

tions. *Actinometra pulchella* occurs at every one of these eleven stations, excepting No. 174 in the South Pacific; while it is the only *Actinometra* represented at six at least of them, including three of the deepest ones. This may be partly explained by the fact that only one of these stations was in the Pacific, all the remainder being in the Atlantic and the Caribbean Sea, but it is especially noteworthy because *Actinometra pulchella* is a dimorphic species, some forms having only ten arms, and some having bidistichate series on one or more rays. The three species obtained by the Challenger at Station 174 were all multibrachiate forms expressing widely different types of the genus; but the "Blake" dredged a ten-armed species at 450 fathoms, off Havana, and the two deepest stations in the Caribbean Sea where *Actinometra pulchella* occurred also yielded ten-armed species.

These ten-armed forms of *Actinometra* which occur in the Caribbean Sea and along the South American coast, represent an entirely different type of the genus from the ten-armed species of the eastern hemisphere. The latter mostly belong to the type of *Actinometra solaris*, with syzygies between the two outer radials, though a few forms occur in which these joints are united by bifascial articulation, as in nearly every *Antedon* and in the *Actinometra meridionalis* of the Caribbean Sea (Pl. LVI. fig. 1). The *Solaris*-type, however, has not yet been discovered in the Atlantic.

Of the multibrachiate species of *Actinometra* the tridistichate type seems to be the more extensively distributed and not the bidistichate one as in the case of *Antedon*. Thus, for example, *Actinometra parvicirra* (a.3.(3).(3)) occurs in South Africa, Timor, Ceram, the Philippines, Japan, the Friendly Islands, and even on the coast of Peru, so that it has a range in longitude of some 260°, occurring everywhere but in the Atlantic. This is only approached by the ten-armed *Antedon carinata*, which occurs on both coasts of South America and across the Indian Ocean from Java to Zanzibar.