

# How fast movements can a blue tit detect?

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Are you looking for a masters project next semester, spring 2011? Interested in birds and bird vision? Then why not contact Marina Dimitrova or Anders Ödeen for more information!

**Aim of project:** Investigate the eye sight capabilities of blue tits (*Cyanistes caeruleus*; Fig. 1), especially try to find out how fast movements the birds can detect.

**Project description:** To date most studies about bird vision have been done with domestic chickens. Thus by using wild blue tits, which are common passerine bird spread throughout Europe, you can be the first to investigate exactly how good their movement detection vision is! Blue tits live in forest habitats and forage on insects and seeds, thus one expect that their vision should be much more sensitive to movements than the domestic chicken.

In short the experimental set-up will be to catch wild blue tits and train them in a modified Skinner box to associate a moving or a stationary target with a food reward. The speed of the target will be modified to see exactly where the blue tits won't be able to distinguish between the moving and the stationary target. It is possible to test other aspects of blue tit vision than movement detection, so according to your preferences please contact us and we can plan something together!

**Field station:** The experimental field work will be done at Tovetorp Zoological Research Station, located ~80 km south-east of Stockholm. The research station (Fig. 2) is beautifully located in the midst of the forest between Nyköping and Gnesta.

**Project duration:** The field work will be performed during the winter and will start in the beginning of January of 2011. The duration of the field work will be ~2 months and afterward there will be plenty of time to analyse the results and finish the written rapport.

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**Fig. 1.** A blue tit caught in a mist net, eagerly awaiting to participate in an experiment.



**Fig. 2.** Winter view of Tovetorp Zoological Research Station.