

Foreign Ticks on Smuggled Tortoises

SCWDS Briefs, April 1991, 7.1

During June 1990, U.S. Fish and Wildlife Service personnel in Florida found ticks on tortoises believed to have been smuggled into the United States from Africa. Among the ticks identified by USDA entomologists were nymphal stages of the soft tick *Ornithodoros moubata*. A second shipment of *Ornithodoros*-infested tortoises also was found in Pennsylvania. In both instances, the tortoises, their shipping containers, and the premises were immediately treated with appropriate pesticides. The rapid discovery of these ticks was a fortunate event since *O. moubata* is a vector and reservoir of African swine fever (ASF) virus. In Africa, ASF is readily maintained by wart hogs, bush pigs, and giant forest hogs, all of which can serve as inapparent carriers. *Ornithodoros moubata* dwell in animal burrows and can transfer the virus from animal to animal. Actually, ASF virus is considered to be a virus of arthropods that more recently has become swine-adapted. It can be maintained in soft tick populations independent of swine since virus is passed through the eggs to the next tick generation, and it can even be spread among ticks during copulation.

This is an extremely serious disease which has devastating consequences to domestic swine. The ASF virus is highly pathogenic, and some virus strains cause death losses of over 90%. Neither medical treatment nor vaccination is possible, and the only effective control measure is to kill all affected and exposed swine. Therefore, entry of these ticks into the United States equates to a potential introduction of a major foreign animal virus threat by an extremely covert route. Continued vigilance for arthropods traveling with imported exotic wildlife, including reptiles, cannot be overemphasized as a vital factor in foreign animal disease protection.