Aggression is a phenomenon which acquired a substantial share on attention of biological literature, especially since the beginning of 20th century. In this thesis, various approaches to the problem from the field of biology are summarized. Intensified attention is dedicated to the theoretical concepts of aggression, especially the concepts consulting the problem of aggression from the evolutionary point of view and to the research on the field of hormonal regulation of aggression, stressing out the role of the hormone testosterone, and to particular hypothesis, which take account on its mutual relationship with behavior. The empirical part of the thesis is dedicated to verification of premises of the challenge hypothesis according to the relationship between testosterone and aggressive behavior. Significant findings of the empirical part refer to the existence of a link between basal level of testosterone and aggressive tendencies and to the existence of a negative link between basal level of testosterone and its increase in reaction to a competitive situation.