

LINK TO MAN IS SEEN IN SPIDER'S BEHAVIOR

CHICAGO (Science Service)
—Scientists are studying the intricacies of the spider web to find out how humans weave their behavior patterns.

The orange and black garden spider expresses its disturbances with irregularities in its web that require a digital computer to help analyze. Its tiny brain is being put under the intense amplified light waves of the laser to probe its secrets.

Giving drugs to a spider can change the geometric pattern of its web, Dr. Charles F. Reed and Dr. Peter N. Witt of the State University of New York, Upstate Medical Center, Syracuse, reported here recently.

The threads of the spider web cross each other at 750 points in the "catching" area, so the value of the computer in manipulating the enormous number of figures is easily seen.

A biologist sets up special experiments to test his theories about the brain and body functions indicated by the figures.

For example, when a front leg of a spider was removed, the computer verified that the oval shape of the web was not changed, but central angles became highly irregular.

The laser helps produce minute lesions in the spider's brain, as a result of which distinct changes in web proportions can be detected.

Because of the measurable behavior pattern of web-building, the spider study could help in understanding human behavior and disturbances in diseases as well as drug effects and injuries.

The report was given at the annual meeting of the Federation of American Societies for Experimental Biology.