

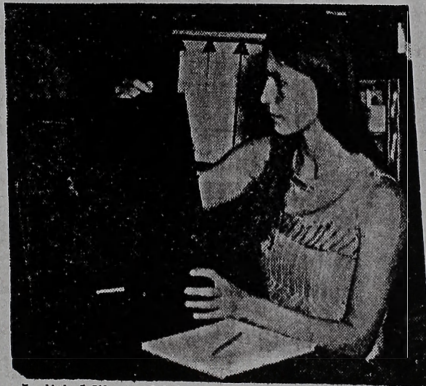
Can Spiders Spin Their Webs in Zero Gravity?



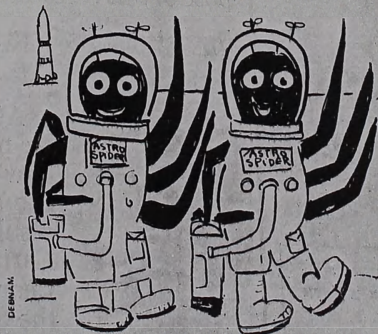
Mrs. Ruth Scarborough, research assistant, and Dr. Peter Witt, spider research specialist, feed a spider water in the Raleigh, North Carolina laboratory. The astronauts will use a similar method when they give spiders water in space. Dr. Witt has been the chief advisor to NASA's spider in space experiment. He will analyze the pictures when they are sent back from space.



The female cross spider is the kind to be sent into space.



Judith Miles, a high school student from Lexington, Mass. discusses the spider experiment she proposed in a NASA contest held last year.



The normal web of the cross spider (left). It will be fun to compare with the pictures sent from space.

Can spiders spin webs under weightless conditions? This is one of the many experiments to be conducted as part of the Skylab mission. Skylab is our country's first space station.

Experiments will be conducted to collect information about man, his planet Earth, and the Sun. Scientists will also experiment to see if spiders can spin webs in zero gravity.

The spiders will be sent to Skylab with the third astronaut crew. They will be carried in a small box. The trip to Skylab will take about seven hours. As soon as possible, the spiders will be put into separate cages already stored aboard. The crew will give the spiders water. The insects will get no food since carrying live flies into space would be a problem. Cameras will take pictures which will be relayed back to Earth.

The type of spider chosen for this mission is the female cross spider. This spider was picked because it weaves a web almost every day.

Why on earth send spiders into space?

According to Dr. Peter Witt, world famous spider research expert, no other living thing can express itself in such an easily predictable and measurable way as a spider when it weaves a web. After years of research, Dr. Witt knows exactly what kind of web the female cross spider, at a certain age, will weave. This spider is dependable because web building is its strongest instinct. It must build a web to trap food.

By knowing so much about spider behavior on earth, Dr. Witt can easily compare it with spider behavior in space examining the web pictures.

This experiment was suggested by Judith Miles, a high school student from Lexington, Mass. She was one of the winners in a contest sponsored by NASA which some 35,000 students suggested experiments. Nineteen student experiments will be carried out during Skylab mis-