

The specific gravity of the bottom water (2575 fathoms) was 1.02459 at 21°·6 C., that of the surface water being 1.02581 at 22°·4 C.

On Sunday, March 2d, we saw the first patches of gulf-weed drifting past the ship, and flying-fish were abundant. Our position at noon was lat. 22° 30' N., long. 42° 6' W., Sombrero Island distant 1224 miles. At night the phosphorescence of the sea was particularly brilliant, the surface scintillating with bright flashes from the small crustaceans, while large cylinders and globes of lambent light, proceeding probably from *Pyrosoma* and some of the Medusæ, glowed out, and slowly disappeared in the wake of the vessel at a depth of a few feet.

The next morning we sounded, at 7 A.M., in 2025 fathoms with No. 1 line, the "Hydra" machine and 3 cwt., a slip water-bottle, and one thermometer; a stop-cock water-bottle was bent on at 925 fathoms from the bottom. The corrected bottom temperature was 1°·9 C., the temperature of the surface being 22°·8 C. During the morning, the naturalists were out in a boat with the tow-net, and they brought back a number of fine examples of *Porpita*, several of *Glaucus Atlanticus*, some shells of *Spirula* bearing groups of a small stalked cirriped, and many large radiolarians. One of the *Spirula* shells was covered with a beautiful stalked infusorian.

The dredge was lowered at 9.30 A.M., and hauled in at 4.30 P.M., unfortunately again entangled in a coil of the rope, and empty. A small quantity of mud attached to the netting of the dredge was found to contain a large proportion of the shells of foraminifera, especially *Globigerina* and *Orbulina*. The mud was again of a pale-gray color, and consisted chiefly of calcic carbonate.

We proceeded in the evening under all plain sail. The soundings on the chart in advance of us seemed to indicate an extensive rise, with a depth of water averaging not much more than 1700 fathoms, and it was determined to dredge again on the following day.