Foraging mode and prey size spectra of suspension-feeding copepods and other zooplankton - DTU Orbit (27/12/2018)

Foraging mode and prey size spectra of suspension-feeding copepods and other zooplankton

Prey size spectra of suspension-feeding zooplankton may be predicted from foraging mode and a mechanistic understanding of prey perception and capture. I examine this for suspension-feeding copepods where 2 foraging modes can be distinguished: ambush feeding and active (i.e. cruising and feeding-current) feeding. Prey perception mechanisms differ between the 2 foraging modes. I use simple arguments to predict that the ambush strategy targets larger prey and has a narrower prey size spectrum than the cruising and feeding-current feeding strategies. I compile data from the literature that confirm the prediction. I also make qualitative predictions of food size spectra in zooplankton with other prey perception mechanisms that accord with observations.