

Wetlands

Extract from France's 2021 Environmental Performance Review



Wetlands

At the interface of terrestrial and aquatic environments, the common feature of wetlands is fresh, salty or brackish water, either permanent or temporary. Many hydrophilic plants thrive in wetlands for a part of the year. A wide range of species depend on the rich and diverse ecosystems in wetlands using them to rest, feed and reproduce.

EXPANSE AND TYPES OF WETLANDS

No current national inventory completely and accurately assesses the surface area of continental wetlands and aquatic environments in Metropolitan and Overseas France. The most recent mapping work in 2014 is currently being updated. It is estimated that wetlands potentially cover about 23% of Metropolitan France - nearly 13 million hectares. As buffer zones between aquatic and terrestrial environments, wetlands have different characteristics: meadows, peatlands, marshes, alluvial forests, ponds, banks of ponds and waterways that have not been domesticated by humans.

WETLANDS ARE ESSENTIAL TO BIODIVERSITY AND HUMAN ACTIVITIES

Where general conservation conditions apply, wetlands provide multiple services that are key for natural balances and human activities such as flood retention, water purification, biodiversity reservoir, and carbon storage. They generate goods and services for trade, including natural resources such as fish and more historically, peat. Wetlands also provide recreational, cultural, heritage, educational, aesthetic and scientific services.

In Metropolitan France, these vulnerable territories host 30% of rare or endangered species, all amphibians, half of all birds, and a third of remarkable plant species. The latest *Wetlands International*¹ review shed light on this strong dependency. The presence of regular wintering water birds, such as swans, geese, ducks, loons, ardeids, grebes, rallids and shorebirds, recorded on France's 533 main wetlands increased by 124% between 1980 and 2021.

Apart from being recognised as the main reservoirs of biodiversity, wetlands also help to purify water, filtering it before it reaches aquifers. This purifying power is estimated to generate an annual saving of €2,000/ha on the treatment of drinking water². Identified as one of the most biologically productive environments, wetlands are also key suppliers of fish products (fishes, oysters, mussels, cockles, etc.), agriculture (cattle, sheep, pastures, rice, cereals, reeds, rushes, etc.) and hunting. In France, goods - mainly fish - taken from continental wetlands and aquatic environments have a commercial value of around €240 million (Efese study).

Among these wetlands, peatlands are of particular importance and their preservation is recommended. They currently cover only 3% of the earth's surface but store more than twice as much carbon as the entire world's forests. With mangroves, seagrass beds and coastal marshes, they have a key role in mitigating some climate change effects.

¹ Annual international inventory of wintering water birds in over 80 countries in Europe, Asia and North Africa. 533 sites in France are monitored under this system.

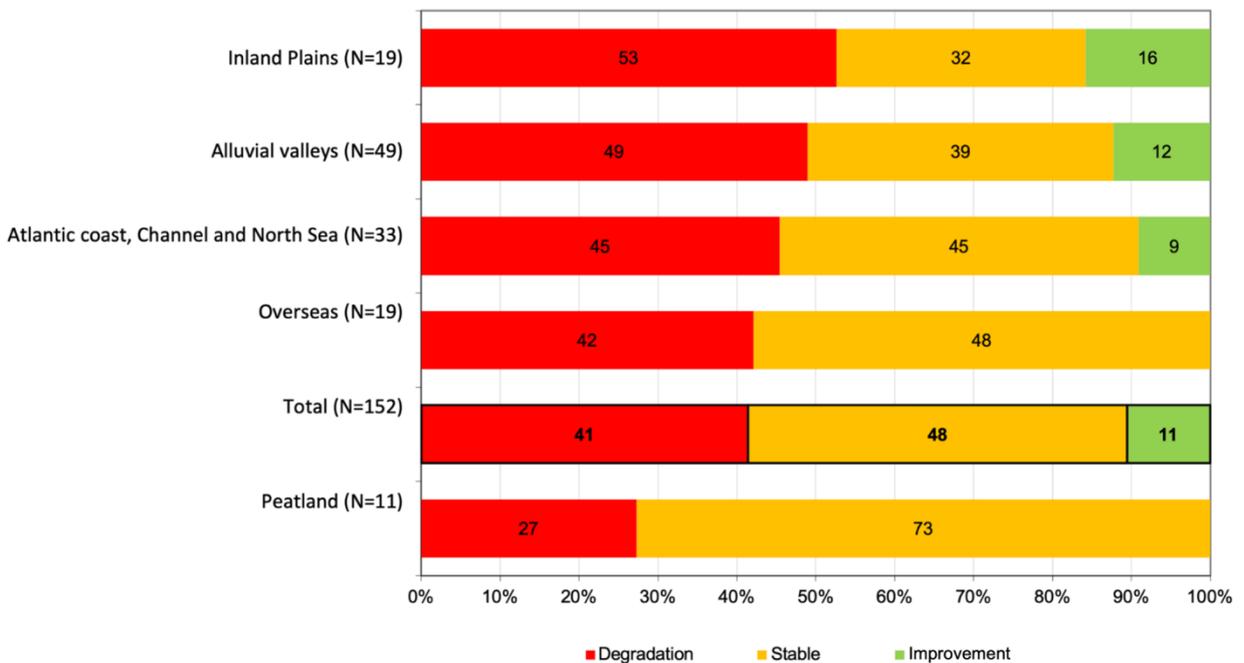
² Évaluation réalisée sur 6 500 hectares de zones humides de la Bassée, Laurans Y., Cattan A., Dubien, 1996. Les services rendus par les zones humides à la gestion des eaux : évaluation économique, pour le bassin Seine-Normandie, Asca, Agence de l'eau Seine-Normandie.

THREATENED ENVIRONMENTS

It is estimated that about half of French wetlands disappeared between 1960 and 1990 due to urbanisation and drainage. Since 1990, recognition of the advantages of these ecosystems for the environment has reversed this trend. 87% of the world's 18th-century wetlands are already lost. Wetlands are disappearing three times faster than the rate of deforestation.

As part of the latest national assessment of important wetlands, field workers estimated that 41% had deteriorated in France between 2010 and 2020. Inland plains and alluvial valley sites are particularly affected by this downward trend where 53% and 49% of sites were degraded in the last ten years (Figure 1).

Figure 1: Breakdown of emblematic wetlands sites by main type and trends in conditions between 2010 and 2020
In %

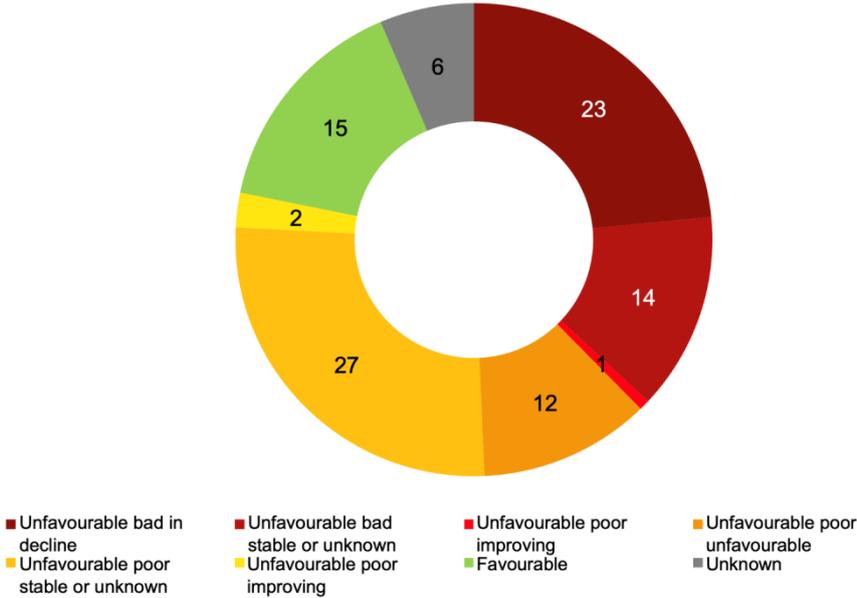


Notes: N = number of wetlands assessed; stable = structural characteristics and dynamics of the environment do not vary from one period to the next. This may include degraded environments that have not varied.

Source: SDES/OFB - National assessment of emblematic wetlands site 2010-2020. Treatment: SDES, 2020

The latest evaluation of the Habitats-Fauna-Flora directive for the period between 2013 and 2018 confirms the experts' statements. Of the 422 remarkable wetland and aquatic ecosystem species and habitats assessed, 15% had favourable conservation status and 38% had poor conservation status – (Figure 2). Wetland flora is particularly affected, such as sphagnum moss in the continental region, and lycopods and fool's watercress in continental and Atlantic regions.

Figure 2: Conservation status of remarkable species and habitats selected for the wetlands and aquatic environments between 2013 and 2018
In %

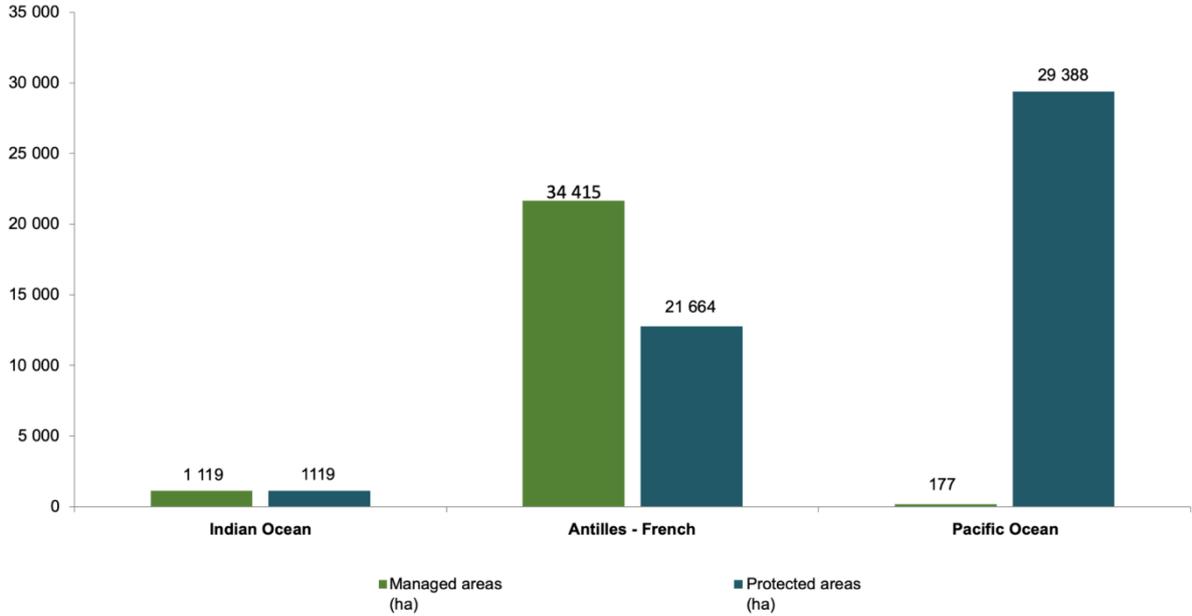


Note: analysis based on 422 assessments (species and habitats) of wetland and aquatic ecosystems.
Source: PatriNat (AFB-CNRS-MNHN), 3rd DHFF report, 2019. Treatment: UMS PatriNat; SDES

BETTER INFORMATION ABOUT THE VALUE OF ECOSYSTEMS ENCOURAGES THEIR PROTECTION

Many measures now exist for the conservation and rational use of wetlands due to the importance of their ecosystem for both biodiversity and the well-being of humans. National and European measures (national parks, nature reserves, protection decrees, Natura 2000) and the Ramsar Convention, an international treaty adopted in 1971, contribute to efforts to preserve these remarkable environments. Of the 2 431 Ramsar sites worldwide (1 124 in Europe), France has listed 51 for an area of more than 3.7 million hectares, including 3 for the Île-de-France region. The Bay of Audierne was the last site to be listed on 4 September 2021. Restoration by wetland associations through management operations, in and outside the management plan, help these environments recover their water or carbon storage capacity. For example, of the 91 055 hectares of mangroves under French jurisdiction, 25% are subject to conservation measures and of these, 35% are protected (Figure 3).

Figure 3: National areas of protected mangroves under precautionary management measures in Overseas France
In ha



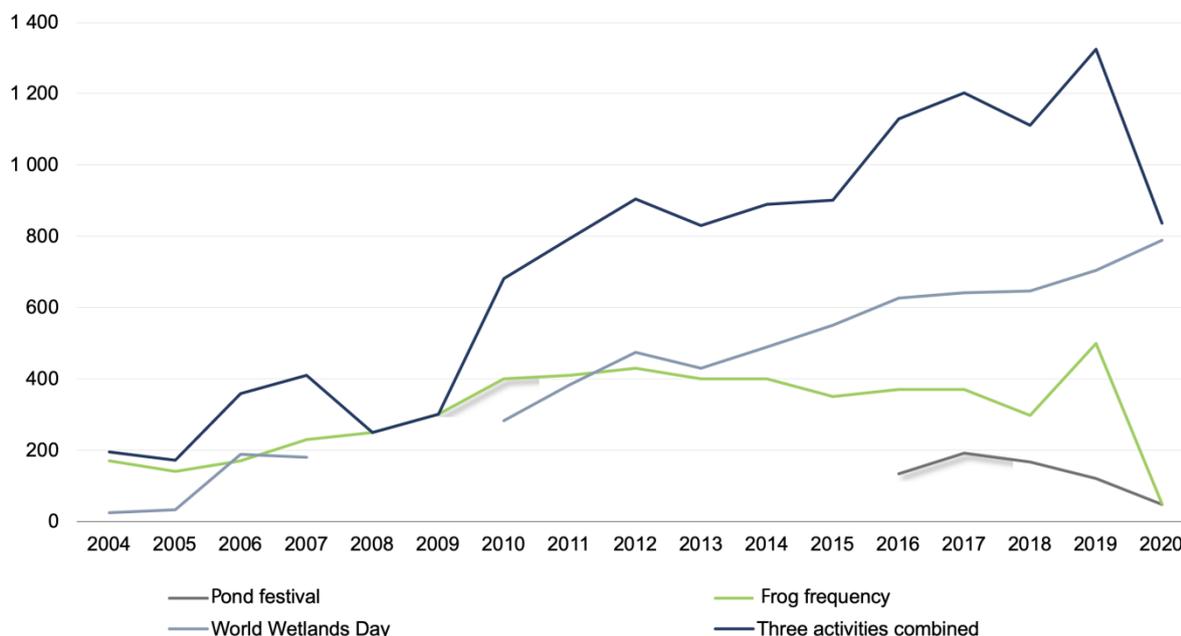
*Note: excluding specific work (mangroves in Wallis and Saint-Barthélemy which are undergoing specific work are not included in this indicator).
Scope: Overseas France.*

Source: Université de Nantes, 2018. Treatment: SDES, September 2019

A boom in participatory science gives citizens an active role in wetland preservation. Also, to increase public awareness, the number of activities on wetlands was multiplied by four between 2004 and 2020, including World Wetlands Day and other events specific to France (Figure 4).

Figure 4: Activities proposed as part of the three main annual events

In number



Note: practically all proposed activities usually take place except in 2020 when they were cancelled due to the pandemic. For the Fête des Mares, only 12 activities went ahead out of a sample of 18 according to reports.

Sources: Ramsar-France: World Wetlands Day; SNPN: Fête des Mares (pond festival); CNF: Fréquence Grenouille (frog frequency). Treatment: SDES, January 2021

FOR MORE INFORMATION

- L'évaluation nationale des sites humides emblématiques 2010-2020 - Notre-environnement
- Biodiversité rare ou menacée : peu d'améliorations depuis 2007, SDES, *Datalab Essentiel*, March 2020, 4pp.
- Efese - Les milieux humides et aquatiques continentaux, CGDD, *Théma*, March 2018, 248pp.