

grows. *Littorina littorea* and *L. obtusata* again are found in greatest abundance wherever there is shelter, while *Nacella pellucida* generally lives on the blades of *Laminaria hyperborca*. In the sheltered haunts of *Laminaria saccharina* and *L. digitata*, particularly on the first named, we find the brittle-star *Ophiothrix fragilis*, while the localities with *L. hyperborea* have evidently no attractions for it; the blades of *L. saccharina*, too, are much patronised by the bryozoan *Aetea*. *Asterias glacialis* (see Fig. 334) also prefers sheltered localities. Why there should be these apparently capricious affections is as yet unknown, but it may be that in undisturbed waters there are higher temperatures during the summer, and that consequently various influences are brought to bear upon the organisms at one stage or another of their lives.

Hard bottom  
in the  
unexposed  
portion of the  
littoral zone.

The most typical localities of this kind are met with as a rule in sounds amongst the skerries, where there is a more or less strong current, which carries away the finer particles of mud that would otherwise settle, and leaves only large fragments of shells and similar debris. On the hard bottom there are usually numbers of both attached and unattached forms, chiefly consisting of bryozoans, hydroids, especially the genus *Tubularia*, and ascidians. The coral *Alcyonium digitatum* too is often plentiful,<sup>1</sup> generally attached to large empty mussel shells or stones. The empty mussel shells are also patronised by big colonies of the serpulid *Pomatoceros triqueter*, which however is just as much at home on the rocks up to the very shore. There are, besides, *Anomia ephippium*, *Chiton cinereus*, *Tectura virginea*, *Buccinum undatum*, and several others, some sedentary, and others, like the chitons and *Tectura*, able to move about from one place to another; as well as *Mytilus modiolus*, though this mussel is far more plentiful inside the fjords, and *Gouactinia prolifera*.

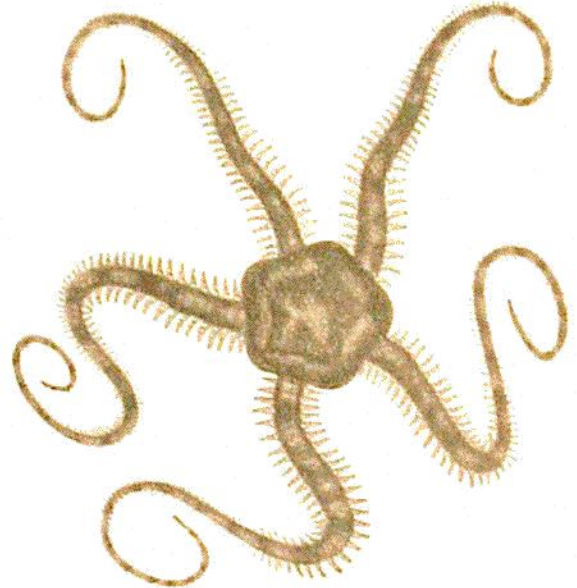


FIG. 335.  
*Ophiopholis aculeata*, L.

<sup>1</sup> This form may even be found up to low-tide mark, where there are strong currents, as for instance in narrow shallow sounds.