

well marked in Wales, where the species *P. Davidis* was discovered, and it is fully represented in Sweden.

The other two sub-zones of the Paradoxides beds are not known to be represented in America, and so far as the author knows, have not been recognized outside of Scandinavia. That of *P. Forchammeri* is contained in the Andrarum limestone, a very rich repository of Cambrian forms, where the Paradoxides fauna may be said to have culminated. The higher of these two sub-zones contains only the dying remnants of this fauna and is known as the Zone of *Agnostus lævigatus*. Rare remains of a Paradoxides related to *P. Tessini* have been found in it. I. D. Wallerius has lately described a number of new genera, species and varieties from this sub-zone in Sweden.

The following is in brief the range of the American subfaunas of Paradoxides so far as known:

Sub-zone of *P. lamellatus*—New Brunswick only.

Sub-zone of *P. Etminicus*—New Brunswick, Newfoundland and Massachusetts.

Sub-zone of *P. Abenacus*—New Brunswick and Newfoundland (doubtfully in the latter province).

Sub-zone of *P. Davidis*—Newfoundland only.

DESCRIPTIONS OF GENERA AND SPECIES.

PHYLLOPODA?

As compared with the Phyllopod crustacean of the Olenus and higher zones the fossils described below are very small. Their minuteness is an obstacle to the study of their characters, for there has been sufficient molecular movement in the shales in which they are imbedded to obscure the surface markings of such delicate fossils as these. They are supposed to be crustacean on account of the long, straight hinge line and weak umbones and their defined bordering rim.

LEPIDITTA.*

Obliquely semi-circular or semi-elliptical bivalves, wide on the anterior half of the valve and having a long, straight hinge line; umbones in front of the mid-length of the hinge, low or but moderately elevated.

LEPIDITTA ALATA (Plate XV., figs. 1a and 1b).

Lepidittha alata, Trans. Roy. Soc. Can., Vol. III., pt. iv., p. 61, pl. vi., figs. 16, 16a.

* Trans. Roy. Soc. Can., Vol. III., pt. iv., p. 61.