

Zealand specimen, the fangs being little curved, the caps are thus almost parallel to the fangs, or only slightly inclined outwards from them, whereas in the Cape specimen the caps are directed at right angles to the fangs, which, towards their tips, are so bent as to be almost horizontal. The alveolar regions of the fangs present in both specimens a similar series of ridges terminating in denticulations. The tips of all the denticulations are closed in the New Zealand specimen, and there is no trace of a pulp-cavity, notwithstanding that the animal may be assumed to be young and with its teeth yet to grow, which it would do by a continuous addition from without by a periosteum which acts the part of a persistent pulp.

“The New Zealand teeth are much less curved than those from the Cape. If the dentinal caps are placed in apposition and parallel to one another, the younger New Zealand teeth are seen to be nearly two and a half times as broad as the older teeth from the Cape at the place of attachment of the caps of dentine. In each case the cap is placed on the anterior corner of the somewhat square-ended tooth, hence a large portion lies behind the cap in the New Zealand specimen, and but a small portion in the one from the Cape. On the anterior margin of the New Zealand teeth are semilunar excavations, cutting into their substance, and evidently caused by wear. The inner more spongy substance of the tooth being exposed it has decayed somewhat, leaving a harder external layer a little prominent. This decay is probably a *post-mortem* occurrence. In the Cape specimen there is no trace of this wear, or a very slight depression may possibly mark it.

“The dentinal cap of the tooth in the New Zealand specimen is marked by grooves passing in an inclined direction from apex to base. Similar grooves are to be seen in the tooth of the young specimen of *Mesoplodon hectori* in the Wellington Museum, the tooth being divided by them into three lobes, a central and two lateral, on the inner face. The adult New Zealand specimen shows the same form in its dentinal caps, the lobes being on the inner face, and a pair of teeth of the same species from the Chatham Island, preserved in the Museum, show the same form also. In the teeth of the young *Mesoplodon hectori*, the pulp-cavity is still open as a slit-like cavity, showing internally numerous fine ridges, which are apparently the commencement of the denticulations of the adult tooth.”

In the skull described by Dr von Haast, the length of the anterior edge of the exposed part of the tooth was 8.74 inches, and the anterior edge was not worn away; but both in it and the Chatham Island specimen, described by Dr Hector, a sufficient space existed between the upper ends of the pair of teeth to allow of the beak to pass, when the animal opened its mouth. Dr von Haast states that the animal was a full-grown male, and from the ossification of the epiphyses, he judges it to be of mature age.

The tooth of a ziphioid cetacean, from Little Bay, Sydney, figured by Dr Gray,