## FOUR MARBLED GODWITS EXCEED THE NORTH AMERICAN LONGEVITY RECORD FOR SCOLOPACIDS

### MARK A. COLWELL, RON H. GERSTENBERG<sup>1</sup>, ORIANE E. WILLIAMS, AND MARK G. DODD<sup>2</sup>

Department of Wildlife Humboldt State University Arcata, California 95521 USA

Abstract.—At minimum ages of 24 yr-2 mo and 25 yr-9 mo, four Marbled Godwits (*Limosa fedoa*), banded as adults in 1969 and observed during 1992–1994 at Humboldt Bay, California, surpass the published North American longevity record for scolopacids. Minimum annual survival rates (87%) of Marbled Godwits based on these four birds are consistent with published estimates based on resigning of color-marked Palearctic shorebirds of similar size, but estimates exceed those based on recoveries of banded birds.

# CUATRO INDIVIDUOS DE *LIMOSA FEDOA* EXCEDEN EL RÉCORD DE LONGEVIDAD INFORMADO PARA ESCOLOPÁCIDOS

Sinopsis.—A edades mínimas de 24 años con dos meses y 25 años con nueve meses, cuatro individuos de *Limosa fedoa*, anillados como adultos en el 1969 y observados durante 1992–1994 en la Bahía de Humboldt, California, sobrepasan el récord de longevidad para escolopácidos. La tasa mínima de sobrevivencia anual (87%) para esta especie, basada en las cuatro aves indicadas en este trabajo, es consistente con estimados (basados en el reavistamiento de aves marcadas con marbetes de colores) publicados para playeros paleoárticos de tamaño similar. No obstante, los estimados exceden aquellos procedentes del recobro de aves anilladas.

Recently, Marks (1992) reported the longevity record (minimum age 23 yr-10 mo) for North American scolopacids based on a Bristle-thighed Curlew (*Numenius tahitiensis*) collected at Laysan Island in the Northwestern Hawaiian Islands. Here, we report independent sightings of four Marbled Godwits (*Limosa fedoa*) from Humboldt Bay, California (40°5'N, 124°0'W), each of which surpasses the scolopacid longevity record (Marks 1992) and nearly triples the longevity record (8 yr-7 mo) for Marbled Godwits (Clapp et al. 1982).

## RESULTS AND DISCUSSION

On 29 Aug. 1992, one of us (MGD) using a  $22 \times$  spotting scope recorded the band number (564-44600) of a godwit, which roosted on pilings at a distance of 20 m. On 2 Dec. 1993, two of us (MAC, OEW) using a  $30 \times$  spotting scope recorded the band number (564-44602) of the second godwit foraging along tidal channels within 15 m of our observation point; this godwit has been resigned frequently by students at Humboldt State University and its band number recorded on at least three subsequent occasions by independent observers (MAC; K. Morgan, pers.

<sup>1</sup> Current address: Kings River College, Reedley, California 93654 USA.

<sup>&</sup>lt;sup>2</sup> Current address: South Carolina Wildlife and Marine Resources Department, Route 2 Box 167, Greenpond, South Carolina 29446 USA.

TABLE 1. Observations of nine adult Marbled Godwits banded between August 1968 and November 1969 and subsequently recovered or resignted in Humboldt County, California.

Bird (band #)	Date banded	Date recovered or most recent resighting	Mini- mum age (yr-mo)	Comments
564-44541	15 Aug. 1969	? Jan. 1970	1-5	Unknown cause of death
564-44753	10 Oct. 1969	18 Sep. 1970	1-11	Collected under permit
564-44748	10 Oct. 1969	20 Dec. 1971	3-2	Found dead
564-44722	10 Oct. 1969	15 Jan. 1977	8-7	Found dead (Clapp et al. 1982)
564-44802	11 Oct. 1969	18 Oct. 1981	12-0	Shot by hunters
564-44600	15 Aug. 1969	29 Aug. 1992	24-2	Observed foraging
564-44602	15 Aug. 1969	14 Mar. 1994	25-9	Observer foraging; limped noticeably
564-44782	15 Aug. 1969	14 Mar. 1994	25-9	Observed foraging
564-44505	10 Oct. 1969	14 Mar. 1994	25-9	Observed foraging

comm.; M. Taft, pers. comm.). On 14 Mar. 1994, MAC observed two additional, banded godwits (564-44782; 564-44505) foraging along tidal channels at a distance of <20 m. All four godwits were banded on the right tibiotarsus, and we had no difficulty discerning band numbers. Although each of the observers knew of earlier banding efforts at Humboldt Bay (Gerstenberg 1972), at the time of observation none of us had knowledge of band numbers. Banding schedules (RHG) showed that these four godwits had been cannon-netted and banded as adults on two separate occasions (15 August (n = 3); 10 October (n = 1)) in 1969 at the mouth of Jacoby Creek, Humboldt County, California, within 2 km of the resighting locations. Hence, at the time of most recent observation, the minimum age of the first godwit (564-44602) was 24 yr-2 mo, whereas the other birds were minimally 25 yr-9 mo old.

Of 256 Marbled Godwits banded by Gerstenberg (1972) at Humboldt Bay between July 1968 and November 1969, nine have been recovered or resighted locally (Table 1). The four birds reported here were among 138 banded on 15 Aug. and 10 Oct. 1969. On the basis of the latter sample, minimum survival probabilities of Marbled Godwits approximate 87%. From analysis of band recoveries for European shorebirds, Boyd (1962) estimated survival rates were 56-75%. Boyd's estimates are considerably lower than minimum annual survival estimates based on resightings of individually color-marked birds (nearly all of which exceed 70%), probably because loss of bands has been interpreted as "early mortality" for some individuals (Evans and Pienkowski 1984). Our observations of Marbled Godwit longevity support estimates based on annual return rates reported by Evans and Pienkowski (1984). The ability to read numbers on godwit bands (size 4) in excess of 20 yr old on birds using salt water habitats is remarkable. Furthermore, it suggests that analyses of North American band recovery data (for similar bands) may not be plagued by problems confronting analyses of European banding and recovery records.

#### ACKNOWLEDGMENTS

We thank the Department of Wildlife, Humboldt State University for research support. S. Harris provided banding histories from Humboldt Bay. J. Dunk, S. Landrum and J. Marks provided helpful comments on the manuscript.

#### LITERATURE CITED

BOYD, H. 1962. Mortality and fertility of European Charadrii. Ibis 104:368-387.

- CLAPP, R. B., M. K. KLIMKIEWICZ, AND J. H. KENNARD. 1982. Longevity records of North American birds: gaviidae through alcidae. J. Field Ornithol. 53:81–124.
- EVANS, P. R., AND M. W. PIENKOWSKI. 1984. Population dynamics of shorebirds. Pp. 83–123, in J. Burger and B. L. Olla, eds. Shorebirds: breeding behavior and populations. Plenum Press, New York, New York.

GERSTENBERG, R. H. 1972. A study of shorebirds (Charadrii) in Humboldt Bay, California-1968 to 1969. M.Sc. thesis, Humboldt State Univ., Arcata, California.

MARKS, J. S. 1992. Longevity record for the Bristle-thighed Curlew: an extension. J. Field Ornithol. 63:309-310.

Received 9 Mar. 1994; accepted 6 Jun. 1994.