

Growth of Rectrices in Wild Inca Doves (*Columbina inca*)

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There are no reports in the literature on the rate of feather growth of Inca Doves, but since they lose their tails readily in handling, feather regrowth is easy to measure. The species is a good one in which to follow individual birds as they are sedentary and easy to trap.

In reviewing 628 encounters with Inca Doves over 4 years, I found that of 12 birds which lost their entire tails, 4 were retrapped within 6 weeks. The tail measurements (equivalent to rectrix 1) are plotted against the number of days after tail loss in Figure 1. The date of tail loss was known for three of the birds (symbols ., * & o) and the lines were fitted by the method of least squares to these points. Dove o had a 91 mm tail at 68 days. The dashed line indicates an extrapolation since there were no retraps between 18 and 32 days. The 7-day point represents 2 individuals (. & *). Points for the final individual (') fit the lines well when tail loss was assumed to have occurred 2 days before the first measurement.

Two of the doves grew new primaries during the period of tail regrowth and another began remige molt at the end of the period. The final dove had already completed primary and secondary molt. Body feather molt was also apparently unaffected by tail regrowth as all doves were growing new body feathers during the periods of observation.

Literature data for rates of rectrix growth for a number of species are given in Table I. Seel (1976) measured individual rectrices every 4 days in molting corvids and found that the inner pair (no. 1) grew fastest, 3.3-3.7 mm/day, and the outer pair were the slowest (2.8-3.3 mm/day). Primary growth in remiges varied more widely, with a range of 3.4-4.8 mm among the fastest (no. 2-6) and 1.8-2.7 mm among the slowest (no. 10). Primary growth as rapid as 8.2 mm/day has been reported for Canada Geese (*Branta canadensis*) (Hanson and Jones, 1976).

The growth rate for Inca Doves, 3.8 mm/day, is slightly faster than the values of Table I, but the most interesting feature is the lack of a pause before regrowth starts. Yunick (1976) found a 4-9 day period of no growth in juncos after plucking 3 outer rectrices. The period of total regrowth in Inca Doves can be extrapolated to 25-27 days.

Tail loss in Inca Doves does not seem to cause a noticeable increase in mortality since the tail-less group did not differ

greatly from 270 others in retrap rate (33% vs 39%) or retraps per bird banded (1.25 vs 1.23).

Acknowledgment

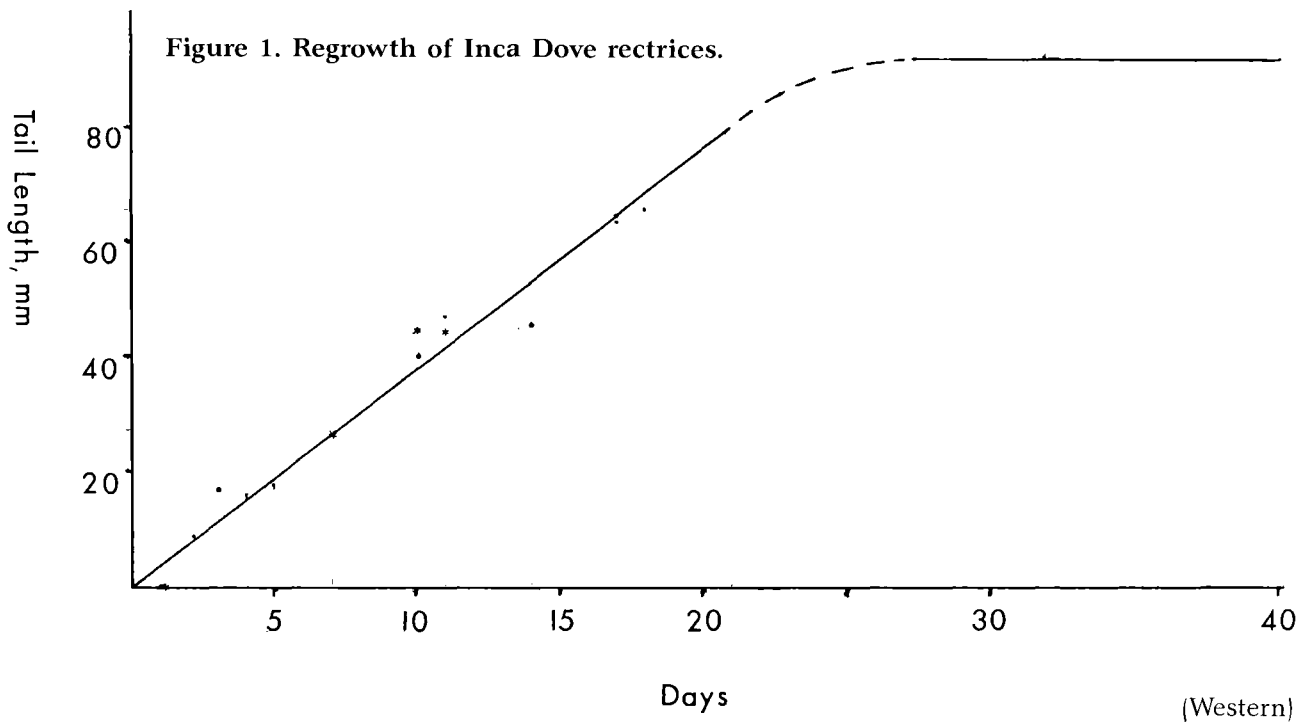
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Literature Cited

- Hanson, H.C. and R.L. Jones. 1976. The biogeochemistry of Blue, Snow and Ross' Geese. Southern Illinois University Press, Carbondale, IL.
- Henney, N.B. and J.T. Nichols. 1958. Mourning Dove growing a new tail. *Auk* 75:99.
- Holcomb, L.C. 1968. Growth of nestling goldfinches compared to adult size and differential rate of structures in relation to their function. *Nebraska Bird Review* 36:22-32.
- Morton, M.L., J.R. King and D.S. Farner. 1969. Postnuptial and postjuvenile molt in White-crowned Sparrows in central Alaska. *Condor* 71:376-385.
- Newton, I. 1966. The moult of the Bullfinch (*Pyrrhula pyrrhula*). *Ibis* 108:41-67.
- Norman, S.C. 1983. Growth of nestling Willow Warblers. *Ring. & Migr.* 4:149-153.
- Prescott, K.W. 1970. Replacement of rectrices by Song Sparrows. *EBBA News* 33:204.
- Saunders, A.A. 1956. The growth of a Chickadee's tail feathers. *Auk* 73:560.
- Seel, D.C. 1976. Molt in five species of Corvidae in Britain. *Ibis* 118: 491-536.
- Yunick, R.P. 1976. Rate of rectrix growth in the Dark-eyed Junco. *Bird-Banding* 47:136-140.
- Zeidler, K. 1966. Investigations on feather growth and molt of House Sparrows. *J. Ornithol.* 107:113-153.

Table I. Rectrix Growth in Some Species of Birds

SPECIES	GROWTH (mm/day)	TIME (days)	REFER.
Mourning Dove (<i>Zenaidra macroura</i>)	3.0-3.5	48	Y;H&N
Black-billed Magpie (<i>Pica pica</i>)	2.8-3.5		Se
Eurasian Jackdaw (<i>Corvus monedula</i>)	3.1-3.3		Se
Eurasian Rook (<i>Corvus frugilegus</i>)	3.3-3.7		Se
Black-capped Chickadee (<i>Parus atricapillus</i>)	2.9	21	Y;Sa
Willow Warbler (<i>Phylloscopus trochilus</i>)	3.0	22	N
Song Sparrow (<i>Melospiza melodia</i>)	3.33		Y;P
Dark-eyed Junco (<i>Junco hyemalis</i>)	3.14	35	Y
White-crowned Sparrow (<i>Zonotrichia leucophrys</i>)	2.9-3.2	25	Y;M,K&F
American Goldfinch (<i>Carduelis tristis</i>)	2.24		Y;H
Eurasian Bullfinch (<i>Pyrrhula pyrrhula</i>)	2-3.5		Ne
House Sparrow (<i>Passer domesticus</i>)	3.27		Y;Z



Notice to IBBA NEWSLETTER Subscribers

The *Inland Bird Banding Newsletter* will continue to be published in the regional section of *NABB* in 1987. The decision to publish Volume 8, number 2 as a separate unit, applied only to that issue; not to future issues as was reported in the editorial in number two. This summary replaces number 4; there will be no separate mailing of newsletters during the coming year.

Next Year—Rapid City, South Dakota

The 1987 meeting of Inland Bird Banding Association will be held at the School of Mines in Rapid City, South Dakota. Conference chairperson, Jocelyn Baker and her committee already have plans well underway for the joint conference of IBBA and the South Dakota Ornithologists' Union to be held in the beautiful Black Hills region of the state. Mark your calendar now and make plans to join us on the weekend of September 25, 26 and 27 for what promises to be an interesting and exciting meeting.

Bylaws Change Proposed

The IBBA Board of Directors has recommended two changes in the bylaws. The first one would change section 3.1 of the bylaws to make membership categories conform with the dues charges proposed for 1986, when we ceased printing the *IBBA Newsletter* as a separate publication. The change would eliminate the inactive newsletter class of membership, and all members would then pay the \$15 annual dues which formerly included the subscription price of both the Newsletter and NABB.

The second change would delete the words "by first class mail" from bylaw 4.3, regarding the method by which notice of members' meetings shall be mailed. This change would enable the association to send out meetings notices with the journal or by bulk mail, thereby saving money in postage. All active members will be entitled to vote on these proposed changes at next year's annual meeting.