

6

The Chipping Sparrow

1931?

Lillian Serbousek

year?

## The Nest of a Chipping Sparrow

The chipping sparrow's nest I observed was located near the ball diamond about forty yards south of the road. The nest was placed on a nearly horizontal branch of a red maple (*Acer rubrum*) about six feet high. The diameter of the branch was one-half inch and the nest was about eighteen inches from its tip. The leaves concealed the nest very well. In it were three bluish-green eggs with dark brown or blackish spots and some lines concentrated at the larger end. The eggs measured  $1\frac{3}{4}$  centimeters by  $1\frac{1}{2}$  centimeters. The nest measurements were:

Outside diameter - 7 centimeters  
Inside diameter -  $4\frac{1}{2}$  centimeters  
Outside depth - 5 centimeters  
Inside depth - 3 centimeters

It was cup-shaped, made of grasses and rootlets, lined with horsehair, and not very compactly made. <sup>g</sup> string was hanging from the bottom.

On June 28, the first day that I observed the nest, there were three. The next day I discovered one egg was gone. I could find no trace of the missing egg and assumed that some enemy had taken it although the position of the nest on the small branch wasn't very favorable for that.

### Incubation

During incubation I made observations sometimes from behind a bush and at other times on the ground among the *Pteris aquilina*. Even though the bird could partly see me at the latter place, she seemed to pay no attention to me nor was she disturbed by my presence.

The female did all the incubating. While sitting on the eggs she always faced southwest except once when she faced northeast, and another time directly west. This was probably due to the fact that the only cleared space was from the southwest. Trees and shrubs surrounded the nest from all the other directions. When leaving the nest the bird

flew to the north and east making a soft chipping sound as she left.

The male came near the nest occasionally. He took no part in the incubation but did feed the female several times, usually a short distance from the nest. He sang but not frequently.

When in search of food herself the female often stayed near the nest pecking at branches and leaves for insects, or searching on the ground. Other times she went farther away. Seldom did the birds, especially the female, enjoy a little play. The average length of time that she was off the nest was twelve or thirteen minutes, twenty-five being the longest. At no time did I find the eggs cold.

Several times I noticed that she was working her bill around the inside of the nest, thus turning or changing the position of the eggs.

#### Hatching

One nestling hatched on July 3 and the other the next day. I found no traces of egg shells after either hatching. I presumed that the adults, most likely the female, had carried them off or had eaten them. At this time a blind was set up. It was placed several feet above the nest and in such a position that I could see into the nest from above very well.

The young birds were naked except for dark gray or blackish down on the feather tracts on the dorsal surface. The longest down appeared to be about three-fourths inch. The eyes were closed and the mouth was wide and edged with yellow. The bill and feet were flesh colored. The nestlings seemed to be almost motionless and when they did move they were weak and awkward.

At this time the female became nervous and suspicious. As she brooded the young she was always alert and turned her eyes toward the source

of danger. Several times she would bend her head and look up at the blind. Because the opening in the blind was quite large I put a sumac branch through it to avoid any suspicion that might be aroused.

### Feeding and Growth

Both male and female fed the young. Sometimes the male would bring the food and give it to the female who would feed them and at other times he would feed them himself.

During the first few days the nestlings weren't fed as often as they later were. The average number of times that food was brought was four or five times per hour. The food consisted of four species of caterpillars: the small green species that looked like the larvae of cabbage butterflies, a large green kind, a rather large white caterpillar, and also a large yellowish one.

Often a caterpillar was brought that appeared too big for the nestling to swallow and required considerable help in getting it down the throat. On one occasion the female took the insect out of the baby's mouth and put it back three times before it was finally consumed.

As the birds grew older they required more food and were fed more often. The average feeding rate was nine to ten times an hour now. As a rule the two birds were fed alternately but there were times when the largest bird (the one that hatched first) got more food. During the first two days of their life, the nestlings gaped for food only when the parents brought it, keeping their heads down the rest of the time. Later even a slight disturbance would cause them to open their mouths in search of food.

When approaching the nest with food the adults usually came from the north and east (where the trees and shrubs were), and flew directly to the nest. While the eggs were still in the nest they flew flittingly from branch to branch nearer to the nest.

On very warm days the female hovered over the young with wings up and outstretched or perched on the edge of the nest watching over them. On cloudy, cold, and windy days she brooded them for longer periods and fed them less frequently.

Both adults did their share in keeping the nest clean. During the first four days they ate the excreta; after that they carried it away. It seemed that next to providing food, the cleanliness of the nest was the most important item in raising their young. The nest was cleaned every time the birds were fed and between times too.

#### Interesting Facts in the Growth

July 6 (<sup>3</sup>4th day)

The female repaired the bottom of the nest which seemed to be weak on one side. The pin feathers began to come through the sheaths. The eyes were only slightly opened. The bird squirmed around in the weighing pan.

July 7 (<sup>4</sup>5th day)

The feathers show<sup>ed</sup> very well all over the feather tracts and head. The tail feathers started and the natal down was fast disappearing. The eyes were opened all the time.

July 8 and 9 (<sup>5</sup>6th and <sup>6</sup>7th days)

The feathers were noticeably longer. The coverts, secondaries, tertials, and neck feathers had broken through their sheaths, as well as the light feathers on the under side of the body. The brown color in the feathers on the back became evident.

July 10 (<sup>7</sup>8th day)

I heard the young chip for the first time. The feathers all over the body had grown considerably. The bird got out of the weighing pan and almost ran off the table. The whitish breast showed faint brown streaks and the back feathers began to look sparrow-like. The female

flew at me and then flew a short distance away pretending lameness and chirping loudly.

July 11(9<sup>th</sup> day)

This day seemed to mark the transition from the nestling to the juvenile bird. The bird flew to the ground and peeped when I was getting it for measuring. The feathers covered all the bare spots. The streaks on the breast were plainly visible and the back looked typically sparrow-like.

July 12(9<sup>th</sup> day)

The birds were in the nest early in the morning but were gone at seven-thirty. I heard the parents chipping and tried to locate the young hoping to put them back in the nest but was unable to find them.

#### Summary

The following facts I learned from my observations:

- 1-- Although the male and female are so similar in appearance they may be distinguished by their behavior and actions at the nest.
- 2-- The female does the incubating and the male assists in feeding the female and the young.
- 3-- Both help to keep the nest clean.
- 4-- The female sits in practically the same position while incubating the eggs.
- 5-- The male becomes more active when the young are in the nest.
- 6-- The male does practically no singing and the voices of both are softer after the young hatch.
- 7-- The brooding periods are longer during rainy, cloudy, and disagreeable weather.
- 8-- As the birds increased in age, the frequency of feeding increased.
- 9-- The birds were fed more frequently in the early morning.

10-- As soon as the young hatched the adults, especially the female, became more nervous and suspicious.

11--The adults guard the nest and eggs to the best of their ability.

12-- They have at least three types of calls or songs:

- a- The song that the male sings.
- b- The sharp quick call or chip of alarm.
- c- The soft subdued chip<sup>used</sup> around the nest.

# BIRD MEASUREMENTS.

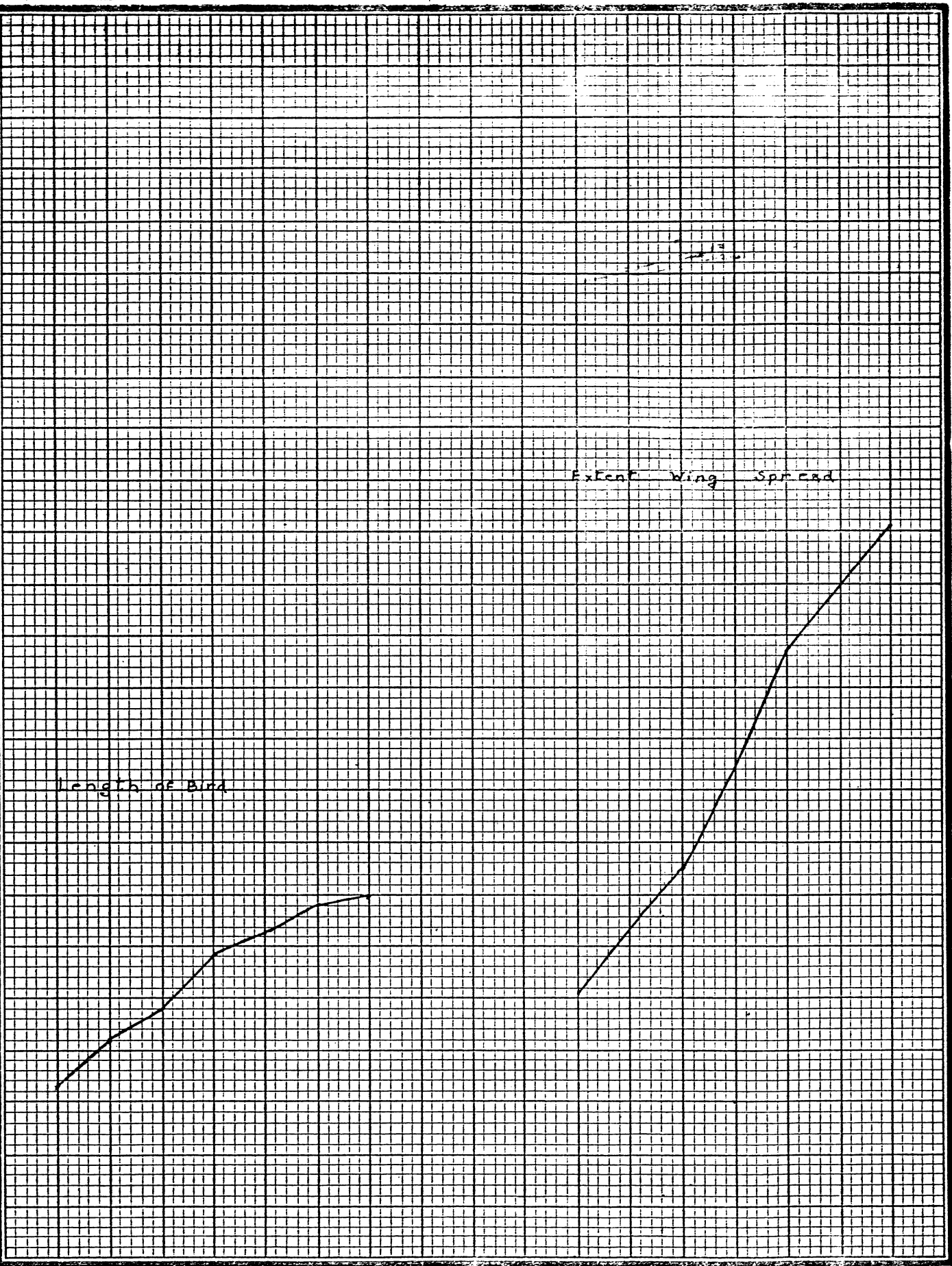
	July 5	July 6	July 7	July 8	July 9	July 10	July 11
Tail			2	5	6	8	9
Bill	5	6	6	6+	7	7+	8
Bill - Gape	9	10	10	11	11	11	
Bill - Nostral	2	3	3	4	4+	5	6
Eye Diameter	3	4	5	6	6	7	7
Wing - Right	20	23	30	45	58	65	80
Primary			15	17	19	28	30
Tarsus	9	11	14	15	16	18	19
Right Foot	1" toe	6	7	8	9	9	9
	2" toe	4½	6	7	8	8	8+
	3" toe	7	8	9	10	11	12
	4" toe	6	6+	7	8	9	9

All Measurements in Millimeters



Cent.  
metals

23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1



Length of Bird

Extent Wing Spread

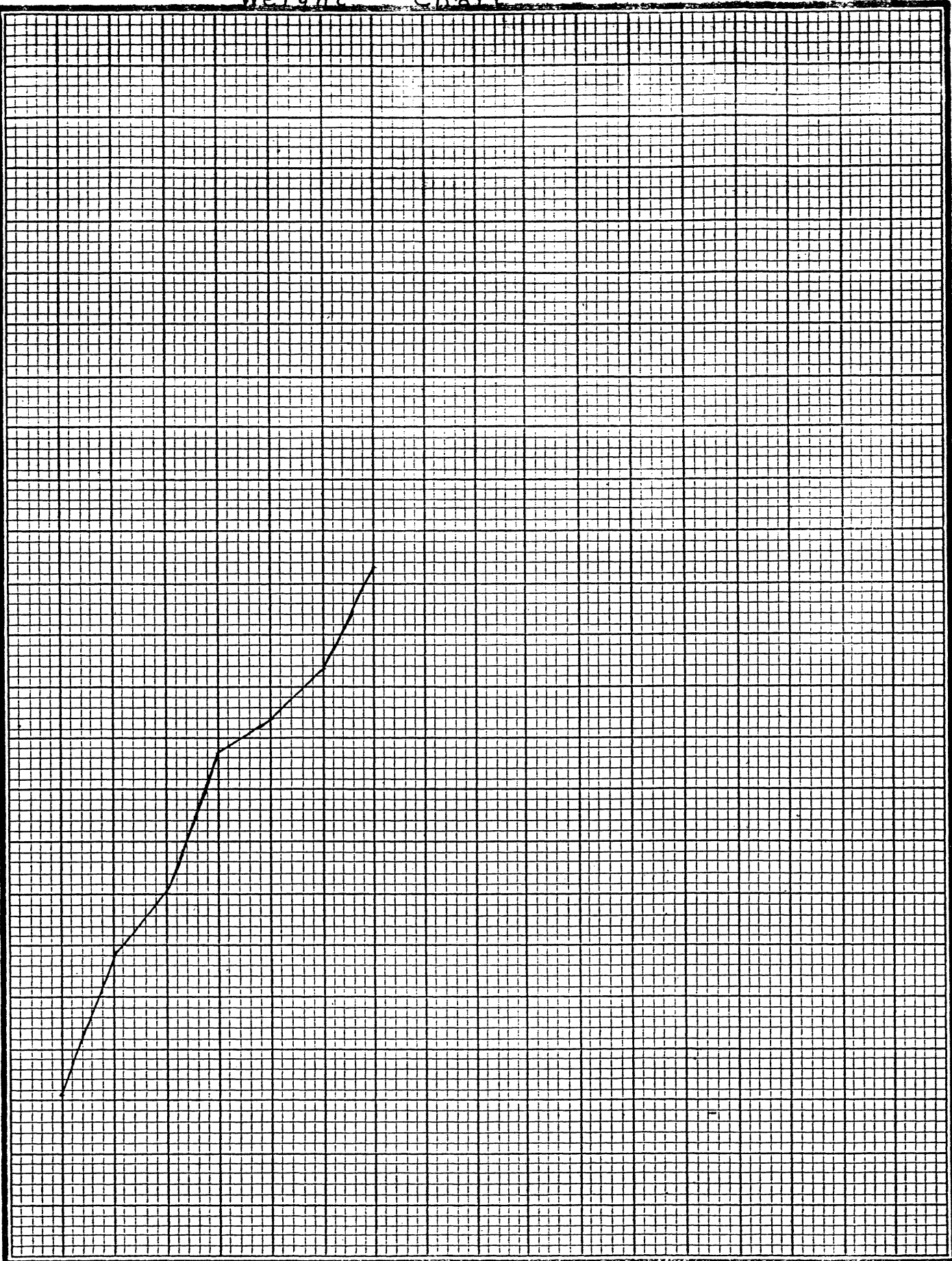
Days 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

*Long*

# Weight Chart

Grams

23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1



Days 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18