

ABSTRACTS OF VIDEO SESSIONS

COPEPODS AND TURBELLARIANS, SOIL INVERTEBRATES THAT ARE VORACIOUS PREDATORS OF PHYTOPARASITIC NEMATODES. P. S. Lehman, and R. A. Dunn, Florida Department of Agriculture and Consumer Services, Box 147100, Gainesville, Florida 32614-7100, U.S.A., and Department of Entomology and Nematology, University of Florida, Gainesville, Florida 32611, U.S.A.—*Phyllognathopus viguieri* (Maupas), a soil dwelling crustacean, is capable of preying on phytoparasitic nematodes in at least 12 genera. This copepod consumed an average of 7.4 *Meloidogyne incognita* juveniles per hr. *Adenoplea nanus* Sayre & Wergin, a soil dwelling flatworm, has been observed feeding on species from 3 genera of phytoparasitic nematodes. Sayre reported that this turbellarian consumed an average of 3.5 *Meloidogyne* juveniles per hr. The first part of the video shows the capture and ingestion of *M. incognita* juveniles by copepods, and their life stages and basic behavior. The second part of the video demonstrates for the first time predation on *Aphelenchoides fragariae* by turbellarians. (Video length: 12 min).

MICROVIDEOGRAPHY OF NOCTUIDONEMA, AN ECTOPARASITIC NEMATODE OF MOTHS. O. G. Marti, Jr., and C. E. Rogers, United States Department of Agriculture, ARS, IBPMRL, Tifton, Georgia 31793 U.S.A.—Since the discovery of *Noctuidonema guyanense* in French Guiana in 1984, 2 additional species of ectoparasitic nematodes of moths, *Vampyronema daptria* from Guadeloupe and *N. dibolia* from the U.S.A., have been reported. *Acugutturus*, a related ectoparasite of cockroaches from St. Lucia, had been described in 1980. Several of the moth species reported as hosts for ectoparasitic nematodes are of agricultural importance as crop pests in the U.S.A., particularly the genera *Spodoptera* and *Mocis*. We used a video camera attached to compound and stereoscopic microscopes to record microvideographic images of the behavior and anatomy of *N. guyanense*, *N. dibolia* and several undescribed *Noctuidonema* species of moths in south Georgia, U.S.A. Microvideography is also useful in recording details of technical procedures and studying an undescribed bacterial endosymbiont of the nematode reproductive system. We present video imagery demonstrating habits of *Noctuidonema*, location on hosts, anatomical details, differences between several species, and details of the bacterial endosymbiont.

THE CEREAL CYST NEMATODE, HETERODERA AVENAE. R. Rivoal, Institut National de la Recherche Agronomique, Laboratoire de Zoologie, BP 29 35650 Le Rheu, France.—A teaching video-film was produced over 15 years [U MATIC PAL, 14 min 30 sec with French, English, Spanish (Castillo) commentary; copies are available in VHS=PAL, SECAM, NTSC] to summarize information gathered on *Heterodera avenae* in France. It shows the symptoms of attack by the nematode in fields and on roots of wheat and maize. Infection and migration of juveniles (J2) in cortex cells are observed with I.C. microscopy. Different stages of the biological cycle are shown as well as feeding sites (giant cells) caused by *Heterodera* larvae. The polytypism of the nematode in France is reviewed with occurrence of pathotypes (virulence) and consequences of 2 ecotype schemes on sensitivity of winter and spring cereals. The effects of *H. avenae* on wheat production is analyzed with reference to root development and hydric transfer. The film ends with integrated aspects of plant protection.