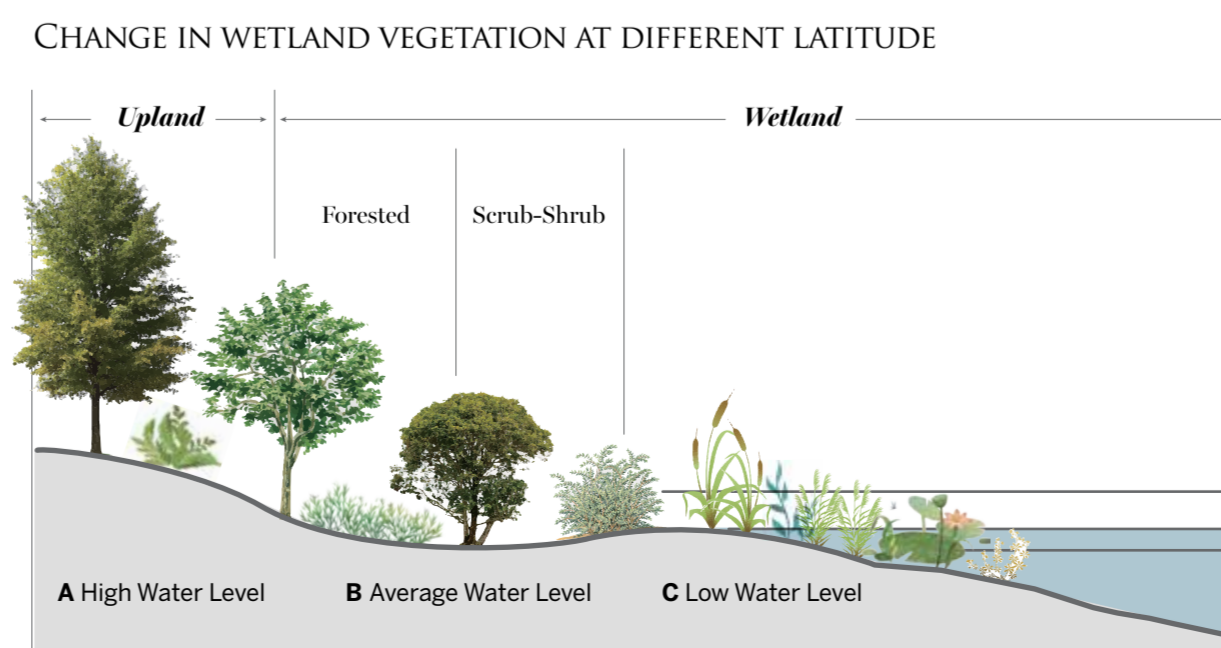
COVERAGE OF WETLANDS BY TYPE ON CHINESE MAINLAND (One hectare)

27,100	Mangrove
2,207,600	Forested swamps
754,800	Shrub swamps
11,139,100	Meadow swamps
1,509,700	Coastal mud flat
6,072,100	Inland mud flat
1,936,400	Swamps
8,829,800	Rivers
8,279,900	Lakes
3,393,500	Reservoirs
4,565,400	Ponds
3,571,100	Ditches and channels
4,116,800	Shallow coastal waters

By YUAN SHENGGAO
A string of tags placed on wetlands shows their vital role and the hallmark services their unique ecosystems provide to human society and nature. According to the Convention on Wetlands of International Importance (Especially as Waterfowl Habitat), wetlands are defined as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6 meters." The convention, signed in 1971 in Ramsar, Iran, is known as the Convention on Wetlands.

Hailed as the kidneys of the Earth, wetlands are capable of degrading pollutants and water purification and storage, with plants, fungi and algae in the ecosystem contributing to the process. Likened to "natural reservoirs", wetlands, which hold a great deal of water inside indigenous vegetation, coupled with spongy peat deposits in soil, are key to the storage and continuous supply of water resources. They play a pivotal role in recharging underground water, improving water quality and maintaining regional water circulation. As one of the critical carbon sinks on the planet, wetlands are closely tied with climate change. Some of them are covered with luxuriant vegetation, absorbing carbon dioxide in the air, while at the same time, an accumulation of plant and animal

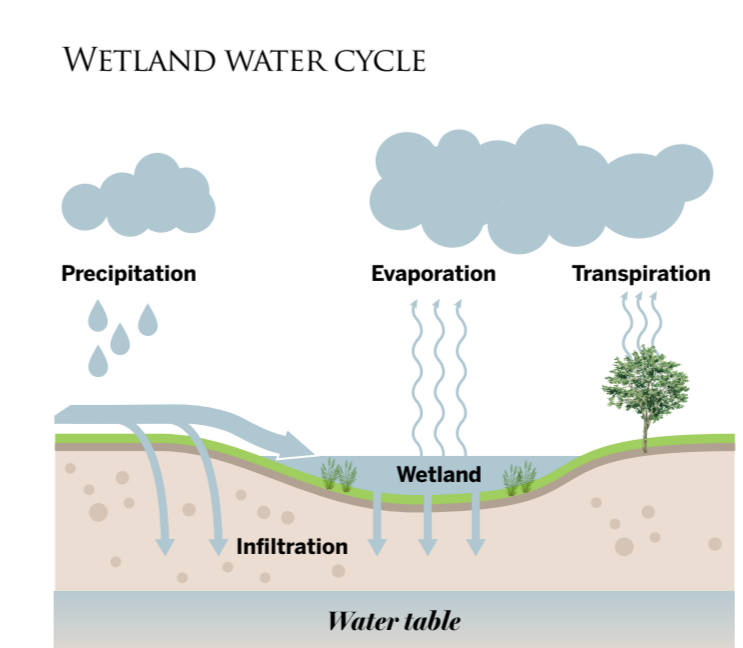
remains in the wetland soil takes time to be degraded. A healthy wetland ecosystem features a low pace of degradation and high pace of carbon sinking. Plants, algae and some bacteria in the wetland absorb carbon dioxide through photosynthesis, and then through degradation and respiration, release methane and carbon dioxide back into the air, thus forming wetland carbon cycling and providing ecological services to humanity. The carbon stock in wetlands accounts for 25-30 percent of the total in land ecosystems, according to scientific research. As one of the most productive and biologically diverse ecosystems on the planet, wetlands, which cover only 8.4 percent of the Earth's land surface, provide habitats for 40 percent of the world's plant and



animal species, earning fame and renown as gene banks. China has a total wetland area of around 56.35 million hectares, ranking fourth worldwide, data from the National Forestry and Grassland Administration show. As a national strategy, wetland conservation has become a key link to promote the integrated protection and systematic management of mountains, rivers, forests, farmlands, lakes, grasslands and deserts, and the comprehensive development of forestry, grassland and national parks, an official from the administration said. Over the past decade, more than 800,000 hectares of wetlands have been added or restored. The use of wetlands in water conservation, water purification, carbon sequestration and biodiversity protection has been significantly enhanced. The ecological status

of important wetlands across the country has also been effectively improved. With rich and diverse wetland resources, the Chinese government has been advancing wetland restoration and protection across the country. In an alpine swamp zone on the northeastern edge of the Qinghai-Tibet Plateau between the northwestern part of Sichuan province and the south of Gansu province, there are three Wetlands of International Importance — the Sichuan Raocagai Wetland National Nature Reserve, the Gansu Yellow River Shuangzi Wetlands and the Gansu Gabai Wetland Nature Reserve. The region, which is rich in peatland and has a high carbon stock, is key to recharging and conserving the water resources in the upper reaches of the Yellow River and Yangtze River.

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PROTECTING NATURAL ASSETS A VITAL TASK IN NATION

By YUAN SHENGGAO
The 14th Meeting of the Conference of the Contracting Parties to the Ramsar Convention on Wetlands, also known as COP14, opens on Saturday in Wuhan, capital city of Central China's Hubei province. Running until Nov 13, the meeting features both online and offline events and has set up a branch venue in Geneva, Switzerland, where the convention's secretariat is located. This is the first time the meeting is held in China, which became the treaty's 67th contracting party in 1992. The Convention on Wetlands is an international agreement that provides the framework for the conservation and wise

use of wetlands and their resources through local and national actions and international cooperation. So far it has 172 contracting parties. Since its accession to the Convention on Wetlands 30 years ago, China has always adhered to the concept of ecological civilization and green development. The Chinese government has been deeply engaged in the implementation of the convention and has conducted extensive international cooperation and exchanges. China has been carrying out the designation of wetland sites as "Wetlands of International Importance". To date, it is home to 64 Wetlands of International Importance and 13 International Wetland Cities, both

accredited by the convention. The Chinese government was unanimously elected as a member of the Standing Committee of the Convention on Wetlands at the COP9 in 2005. That year, China launched the pilot sites of national wetland parks and hosted the Asian Regional Conference of the Convention on Wetlands in Beijing. China submitted the draft resolution on the conservation and management of small and micro wetlands, which was adopted at the COP13 in 2018, and won the bid in 2019 to host the COP14.

The National Forestry and Grassland Administration began to release the white paper titled the Ecological Condition of

China's Wetlands of International Importance (Ramsar Sites) in 2019. The country has played an active role in bilateral and multilateral international cooperation projects including the Global Environment Facility projects, contributing Chinese wisdom and solutions to global ecological governance. One of China's latest environmental moves is the adoption of the Wetland Protection Law, which came into force on June 1. "China's legal framework for wetland protection is getting perfected in recent years," Zhang Mingxiang, vice-dean of the School of Ecology and Nature Conservation of Beijing Forestry University, told the China Development Observation magazine.

As one of the experts who participated in the formulation of the Wetland Protection Law, Zhang said the law demonstrates to the world that China attaches great importance to wetland protection and has made remarkable progress as a responsible member of the international community. The Wetland Protection Law clarifies the duties of relevant government bodies in wetland protection and has put in place mechanisms for collaboration among different departments. The severity of the penalties set out in the law, for damage to and illegal appropriation of wetlands, is unprecedented, which is aimed at deterring potential offenders, Zhang said.

