A sea turtle skull from the Cretaceous of Chile with comments on the taxonomy and biogeography of Euclastes (formerly Osteopygis)

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The taxonomic status of turtle specimens from the Upper Cretaceous (upper Maastrichtian) Quiriquina Formation of Chile is unresolved. The previously described specimens were considered either stem-cheloniid sea turtles or baenids (a freshwater clade otherwise restricted to North America). A third specimen, a skull described here, supports previous report that stem-cheloniid sea turtles are present in the Quiriquina Formation. The new skull is referred to the stem-cheloniid genus Euclastes (formerly Osteopygis), but not assigned to a species because the alpha taxonomy is complicated by lingering confusion about the taxonomic status of a previously described skull from the Quiriquina Formation (the holotype of Australobaena chilensis). Revisions to the higher-level taxonomy of durophagous stem cheloniids, combined with the specimen described here, and other new material from Gondwana, reveal an emerging pattern of Euclastes biogeography and stratigraphic distribution. According to curren