

--- MSc internship opportunity ---

Colour-ring loss in barnacle geese (*Branta leucopsis*)

Background

Equipping barnacle geese with rings provides valuable insights into population dynamic parameters, such as survival, reproduction and dispersal. For this purpose, barnacle geese have been ringed for decades as part of various research projects in the Netherlands, Scandinavia and Russia. By using additional coloured leg rings, alongside the standard metal rings, the probability of encountering an individual greatly increases. Coloured marks can be read from a distance, making recapture of a bird unnecessary.

There are several assumptions involved in modelling these data. For example, (coloured) rings should not be missed or lost. A high rate of ring loss can lead to an underestimation of survival, particularly in long-lived species such as geese. However, it is known for several goose species that coloured marks are occasionally lost, with the frequency varying between species.



What you will do

During this internship, you will be investigating the effect of colour-ring loss on the estimation of survival in barnacle geese, using a multistate survival model. Additional information can also be included in this model, such as sex or age of individuals or characteristics of the colour-rings. Moreover, these analyses allow for the assessment of any potential direct effect of colour-rings on the survival of barnacle geese.

The analysis will be based on a mark-recapture dataset containing data on ring loss from individuals captured in breeding colonies in the Dutch Delta region and on Gotland (Sweden). Part of this internship will involve gathering, reviewing and combining these datasets.

What you bring

You are enrolled in a relevant master's program and have an interest in processing and analysing large mark-recapture datasets. Experience with performing statistical analyses in R is preferred. Some prior knowledge of survival analyses in Mark or RMark is an advantage.

For more information, please contact Eelke Jongejans (eelke.jongejans@ru.nl) and Lisenka de Vries (l.devries@nioo.knaw.nl)