

Arctic expedition pioneers technique for polar bear research

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Credit: Tom Arnbom / WWF-Canon

A team of French scientists working in partnership with conservation organization WWF has for the first time isolated polar bear DNA from a track left in the snow.

The scientists from DNA specialist firm SPYGEN looked at two samples from polar bear tracks collected earlier this year during the WWF-Canon and Norwegian Polar Institute expedition to Svalbard in the Norwegian Arctic.

"The results are really exciting," says Eva Bellemain, project leader for SPYGEN. "This is the first time we have been able to extract DNA from a track left by a polar bear – we found not only the bear's DNA, but also

that of a seal and a seagull. We know from observations by the WWF team that the bear in question had just killed a seal, and that seagull had been seen at the kill site too, so this one footprint tells the whole story."

In a rapidly changing environment like the Arctic, it's a challenge to maintain current information on polar bear populations.

"This method would be an invaluable tool for conservation biology" says Arnaud Lyet of WWF. "At present, researchers use expensive, invasive techniques to track the population size and health of wildlife such as [polar bears](#). Using footprint DNA, we could dramatically cut the investment required, so monitoring populations could be done more easily."

From here, the team hopes to further refine its analysis of the bear DNA, so it can tell more about the animal. It also intends to see if the method can be applied to other rare or difficult to access wildlife.

"This is a great example of scientific innovation from the latest Arctic expedition and we are proud to have helped support the sample collection," says Susan Stuart, Sustainability Director for Canon Europe, "This discovery shows how investing in science in the Arctic has the potential to produce real change."

Provided by WWF

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