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Human versus pig: Can we outwit the hog hordes?

Feral pigs have ruined crops, dug up cemeteries and even crashed a fighter jet. The challenge: eliminate a foe that's smarter than a chimp and can run at 50 km/h

RODNEY WOODSON never set out to be a pig trapper. He joined the Tennessee Wildlife Resources Agency because he was passionate about conserving water birds. But that was before the hogs rocked up, with their high libidos and low cunning.

Across the world, and especially in the southern US, feral pigs are a problem. Marauding hordes of swine are destroying crops and sensitive natural environments, causing traffic accidents and spreading disease and parasites. They have even dug up cemeteries. The US Department of Agriculture estimates the damage at \$1.5 billion a year.

As so often with invasive species, this is a problem of our own making. Wild pigs were introduced to the US by Spanish settlers hundreds of years ago, but weren't a cause of widespread concern until the 1990s, says zoologist Jack Mayer at the Savannah River National Laboratory in South Carolina, when cable TV ads began promoting the animals as an exotic alternative hunting target to turkeys and deer. In 1999, Tennessee established a hog hunting season, and soon enterprising landowners were stocking up. That ushered in "an explosion of new hog populations" across the state, says Chuck Yoest, coordinator of the Tennessee Wild Hog Eradication Action Team, part of the agency that Woodson works for. In 2011, the state reclassified pigs from big game to destructive pests.

The pigs' supercharged reproduction rate isn't helping. A sow may produce two or more litters of typically five or six pigs every year, making it nearly impossible to cull all the individuals in an area at once. Pig population models show that clearing an area requires removing 70 per cent of the animals "year after year after year, until you drive that population to extinction", says Mayer.

In Texas, some landowners now offer wealthy customers the opportunity to machine-gun pigs from a helicopter for as much as \$1000 an hour. Other communities have called in teams of sharp shooters. But critics say that these methods of pig control are not just inhumane, but ineffective. For a start swine are fast: they can run at up to 50 kilometres an hour.



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They can also respond to hunting pressure in surprising ways, for example switching between nocturnal and diurnal living patterns. “They’re a pain in the backside, but they are interesting critters,” says Mayer.

Traps of the sort Woodson lays are generally thought to be the least bad option in dealing with the pigs. But porcine intelligence makes trapping a full time job. Pigs have been shown to beat chimps when it comes to IQ, are whizzes at



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navigating complex mazes and can manipulate cursors on a screen by controlling a joystick with their snout. It means in simple traps they soon work out how to jump over short fences and climb taller ones, for example by gaining purchase at a corner.

Boar busting

Woodson's first tactic was to play the long game and put the pigs under surveillance. He installed cameras near baited traps, so pest control officers could examine pictures to see how many animals came by, and when. Once they knew which traps were frequented by the hogs, they could stake them out, hiding near a trap and triggering its gate at the right moment.

This was by no means a perfect strategy. It took lots of time and people, and although pigs can't see well, they have a keen sense of smell. If they picked up the scent of a human, the pigs wouldn't approach a trap.

So in his latest iteration Woodson has gone wireless, using solar-powered cameras overlooking a circular enclosure with 1.4-metre-high fences – high enough for pigs to have trouble climbing them, and with no corners to aid escape. When a motion sensor detects a pig-sized animal, it sends Woodson an email. From his own home, he can watch a real-time feed

of the trap and at the right moment flip a switch to drop the gate.



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This human check is critical, Woodson says. If even one pig from a group is left uncaught, it may learn to avoid similar traps. Though maternal education in pigs hasn't been studied rigorously, Woodson's experience suggests that if it's a sow, it may train its offspring to do the same.

His creative trapping is bearing fruit: the record for one of the traps is 52 swine at once. And the wireless approach is generally becoming more popular. Landowners can buy commercial versions of remotely operated traps, including the \$6000 Australian model known as the “Boar Buster”.

But the story is far from over. Eager for more game, a few unscrupulous landowners are still trafficking pigs to Tennessee from neighbouring states, creating fresh pockets of infestation. Longer-term, climate change may also exacerbate things, at least in Europe. Last year, researchers at the University of Veterinary Medicine in Vienna, Austria, predicted that feral pig numbers there will surge during mild winters, as more food becomes available.

So others are thinking beyond traps. There is the “Judas pig” method, in which, when a group of pigs is culled, a sow is left alive and tagged with a GPS collar. She then does the hard work of finding another, doomed, tribe – at which point shooters are sent in. Then there are chemical approaches such as hog-specific poison or contraceptives. Later this month, trappers and conservationists will brainstorm new ideas in Myrtle Beach, South Carolina, at the international Wild Pig Conference.

Meanwhile Woodson can’t stand idle. His latest trap has an oblong pen with two gates directly opposite each other, giving the pigs the illusion of a safe passage. The hogs in his patch are wise. It is a brutal business, and there’s no time for complacency.

Hog hordes





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Problem pigs are popping up across the globe

UK Wild pigs went extinct in the UK 300 years ago but now they are back thanks to leaky farms. Last year, a survey from the Forestry Commission estimated there were over 1000 in the Forest of Dean, on the England-Wales border, alone.

Italy Last year swine in Tuscany snaffled enough Chianti grapes to fill 130,000 bottles of wine, leading wine-makers to call for mass extermination.

Germany Berlin is home to thousands of wild hogs that pick through rubbish, spreading it around neighbourhoods, and sporadically attack people.

Australia So-called “grunter hunters” have a huge problem on their hands: according to official estimates there are 23 million feral pigs in Australia – more than humans.

US A pair of pigs straying onto the runway at Florida’s Jacksonville International Airport in 1988 caused an F-16 fighter to crash and the pilot to eject. According to an Associated Press report at the time: “The pigs were killed. The pilot was bruised. The \$16-million jet was destroyed.”

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