

Transcript – The issues with wild boar and pigs

- **Feral swine management in South Carolina**

“Alright so we're gonna just run down in this about a mile in the back there. And then we'll walk down quiet, and they're down by the creek.”

It's 7:30 am and Tony DeNicola is preparing for an important day in a battle against an invasive species. He's tracking wild boars that have been destroying the land. Today it brings him to this farm in South Carolina.

“So, if you look throughout the woods here, everything's kind of toughed up, turned up... They're looking for earthworms, insects, acorns that might be remnant from the fall. But when they're doing this in your crop fields, that's a big problem, and why we really need to catch every pig in the area.”

Tony and the property owner set up a trap deep into the woods. This morning they're checking to see if they caught any feral swine.

“Pigs are native in Europe and throughout Asia. However, in the United States, or North America, they are not. Pigs have found their way to Canada. They're invasive there, they're invasive throughout Central and South America. So literally they are a worldwide pest species. And so, the significance of developing new methods to manage them is quite critical.”

Tony, a wildlife ecologist, runs a non-profit that deals with invasive species. Now one of his focuses is on what the US department of agriculture calls the “feral swine bomb”. These wild pigs pose a serious threat to the economy, human health, and they're an ecological disaster.

“There's many facets to their behavior and activity that create both health and economic impacts on humans.”

For starters, there are millions of them eating their way through roughly 40 states, causing about 2.5 billion dollars in US property and crop damage. And it's happening in Canada as well. One of the reasons they're so dangerous is because they're so difficult to get rid of. Hunting might seem like an obvious solution, but in reality, it's only exacerbated the problem. So, some states and provinces have either banned, or have rules governing wild hog hunting.

“There's never been a demonstrated situation where recreational hunting can control feral pigs. In fact, populations continue to increase. So, unless you're systematically and professionally trapping, and removing pigs in the landscape, you'll never catch up.”

That's because pigs are smart, and if you don't kill the entire group, the ones that survive can move locations, and teach their offspring how to avoid hunters.

"I think somebody said pigs are the fourth smartest mammal. But they're probably smarter than about 80 percent of the humans, would be my best guess. So, what'll happen is: somebody's shooting at them, and they start seeing hunters in tree stands, if an animal has a bad experience, then they learn to avoid it. So, their offspring can cue into those behaviors, and say: "hey you know, mom says this isn't a good situation". Trapping is the most effective tool to get the highest percentage of animals rapidly. But you have to do it strategically, to ensure you're going to get all the pigs that are coming in that location."

Part of his technique is using kernel corn as bait to entice the hogs. But Tony is doing something different this time around: He's been working on a special type of feed to attract wild pigs, but keep other woodland creatures at bay.

"In some areas you have disease transmission risks amongst deer. We have chronic wasting disease here, as you do in Canada, and so we don't want to congregate deer unnecessarily."

So, he's been mixing deer repellent into the corn to see if they skip the meal, but the swine still find it enticing.

"We've got two that were tested: one is bone meal and then the other is putrefied egg solids. What we've shown now over 11 days is many of those deer have just given up coming in. They're just like: "the heck with it, I'm not gonna eat these treated corn piles". The most important thing was we didn't have any reluctance of pigs eating the treated corn. So, we're on it, we're in a good place. We'll probably do more advanced trials, where it would be publishable."

If Tony's trials are successful, it could be a very useful tool in mitigating the spread of wild pigs across Canada and the US, because at this point it appears the idea of elimination doesn't seem possible. And so, trying to control the current population might be the only option to prevent catastrophic ecological, and economic damage.

"We're only baiting one spot in the state of South Carolina, and we caught 40 pigs. And you could probably go a mile down the road and catch another 40 pigs. Their abundance in this landscape and throughout the Southeast... You don't want that in Canada, you don't want that in other ecologically sensitive or agriculturally important environments, because once they get embedded, and they're that abundant, it's very, very difficult to reverse that trend."

- **African Swine Fever in the Czech Republic**

African Swine Fever is a devastating disease of domestic and feral pigs which has spread from Eastern Europe to the West since 2007. This disease causes almost 100% mortality, especially in domestic pigs. From a global perspective, it significantly affects domestic pig farmers, and the pork market. Following the outbreak of the African Swine Fever in China production has fallen sharply, and world market prices of pork are rising.

African Swine Fever unexpectedly hit the Czech Republic on the 26th of June 2017, when a carcass of a positive wild boar was found in the Eastern part of Bohemia, near the city of Zlín. The case was not natural spread from Eastern Europe, but most probably, anthropogenic transmission. At that time the Czech Republic was faced with the question of how to proceed in order to eradicate the disease. What measures to use or if it should use the same measures as in the Baltic region, and in Poland. In the end the Czech Republic went the other way, and after 12 months, the disease was eradicated, with the Czech Republic being the first country in the European Union to do so.

When deciding on the measures it was mainly a question of how large an area to define as an infected area, whether to hunt wild boar or not, whether to feed them or not, and how much to invest in the measure. The Czech Republic decided to implement a wide range of active measures based on the latest knowledge on the behavior of wild boar. Studies carried out by the faculty of forestry and wood sciences of the Czech University of Life Sciences in Prague significantly helped in the decision-making process. In particular, telemetric monitoring of feral pigs, which the faculty had been conducting since 2012. The scientific team, led by Miloš Ježek, was one of the first to monitor feral pigs using GPS technology, and to extend the monitoring method to modern biologging technology.

Based on these results, a relatively small area of 100 square kilometers was thus defined as an infected area, and hunting and feeding of wild pigs was prohibited for the first 3 weeks. After it was clear that the disease was in a clearly defined, and relatively small area of about 20 square kilometers, the area was divided into high-risk zone, and low-risk zone. After four weeks, the core area of the low-risk zone was fenced with an electric and odour fence. It was checked every day to make sure it was intact, and operating correctly. Furthermore, the harvest of agricultural crops, especially maize and wheat, was stopped, in order to provide wild boar with shelter and sufficient food, thus reducing the likelihood of their seasonal migration outside of the high-risk zone. One month after detection of the first case, hunting in the low-risk zone was allowed. Only trained hunters could hunt under strict veterinary rules. They could only hunt individually, and were not allowed to use hunting dogs. The captured wild boars had to be burned in a rendering plant. At the same time, the state paid hunters a reward and compensated the owners of hunting grounds for the loss of game. A total of 2000 hunters were trained in this way. The next step was to ban people entering the high-risk zone from public roads. At the beginning of September, hunting was also allowed in the high-risk zone. Only three hunters could hunt in one hunting area, and only once every 3 days. Wild boars had to be left in place, and their disposal was taken care of by the veterinary administration, including disinfection of the hunting site. A special unit of police officers joined these hunters during October. They hunted wild pigs here for one month.

This procedure was successful, and at the end of the year, it was clear that the infection had not spread outside of the high-risk zone. The last wild boar positive for African Swine Fever was found on the 15th of April 2018, and it was a carcass several months old. A total of 212 dead feral pigs were

found in the area for African Swine Fever, and 18 positive animals were caught in the high-risk zone. In the spring of 2019, the Czech Republic was recognized as free from African Swine Fever, and thus became the first European country to succeed.