has described in the Mémoires of the Academy of St. Petersburg under the name of Cassiopea Mertensii (Pls. XXI., XXII., and XXIII), and afterwards under that of Rhizostoma Mertensii, considering it, however, as a sub-genus of Rhizostoma, to which he gave the name of Polyclonia. These two Medusæ belong, unquestionably, to the same genus, and Polyclonia differs so much from the type of Rhizostoma proper, Rhizostoma pulmo, that I do not only consider it as a separate genus, but also as the type of a distinct family among the Rhizostomeæ. That Polyclonia constitutes a distinct family, is at once apparent when the ramifications of the arms are considered; and a comparison of the structure and mode of combination of its spheromeres still further justifies their separation.

In order to avoid repetitions, I would first point out the figures in which I have represented anew the Medusa of Pallas, on my Plates XIII. and XIII[a]. These figures differ in appearance so much from that of Pallas, drawn from specimens preserved in alcohol, which had been sent to him by Dr. Drury, that it is necessary I should here insist upon the identity of the Medusa I have represented under the name of Polyclonia frondosa, and the Medusa frondosa of Pallas. His description, in the first place, agrees with the specimens I have seen; secondly, my specimens were obtained in the same part of the ocean from which he obtained his; and, finally, specimens which I preserved myself in alcohol exhibit exactly the appearance of that figured by Pallas. Under these circumstances there can be no doubt that they all belong to one and the same species.

This Medusa is one of the most singular Acalephs I know, both on account of the different aspects it presents in different attitudes, and on account of its habits. It is quite common upon the reef of Florida; I have seen immense numbers at Key Largo and at Key West, and occasionally at other points along the reef, and yet it is hardly ever seen near the surface of the water. This is owing to its habit of groping in the coral mud, at the bottom of the water, where thousands upon thousands may be seen crowded together, almost as closely as they can be packed upon the bottom, at a depth of from six to ten feet. When disturbed they do not rise, but crawl about like creeping animals, now and then only flapping their umbrella, like other Discophoræ. That Polyclonia Mertensii has similar habits, I infer from the statement of Mertens, that he observed his species, in large numbers, in shady places of the lagoons of Ualan, overhung with Sonneratiæ and Mangroviæ. The Polyclonia frondosa is also found among the mangrove islands of the Florida Reef, in shady places, near the roots of mangrove trees. Mertens, however, states that he found them constantly with their arms spread and turned upward, resting upon the ground; I have always seen them in the reverse position, the arms downward. Otherwise, my observations agree with those of Mertens as to the mode of living of these Acalephs.