

metacarpus, with both of which bones it articulates. Both the articular surfaces of the bone are concave, that for the reception of the extremity of the radius being deeper than that which articulates with the metacarpus.

The *ulnar carpal* bone (Pl. VI. figs. 13, 14, 15) is of much larger size than the radial. It presents in *Eudyptes chrysocome* the form of an isosceles triangle, the apex of which is directed downwards. The upper and external angle of the figure is somewhat prolonged to form a projecting tubercle provided with two articular surfaces. The upper of these is concave and articulates with the distal end of the ulna, while the lower, irregular in form, articulates with the proximal extremity of the metacarpal bone. The internal surface of the bone is flat, the external slightly hollowed from above downwards. The anterior and posterior borders of the bone are of equal length, and slightly exceed that of the superior border, which is directed upwards.

The radial carpal bone presents the same form in every species of Penguin. The ulnar carpal is similar in form in *Eudyptes*, *Aptenodytes*, and *Spheniscus*. In *Pygosceles* the length of the bone relatively to its breadth is greater than in any of the other genera.

It is impossible to give measurements of the radial carpal bone. Those of the ulnar carpal are subjoined in inches.

SPECIES.	Length of radial border of ulnar carpal bone.	Length of ulnar border of ulnar carpal bone.	Length of upper border of ulnar carpal bone.
<i>Eudyptes chrysocome</i> , from Tristan,	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{1}{2}$
<i>Eudyptes chrysocome</i> , from the Falklands,	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{1}{2}$
<i>Eudyptes chrysocome</i> , from Kerguelen,	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{1}{2}$
<i>Eudyptes chrysolophus</i> ,	$\frac{1}{2}$	$\frac{7}{8}$	$\frac{5}{8}$
<i>Spheniscus demersus</i> ,	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{5}{8}$
<i>Spheniscus magellanicus</i> ,	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{5}{8}$
<i>Spheniscus mendiculus</i> ,	$\frac{1}{4}$	$\frac{5}{8}$	$\frac{1}{2}$
<i>Spheniscus minor</i> ,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{8}$
<i>Pygosceles tæniatus</i> ,	$\frac{3}{4}$	$1\frac{1}{8}$	$\frac{3}{4}$
<i>Aptenodytes longirostris</i> ,	$\frac{1}{2}$	$\frac{7}{8}$	$\frac{3}{4}$

The Metacarpus.

The metacarpus of the Penguins consists of a single bone, which, however, clearly shows its originally compound character even in the adult. The elements of which it is composed are three in number. The *first* or radial metacarpal bone is of