

Background Report

Miami tiger beetle Biological Review Group members

David Almquist has a Bachelor's degree in entomology from University of Florida, is a Research Associate with the Florida State Collection of Arthropods, and has more than 15 years' experience with rare Florida beetles. Almquist has worked at the Florida Natural Areas Inventory (FNAI) since 2005, and is responsible for compiling, entering and updating information about the rare and endangered invertebrates tracked by FNAI, evaluating additional invertebrate species for inclusion in the database and surveying for the presence of rare invertebrates. He is particularly knowledgeable about rare Florida beetles, has reviewed and entered into FNAI's database all available information about the Miami Tiger Beetle, and has personal experience with our only federal candidate tiger beetle species, the Highlands Tiger Beetle (*Cicindela highlandensis*).

Dr. Timothy M. Collins is an evolutionary biologist interested in systematics and molecular evolution. He uses molecular data, such as DNA sequences and gene order, in combination with organismal characteristics, to reconstruct the evolutionary history of lineages over time. He has been a professor at Florida International University 2009, and received his Ph.D. from Yale University in 1989. In addition to his research interests, Dr. Collins has served as an associate editor for the journals *Malacologia* and *Systematic Biology*.

Dr. W. Wyatt Hoback conducted field work on the endangered northeastern beach tiger beetle, *Cicindela dorsalis dorsalis* as an undergraduate at Randolph-Macon College in Virginia. He conducted research on the tiger beetle community near Lincoln Nebraska for his dissertation work. This community includes the federally endangered Salt Creek tiger beetle, *Cicindela nevadica lincolniana*. While employed at the University of Nebraska at Kearney, he advised a MS student, Mathew Brust on a project concerning the conservation of tiger beetles in Nebraska. Dr. Hoback has published more than 10 peer-reviewed papers on *Cicindela* tiger beetles and is familiar with all aspects of their biology. Dr. Hoback's research over the past 16 years has continued to emphasize the conservation of invertebrates with a focus on the American burying beetle, *Nicrophorus americanus*. He has also conducted a species status assessment for the Platte River caddisfly, a species proposed for protection. Dr. Hoback joined the Entomology and Plant Pathology Department at Oklahoma State University in July 2014 and has continued to actively research the American burying beetle.

Jonathan Mays is a Research Scientist with FWC's Fish and Wildlife Research Institute where he focuses on reptiles, amphibians, and invertebrates. Jonathan received a Bachelor of Science from Tennessee Technological University and a Master's of Science from Western Carolina University. His graduate research inventoried and investigated cave fauna communities in Great Smoky Mountains National Park. Jonathan has over 15 years of experience working for state wildlife agencies in Florida, Maine, North Carolina, and Tennessee.

Dr. David Pearson's research is focused on using the interaction of ecology, conservation, ecotourism and education to develop methods that promote sustainable use of biodiversity. He has worked on a breadth of organisms from crabs to insects, and *Paramecium* to birds. He has

also studied a range of habitat types including tropical rain forests, coral atolls and desert grasslands. Pearson's current research concentrates on a small group of insects—tiger beetles—in tropical lowland rain forests around the world. He also works on international environmental education exchanges for graduate students and elementary teachers and students that promote critical thinking skills and appreciation of cultural diversity.

Dr. Tom Schultz received his B.A. from the University of Chicago and his Ph.D. from the University of Texas. He is a behavioral ecologist, specializing in the production, perception, and function of color in sexual signals and defensive tactics of insects. Throughout his career, he has authored or co-authored 11 publications about the chemical defenses and camouflage of tiger beetles. Dr. Schultz has served as Professor of Biology in the Department of Biology at Denison University since 2000, and has previously served as chair of that department and as director of the Denison University Biological Reserve.

Dr. Samantha Wisely has been an Associate Professor at the University of Florida since 2011, with research interests focused on disease ecology, molecular ecology, biogeography, and wildlife biology. Her Ph.D. was received from the University of Wyoming in 2001 where she studied the conservation genetics of the black-footed ferret. Recent research has focused on the use of genetics to investigate the historical and landscape influences on species population structure. Her publications cover a wide variety of taxa, from invertebrates to birds, mammals, and reptiles. She has advised US Fish and Wildlife Service on the conservation genetics of multiple species including Pacific fisher, black-footed ferret, and California Gnatcatcher.