

A Nesting Study
of the
Hermit Thrush
(*Hylocichla guttata faxoni*)

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of the Hermit Thrush (*Hylocichla guttata faxoni*).

Discovery of the nest was made by Miss Ethel Finster on Saturday, July 15, 1933, and given to me for observation on Wednesday, July 19, 1933. It was found in a clearing in the woods bordering the bank of Douglas Lake perhaps 300 yards up the beach from the last cabin.

Location. The nest was situated on the ground in the midst of an abundance of blueberry and pearberry bushes, the latter being far more numerous. Four feet east of the nest a path ran thru the clearing in the woods while 15 feet to the west was the bank which dropped about 3 feet to the beach. Various perches were used by the birds approaching the nest and these will be enumerated. On the bank were located 2 low trees and 2 pine trees; north of the nest were 2 more pines and a stump, all about 25 feet from the nest and bordering the path. To the east was another pine about 15 feet away and a low stump near it.

Description. The nest was built in a cup-shaped depression in the ground and arched over by 2 blueberry bushes, all of which made a snug arrangement. The bulk of the nest consisted of rather coarse grass stems and grass leaves; the lining of fine grass stems and pine needles. The outside diameter was 5" by 4½", thus forming a slightly elongated axis facing south of west and to which the bird largely corresponded while brooding. The inside diameter was 2¾"--3", and the inside depth 2½" on the average. Within the nest were 4 greenish-blue eggs, the measurements of which will be found on the appended sheet.

Prehatching. On Thursday morning, the 20th, I put up a blind about 10 feet south of the nest and found that a box with the end knocked out had been placed over the nest because of a rain the

previous night. Prior to the hatching the nest was visited at least once each day and the bird flushed on each occasion when within 6--10 feet of the nest. On Saturday I removed the box from the nest, the bird not flushing until I began to lift the box.

Hatching. On Sunday morning at 11 A.M. all 4 eggs were in the nest and a red squirrel nearby whom I drove away. At two in the afternoon when I went to measure the eggs I found that one had hatched. No traces of egg shells were found. Late in the afternoon I again visited the nest, but no more eggs had hatched.

Monday evening after an all-day trip I found that 2 more eggs had hatched so the nest now contained 3 young and 1 egg. No traces of shells were found. The time of hatching for the other two birds is thus placed between sometime late Sunday and Monday evening. The last egg had not hatched by Thursday morning so I removed it from the nest. When opened no trace of an embryo was found within.

Approaching of the nest by the adults. In approaching the nest both birds were very cautious; first alighting on one of the perches above mentioned or landing in the path, then hopping cautiously toward the nest, making frequent stops and spending from 5 seconds to 2 minutes and sometimes more in watching for signs of danger before proceeding to the nest's edge. At times, however, it seemed as tho the birds approached the nest directly, but these were times when it had fed the young but a few minutes previously. I am inclined to believe that in these cases the birds first landed somewhere in the pines to my right which were not readily visible. No singing was heard in the vicinity of the nest and a low, liquid "chuck", sometimes used in approaching, was not uttered within a distance of 40 feet. Extreme caution was manifested in every action of the adults.

Feeding. Feeding of the young was performed by both parents and each visit was largely a repetition of the preceding one. It took place after a wary approach, the parent bird remaining on the edge of the nest until the young tilted back their wide-open mouths, an act which they were never slow in doing. In fact the slightest disturbance was invariably sufficient to cause this response. The adult would then place the food in the mouth of the young, feeding each one in turn. As a good illustration the bird, on one visit, fed the young in this order: 1, 2, 3, 1, 3. (I use the indefinite terms 'bird' and 'adult' because of an inability to distinguish the sexes). Another good instance of this rule of alternation was shown by 2 successive feedings with 2 minutes of each other. Two young were fed on the first trip and on the second the first to be fed was the one not fed beforehand. Of the first time, the adult gave it to one, removed it to give to the other and then gave it back again to the first. It seemed as tho she were having a hard time in remembering whose turn it really was.

Food. The food consisted largely of green caterpillars, along with other caterpillars, grasshoppers, crickets, and other insects among which was one time a moth. One feeding included such an item as blueberries.

Frequency of feedings. On the average, including one period of about 2 hours when berry pickers were nearby and the young were not fed, feedings occurred once every 13 minutes. This average was assisted by the feedings on Saturday, when the young were 6 days old. On this, the last day I observed the nest, the average was once every 8 minutes.

Normally intervals between feedings did not exceed 20 minutes

and often only 2 or 3 minutes elapsed. On a few occasions both birds would arrive almost simultaneously. One time when this happened the second bird hovered with rapidly beating wings over a blueberry bush while the other was feeding the young, not proceeding to the nest until this operation was over.

On the morning of the 28th when there was such a long interval between feedings, I arrived in the midst of one so withdrew until it was over. In 15 minutes the low "chuck" was heard, but neither bird appeared. Ten minutes later the same note sounded, but again there was no visit of the nest. This was probably due to the presence of two berry pickers not far away and perhaps to the flapping of the blind in the wind.

After an hour and a quarter an adult landed in the path, approached warily to within several feet of the nest, crouched as a crow flew low along the beach, then flew to a small tree on the bank from whence it left. It had no food and seemed only to wish to be assured of the nest's safety.

Five minutes later a bird landed in the path, flew to a pine north of the nest, remaining a minute or so lifting its tail up and down, before leaving. Shortly thereafter I heard a red squirrel outside and left to drive it away. This may have helped to keep the bird away.

Twenty-five minutes later a bird appeared on the stump north of the nest, flew to the tree before approaching, and then hopped along the ground to the nest requiring nearly 2 minutes to do so. There the young were fed and the bird settled on the nest to brood the young for half an hour, at the end of which time I had to leave.

Sanitation. Usually the actual feeding of the young required less than half a minute. After feeding it was customary for

the adult bird to search for fecal matter in the bottom of the nest and then swallow it. Often right after feeding the fed one or ones would wriggle around so as to uplift the anus and extrude a fecal sac. This was promptly seized by the adult and either carried off or swallowed, the latter being far more the usual procedure. On a few feedings the bird would leave without this usual removal of excreta. Usually, however, it remained on the nest's edge for 15 seconds to 2 or 3 minutes in an alert attitude before flying away. Twice it hopped just off the nest and fed on half a dozen or so blueberries; on the second occurrence of this it remaining within 6 feet of the nest watching intently for 3 or 4 minutes. This feeding of the adult came after a 2 minute visit of the nest, making in all a total of 5 to 6 minutes, the longest visit recorded.

Method of feeding and directions of approach. At first it seemed to me that feeding was accomplished both by direct transfer of the food and by regurgitation. This latter was most probably mistaken for placing of insects too small for me to see in the mouths of the young.

If the birds had any definite routes in visiting the nest I was not able to see them from my position. They arrived from and left by every direction except from the beach. The south and south and southeast seemed to be used a bit more than the others.

Brooding. Brooding of the young may possibly have been done by both sexes, but on that point I am not positive. On the very first visit one bird relieved the other which was on the nest and not long afterward it seemed to me that I could detect the male's song, indicating that it was he who had been relieved.

On Wednesday brooding occurred in morning and afternoon. Thursday morning it seemed as tho the adult were going to brood, but upon hearing an alarm note of a bird on the beach, left at once. In the afternoon brooding was again attempted, but the bird met with much wriggling on the part of the young. It left upon hearing some Gulls screaming over the lake. Friday brooding began at 11:15 A.M. and the adult was still there when I left half an hour later. On thursday as well as the following the young remained with their heads resting on the rim of the nest. On Saturday about 11:30 brooding was once more tried, but given up as the young wererestless.

In brooding the bird faced thru southwest to southeast and seemed to be straddling the nest by placing its feet low down on the walls. Frequently it would search for fecal matter and at other times would remain with bill agape for several minutes at a time. All days at the nest were warm, usually quite windy and for the most part clear, but as the nest was well sheltered heat may have been the cause for this action. At first I was inclined to believe it was due to acidity of the fecal matter, but seeing other birds do likewise on hot days changed my view.

Development of the young. The bird hatched on Sunday was very active when measured at 2 that afternoon, continually opening its mouth for food. There was down present on the head, wings at body, and on back, and was perhaps half an inch in length one the average. Lines of the feather tracts were visible on the wings, back and head. The eyes were closed.

On Monday development was much at the same stage, the birds having developed chiefly in size. Tuesday the feather tracts were more pronounced. Down was still present. The eyes were still closed and the birds active.

Wednesday the feather tracts were more pronounced, development being more noticeable on the wings. Down was present and the eyes closed. The young were active, continually opening their mouths for food.

On Thursday the feather tracts were well developed. Down was still present. The birds were active, the eyes opened somewhat, and a faint creeeping sound was made by all. On this date, when 4 days old, the primaries made their appearance.

Development continued thru Friday to Saturday when the tracts were very well developed. The primaries were increasing rapidly and the beginnings of a tail could be seen in all. The eyes were opened at times and activity was very great, accompanied by much creeeping.

On Sunday evening development had advanced further so that a soft brown, black, and white speckled down was present on the upper breast. Natal down was still present, but was noticeably disappearing. The eyes were open and the young were very active, creeeping continually. That was the last record of the young as the next evening they had disappeared, the victims of some predacious animal.

Destruction of the young. On Sunday evening, after being away from camp all day, I visited the nest to measure and weigh the young. There was a red squirrel in a trap which I had set about 5 yards from the nest.

Monday evening after again being in the field all day I visited the nest. Arriving near the nest I could hear plaintive notes from both birds who were not far from the nest. The cause for this was apparent when I discovered no trace of the young. Only a few feathers from the breast of the adult or adults could

be found in and about the nest as material evidence of another tragedy in bird life. The marauder responsible for this destruction may possibly have been a red squirrel despite such precautions as approaching the nest on a canvas spread on the ground. They were plentiful in the vicinity and frequently I waged war against them, but evidently to no avail.

The young were then 8 days old and would have left voluntarily in a few more days. The next night I went to the nest again and heard the male singing not far away. Whether or not it was something in the nature of a funeral dirge I don't know, but it might as well have been for I neither saw nor heard anything more of that family of Hermit Thrushes.

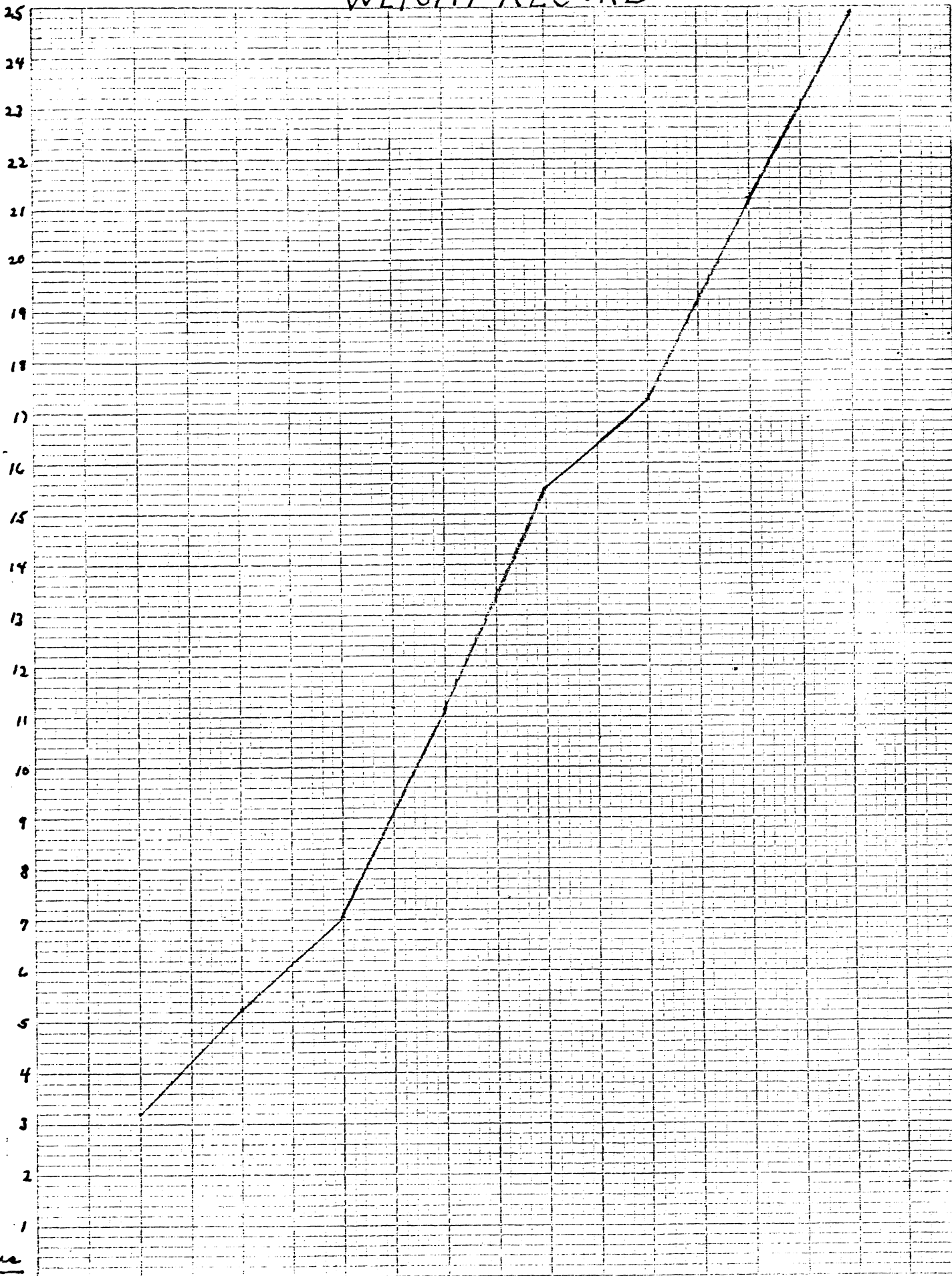
EGG MEASUREMENTS.

EGG	LONG AXIS	DIAMETER	WT IN GRAMS
1	25.0mm	17.8mm	3.45
2	24.5mm	18.0mm	3.7
3	—	—	3
4	23.8mm	17.8mm	3.6

Bud eggs

Hatched

WEIGHT RECORD



Grass

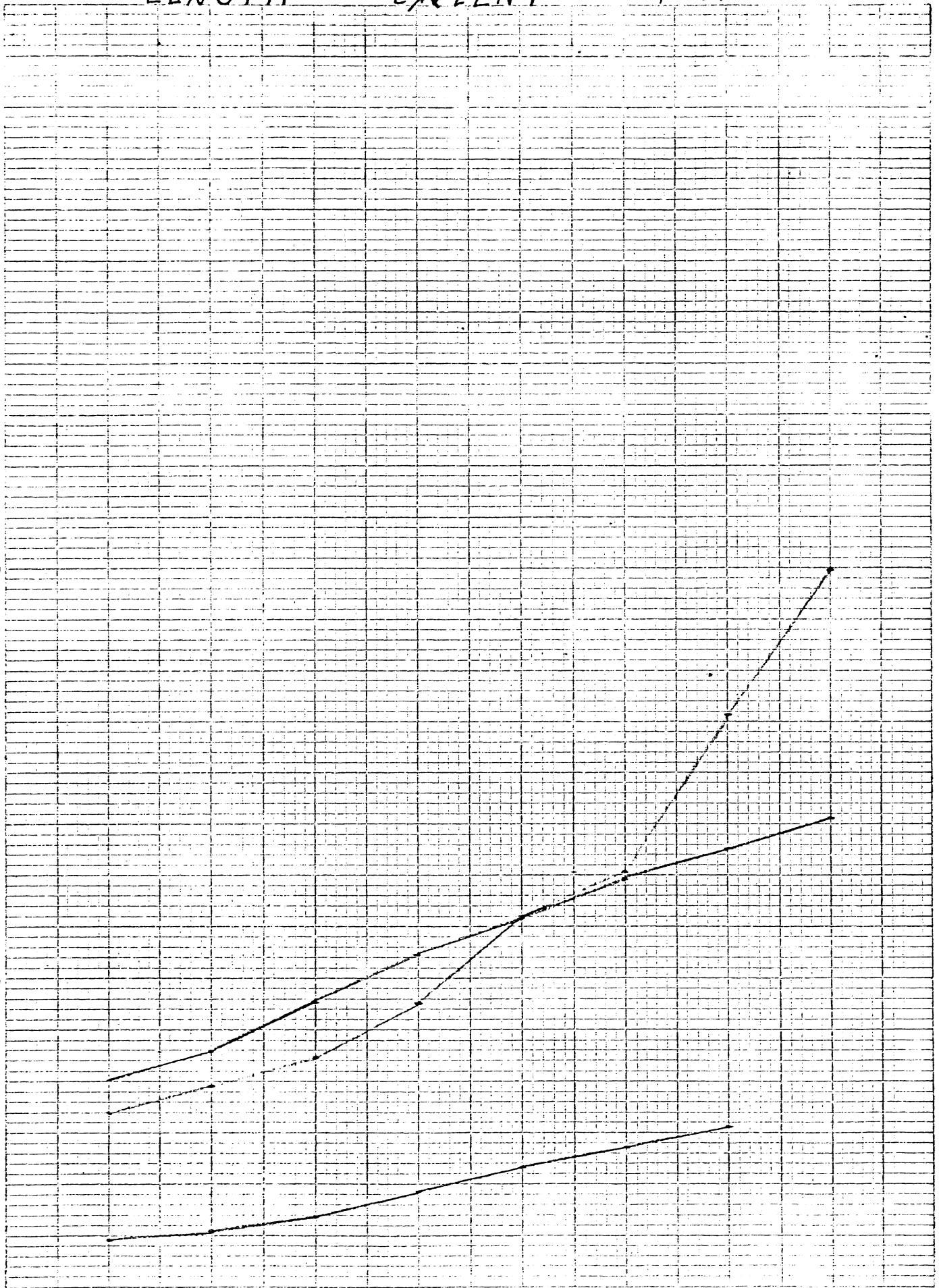
Day July 23 S=2:00PM M=8:00PM T_u=8:00PM W=8:00PM T_n=8:00PM F=4:45AM S=3:45PM S=8:30PM.
 24 25 26 27 28 G.D. WAHR 29 30

First day: 24 of only one bird.
 25 of 2 birds with all three.

GRAFT II

LENGTH = ——— EXTENT = ——— FOOT = ———

140
130
120
110
100
90
80
70
60
50
40
30
20
10

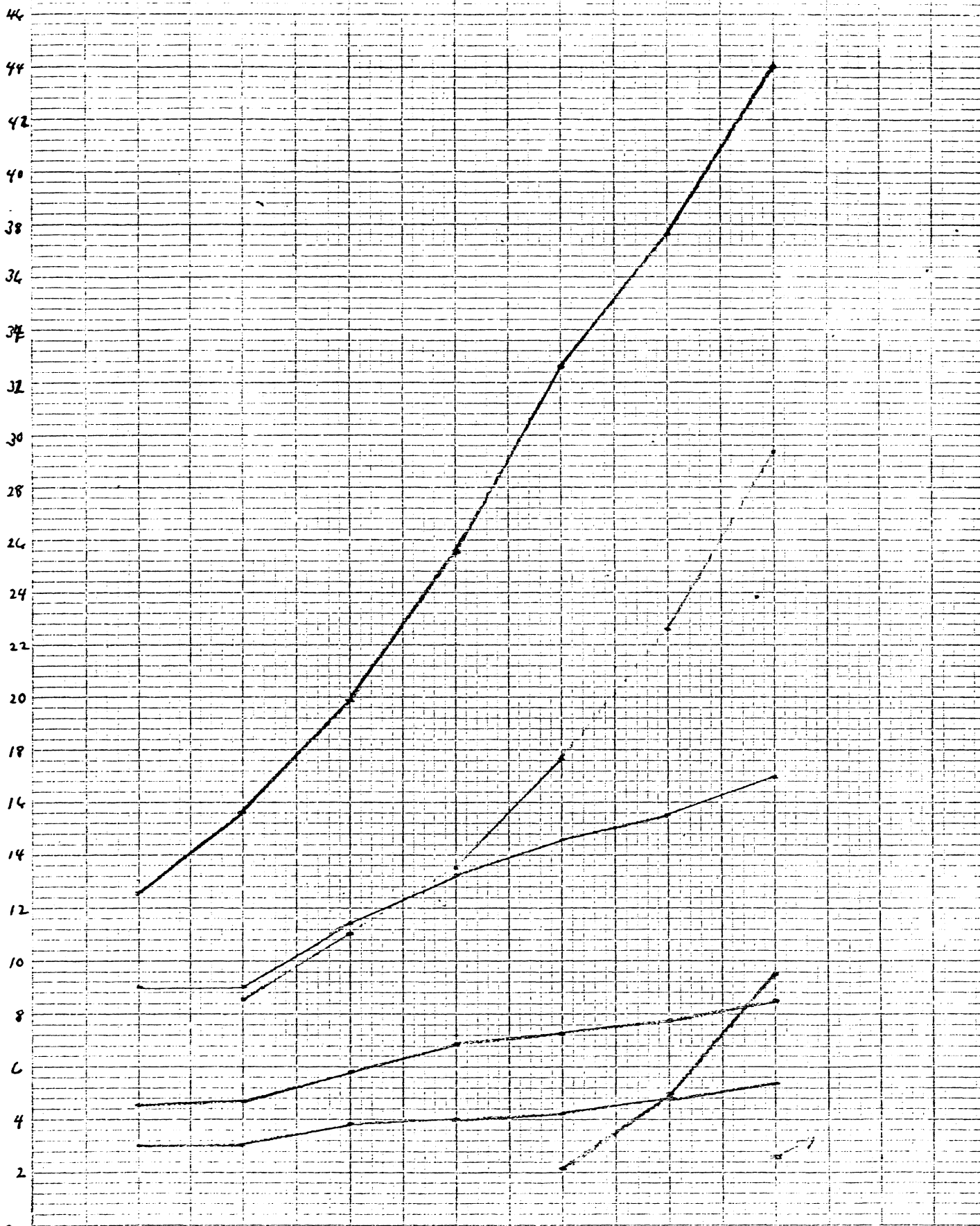


Millimeters

Day July 23 S=2:00P.M. M=8:00P.M. Tu=8:00P.M. W=8:00P.M. Th=8:00P.M. F=4:45P.M. S=3:45P.M. S=8:30P.M.
 24 25 26 27 28 29 30
 Friday: ~~if only one bird~~
 All other birds are dead.

BILL = — BILL-GAPE = — BILL-NOSTRIL = — ~~700~~

PRIMARY = — TAIL = — TARSUS-TOE = — RT. WING = —



millimeters

Day July 23 24 25 26 27 28 29 30
 S=2:00PM M=8:00PM Tu=8:00PM W=8:00PM Th=8:01PM F=4:45PM S=3:45PM S=8:30PM
 DR. WALTER FORDSHAM, ANN ARBOR, MICH.

First day: Measurements of one bird, the first
 All others: Measurements of all others.