cannot be expressed by the property of a single organ, but must be of consequence for the whole structure of the animal. I hope the genera I am about to characterise will be found to be more "natural," and if my diagnoses be not quite sharp and have sometimes rather a conditional character, I must confess it is just in this that I see a reason for hoping that my genera are not artificial. Nature does not conform to our definitions, and if each of two genera, apparently closely allied one to the other, admit of a sharp, distinct diagnosis, it proves nothing but that the intermediate connecting forms do not now exist, but have died out.

In the Family of Syconidæ I distinguish the following six genera:—

1. *Sycon*, Risso[1] (sensu mutato).

Syconidæ with articulated tubar skeleton, with radial tubes either quite free or, if grown together, in such a manner that the individuality of every tube, owing to the absence of any independent cortex, may be easily discerned.

A detailed definition of this genus, as well as of the genera *Grantia* and *Amphoriscus*, has already been given. I group in it the following species:[2]—

Sycon primitivum, H.
sagittiferum, H.
coniferum, H.
ciliatum, F.
coronatum, E.S.
lingua, H.
quadrangulatum, S.
capillosum, S.
ampulla, H.
raphanus, S.
setosum, S.
villosum, H.
ramosum, H.

Sycon arcticum, H.
quadratum, Sch.
boreale, Sch.
schmidtii, H.
tabulatum, Sch.
elegans, Bk.
humboldtii, L.
barbadense, Sch.
arboreum, H.
gelatinosum, B.
utriculus, S.
hystrix, H.

[1] Hist. Nat. de l'Eur. mérid., vol. v. p. 368.

[2] B. = Blainville, Bk. = Bowerbank, C. = Carter, G. = Gray, E.S. = Ellis and Solander, F. = Fabricius, H. = Hæckel, J. = Johnston, L. = Lieberkühn, MM. = Miklucho-Maclay, R. = Ridley, S. = O. Schmidt, Sch. = Schuffner; n. sp. after the name of a species indicates, of course, that it is new; a ?, the doubt of the author as to whether the species is really to be placed in the genus.