Into the spider's parlor

By RICK SLUDER
Staff Writer

The spider's parlor. A tempting place, for insects anyway. You remember: "Come into my parlor, said the spider to the fly."

Now North Carolina's own spiderman, Dr. Peter N. Witt, is getting a peek inside that famous parlor, too — at least that of certain sociable spiders normally found in Mexico.

Witt, you may recall, is the physician from the state Division of Mental Health who helped the government send spiders into space with the astronauts. He's the one who has been studying how spiders, spaced out on drugs, change their patterns of web-building.

Now he's taking the research in a new direction, eavesdropping on the lives of spiders that live together in human-like communities. In his lab at Dorothea Dix Hospital here, he hopes to see how the colony reacts when some of its members are drugged. He's also looking at how they group themselves when left alone.

Eventually, what he learns may be applied to humans, Witt said. He might, for instance, discover the best group and room sizes for mental patients or others with abnormal behavior.

But why spiders?

With so many cute and cuddly test animals around, you might think Witt would have chosen to work with, say, bunnies or guinea pigs. But, predictably for him, he went to the creatures that populate nearly everyone else's nightmares.

30-year study

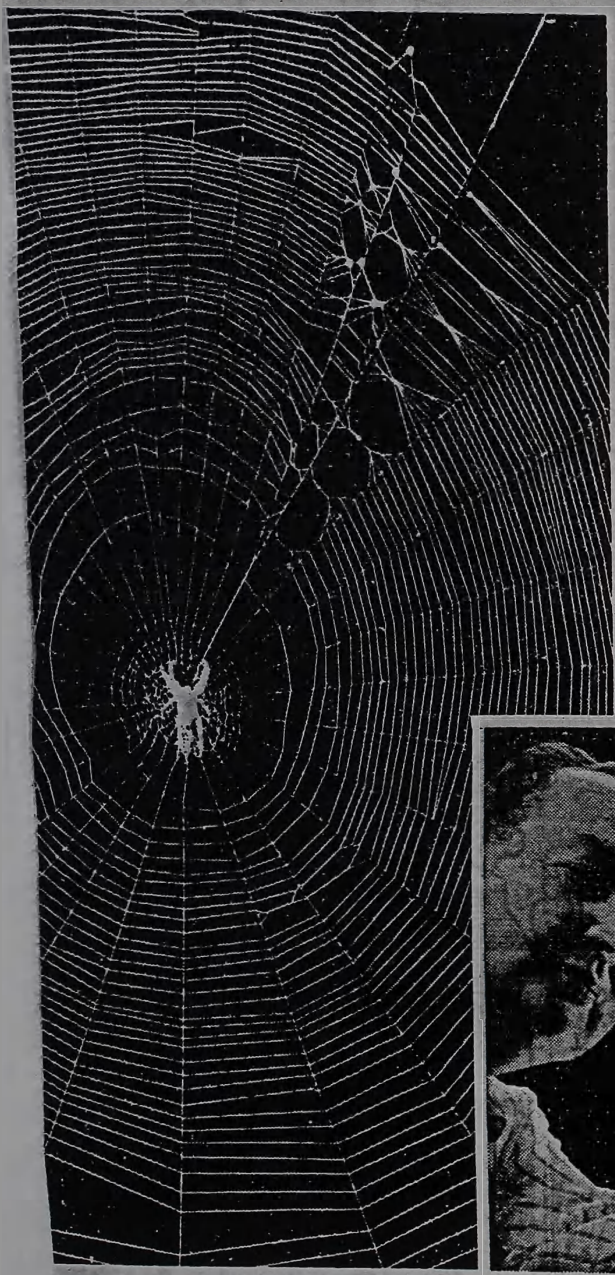
Spiders and research are synonomous for Witt, who began his studies in Europe and still speaks with a trace of a German accent. He has been studying the arachnids for 30 years. He actually finds them pleasant.

He's never been threatened or hurt by one. "If you know the animals and treat them nice, they cause no trouble at all," he explained.

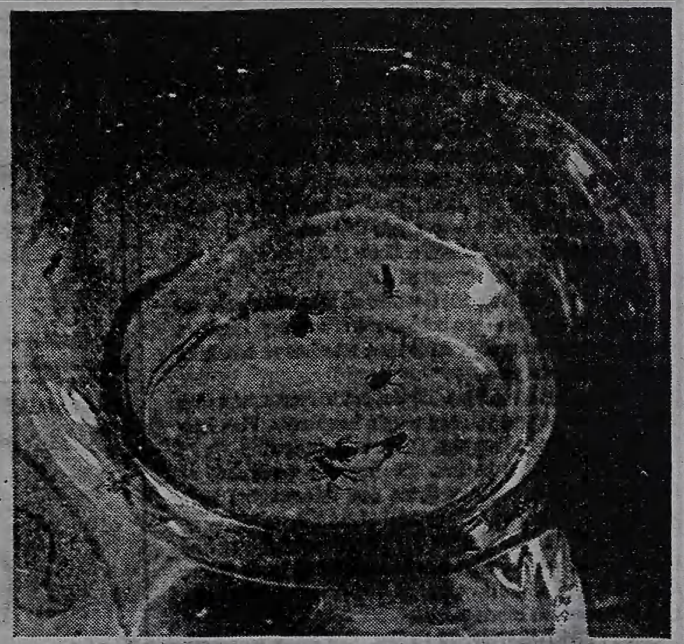
And their lifestyles are so convenient for scientific study, it almost seems they were created for the part. Witt is interested in behavior, and spiders, every 24 hours, obligingly leave a record of their behavior: their webs.

If it's abnormal behavior he wants, all he has to do is coax the spiders to ingest a tiny amount of a drug — which they do willingly — and he'll get all the peculiarities he can handle.

A spider doped with amphetamines, for example, "builds a small, irregular, rather messy web," Witt said. Barbiturates, LSD and THC, the active ingredient in marijuana, all change the spider's web in their own way.



Spider awaits drug-laden meal, which Witt administers at right



Staff photos by Gene Furr

Witt's next area of research: social spiders

Already strange

The creatures he has his eye on now, though, are somewhat abnormal in the spider world already.

"Very few species of spiders live in large communities," Witt said. "These share their food and even prepare food for their young ones."

They are so egalitarian, he said, that when food tainted with radioactive sugar water is given, an absolutely equal amount of radioactivity turns up in each spider.

He knows that, and can observe their other behavior, because he has tricked the spiders into thinking they've made a home in a hollow log or crevice. Actually, they're housed in several mushroom-shaped candy containers made of glass.

Before that their home was a wall of web-covered shelves and plants in Witt's lab where they were bred and where more are breeding today. He'll never run out of test subjects.

Nor will he likely run out of research ideas the spiders can help answer.

The spider's web has trapped another victim.