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Throat Patterns of Female Rufous Hummingbirds

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INTRODUCTION

Upon examination in the hand, each female Rufous Hummingbird (*Selasphorus rufus*) shows an individual and unique throat pattern. The throat is basically white with descending rows of metallic bronze-green flecks laterally and red iridescent feathers along with occasional bronze-red feathers centrally (Stiles 1972, Johnsgard 1983).

METHODS

Birds were caught with a 7x18 ft. nylon monofilament net, 1" mesh, and a fixed banding trap mounted around a hanging feeder. Age/sex determination, weight and wing measurements were recorded on each bird. Female throat patterns were recorded and red feathers counted.

Table 1. Change in red throat feathers by year of recapture.

<u>Year of Recapture</u>	<u>Amount of Red Feathering</u>		
	<u>More</u>	<u>Same</u>	<u>Less</u>
1989	7	7	8
1990	18	3	3
1991	36	12	12
1992	44	8	7

RESULTS

A total of 165 AHY females were recaptured and studied from 1989 through 1992. HY birds were omitted from the analysis. HY female Rufous have white throats with light or heavy green specks

arranged in descending rows. Occasionally a HY bird will start to show red throat feathers before migrating, while all HYs recaptured the next year have red throat feathers. Table 1 shows year of recapture and amount of red feathers.

Red throat feathers of female Rufous may be small, regular or large size. They may be scattered; all on one side, or central, as illustrated in Figure 1. The arrangement of red throat feathers in each bird usually stays the same and the number of red feathers usually increases from year to year. Same year recaptures were not included in this report. The number of red feathers (n) shows a highly significant ($p < 0.01$) correlation with years between counts (y), summarized by the regression equation $n = 1.07 + 1.42y$, (Figure 2) but age accounted for only 4% of the variability. Hence, other factors are also involved. (The linear regression assumes that the increase is continuous, y1 to y2, y3 to y4, etc.) On average, 1.42 red feathers are added per year.

By the second year, a female has an average of 16.7 red throat feathers (range 7-30), increasing in the third year to 18.3 (range 10-35). This many red throat feathers are easy to see with the unaided eye and often are densely clumped in a triangle or central throat patch.

CONCLUSION

Throat patterns in female Rufous Hummingbirds are uniquely different in each individual bird and the amount of red iridescent feathers tends to increase with age.

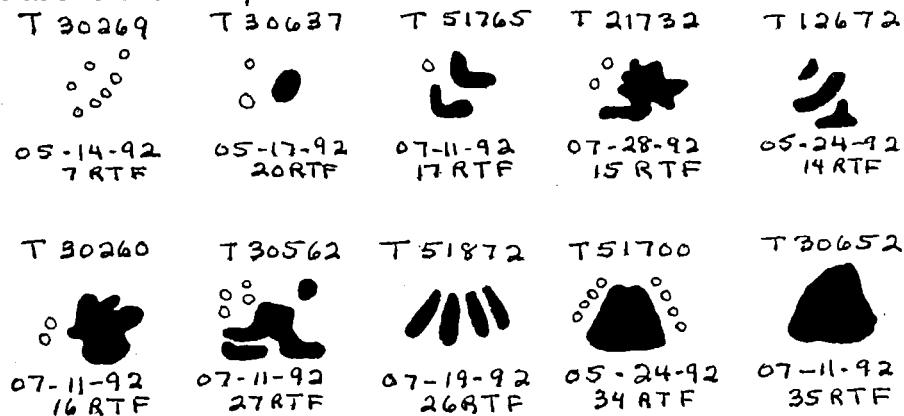
ACKNOWLEDGMENTS

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LITERATURE CITED

Johnsgard, P.A. 1983. *The Hummingbirds of North America*. Washington DC, Smithsonian, "Rufous Hummingbird," pp. 209-215.
Stiles, F.G. 1972. Age and sex determination in Rufous and Allen's Hummingbirds. *Condor* 74:24-32.

Figure 1. Illustrations of throat patterns.



RTF = Red throat feathers. Solid black areas enclose clusters of RTF.

Figure 2. Least squares regression analysis of change in red throat feather count in female Rufous Hummingbirds.

