



# Red List of North Africa Freshwater Biodiversity



## Key facts

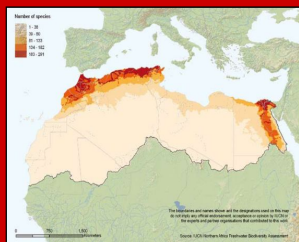
- ❑ North Africa is considered the poorest of all African sub-regions in terms of freshwater resources: except for the Nile River, permanent rivers are only found in the northern part of Morocco, Algeria and Tunisia. The increasing demand for freshwater, due to economic and demographic developments, constitutes a major pressure in the region to these ecosystems on which both local human populations and freshwater species strictly depend.
- ❑ Monitoring freshwater basins is therefore important to prevent the loss of these ecosystems. Five freshwater taxa, representing a range of trophic levels within the food webs that support wetlands, have been selected in the study of the status and distribution of northern African freshwater biodiversity to evaluate the quality of northern African basins: fish, molluscs, dragonflies, crabs and aquatic plants.
- ❑ A total of 877 species has been assessed. Some 247 species have been listed as threatened with extinction, and 50 are already extinct globally or regionally (1 being an endemic fish, *Salmo pallaryi*, and 17 being molluscs). Out of the 199 species endemic to the region, almost a half (94 species) are presently threatened with extinction; this means that once they disappear, they will be found nowhere else in the world.
- ❑ The study has shown a not homogenous distribution of species richness. The highest number of freshwater species has been recorded in the Mediterranean Maghreb and the Nile River in Egypt, where also threatened species concentrate – the North of Morocco and the Atlas mountains host 53% of the species assessed as threatened.
- ❑ Habitat loss and degradation induced by humans, together with pollution, appear to be the most important threats. There is an urgent need to integrate freshwater biodiversity information as a factor of relevance in new planning processes, improve data availability to decision makers, and so assure the survival of the species and the availability of the essential resources provided by these ecosystems.

The IUCN Red List of Threatened Species™

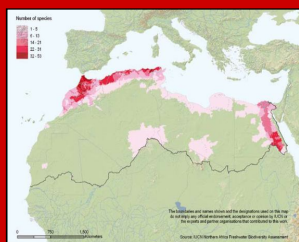


## Groups of species assessed

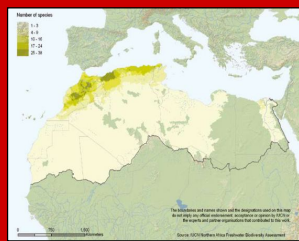
Although poor in water resources, the region shows a good representation of aquatic and wetlands habitats. Some 877 species have been assessed in the freshwater habitats of the region, 199 of these being unique to North Africa. The Maghreb region has revealed to be a true biodiversity hotspot with a surprisingly high quantity of species, both endemic, threatened and assessed.



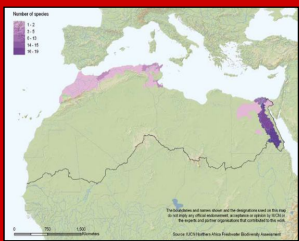
Total freshwater species richness



Threatened freshwater species richness



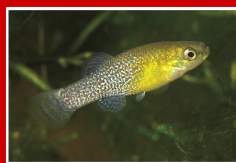
Endemic freshwater species richness



Extinct freshwater species richness

### FISH

Assessed species: 128  
Threatened species: 27%  
Endemic species: 32 (32% threatened)  
Species regionally extinct: 23  
Species globally extinct: 1 (endemic)



*Aphanius saurensis*

### MOLLUSCS

Assessed species: 155  
Threatened species: 45%  
Endemic species: 85 (58% threatened)  
Species regionally extinct: 2  
Species globally extinct: 17 (15 endemic)



*Margaritifera marocana*

### DRAGONFLIES AND DAMSELFLIES

Assessed species: 82  
Threatened species: 24% (20 species)  
Endemic species: 7 (29% threatened)  
Species regionally extinct: 6  
Species globally extinct: 0



*Libellula quadrimaculata*

### CRABS

Assessed species: 3  
Threatened species: 0%  
Endemic species: 1 (33% threatened)  
Species regionally extinct: 0  
Species globally extinct: 0



*Potamon algeriense*

### AQUATIC PLANTS

Assessed species: 509  
Threatened species: 24% (122 species)  
Endemic species: 75 (44% threatened)  
Species regionally extinct: 1  
Species globally extinct: 0

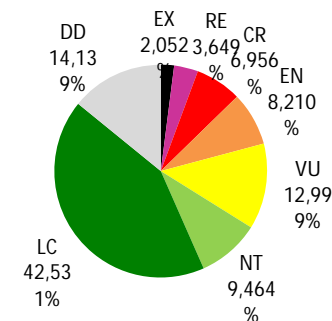


*Ranunculus peltatus*

## Conservation Status Assessment

Among the 877 freshwater evaluated taxa, 247 (28%) are listed as threatened with extinction, out of which 7% are Critically Endangered, 8% are Endangered, and 13% are Vulnerable. North Africa has resulted to be the region with the highest rate of extinction of freshwater species in the continent: 2% of the species are already globally extinct and 4% are no longer present in the region. Moreover, almost half of the species endemic to the area are presently threatened with extinction.

Categories	No. of Species
EX Extinct	18
RE Regionally Extinct	32
CR Critically Endangered	61
EN Endangered	72
VU Vulnerable	114
NT Near Threatened	83
LC Least Concern	373
DD Data Deficient	124
<b>Total</b>	<b>877</b>



## Main Threats

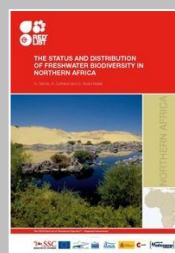
Habitat loss and degradation induced by human activities appeared to be the most important threat, together with pollution. In addition, natural disasters such as drought and strong highflow events are known to be severely affecting freshwater species and have a direct effect on populations. All these threats are expected to worsen in the future due to the increasing effect of climate change. Other relevant threats are human disturbance, changes in the native species dynamics, harvesting, invasive alien species and intrinsic factors.

## Conservation Actions

Implementation of an Integrated River Basin Management (IRBM) approach, aiming to guarantee a river's sustainable utilization in short, medium and long-term time scales is essential to prevent species extinctions. Promoting sustainable agricultural techniques, increasing waste water treatment facilities and enforcing the current legislation, are urgent measures that should be taken. In particular, the identification and protection of Key Biodiversity Areas would help prevent the decline in habitat quality and the loss of species. All these measures should be supported by educational projects aimed to raise local population awareness, and further research efforts should be oriented to fill the lack of information for the 124 species actually listed as Data Deficient.

## For more information

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### The Status and Distribution of Freshwater Biodiversity in Northern Africa

Download the report in English from the Publications section at

[www.iucn.org/mediterranean](http://www.iucn.org/mediterranean)

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