

ABSTRACT

Water fleas of the genus *Daphnia* are infected by a wide range of parasites with different host range. These parasites are mainly representatives of bacteria, protozoa (group Ichtyosporea), yeasts, microsporidia and oomycetes. Host specificity of these parasites is very different. We can find there those, who infect only one host species, but also those, who infect a lot of host species (also hosts of different subphylums). Antagonistic coevolution is the major driving force for evolution of the parasite-host system. Parasites create on their host negative frequency-dependent selection, that cause a lot of phenomena such as clonal/isolate specificity of both antagonists, maintenance of genetic polymorphism, decreasing virulence etc. A special group of organisms are epibionts, that live on the surface of their holder. Their specialization manifests as preference of a substrate. This thesis summarizes a current knowledge on the host specificity of chosen parasites of the genus *Daphnia* and also includes what is known about their life cycles.

Key words: Host specificity, specialization, generalist, *Daphnia*, microsporidia, complex life cycle, epibiont.