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# Evolutionary and proximate mechanisms shaping host-parasite interactions

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Gould Seminar Room (Rm 235) Gould Building (Bldg. 116), Linnaeus Way, ANU



My work pertains to understand the evolution of host-parasite interactions and more recently the impact of host sexual dimorphism on parasite evolution. Parasitism is one of the most abundant lifestyles and antagonistic interactions between hosts and parasites are a key structuring force in natural populations of all organisms. The successful infection of one host by a parasite depends of a sequence of steps that can often be disentangled. I will first show that different consecutive steps of the infection process (here, of *Daphnia magna* by its bacterial parasite *Pasteuria ramosa*) can be influenced by different underlying factors, and thus, can make different contributions to shaping host-parasite interactions, speciation and coevolution. Then, I will focus on the step

where parasites grow within the host (here *Daphnia* and *Drosophila*) and show that host sexual dimorphism is an important factor for parasite evolution and may have implications for infectious disease ecology.

Presented by

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