Open antra, a special form of external brood pouches in Ordovician ostracodes suitable for both egg and brood care, are enabled by the associated pore system. Special kinds of radial pores connected with the adventral sculptures are described for the first time. Relationships exist between antral development and lifestyle in that open antra occur in nektobenthic taxa, while closed antra (false brood pouches) are connected with a benthic lifestyle. Taxa, particularly those with open antra, which are morphologically very similar in being non–lobate or non–sulcate, can be distinguished by the construction of the respective antra and the associated pore systems, as exemplified by *Levisulculus*, *Swantina*, and *Ampletochitina*.

**Key words:** Arthropoda, Crustacea, Ostracoda, *Levisulculus*, *Swantina*, *Ampletochilina*, erratic boulders, dimorphism, adventral radial pores, Ordovician, Baltoscandia.

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