MARSHALL, S. M. & ORR, A. P. (1957). *J. gen. Microbiol.* **16**, 273

ABSTRACT OF

Some Factors Affecting the Sinking Rate of Diatoms

BY SHEINA M. MARSHALL AND A. P. ORR

Marine Station, Millport

The vertical distribution of the eggs of the marine copepod *Calanus* in the sea is anomalous in that they are found almost entirely in the top 50 m., whereas from their specific gravity one might expect them to be evenly distributed, at least down to 100 m. It is suggested that a possible cause for this may be found in the mucus-like substance secreted by diatoms. Experiments were made by dropping single *Calanus* eggs through columns of sea water and of cultures of various species of diatoms and phytoflagellates, and measuring the rate of fall. In filtered sea water and in cultures of flagellates the rate of fall was regular, but in cultures of diatoms it was very irregular. Sometimes the egg falls more slowly than in filtered water but often it comes to a complete stop, resuming the fall after a few seconds or even minutes. Such 'hold ups' are most frequent in diatom cultures shortly after they have been put into the experimental vessel and are suspended evenly in the water. The viscosity of diatom cultures is not appreciably higher than that of sea water.