Foreign Exploration for Biological Control Agents of Giant Reed, *Arundo donax*

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Abstract

Collections of insect-infested *Arundo donax* L. have been made 2000 - 2011 by scientists at the USDA/ARS EBCL facility in Montpellier, France. Pieces of *A. donax* stem, leaves and rhizomes were placed in double wrapped paper bags and kept in tight mesh covered boxes in the EBCL insect quarantine. Emergence of insects was noted and specimens sent to relevant authorities for identification. Samples were taken at the same time for genetic characterization of *A. donax*. Surveys have been made in appropriate areas of Croatia, Bulgaria, Slovenia, France, Spain, Portugal, Canary Isles, Italy, Greece, Crete, Turkey, Morocco, Tunisia, Egypt, South Africa, Namibia, Kenya and Australia. Surveys were in fall and spring to cover the most important growth periods. Site details, locality, altitude, GPS position were recorded. Giant reed rhizomes were unearthed and dissected at some sites for natural enemies. Lengths of rhizome and cut stems and leaves were placed in moisture absorbent bags, cooled, and returned to the EBCL quarantine for emergence. Quadrats (50x50cm) of *A. donax* have been sampled from 6 stands each week for 15 weeks (starting May 5 2003 in 2004 and 2005) in the Montpellier and Perpignan areas of southern France. All *A. donax* within the quadrats was cut, taken back to the laboratory, examined, dissected and documented. Organisms found were where possible reared and adults passed on to appropriate taxonomists. The arthropod herbivores collected from *A. donax* were (in order of most to least common) *Tetramesa romana* Walker (Hymenoptera: Eurytomidae); *Rhizaspis doracis* (Leonardi) (Hemiptera: Diaspididae); *Cryptonevra* spp. (Diptera: Chloropidae); *Lasioptera doracis* Coutin (Diptera: Ceccidomyiidae); *Cerodontha phragmitidis* Nowakowski (Diptera: Agromyzidae); *Melanaphis doracis* (Passerini) (Hemiptera: Aphididae); *Aclerda berlesii* Buffa (Hemiptera: Aclerdidae); *Siteroptes* sp. (Acarina: Pyemotidae); and *Hypogaea* sp. (Hemiptera: Aphididae). Only the first four species were found to be sufficiently host specific to warrant further host range testing.