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Chamaeleo monachus Gray, 1865 - Socotra Island (Yemen)



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Cover: An adult male of *Chamaeleo monachus*, Socotra Island, Wadi Ayheft, II.2009. 1) idem. 2) *Pristurus sokotranus*, Socotra Island, Wadi Da'Arho, II.2009. 3) *P. samhaensis*, Darsa Island, II.2009. (photos by Pietro Lo Cascio and Flavia Grita)

REPTILES OF SOCOTRA. *Chamaeleo monachus* was described by the herpetologist John E. Gray in 1865, who indicated “Madagascar” as type-locality for the new species. However, the specimen studied by Gray came from Socotra, where chameleons were perhaps collected as pets by Arab sailors and successively sold to British travellers with erroneous information about their provenience, but only after the first scientific expedition carried out on the island by the botanist Isaac Balfour in 1880 it was possible to determine its true origin. *C. monachus* now is appropriately known as one of the several endemic reptile species of the Socotra Archipelago (Yemen), where it is the only representative of the family Chamaeleonidae and where it is exclusively distributed on the main island. The archipelago is located about 380 kilometers south-east off the Yemen coast and 100 km east from Cape Guardafui (Somalia), and includes four islands, whose size ranges from 3,625 (Socotra) to 12 km² (Darsa). Socotra’s levels of endemism confer global significance, both in plants and animals; the main island is a fragment of Gondwana, firstly isolated in the Indian Ocean during Eocene-Oligocene (34-41 million years ago), and palaeogeographic data indicate that all the islands have been definitively isolated from Africa about six million years ago. Reptiles is undoubtedly one of the most important and significant groups among the vertebrate faunas of these islands in terms of biological diversity. According to the recently updated checklist given by Razzetti *et al.* (2011, in *Zootaxa* 2826: 1-44), the Socotra Archipelago harbours 30 species belonging to 12 different genera, some of which are strictly endemic of the islands: the gekkonid *Haemodracon* Bauer *et al.*, 1997, and two snake monotypic genera, the colubrid *Hemerophis* Schätti & Utiger, 2001, and the lamprophiid *Dityopphis* Günther, 1881. Except for the bizarre story of the homeland of the Socotran chameleon, the first knowledge on the herpetofauna of the archipelago is mainly due to the zoological expedition led by the British naturalists Henry O. Forbes and William R. Ogilvie-Grant in the late 19th century, but investigations on taxonomy and distribution of several species are still in progress, as evidenced by the recent description of the gekkonid *Hemidactylus inintellectus* Sindaco *et al.*, 2009, as well as by the fact that seven other species have been described during the last three decades. The endemism rate among reptiles is very high and 90% of occurring species are exclusive of one or more islands; moreover, some of which are also strictly confined on very small areas: a significant example is given by *Hemidactylus dracaenacolus* Rösler & Wranik, 1999, so far known only from few localities of the Diksam Plateau at Socotra where it inhabits barks and trunks of the renowned dragon blood trees, the relictual endemic *Dracaena cinnabari*. Most part of the occurring reptiles (18) belong to the family Gekkonidae and some genera, such as the diurnal Semaphore geckos *Pristurus* Rüppell, 1835 or the nocturnal *Hemidactylus* Oken, 1817, are interested by remarkable processes of adaptive radiation: both include 7 endemic species (the latter, also, comprises 3 species introduced on the islands). In particular, Socotra and its satellite islands harbour one third of the 20 recognised species of *Pristurus*, a genus distributed in Arabia and north-eastern Africa with an isolate in Mauritania. These geckos are mainly heliothermic ground- or rock-climbers, but a small number of taxa is known as tree dwelling; among the Socotran representatives, *P. obsti* Rösler & Wranik, 1999, originally recorded for the mangroves of Shu’ab Gulf, and the closely related *P. guichardi* Arnold, 1986, known for the mountains of Hajhir Massif, are purely arboreal, while the most common and widespread *P. sokotranus* Parker, 1938, as well as *P. insignis* Blanford, 1881 and *P. insignoides* Arnold, 1986, are generally associated to rocks and cliffs. *P. abdelkuri* Arnold, 1986 is endemic of the westernmost island Abd al-Kuri, but some introduced populations of this species have been recently recorded at Socotra. Finally, *P. samhaensis* Rösler & Wranik, 1999 replaces *P. sokotranus* in the small islands of Samha and Darsa, also called “The Brothers”.

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