

finally, if either of the two alternative plans for choosing a single specific name were adopted, it would be liable to result in considerable confusion between the species as a whole and either of its constituent forms; for example, *Salpa fusiformis* is now generally used to indicate the aggregated form of its species, but it would, if the second of the above plans were adopted, come to be the name for both the solitary and the aggregated forms,—and it might in some cases be difficult to tell in what sense the name was being used.

In the case of a few species, where the solitary and aggregated forms were found together, and their relationship was known when they were first described, only one specific name was given, and in these cases, of course, there is no need for any change; but in the majority of the species, where the two generations have become well known under distinct names, I believe it will lead to least confusion and trouble with synonymy in the future if the double or compound names, as used in Traustedt's paper and in the following pages, be systematically adopted.<sup>1</sup>

The species in this genus are closely related, and are not readily separated into natural groups. A discussion of their mutual relations, and a tabular synopsis of the genus, will be found in Traustedt's recent paper.<sup>2</sup>

The Challenger collection of *Salpæ* is very large, numbering between three and four thousand specimens, but they are all referable to fourteen species, six of which are new to science.

*Salpa costata-tilesii*, Quoy and Gaimard—Cuvier (Pl. IV. figs. 1–8).

*Salpa tilesii*, Cuvier, Ann. du Mus., tom. iv. p. 375, 1804.

*Salpa costata*, Quoy and Gaimard, Freycinet, Voyage, p. 504, 1824.

*Salpa costata-tilesii*, Krohn, Ann. d. Sci. Nat. (Zool., sér. 3), tom. vi. p. 114, 1846.

*Salpa costata-tilesii*, Traustedt, *loc. cit.*, p. 379, which see for further synonymy.

All the specimens of this species in the Challenger collection are more or less injured or imperfect. They all belong to the solitary form *Salpa costata*, Quoy and Gaimard. The localities are as follows:—

(1.) June 23, 1874; Station 166, South Pacific, between Australia and New Zealand; lat. 38° 50' 0" S., long. 169° 20' 0" E.; surf. temp. 58°·5; one specimen (A).

(2.) July 8, 1874; Station 168, off the east coast of New Zealand; lat. 40° 28' 0" S., long. 177° 43' 0" E.; depth, 1100 fathoms; bottom temp. 37°·2, surf. temp. 57°·2; one specimen (B).

(3.) April 5, 1875; Station 230, North-West Pacific, to the south of Japan; lat. 26° 29' 0" N., long. 137° 57' 0" E.; surf. temp. 68°·5; one specimen (C).

(4.) October 18, 1875; South Pacific; surface; lat. 36° 0' 0" S., long. 132° 22' 0" W.; surf. temp. 58°·5; one specimen (D).

<sup>1</sup> This question of nomenclature is discussed more fully in a paper published in *Proc. Biol. Soc. Liverpool*, vol. ii. p. 133, 1888.

<sup>2</sup> Bidrag til Kundskab om Salperne, *Vidensk. Selsk. Skr.*, 6 Række, naturvid. og math. Afd. ii. 8, p. 845. Kjøbenhavn, 1885.