

Ducks with unusual offspring

Imagine a Chiloé wigeon mating with a Philippine duck. The result is unusual offspring.

The male and female chicks in the nest look different. That is strange, says ecologist Jente Ottenburghs of Wildlife Ecology and Conservation. Both parents are sexually monochromatic, meaning the male and female birds look the same. But that is not the case for their offspring.

Ottenburghs published an article about this in *Ecology and Evolution*. The phenomenon was observed by Jan Harteman in Winssen. Harteman keeps and breeds

water birds.

The male and female birds look the same, but not in these offspring

He is not normally interested in cross-breeds, but he knows

Ottenburghs and his research on cross-breeds. So Harteman sent him an email.

'Asking whether I was interested. Otherwise they would end up in a casserole.'

'I asked him to let them mature,' explains Ottenburghs. 'A cross between these two species has never been described before.' That is not surprising. The two duck species are found a long way apart from one another in nature, and they would not normally come into contact.

Reversing evolution

According to Ottenburghs, the two species' evolutionary lines diverged about 13 million years ago. The parents' ancestors were probably still sexually dimorphic and looked different. That difference in appearance disappeared in the course of evolution. Harteman's cross-breed has essentially reversed millions of years of evolution.



The male chicks. Photo Jan Harteman

But this is not a lasting development: the eggs produced by the offspring were infertile. Ottenburghs says the unusual ducks are interesting because they help us understand how colour differences arise. 'In ducks, the female plumage is the result of the production of the oestrogen hormone, regulated by so-called modifier genes.' Given the difference in colour in the offspring, he suspects the modifiers are found on the sex chromosomes. **RK**