Mealworm (Tenebrio molitor) Diets Relative to the Energy Requirements of Small Mygalomorph Spiders (Paraphysa sp.)

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This article describes the basic prey requirements of Paraphysa sp., a small mygalomorph spider from the central Andes. Paraphysa sp. can be maintained in captivity using mealworms (Tenebrio molitor) as its primary food source. During a period of 66 days the prey requirements (larvae/day) were calculated for weight maintenance and compared with findings of previously reported resting and active metabolic rates. The spiders in this study ate at frequencies between 0.18 and 0.59 larvae/day, with an average of 0.43 ± 0.14 larvae/day. From the regression line between frequency of feeding (larvae/day) and weight gain, we determined that 0.31 larvae/day were needed for a weight gain of 0. Thus, for the spiders to increase their weight, they would need to eat more than 1 larva every 3 days. This frequency yields a caloric intake of 0.193 kcal/d, or equivalently, a carbon dioxide production of 0.189 mL CO_2/g·h. The findings in this report are greater than the resting metabolic rate at 35°C, an