

Family III. Corticidæ.—The chamber-system is aphodal. The spicules are candelabra, or amphitriænes, or trichotriænes, or triænes with a spinose surface.

Suborder II. Triænina.—The cladomes of the fully grown triænes are situated in the ectosome.

Family I. Tetillidæ.—The chamber-system is eurypylous or aphodal. The microscleres are sigmaspires or toxaspises. The form of the protriæne is characteristic.

Family II. Theneidæ.—The microsclere is a spiraster. The chamber-system is eurypylous.

Family III. Stellettidæ.—The characteristic microsclere is the aster. The chamber-system is aphodal.

Family IV. Geodinidæ.—The characteristic spicule is the sterraster. The chamber-system is aphodal.

The distinction between the Triænina and the Tetradina cannot very well be maintained, at all events without a redistribution of their contents; for the Tetradine family Pachastrellidæ is connected with the Triænina by the family Theneidæ; indeed, there is a most evident transition from *Theneca* to *Pachastrella* through the intermediate genus *Pæcillastra* (*Normania*). If the suborders Triænina and Tetradina are to be retained, it can only be by transferring the Pachastrellidæ to the Triænina, and then the names for the suborders become inappropriate. And this was already the case owing to the presence of triænes in the Corticidæ. I therefore abandon these suborders, and now proceed to discuss the facts and principles which may lead us to a natural classification of the Choristida. We commence with a digression, for as in considering the best way to represent a tree, which of all natural objects best serves to represent the nature of zoological classification, we begin with the trunk and pass on to the branches and leaves, so in the present case we have commenced with the higher groups and are proceeding down to the lower; but this plan is not that of strict logic, and amongst its other inconveniences is that of the present digression, which it involves. And first we are met by the old time difficulty as to what constitutes a species. Is it a collection of similar individuals, separated from others by sexual sterility and the absence of intermediate forms? That it is a collection of similar individuals, united by the possession of similar characters and distinguished from others by the presence of common differences, we shall admit, but for my part I refuse altogether to have anything to say to the two additional limitations; good species may exist and yet be united on all sides by transitional forms, and as to mutual fertility, one would inquire how this test in the majority of cases is to be applied, and in the next, of what value in a morphological classification such a distinction is when it has been ascertained; it would