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Recapture encounters of American Goldfinches

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During the winter months, January through April 1978, 265 American Goldfinches *(Spinus tristis)* were captured, banded, and released at the author's home feeding station which is in Tomah, Wisconsin. Data were taken on the ages and sexes, time of retrieval from traps, and the lengths of wing chord, tail, tarsi, and beaks of each individual. A total of 54 recaptures involving 42 individuals were recorded. Thirty-three birds were recaptured once, seven were recaptured twice, a single bird was recaptured a third time and one a fourth time.

The recapture data was analyzed to study the time patterns of recaptured birds (Table 1). As expected, the number of recapture encounters diminished as the length of time, in days, since initial capture increased. This is demonstrated through the various categories in Table 1 (see n values).

A disparity existed between the times when initially captured birds (IC) and recaptured (RC) birds were encountered. Thirty-five percent of the ICs, as compared with 55 percent of the RCs, were encountered after 1200 hrs. A Chi Square analysis revealed that there was a significant difference in the AM-PM time of capture of IC's and RC's (X^2 = 4.07; $P<.05$). There was no significant difference between the AM-PM rate when traps were maintained and the AM-PM rate of encounters for IC's (X^2 = 1.33; $P<.25$). However, the difference between the AM-PM rate when traps were maintained and the AM-PM rate of encounters for RC's approached significance (X^2 = 1.77; $P<.15$). This observation adds further support to the fact that RC's tended to be encountered more frequently after 1200 hrs. Because 55% of the RC's were encountered after 1200 hrs and only 43% of the total trap-hours occurred after 1200 hrs, it can be concluded that some additional RC's were missed.

Table 1. Data on 54 recapture encounters of American Goldfinches captured, banded, and recaptured at Tomah, WI during winter 1977-78.

RC category	n	RCs±1 hour Frequency n	Ratio	F	Sex—Age SY-M	AST-M	U-AHY
1 24-hr period beginning with end of initial capture date	24	7	.29	8	4	1	11
> 1≤30 days	12	5	.25	3	4	1	4
>30≤60days	5	1	.20	1	4	0	0
>60≤90 days	4	1	.25	1	3	0	0
Total	45	14	.259	13	15	2	15

*n=those birds recaptured within ±1 hour of time period of previous capture. Ratio=those birds caught±1 hour of time period of previous capture/all recaptures.

Of particular interest was the relationship between the time of encounter of RC's and the time when they were previously encountered. A ratio was established (Table 1) to determine the frequency with which RC's were caught within ±1 hr of the time when they were last encountered in traps. This ratio remained remarkably consistent for each category (Table 1) and averaged 0.259 overall. No difference was observed between sexes.

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