Abstract

Reproductive success of an individual depends on the number of sired young. In socially monogamous birds the extra-pair paternity contributes to variance in male reproductive success. Mate-guarding may increase the ability of males to protect paternity in own nests and hence affect individual reproductive success. Sperm quality can also influence male reproductive success particularly if the sperm competition is present. Sperm quality is characterized by their length, variability in lenght and motility. Male reproductive success in the Scarlet Rosefinch is affected by the expression of secondary carotenoid-based ornaments. Research of relations between male ornamentation, sperm quality and mate guarding is a subject of this thesis. The results indicate that Rosefinches have the longest ever reported sperm cells within the family Fringillidae. I found only slight relationships between the sperm morphology and carotenoid ornamentation in Scarlet Rosefinche males. Generally there is no consistent pattern between male ornamentation, sperm traits and the intensity of mate guarding in this species. Hue (the main correlate of male reproductive success in Scarlet Rosefinch) was neither correlated with sperm traits nor with the intensity of mate guarding.