

# World Environment Day - June 5, 2020 (Biodiversity Day)

## Biodiversity in Yemen

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*Translated by: Muna Ali Muhaureq\**

The Republic of Yemen is located in the south-western corner of Asia and is an extension of the Arab-African plate. Yemen contains diverse topographical areas ranging from mountainous highlands, central plateaus, coastal plains and deserts. Yemen also has a coastline comprising of varied coastal environments with a length of 2500 km spread over the Red Sea, the Gulf of Aden, the Arabian Sea and Socotra Archipelago on the Indian Ocean. Furthermore, there are more than 180 islands distributed along these coasts, the most significant of which is the island of Kamran and the archipelago of Hunaish in the Red Sea, in addition to the islands of Bir Ali in the Gulf of Aden and the archipelago of Socotra in the Indian Ocean. These islands are of global significance due to their unique biodiversity ecosystems and distinctive endemic species.



A view of the coast of Kobbagin, Kaabain, Brieqa, Aden



A view of the Batis Valley, Abyan Governorate, as one of the environmentally sensitive sites

These numerous and diverse environments led to the abundance and diversity of land and marine species in Yemen. According to the fifth report 2010-2014 submitted by the General Authority for Environmental Protection, 2,871 species of plants have been registered, 15% of

which are endemic in Yemen, in addition to 71 types of land mammals, 363 species of land and marine birds, 8 types of amphibians, 28 species of snakes, 71 species of lizards, 7 species of land and marine turtles, 3092 species of insects, 252 types of scorpions, spiders, and mites, 969 species of fish, 625 species of molluscs, 53 species of crustaceans, 781 species of algae and seaweed.



A species of wild lizards recorded in the Dabut, Al-Mahara Governorate



A figure showing the *Pandion haliaetus* common in coastal areas of the Gulf of Aden



Photo: A. Al-Hindi

Two types of cartilaginous fish (guitar fish or rays) common on the coasts of Aden



Photo: A. Al-Hindi

A species of marine turtle (*Eretmochelys imbricate*) in the Fuqm, Al-Sharif Coast, Aden





Collected & Photographed by:  
Abdullah Al-Hindi.  
No: 4

A wild of type lizards recorded in the Qubita, Lahij Governorate



Photo: A. Al-Hindi

A type of brachyuran crabs *Eriphia smithii* common in the rocky Yemeni coasts

However, these figures do not represent the actual numbers of levels of biodiversity in Yemen, as new registrations of a number of living species continue to emerge whether for plants and animals, land and marine creatures which were not recorded in the former reports of the Fifth Report for the years 2011-2019. For example, twelve plant species were registered as the first

records in Yemen by Dr. Othman Al-Hawshabi, four of which are considered the first records in the Arabian Peninsula.



Photo: O. Al-Hawshabi

Photos showing a new plant species *Cerapegia seminuda* recorded by Dr. Othman Al Hawshabi and Dr. Abdul-Hakim Abdul-Ghani (2020)

Furthermore, seven species of lizards were registered as new species; five of which were recorded by Dr. Salem Busais, and two species by Dr. Abdel-Karim Nasher & others.

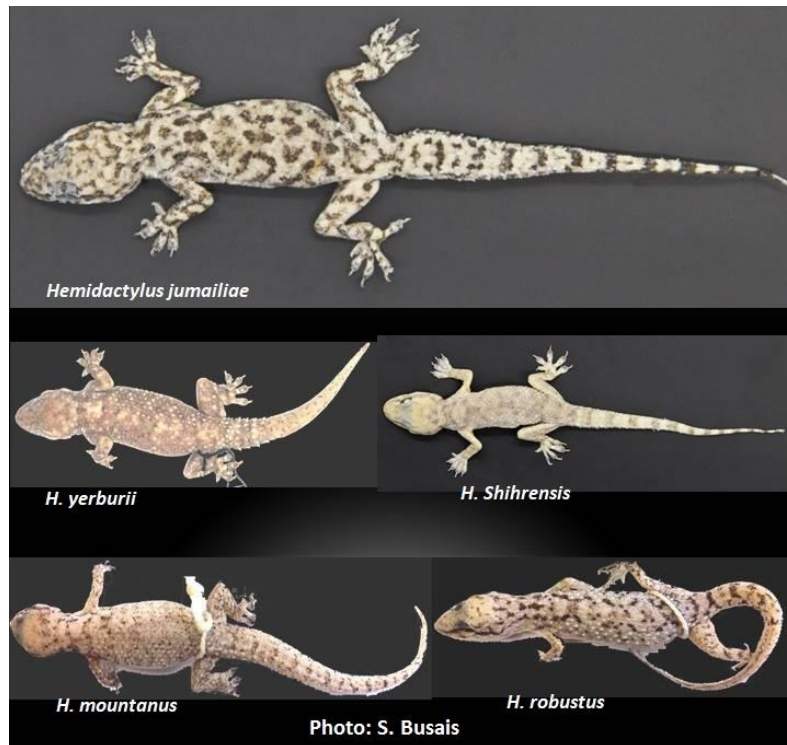


Photo: S. Busais

A figure showing the new types of lizards of the genus *Hemidactylus* that were registered by Dr. Salem Busais (2011)

Moreover, 69 new records of different types of **mites** were added to the Yemeni fauna by Dr. Mahdi Bahasan, in addition to six new types of termites registered by lecturer Nasser Bafadel.

As for aquatic creatures, 26 types of corals were recorded and added as new registrations in the Gulf of Aden by Dr. Jamal Bawazeer, and 184 types of brachyuran crabs (crustaceans - **arterial legs**) in the Yemeni coastal waters by the author of this article. Records for the brachyuran crabs include 65 of which were registered for the first time (3 new species recorded in the Red Sea, 53



new species in the Gulf of Aden, 6 species in the Arabian Sea and 8 new species from Socotra Archipelago). In addition, ten species were recorded for the first time in the waters of the Arabian Peninsula.



A type of coral reef *Acropor arabensis* recorded by Dr. Jamal Bawazeer 2017



A type of brachyuran crabs *Trapezia tigrina* common in coral environments



*Lydia tenax* (Rüppell, 1830)  
Photo: A. Al-Hindi  
Biodiversity department - CES

A type of brachyuran crabs *Lydia tenax* common in rocky Yemeni coasts

Furthermore, a new site for mangroves has been registered in the southern coastline of Yemen in the area of Dhabut, Mahrah Governorate, on the following coordinates  $15^{\circ} 54,845$  N,  $52^{\circ} 09,576$  E by the Biodiversity Team of the Center for Studies and Environmental Sciences at the University of Aden (Dr. Abdel-Aziz Muqbil, Dr. Anis Ahmed Ali, Dr. Muhammad Abdullah Hussein, Dr. Wadi Abdul-Ghani Saeed and Dr. Abdullah Nasser Al-Hindi).



Photo: A. Al-Hindi

A photo showing the new location of mangroves on the southern coast of Yemen in Dhabut, Al-Mahrah Governorate

Nevertheless, studies in the environmental diversity of Yemen are still insufficient, this excluding the extensive studies and reviews that the Socotra Archipelago yielded. There are

significant knowledge gaps due to the wide geographical areas, the diverse topography and environments, in addition to the lack of Yemeni experts in this field.

From this perspective, and with the presence of a new leadership directed by Mr. Ammar Nasser Al-Awlaki, head of the General Authority for Environmental Protection, a new policy will be adopted to collaborate and organize with specialized research centers in Yemeni universities, the Ministry of Fisheries, the Public Authority for Oceanography and Aquatic Biology, the Ministry of Agriculture, in addition to centers for Agricultural research and other relevant entities and institutions. The Administration of the Nature Conservation for land and marine life are determined to renew the biodiversity data in Yemen through developing and creating lists of species and their distribution maps in order to preserve species and their habitats. We also aim to identify environmentally sensitive areas and advise on the establishment and protection of new natural reserves. Furthermore, we intend to establish a unit or department for biodiversity in all existing branches of the General Authority in Yemeni governorates in order to carry out field studies to enlist and document the biological diversity for each governorate as well as generate distribution maps for species in order to obtain a comprehensive database of levels of biodiversity in Yemen.

Moreover, research centers and universities will also be encouraged to direct postgraduate students to study land and marine diversity in Yemen in accordance with the General Plan of the General Authority for Environmental Protection 2020.

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