

DNA reveals hooded seals have wanderlust

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Researchers have discovered that hooded seals, a mysterious mammal that spends all but a few days each year in the ocean, are all closely related.

An international team of researchers led by Dr. David Coltman, an evolutionary geneticist at the University of Alberta, has learned that all the hooded seal populations in the world share the same genetic diversity.

The scientists reached their conclusion after analysis of more than 20 years of DNA samples taken from hundreds of hooded seals from around the world. The researchers believe the genetic similarities among the seals indicate that they intermingle and mate among populations.

"These results mean that if you brought me a DNA sample of a hooded seal, I wouldn't be able to tell you where in the world you got that sample because of the genetic similarity between populations," Coltman said.

"This is important information because it helps shed light on an animal that we know very little about."

The research is published this month in the journal *Molecular Ecology*.

"Any little bit of information we can learn about hooded seals is really beneficial," Coltman said. "And now that we know hooded seals are panmictic, that is, that they interbreed worldwide, it can help us shape the way that we try to preserve and manage them."

Female hooded seals give birth (whelp) and wean their pups on ice floes over a period of three to four days during the spring. Male seals wait until the females finish weaning for the one time of year when they will mate.

There are four places in the world where hooded seals go to whelp: Davis Strait in northern Canada, the Gulf of St. Lawrence, the eastern coast of Greenland, and the coast of Labrador. Ninety per cent of the estimated 600,000 hooded seals in the world whelp off the coast of Labrador.

Hooded seals, especially juveniles, are often hunted for their meat, blubber and light blue coats. Weighing in at anywhere from 200 to 400 kilograms, hooded seals are slightly larger than their cousins, harp seals, which are also harvested, often amidst controversy. Much less is known about the behaviour of hooded seals compared to the body of knowledge amassed about harp seals, a much more social breed of seal.

Source: University of Alberta

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