

*Zaphrentis*, indicating the great group of the Rugosa. At a few localities they have been met with, not in specific abundance, but in a plenitude of individuals. Equally does this statement hold good for the Permo-Carboniferous of Queensland, and I believe for Tasmania also. So little is, however, known of the fossiliferous contents of the thick limestones of Western Australia that such a generalisation cannot be applied to that Province at present.

A glance at the results attained by the four principal workers in the Palæozoic Palæontology of Eastern Australia, during the forty-five years which have elapsed since Lonsdale wrote, will impress this question strongly on the mind of the reader. Lonsdale,<sup>1</sup> in 1844, described the new genus *Stenopora* and four species from New South Wales and Tasmania, afterwards recapitulating these, and adding a rugose coral, *Amplexus arundinaceus*.<sup>2</sup> The last named and two of the foregoing species of *Stenopora* were quoted by M'Coy<sup>3</sup> in 1847, and three other corals added, one being a new genus and species, *Cladochonus tenuicollis*. Passing on to the researches of Dana, we find that he merely localised Lonsdale's *Stenopora* and added a fifth species, but under the name of *Chaetetes gracilis*.<sup>4</sup> Lastly we come to the work of the late Prof. L. G. de Koninck, by whom the collections of the late Rev. W. B. Clarke were classified and described. De Koninck,<sup>5</sup> as well as reviewing many of those already referred to, added thirteen species to the Australian Permo-Carboniferous Coral Fauna, appertaining to seven genera, not previously described as coming from that horizon. Omitting one of De Koninck's species (*Lithostrotion basaltiforme*) from the Murrumbidgee,<sup>6</sup> the total gives us nine genera and twenty-one species recorded during the long period in question, but the species may be reduced to twenty by the elimination of one of Prof. M'Coy's, viz., *Turbinolopsis bina*, probably determined on the internal cast of a Zaphrentoid coral. Of the genera, two were specially established for the reception of their species.

<sup>1</sup> Darwin's Geol. Obs. Volc. Islands, 1844, p. 161, note.

<sup>2</sup> Strzelecki's Phys. Descrip. N. S. Wales, &c., 1845, p. 262.

<sup>3</sup> "On the Fossil Botany and Zoology of the Rocks associated with the Coal of Australia," Ann. Mag. Nat. Hist., 1847, XX, pp. 226 and 227.

<sup>4</sup> United States Exploring Expedition, during the years 1838-42, under the command of Charles Wilkes, U.S.N. Vol. X, 1849, Geology by J. D. Dana, p. 712 (4to. and folio, N. York, 1849).

<sup>5</sup> Foss. Pal. Nouv. Galles du Sud, 1877, Pt. 3, p. 143.

<sup>6</sup> There are no Permo-Carboniferous rocks on this river. The coral in question occurs in the Cave Limestone, at Cave Flat, on the Murrumbidgee, south-west of Bowning, and it is questionable if it be a *Lithostrotion* at all. The Cave Limestone is either Upper Silurian or Siluro-Devonian.