

small fishes and fish eggs. Bunches of white egg-capsules taken on dead *Veilellæ* at the previous Station developed in a globe into small shells, similar to those found on the surface—probably larval Heteropods. Many small pieces of pumice, some covered with mould, or Algæ, were again taken in the tow-net, and others formed the nuclei around which the *Lepas* was attached. Very little phosphorescence was noticed on the surface during the past two weeks, and *Pyrocystis* had not lately been noticed in the surface gatherings.

STATION 253.

Station 254 (Sounding 396), Yokohama to Sandwich Islands (see Chart 36 and Diagram 19).

July 17, 1875; lat. $35^{\circ} 13' N.$, long. $154^{\circ} 43' W.$

Temperature of air at noon, $73^{\circ} \cdot 8$; mean for the day, $71^{\circ} \cdot 7$.

Temperature of water:—

Surface,	72·0	400 fathoms,	40·6
25 fathoms,	62·2	500 "	38·8
50 "	57·0	600 "	37·7
75 "	53·9	700 "	37·0
100 "	52·0	800 "	36·5
125 "	50·5	900 "	36·2
150 "	49·3	1000 "	36·0
175 "	48·0	1100 "	35·8
200 "	46·8	1200 "	35·6
225 "	45·9	1300 "	35·4
250 "	45·0	1400 "	35·2
275 "	44·1	1500 "	35·0
300 "	43·3	Bottom,	35·0

Density at $60^{\circ} F$:—

Surface,	1·02570	300 fathoms,	1·02521
25 fathoms,	1·02557	400 "	1·02525
50 "	1·02520	800 "	1·02552
100 "	1·02539	2950 "	1·02548
200 "	1·02532	Bottom,	1·02533

Depth, 3025 fathoms; deposit, Red Clay, containing no carbonate of lime, and relatively much fewer Radiolaria than in the deposits further west (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 4.30 A.M. stopped and put trawl over. At 6 A.M. sounded in 3025 fathoms. Obtained serial temperatures down to 1500 fathoms. The carbonic acid was determined in water from 400 fathoms and from the bottom, and amounted respectively to 28·7 and