

PINE SISKINS - Some Observations on  
Color, Size, and Sex  
By Elinor G. McEntee

Is it possible to distinguish between male and female, and adult and first winter Pine Siskins (Spinus pinus) by the extent and intensity of the yellow in their wings?

Dwights's Sequence of Plumages and Moults and Roberts' Birds of Minnesota both note that in adult male Pine Siskins the yellow on the flight feathers is more intense and extensive than in the females. I have found, however, among 902 Pine Siskins banded and wing measured in recent years that there are two distinct classifications of birds with extensive yellow in the wings - those with intense yellow and those with pale yellow. Are these both males and is the difference age, or, more interestingly, could one be male and one female?

The wing measurements for those with extensive bright yellow - hereafter called Group A - extends from 67mm to 78mm, a wide variance; for those with extensive pale yellow - hereafter called Group C - the variance is from 68mm to 75mm, with the largest number in Group A (see Table) measuring 73mm and in Group C, 71mm. Is this 2mm difference significant?

It might be interesting to note here that among all Pine Siskins there is a small group, approximately 1%, which is outstandingly beautiful with very intense and extensive yellow in both wings and tail, and very noticeable yellow on the rump, back, etc. In most instances these birds measure 76mm or larger, and some even feel noticeably larger in the hand.

The remaining birds not fitting in Groups A or C have been divided into two additional groups. Group B includes birds with small amounts of yellow in the wing, but of fairly bright intensity, and Group D includes the birds exhibiting small amounts of very pale yellow.

Of the 471 birds with pale yellow (both narrow and wide) the greatest number have wing measurements of 70-72mm (see Table), whereas among the 431 with bright yellow (both narrow and wide) the greatest number measure 72-74mm. This could mean, if size is significant, that the birds with bright yellow, whether wide or narrow, are males, and those with pale yellow are females, since almost 75% of the pale yellow birds are actually 71mm or smaller, and approximately 70% of the bright yellow birds are 72mm or larger. Possibly the extensive yellow, both bright and pale, appears after the first post-nuptial molt and the birds with narrow, or limited, yellow are younger birds (first winter as we see them here).

It will be noted that there are only 112 samples in Group B (possible young males) and 290 samples in Group D (possible young females) - a wide difference. The only explanation here might be that in classifying Group B vs. Group A the dividing line between wide and narrow is more difficult to determine than in Group D vs. Group C. where the totals, 290 to 181, seem in better balance. The total number of 431 bright yellow birds, however, compares satisfactorily with the 471 total for all pale yellow birds.

In some cases the limited yellow, both pale and bright, does not even extend below the primary or secondary coverts, but in other birds it may extend below secondary coverts only, while in still others it is visible below both the coverts, but only narrowly.

Summary. If wing measurements are significant - the larger being males, the smaller females - then extent of yellow may denote age, while intensity of yellow may denote sex. Bright yellow would be males, pale yellow females. Those with extensive bright yellow in the wings would be adult males (at least 2nd winter as we see them here) and those with limited bright yellow, young males (probably 1st winter). Birds with extensive pale yellow would be adult females, and those with limited pale yellow, young or first winter females.

490 Fairfield Avenue, Ridgewood, New Jersey 07450

Table I - PINE SISKIN GROUP CLASSIFICATIONS AND  
WING MEASUREMENTS

Classi- fication & Total	Wing Measurements											
	67 mm	68 mm	69 mm	70 mm	71 mm	72 mm	73 mm	74 mm	75 mm	76 mm	77 mm	78 mm
Group A 319 Tot.	2	3	9	34	41	59	65	59	30	11	4	2
Group B 112 Tot.	1	1	5	16	15	23	22	15	10	4	0	0
Group C 181 Tot.	0	4	23	30	50	35	25	8	6	0	0	0
Group D 290 Tot.	3	21	35	65	71	48	28	14	5	0	0	0

Group A - Birds with extensive bright yellow.  
Group B - Birds with limited bright yellow.  
Group C - Birds with extensive pale yellow.  
Group D - Birds with limited pale yellow.