Proceedings of the Iowa Academy of Science

Volume 29 | Annual Issue Article 45

1922

Observation on the Habits of a Tarantula in Captivity

Albert Hartzell
Iowa State College

OBSERVATIONS ON THE HABITS OF A TARANTULA[1] IN CAPTIVITY

ALBERT HARTZELL

On July 17, 1920, Mr. Robert Clark of Gilbert, Iowa, presented the writer with a live female tarantula which he found in a bunch of bananas in his grocery store. He believed that the specimen must have been in hiding for several weeks prior to its capture as it was not observed until the last bananas were removed. A battery jar, with sand in the bottom, in the writer's home, served as a cage for the fifteen months the creature remained in captivity.

As the tarantula refused to feed on dead insects the task of finding suitable live food became quite a problem during certain seasons when insects were scarce. Flies and grasshoppers were first introduced and disappeared in a short time owing to the starved condition of the predator. Usually the tarantula would wait until the attendant had left the vicinity of the cage before pouncing upon its victim but when driven by hunger it would boldly seize it. In one instance a large Schistocerca grasshopper was eaten completely within four minutes after it was introduced. The tarantula inserted its chelicera between the thorax and abdomen while the legs were used to prevent the grasshopper from getting away. At another time a luna moth was introduced and eaten in a few minutes. Earthworms proved so distasteful to the individual that it forced the cover from the top of its cage and made its escape. After a diligent search the creature was found crawling between the writing desk and the wall and with very little coaxing was induced to return to its cage.

In this connection the writer wishes to state that the tarantula never attempted to jump at or bite its attendants. Care was taken in handling so as to move deliberately, as nervous, hesitating motions caused it to become excited and irritable. No one was permitted to tease or annoy it.

Beginning with the first week of August, 1920, a careful study of its feeding habits was made. The notes were taken daily but are presented here in tabular form by weeks. Only insects ac-

1 Species not determined.

tually eaten are recorded. As shown in Tables I and II, crickets and grasshoppers constituted the main diet. This preference was noted early in the study and so far as possible they were supplied.

TABLE I. NUMBER OF INSECTS EATEN EACH WEEK BY TARANTULA, AMES, IOWA, 1920

Insects	August				September				October			
Crickets	7	7	6							1		
Grasshoppers	2	8	5						1	4		
Moths		1	2						1	1		
Caterpillars	2	2										
Beetles	2		2									
Flies	1	1										

On August 21, 1920, the tarantula refused to eat and became inactive at the bottom of the cage. Strands of silk forming a loosely constructed web were observed August 25. It remained in a dormant condition beneath the web until October 6, for a period of forty-six days, when it moulted. The moulting process was not observed but after the moult the specimen was much larger, more active and of a darker color. It continued to feed until the middle of October when it became inactive. During the winter the tarantula refused to eat and would move only when disturbed. The cage was kept in the house so that the temperature never reached freezing.

By the middle of March, 1921, the tarantula became active and continued feeding until May 22.

TABLE II. NUMBER OF INSECTS EATEN EACH WEEK BY TARANTULA, AMES, IOWA, 1921

Insects	May				June				July				August				September			
Crickets			5	1					2	9	6		4	6	6	8	4	5	2	3
Grasshoppers	1	1							3	2		4					2	2		3
Moths		3															2		2	
Caterpillars	1																			
Beetles																			1	1
Flies	2																			

It refused to eat for more than a month as indicated by the blank spaces in the above table. On June 3 it moulted the second time. The act of moulting was not observed. The cast skin, entangled with strands of silk, was left in perfect condition. The dorsal portion of the cephalothorax was removed in one piece and was still clinging to the claw of the right hind leg that had torn it

from its place to allow the body of the individual to leave the exuvia. After this moult the specimen measured 55 mm. from the distal end of the chelicera to the tip of the abdomen and 24 mm. at the widest portion of the cephalothorax. Feeding was resumed until September 27, when it became dormant.

On several occasions the tarantula was taken from its cage and given opportunity to move about in order to observe its movements. It would invariably seek a dark place as under a leaf or behind an object, which demonstrated that it was negative phototrophic.

The possibility of an escaped tarantula finding a suitable place to spend the winter in the latitude of Iowa is rather remote. An unexpected freeze during the second week of November, 1921, unfortunately caused the death of this individual.

DEPARTMENT OF ZOOLOGY AND ENTOMOLOGY,
IOWA STATE COLLEGE.