

MECHANISMS OF CLUSTERING BREEDING TERRITORIES BY SONGBIRDS

Summary

Habitat selection process leads to differentiated spatio-temporal distribution of individuals in habitat patches. Territory aggregations represent a distribution pattern intermediate between breeding colonies and diffuse occurrence. We present various hypotheses that were raised to explain formation and maintenance of spatial aggregation of territories in songbirds. We divided these hypotheses into four groups, using mechanism leading to the formation of aggregation as a criterion. We first present hypotheses, that explain how spatial variation in resources can lead to clustered distribution of individuals. The second group includes hypotheses, according to which

territories' aggregations are the result of using social information in habitat selection process by individuals. Subsequently we characterize hypotheses which explain how sexual selection can lead to formation of territories clusters. Hypotheses included by us in the last group highlight benefits gained by individuals occupying clustered territories in the context of predators activity. Although hypotheses presented can be divided into four distinctly different groups, they are not mutually exclusive, and, in nature, various mechanisms can lead to clustered distribution at the same time.