



Universität  
Basel

## Research Project

### Host-Parasite Evolution

#### Third-party funded project

**Project title** Host-Parasite Evolution

**Principal Investigator(s)** [Ebert, Dieter](#) ;

**Organisation / Research unit**

Departement Umweltwissenschaften / Evolutionary Biology (Ebert)

**Department**

**Project Website** <http://www.evolution.unibas.ch/>

**Project start** 01.07.2006

**Probable end** 30.06.2009

**Status** Completed

Host-Parasite Evolution

The main focus of this project are question related to the evolution, genetics and ecology of host-parasite interactions. The research includes questions about the adaptive significance of parasite virulence (Why do hosts get sick? Is virulence adaptive for the parasite?) and the adaptive significance of genetic variation and sexual recombination (What is sex good for?). Our work also includes the study of inbreeding and inbreeding depression and its relationship to parasitism. We use experimental epidemiology and experiemental evolution to approach these questions.

Our main study organisms are microparasites (bacteria, fungi, protozoans) and their hosts, waterfleas of the genus *Daphnia*. This system allows us to estimate fitness components of hosts and parasites, which is essential for the quantification of costs and benefits in both antagonists. The research includes field work in natural *Daphnia* populations and experimental setups in the laboratory. Some of our field work is done in a *Daphnia* rock pool metapopulation in Southern Finland. We also use genoic approaches to find genes involved in host-parasite interactions

#### Financed by

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