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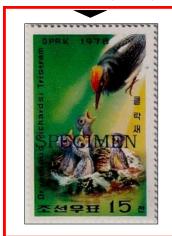


Birds are a class of vertebrates with more than 18000 different species. Of the various features that are common to all birds, perhaps the most characteristic is their beak. All birds have one beak. But it has evolved differently in each species to improve its functions in response to its environment. These functions include feeding themselves and their young, defending themselves, grooming their feathers, mating, regulating their body temperature or building nests. **But what exactly is a beak?** In biological terms, it is a type of mouth in which the jaws have no teeth and are covered by a horny layer of a protein called keratin (like the nails or horn of a rhinoceros).

Generally, bird beaks are categorized according to their shape and function. There are several different kind of bird beaks, as illustrated here below.

Hultifunctional beaks Courtships, defence & food collection. 1987.Keel-billed Toucan

Cone shaped beaks -Seed Eaters -Finches, sparrow 1978.White-bellied Woodpecker –Specimen



Large, long, and strong beaks 1998. Fish ______ eaters - Brown



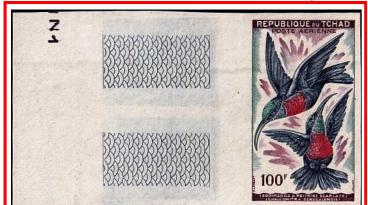
Spatulate beaks - Storks, Herons - Carrion eaters, mollusks, fishes



Hooked beaks - They are usually meat eaters Birds of Prey 1964. Ornate Hawk-Eagle



Long, thin, needle-like beaks - Nectar feeders Sunbirds, Hummingbirds 1961. Scarlet-Chested Sunbird



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Bent, Wide filter beaks (Roman Nose) - Filter feeders 1960.Greater Flamingo - progressive color trials - composite strip of 5 –Definitive



Bibliography-Nature Society, Singapore; EEB of Princeton, OEB and MCZ at Harvard,

BIRDS BEAKS & ADAPTATIONS

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Bibliography-Nature Society, Singapore; EEB of Princeton, OEB and MCZ at Harvard, Websites - https://sciencemadefun.net/blog/birds-beaks-and-adaptations/

Whales play an amazing role in an **ecosystem** that keeps every creature on Earth alive, including you! Whales play a vital role in the marine ecosystem where they help provide at least half of the oxygen you breathe, combat climate change, and sustain fish stocks.





TERRES AUSTRALES ET ANTARCTIQUES FRANÇAISES

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