natural family as the *Brachypteryx*, shows that the wings were still less developed than in
that genus\(^1\). The costal border exhibits articulations for five sternal ribs (fig. 7) on each
side, as in the *Brachypteryx*; the anterior border shows a wide and shallow concavity, not
the deep narrow median notch. There are no pneumatic fossæ on the upper surface.
The anterior buttresses of the keel divide the fore part of the anterior surface of the
sternum into three parts, as shown in fig. 8, where the coracoid grooves are represented
near the fractured anterior or costal angles of the bone.

*Bones of the Leg of Notornis.*

The genus *Notornis*, of the family of the *Rallidæ*, and most nearly allied to the *Por-
phyrio*, was established on a skull described and figured in the Memoir on that genus,
pp. 151, 172, *Pl. XLVII*.

To the same genus I refer the femur, tibia and tarso-metatarsæ about to be described,
on account of their similar correspondence with the homologous bones in *Porphyrio*,
and their proportional agreement in size with the skull of the *Notornis*.

The specimens were obtained from the North Island of New Zealand, and were
transmitted by the Rev. William Cotton, M.A. The femur (*Pl. LI*, fig. 3) is moderately
long and slightly bent with the convexity forwards, as in the *Brachypteryx*. A small
head supported on a short and thick neck is impressed on its upper part by a large
fosse for the ‘ligamentum teres’: the apex of the three-sided trochanter is bent upwards
and forwards: the broad irregular convex outer surface of the trochanter extends
between a concavity at the inner and fore part of the trochanter and a smaller concavity
at the back part of the upper surface of the shaft. A narrow intermuscular ridge ex-
tends down the middle of the back part of the shaft to the shallow popliteal space, above
the inner condyle, as in the *Brachypteryx*: the shaft is nearly cylindrical. The rotular
intercondyloid surface is wide and slightly inclined inwards. The fibular notch behind
the outer condyle, and the rough fossa above it, closely accord with those of the *Brac-
hypteryx*.

The tibia (*Pl. LI*, fig. 4) measures seven inches ten lines in length, and like the femur
is more slender in proportion to its length than in the *Aptornis*: the proximal articular
surface is almost confined to the entocondyloid division, which is very slightly concave
in adaptation to the almost flattened broad inferior surface of the inner condyle of the
femur: the intercondyloid tuberosity is low. The epicnemial ridge rises much above it,
and equals in extent the breadth of the articular surface of the tibia: it forms an angle at
the fore part of the middle of the proximal end of the tibia and extends thence obliquely
outwards and backwards, where it terminates by meeting at a right angle the ecto-

\(^1\) Since the memoir in which this passage occurs was printed, the *Notornis* has been discovered alive in the
Middle Island of New Zealand, and an entire skin transmitted thence by Mr. Walter Mantell, which was described
and exhibited by Mr. Gould at the Meeting of the Zoological Society, November 12, 1850. The wings are too
short to serve the purposes of flight, and the feathers show that downy or decomposed character common to those
land birds that cannot fly.
cnemial ridge: this is short, and descending obliquely inwards terminates or subsides upon the prominent fore part of the tibia about an inch below its upper angle. The procnenial ridge has an equally short origin, which is oblique and parallel with the ecto-
cnenial ridge: it is broken in the specimen under description, but from the analogy of the *Brachypteryx* probably projects far forwards: where it subsides at the inner side of the tibia there is a tuberosity, from which a low ridge extends bounding internally the fore part of the tibia as far as the canal for the extensor tendon. The fibular ridge is well-marked; it begins on the outer side of the shaft one inch below the epiconemial ridge, extends nearly two inches down the shaft, and after a smooth tract of half an inch, reappears as a rough tract of an inch and a half in extent: a low narrow ridge is continued thence to the outer side of the fossa, lodging the extensor canal. The shaft of the tibia is compressed from before backwards, is smooth and rounded on the inner side which is thicker than on the outer side. The hinder and under part of the distal articular surface is convex from behind forwards, slightly concave from side to side, increasing in breadth as it extends forwards, and bounded laterally by two prominent ridges: the division of this surface into condyles is limited to its fore part, where they project forwards, are of small size, and are divided by a very wide concave interspace, immediately above which is the bony canal for the extensor tendons. The distal end of the tibia is expanded chiefly at its inner side, towards which it seems to be slightly bent.

The tarso-metatarsal (Pl. LII, fig. 5) a little exceeds the femur in length: its proximal condyloid cavities are small and widely separated by a large intercondyloid prominence, and a non-articular tract behind extended upon a calcaneal process: the entocondyloid cavity is as usual the deepest. The calcaneal process is simple, imperforate, and subsides eight lines below its upper end upon the back part of the mesometatarsal. The concavity on the inner side of the calcaneal process is bounded internally by a ridge continued from a tuberosity behind the entocondyloid cavity about two-thirds down the shaft, below which is the well-marked oval depression for the back-toe (i). A small foramen, indicating the interosseous space between the inner and middle metatarsals, opens into the upper part of the concavity below and at the inner side of the calcaneal process. On the outer side of that process, but at a lower level, is a similar remnant of the primitive space between the middle and external metatarsals: both these foramina unite as usual into a single median foramen at the fore part of the proximal end of the bone. A deep and wide concavity occupies the upper half of the fore part of the tarso-metatarsal: it is gradually filled up by the advance forwards of the middle metatarsal element, which is placed as usual rather obliquely between the outer and inner elements. A slight groove between the distal portion of the middle metatarsal and the outer one, leads to the canal for the transmission of the adductor tendon of the fourth toe. The outer and inner trochleaæ are nearly of equal extent, the outer one being a little longer or lower: the middle trochlea is the longest as well as largest: it does not advance so far forwards as in the *Aptornis*: each condyle is slightly grooved.