Abstract

In promiscuous species, male`s ejaculate plays an important role in its fitness. Due to high male-male competition, the quality and quantity of ejaculate determines the male`s reproductive success. In a holometabolous insect like *Drosophila melanogaster*, the investment in reproductive tissues is highly dependent on its larval environment. In a larval-crowding like condition, which is possible in these species, because of confined foraging ground for larvae, the allocation of resources to different adult reproductive tissues changes (shown in previous studies). Aim of this study is to investigate the evolution of ejaculate depletion pattern as a result of adaptation to larval crowding.

Males of Selected and Control populations were provided with three females for three consecutive mating. After three matings the drop in size of male reproductive organs (testis and accessory gland size) were compared with those of virgin males, to obtain a measure of investment in various components of the ejaculate (sperm and ACPs) in Selected and Control populations.