

Field-testing the suitability of a new back-pack harness for radio-tagging passerines.

Hill, I. F., Cresswell, B. H. & Kenward, R. E. 1999

Journal of Avian Biology 30: 135-143

Attaching radio-tags to highly dynamic organisms can bias the data collected. The nature and extent of any bias should be understood and quantified. This is vital with an untested attachment method or when tagging a new species or age-class. The suitability of a new backpack harness design was field tested on 39 adult thrushes (33 blackbird *Turdus merula* and 6 song thrush *T. philomelos*) at a study site in England. Direct chronic effects were assessed by examination of recovered corpses and recaptured birds. The harness caused the development of a small subcutaneous lipid mass on the patagium but no epidermal abrasion or inter-scapular blistering or bruising. Indirect measures of chronic effects came from behavioural observation and breeding performance measures. For female birds, the attachment of a back-pack tag did not significantly reduce clutch size or egg volume compared with un-tagged females. Nest survival rates were also unaffected. The number and quality of young fledged by tagged females were as high as those for untagged females. Video data showed that provisioning rates of the nestlings did not differ significantly between tagged and untagged parents. The proportion of time spent brooding by tagged female Blackbirds was non-significantly higher than for untagged birds.