

and Univalve Mollusks and Crustaceans, or in other words, all the leading groups of invertebrate animals that we find in the sea at present. Of these the dominant group is the Crustaceans, including Trilobites, numbering one-third of the whole; and these with the univalve Mollusks and the Brachiopods constitute the majority, the other groups having comparatively few species. What a marvellous incoming of life is here! Walcott may well say that on the theory of gradual development we must suppose that life existed at a period far before the Cambrian—as far, indeed, as the Cambrian is before our own time. But this would mean that we know only half of the history of life; and perhaps it is more reasonable to suppose that when the conditions became favourable, it came in with a rush.

Before considering the other laws that may be inferred from these facts, however, let us in imagination transfer ourselves back to the Primordial age, and suppose that we have in our hands a living specimen of one of the larger Trilobites, recently taken from the sea, flapping vigorously its great tail, and full of life and energy; an animal larger and heavier than the modern king-crab of our shores, furnished with all the complexity of external parts for which the crustaceans are so remarkable, and no doubt with instincts and feelings and modes of action as pronounced as those of its modern allies, and, if Woodward's views are correct, on a higher plane of rank than the king-crab itself, inasmuch as it is a composite type connecting Limuli with Isopods, and even with scorpions. We have obviously here, in the appearance of this great Crustacean or Arachnoid, a repetition of the facts which we met with in Eozoon; but how vast the interval between them in geological time, and in zoological rank! Standing in the presence of this testimony, I think it is only right to say that we possess no causal solution of the appearance of these early forms of life; but in tracing them and their successors upward through the succeeding ages, we may hope at least to reach some expressions of the laws of