LONGEVITY OF BIRDS IN CAPTIVITY.

BY C. EMERSON BROWN.

But little is known of the length of life of birds. Bird banders are doing some valuable work along these lines, but even their data must necessarily be very incomplete. It is difficult to state how much longer a bird will live in the wild than in captivity. In the wild state very little is known of the duration of life. It is, however, extremely doubtful if any birds live long enough to die of old age, as their lives are traveled on a road beset with dangers, and eternal vigilance and hard work are the price of living. Thousands of birds meet violent deaths yearly either by being killed by other birds, mammals or reptiles, flying against buildings or wires during their migration, or are shot by hunters. this, many perish because of the vicissitudes of the weather and lack of food. They certainly have many advantages in captivity, the greatest of which is the protection from their enemies. is never a scarcity of food or drink and they are protected from severe weather at all times. It is also a fact that some specimens in captivity do die of diseases of the heart, blood and kidneys which are diseases so common in human old age.

It is, however, difficult to say whether the length of life is shortened by captivity or not. I have, prepared the following list showing the duration of life of a few species in captivity in the Philadelphia Zoological Garden, which I hope will be of interest.

Among the Passerine birds the Yellow-headed Blackbird heads the list with 18 years, the Jungle Babbler, 16 and the Himalayan Chough, 14. The Hyacinth Macaw lived 27 years and a Hornbill 24. Among birds of prey the Griffon Vulture lived 27 years, while a Gray Goose led the water birds with 26 years.

AVES.

PASSERES.

Name	Received	Died
European Raven (Corvus corax)	July 19, 1912	July 29, 1924
Jackdaw (Corvus monedula)	Oct. 10, 1913	Mar. 20, 1922
American Magpie (Pica hudsonica)	Sept. 18, 1917	Sept. 24, 1924

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Yellow-thighed Caica (Caica xanthomera). Nov. 22, 1914 Blossom-headed Parrakeet (Palaeornis cyanocephalus)	• ,			
ACCIPITRES.				
(May 22 1808	Oct. 1, 1920			
Lesser-Spotted Eagle (Aquila pomarina) May 22, 1898 May 22, 1898	Aug. 10, 1917			
Malayan Brahminy Kite (Haliastur inter-				
medius Oct. 17, 1907 White-headed Carrion Hawk (Ibycter chi-	Dec. 7, 1922			
machima)	May 22, 1924			
Griffon Vulture (Gyps fulvus)				
Kolbs Vulture $(Gyps \ kolbi)$ $\begin{cases} May \ 12, \ 1908 \\ May \ 12, \ 1908 \end{cases}$				
Bearded Vulture (Gypaetus barbaius) Aug. 27, 1898	Mar. 16, 1916			
Dearded Villoure (Gypaerus varvauus) Aug. 21, 1898	Mar. 10, 1910			
GALLI.				
Jungle Fowl (Gallus gallus) April 2, 1912 Eastern Wild Turkey (Meleagris gallopavo	May 21, 1924			
silvestris)	Dec. 21, 1924			
Razor-billed Curassow (Mitu mitu) Nov. 22, 1914	July 2, 1922			
ALECTORIDES.				
Asiatic White Crane (Grus leucogeranos) Aug. 23, 1904				
Gaviæ.				
Herring Gull (Larus argentatus) June 1, 1917	July 3, 1924			
Steganopodes.				
Double-crested Cormorant (Phalacrocorax				
auritus)	July 13, 1922			
Herodiones.				
American Egret (Ardea egretta) Jan. 5, 1917	June 30, 1924			
Anseres.				
Aug. 7, 1909				
Mute Swan (Cygnus olor) $Oct.$ 10, 1912				
April 18, 1907	May 25, 1916			
Black Swan (Cygnus atratus)	July 2, 1924			
Whooper Swan (Cygnus cygnus) Oct. 30, 1907	Mar. 1, 1923			
(Way 7, 1915	· · · · · · · · · · · · · · · · · · ·			
Whistling Swan (Cygnus columbianus) Mar. 16, 1898	Jan. 24, 1906			
whisting Swan (Cygnus columnianus) Mar. 16, 1904	Aug. 17, 1913			

(Dec. 11, 1895)	Feb. 27, 1908
Trumpeter Swan (Cygnus buccinator) Dec. 11, 1895 Dec. 11, 1895	
Egyptian Goose (Chenalopex aegyptiaca). May 3, 1896	Nov. 24, 1921
Black & White Goose (Anseranas semi-	
palmata) July 19, 1917	Nov. 5, 1924
White-fronted Goose (Anser albifrons	
gambeli) May 20, 1910	Jan. 5, 1922
Gray Goose (Anser anser) May 22, 1898	Jan. 29, 1924
Blue Goose (Chen caerulescens) May 12, 1911	Jan. 16, 1922
Cackling Goose (Branta canadensis min-	
ima)	Mar. 19, 1924
Ruddy Shieldrake (Casarca casarca) June 12, 1913	Nov. 23, 1923
Gadwall (Chaulelasmus streperus) Jan. 22, 1908	Mar. 25, 1924
Pochard (Fuligula ferina) July 30, 1917	Oct. 12, 1924
Red-head Duck (Marila americana) $\begin{cases} \text{Feb.} & 8, 1908 \\ \text{Jan.} & 22, 1908 \end{cases}$	Nov. 2, 1924
Red-nead Duck (Marita americana) Jan. 22, 1908	Oct. 24, 1922
Mandarin Duck (Aix galericulata) April 28, 1916	Dec. 14, 1924

STRUTHIONES.

Somali Ostrich (Struthio molybdophanes).. April 20, 1909 Dec. 7, 1923

Where the date is omitted in the second column the bird is still living, while it is practically certain that all birds were at least two years old when received.

 ${\it Zoological \ Gardens, \ Philadelphia}.$