## CHAP. III.]

in the mean time, to determine whether the two forms are identical or specifically distinct.

As bearing upon some of the most important of the broad questions which it is our great object to solve, I do not see that any capture which we could have made could have been more important and more conclusive than that of this annelid. The depth was 2975, practically 3000 fathoms-a depth at which all the conditions which might be expected to militate against the existence of animal life must have attained their full force. The nature of the bottom, from the absence of a due proportion of carbonate of lime, was very unfavorable to higher animal life, and yet this creature, which is closely related to the Clymenidæ, a well-known shallow-water group of high organization, is abundant and fully developed. It is fortunate in possessing such attributes as to make it impossible even to suppose that it may have been taken during the passage of the dredge to the surface, or have entered the dredge-bag in any other illegitimate way; and its physiognomy and habits are the same as those of allied forms from moderate depths. It appears, in fact, conclusive proof that the conditions of the bottom of the sea to all depths are not only such as to admit of the existence of animal life, but are such as to allow of the unlimited extension of the distribution of animals high in the zoological series, and closely in relation with the characteristic faunæ of shallower zones.

On Thursday, the 13th, our position at noon was lat.  $18^{\circ} 54'$ N., long.  $61^{\circ} 28'$  W. A sounding was taken in 3025 fathoms, and observations were taken with the current-drag. The "Hydra" tube brought up a nearly uniform red clay with a small trace of carbonate of lime. One of the two thermometers was broken, and in the second, which registered  $1^{\circ}3$  C., the mercury had parted. It seems probable, however, that this occurred after the index had registered the true minimum, as the temperature was precisely what might have been anticipated.