

bodies of carbonate of lime, for which we propose the name "Calcastrella," are not parts of the skeleton produced by the Radiolarian, but foreign bodies picked up by its extra-capsular sarcodæ (in the same way as the Coccoliths are picked up by *Thalassicolla sanguinolenta* = *Myxobrachia*!). These Calcastrella occur also in the calymma of some Discoidea and other Radiolaria; they are either unicellular calcareous Algæ, or foreign bodies of other origin. The *Collodarium*, however, described as *Thalassicolla morum* and *Calcaromma calcarea*, seems to be a simple *Actissa*, which has picked up a number of Calcastrella.

The Challenger collection has yielded a number of other true Thalassosphærida, which partly agree with *Thalassosphæra* in the simple structure of the unicellular body (resembling *Actissa*), and partly differ from it in the development of alveoles, either within or without the central capsule (similar to *Thalassolampe* and *Thalassicolla*). The solid siliceous spicula, which occur in great numbers scattered in the calymma, agree perfectly in form with the spicula of the colony-building Sphærozoida. A characteristic difference between the social and the solitary Beloidæa seems to be determined by the cleavage of the nucleus, which takes place in the latter very late, in the former very early. Therefore in the large central capsule of the mature solitary Thalassosphærida, we commonly find one large nucleus in the centre, and a number of oil-globules around it in the endosarc, or disposed in one layer on the inside of the capsule-membrane (Pl. 2, figs. 2, 5); whereas in the much smaller associated capsules of the Sphærozoida one large oil-globule is placed commonly in the centre, and a great number of small nuclei scattered in the endoplasm (compare above, p. 24).

Synopsis of the Genera of Thalassosphærida.

A. Alveoles neither within nor without the central capsule.	{	Spicula simple,	7. <i>Thalassosphæra</i> .
	{	Spicula branched,	8. <i>Thalassoxanthium</i> .
B. Numerous large alveoles within the central capsule (not in the calymma).	{	Spicula simple,	9. <i>Physematium</i> .
C. Numerous large alveoles within the calymma (not in the central capsule).	{	Spicula simple,	10. <i>Thalassoplacta</i> .
	{	Spicula branched,	11. <i>Lamproxanthium</i> .

Genus 7. *Thalassosphæra*,¹ Hæckel, 1862, Monogr. d. Radiol., p. 259.

Definition.—Thalassosphærida without alveoles, with simple, unbranched, needle-shaped spicula in the calymma.

The genus *Thalassosphæra* was founded by me in 1862 for those solitary Collodaria in which the simple central capsule is surrounded by scattered solid spicula.

¹ *Thalassosphæra* = Sea-sphere; θάλασσα, σφαῖρα.