Report from MinkSim

K?ri Gautason 2 sep 2016

Results from MinkSim

A variety of key figures and plots will be generated

Table of Contents

- 1. Litter size and reproduction results
- 2. Body weight and skin length
- 3. Live graded quality and skin quality
- 4. Feeding costs
- 5. Economics

1. Litter size and reproduction results

Summary statistics

```
## Warning in matrix(c("Mated females", "Barren females%", "% kits w false
## sires", : data length [11] is not a sub-multiple or multiple of the number
## of rows [5]
```

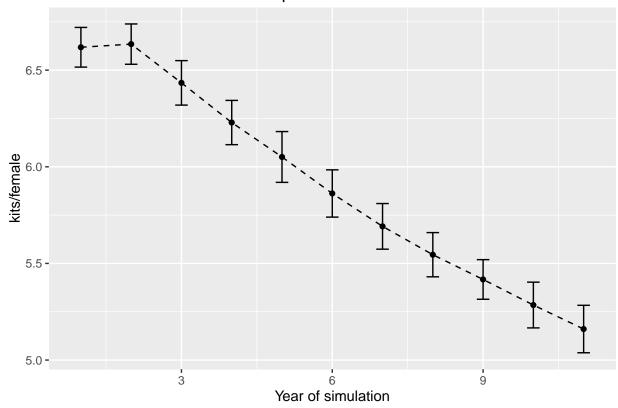
Table 1: Key Figures

Mated females	944.4
Barren females%	19.5
% kits w false sires	7.96
% females with same male 2	66.09
% females single-mated	4

Litter size per mated female

This is defined as kits born alive. Bars show standard deviation of each replicate.

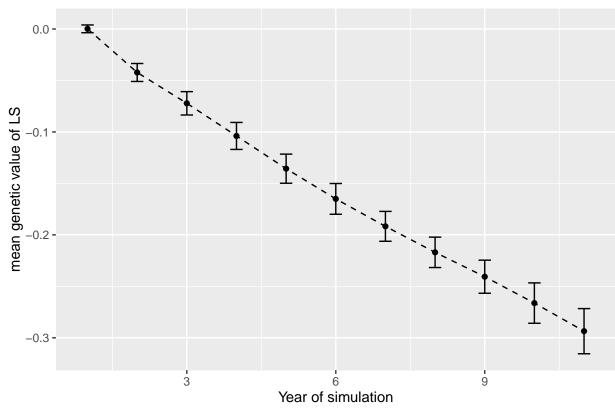
Kits per mated female



Genetic trend for litter size

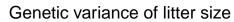
Genetic trend of litter size within age cohort

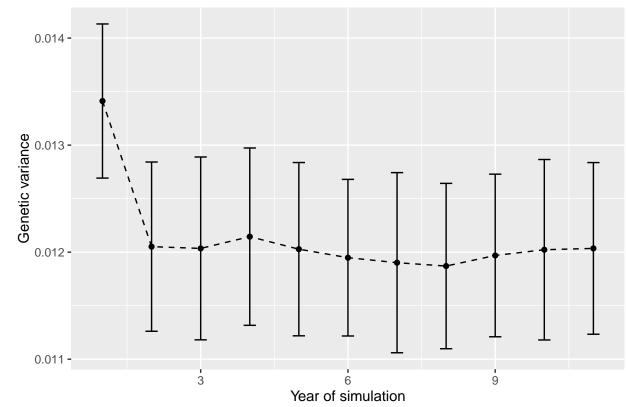




Genetic variance of litter size

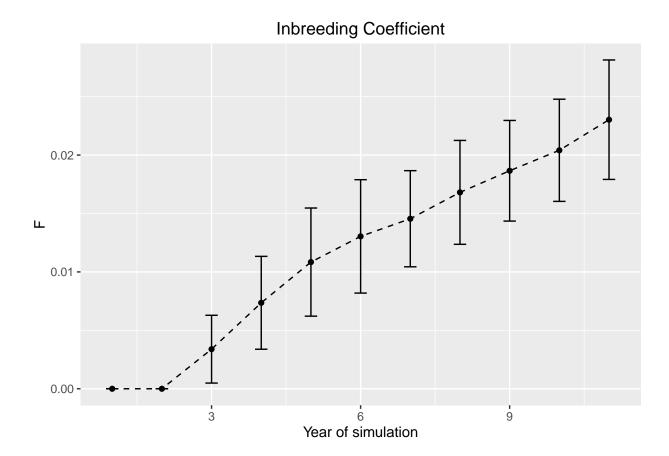
Shows the trend in the genetic variance of litter size through the simulation. Theoretically it should slowly decrease over time. Increase indicates assortative mating or possible, a bug.





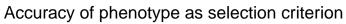
Inbreeding coefficient

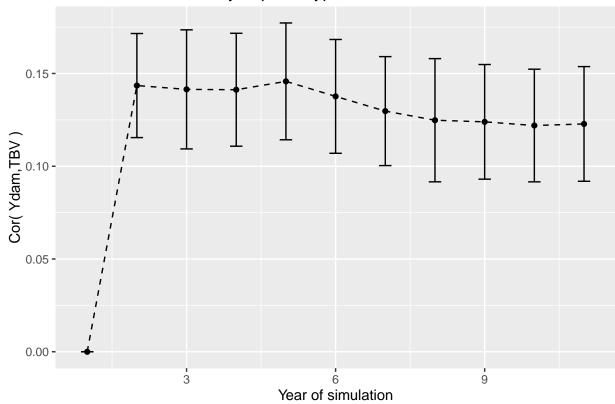
Program tracks inbreeding through the simulation.



Accuracy of selection criterion

This is defined as the correlation between the phenotype of the kits dam to the true breeding value of the kit

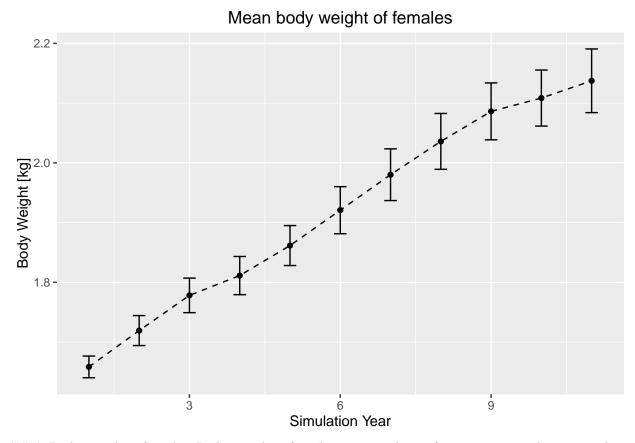




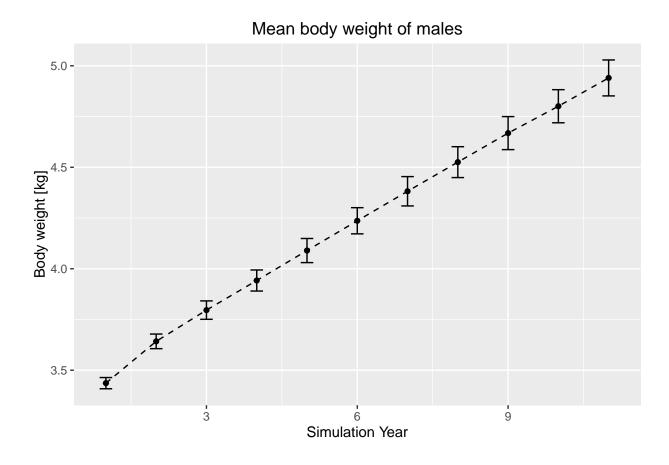
2. Body weight and skin length

Body weight of females

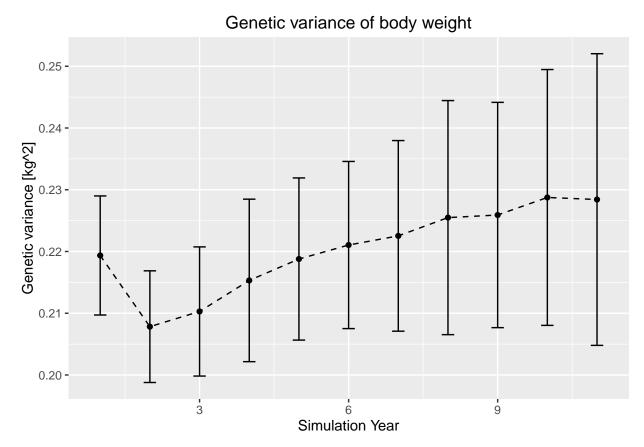
Body weight of females at 205 days of age, mean within age cohort.



Body weight of males Body weight of males at 205 days of age, mean within age cohort.

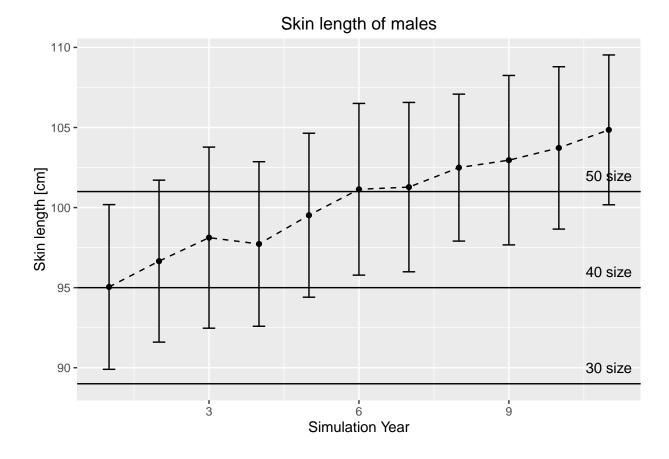


Genetic variance of body weight



Skin length phenotype, male skins

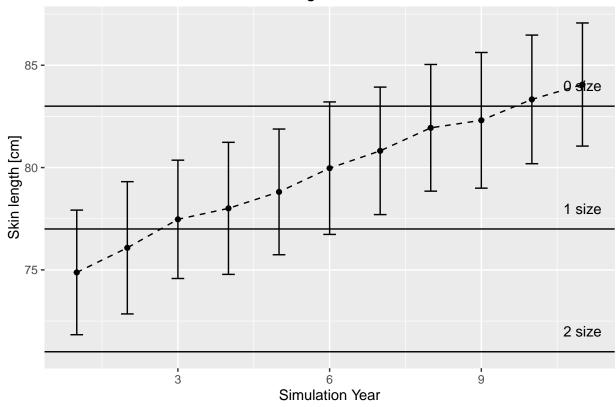
This shows the development in average skin length, note that this is within age cohort and includes all animals, even those not pelted



Skin length phenotype, female skins

This shows the development in average skin length, note that this is within age cohort and includes all animals, even those not pelted

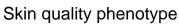
Skin length of females

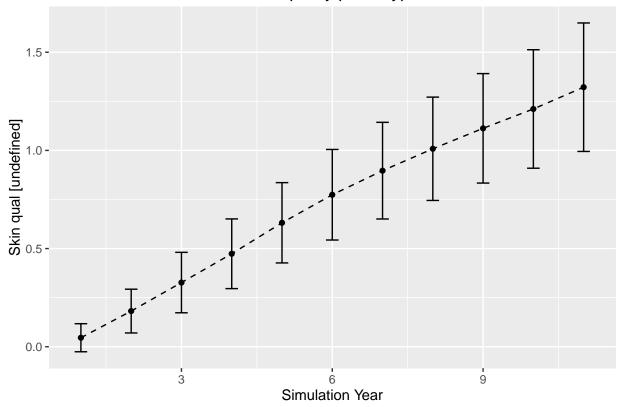


3. Skin quality and live graded quality

Average quality of skins

Note that the unit here is difficult to interpret. It is in phenotypic units, i.e. includes both environment and genetic part. Defined to start as the average distribution of skins in 2015 from Norway, Sweden, Denmark and Iceland. Quality of all other skins sold are fixed.

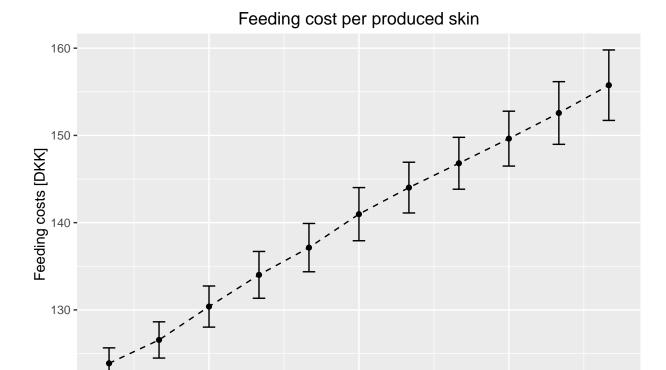




4. Feed costs

Feed costs per produced skin

Note that this is a beta version with all the feeding costs, minus the amount kits eat in weeks 6-9



5. Economics

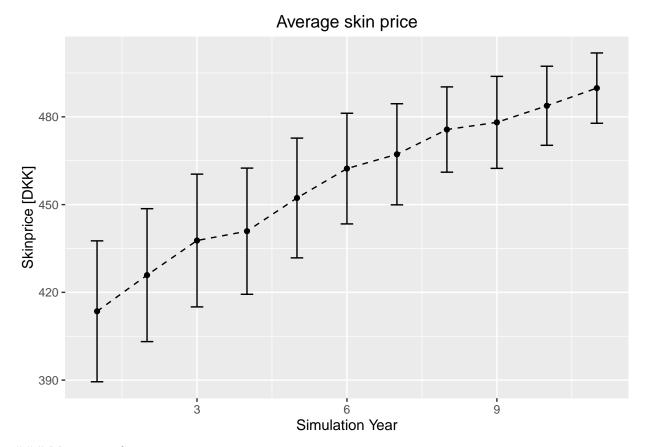
Here i will put in economical analyses of the runs, given some assumptions. I want to include margin pr farm, pr female and pr skin

Simulation Year

Average skin price across farm

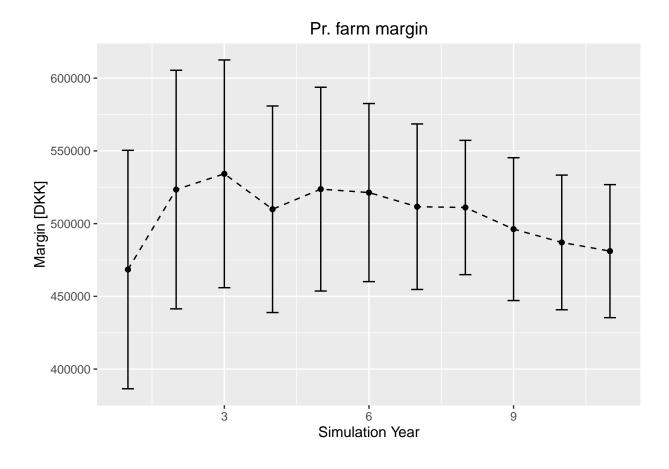
3

Here is the raw average of sold skins. It is important to keep in mind that there is a bias upwards in this price when the litter size drops as proportionally fewer female skins will be sold.

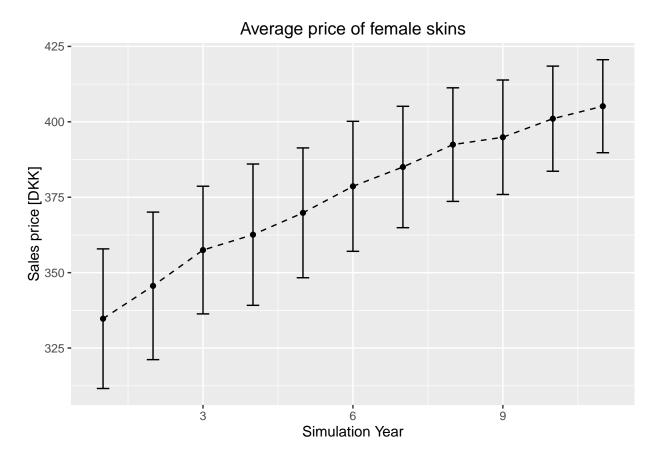


Margin per farm pr year

This is calculated as income from skins minus the variable costs, currently the variable costs are rather simplistic and need to be redone in a more elegant manner.



Average price of female skins



Average price of male skins

Average price of female skins

