



Ministry of Environment



Habitats and Species of Egypt



Egypt is home to a wide range of habitats with microclimates (e.g. mangroves, coral reefs, mountains, sand dunes, oasis, and wadis) that host many plant and animal species and communities representing both tropical and Mediterranean environments. Some dating back millions of years ago, such as the skeletons of whales in the Western Desert (a Natural World Heritage Site in Wadi Al-Rayan Protected Area), while other sites represent the Stone Age, about 10,000 years ago. Some animal and plant species represent relicts of a once flourishing growth in ancient periods when the environment was less severe. As conditions became decidedly arid, a limited number of these species remained in the natural refugee sites. For example, small populations of gymnospermus trees of *Juniperus phoenicea* still exist in a few hilly sites in N. Sinai (e.g. Gebel El-Maghara, Yelleg, Labni and El-Halal). Similarly, a few individual cheetahs (*Acinonyx jubatus*) can be found in the Qattara Depression of the Western Desert, but they are on the brink of extinction.

With its unique geographic location midway between Africa and Asia, Egypt is home to a wide variety of ecosystems and terrestrial and aquatic life. Egypt has unique biodiversity that contributes to the economy and supports human wellbeing.

Egypt to host the United Nations Convention on Biological Diversity Conference (CBD COP14), Sharm El Sheikh, 13-29 November 2018

For more information, visit www.cop14-egypt.com

Ecosystems Diversity

Ecosystem is consider as any community of plants, animals and/ or non-living components interacting with each other in a given area. Every Ecosystem has been divided into sub-divisions “habitats”, depending on morphological characteristics and important groups of fauna and flora that inhabit it. The main 5ecosystems and habitats in Egypt can be described in a decreasing order as follows:

(1) Desert habitat system
(868860 km² and 86.89 %)

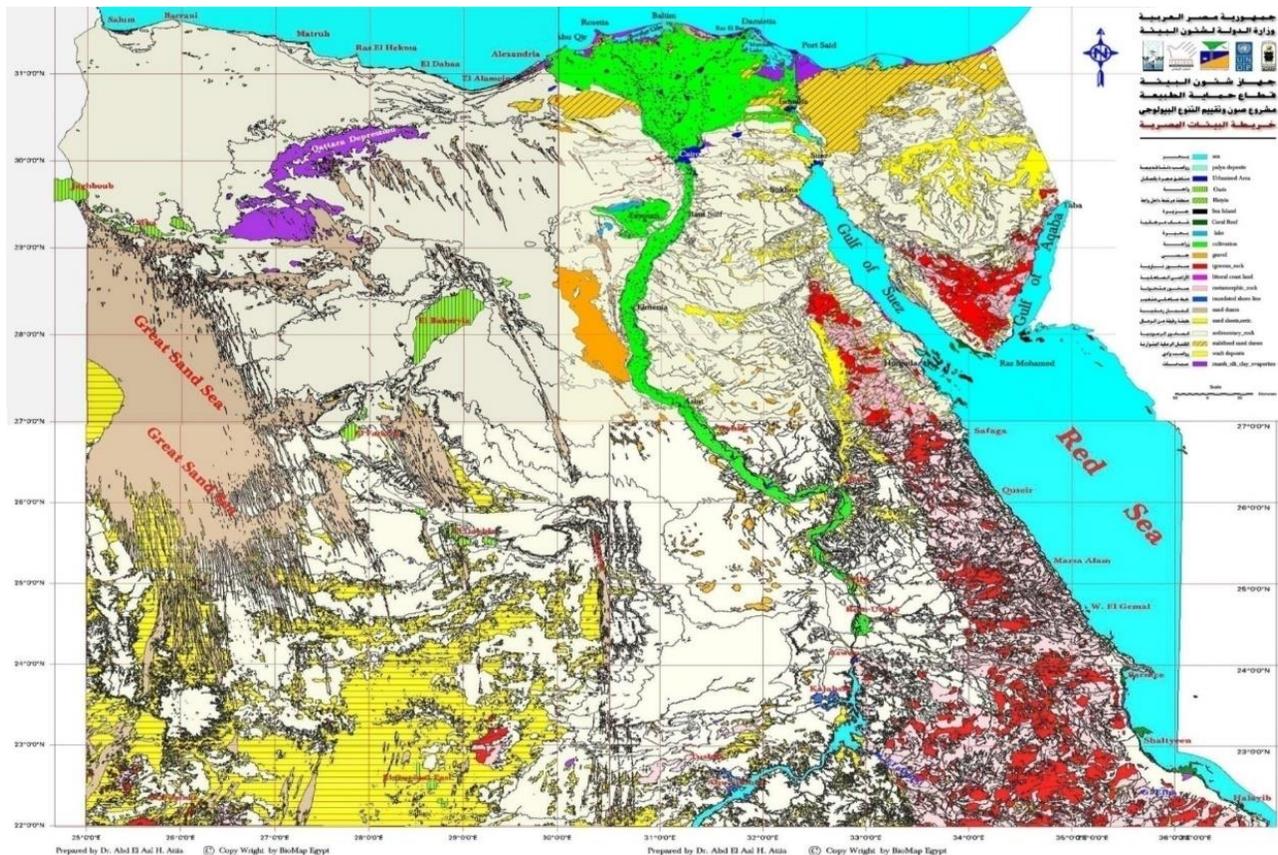
(2) Marine habitat system
(269204 km²)

(3) Wetlands habitat system
(70177 km² and 7.02 %)

(4) Artificial habitat system
(51938km² and 5.19 %)

(5) Freshwater habitat system
(7156 km² and 0.72 %)

The Egyptian habitats map includes about 20 main groups such as urban areas, islands, oases, dunes, metamorphic and sedimentary rocks, open water, fresh water channels, warm springs(El-Ain El-sokhna – Oyon Mousa), coral reefs, and mangrove trees.



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Desert Ecosystems: Arid and semi-arid habitats cover about 90% of Egypt's territory amalgamating disparate environmental ecosystems. The Mediterranean coastal desert, Western Desert that occupies about two-thirds of the country's area, Oases are the most outstanding features of the Western Desert and are the sole source of water and vegetation over much of this desert. The desert bordering Red Sea is very dry and the vegetation is mainstream of that of the Eastern Desert (223 thousand km²), being for the most part delimited to mouths of larger wades and along the coast where salt marsh vegetation exists, Most of recorded plants are coupled to traditional knowledge in Sinai, North Coast, Eastern and Western deserts.



Marine Ecosystems: Marine environment of both Mediterranean and Red seas is distinguished by many habitats and endangered species especially all marine mammals (17 species), marine turtles (4 species), sharks (more than 20 species) mangrove trees and many birds (white eyed gulls, sooty falcons, ospreys). This is in addition to the great marine biodiversity (more than 5000 species) represented by 800 species of seaweeds, 209 species of coral reefs, more than 800 species of molluscs, 600 species of crustacean, 350 species of Echinodermata, in addition to hundreds of species that have never been revealed until now.



Wetlands Ecosystems: Wetlands have an imperious bio-ecological function through maintaining everlasting fit place for distinctive groups of biodiversity, especially migratory water birds. The six Egyptian Mediterranean brackish water coast wetlands or lagoons are sited along Nile delta coast (Manzala, Borollus, Edku and Maruitt) and to the east of the Suez Canal (Port-Fouad and Bardawil). All of them, with the exception of Lake Maruitt, are directly connected to sea.



The aquatic fauna of the Northern Delta lakes is a mix of freshwater and marine species. The freshwater fauna is dominated by tilapia species which make the majority of catch. Many Nile species also inhabit these lakes such as; *Hydrocynus forskalii*, *Lates niloticus*, *Cyprinus carpio*, *Barbus bynni*, *Clarias gariepinus*, *Bagrus bayad*. Several marine species tolerant of freshwater are also found in the Delta lakes, including mullets, soles, seabream, seabass, meager, eels and shrimp.

Agricultural habitats: Agricultural cropland habitats have been diminishing since late 1980s. These declines are thought to be connected to changes in land use and agricultural practices. The introduction and wide use of high yielding varieties led to the neglect and disappearance of traditional varieties and the erosion of crop plant genetic diversity. Currently, Egypt depends on 4 crops (wheat, corn, rice and potato) for 50% of its vegetarian food and 14 mammal and bird species for 90% of animal proteins.



Pasturelands habitats: Pasturelands existing in Elba and WadiAllaqi in the south and in El-Omayed and Sinai in the north are the most imperative areas of grasslands in Egypt. The use of resources within these properties is governed by the Sheikh of the tribe where he sets up rules for the exploitation of wells' water, and cutting trees used in building houses or for fuel.



Mountains habitats: Mountainous habitats are mainly found in three places in Egypt, South Sinai, El Owaynat, and, Red Sea and Elba. They cover 0.7 % of Egypt's territory and are exemplified by exclusive biodiversity, predominantly plants and animals.



Species Diversity in ecosystems:

Each of the above mentioned habitats has its unique fauna and flora. More than 22,000 species of flora and fauna have been identified in Egypt's diverse ecosystems and many more remain to be further investigated. These range from well known-species of plants, mammals, reptiles, amphibians, fish and birds to less visible but equally important aquatic and terrestrial invertebrates, fungi and bacteria. Levels of endemism are reasonably high as a result of the drying of North Africa over the last 5,000 years, which caused the fragmentation and isolation of fauna and flora, allowing the evolution of many unique forms of life. Isolated pockets of biodiversity exist in the oases of the Western Desert and on the mountaintops of Sinai. The relatively rich biodiversity of Gebel Elba harbors many endemic forms, however, more research is required to assess their uniqueness relative to other Red Sea fog woodlands further south in the Sudan.

Endangered	2016	
Number of Species known	>22000	888
Mammals	110	72 (65.5%)
Birds	485	60 (12.6%)
Reptiles	112	47 (42%)
Amphibians	9	2 (22.2 %)
Fish	1200	52 (4.3%)
Invertebrates	>15000	205 (17%)
Vascular Plants	2145	450 (21%)
Fungus	>2000	-
Marine Algae	>1000	-