

means generally accepted, was really worthy of being regarded as a distinct genus. Della Valle consequently divided the family into three genera:¹—*Botryllus*, *Polycyclus*, and *Botrylloides*. In his elaborate work on the Compound Ascidiæ of the Gulf of Rovigno, published in 1883, von Drasche adds a fourth group, *Sarcobotrylloides*, for forms which bear the same relation to *Botrylloides* that *Polycyclus* does to *Botryllus*. His classification of the Botryllidæ is as follows:—

Family.	Genus.	Subgenus.
BOTRYLLIDÆ,	{ <i>Botryllus</i> ,	{ <i>Polycyclus</i> .
	{ <i>Botrylloides</i> ,	{ <i>Botryllus</i> .
		{ <i>Sarcobotrylloides</i> .
		{ <i>Botrylloides</i> .

This arrangement seems to agree fairly well with the present knowledge of the group, and as the specimens in the Challenger collection can all be referred to one or other of these groups, the only modification which I suggest is that the four subgenera should be regarded as distinct genera. They seem to me to be nearly equidistant from one another, and I think it would be quite as natural to unite *Polycyclus* and *Sarcobotrylloides*, the two massive groups, and distinguish them from *Botryllus* and *Botrylloides*, the two incrusting groups, as to adopt von Drasche's arrangement. Consequently it seems better to avoid the unnecessary complication of recognising groups of two ranks between the species and the family, and simply to consider the Botryllidæ as including four genera:—

Botryllus, Gaertner and Pallas.
Polycyclus, Lamarck.
Botrylloides, Milne-Edwards.
Sarcobotrylloides, von Drasche.

It is a remarkable fact that the common genus *Botryllus* is not represented by any specimens in the Challenger, "Porcupine," or "Lightning" collections. This is partially explained by *Botryllus*, in the restricted sense, being almost entirely a shallow water genus, most of the known species being found at or about low water mark on coasts, while the dredging operations of these expeditions were mainly carried on in deep water. Still a good deal of shallow water investigation was done by the Challenger at some localities, such as Port Jackson, Kerguelen Land, the Philippine Islands, and Japan, and the total absence of species of *Botryllus* from the collections seems to indicate that that genus is by no means so abundantly represented in other parts of the world as it is on the north-western coasts of Europe.

Sarcobotrylloides and *Polycyclus* occur in the "Porcupine" collection, but all the Challenger Botryllidæ belong to the genus *Botrylloides* in the restricted sense. On the

¹ He calls them subgenera, but treats them as genera.