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ON A LONGEVITY RECORD OF THE MAGELLANIC PENGUIN

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Abstract.—During the 1989 breeding season, a male Magellanic Penguin (*Spheniscus magellanicus*) approximately 13 yr-old was recorded breeding in the Punta Tombo (Argentina) colony. This was the bird's ninth breeding attempt after it was banded. A minimum survival rate of 78.9% is calculated for the 13-yr-old age-class. This record confirms previous assumptions in a life-table model for this species.

SOBRE UN REGISTRO DE LONGEVIDAD DEL *SPHENISCUS MAGELLANICUS*

Sinopsis.—Un Pingüino de Magallanes (*Spheniscus magellanicus*) macho tenía al menos 13 años de edad cuando fue encontrado reproduciéndose en la colonia de Punta Tombo (Argentina), durante la época reproductiva de 1989. Este resultó ser el noveno intento reproductivo del ave, luego de haber sido marcada. Una tasa mínima de supervivencia de 78.9% es calculada para la clase de edad de 13 años. Este registro confirma a las suposiciones previas de un modelo de tabla de vida para la especie.

During the 1988–1989 reproductive season, a Magellanic Penguin (*Spheniscus magellanicus*) banded as an adult during the 1980–1981 reproductive cycle, was recorded breeding. The bird was nesting at Punta Tombo, Argentina (44°02'S, 65°10'W), a large colony that covers 303.4 ha, and includes about 397,000 pairs (Scolaro and Arias de Reyna 1984).

The bird was captured, measured, and released. Its reproductive performance was monitored throughout the reproductive cycle.

In September 1980 the bird was banded in a behavioral study ($n = 67$). At that time its age was unknown and its plumage was that of an adult. According to its morphological measurements, the bird was a male (Scolaro et al. 1983) and during the 1989 season it bred successfully (Austral summer season referred to by the year in which it ends). This is the third recovery of the 67 birds originally banded.

Females begin breeding when 4 years old (12.8%), whereas males begin as 5-year-olds (30.7%) (Scolaro 1984). In both sexes the percentages of

breeding attempts increases the following year. Assuming this bird first bred at 5 years old, in the 1989 breeding season it was at least 13-yr-old, and probably no older than 15 yr.

In the 1989 season, this male reared one chick to fledgling (9 Feb. 1989). Since this individual was banded in 1980, records show four successful breeding seasons and one unsuccessful one (during the rainy cycle in 1984). The absence of further data do not allow discussion of the effective reproductive performance of this male. However, some years of rest may occur, as has been indicated in other penguins more closely monitored; the oldest Magellanic Penguin known previously was 8 years old (Scolaro 1987).

Applying Croxall's (1981) coefficient of survival, a minimum survival rate of 78.9% is estimated for the 13-yr-old age-class. This figure is close to the 80.2% used when working out a life-table model based on a six-year cohort survey (Scolaro 1987). Consequently, the likelihood of reaching 13 years of age is about 7%.

The survival rate is similar to that of the African Penguin (*Spheniscus demersus*) estimated by La Cock and Hanel (1987). The minimum life-span and reproductive performance estimated in the present note are consistent with previous estimations. The male's successful breeding also coincides with our theoretical expectations of many years of breeding within an estimated 25–30 years life-span.

Long-term studies on breeding populations are needed, as well as more records of banded birds. The present finding is in agreement with what is known for other seabirds, particularly penguins (Adelie penguins, *Pygoscelis adeliae*, in Ainley et al. 1983; Yellow-eyed penguins, *Megadyptes antipodes*, in Richdale 1957). It also supports Lack's (1954, 1966) concepts for long-lived seabirds: Magellanic Penguins show a high pre-breeding mortality, deferred sexual maturity, variable annual reproductive success and a low rate of mortality in the adult breeding class.

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