



Name: William A. Overholt

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Education:

B.S. Agriculture, 1977, Ohio State University

M.S.

Ph.D. Entomology, 1989, Texas A&M University

Research Interests (with focus on Tropical Agriculture)

My research program is focused on classical biological control of aquatic and terrestrial invasive plants using arthropod natural enemies. Current activities include exploration for natural enemies of *Hydrilla verticillata* and *Dioscorea bulbifera* (air potato) in Africa, host range testing of insect herbivores of *Schinus terebinthifolius* (Brazilian peppertree), release and evaluation of a tortoise beetle to control *Solanum viarum* (tropical soda apple) and ecology and management of an invasive wetland grass, *Hymenachne amplexicaulis*. My interests are in insect-plant interactions, population dynamics and the use of geographic information systems to predict climatic adaptation of biological control agents.

Significant publications

- Diaz, R., W. A. Overholt, A. Samoyoa, F. Sosa, D. Cordeau and J. Medal. 2008. Temperature-dependent development, cold tolerance, laboratory life table and potential distribution of *Gratiana boliviana* (Coleoptera: Chrysomelidae), a biological control agent of tropical soda apple, *Solanum viarum* (Solanaceae). *Biocontrol Science and Technology* (in press).
- Khan, Z. R., K. Ampong-Nyarko, P. Chiliswa, A. Hassanali, S. Kimani, W. Lwande, W. A. Overholt, J. Overholt, W. A., D. E. Conlong, F. Schulthess, R. Kfir and M. Setamou. 2003. Biological control of gramineous lepidopteran stemborers in Africa. pp. 131-144. In P. Neuenschwander and C. Borgemeister (eds.) *Biological Control in IPM Systems in Africa*. CAB International, Wellington, Oxon, UK.
- Pickett, L. E. Smart, L. J. Wadhams and C. M. Woodstock. 1997. Intercropping increases parasitism of pests. *Nature* 388 (6643): 631-639.
- Zhou, G., W. A. Overholt and S.W. Kimani-Njogu. 2003. Species richness, parasitism and trophic relationships in an assemblage of parasitoids attacking maize stem borers in coastal Kenya. *Ecological Entomology* 28: 109-118.
- Zhou, G. J. Baumgartner and W. A. Overholt. 2001. Impact of an exotic parasitoid on stemborer(Lepidoptera) populations dynamics in Kenya. *Ecological Applications* 11, No. 5, pp. 1554–1562.

Extramural support (last 5 years)

Teaching Interests (with focus on Tropical Agriculture)

I currently supervise the research of graduate students based in Florida, but also have an MSc student in Kenya and one in Uganda who are pursuing degrees through a USAID-funded distance education program.

Extension/Outreach Interests (with focus on Tropical Agriculture)

My extension activities include the development of written and web-based information to increase awareness of the problem of invasive plants and the use of classical biological control as a solution. I also give several presentations each year to land managers and the general public about my research. Field days are organized with local ranchers to demonstrate biological control in the field. My largest extension program involves an annual activity called the 'Biological Control Brain Bowl' where we work with teams of local high school students over a period of 2-3 months. The students observe biological control in the field and conduct laboratory experiments on invasive plants. The Brain Bowl culminates with a competitive question and answer session between teams from a 4 county area.

International Activities (with focus on Tropical Agriculture)

Prior to joining the University of Florida in 2002, I worked for 12 years at the International Center of Insect Physiology and Ecology in Nairobi, Kenya where I led a project on biological control of an invasive stemborer of corn. As such, I worked closely with universities and national agricultural research programs in 11 countries in East and southern Africa. My current international activities involve exploration for biological control agents of plants which are invasive in Florida, and as such I travel to various locations in Africa 2-3 times per year where I work in collaboration with local scientists.