

do not enter the boreo-arctic area to be designated an intermediate area. Possibly both *Ctenodiscus crispatus* and *Leptotychaster arcticus* live chiefly in isolated basins, where the temperature for part of the year sinks lower than in the other parts of the fjord, though I do not know that this has actually been confirmed.

Occasionally too we find in far more southern areas a few forms that must be considered purely arctic, although they are quite acclimatised and plentiful. They are survivals (relicts), and date from the glacial age when the northern seas were inhabited by an arctic fauna. The milder climate which succeeded the glacial period brought about the elimination of all those species that are now purely arctic, and such forms are at present practically limited to arctic tracts. Only a few were able to adapt themselves to the altered conditions,<sup>1</sup> and are to be found to this day



FIG. 375.  
*Tridonta borealis*, Chemn.  
(After G. O. Sars.)

in isolated areas, located outside the range of this chapter, though owing to the interest attached to them, they may be briefly alluded to.

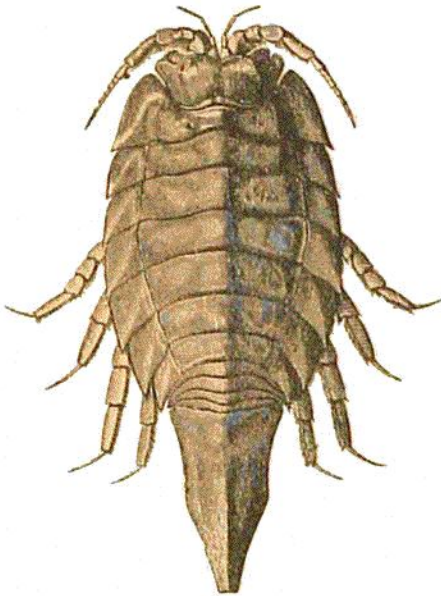


FIG. 376.  
*Idotea entomon*, L. (After Stuxberg.)

There is, for instance, the mussel *Astarte* (*Tridonta*) *borealis* (see Fig. 375), large quantities of which are found in the arctic tracts from Lofoten northwards. In the south we do not find it till we come to Öresund, The Belts, and the Western Baltic, where it is very plentiful. In the intervening waters it is merely a stray guest, having been found once or twice in the neighbourhood of Bergen. The survival forms include also a few crustaceans, for instance, the isopod *Idotea entomon* (see Fig. 376), some worms, and a sea scorpion (*Cottus quadricornis*), which are mostly to be found in the Baltic, and in a few lakes of North Europe that were connected with the sea in the glacial age.

<sup>1</sup> On the other hand there are, as already stated, a number of forms from the glacial age which became thoroughly acclimatised, and, in contradistinction to the relict-forms, are widely distributed throughout both regions.