

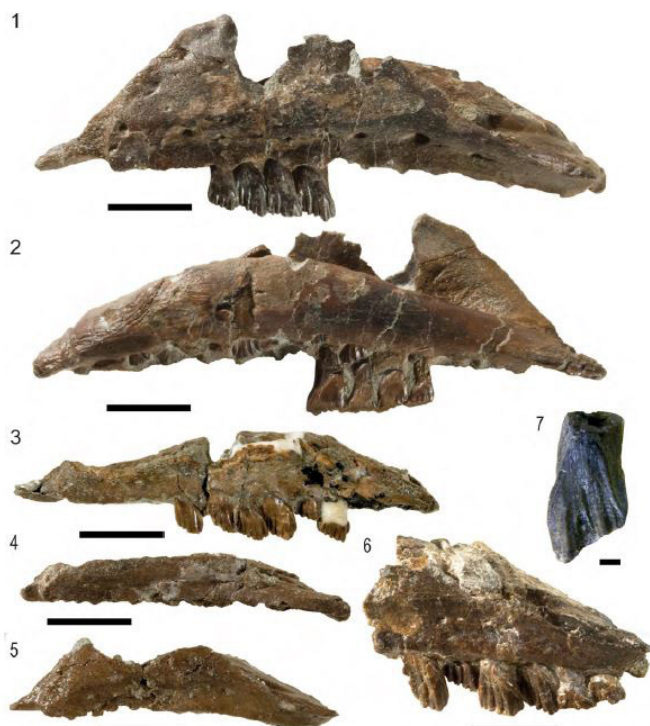


# GALLEONOSAURUS: A FLAT ROCKS DINOSAUR

BY STEPHEN POROPAT

In the three years since 2016, when I and several colleagues named the sauropod *Savannasaurus elliottorum*, four new Australian Mesozoic dinosaurs have been named on the basis of skeletal remains. All are ornithopods, and two are from Victoria. One of these, *Diluvicursor pickeringi*, graced the cover of last year's field report in the form of a beautiful restoration by Peter Trusler. The other, named in January 2019, is *Galleonosaurus dorisae*.

Gerry Kool has been a mainstay of Victorian dinosaur digs for decades. On the 2008 dig at Flat Rocks, while splitting rock, Gerry struck the palaeontological equivalent of gold: a beautiful ornithopod jaw, with four erupted teeth. Amazingly, the rock broke around the specimen rather than through it: an unusual



Specimens of *Galleonosaurus dorisae* (1–2) holotype left maxilla (NMV P229196); (3–6) left maxillae (NMV P208178, P212845, P209977 and P186440), left maxilla in lateral view; (7) right maxillary tooth (208113)  
Scale = 10 mm (1–6); 1 mm (7).

Image: Matt Herne, Herne et al (2019) Fig 4



Image: The Amazing Spino (https://instagram.com/theamazingspino)

One of the fabulous pieces of *Galleonosaurus* fan art

occurrence on the Victorian coast! In next to no time, David Pickering (*Diluvicursor's* namesake) had the specimen prepared and registered at Melbourne Museum, and shortly after it was studied by Matt Herne, then a PhD candidate at The University of Queensland (UQ).

In 2019, slightly more than a decade after its discovery, Gerry's jaw was designated the holotype specimen of a new ornithopod species by Matt Herne, Jay Nair (also from UQ), Alistair Evans (Monash University), and long-time Dinosaur Dreamer and sedimentologist Alan Tait. They dubbed Gerry's jaw *Galleonosaurus dorisae*, and assigned an additional three maxillae (two from Flat Rocks, one from The Caves) and two teeth to the new species. The genus name *Galleonosaurus* alludes to the overall shape of the maxilla, which in side view looks like an upside-down ship's hull, and the species name honours stalwart Dinosaur Dreamer Doris Seegets-Villiers, whose PhD research enabled the palaeoenvironmental setting of the Flat Rocks site to be understood.

Prior to the naming of *Galleonosaurus*, only one dinosaur had been named from Flat Rocks: *Qantassaurus intrepidus*, based on three dentaries, named by Tom Rich and Pat Vickers-Rich in 1999. In their scientific paper naming *Galleonosaurus*, Matt Herne et al thoroughly reviewed *Qantassaurus*. They restricted it to the holotype dentary (found by Nicole Evered in 1996), and designated the other two dentaries *Qantassaurus ?intrepidus*. This indicates that they



A reconstruction of *Galleonosaurus dorisae* and its Cretaceous environment by James Kuether

Image: James Kuether

belong to the genus *Qantassaurus*, but are somewhat different from Nicole’s jaw. They might represent a different species of *Qantassaurus*, or be jaws from the opposite sex of the same species as Nicole’s jaw.

Intriguingly, Matt Herne *et al* also described an unusual ornithopod maxilla from Flat Rocks. This was quite different from the maxillae of *Galleonosaurus*, but very similar to those of *Atlascopecosaurus*, which were found at Point Lewis in rocks that are at least ten million years younger than those at Flat Rocks. It is possible that this maxilla belongs to *Qantassaurus intrepidus* (the teeth of which are similar to those of *Atlascopecosaurus*), but this is impossible to prove.

Finally, Matt Herne *et al* described several dentaries from Flat Rocks that are clearly different from those of *Qantassaurus*. The dentary of *Qantassaurus* is short, robust and has only ten tooth sockets, whereas the new dentaries have up to thirteen tooth sockets and are much more gracile (elongate and more lightly constructed). It is possible that these dentaries belong to *Galleonosaurus*, but again this cannot be demonstrated beyond doubt.

Unfortunately, *Galleonosaurus* and *Qantassaurus* cannot be directly compared against one another: one is named from a maxilla, the other from a dentary. Although it is unlikely that they belong to the same

species, naming *Galleonosaurus* for one of the new dentaries might have allowed this comparison.

A strange coincidence occurred to me as I was writing this: the two ornithopods from the Flat Rocks site are named for a ship and an airline. Perhaps the next ornithopod should be named after Puffing Billy or Thomas the Tank Engine to complete the mass transport set!

### References

Herne M.C., Nair J.P., Evans A.R., Tait A.M. 2019. New small-bodied ornithopods (Dinosauria, Neornithischia) from the Early Cretaceous Wonthaggi Formation (Strzelecki Group) of the Australian-Antarctic rift system, with revision of *Qantassaurus intrepidus* Rich and Vickers-Rich, 1999. *Journal of Paleontology*, 2019; 1 DOI: 10.1017/jpa.2018.95.

Rich T.H. and Vickers-Rich P. 1999. The Hypsilophodontidae from southeastern Australia. *National Science Museum Monographs* 15, 167-180.



The *Galleonosaurus dorisae* holotype the day it was found by Gerry Kool