Simultaneous capture of several Common Crossbills with whitish wing-bars

A. BORRÁS, T. CABRERA, J. CABRERA & J.C. SENAR

The whitish wing-bar sometimes found in some Common Crossbills Loxia curvirostra has been interpreted as an atavic character inherited from the Two-barred Crossbill Loxia leucoptera. From 1987 to 1992 we found 10 individuals showing a whitish wing-bar from a total of 927 birds trapped. All the individuals with wing-bar were captured in 1988, in only two of the seven trapping sessions, and several of the birds were even trapped together in the same mistnet. The character was not related to sex, nor to age. The more or less simultaneous appearance of wing-barred birds suggests that these individuals could be closely related, and that the character can be inherited.

Key words: Common Crossbill, *Loxia curvirostra*, Wing-bars

Antoni Borràs, Toni Cabrera, Josep Cabrera & Joan Carles Senar.
Museu de Zoologia, Ap. 593, 08080 Barcelona.
Rebut: 07.05.93; Acceptat: 19.07.93

The more or less regular occurrence of wing-bars in all European Common Crossbill *Loxia curvirostra* populations induced early authors to consider these individuals as belonging to a distinct species, *rubrifasciata* (see Knox 1975 and Berthold & Schlenker 1982 for a review). The bars were later interpreted as an atavic character, so that the Common Crossbill was said to have evolved from the Two-barred Crossbill *Loxia leucoptera*, the character being inherited from this species and appearing from time to time (Horvath 1975, Nethersole-Thompson 1975). The evaluations and interpretation of an atavic character depend critically on its frequency and geographical distribution (Horvath 1975), hence the importance of reporting its occurrence (Senar & Borràs 1984).

We trapped Common Crossbills from 1987 to 1992 at a permanent ringing station in Port del Comte (Pre-Pyrenees, NE Spain). From a total of 927 birds trapped, we have found 10 individuals showing a whitish wing-bar. The interesting point, however, is that all the individuals were caught in 1988 (Table 1), and within that year, in only two of the seven trapping sessions (Table 2). Most of the birds were even simultaneously trapped at the same mist-net. There were no significant differences in the occurrence of the bars between sexes (X^2_1=2.12, p=0.15) or ages (X^2_1=2.50, p=0.11; Yates correction; the 10 wing-barred birds were yearlings, but low sample sizes did not permit significant results). Seven birds presented white fringes only on the

Year	Captured	Wing-bars
1987	32	0
1988	199	10
1989	181	0
1990	87	0
1991	150	0
1992	278	0

Table 1. Number of Common Crossbills captured and number displaying whitish wing-bars, according to the year of capture.

Tabla 1. Número de Piquituertos comunes capturados y número de ejemplares con franjas alares blancas según el año de captura.

Date	Captured	Wing-bars
26.08.88	11	0
30.08.88	34	0
10.09.88	43	0
22.09.88	62	6
29.10.88	43	4
27.12.88	2	0
31.12.88	4	0

Table 2. Number of Common Crossbills captured and number displaying whitish wing-bars, according to the date of capture.

Tabla 2. Número de Piquituertos comunes capturados y número de ejemplares con franjas alares blancas según fecha de captura.

greater coverts, one bird also on the median coverts, and two birds showed additional white on the tips of the tertials.

The Common Crossbill population of the Pyrenees is sedentary (Senar et al. 1993), and since no irruption was detected in western Europe in 1988, we can assume that the trapped birds with wing-bars were of local origin. The more or less simultaneous appearence of wing-barred Crossbills suggests that the birds could be closely related, and stresses the inherited nature of the character.•

ACKNOWLEDGEMENTS

We are grateful to Peter Berthold for reviewing the manuscript and for his advice, and to Enric Hernández and Joan Perramon for their help.

RESUMEN

Captura simultánea de varios Piquituertos comunes con franja alar blanca.

La franja alar blanca, presente en algunos ejemplares de Piquituerto común Loxia curvirostra, ha sido interpretada como un carácter atávico heredado del Piquituerto franjeado Loxia leucoptera. Desde 1987 a 1992, y de entre un total de 927 pájaros, se capturaron 10 individuos que presentaban la franja blanca. Todos los individuos con franja fueron capturados en 1988, y en solo dos de las siete sesiones de captura. Varios individuos fueron incluso trampeados simultáneamente en la misma red. La presencia de franja blanca no estaba relacionada ni con el sexo ni con la edad. La aparición más o menos simultánea de individuos con franja alar blanca sugiere que esos individuos podían estar genéticamente emparentados, y que, por tanto, el caracter puede ser heredado.

REFERENCES

BERTHOLD, P. & SCHLENKER, R., 1982. Crossbills with pale wing-bars: a brief review. *Dutch Birding* 4:100-102.

HORVÁTH, L. 1975. Theoretic of reversionary trends in ornithology. *Ardeola* 21:955-985.

KNOX, A. 1975. Crossbill taxonomy. In Nethersole-Thompson, D. (Ed.): *Pine Crossbills*. p. 191-201. Berkhamsted: Poyser.

NETHERSOLE-THOMPSON, D. 1975. *Pine Crossbills*. Berkhamsted: Poyser.

SENAR, J.C. & BORRÁS, A. 1984. Sobre la observación de Piquituertos (*Loxia curvirostra*) con franja alar blanca. *Misc. Zool.* 8: 303-304.

SENAR, J.C., BORRÁS, A., CABRERA, T. & CABRERA, J. 1993. Testing for the relationship between coniferous crop stability and Common Crossbill residence. *J. Field Ornithol.* 64 (4): 464-469.