Reduction in fitness within progeny produced by the mating of closely related individuals

 $\delta = 1 - \frac{\text{fitness of inbred offspring}}{\text{fitness of outbred offspring}}$

 Reduction in fitness within progeny produced by the mating of closely related individuals

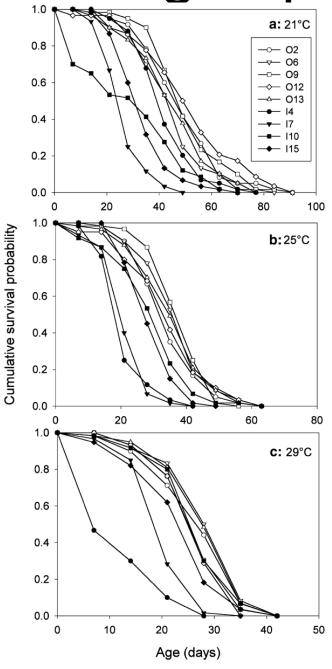
 $\delta = 1 - \frac{\text{fitness of inbred offspring}}{\text{fitness of outbred offspring}}$

- Need to specify level of inbreeding
 - Juvenile survival of Dorcas gazelle
 - Sib matings (F = 0.25) = 0.405
 - Outbred population (F = 0) = 0.720

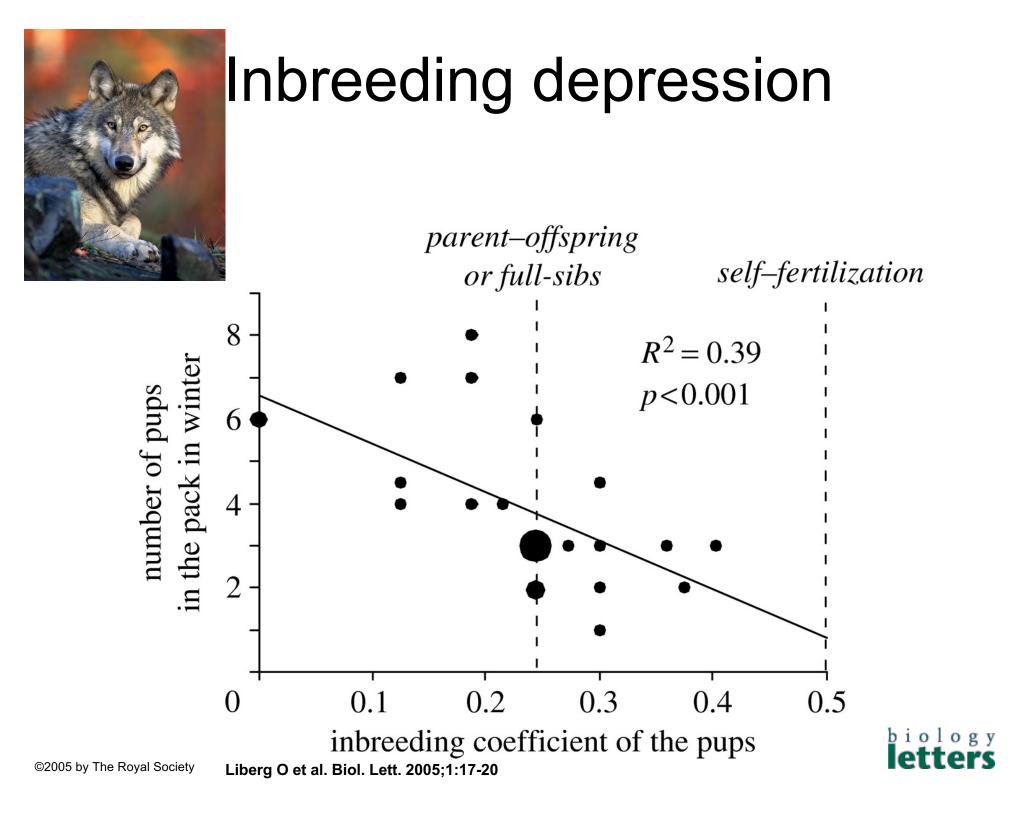
$$\delta = 1 - \frac{0.405}{0.720} = 0.44$$



- All components of reproductive fitness subject to ID
- Characters closely related to reproductive fitness show more ID than peripherally related characters
- ID greater for total fitness than its components
- Families, populations, species differ in extent of ID
- ID proportional to amount of inbreeding



Vermeulen and Bijsma 2004



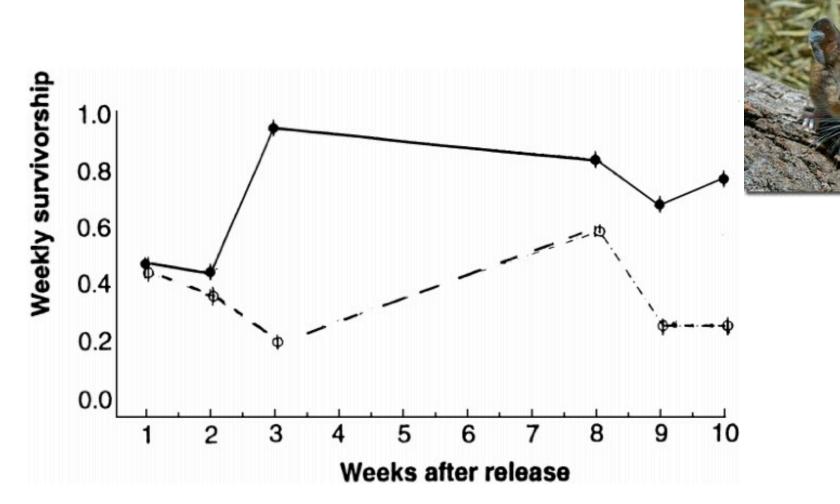
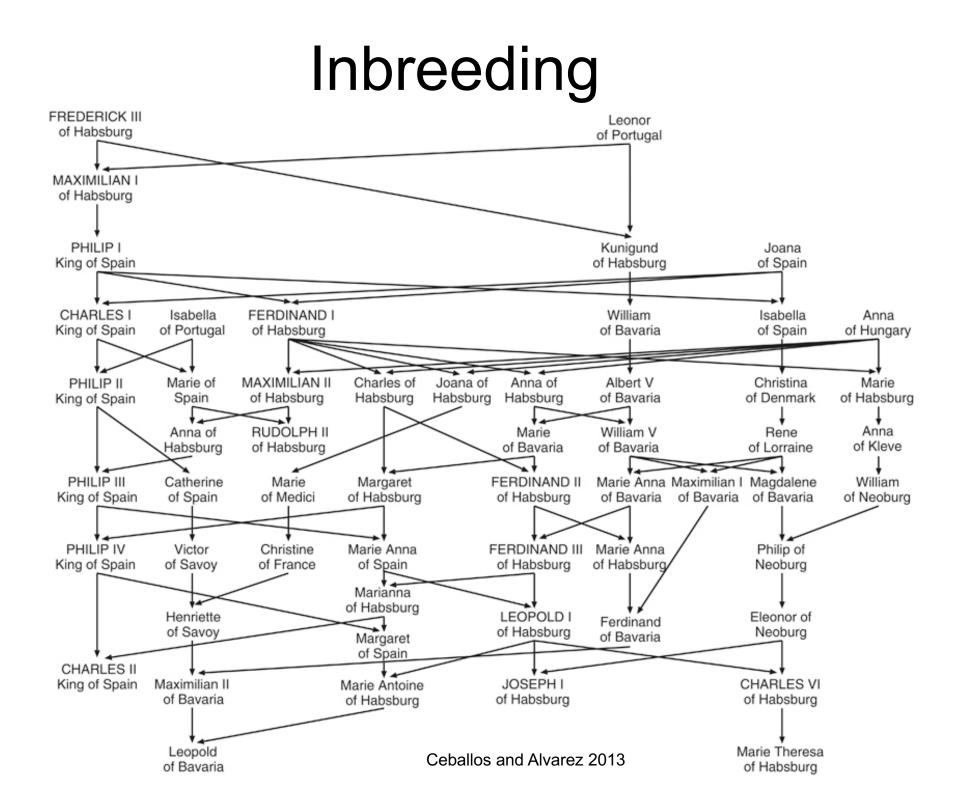
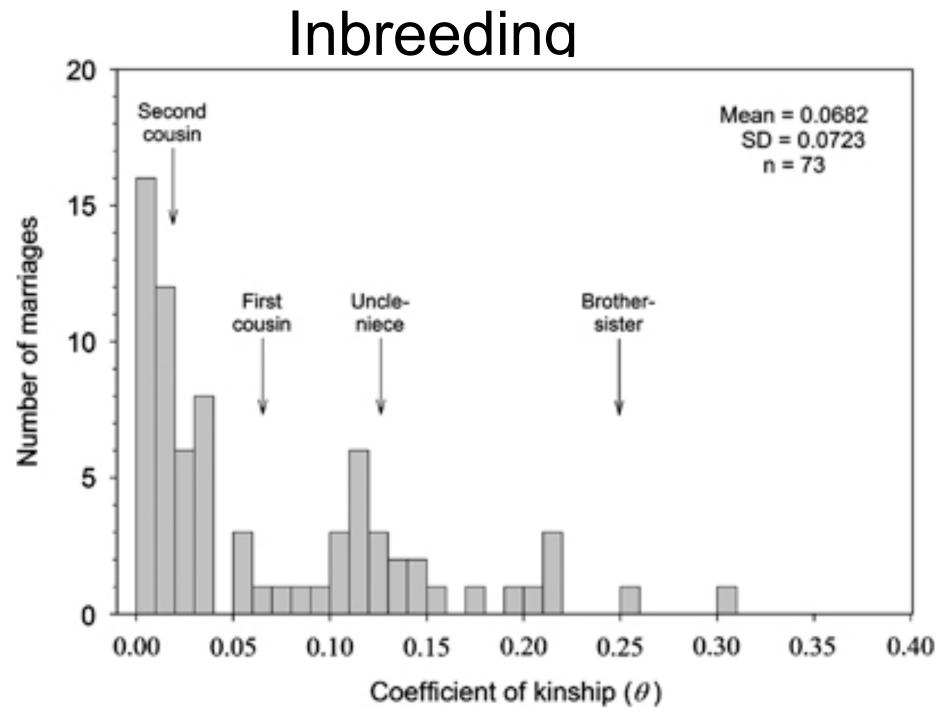


Figure 1 Weekly survivorship of non-inbred (solid line) and inbred (broken line) white footed mice over 10 weeks in a natural habitat (from 41).

Jimenez et al. 1994

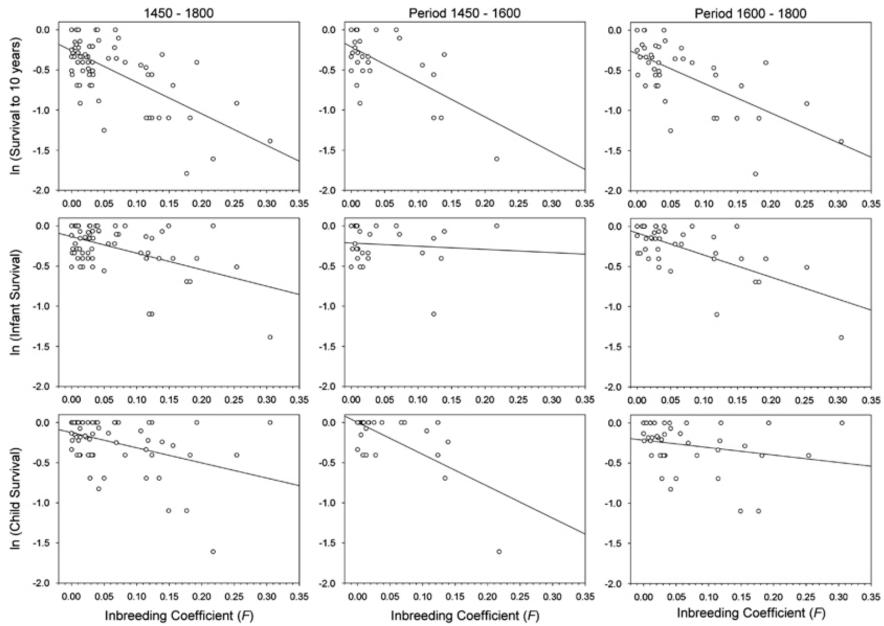




Ceballos and Alvarez 2013

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Inbreeding

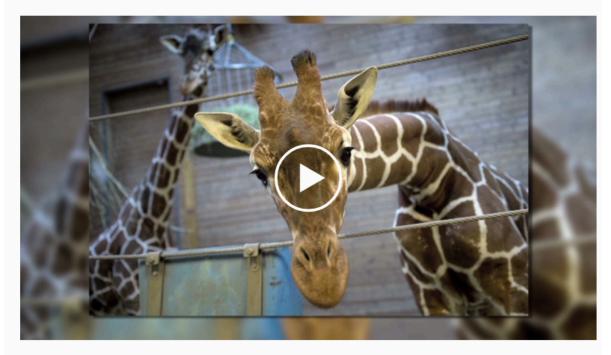


Ceballos and Alvarez 2013

Danish zoo kills healthy giraffe, feeds body to lions

By Bharati Naik and Marie-Louise Gumuchian, CNN

Updated 8:57 AM ET, Mon February 10, 2014



Danish Zoo criticized for killing giraffe 02:21

Story highlights

NEW: Copenhagen Zoo official: If we sterilized giraffe, he'd just take up needed space

Giraffe's autopsy performed outside in front of people at Copenhagen Zoo

An online petition to save a healthy young giraffe from death has failed, despite thousands of signatures from animal lovers.

Copenhagen Zoo said it euthanized the male, named Marius, on Sunday because of a duty to avoid inbreeding.

Inbreeding



Inbreedina

New App Prevents Icelanders from Sleeping With their Relatives

Monday, 15 April 2013 06:04 | font size 🕞 🕂 | Print | Email



in Share Tweet 👰 +1 🖒 Recommend

12,506 people recommend this. Be the first of your friends.

The Icelandic population is very small and **all Icelanders are related**. But yet, it is big enough so everyone doesn't know one another. This means that each and every Icelander that is in a relationship, is dating a relative. In most cases those relations are distant. But not always. But how can they know?

Inbreeding

"Bump the app before you bump in bed"

Three engineers made an app for the '*lslendingabók*' database. People can now easily, and on the go, look up how they are related to other Icelanders. And a precious feature, using the bump technology, allows people that meet to just bump their phones together, to instantly see if they are too related to take things any further. The engineers' slogan for this feature was: **"Bump the app before you bump in bed"**.



The awkward moment when you meet a former lover at a family gathering

Everyone has heard of (or experienced) it when someone goes all in with someone and then later runs into that person at a family gathering some other time. This new app might just prevent such awkward moments.

