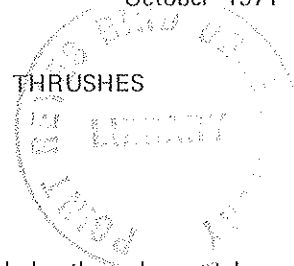


APPLICATION OF AN ANALYSIS OF WING LENGTH IN SWAINSON'S THRUSHES

Robert M. Stewart



INTRODUCTION

The Swainson's Thrush (*Hylocichla ustalata ustalata*) breeds from southeastern Alaska through coastal British Columbia, western Washington, and western Oregon to southern and western California west of the Cascades and Sierra Nevada (American Ornithologists' Union. 1957. Check-list of North American Birds.). During migration the sexes of *H.u. ustalata* cannot be readily distinguished. However, by comparing the mean wing lengths of Swainson's Thrushes taken from museum skins and those taken in the field, I suggest that individuals caught in mist nets in California during the period 1-13 May 1970 were predominantly males.

METHODS

The wing chord (unflattened) of 100 male and 51 female Swainson's Thrushes, from the collection at the Museum of Vertebrate Zoology of the University of California at Berkeley, was measured with dial calipers to the nearest one-tenth of a millimeter. The results were then rounded to the nearest whole millimeter. Mean wing lengths were calculated for Swainson's Thrushes captured in northern and southern California during the spring 1970 Operation Transect.

RESULTS

As expected, there is a significant difference between the mean wing lengths of male and female Swainson's Thrushes (Fig. 1). In order to find out if there was any difference in mean wing length of males in various parts of the breeding range, I calculated separately the mean for birds taken in June or July in Alaska, British Columbia, Oregon, and California. There was virtually no difference in mean wing lengths of males in these breeding areas (Table 1).

The mean wing lengths of all Swainson's Thrushes captured in mist nets at selected stations during the 1970 spring transect are shown in Table 2. The mean wing length calculated from this field data was 95.9 mm, which is virtually the same as that calculated from museum skins (96.0 mm). This strongly suggests that the individual Swainson's Thrushes captured in early May 1970 from the Mexican Border to Sacramento were predominantly males.

In May of 1971, nets were run daily at the Wool Ranch in Milpitas. The mean wing length of Swainson's Thrushes from 1-11 May was 94.8 mm suggesting that, as in 1970, individuals caught during that time were predominantly males (Table 3). From 22-31 May, the mean wing length was 92.4 mm, suggesting that most of these individuals were females.

Until a better method is found to distinguish the sexes of Swainson's Thrushes, the use of mean wing length suggests that males migrate before females in California during the spring.

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WING LENGTH — SWAINSON'S THRUSH

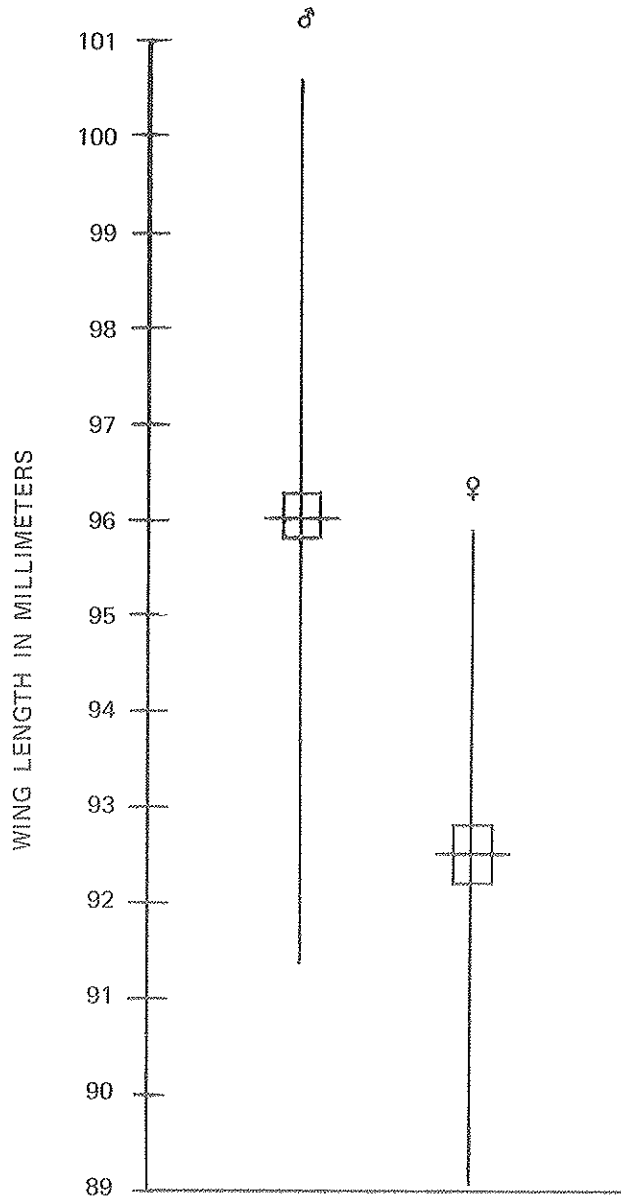


Figure 1. Wing Length of Swainson's Thrush. Horizontal line represents the mean; wide verticle bar represents the 95% confidence limits of the sample.

Table 1. Mean Wing Length (mm) Male Swainson's Thrushes		
Area	Number	Mean
Alaska	12	96.7
British Columbia	21	95.8
Oregon	20	96.1
California	17	96.4

Table 2. Mean Wing Length (mm) of Swainson's Thrushes Captured 4-13 May 1970.		
Southern California	Number	Mean
San Diego	35	95.6
Duarte	24	97.2
Brock Ranch	49	94.6
Total	108	95.5
Northern California		
Wool Ranch (Milpitas)	92	95.9
Sacramento	12	98.0
Knight's Ferry	28	97.2
S.F. Watershed	22	95.8
Total	154	96.3
Grand Total	262	95.9

Table 3. Mean Wing Length (mm) of Swainson's Thrushes at Wool Ranch in 1971.		
Date	Number	Mean
May 1-11	49	94.8
May 12-21	57	93.3
May 22-31	91	92.4