

suspect that this variation has to do with the pairing of the sexes and that females do not commence to burrow until after they have become fertilized. The mature males, of course, die before winter sets in.

On September 16, 36 adult burrows of *L. missouriensis* were measured and were found to have attained an average depth of 3 feet 1 inch, the deepest being 5 feet 3 inches and the shallowest 1 foot 4 inches. The deeper burrows had not been further extended for some days, while the spiders were busily at work with the shallower ones. By October 1, many holes had been closed and a measurement of 9 of these indicated an average depth of 3 feet 9 inches. 17 holes still open, but showing no recent signs of digging, averaged 4 feet 1 inch in depth. 15 holes in which the spiders were still digging showed an average depth of 3 feet 7 inches. The deepest closed hole was 4 feet 5 inches, the deepest open one 4 feet 10 inches. Closed holes are thoroughly covered in with grass, leaves and sand fastened together with web in such a way as to make them practically water tight. It was observed that the earliest closed burrows were always in shady situations which would indicate that the shadow had induced an earlier closing than in the case of those exposed to the sun. Burrows in low, wet, lands are shallower than those on the higher lands. 33% of the spiders were still digging on the above mentioned date.

On October 5, about 22% of the adults had closed their holes though all the young were still digging.

On October 8, cold weather seemed to have induced a closing of nearly all burrows, only a few of the smaller ones remaining open. 20 adult holes on high land had an average depth of 5 feet 1 inch, the deepest being 5 feet 8 inches and the shallowest 4 feet 4 inches. Measurement of young spider burrows indicated an approximate depth similar to those of adults.

On November 5, a mature individual was dug out at 4 feet 7 inches. This burrow though perpendicular in direction, had numerous small curves, due to the spider having encountered obstacles in digging. For the first 3 feet this hole was rather densely lined with web but became less so towards the bottom. It had also been stopped with sand at several places, the sand being held in place by web. This spider was found, at the bottom of her burrow slightly sluggish but with sufficient energy to defend herself. A young example provided a similar burrow but slightly deeper. It was stopped at two places. The ground at this time had been frozen to a depth of four inches for some days but at the time of observation was thawed out. These two individuals were placed in the warm sun and became quite active; they refused, however, to dig a new burrow and had moved but little by the next day.

As *L. wrightii* was not found in such close vicinity it did not receive the careful attention given to *L. missouriensis*. Judging from