

Of the Lusitanian province:—*Thenea schmidtii*, *Calthropella geodides*, *Ancorina cerebrum* and *Ancorina wagneri*, *Papyrula candidata*, *Caminus vulcani*, *Corticium candelabrum*, *Thrombus abyssi*, *Corallistes masoni* and *Corallistes bowerbankii*, may be regarded as characteristic.

Of the Caribbean:—*Thenea fenestrata*, numerous species of Geodiid sponges, including *Placospongia intermedia* and *Isops* (?) *apiarium*, are characteristic; *Corticium candelabrum* of the Lusitanian province is here represented by *Corticium versatile*; the species of Tetillidæ appear to be distinct, and one marked feature is the rich development of Lithistida, the species of which are distinct from those of the Lusitanian province.

Of the Brazilian:—*Craniella carteri*, *Caminus spheroconia*, *Cydonium glariosum*, *Synops neptuni*, and *Synops vosmaeri*, are all peculiar and well-defined species. The remarkable *Tribrachium schmidtii* occurs both in this area and in the Caribbean.

The four species from the Magellanic province are all peculiar and characteristic; several specimens of *Cydonium magellani* were obtained from two stations, so that it is probably a common form.

From the South African province the Challenger did not obtain any Tetractinellida, although several new and interesting forms of Monaxonida were brought to light. Two species of Choristida had been previously obtained from the Cape, however, and these are both peculiar, one—*Tetilla casula*—being a remarkable and extremely interesting form.

Of the Indo-Antarctic province all the species are distinct; they include the peculiar *Cinachyra barbata*, n. gen. et sp., and the exquisite *Thenea delicata*; of the former species about fifty specimens were obtained.

Of the Indo-Pacific province:—The genus *Myriastr*a appears to be very characteristic, though it is not confined to it, one species occurring in the Lusitanian. The genera *Disyringa* and *Aurora* are confined to it. Well-marked and peculiar species are *Tetilla merguensis*, which ranges from Torres Strait to Mergui, Burmah, *Tetilla pedifera*, *Chrotella macellata*, *Thenea wyvilli* (a very distinct form of *Thenea*, occurring in comparatively shallow water), *Myriastr*a *clavosa*, *Aurora globostellata*, *Disyringa dissimilis*, *Tethyopsis columnifer*, the branching *Geodia ramodigitata*, and the great cup-shaped *Cydonium japonicum*, *Cydonium globostellifera* (a well-marked species which ranges from Torres Strait to Ceylon), *Placospongia melobesioides*, and *Placospongia carinata*, *Thrombus challenger*i, and numerous Lithistids.

The affinities of the fauna of this province with that of Brazil and the Caribbean are very remarkable: the genus *Placospongia* is confined to them, *Thrombus challenger*i is represented by sub-fossil spicules of a closely allied form (*Thrombus kittoni*) in Panama, *Tribrachium schmidtii* appears to represent *Disyringa dissimilis*; among the Lithistida *Neosiphonia superstes* is represented by *Neosiphonia schmidtii*, *Scleritoderma flabelliformis* by *Scleritoderma packardi*, and *Siphonidium capitatum* by *Siphonidium ramosum*.

The explanation of this is probably not to be found in any assumed recent close