

Swans help explain evolutionary question

January 25 2006

University of Oxford scientists say they have answered a longstanding evolutionary question involving mute swans.

The researchers tracked a colony of swans for more than 20 years, exploring whether the number of eggs laid by a female bird -- known as "clutch size" -- changes in accordance with natural selection.

Researcher Ann Charmantier say debate has focused on an evolutionary point of view: Why is clutch size not evolving despite significant heritability and directional selection?

Many long-term studies of avian clutch size have looked for -- but not seen -- an increase in the number of eggs laid. However, the 25-year study of the selection, inheritance, and evolution in the mute swan population of Abbotsbury, England, yielded data on clutch size consistent with the direction predicted by evolutionary theory.

The scientists say they found clutch size providing an illustration of microevolutionary process on a small time scale. They hypothesize a relaxation of food constraints and an increase in predator protection might have enabled the swans to evolve towards a new, larger clutch size.

The study is to be detailed in a future issue of *The American Naturalist*.

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Citation: Swans help explain evolutionary question (2006, January 25) retrieved 2 May 2024 from <https://phys.org/news/2006-01-swans-evolutionary.html>

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