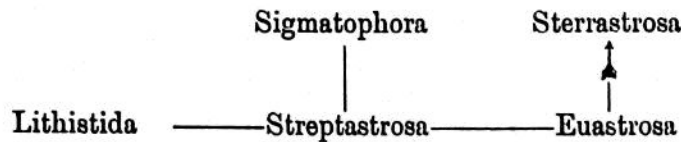


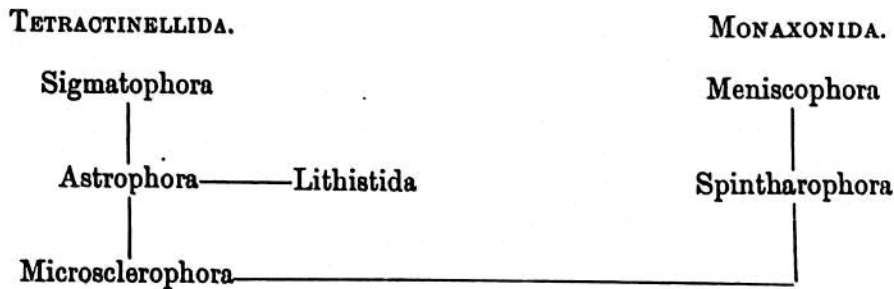
6. NOTE ON PHYLOGENY.

Some remarks on the relationship of the Monaxonida to the Tetractinellida will be found on p. 419.

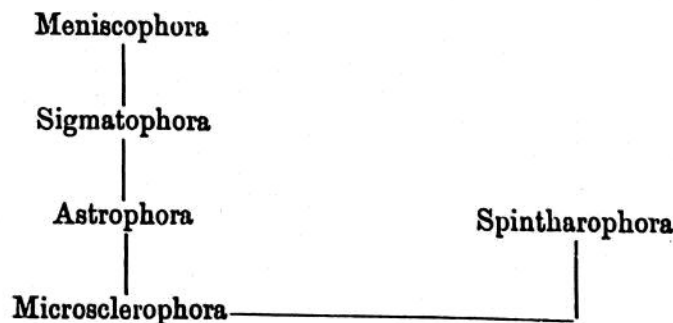
Of relationships among the Tetractinellida so highly probable that they may almost be regarded as definitely ascertained, a representation is given in the following scheme, in which direction of descent, when this is supposed to be known, is indicated by an arrow, when not by a straight line :—



If we attempt to extend our investigations to the whole of the Tetractinellida and the associated Monaxonida we encounter contending hypotheses, upon the relative merits of which it is at present impossible to decide. Thus if we accept the certainly very tempting hypothesis, that the triæne is descended from a calthrops or a microcalthrops, and the sigmaspire (as analogy in the case of the Lithistida would suggest) from a euaster, then the two most probable schemes of affiliation are the following, first :—



And next :—



These two schemes are not mutually exclusive, for it is possible that the Meniscophora are not a monophyletic group ; part may have been derived from the Sigmatophora and part from the Spintharophora ; and the possibility of a Sigmatophorous origin for a part at least of the Meniscophora is suggested by the frequency with which the triæne