English abstract

Passive dispersal is a fundamental mode of land snail dispersal as their ability of active dispersal is very limited. Birds are considered to be important vectors of snail dispersal for a long time. Snails can be dispersed both attached on a bird externally (ectozoochory) or being swallowed by bird and then expelled alive (endozoochory). The possibility of endoozoochory has been proved only for few species of land snails. The aim of this thesis was to test whether endozoochory is possible for more combinations of snail and bird species.

Snails were offered to birds in laboratory conditions and to those kept in animal rescue stations. Then faeces and regurgitated food were collected and searched for snail shells. Viability of undamaged shells was examined.

Out of 4519 snails of 15 species offered, 62 % were consumed by birds and 240 individuals (5.3 % of those offered) were found in faeces undamaged. The total of 27 individuals of four species (Clausiliidae: *Alinda biplicata*; Chondrinidae: *Chondrina avenacea*; Vertiginidae: *Vertigo antivertigo*, *V. pygmaea*) were found alive. Some birds also regurgitated consumed snails. The total of 121 individuals (2.7 % of consumed) of four species were regurgitated undamaged. The number of 35 snails of all four regurgitated species (Chondrinidae: *Chondrina avenacea*; Clausiliidae: *Alinda biplicata* and *Bulgarica nitidosa*; Pomatiidae: *Pomatias elegans*) were regurgitated alive. Species of snails with smaller shell (<8 mm) passed through bird gut alive with higher probability. *Chondrina avenacea* was the most successful snail species. Snails expelled by young blackbirds had the highest probability to be alive. Results of experiments have proved that avian endozoochory could be considered as an explanation of the ability of examined species to colonize isolated sites.