mandible with six teeth, Darwin, however, one with five teeth and an inferior point, which in this species is rather broad and finely pectinated. To show the correctness of my interpretation one has only to compare the figure of the mandible of *Lepas anatifera* in Darwin's Monograph (Lepadidæ, pl. x. fig. 5) with his description: "mandibles with, as usual, five teeth," &c.; moreover, when giving this description, Darwin refers to the figure in pl. x. According to Darwin, the maxillæ have four regular steps; according to v. Willemoes Suhm, they have sometimes four, and more commonly only three steps, besides the two large unequal upper spines. This difference does really exist, at least if Darwin's description is correct. I always observed only three steps, both in the maxilla of the Challenger specimens, from which Pl. I. fig. 6 is drawn, and also in the maxillæ of one of the specimens collected by the Brothers Krause in the neighbourhood of the Tschuktschen-Peninsula.[1] Von Willemoes Suhm, however, did not always observe the same number, and this shows clearly, I believe, that the importance of this difference is not very great. In the descriptions of the different species of the genus *Lepas*, Darwin, moreover, has given numerous instances of variations in the number of teeth, both in the mandible and in the maxilla. There is another point, however, which at first made me think it necessary also to consider this Pacific form as a distinct variety of the Atlantic one. This is the smoothness, when seen with the naked eye, of the chitinous membrane which covers the valves and fills out the interspaces between them. According to Darwin, this membrane is thickly clothed, especially in the interspaces between the two valves, with minute spines, barely visible to the naked eye. As I said above, the Pacific specimens, when seen with the naked eye, do not show a trace of spines, and only a certain roughness may be distinguished, which is occasioned—as an investigation with the microscope brings to light—by extremely thin and flat threads, which often seem to adhere to the chitinous membrane at more than one point. Often also numerous microscopic Algæ are present at the surface, and contribute not inconsiderably to this roughness. The specimens from the northern coast of Siberia, collected by the Brothers Krause, show exactly the same condition of the surface as the Challenger specimens.[2] In all other regards the Pacific specimens agree entirely with Darwin's description, except in so far as the size is concerned. And this is perhaps the most considerable point of difference between the Pacific and the Atlantic form. The size of the capitulum of the largest specimen does not quite reach 25 mm., whereas the Atlantic specimens often have a length of 40 mm. The large Atlantic specimens, though brittle, have a shell considerably stronger and more calcareous than the smaller specimens.

In the Pacific Ocean about 100 specimens (and often a much more considerable

[1] These specimens belong to the Natural History Museum of Bremen. They were kindly sent me for examination by the Director of the Museum, Dr. Spengel.

[2] In the Atlantic specimens this roughness is not the rule; of late I have been enabled to study specimens from Vineyard-Sound (United States of America), and these show exactly the same condition of the surface as those of the Pacific.