

situated in front of the upper extremity of the corresponding kidney, while in the female the unilateral ovary lies in front of the upper end of the left kidney. Each kidney is divided into two lobes by means of an oblique fissure, which passes from the outer margin of the organ obliquely forwards and inwards. In this respect all the Penguins differ from the majority of birds, in which the kidney is divided into three lobes. Of the two lobes, the anterior is the larger and more expanded, while the posterior is narrow and elongated. The two kidneys together, therefore, present a form somewhat resembling that of a violin. The upper surface of each is convex and irregular, and corresponds with the lower surface of the vertebral column, against which it rests. The lower surface, on the other hand, is nearly flat and uniformly smooth. Each kidney measures $2\frac{1}{2}$ inches in length and $\frac{3}{4}$ of an inch in greatest breadth. Its posterior lobe has an average breadth of $\frac{1}{2}$ an inch.

The ureter commences close to the anterior border of the kidney, and passes backwards, being at times visible on the lower surface of the organ, at times embedded in the renal substance. Having escaped from the posterior extremity of the kidney, it passes backwards, lying in contact with the superior abdominal wall, and terminates on the summit of a nipple-shaped papilla, situated on the upper wall of the posterior compartment of the cloaca. In its course between the kidney and cloaca, the ureter lies along the inner side of the corresponding genital duct. At their entrance into the cloaca, the orifices of the ureters lie internal to and separate those of the ducts of the reproductive glands. The ureter, from the posterior border of the kidney to its entrance into the cloaca, measures $1\frac{3}{4}$ inches in length.

Variations in respect of the Kidney.

The only exception to the description above given of the kidney occurs in the case of *Spheniscus minor*. In that species I found the posterior lobes of opposite kidneys completely fused along their inner margins, so that here the two kidneys formed a single continuous mass of renal tissue. The anterior lobes, on the other hand, are quite distinct as in other species. In *Spheniscus minor*, moreover, the posterior extremity of each kidney displays an emarginate notch, from which the ureter passes off. This notch is seen in no other species which I have examined. In all the other birds which I examined the kidney differs from that of *Eudyptes chrysocome* only in size.

The subjoined table shows in inches the dimensions of the kidney and ureter in the various species examined.