

belonging to them. The circumstance is no doubt due to the fact that the animal is mostly an inhabitant of deep water. The shells of *Spirula* similarly occur in countless numbers on tropical beaches, yet the animal has only been procured two or three times. We obtained one specimen during our cruise, which had evidently been vomited from the stomach of a fish.

I expect that both *Nautilus* and *Spirula* might be obtained in some numbers, if traps, constructed like lobster-pots and baited, were set in deep water off the coasts where they abound in from 100 to 200 fathoms. *Nautilus* is occasionally caught both at Fiji and in the New Hebrides, in this manner, in comparatively shallow water, and the animals were so taken in the time of Rumphius, at the end of the seventeenth century. Traps seem never to have been tried for them in deep water.

The fact that the living *Nautilus* was obtained from 320 fathoms, shows that it occurs at great depths. It is probably a mistake to suppose that it ever comes to the surface voluntarily to swim about. Most likely it is only washed up by storms, when injured perhaps by the waves. The living specimen obtained by us seemed crippled, and unable to dive, no doubt because it had been brought up so suddenly from the depths.

The following is a translation of the account given of the habits of the Pearly Nautilus by Rumphius, whose figure of the animal, as seen when taken out of the shell, is probably still the best extant.\* “When the living *Nautilus* floats at the surface of the water, it protrudes its head with all the tentacles out, and spreads these out in the water, keeping the hinder part of the curl of the shell all the while above water. On the bottom, however, the animal creeps with the other side uppermost, with the head and tentacles on the bottom, and makes tolerably fast progress.

“The animals remain mostly at the bottom, creeping sometimes into hoop nets set for fish, and lobster-pots; but after a storm, when the weather becomes calm, they are to be seen floating in troops on the surface of the water. They are doubtless raised up by the waves caused by the storms. It follows that they keep themselves together in troops on the bottom also. The floating, however, does not last long, for drawing in all their tentacles, the animals turn their boats over, and go down again to the bottom.

“On the other hand, the empty shells are frequently to be found floating or cast up on the shore, for the defenceless animal, having no operculum, is a prey to crabs, sharks, and crocodiles; and therefore the shells are mostly found with the

\* D'Amboinsche Rariteitkamer door G. E. Rumphius. Amsterdam. 1705. p. 61, Taf. XVII., Fol. 62.