

## Coypu (*Myocastor coypus*) in Flanders: will it become a pest?

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### Origin

The coypu originates from South America and was imported to Europe, North America, the former Soviet-Union, Kenya, the Middle East and Japan at the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> century for its fur. In some places they were released on purpose and used to destroy water plants and later even sold as "weed-cutters". They were also released when fur was no longer a profitable product and by animal liberation organisations, and could establish viable populations in places where the climate was not too cold.

### Biology

Coypu are our largest rodents. They look like rats and can weigh as much as 10 kg. They live in marshes, ponds and lakes and along rivers, where they make platforms of plants to rest on or burrows in dikes that can be very complex with several tunnels.

They are mainly herbivorous and forage on aquatic and semi-aquatic plants, but eat also fresh water molluscs, insects, amphibians, fish and other small animals. Besides that, they eat crops like maize, grains and sugar beets. In winter they feed mainly on roots, bark and rhizomes.

In the northern hemisphere, densities vary between 1 and more than 24 individuals per ha, and fluctuate due to periods of frost, to which they are very susceptible. They usually occupy a small area, but when food is low they migrate (especially during winter) to better places. In some areas they migrate seasonally between marshes and agricultural land.

They can reproduce all year long, and have 2-3 nests per year of about 6-9 young. These are born fully developed and ready to reproduce already after 6-7 months. About 20 % of the young survive after their first year and stay alive for about 4-5 years (up to 10!). In Flanders, adults don't really have natural predators. Young coypu can be

taken by foxes, dogs, stoats, polecats, herons and birds of prey.

### Distribution

In Flanders, populations of coypu are only present in the province of Limburg. In the other provinces incidental observations of coypu were made over the years, but these animals most likely originate from captive populations that still exist here. The first "Flemish" coypu were seen in the valley of the river Maas, in the part that forms the border between Belgium and the Netherlands, from the second half of the seventies onwards. They probably colonised Flanders from the Netherlands, where the coypu arrived from Germany along the rivers Roer and Swalm. In the province of Limburg, highest densities are now found in the northern part of the Maas, probably due to immigration from the Netherlands. Also the power plants in Kessenich, that discharge warm water into the Maas, may increase survival during cold winters.

### Population size

At the moment numbers in Belgium are estimated at a few hundred individuals. This is not much compared to other European countries like France and Italy, where it is probably too late to eradicate them. Until now, total eradication was only attempted and successful in the UK. The colder climate in Belgium, especially in years when winter temperatures are low, keeps the population from quickly becoming a pest.

We have data on the number of captures in the province of Limburg from July 1991 till August 2001. Most of these were unintended captures from the muskrat control, and concern young animals that were not too big to get caught in Muskrat traps. Sometimes coypu are trapped with special large conibear traps and now more and more with life traps, to avoid the killing of other animals. These numbers have to be handled with caution, since there was

never a structural coypu control in Flanders and in some years efforts were higher than in others. Also some data are missing for 1999. From 1993 till May 1999, a firm (Milieucontrol) did the control on the Grensmaas. There was a capture increase in numbers until the cold winter of 1996-97, when not much coypu survived, but they started to increase again afterwards. When winters will stay as warm as they were the last few years, a high increase in coypu numbers is very likely.

The same data are available for the Netherlands, where there is a strong increase in numbers and distribution the last few years. Here also the effect of the cold winter of 1996-97 can be seen. From 1999 on, there was a structural coypu control in the Netherlands, but this was not enough to stop the population growth. Probably more people will be involved in this control next years.

### Damage

Everywhere in Europe, coypu are regarded as pest animals that damage crops, dikes and marsh vegetation, and people try to control them. In Flanders damages are still low, due to low densities. In the Netherlands, the coypu are responsible for cave-ins of dikes, roads and agricultural land next to waterways. They eat maize and sugar beet seedlings, all kinds of grains and sugar beets. They also increase erosion of dikes by eating the natural vegetation and change the natural plant species composition.

### Legislation

Since coypu are not native to Belgium, their control and if possible eradication should be applied based on the Flemish Executive Decree on the introduction in nature of non-native species (21.04.1993) and the Convention on Biological Diversity (Rio de Janeiro, 1992). Unlike muskrats that have to be controlled by each landowner according to the Law concerning the control of organisms that can damage plants and plant products, there is no real legal framework on which the control or eradication of coypu can be based. There are also unclear interactions with other laws, like ownership laws.

### Conclusion

Since the Flemish coypu population is increasing (like everywhere in Europe) and winters seem to become less severe, transparent legal regulations and a more structural control may be necessary in future to keep damages at acceptable levels.

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