

[Back](#)

Agricultural and Food Science - abstract



Vol. 15 (2006), No. 3, p. 340-349

KENTTÄMIES, HILKKA, NIKKILÄ, MARJA, MIETTINEN, MAIJA, ASIKAINEN, JUHA,

Phenotypic and genetic parameters and responses in temperament of silver fox cubs in a selection experiment for confident behaviour

Keywords welfare, foxes, confidence, aggressiveness, ease of capture, selection response,

Abstract

A selection experiment for more confident silver foxes was arranged to find out possibilities to obtain selection response in confidence. Variation in aggressiveness and ease of capture was also studied. Fixed factors affecting the traits were studied using WSYS program. Covariances for breeding values were estimated with REML and multitrait animal models using VCE4 and Pest programs. It appeared that males were more confident than females. Cubs born in small litters tended to be more confident, less aggressive and easier to capture compared to those born in greater litters. Cubs of one-year-old dams seemed to be more confident and easier compared to those of older dams. Moderate estimate of heritability was obtained for confidence ($h^2 = 0.22$). During three years of selection, genetic response of 0.13 points was achieved in confidence in selection line compared to control line. A higher selection differential existed in males than females. Predicted response of 0.21 points was slightly higher than the estimated one. No heritability was observed in aggressiveness, while a low one existed in ease of capture ($h^2 = 0.07$). No association between confidence and the other behaviour traits were found.

Contact hilkka.kenttamies@animal.helsinki.fi

[\[Full text\]](#) (PDF 190 kt)

Update 24.11.2006.

Source: MTT's Publications database [Afsf](#)