

chusetts, in his Report on the Invertebrated Animals of that State, where he considers it, however, as identical with the *Alcinoe vermicularis* of the coast of Brazil. But a close examination has satisfied me, that it is neither identical with that species, nor even belongs to the genus *Alcinoe*, but constitutes the first Atlantic representative of the genus *Bolina*.¹

There is a marked difference between this species and *Bolina septentrionalis* Mert., in the less limited development of its longitudinal diameter, in the greater approximation of the two auricles of each side, and in the greater width of the large lobes; for which reason I have called our species *Bolina alata*. Like all true *Bolina*, it is of a transparent bluish white. *Bolina norvegica*, Sars's *Mnemia norvegica*, is at once distinguished from the species found along the north-west and the north-eastern coast of America, by the sudden projection of its lobes. A fourth species, which I call *Bolina vitrea*, occurs on the southern coast of Florida. It differs from the preceding ones by its greater height, the narrowness of its locomotive flappers, and its extraordinary transparency. I am unable to state with certainty, whether *Bolina hybernica* Pall. differs from the species described by Sars or not.

Bolina alata is a most delicate, transparent, and diffident animal; so soft that it readily decomposes under the least unfavorable circumstances. The admixture of a small proportion of fresh water in the bowls in which I used to preserve them caused not only their immediate death, but also their instantaneous decomposition. All my efforts at preserving specimens in Goadby's liquor have entirely failed; and when, under identical circumstances, I succeeded in keeping for a long time specimens of *Pleurobrachia rhododactyla*, I failed in preserving specimens of *Bolina alata* longer than twenty-four hours. Again, this species being by no means so common as the *Pleurobrachia*, with which it is always found associated, I had to contend with great difficulties in my investigations of its structure. I succeeded several times, nevertheless, in injecting it with indigo; and, though the injection soon caused the death of the animal and its decomposition, I have been able to trace

¹ It is a remarkable circumstance, that the Atlantic shores of America should furnish, in lower latitudes, a species of the genus *Bolina* very similar to that which occurs in Behring Strait; but this is only one of the many instances showing that species on the opposite shores of this continent are adapted to the differences which exist in the climatic conditions, and the different course of the isothermal lines on the eastern and western sides of the Old and New Worlds. It is also interesting to notice, that while *Bolina alata* is, everywhere on our coast, found associated with *Pleurobrachia*

rhododactyla, another species of the genus, described as *Mnemia norvegica* by Sars, accompanies the *Pleurobrachia bicolor* of the boreal fauna of Europe; and that the *Bolina septentrionalis* of Mertens belongs to the same fauna with the *Pleurobrachia Bachei* discovered by my son in the Gulf of Georgia, where it occurs together with *Bolina septentrionalis*. Moreover, a distinct species of *Idyia* is also found in each of these three faunæ, one of which is described by Sars in his "Beskrivelser," and the other two in the following section of this chapter.