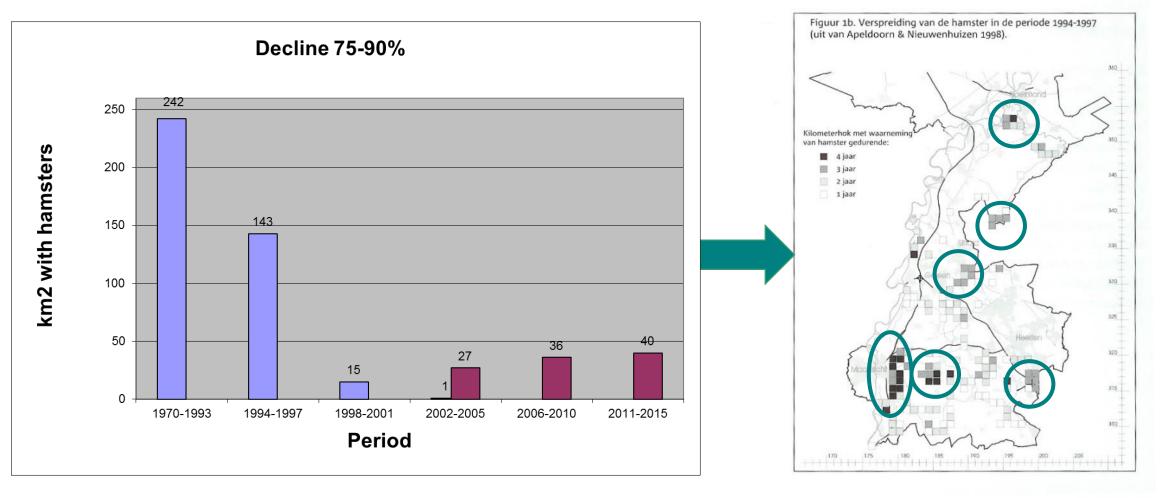
# The struggle for effective conservation of hamsters in the Netherlands: an overview



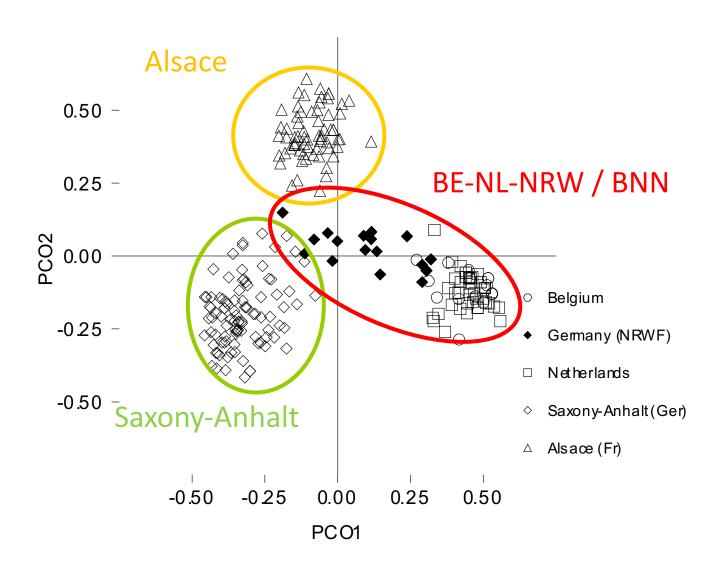


## Rapid decline in distribution and number in the '90s

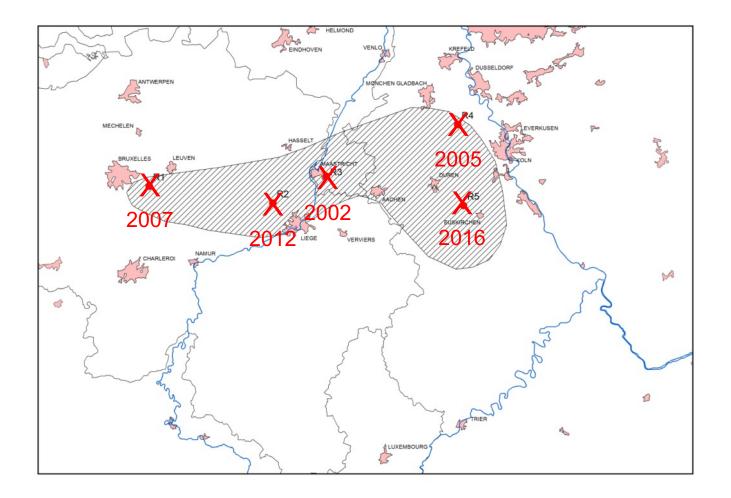


From widespread to isolated populations

### Genetically different populations. No European breeding recommended



## This is how extinction looks... in just 15 years







Individuals from Belgium and Northrhine-Westphalia -> captive breeding program

### How to follow hamsters in cereals or alfalfa?



## Monitoring is knowing and to learn from the results



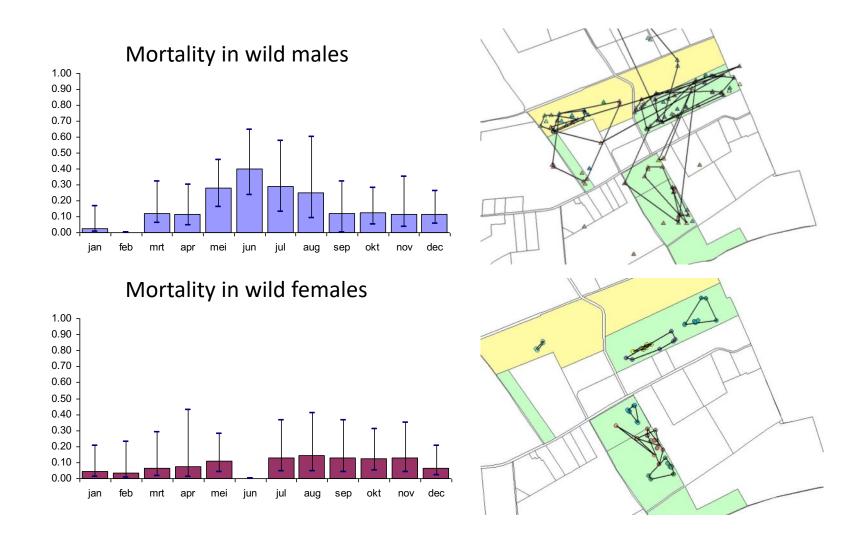








### ....males run around and loose their head (or worse)....



## And differences in survival due to origin



Captive bred

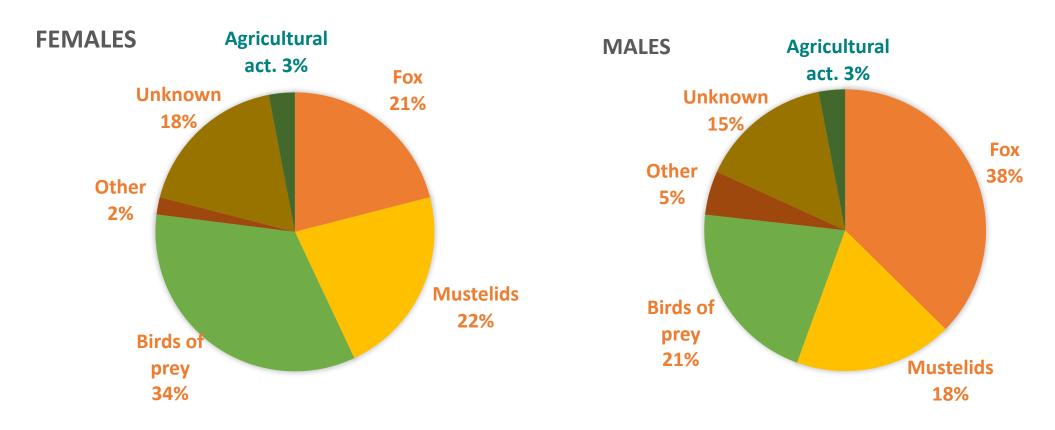


versus



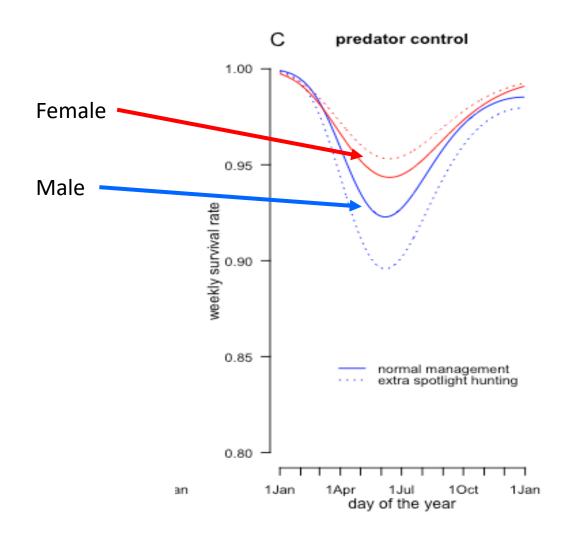
Wild born

### Most hamsters are predated by foxes, mustelids and birds of prey



Only a few were killed directly through farming activities

## No effect of fox-hunting





# Significant positive effect of electric fences = anti fox









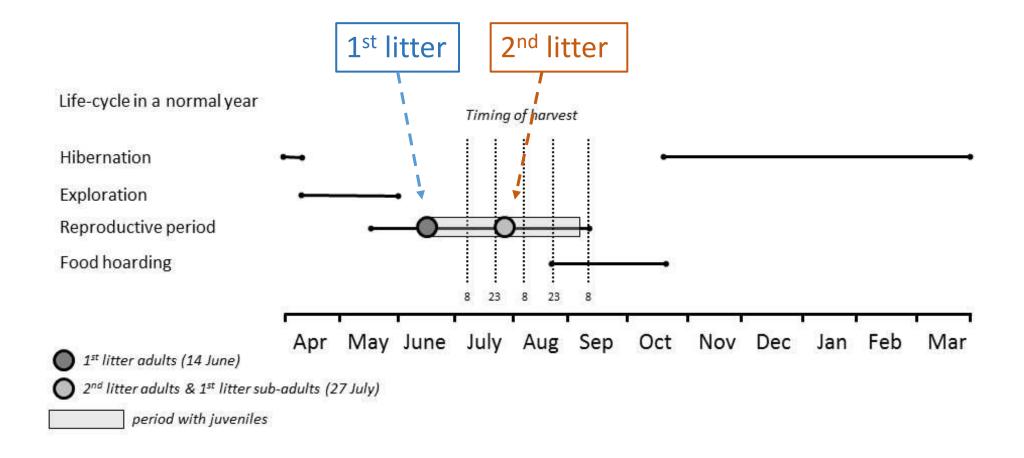
## Hamsters need sufficient cover of typical agricultural crops: cereals / alfalfa





Hamsters are an easy prey after harvest: talk of Gerard

Harvest starts too early, when juveniles still depend on the mother



Hamsterfriendly management is restricting harvest -> cover as long as possible

## Annual cycle hamster, July is very important

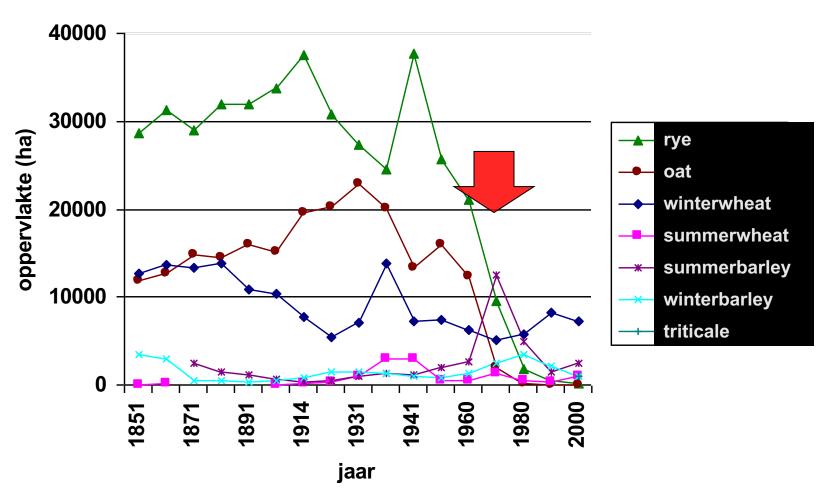
		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
hibernation		100	90	50	10	5					5	50	100
1th litter	90%						30	50	10				
2nd litter	65%							15	35	15			
3th litter	9%								2	5	2		
youngs 1th litter	20%								5	10	5		
total reproduction	<b>%</b>						16	35	28	16	4		
coverage													







### Loss of suitable crops (and changing climate?)



60-70 % of suitable cereals have disappeared since 1970

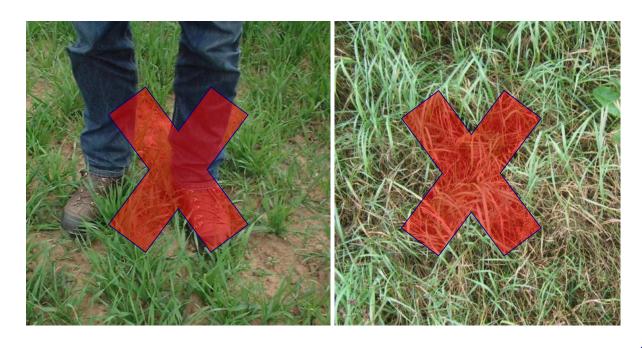
### Solution, agriculture management with restrictions:

Less & later harvesting - more cereals – other crops like alfalfa – rotation no problem – ploughing not problematic





## Hamster management in practice



No fertilizer

No herbicides

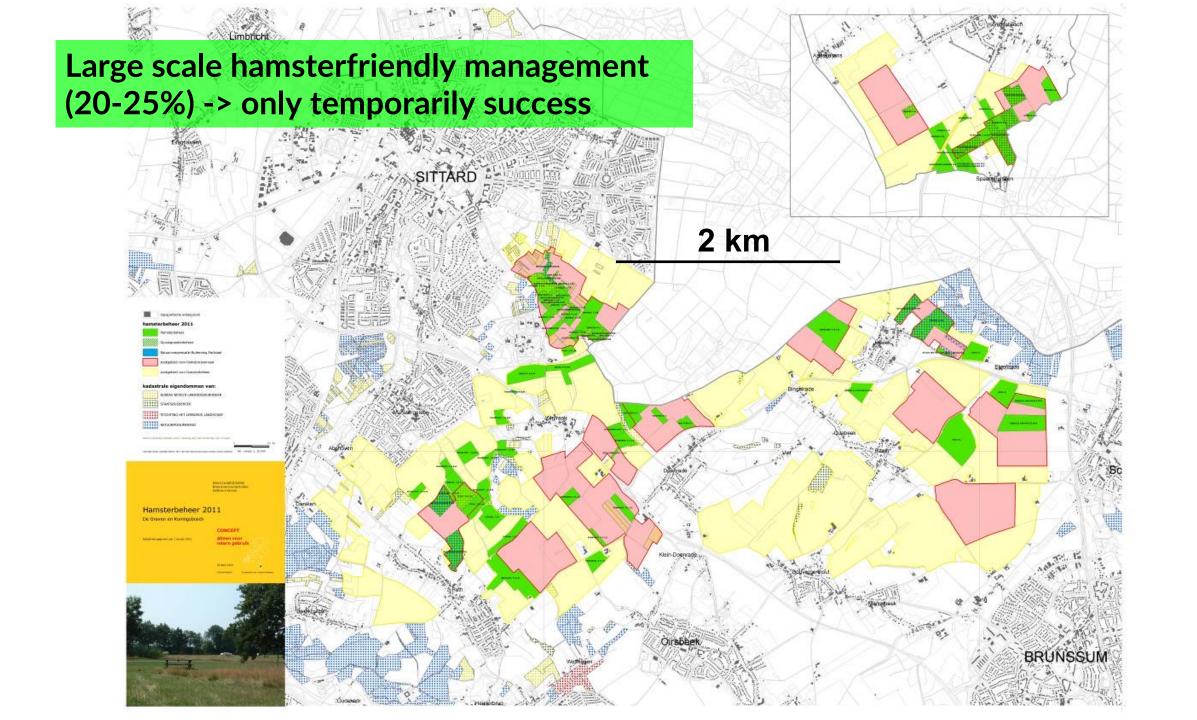


Regular management

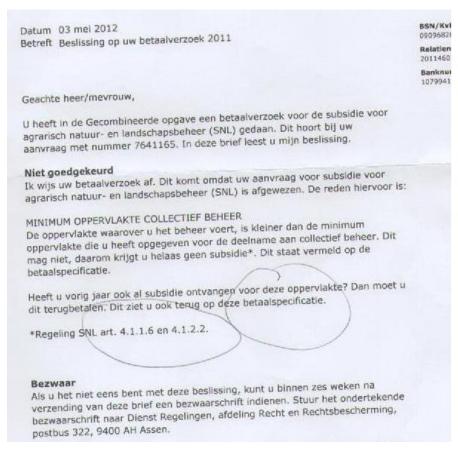








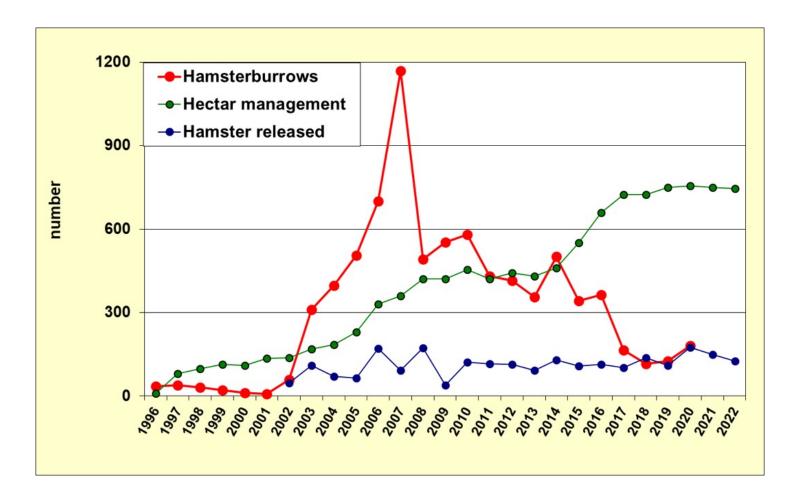
# ...."small problem": regulations and politician....







### First years population growth, afterwards strong decline again



Fundamental changes within the Common Agriculture Policy (CAP) are needed



## Thank you for your attention



