Description of how females and males meet and mate forms the central part of any two-sex population model. Most such models assume a mating rate description and study its impacts for population dynamics. However, population dynamics may feed back to affect mating dynamics. In this talk, I briefly introduce some common mating rate descriptions, including those that model mate-finding Allee effects [1]. Then, I consider how evolution may shape mating dynamics under predation pressure [2] and a variety of life history trade-offs [3]. Finally, I show how may different mating systems and a potential of individuals to avoid infection shape dynamics of populations affected by sexually transmitted infections [4].

References


*Mini-Symposium: Two-sex and other multi-species interactions in ecology and human population dynamics