

1971 Observations Pool 9 Roost

Ave # ducks counted (from observations on
9/21 through 9/23) : ~~387~~ 418
(class A)

Estimate 40 mal & blacks

Estimate of wood ducks ^{flying in} ~~at the roost~~ ~~347~~
~~north end of the roost~~ (class A)
~~roost (387-40)~~ : 378
~~347~~ (class A)

Ave of ducks from 1970 observations - 481 (class A)

9/21/70 - 446 observed

9/24/70 - 506 observed

10/1/70 - 491 observed

Was estimate of 80 mal & blacks

Carving estimate of wood ducks flying in - 401 (class A)

~~Percent~~ Change 1970-71 5.7
~~1975~~ %

Estimate of ducks roosting on Pool 9 (Class 0 date)

1970 - 650 - 590 wood ³⁰ ~~40~~ black

1971 - 600 ~~including~~ 550 wood 40 black

Must observe by WD box 83 by the submerged
poundon to be able to observe
birds coming from north yet not
alarm them by being under their
line of flight, and to be able
to sight birds from the south
for a few seconds over the trees
to the south. Otherwise ^{if too far to south} they appear
& disappear too fast, i.e. ~~are~~ ^{are visible}
~~then~~ 5-10 seconds longer if you
* happen to be looking elsewhere.

Excellent viewing ^{More than visible to east than if} condition this year 9/21-23
probably an ^{fairly} accurate count. Especially
on 9/22 with second observer counting
the birds flying from the north.

Seemed less ducks flying in this year.

No large flocks ^{from the south} of 1-2 hundred at sunset
like in 1970. No large flocks of 15-30 fly
in from the north.

~~Before sunset~~ ^{before sunset} Visibility better than after.
so should start 150' west of box # 23
then move over by the box after the big
wave of ducks at sunset.

Comparing w last year when had large
flocks at sunset, this year the
peak was $\frac{1}{2}$ hr after sunset.

Large flocks from north 70 min
after sunset last year, this year
40 min after sunset

No big flocks of Mallards & Blacks this year

23
16
39

Counted	Missed	Double Count	Estimate	Class A data
9/20 837	837	170	Chow	350

9/21 414 30 mal	890	190	790 + 28.9 =	443
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9/22 377 30 mal	890 of 293 2090 of 83 + 39	290 - 7	+ 32	409
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9/23 370	290 of 43 before 7 ²⁰ - 0 1090 of 227 after 7 ²⁰ + 24		+ 24	394
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estimated 50 birds already
roosting in Pool 9

401
378
23
057
401/33.00
2025
2930
2007
1430

Average of $\frac{443 + 409 + 394}{3} = 418$ class A
- 40 Mall's block = 378 wood

9/23/71 Pool 9 Roost Count		Observer Antoinette	
	Fly from south	die to north	Fly from north
begin 6 ⁵⁰ end 7 ⁰⁰	2 ⑪ 13		1
end 7 ¹⁰	⑪ 5 16		1
end 7 ²⁰	3 1 2 2 3 11	3	1
7 ³⁰	12 5 4 1 10 8 25 4 5 2 5 4 2 3 9 109		10 4 2 1 6 25 1 3 4 4 13 2 78
7 ⁴⁰	3 4 2 2 20 4 6 6 6 2 186		15 mal 4 3 1 2 3 1 2 8 3 41
7 ⁵⁰			127
left 7 ⁴⁵	add about 6 sighted plus another 10		16
Total	245		Total 109
			370

Figuring birds missed

$$+ 220 (43 \text{ before } 7^{00}) + 1090 (227 \text{ after } 7^{00}) - \text{no double count} =$$

$$.86 + 22.7 = 24 \text{ missed}$$

birds sighted 370
24
394
Bird flying in
Class A data

plus birds already
present in the
North part
Pool 9 - estimate
50

Total birds
roosting Pool 9
Class A data 444

9/23/71
official sunset about 7¹⁷
sky 90% cloudy
no wind water calm
Temp 51°

1st observer counted birds flying from the north

Two observers

Observer Antonette H. [unclear]

Pool 9 Roosting Flight Count Tally Sheet

10 Cook Pool 9

Time	Fly from south:	Land in main roost	Land north of disappear H.	Fly from north:	Land in main roost	Partial totals
(A)	(B)	(C)	(D)	(E)	(F)	(G)
Beginning 7 ⁰⁰	First ducks from south at 7 ⁰² 11 4 3 36 birds (11)	7 ⁰² females began calling from the north				
Ending 7 ¹⁰	Period Total 24	Total	Total	Total	0	24
	2 111		2	4 4 1		
End 7 ²⁰ (3 small)	4 3 5 11 2 4 10 4 4 9 6 6 12 10 20		10	6 3 6 2 2 11 2 3 2	9	27
End 7 ³⁰ (4 small)	5 11 15 3 5 3 12 6 12 7 25 15			1 3 2 6	27	119
End 7 ⁴⁰	53			10 6	12	124
End 7 ⁴⁵	53				18	69
End 7 ⁵⁰	8	by 7 ⁴⁵ visibility poor probably missed 20% after 7 ⁴⁵		4 2	6	14
End 7 ⁵⁵	0			0		0
End		left at 7 ⁵⁵ - add 6 male				
Total	307		12		70	377

Grand total

9/22/71

100% overhills to mist
40% clouds
calm mist
Temp 57°

official sunset 7¹⁹

Plus (B) of estimate of birds roosting in North Roost

estimate 50

Total ducks roosting Pool 9

427

(Continued over)

Antennae

Pool 9 Roosting Flight Count Tally Sheet

9/21/71

Time	Fly from south:	Land in main roost	Land north roost of disappear N.	Fly from north:	Land in main roost	Total
(A)	(B)	(C)	(D)	(E)	(F)	(G)
Beginning 6 ²⁵	Column B =	Column C	or Column D			
Ending 6 ³⁵	15 some Mallards			15 some of these are mallards		15
	Period Total	Total	Total	Total	15	15
End 6 ⁴⁵	1			1		1
End 6 ⁵⁵ (sunset)	6 ⁵⁵ first birds disappearing from the south 3 1					
	4					4
End 7 ⁰⁵	2 11 3 3			2		13
	11			2		13
End 7 ¹⁵	11 4 2 2 4 9			2		26
	24			2		26
End 7 ²⁵	11 6 2 3 3 3 5 4 5 5 21 21 21 21 21		5 5	1 3 3		125
	118		10	7		125
End 7 ³⁵	2 5 4 2 8 1 15 9 4 5 2 2 3 4 5 4 7			5 2 3 1 2 2 2 2		110
	85			25		110
Total:	242		10 (at least)	52		414

(Continued over)

Time
Initial sunset
Cloud cover
Weather

9/21/71

6⁵⁵ out with the sun

None excellent visibility

Calm clear no wind beautiful

Temp 60°

Actual sunset at Sunset Lake probably 7:27

observing from
position by wood duck
box no. 73

Plus (D) estimate
of birds roosting
in North Roost

Total ducks
roosting Pool 9

estimate
50

464

Antoinette Pool 9 Roosting Flight Count Tally Sheet

Time 10 min. intervals begin 30 min. before 40 min. after ss.	Fly from south:			Fly from north:		Period totals (D+E)
	(B) Land in main roost Column B	(C) Land in roost of disappear N. Column C or Column D	(E) Land in main roost Column E	(D) Land in main roost Column D		
Beginning 6:55						
Ending 7:40						
begin count 7:12	47	47				47
End 7:20						
	65	65				65
End 7:30 ⁺ (Sunset)	in 4 flocks of 15					
	57	57		12		69
End 7:40						
	15	15		21		36
End 7:50						
	20					20
End 8:00						
End						
Totals:						237
						Grand total

9/30/71

Actual sunset

Cloud cover 100%

Weather raining (hite drizzle) ~~stop~~

Plus (D) of estimate of birds roosting in North Roost estimate 100

Total ducks roosting Pool 9 337

Second observer Done Kark

Pool 9 Roosting Flight Count Tally Sheet

W.D. K

Time	Fly from south:			Fly from north:			Period totals
10 min. intervals 30 min before To 40 min after ss.	Land in main roost			Land in main roost			(B+E-D) (F)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Beginning <u>6:20</u>	Column B =	Column C	or Column D				
	12 2	5 8 6	17 5 13				
	4 7	6 11 2	2 7				
Ending <u>6:30</u>	10 6						
	19 27						
	Period Total <u>87</u>	Total <u>43</u>	Total <u>44</u>	Total <u>2</u>			<u>45</u>
	6 4	3 1					
	9 1	4 4					
End <u>6:40</u>	3						
	<u>23</u>	<u>12</u>	<u>11</u>				<u>12</u>
	4		4	12			
End <u>6:50</u>							
(Sunset)	<u>4</u>	<u>—</u>	<u>4</u>	<u>12</u>			<u>12</u>
	23 7						
	41			62			
End <u>7:00</u>	22						
	<u>93</u>	<u>21</u>	<u>72</u>	<u>62</u>			<u>83</u>
	18	18		2			
End <u>7:10</u>							
	<u>18</u>	<u>18</u>	<u>—</u>	<u>11</u>			<u>29</u>
	27 15	30	11	1			
End <u>7:20</u>							
	<u>42</u>	<u>30</u>	<u>12</u>	<u>51</u>			<u>81</u>
	17	12	5	64			
End <u>—</u>							
	<u>17</u>	<u>12</u>	<u>5</u>	<u>64</u>			<u>76</u>
Totals:	<u>294</u>	<u>136</u>	<u>148</u>	<u>202</u>			<u>338</u>
							Grand total

Date 30 Sept 1971
 Actual sunset 5:50
 Cloud cover Scattered
 Weather Clear

Plus (D) or estimate
 of birds roosting
 in North Roost

Total ducks
 roosting Pool 9
 (Class A data)

148

486

Explanation of tally sheet

(1/3)

wood duck roosting
flight count

Use the form as a field form, or with a tape recorder use the form to transcribe and analyze the data and as a permanent daily record, using the tapes over again. The objective of the form is to prevent double counting (assuming that some of the birds fly from the south, land in the North Roost, and then again fly into the main roost, which may not be a valid assumption). If it is subsequently determined that most birds landing in the north roost stay there, the tally sheet can still be used but without subtracting Column D from the total but using it as part of the number in the north roost.

The totals strived for are those birds landing on the water. Columns C and E comprise the main roost; Column D would be a double count if the birds again fly into the main roost. (Or if these birds remain there to roost, Column D is a portion of the North Roost.) Column A is the time interval, in ten minute periods beginning 30 minutes before and ending 40 minutes after sunset. (Sunset is about ten minutes earlier per week or five minutes every 3-4 days. Adjust your beginning time for each day from the actual sunset observed the preceding day.) Using ten minute time periods reduces counting errors by beginning the count from again and allows easier tabulation and analysis by relative time to sunset. Column B is the number of birds flying from the south. It is divided between Columns C and D; but do not attempt to make them equal Column B exactly in the field, an approximation is sufficient. Column B is a good estimate of number of ducks in the roost (with Column E). Upon leaving the field and analyzing the days observations, Column C can be ~~increased so that with Column D, they equal B~~, and ~~no~~ ^{if} ~~observed birds are missed.~~ ^{originate from the north and} Column C comprises those birds that fly from the south and land in the main roost. Some of the birds from the south circle in the sky and return to the main roost to land - do not count them twice. Also some of the birds fly to the north and disappear; enter this number in Column D with those seen to land in the north roost. Column E is those birds that ^{originate from the north and} land in the main roost; if there is doubt whether they are circling, south birds, enter them anyway. Column F is not necessary, but does show numbers of ducks by periods and is ~~needed~~ a double check on computations. (totals down = totals across)

The idea may not be valid that the number of birds in the main roost equals the birds flying from the south plus those flying from the north allowing for double counting (Column B + Column E - Column D). If not, Column B plus Column E equals the number in the main roost, and Column D is a portion of those using the North Roost (along with those present when the observer arrives). Either way, an estimate must be made of the North Roost to determine the number roosting on Pool 9 (Class A reliability). To project this to Class C, add 50%.

Pool 9 Roosting Flight Count Tally Sheet

2/3

Time 10 min. intervals 30 min before to 40 min after ss. (A)	Fly from south: (B) Column B =	Land in main roost (C) Column C	Land north roost of disappear N. (D) or Column D	Fly from north: Land in main roost (E)	Period totals (B+E-D) (F)
Beginning _____					
Ending _____	Period Total	Total	Total	Total	
End _____					
End _____					
End (Sunset) _____					
End _____					
End _____					
End _____					
End _____					
Totals:					Grand total

Date _____
Actual sunset _____
Cloud cover _____
Weather _____

Plus (D) and/or estimate
of birds roosting
in North Roost

Total ducks
roosting Pool 9
(Class A data)

Example

3/3

Pool 9 Roosting Flight Count Tally Sheet

date

Time	Fly from south:			Fly from north:			Period totals
10 min. intervals 30 min. before To 40 min. after ss.	(A)	(B)	(C)	(D)	(E)	(F)	(B+E-D)
Beginning 6:00		Column B =	Column C	or Column D			
	5 6 13 28	3 15 111 20 111 20	5 15 3 11 10 10 11	3 3 11 10 20			
ending 6:10		Period Total 92	Total 50	Total 42			50
	12 5 13	111 15 111 6 111	10 11 5 1 3	111 15 11 6 10	111		
end 6:20		62	24	38		3	27
		1111	111	111	5 6 8 15		
end 6:30		20	10	10		34	44
		1111	1111		10 10 10		
end 6:40		4	4			30	34
		100	50	50	40		
end 6:50		100	50	50		40	90
		20	18	2	50		
end 7:00		20	18	2		50	68
		5	5		90		
end 7:10		5	5			80	85
Totals:		303	161	142	237		398
							Grand total

date _____
 actual sunset _____
 cloud cover _____
 weather and all figures are arbitrary & do not
 show only actual conditions or
 totals.

Plus (D) or estimate
 of birds roosting
 in North Roost

Total ducks
 roosting Pool 9

142 or
 + 284
 682