

NOTE on the Genus *NAIADITES*, as occurring in the COAL FORMATION of NOVA SCOTIA. By Sir J. WILLIAM DAWSON, C.M.G., I.L.D., F.R.S., F.G.S. With an APPENDIX by WHEELTON HIND, M.D., B.S., F.R.C.S., F.G.S.

[PLATE XX.]

IN the autumn of 1892 Dr. Wheelton Hind was so kind as to invite me to place in his hands, for study and comparison, specimens of the bivalve shells from the Coal Formation of Nova Scotia, which I had described under the above generic name,¹ and some of which were described by the late Mr. Salter in the Quarterly Journal of this Society, vol. xix. (1863), under his new generic names *Anthracoptera* and *Anthracomya*. Owing to illness I was unable, at the time, to comply with Dr. Hind's request, and thus the Nova Scotian species lost the benefit of a detailed comparison with the British forms in Dr. Hind's excellent paper of May 1893.² I have now sent a collection of specimens to him, and beg to make the following remarks thereon.

These shells occur plentifully in some of the argillaceous shales of the Coal Formation, and occasionally on the surfaces of flaggy sandstones, but the most abundant repositories are the beds which I have named 'calcareo-bituminous shales' and 'bituminous limestones,' beds which, on account of their superior toughness and black colour, often stand out prominently in the coast-sections, and are sometimes almost entirely composed of these shells.³ As none of the properly marine species of the Carboniferous Limestone ever occur in these beds, and as they are closely associated with the coal-seams, I have always been greatly interested in them—in connexion with the various theories of the deposition of coal. I referred to them in this relation in 'Acadian Geology,' 2nd ed. 1868,⁴ in the following terms:—

"All the lamellibranchiate shells, which are so numerous in some of the shales and bituminous limestones of the Joggins that some of the beds may be regarded as composed of them, belong to one generic or family group. They are the so-called *Modiolas*, *Unios*, or *Anodons* of authors. I proposed for them, some years ago, the generic name of *Naiadites*,⁵ and described six species from the Coal Measures of Nova Scotia, stating my belief that they are allied to *Unionidæ*, and that their nearest analogue may be the genus *Byssio-anodonta* of D'O. bigny, found in the river Paraná.

¹ 'Acadian Geology,' Suppl. 1st ed., 1860.

² Quart. Journ. Geol. Soc. vol. xlix. p. 249.

³ See section of the South Joggins, in 'Acadian Geology,' 2nd and later editions.

⁴ Pp. 202, 203.

⁵ 'Acadian Geology,' Suppl. 1st ed.