

Abstract

Coevolution is relationship between two or more species reciprocally affect each other's evolution. Coevolution is also known as host-parasite interaction where parasite becomes the driving force of host evolution. In an effort to escape the parasite, hosts create different mechanisms that protect themselves from infection or minimize its impact. This text is written to acquaint the reader with the host-parasite interaction in response to improving parasite. In systems with myxoma virus and *Mycoplasma gallisepticum* are described changes of virulence and manipulation with host immune response. Myxomatosis should be known for its increasing virulence because of horizontal transmission. But after many years coevolution between European rabbit (*Oryctolagus cuniculus*) settled on low value in three different places. Second system represents young evolution between mycoplasma and house finch (*Haemorrhous mexicanus*) which offer opportunity to watch new beginning of defense mechanism against parasite.