

the contents of these organs were emptied, they grew again paler and paler, and, after the eggs and spermatic particles had been entirely discharged, the spherosome itself faded and assumed a livid, pale, grayish color, only a slight tinge of pink remaining. The first September storms broke them all to pieces, and nothing could be found afterwards but floating fragments. This year I have found them again in great abundance, and, as before, they made their first appearance early in July. Several years ago, in 1852, I had also an opportunity of seeing large numbers of them in the harbor of Provincetown on Cape Cod, in the month of August. They had reached about half the size of those seen later, and had probably made their appearance not long before. Afterwards I traced them as far north as the Bay of Fundy, always larger in proportion as the season advanced. But I have never seen them during the winter or in early spring. A careful search, however, made this year by my son, from the beginning of August to the first week of September, led him to the discovery of a large number of young, barely visible to the naked eye. They grew gradually larger; but after the first September gale the young disappeared with the adult, which, as I have already stated, break into fragments in our heavy September storms. The young, of course, must survive; and the question arises, what becomes of them during their temporary disappearance, on the approach of the winter, until the following summer? I can find only one explanation for this phenomenon, suggested by the habits of the adult.

I have already stated, that in the summer months our pretty *Idyia* appears in great quantities at the surface of the water during the hottest hours of the day. In the morning and evening they are not visible, but as the sun rises above the horizon they may be seen deep below the surface, betrayed by the iridescent colors of their locomotive flappers, and slowly ascending until about ten o'clock, when they are fully in sight near the surface, where they appear in all their beauty. It is thus evident, that these animals may, under different circumstances, voluntarily rise to the surface of the water or dive into the deep; and the nature of the circumstances so influencing them is plainly indicated, not only by the fact that the warmest hours of the day bring them to the surface, but also by the fact, ascertained with equal certainty, that the slightest ripple upon the surface, hardly producing perceptible agitation of the water, is sufficient to cause their instantaneous disappearance, and that they remain out of sight for days in succession when the sky is overcast or the weather chilly. What can be more natural therefore than to assume, that the adult *Idyias*, having performed their part in life, break up under the influence of the waning summer; while, during the whole winter, the young do what their parents have been doing at intervals during the summer, that is, subside into deep waters, to reappear only with the more genial season, when they complete their growth, reproduce their kind, and die in their turn.