some of them, such as the whales and a small oceanic insect, *Halobates*, have returned thence to pelagic life.

"The deep-sea fauna has probably been formed almost entirely from the littoral, not in the most remote antiquity, but only after food, derived from the debris of the littoral and the terrestrial faunas and floras, be-

came abundant in deep water.

"It was in the littoral region that all the primary branches of the zoological family tree were formed; all terrestrial and deep-sea forms have passed through a littoral phase, and amongst the representative of the littoral fauna the recapitulative history, in the form of series of larval conditions, is most completely retained."

(b) According to Professor W. K. Brooks and others, the primitive fauna was pelagic. From this have been derived the tenants of the shore and of the deep sea. To the latter, however, he does not deny the possibility of ascending again. The relative easiness of life in the open sea and the unlimited supply of simple Algæ are especially suggestive in connection with this theory.

(c) According to Professor A. Agassiz, Prof. H. Simroth, and others, if we may venture to compress their views into a sentence, a littoral fauna was the original one, whence have been derived, on the one hand, the pelagic and abyssal faunas, and, on the other hand, the

fresh-water and terrestrial faunas.

(d) Sir John Murray has emphasized the importance of the mud-line as, at any rate, important headquarters of animal life, and as the area from which wanderers have sunk down to the great abysses.