

PRESIDENT'S MESSAGE

We've had so much good material this year in EBBA News, I've hesitated to put in a Presidential Message. However, I can't let my last chance go by to say thank you to many people. So many contribute to what EBBA contributes to so many that to single out a few would be unfair. There are some jobs whose responsibilities may not be recognized. Did you know that our First Vice President works closely with the Local Committee Chairman on planning the program for the Annual Meeting? The Second Vice President prospects for new meeting sites, the Third Vice President develops our financial plans. Our Secretary in addition to the usual correspondence works on agendas for our meetings and assembles the Committee Reports. The Treasurer has a monumental job keeping us going financially, and has aided in many decisions during the year.

The efforts of the Editor and Co-Editor and, least visible but most important, the Circulation Manager (who knows the First Vice President well), provide the most tangible substance of EBBA, the EBBA News, without which I doubt we would exist as an organization. We started with a strong foundation for EBBA News but I think the last year's volume was the best ever.

The Council members, thankfully, don't hesitate to loan us their advice on matters throughout the year not just at the annual meeting. They respond with help in emergencies during the year, such as replacing lost Committee members. The Committee Chairmen have developed largely on their own, worthwhile projects that will surface to our benefit. Of course, we've received a net benefit from our Netting Committee.

Now that I've not mentioned anyone by name I feel free to mention everyone by name. That is by our name in common - "EBBA Member." Rather than say "your" I'd rather say "our" as those I spoke of above are EBBA members too. It's our enthusiasms, our interests, our communications, that make EBBA work for us. EBBA is us, not some mysterious body with a life of its own that must be supported. EBBA is only a way to band together, as many have said. What EBBA becomes in the future is what we become. We still may face the issue of banding together in a combined banding society journal. We may find we'll band together more in study teams working on breeding or wintering population rather than as individuals banding migrants. We may find we'll become more active as a group in broad environmental problems. We'll see new banding techniques and new questions will arise that can be answered by those new techniques.

Whatever will be the future in banding, I'm looking forward to it, but for now I wish to thank all of you for the past.

Dr. Jeff Swinebroad, President  
-- 10423 Kardwright Court, Gaithersburg, Maryland 20760

(1 May 1974)

## Cape May Point Raptor Banding Station - 1973 Results

William S. Clark

The Cape May Point Raptor Banding Station has been in operation every fall for the past seven years for the purpose of catching and banding migrating hawks and owls. This article reports the station's results for 1973. The previous years' results are reported in earlier volumes of this journal.

The station really consists of two stations, located approximately 150 m apart on a north-south line. The original station is called the North Station and the other, South Station. The North Station was operated every day from September 2, 1973 until November 24, 1973 except for one day in early September. (The lima bean field adjacent to the North Station was being harvested that day.) The South Station was operated all but 11 days during this period, when there were no qualified banders available.

Descriptions of the operation and locations of the stations have been published in the articles mentioned above.

Tables 1 report the daily banding results. They include for each day the combined banding totals for both stations by species, as well as the banders and hours manned for each station and daily wind direction and velocity.

These banding totals are less than last year's totals. The primary reason for the decrease in total numbers banded was probably the unusually warm months of September and October (we averaged 8° warmer noon temperature for these months this year). The Kestrels, Sharp-shinned Hawks and Merlins, our most numerous hawks, were not very aggressive during this period, as a result of the heat. Hence, we lured and caught a lower number of those hawks. We did set season total catch records for all other species except Broad-winged Hawk. The Broad-winged Hawk migrates mainly in September and early October, while the other secondary species come later. All the records were set mainly in November, when the temperatures were more normal and the hawks were hungrier (and more aggressive).

The highlight of the season was an immature Swainson's Hawk which I caught on September 16. Details of this occurrence will be published elsewhere and photos have been deposited in the National Photoduplication Center, Patuxent Wildlife Research Station, Laurel, Maryland.

Our only foreign recovery was a Kestrel trapped on October 15. It was banded in Hudson, Maine on September 16, 1973 by Mr. John Morgan. He caught it in his front yard on a Bal-Chatrri.

Table 2 reports the total number of hawks seen daily, which includes the hawks banded.

The Sharp-shinned flight was the heaviest we've recorded at CMP, as were all other species except Merlin and Kestrel. This year's count of these falcons is just less than their respective count records. Especially encouraging was the high number of Peregrines, Cooper's Hawks and Ospreys we counted.

There was supposed to be an "echo" flight or secondary flight of Goshawks after last fall's invasion. But as you can see, this year there was an even heavier flight at Cape May Point. The age-sex makeup of these hawks was very different from last year. (See Table 5.) Last year we caught 2 young males, and 10 adults, 9 of them females.

Only two Rough-legs were seen this fall, but we did count six Golden Eagles and two Bald Eagles.

Table 3 gives the hawks caught by station and type of trap. This year more hawks were caught in the bow-nets. The previous year more were caught in the Dho-gazas while the year before that more were caught in the mist nets. The average number of hawks caught per day per station is down from 12.7 in 1972 to 8.2.

This fall there were from 12-20 mist nets operated for owls almost every night from late September until we closed. Table 4 gives the number of owls banded by date. This is the first year we went all out to catch owls and the results show that our efforts were rewarded.

Some of the owls were caught in Verbaile Pole Traps. One of these was the Barred Owl which landed on the pole trap after it made repeated passes at a white pigeon. This happened while we were operating the North Station at night. On another evening, Bob Ditttrick caught two Long-eared Owls at the South Station, one in the mist net and one in a Dho-gaza using a tape recording of Starling and Robin distress calls to lure them in. Barn Owls made many passes and one hit and got out of the mist net.

Table 5 gives the age and sex of the hawks banded by species. We continue the pattern of catching more females of the three small hawks, and more male Cooper's Hawks. We also caught many more male Harriers. This year we caught more male Goshawks, last year more females.

There were many prearranged visitors at the station this year and four banding demonstrations were given to birding groups. We had very little interference from birders or other unwanted visitors, mainly because we had a "Please Keep Out" sign across the path into the North Station. (Visitors are welcome but arrangements must be made with me beforehand. It is also possible to arrange demonstrations for groups.)

Operating a raptor banding station requires concentration and patience and is often boring when there is no flight. But it can also be exciting and fun. Unusual occurrences are part of the fun, and some of this season's more interesting events are described below.

Bob Ditttrick, one of the banders, literally had his hands full on September 21. A female Kestrel got out of a Dho-gaza, just before Bob got there and flew into the mist net. She bounced out and went back into the net 10 feet further along. She worked free again and fell to the ground under the net where Bob leaped for her and pinned her to the ground. A male Kestrel also worked free from a Dho-gaza as Bob was coming from the blind. The hawk happened to be flying towards Bob and Bob grabbed him in mid-air. A little later a Red-tailed Hawk completely wiped out one of the Dho-gazas and ended up on the ground covered by the now free Dho-gaza netting. Bob came out of the blind so fast that the hawk didn't think of flying, but instead went over on its back in the defensive pose. Bob then slowly reached down and took the hawk by its feet. Three hawks in one day by hand!

While working the South Station in early November on a light flight day, I flapped the pigeon in an attempt to "fish" for hawks. A large bird came in from behind the blind and grabbed the pigeon by the neck with its beak. I set off the bow-net and was surprised to have caught a first year Herring Gull. Larry Hood continues his "sharpie magnetism." This year he was out of the blind taking a male Sharp-shinned Hawk out of the mist net, when two more flew into the net, just a few feet from Larry.

The operators of the station this year were Pat Carter, Chris Curts, Bob Ditttrick, Larry Hood, Brian Milsap, Brian Sharp, Marshall Stinnett, Ted Swem and myself. Assistants were Robbie Curts, Bob Ditttrick, Sr., Ed Gatz, Jim Hill, Dan James, Steve Potts, Cathy Selph, Lynne Sharp, Thacher Taft, Tony White, Hal Wiererga, Lisa Wilcox and Jim Zook. Their contribution was greatly appreciated by the operators.

Next year, operation of both stations is planned from Labor Day weekend through to Thanksgiving.

I would like to again thank Mr. David Rutherford for continuing to give permission to use his property for this important banding operation.

The accompanying photographs were taken at the station during the season's operation.

September		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	September Total	
Sharp-shinned Hawk											1						1		1	6	3	2		5	2	7	20	22	11	81		
Cooper's Hawk																									2		1	2		2	7	
Goshawk																															0	
Red-tailed Hawk																					1										1	
Red-shouldered Hawk																															0	
Broad-winged Hawk											1						1		1												3	
Harrier																		1									1		1	3		
Peregrine																												2		1	3	
Merlin												1				5	1	1	3	7	4	3	4	8	12	1	4	5	5	64		
Kestrel		10	2	2	2			12	6	10	1	13	5		17	1	16		30	13	45	1	5	14	8	7	1	5	8	13	247	
<b>Total</b>		10	2	2	2	0	-	12	6	10	1	15	6		17	2*21	3	32	18	59	8	10	18	23	21	11	33	36	32	410*		
Bander	North	CL	CL	SW	SW	SW	-	CL	CU	CU	CU	CU	CU	CU	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	HO	HO	HO	HO	HO	HO	CL	
	South	SW	SW	-	-	-	-	SW	CP	CP	CP	CP	CP	CP	-	DT	DT	DT	DT	DT	DT	DT	DT	DT	DT	DT	DT	DT	DT	SH		
Wind	Direction	W	W	S	SE	S	-	NW	N	NW	SW	NW	SE	SE	NW	SW	NE	NW	N	W	NE	SE	SW	SE	NE	E	S	NW	S	NE		
	Velocity	3	5	3	5	7	-	7	5	10	10	7	5	20	12	8	15	10	7	10	12	20	5	8	12	8	7	7	5	12		
Hours	North	7	9	9	8	3	-	10	10	11	8	11	9	7	9	10	11	10	11	10	11	10	11	11	11	11	11	11	11	11		
	South	5	8	-	-	-	-	10	10	10	6	10	7	5	-	9	10	10	11	10	10	11	11	11	11	11	11	11	11	10		

Operator Code:

- CL - Clark
- CP - Carter
- CU - Curts
- DT - Dittrick
- HO - Hood
- MP - Milsap
- SH - Sharp
- ST - Stinnett
- SW - Swem

\* Includes a Swainson's Hawk

TABLE 1A. Daily Banding Total

October		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	October Total
Sharp-shinned Hawk		14	13	21	9	25	15	2	1	5	20	23	6	5	11	23	21	28	18	9	22	22	11	7	12	13	11	6	8		3	6	390
Cooper's Hawk				1	3	2	2		1			3	1	2	1		1	1		1	1	1	1	1		1				1		24	
Goshawk																										1						1	
Red-tailed Hawk											1						2	1						1								5	
Red-shouldered Hawk																									1	1						2	
Broad-winged Hawk						1																										1	
Harrier																1	1															2	
Peregrine					1						1													1								3	
Merlin		1	2	3	1	4		1	2	4	6					2							1			1				1		29	
Kestrel		7	1	3	6	19	5	1	3	7	2		4	2	28	4	2	4	10		6	2	1	2	6	4	11	7	3	1	2	153	
<b>Total</b>		22	16	28	20	51	22	4	7	16	29	27	11	9	43	28	24	35	28	11	29	25	14	11	20	19	23	13	11	0	5	9	610
Bander	North	CL	CL	CL	CL	CL	CL	DT	DT	SW	SW	DT	DT	DT	DT	CU	CU	CU	CU	CU	DT	CL	DT	DT	DT	DT	DT	DT	CL	HO	HO	HO	
	South	SH	SH	SH	SH	SH	SH	SW	SW	DT	DT	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	
Wind	Direction	NE	SE	W	W	NW	N	-	SE	NE	N	NE	SE	SW	NW	W	W	NW	W	N	SW	N	N	W	NE	NE	NW	NW	NE	SE	SW	NW	
	Velocity	12	15	8	5	15	7	0	7	5	5	10	5	7	18	5	12	10	7	5	9	15	5	5	10	15	5	9	10	20	12	10	
Hours	North	10	9	10	10	10	10	7	9	11	9	9	10	11	11	7	10	9	7	9	10	9	10	10	10	10	10	10	10	3	9	9	
	South	9	9	11	8	10	10	10	9	10	9	11	10	9	10	10	7	8	9	7	8	10	9	10	10	10	10	10	7	-	-	-	

Operator Code:

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TABLE 1B. Daily Banding Total

November		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	November Total	Overall Total	
Sharp-shinned Hawk		2	2	14	4	1	5	9	6	10	5	4	2	6	12	1	2	1	1	6	4						97	568
Cooper's Hawk										1										1							2	33
Goshawk				1			1	2	2	5	2	1		1					2	3	1		1				22	23
Red-tailed Hawk				5		3	5	3	3	18	12					1		3	2	2	9						66	72
Red-shouldered Hawk									3	1										1	2						7	9
Broad-winged Hawk																											0	4
Harrier				1			3			4	1				1		1	1									12	17
Peregrine																											0	6
Merlin																								1	1	94		
Kestrel				18	4	1	1	3	2	2	1	2	1	1		2	4	3				3					48	448
<b>Total</b>		2	2	33	14	2	12	18	13	22	33	21	4	7	14	4	7	8	5	13	19	0	1	0	1	255	1279*	
Bander	North	HO	HO	CL	ST	ST	ST	ST	ST	CL	SH	SH	SH	SH	SH	SH	SH	CL	CL	CL	CL	CL	CL	CL				
	South	-	CL	HO	CL	-	ST	ST	ST	CL	CL	CL	-	SW	SW	SW	SW	SW	SW	SW	SW	SW	DT	DT	DT			
Wind	Direction	W	SW	NW	NW	NW	NW	SW	W	NW	N	E	S	W	W	NW	NW	SW	NW	N	SE	NW	W	SE				
	Velocity	25	12	15	15	10	25	20	10	12	18	10	5	8	10	8	20	12	18	10	5	10	7	3	5			
Hours	North	9	9	10	9	3	9	9	9	9	9	7	8	7	9	9	7	10	9	7	7	6	7	6	4			
	South	-	9	10	6	-	8	9	9	7	9	8	-	7	8	7	7	9	7	7	7	5	4	6	4			

Operator Code:  
 CL - Clark                      MP - Milsap  
 CP - Carter                     SH - Sharp  
 CU - Curts                      ST - Stennitt  
 DT - Dittrick                  SW - Swem  
 HO - Hood

\* Includes a Swainson's Hawk

TABLE 1C. Daily Banding Total

SEPTEMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	September Total
Turkey Vulture		1					5		1			1		4		2		1	2	2						2	2	12	4	39
Sharp-shinned Hawk										1	2				5	1	13	39	112	33	65	28	137	91	330	405	652	226	2140	
Cooper's Hawk																				3		5	1	1	1	19	33	2	8	73
Goshawk																														0
Red-tailed Hawk							7	7	3		7			1	2	3	1	5	1	2	1	2	7	7	1	28	34	112	23	254
Red-shouldered Hawk																								14		1	8	87	6	116
Broad-winged Hawk		1	4				22	7	22	2	4			8		7	2	106	12	83	1	7	23	2	10	10	17	18	368	
Rough-legged Hawk																														0
Golden Eagle																														0
Bald Eagle																							1							1
Harrier		5	4	1			2	7	8	7	2	5		1	5		3	1	10	5	5	9	7	4	2	14	38	7	152	
Osprey		3	1			1	2	3	1	4	2		5	1	4	6	10	37	50	6	31	16	6	4	13	47	225	21	499	
Peregrine																1						4	8		1	5	9	8	36	
Merlin										1			3	22	9	8	15	15	8	11	12	57	49	23	22	35	19	309		
Kestrel		138	123	16	10		116	42	71	17	125	27	1	69	12	160	18	316	123	508	28	105	508	229	145	120	149	348	219	3743
<b>Total</b>		147	133	17	10	0	153	65	106	27	143	38	1	87	19	208	37	463	230	785	82	236	612	460	306	553	740	1537	533	7730

TABLE 2A. Total Raptors Sighted in September

OCTOBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	October Total
Turkey Vulture					12	2	5	2	7	11	40	1					5	52		16	113	59	1			4	2		7	339		
Sharp-shinned Hawk	254	176	166	163	278	162	78	58	152	416	640	136	92	242	216	275	236	147	85	127	197	90	53	95	201	181	72	92	11	14	40	5145
Cooper's Hawk	4		2	13	7	7	10	11		24	23	15	8	11	6	5	1	9	5	19	2	6	4		6	3	3	1	1	2	208	
Goshawk																									3						3	
Red-tailed Hawk	3		1	5		6	19	11	5	70	14	2	1		3		38		59		2	24	67	3	9	44	9	16		7	418	
Red-shouldered Hawk			1	1		3	4			4	1	4					2		5		1	3	3	4	3	3	5			8	55	
Broad-winged Hawk	3		8	7	1	14	20	3	2	36	99	1					22				8	7						57	5		293	
Rough-legged Hawk																															0	
Golden Eagle																													1		1	
Bald Eagle								1							1																2	
Harrier	9		3	7	11	8	6	6	2	16	4	4	4	10	3	27	12		2	4	3	5		1	9	13	21	13		1	4	208
Osprey	7	2	17	39	22	19	35	9	16	16	27	3	18	3	3	4	2	2		3	4	3	3	1			2	2	10		272	
Peregrine		1	9	11	5	6	9	6	7	1	1	1	3	2	1	1				1		2	2	7	2	1	1				80	
Merlin	6	4	15	6	14	1	14	16	15	40	12	1	6	8		2		1		6	3	5	2			2	2	4		1	186	
Kestrel	33	24	20	87	280	82	44	41	80	114	89	27	58	575	162	124	70	63	1	46	28	15	26	41	53	51	33	26		6	5	2304
Total	319	207	242	339	618	314	238	170	308	745	913	227	192	847	395	434	392	223	223	189	268	271	215	159	285	300	208	167	11	24	71	9514

TABLE 2B. Total Raptors Sighted in October

NOVEMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	November Total	TOTAL
Turkey Vulture			4	21		16	21			82	65	37					12			4	2				264	642
Sharp-shinned Hawk	22	70	184	85	15	85	72	65	107	84	37	9	45	88	48	23	70	37	101	44	4	2	7	5	1309	8594
Cooper's Hawk	1	1		2	1	4	13	7	8	9	1					1	1		2						51	332
Goshawk			1		1	21	7	7	15	13	1	1	2	2	1	2	9	8	5			1	1		98	101
Red-tailed Hawk	2	4	111		47	125	79	65	449	494	16	1		2		78	198	119	314			1			2105	2777
Red-shouldered Hawk			2		4		3	9	30	40	2						8	6	26						130	301
Broad-winged Hawk																									0	661
Rough-legged Hawk			2																						2	2
Golden Eagle			1	4																					5	6
Bald Eagle																									0	3
Harrier	5	1	13	6	1	93	58	15	48	31	2		4	9		1	35	4	73	9			7		415	775
Osprey		1	1																						2	773
Peregrine																									0	116
Merlin						1											1						1		3	498
Kestrel	4	12	50	12	3	23	21	15	16	14	3	5	9	3	4	12	16	6	7	6	2	2		1	246	6293
Total	32	87	259	244	20	273	332	191	260	714	655	70	60	102	56	39	214	262	316	408	5	6	14	8	4630	21874

TABLE 2C. Total Raptors Sighted in November

	<u>OCTOBER</u>													<u>NOVEMBER</u>			
	6	7	8	17	18	20	21	22	24	25	27	28	30	31	3	4	5
Barn Owl	1	1	2	4	3	4	9		4	3	4	1	1	1		4	
Great Horned Owl																	
Barred Owl		1															
Long-eared Owl						1	2	1			2						3
Short-eared Owl																	
Saw-whet Owl						1	2				3	1	1		1	4	6

	<u>NOVEMBER</u>														<u>TOTAL</u>		
	7	8	9	10	11	12	13	15	17	18	19	20	21	22		23	24
Barn Owl		1	1	1	2		1			2		4	1		1		56
Great Horned Owl								1									1
Barred Owl																	1
Long-eared Owl					3					4	4	4			1		25
Short-eared Owl		1	1						1								3
Saw-whet Owl	3	11			9	5	1		1	10	4	8		1	1	1	74

TOTAL 160TABLE 4. Owls Banded

	<u>NORTH</u>					<u>SOUTH</u>				<u>BOTH</u>				<u>Total</u>	
	Mist Net	Dho-Gaza	Bow Net	Ver-bail	Bal-chatri	Mist Net	Dho-Gaza	Bow Net	Ver-bail	Mist Net	Dho-Gaza	Bow Net	Ver-bail		Bal-chatri
Sharp-shinned Hawk	134	68	86		1	84	133	62		218	201	148		1	568
Cooper's Hawk	3	4	7		1	4	5	9		7	9	16		1	33
Goshawk	1		10			1	4	7		2	4	17			23
Red-tailed Hawk	3	1	36			4	3	25		7	4	61			72
Red-shouldered Hawk			3			2	1	3		2	1	6			9
Broad-winged Hawk	1		2				1			1	1	2			4
Harrier			4			4		9		4		13			17
Peregrine	2		2			1		1		3		3			6
Merlin	17	14	20			8	31	3	1	25	45	23	1		94
Kestrel	51	42	199	12		17	53	69	5	68	95	268	17		448
<b>Total</b>	<b>213*</b>	<b>129</b>	<b>369</b>	<b>12</b>	<b>2</b>	<b>125</b>	<b>231</b>	<b>188</b>	<b>6</b>	<b>338*</b>	<b>360</b>	<b>557</b>	<b>18</b>	<b>2</b>	<b>1275*</b>
	<b>Total</b>		<b>725</b>			<b>Total</b>		<b>550</b>							
	<b>Avg. per Day</b>		<b>8.7</b>			<b>Avg. per Day</b>		<b>7.5</b>							<b>Avg. per Day 8.2</b>

\* includes 1 Swainson's Hawk

TABLE 3. Hawks Caught By Station and Type of Trap

SPRING 1974



TOP: A bunch of Goshawks  
 BOTTOM: Saw-whet Owl that stayed all day on the shelf in Blind  
 (Photos by William S. Clark)

EBBA NEWS

	HATCHING YEAR				AFTER HATCHING YEAR				UNKNOWN		ALL AGES			
	M	F	U	All	M	F	U	All	M	F	M	F	U	All
Sharp-shinned Hawk	236	307		543	12	13		25			248	320		568
Cooper's Hawk	22	9		31		2		2			22	11		33
Goshawk	8	4		12	7	4		11			15	8		23
Red-tailed Hawk			70	70			2	2					72	72
Red-shouldered Hawk			9	9									9	9
Broad-winged Hawk			4	4									4	4
Harrier	11	3		14	2	1		3			13	4		17
Peregrine	2	4		6							2	4		6
Merlin	39	50		89	4	1		5			43	51		94
Kestrel	197	222		419	15	11		26	1	2	213	235		448
Total	515	599	83	1197	40	32	2	74	1	2	556	633	85	1274

TABLE 5. Hawks Caught By Age and Sex



TOP: BARN OWL

MIDDLE: Cooper's Hawk (HY-M) and a Sharp-shinned Hawk (HY-F)

(photos by William S. Clark)

## WHY ARE BIRDS' LEGS AS LONG AS THEY ARE?

By Stephen Fretwell, William Pursley, Grover Icenogle  
and Robert Tueling

In the process of banding birds, several measurements can be easily taken. Among these are generally included wing, tail, bill and tarsus lengths, along with notes on behavior, plumage, weight and fat. But the reasons for such measurements are sometimes not understood. In a previous paper on wing length, we argued that we can determine much of a bird's ecology by learning to understand the meanings of variations of such measurements. We began to pursue this possibility by studying variation in wing length between species of differing size, (Fretwell *et al.*, 1973). We are continuing this analysis by studying the length of birds' legs.

It is easy to understand that birds that feed by wading through water would require longer legs than those feeding on the ground. Also, we can expect differences between birds which use their legs in catching prey in comparison with those which scratch for seeds on the ground or those which feed in trees. However, by looking at a slight difference in tarsus length we might also be able to detect fine differences in feeding behavior between species. For example, we might be able to learn where different sparrows perch. While most sparrows perch in weeds, presumably some perch higher than others or some perch in larger trees, smaller trees, or bushes. We can learn to understand such differences and to interpret it correctly by using information from leg length data, thus the collection and analysis of such data is important.

Leg length is most frequently determined by measuring the tarsus length. In this paper, we undertake an investigation of the variations in leg length. We will begin the process by first relating size (weight) to leg length. We will treat tarsus measurements as we previously treated wing measurements and will try to quantify or to be precise about the common sense idea that bigger birds will have longer legs. The question now is how much longer are the legs of bigger birds? How does a gram increase in average species body weight increase the average species leg length? In a later paper we will try to understand the variation away from this average increase, to determine the ecological adaptations of different species.

We need this analysis of tarsus length so that we can test our ideas about wing length. Obviously, many features of the ecology of a species that affect the evolution of wing length will also affect