

## THIS WAY OUT ▶

### EXIT NOTES

TRYING TO SEPARATE THE FACTS FROM THE RUMOURS



#### THIS MONTH:

## Are there really huge packs of radioactive wolves roaming around Chernobyl?

**I**n short, yes. The full story, however, is far more interesting than the rumour.

The meltdown of Chernobyl Nuclear Power Plant in 1986 released around 400 times more radiation than the Hiroshima A-bomb. Approximately 150,000 square kilometres were contaminated and the area became a dead zone, unfit for human habitation.

A mass evacuation of around half a million residents followed shortly after the accident, with people having a matter of hours to stop what they were doing and leave. But nobody told the wolves, or for that matter, any other animals living there. The result was an unintentional experiment as to what happens if all the humans suddenly vanish, leaving the wildlife free from contact with man.

Since the breakup of the Soviet Union, the affected area covers parts of Russia, Belarus and the Ukraine. And rather than turning into a barren wasteland it turns out that the benefits of not having humans around outweighs the downside of radiation exposure. Twenty-six years on from the disaster, the exclusion zone has become something of a post-nuclear Eden, populated by birds, fish and over 70 types of mammals.

At the top of the food chain are the wolves. A few years ago there were rumours emanating that as many as 300 wolves were roaming around the zone, which would make it the highest wolf density anywhere in the world. Before the disaster wolves were ruthlessly hunted, but now they have the run of the land and have become the dominant predator.

A team from The National Academy of Sciences in Belarus recently entered the dead zone to investigate this phenomenon. Examinations of animals found them to be radioactive, as you'd expect from living in an area where the ground is still radioactive. They also carried evidence of DNA mutations. But perhaps surprisingly, there was nothing that affected the animals' physiology or reproductive ability – so no huge, werewolf-like creatures, although you wouldn't want to touch one with bare hands.

The simple test of running a Geiger counter over moose bones – the remnants of a wolf pack's meal – showed radiation levels 50 times that of normal, but the wolves and their prey are mostly thriving. Birth abnormalities are twice that of

unpolluted areas, but while this would be unacceptable for humans, in wolves it's less of a problem, with numbers showing abnormalities in single figures. When offset by the numbers that would have been killed by local hunters, it's a trade off that is serving them well.

Historically, the biggest factor affecting their numbers was the man-made changes to the wilderness itself. From the 1920s onwards, Stalin's Collectivization policy led to the draining of the Pripjat Marshes to build thousands of miles of canals. It was a huge initiative for the country, as tens of thousands of workers arrived to toil on collective farms in a programme of "land improvement" that aimed to increase food production. The changes in terrain and influx of people had a huge negative effect not only on the wolves but on all the wildlife in the area.

The Pripjat Marshes were once so vast they halted the advancing armies of Genghis Khan, but now the land is returning to something like its original state. The wheat fields have been flooded again, largely thanks to beavers building two decades' worth of dams in the canals. Those beavers also account for around 60 percent of the wolves' diet, but a wolf will also take down wild boar, elk, deer or bison – all of which have thrived with the absence of humans. Furthermore, wolf pup litters have been discovered by scientists within the zone, confirming that wolves are living and giving birth there, rather than coming in from outlying areas.

That study from the National Academy of Sciences, however, puts wolf numbers at nearer 120 rather than the 400 to 600 that some are claiming. The figure of 120 is actually about the same as in a non-polluted "reference area" that the zone has been compared with, so the wolf population density is not abnormally high, but about the right number for an area of that size, without human interference.

The abandoned homes, farms and factories now act as homes for the wildlife looking to shelter from the weather, while woods and greenery are ever encroaching on the concrete and man-made remnants of the towns and dwellings that were abandoned overnight.

Against all expectations, the Chernobyl disaster provided the surrounding wildlife with an unexpected second chance. Which means the wolves rein supreme in an area that humans will almost certainly never inhabit again. 🐾

**"The abandoned homes and factories now act as homes for the wildlife"**