

XVII.—*Note on the Occurrence of a New Species of Carboniferous Crustacean at Ardross, near Elie, Fife.* By WILLIAM ANDERSON.

(Read 17th December 1885)

AT a meeting of this Society, held on the evening of the 21st February 1884, my friend Mr Kinneir and I exhibited a collection of Carboniferous Crustacea obtained from a series of beds of limestone shales which are exposed on the shore between tide-marks at Ardross Castle, near Elie, on the south coast of Fife. It was then stated, in a short notice of the fossils, that the Crustacean remains, although numerous, comprised only two species. One of these was a Phyllopod Crustacean, *Dithyrocaris glabra*, Eth., and the other a Decapod Crustacean, *Palæocrangon socialis*, Salter. So far as I am aware, these were the only species of Crustacea which had been detected in these beds at Ardross, until I was so fortunate as to come across a single specimen of the genus *Acanthocaris*, Peach.

As far back as 1861, Crustacean remains had been noted in these beds by the Rev. Thomas Brown, whose admirable paper, "On the Mountain Limestone and Lower Carboniferous Rocks of the Fifeshire Coasts," was published in the "Transactions of the Royal Society of Edinburgh," vol. xxii. p. 385. There he mentions having obtained at Ardross specimens of *Dithyrocaris* and *Palæocrangon*. The former occurs as detached valves, but with no trace of the body segments, except the triply divided tail spine, of which two or three specimens have been obtained.

The genus *Acanthocaris*,¹ belonging to the order *Phyllopoda*, was instituted by Mr B. N. Peach for the reception of certain forms of Carboniferous Crustacea which are nearly allied to the Upper Silurian genus *Ceratiocaris* of Salter, and which had been obtained from the now well-known beds in the Calciferous series of Eskdale, in the South of Scotland. From that locality Mr Peach has described three species, viz., *Ceratiocaris scorpoides*, *Ceratiocaris elongatus*, and *Acanthocaris attenuatus*, and this specimen from Ardross will, he thinks, constitute a fourth. Of the described species this one comes nearest, *Ceratiocaris scorpoides*. Unlike the other Phyllopod Crustacean *Dithyrocaris*, of which as a rule only the valves of the carapace are met with at Ardross, this specimen of *Acanthocaris* is com-

¹For a description of this genus see papers "On some new Crustaceans from the Lower Carboniferous Rocks of Eskdale and Liddesdale," by B. N. Peach, Palæontologist to the Geological Survey of Scotland, in the Trans. Roy. Soc., Edin., vol. xxx. p. 73 and p. 511.

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plete. It shows the carapace with the segments underneath it, which, however, are slightly broken away from the rest of the body segments, and also the spine-like telson from which the genus takes its name. Even the teeth are preserved, lying separate on the slab at a little distance from the remains of the animal itself.

The only Scotch locality from which the genus *Acanthocaris* was formerly obtained was Eskdale, and I have thought that its occurrence in this new locality at Ardross, in Fifeshire, was of sufficient importance to warrant my bringing the fact before this Society. In connection with these Crustacean beds at Ardross, I may state that it was from this locality that the specimens of *Palæocrangon socialis*, upon which Salter founded the genus, were obtained by the Rev. Thomas Brown, and also that from one of the specimens of *Palæocrangon* obtained by me, Mr Peach has been enabled to make out that this genus belongs not to the higher Decapods, but to the Schizopods, and is nearly related to *Mysis*, the common Opossum shrimp of our shores.

The fossil which forms the subject of this note is now in the hands of Mr Peach, whose name is so well known in connection with this branch of Palæontology.