

[Thomas Kiørboe](#): **Feeding and mating in zooplankton: Mechanisms, tradeoffs, and population implications.** Marine zooplankton live in a dilute, 3-dimensional, sticky environment where finding mates and food are challenging. Despite the enormous size range and diversity of zooplankton there is a limited number of solutions to these problems. I will describe – by video and otherwise – the basic mechanisms, discuss their fluid mechanical constraints, and show how the risk and gain of the various behaviors are inherently different and size dependent. The optimality of feeding and mate-finding strategies, evaluated as the ratio of gain over risk, varies with the environment, and may explain both size-dependent and spatio-temporal differences in distributions of the various zooplankton types as well as has predictable implications to the population dynamics of both the zooplankton and their phytoplankton prey.