

Notes on the Ageing and Sexing of the Curve-billed Thrasher (*Toxostoma curvirostre*)

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Data presented here were derived from 444 Curve-billed Thrashers banded and 268 recaptures examined from mid-1978 through 1984 as part of a general population study through weekly banding at two locations in the foothills of the mountains north and east of Tucson, Arizona (Walters et. al. 1984)

We found only one reference (Bent, 1948) bearing directly on this subject in a review of the literature. He comments that "The postnuptial molt of adults and apparently the post juvenal molt of young birds, begins late in July and continues through August; old birds look very worn, bedraggled and faded at this season." Our data confirm that at least some adults and juveniles are already commencing a complete molt by mid July and molt continues into early September. It is not, therefore, useful in determining age. Adults do appear to show more wear, particularly on the rectrices, but our information is insufficient and too subjective to recommend wear as a method of ageing.

Iris color is a reliable and useful criterion for ageing juvenile Curve-billed Thrashers until it reaches Orange Yellow-Color 18 (Smithe, 1975). This occurs about three months after fledging. In southeastern Arizona some fledge by early March. These individuals will have gained the Orange Yellow iris of the adult by early June. The iris of the young undergoes at least 13 subtle color changes over a period of about 3 months in progressing from gray to cream to pale yellow to bright yellow before reaching the final orange yellow characteristic of the adult.

These are Drab-Color 27 of an 11-day nestling (Ruth Ogden, Priv. Comm.), Smoke Gray-Color 45, Light Drab-Color 119C, Smoke Gray-Color 44, Pale Horn-Color 92, Cream-Color 54, Chamois-Color 123D, Buff Yellow-Color 53, Sulphur Yellow-Color 57, Straw Yellow-Color 56, Sulfur Yellow-Color 157, Spectrum Yellow-Color 55, and Trogon Yellow-Color 153. Then, finally to the Orange Yellow-Color 18 characteristic of the adult. Examples are shown below. Two colors, Sulphur Yellow-Color 57 and Straw Yellow-Color 56 are not included as they were observed on individuals handled only once.

Owing to their thick skin, skulling of Curve-billed Thrashers is difficult in the field and requires good light (bright sunlight). It is advisable before using this ageing criterion routinely that one first compare directly a known juvenile and adult (determined by eye color and cloacal protuberance or brood patch). Based on known juveniles, skulling appears to be unreliable for determining age after August.

In determining sex, cloacal protuberance lengths of 6 mm. or greater (up to 15 mm. have been observed) indicates a male. Both the degree of vascularization and the extent of the brood patch are indicative of sex. Most, but not all, males have a clear and distinct brood patch, but it is not as extensive or as vascularized as that of the female. These differences have been observed independently, and confirmed by laparotomy, by Carol Vleck (priv. comm.).

Sequence & Rate of Change in Iris Color of Juvenile Curve-billed Thrashers

Band Number	Date Banded/ Recaptured		Iris Color	Time Interval (Days)
Nestling	23 February	1984	Drab 27	11
1383-50555	20 March	1983	Smoke Gray 45	
	27 March	1983	Light Drab 119C	7
1383-50498	06 June	1982	Smoke Gray 44	
	22 June	1982	Pale Horn 92	16
	28 June	1982	Cream Color 54	6
1383-50498	27 May	1982	Cream Color 54	
	10 May	1982	Chamois 123D	14
1383-50576	12 May	1983	Buff Yellow 53	
	02 June	1983	Sulphur Yellow 157	21
	16 June	1983	Spectrum Yellow 55	14
1383-50500	27 May	1982	Trogon Yellow 153	
	10 June	1982	Orange Yellow 18	14

Other parameters such as the length of exposed culmen, wing chord, tail or weight of adults of known sex are not sufficiently different to be useful for determining sex. The following measurements in millimeters and weight in grams provide mean, standard deviation, range and number (N) in sample. Exposed culmen: Males, mean 28.97 ± 1.81 , range 27-31, N = 71; females, mean 27.68 ± 1.28 , range 25-30, N = 34; juveniles and adults of both sexes, mean 27.23 ± 2.35 , range 22-33, N = 537. Culmen growth is completed several weeks after fledging. Wing chord: Males, mean 108.19 ± 3.49 , range 101 - 113, N = 74; Females, mean 105.47 ± 3.63 , range 102-111, N = 38. Tail: Males, mean 120.41 ± 5.27 , range 115-130, N = 71; females, mean 116.14 ± 4.19 , range 111-120, N = 37. Weight: Males, mean 80.89 ± 4.95 , range 66.8 - 93.6, N = 70; females, mean 75.83 ± 4.38 , range 67.7-84.0, N = 38.

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Literature Cited

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Smithe, F.B. 1975. Naturalist color guide. Vol. I, II and III, Amer. Mus. of Nat. Hist., New York.
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(Western)

Another Record of Runt Eggs for the Tree Swallow

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My Tree Swallow (*Tachycineta bicolor*) project started in 1969, near Tampier Slough, located 22 mi (36 km) SW of Chicago, Illinois, and west of the town of Palos Park, Ill. The project area includes two shallow ponds, ½ mi (1 km) north of Tampier Slough. The north pond is approximately 900 feet × 150 feet and the south pond 400 feet × 125 feet.

The bird houses were located on land that surrounds the water and attached to a four foot conduct. The conduct is covered with axle grease to repel raccoons. There are 25 houses in this area.

On 22, June 1985, I trapped a female Tree Swallow, band #2000-29498 on the south side of the north pond, that I had previously trapped 15, May 1985, in the same house. The young of her first nesting fledged on 19, June 1985.

On 8, July I again checked this box capturing the female and found that there were two eggs. Upon removing the box on 15, July, I found the 2 eggs cold and the nest presumably deserted.

The two eggs were of different size. The smallest was 12 mm × 10 mm, the other 16 mm × 11 mm. Just for comparison the egg size in another deserted nest of Tree Swallow, the four eggs measured 20 mm × 14 mm; 20 mm × 13.5 mm; 20 mm × 13 mm; and 19 mm × 13 mm. See fig 1.

