

nearly to Panama. *Astropecten crinaceus*, from California to Peru. *Astropecten fragilis*, from Panama to Peru. *Astropecten peruvianus*, off Peru.

The species dredged during the Challenger Expedition are marked in the foregoing list with an asterisk.

β. *Bathymetrical range*: Shallow water to 450 fathoms.

The majority of the species are confined to the Littoral zone; and none extend into the Abyssal zone. Only three forms are found in the Continental zone (i.e., in depths between 150 and 450 to 500 fathoms), viz., *Astropecten brevispinus* in 345 fathoms, *Astropecten hermatophilus* in 450 fathoms, and *Astropecten irregularis* in 375 fathoms.

Greatest range of one species: *Astropecten irregularis*, from shallow water to 375 fathoms.

γ. *Nature of the Sea-bottom*: Exact particulars of the nature of the habitat of the Littoral species are available in very few instances. Of the forms obtained by the Challenger, *Astropecten acanthifer* and *Astropecten japonicus* were found on Blue mud, the latter also on sand. *Astropecten brevispinus*, *Astropecten granulatus*, and *Astropecten imbellis* were found on Green mud, in depths between 28 fathoms and 345 fathoms. *Astropecten cingulatus* lives on Red mud. *Astropecten hermatophilus* on Volcanic mud in 450 fathoms; the greatest depth at which *Astropecten* has been found.

The localities of the following species are unknown, and their names have consequently not been included in the foregoing list:—

Astropecten alatus, Perrier.
Astropecten arenarius (Val.), Perrier.
Astropecten buschii, Müller and Troschel.
Astropecten calcitrapa, Lamarck, sp.

Astropecten dussumieri, Perrier.
Astropecten hispidus, Müller and Troschel.
Astropecten tiedemanni, Müller and Troschel.

The types of the following species appear to be lost, and as it is in my opinion impossible to identify them, I consider that the names should in future be discarded. To endeavour to recognise them is simply an exercise of the imagination.

Astropecten diplacanthus, Grube.
Astropecten echinatus major, Linck.
Astropecten echinatus minor, Linck.
Astropecten fimbriatus, Linck.
Astropecten gracilis, Gray.

Astropecten mesodiscus, Linck.
Astropecten olfersii, Grube.
Astropecten regularis, Linck.
Astropecten stellatus, Linck.