

strates beyond the possibility of a doubt, that the Scyphistomas are the offspring of Medusæ; that they are transformed into Strobilæ, which produce Ephyroid Medusæ; and that the latter end their life as *Medusa aurita* and *Cyanea capillata*. All these facts are illustrated by beautiful figures. He begins by showing that the free disks of his Strobila are the young Medusa (*Aurelia*) *aurita*. He next instances facts showing the similarity of the development of *Cyanea capillata* with that of *Aurelia aurita*; and then describes his attempts to raise the eggs of the Medusæ, in which he succeeded so far as to show that Scyphistomas are developed from eggs laid by both these Medusæ, and thus closes the cycle of the investigation undertaken with the view of ascertaining the normal connection of all these animal forms. There can no longer be any doubt that they are genetically linked together, even though the transformation has not been watched through all its stages in one and the same specimen. The difficulty of keeping them alive for a sufficient time in confinement makes it impossible to obtain that kind of evidence. But as far as the closest similarity of the forms watched in confinement with those observed in their natural element is sufficient to trace their mutual dependence, the evidence is satisfactory and conclusive.¹

The investigations of Sars had scarcely begun to be noticed in Germany when Siebold proceeded to trace the earliest stages of the formation of these animals.² His object was partly to revise the observations of Ehrenberg upon the structure of the *Aurelia aurita*, and partly to study the development of its eggs. To him we are indebted for the first accurate observations respecting the segmentation of the egg, and the formation of the embryo. Siebold clearly perceived the connection of the facts he had observed with those seen by Sars, yet a direct transition of the young from the state to which he had traced it to that observed by Sars was not seen by him.

The successive discoveries of Sars, combined with the investigations of von Siebold, had already led to a full knowledge of the characteristic features of the mode of development of the Medusæ, when Steenstrup took up this subject; and yet this ingenious observer gave a new impulse to the investigation of the Aca-

pl. 1-4. — A French translation, by Dr. Young, appeared in the *Annales des Sciences naturelles*, 2d series, 1841, vol. 16, p. 321.

¹ There are, however, two assertions in this paper with which I cannot coincide: 1st, the reversal of the young embryo when it becomes attached. Notwithstanding the objections of Sars, Siebold was right in what he said of the formation of the mouth, though he gave it up afterward. See note

in Wiegman. *Arch.* 1841, I. p. 20. 2d, The base of the Strobila, after the Ephyrae are freed, does not die, as Sars states. Dalyell is correct when he affirms that they survive, and that tentacles reappear.

² SIEBOLD (C. TH. VON), *Beiträge zur Naturgeschichte der wirbellosen Thiere; Neueste Schriften der naturforschenden Gesellschaft in Danzig*, vol. 3d, No. 2, Danzig, 1839.