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Sula neboxii excisa Todd, 1948 - Galápagos Islands

Upper: *Sula neboxii excisa*,
Isabela Island
(Galápagos Islands).
Lower: *Chelonoidis nigra* spp.
Santa Cruz Island,
C.Darwin Research Center.
Photos by
Francesco, Toscano
Napoli, Italy



The Galápagos Islands. The Galápagos Islands (official name Archipiélago de Colón) are an archipelago of volcanic islands distributed on either side of the Equator in the Pacific Ocean, 926 km West of continental Ecuador, which they politically belong to. The Archipelago consists of 18 main islands, 3 smaller islands and 107 rocks and islets, with the surrounding waters being a National Park (since 1959) and a Biological Marine Reserve (since 1986). In 1978, Unesco recognised the islands as a World Heritage Site and, in 1985, as a Biosphere Reserve including, later (in 2001), the Marine Reserve. In September 1835 the Galápagos Islands were reached by the English naturalist Charles Darwin who aboard the "Beagle" spent more than a month on the exploration of this archipelago. He conducted numerous observations on geological, botanical and zoological features of these islands subsequently merged into some of the basics of his theory on the evolution of the species. In particular, it was obvious to C. Darwin as geographical isolation and adaptation to new environments were crucial in the processes of speciation. These islands, all of volcanic origin, were uninhabited in the beginning; subsequently, the various life forms mostly coming from the South American continent underwent a first process of speciation in the occupied territories. In many following steps, these species colonised other islands and, from time to time, adapting to new environments and exploiting the numerous trophic niches, further diverged. All this resulted in the presence of many taxa related to each other but distinct by form and function which occupied different islands. Darwin, for example, observed that the species of finches of the Galápagos Islands showed the beak with a different shape and function as a result of the natural selection. The differentiation within this group led to the final result of 13 species organized into three separate genera. Another example of this evolutionary radiation are the "Galápagos giant tortoises", belonging to a single species (*Chelonoidis nigra* group) divided into several subspecies depending on the island they occur in, nearly all considered as endangered taxa.

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