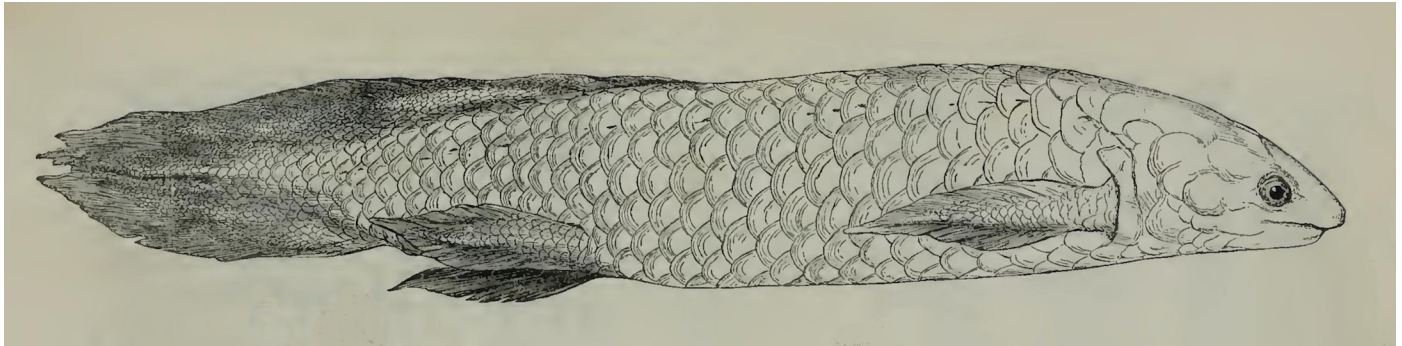


Order CERATODONTIFORMES<sup>1</sup>

Australian Lungfishes

Family **NEOCERATODONTIDAE**<sup>2</sup>

Schultz 1948



*Neoceratodus forsteri*, holotype. From: Krefft, J. L. G. 1870. Description of a gigantic amphibian allied to the genus *Lepidosiren*, from the Wide-Bay district, Queensland. Proceedings of the Zoological Society of London 1870 (pt 2) (art. 1): 221–224.

***Neoceratodus***

Castelnau 1876

*néos* (Gr. νέος), new, i.e., a “new” *Ceratodus* Agassiz 1838, a Triassic genus in which *N. forsteri* had been described: *cerato-*, from *kéras* (Gr. κέρας), horn, and *odoús* (Gr. ὀδούς), tooth, referring to their prominent, shark-like tooth plates

***Neoceratodus forsteri* (Krefft 1870)** in honor of (and “in justice to”) friend and politician William Forster (1818–1882), Minister of Lands, New South Wales, who presented two specimens (collected by his

cousin, William McCord, an amateur naturalist) of this “great amphibian” to the Australian Museum; the “in justice” comment reflects Krefft’s amends for doubting his longtime friend, who owned large tracts of land near the type locality in Queensland and had tantalized Krefft with tales of a “fish” with a cartilaginous backbone [see below for full story]

<sup>1</sup> Order named for *Ceratodus*; see etymology of *Neoceratodus*.

<sup>2</sup> One Recent genus and species in an otherwise fossil Australian family. Authorship often attributed to Miles 1977, unaware of Schultz 1948.

## Discovery and naming of the “great amphibian”

When Gerard Krefft named the Australian Lungfish after his old friend William Forster, it was more than an honor. It was an apology, too.

Krefft (1830–1881) was curator of the Australian Museum. Forster (1818–1882) was a politician, at the time serving as Minister of Lands for New South Wales. Forster owned large tracts of land in the Wide Bay-Burnett region of Queensland. He tantalized Krefft with tales of a freshwater “fish” with a cartilaginous backbone. Early settlers (called squatters) relished its pink flesh and called it “Burnett salmon.” Surely no such fish can exist, Krefft believed. He insisted that Forster was mistaken.

But Forster wasn’t mistaken. One day he presented Krefft with a box containing two salted fish collected by his cousin, William McCord, an amateur naturalist. Their entrails had been removed, but that didn’t matter. Krefft was amazed by what he saw. According to Krefft, the conversation went like this:<sup>1</sup>

Said Mr. Forster: “Well, Krefft, what are those fish?” Said I: “I cannot tell you till you allow me to examine them.”

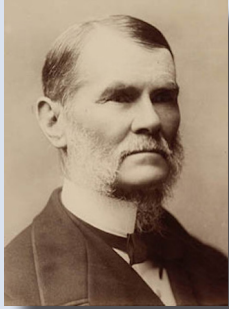
Said Forster: “Do so, you are welcome to them. I present them to you, if you will name them after me.” I replied: “I will,” took my knife out, exposed the teeth and told Forster: “Never saw anything to equal this in my life.”

“Are they new?” said Forster. “No, I said, “they are old as the mountains of Australia, and if you will let me alone we will make a fortune with these fishes.” “Well” (were his last words) “take them away, do what you like with them but make the discovery known in tomorrow’s *Herald*.” Of course I had to keep my word and other people earned the benefit.

Krefft kept his word. He announced the discovery of an Australian aquatic creature that had both lungs and gills not in a scientific journal, but in a letter to the editor in the 17 January 1870 edition of the *Sydney Morning Herald*, from which the name dates. By placing it in the genus *Ceratodus*, Krefft believed it was a living representative of a cosmopolitan genus of Triassic aquatic animals proposed by Louis Agassiz in 1838. Earlier paleontologists believed

*continued on next page*

*Ceratodus* were allied to sharks. But with fresh material now in hand, Krefft believed the genus was allied to salamanders. In fact, he called the lungfish not a lungfish, but a “great amphibian.”



William Forster

“In honour of the gentlemen who presented this valuable specimen to the Museum,” Krefft named it after Forster. In addition, Krefft said that he named the fish “in justice” to his friend, “whose observations I questioned when the subject [of an amphibious fish] was mentioned years ago, and to whom I now apologize.”

Krefft published a formal and more detailed description of the lungfish in *Proceedings of the Zoological Society of London* later that year. At some point, he composed this short verse for his son:

Lucullus ate Muraena rare,  
In Rome the daintiest dish,  
And Squatters on the Burnett dined  
On geologic fish.



Gerard Krefft

<sup>1</sup> Conversation recounted in 18 Dec. 1880 letter from Krefft to Richard Lydekker, Indian Geological Survey. Quoted in: Whitley, G. P. 1929. The discovery of the Queensland lungfish. *The Australian Museum Magazine* 3 (11) [July-Sept.]: 363–364.