

APPENDIX I.

DESCRIPTIONS OF FOSSILS.

I. FOSSILS OF NEW SOUTH WALES.

THE fossils of New South Wales here described come from four regions—the District of Illawarra, the Newcastle coal beds, the sandstone of Harper's Hill, and the schistose sandstone of Glendon on the Hunter. A valuable collection of specimens from Illawarra and Harper's Hill were received from Major-General Barry. These localities were afterwards visited by the writer, who observed the same species in place, and added many others to the collections. Our indebtedness, also, to the Rev. Mr. Wilton of Newcastle, and Mrs. Scott of Glendon, for Glendon specimens, has been mentioned.

We describe first the fossils of the sandstone below the coal beds, and next, those of the coal beds themselves. The former are nearly all zoological, embracing molluscs and some corals. The latter are vegetable, excepting a single fossil fish.

A. FOSSILS OF THE SANDSTONE BEDS BELOW THE COAL.

1. PISCES.

GENUS UROSTHENES (*Dana*).—Related to *Palæoniscus*. Body elongate, prolonged into upper lobe of tail nearly to apex. Caudal fin but little furcate. Anal fin triangular, attached to body quite to the caudal. Dorsal fin directly over anterior part of the anal, broad spatulate. Ventral fin spatulate, distant from anal. Rays of fins very numerous and fine, jointed, with 2 to 4 free spines anterior to the fins. Scales naked, without markings.

UROSTHENES AUSTRALIS.—Body narrow, oblong. Scales subquadrate over the middle and anterior part of the body; oblong rectangular and smaller, posteriorly. Rays of fins slender and crowded, subdividing outward; articulations oblong, surface of each