

**Supplementary material**

## Appendix 1

**Table A1.** Model selection of the effects of body mass loss ( $\Delta$ od) and vitellogenin (VTG) on the breeding propensity of female common eiders ( $N = 222$ ). Body mass loss of control birds was set to 0. When an interaction (\*) was used, the corresponding fixed effects were also incorporated in the model. All models included year as a random factor and release date as a fixed factor.

Model Name	<i>k</i>	AICc	$\Delta$ AICc	$w_i$
$\Delta$ BM*VTG	6	281.6	0	0.36
$\Delta$ BM+VTG	5	281.8	0.21	0.33
VTG	4	281.94	0.34	0.31
$VTG^2 + \Delta$ BM	5	292.2	10.61	0
$VTG^2$	4	292.29	10.7	0
$VTG^2 * \Delta$ BM	6	293.13	11.53	0
$\Delta$ BM	4	302.47	20.88	0
Null	3	302.73	21.13	0

Fig A1. Relationship between breeding propensity (0 = not resighted and 1 = resighted as a breeder) and body mass loss (control birds have 0 mass loss) in pre-breeding female common eiders at Mitivik Island (Nunavut, Canada) in 2003 and 2004. Females with high levels of vitellogenin are presented in the upper graph and females with low vitellogenin levels in the lower graph. The black line represents the fitted logistic model, and the dotted line its 95% confidence interval. Circle sizes are proportional to  $\log(N)$ .

