

TABLE II
PURPLE FINCH MALES

	Brown on Banding		Red
	<i>Brown</i>		
55-03647	4/25/54 + 6/7/54		5/5/55
57-33737	7/12/55		4/27/56
-33831	5/15/56		4/3/57
-33841	5/16/56		4/7/57
-33855	6/30/51		4/5/57
62-22196	7/24/59		4/28/60
-22197	7/25/59		7/3/61
	<i>Pink</i>		<i>Red</i>
55-59378	5/1/57		9/21/57 — 3/30/59
62-22679	4/22/59		5/30/60 — 4/23/61
	<i>Yellow</i>		<i>Red</i>
57-33735	7/12/55		5/16/56
	<i>Sp. Brown P + Y</i>		
55-59379	5/1/57	(Flight Song From Hand)	

feathers and was briefly recorded as female. This individual, when released from my hand, flew straight up into the air singing a typical male flight song.

Conclusion: This study supports the conclusions of Charles H. Blake that most female purple finches in this area show pink coloration, probably after the second post-nuptial molt. It also shows that some individuals show yellow instead of pink and that at least some of these, at a later date, will change from yellow to pink, but that some will maintain this yellow color until at least six years old. Males may go through either a pink or a yellow phase before acquiring their typical adult plumage. I have raised an unanswered question as to why there appear to be proportionately less of these pink individuals in the late winter flocks than are present in the early summer breeding population. I admit that I cannot tell the males from the females in the brown, pink or yellow phases.

182 Tarrytown Road, Manchester, N. H.
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GENERAL NOTES

Pull Traps and Color Marking.—This note is intended as a plea for the more widespread use of the combination of "pull traps" and color marking as a means of study of local population of seed eating birds.

In recent years it has appeared to me that the accent, both in the literature and at NEBBA meetings, has been on mist netting or on newer and better automatic traps. By "pull traps" I mean simple cages with doors that can be closed by pulling a string. In my own case I use simple rectangular cages of hardware cloth, with two or three doors which close simultaneously when I pull a string, the string being led in through a tiny hole in my window.

Mist nets require constant supervision, and a great deal of time. In winter with a local population of banded chickadees mist-netting becomes impractical.

Automatic traps cannot be selective and will catch the same individual bird over and over, while another individual, shier or wiser than the first will avoid the trap. If not constantly watched, injuries are frequent in either mist nets or automatic traps.

With pull traps, the trap can be left open all the time and used as a feeding station. The birds learn to use it rapidly, and the regulars will lead the strangers into it. This year when my Tree Sparrows arrived, there were about 20 in the flock, and immediately some went into the trap. I pulled the string and caught five, all of which had been banded the previous year. It was not until later that the young (or new) birds were led in by the older ones. My experience with Purple Finches has been similar.

I believe that pull traps are easier with less effort per bird, and, particularly with snow on the ground, volume banded per hour can be greater. Single-handed on a good day I can handle as many as 50 birds in an hour.

With a regular resident population such as chickadees, the problem arises as to how to recognize newcomers and strangers and particularly how to recognize a bird banded last year. For this purpose I have been using color marking (See *Bird-Banding*, 32: 228).

With my present "Drimark" technique, it takes only a second or two to apply a bright red spot to each cheek on a chickadee, which will be easily seen for from eight to sixteen weeks.

Now, with the majority of my "regulars" marked, these birds enter and leave the trap at will, and feed in the trap constantly. When strangers appear, they are led into the trap by the regulars, and when I see an unmarked bird in the trap, I pull the string. I am able with very little effort to maintain well over 90 percent of my birds stained and to quickly recognize any new birds that arrive at my feeders.

In November, 1961, I had 30 to 40 regulars around the house, all stained, when there was a small snowstorm, and I immediately noticed some new unstained chickadees. These birds sat in the trees and were very shy about going into the traps, but after a day or two they were led into the traps by the regulars, and I was able to catch five birds, three new and two not seen since the previous spring.

I have noticed two classes of chickadees who are "trap wary" and more difficult to trap: one is unbanded individuals, presumably first-year birds, unfamiliar with the traps; the second group included wise old birds who have been around five or more years and are very familiar with the traps. In order to obtain balanced statistics on mortality and life span, both groups are very important.

I do not believe that either mist nets or automatic traps can give as complete or as accurate data on a local population. Since using this technique, I believe I can accumulate data of much greater validity regarding mortality, life span, and migration of my chickadee population. The technique has also been useful in studying other species, such as white-breasted nuthatches and woodpeckers.

I therefore recommend it as a most valuable technique in the study of local populations of seed eating birds about one's house. — John H. Kennard, 182 Tarrytown Road, Manchester, N. H.

Further Thoughts on Pull-string Traps.—Dr. Kennard's comments (above) are a stimulating reminder that no one trap or trapping technique is ideal for all banders and under all conditions. It may be useful to comment further on the differences between automatic and pull-string traps, with side comments on the use of mist-nets on winter resident populations.

In most of the northern states, winter mist-netting is impractical, particularly for birds like the chickadee. The low temperature and "wind chill" are too hard on the birds, particularly this species — which prefers some shelter from the wind, to help in maintaining body temperature. Low temperature also makes it harder for the netter to manipulate the mesh of the net in removing birds. Occasionally conditions may be right for taking chickadees with nets, such as a sunny day with little wind, operating only in the warmest part of the day and standing by to remove birds at once. I know nothing quite as effective in taking old, wise chickadees as a net set occasionally across their path to a feeder; those which shun any trap whatsoever can often be netted. However, this winter netting should not be undertaken lightly; the netter needs more than average dexterity and patience, considering the species' talent for wrapping itself in a ball of net mesh.

Comparing injuries in various types of traps or net is difficult. We can say quite firmly that no type is warranted free of possible injury. An occasional bird may succumb to shock at time of capture, regardless of method. In traps with movable doors (automatic or pull-string), an occasional bird is hit by the door, usually not sustaining any serious injury. While the bander can pick his time to drop the door of a pull-string trap so as to reduce the chance of injury, this method does involve some time-lag, during which a bird with reflexes as fast as those of the chickadee may turn and get half-way out the door. The actual drop mechanism is somewhat similar in both types of trap, though I have not seen any pull-string trap in which the door will drop as quickly as in the (automatic) McCamey chickadee trap (see *Bird-Banding*, 32: 51-55). The pull-string trap also requires time for the operator to respond to his visual perception that the bird is in a desirable position, and time