

Under the conditions of this experiment, the males steadily increased their fat content after about 5 days from attack to a three-fold level after 3 weeks. The females, needing more energy than the males for excavating and ovipositing, depleted their fat reserves by one-half during the first 5 days and then maintained this level during the next week, when they probably balanced the need for energy by feeding on fungus. Their fat content then rapidly increased, perhaps due to cessation of ovipositing, to a level slightly less than that of males at 3 weeks but equivalent to their own level at the end of hibernation. The time when feeding on fungus starts was not known and explanations for the changes in fat content are speculative.

Both sexes attain a high fat con-

tent by the time they leave the brood logs, enabling them to go through another attack and brood establishing phase or into hibernation. Previous data indicated that on a dry weight basis the females can reach a level of about 40% fat content compared with 30% for males.

The data from this and earlier studies give a general understanding of fat changes during the adult life of this beetle and provide a basis for comparison of fat values in beetles sampled in the natural environment. They also form a basis for a study of the qualitative aspects of fat metabolism in these insects.

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ERRATUM

In Vol. 65, page 4, column 2, paragraph 1, on the 10th line from the top of the page ": . . . 65c per animal per year." should read ". . . 6.5c per animal per year."