

Whale aging hints at mysteries of menopause

A new study led by the Universities of Exeter and York has shown that female killer whales survive after menopause because they help their family members find food during hard times. This research provides insights into why women continue to live long after they can no longer have children.

Menopause is one of nature's greatest mysteries. Most animals die around the same time they stop reproducing. Killer whales are one of just three species – alongside humans and another type of whale – where females continue to live for many years after giving birth to their last baby. Female killer whales generally breed between the ages of 12-40, but can survive into their 90s. Previous studies have shown that menopausal females greatly increase their childrens' and grandchildrens' chances of survival, but how old females help their relatives to survive remained a mystery.

One leading idea is that wisdom accumulates with age and that old females store vital information about the environment which they share with their relatives to help them during environmental hardships. The research team, from the Universities of Exeter and York (UK) and the Center for Whale Research (USA) tested this idea by studying leadership in the southern resident killer whale (*Orcinus orca*) in the North Pacific ocean, off the coasts of the USA and Canada.

The study, funded by NERC and published today in the journal *Current Biology*, found that post-reproductive female killer whales act as 'repositories of ecological knowledge', leading groups when they are moving together in salmon foraging grounds. Critically, the researchers discovered that leadership by menopausal females is especially prominent in difficult years when there are fewer salmon. Shortage of salmon is a major contributing factor to mortality in this population and so the benefits of older females knowing when and where to find salmon could be considerable. This could help explain why many mammals, humans included, continue to live long after they stop reproducing.

Read full original article: [Old mothers know best: Killer whale study sheds light on the evolution of menopause](#)