

## New Miocene sulid birds from Peru and considerations on their Neogene fossil record in the Eastern Pacific Ocean

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Boobies and gannets (family Sulidae) are the most specialized plunge divers among seabirds. Their fossil record along the Pacific coast of South America extends to the early Middle Miocene. Here we describe three new species of sulids: *Sula brandi* sp. nov., *Sula figueroae* sp. nov., and *Ramphastosula aguirrei* sp. nov., from the early Late Miocene of the Pisco Formation (Peru). Two of them are relatives of the living genus *Sula*, which represents medium and large-sized boobies. A new species of the extinct genus *Ramphastosula* is also described, adding to the discussion of possible alternative feeding strategies among sulids. The fossil record suggests that sympatric sulids exhibit different body sizes at least since the Oligocene epoch, a strategy related with resource partitioning. Furthermore, we find current analysis and knowledge of the fossil record unsuitable to evaluate properly seabird diversity changes through time.

**Key words:** Aves, Pelecaniformes, Sulidae, *Sula*, *Ramphastosula*, seabird evolution, Miocene, Peru.

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