



Following the Bug Trail

By: Erich Sean-Paul Spivey

Most people cringe when maggots become the topic of conversation. Images of hundreds of them scurrying under a compost pile or digging through garbage cans usually come to mind.

But for University of Florida entomologist Jerry Butler, maggots are a passion. And he's using his knowledge of larvae-human interaction to help solve a recent murder case in Ocala.

"It's the underside of entomology," said Butler, who has worked at UF's Institute of Food and Agricultural Science since 1968. "You get 'the look' when people find out you're an entomologist."

Maggots and arthropods such as lice and ticks have been a part of Butler's life since his childhood on a farm in Wyoming. He said he decided to be an entomologist once he found out it could be a full-time profession.

Since the 1980s, Butler has been among the world's leading forensic entomologist, using maggots to determine how long a person has been dead. The legless, soft-bodied larvae often are found eating through human corpses and can help investigators track down suspects.

He said flies can invade a body within 10 minutes of a human death, and the eggs hatch in less than a day. The credibility of time-dating maggot infestation last up to two weeks.

Butler's maggot research has been used on more than 40 murder cases, including a current case in Ocala. Butler couldn't comment about the current investigation but did recall some previous cases when maggot research helped investigators build cases against murder defendants.

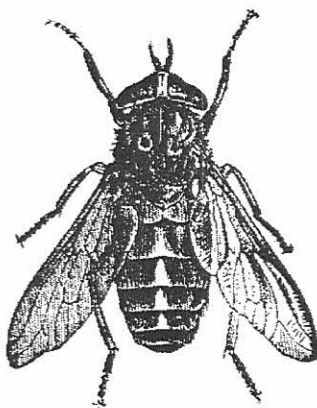
His first case was a triple-murder in Gainesville in the 1970s. He used forensic skills to determine that the victims all died in the same place at the same time, conflicting with the defense's claim that the murders were un-

related.

The bodies of the three murder victims were found in separate places, and the maggots were in different stages of development. But the varying larvae size was caused by different temperatures, not time.

Even though the defendants were not convicted, Butler said his evidence was solid.

"We feel safe with our projections and back them up with our experiments," Butler said. "What it leads to after that is the investigator's prerogative."



In 1993, Butler was called to Marion County to narrow the time frame of murder victim's death and refute the suspect's alibi. Rick Ridgway, assistant state attorney in Marion County since 1982, said Butler's conclusions were vital to the prosecution's case.

"When the victim was murdered, we knew the time frame was an issue," Ridgway said. "The defense tried to challenge his findings, but he was too good at what he does. He was able to explain (forensic entomology) to the jury, and they believed him."

The jury found the defendant guilty of first-degree murder. The conviction later was overturned by an appeals court for reasons unrelated to Butler's testimony.

Knowing there are only five forensic entomologists in Florida and about 100 throughout the world, Ridgway felt

privileged to have an expert so close to Ocala.

"It's usually tremendous trouble and expensive to get an expert," he said. "But he was right here."

Butler said his connection with criminal investigations is only a fraction of his duties. He provides forensic entomology services for food contamination and animal death cases, and guides graduate students through research projects. He also teaches graduate and undergraduate medical veterinary entomology courses.

"The reward is studying the ecology and seeing how science unfolds," he said. "The most difficult part is the law. Science is different than law."

Butler said science is satisfied with 95 percent probability, using specific growth rates and mean temperatures. The law deals with doubt, he said, which is the "opposite of what science is."

Butler said he enjoys sharing his knowledge – and bug samples – with friends.

"I brought a box of flies as a gag gift to my church choir once," Butler recalled. "The normal public is a little foreign to it, but they have always remembered the gift because of the flies." ■

(This story appeared in The Gainesville Sun, Monday, April 2, 2001 edition of the Local & State section, Pg. 1B and 2B.)

Notice

**For the latest in
Up-to-date
Information.
Come visit us at
www.FDIAI.org**