



## IAPPS NEWSLETTER

Number III May, 2002

### MEETING OF THE IAPPS GOVERNING BOARD

The IAPPS Governing Board is holding a special meeting as this edition is submitted for publication. The meeting agenda includes, among other items, (1) a review of the IAPPS implementation experience, (2) an evaluation of implementation against the stated objectives, (3) a review of special initiatives, (4) IAPPS regional programs, and (5) a review of the planning status for the 15th IPPC in Beijing, China July 6-11, 2003. Information from this meeting will be published in a future newsletter.

### PEST DIRECTORY

The International Society for Pest Information has recently published the first issue of its "Pest Directory" database. The database is distributed as CD for installation on a PC. It contains addresses, literature and other information on pest management. More information about the database is available on the website: <http://pestinfo.org/pestdir.htm>

### CORRECTION

In the March, 2002 IAPPS Newsletter (Number II), the name of one of the IAPPS Governing Board members was inadvertently omitted. We apologize for this error and call your attention to the fact that Dr. Bill Tweedy (Plant Protection Consultant) serves as Treasurer of the organization and is a very active member of the Governing Board.

### WEB SITE CHANGE FOR 15TH IPPC

Please note that the web site has changed for the 15th IPPC. It is: <http://www.ipmchina.net/ipcc>

### GLOBAL RESEARCH AND COOPERATION COMBAT INVASIVE SPECIES

The September, 2001 issue of the IAPPS Newsletter included an article on invasive species and the international search for biocontrol agents. This article provides a number of examples of international cooperation in efforts to reduce damage from invasive weed species.

Invasive species introductions rose markedly during the last century as modes of human transportation became more efficient and world travel proliferated. Increased introductions of invasive species adversely affect: 1) agricultural productivity; 2) native fish and wildlife habitats; 3) renewable resources; 4) natural areas; and 5) human health. Invasive species are the second most common contributing factor (after habitat destruction) that results in the listing of a native species as threatened or endangered.

Research is conducted in very diverse areas involving prevention, control and management of invasive species. For example, efforts are underway to reduce the rate of introduction of invasive species, and to rapidly detect, identify and eradicate incipient species. Extensive research is also conducted on the long-term management of established invasive species, emphasizing biologically based integrated pest management activities. The following are some examples of Agricultural Research Service, USDA efforts in managing invasive weed species.

- **Salt Cedar** (*Tamarix ramosissima*)-This invasive tree, which can grow up to 30 feet tall, infests more than one million acres along rivers and streams throughout the West. It was brought into the U.S. in 1837 from its home range of central Asia and southern Europe to protect stream banks from erosion. However, without its co-evolved natural enemies, salt cedar has become very invasive, crowding out willows, cottonwoods and other plants, degrading wildlife habitat, increasing soil salinity, changing stream flows and increasing wildfire frequency. ARS researchers discovered in 1991 that leaf-feeding beetles, native to China, are natural enemies of salt cedar. In 1999 the first natural enemy of salt cedar to be introduced was a leaf-feeding beetle, *Diorhabda elongata*, from China and Kazakstan which was released in cages at sites in six states.
- **Water Hyacinth** (*Eichhornia crassipes*)-The search for natural enemies of water hyacinth was based out of the ARS South American Biological Control Laboratory in Hurlingham, Argentina. Two weevil biological control agents have become established in the southern US because of these activities. These weevils have controlled much of the

water hyacinth in the US, and have been used successfully by other countries. Most recently, African countries surrounding Lake Victoria, in conjunction with the World Bank, approached ARS and colleagues for help in controlling water hyacinth. As a result, increased foreign exploration for new natural enemies of water hyacinth in South America was undertaken.

- **Cape Ivy** (*Delairea odorata*)-This perennial South African vine was introduced into the US as an ornamental plant. It is naturalized and is a serious pest in several states. In California, it now occurs along the entire coastline, from San Diego up into southern Oregon, where it smothers and replaces native vegetation in a variety of natural habitats, including scrubland, grassland, riparian forests, as well as fence lines, right-of ways, pastures, and tree plantations. ARS established a cooperative project in South Africa, and local scientists there are completing a survey of natural enemies of this vine. Over 200 insect species have already been found attacking Cape ivy there, and several show promise as potential biological control agents.
- **Old World Climbing Fern** (*Lygodium microphyllum*)-Lygodium is an invasive weed in south Florida where it threatens many wetland communities in the Everglades ecosystem. It is native to wet areas in the Old World tropics and subtropics from west Africa to eastern and southern Africa, and eastern India through southeast Asia to northern Australia and the Pacific to Tahiti. The fern entered Florida as a commercial ornamental plant and was first documented to have become naturalized in 1965. However its explosive growth and rapid spread are relatively recent and it is now causing concern because of its dominance of native vegetation in many communities. In the last two years alone, it has increased from 60,000 acres to more than 100,000 acres. Efforts are currently focused on surveys for natural enemies of Lygodium species in the fern's native range, including Australia and Southeast Asia. Preliminary surveys in there have identified promising natural enemies, including pyralid moths and sawflies.
- **Arundo/Giant Reed** (*Arundo donax*)-Arundo/giant reed is the largest and most aggressive member of the three species that are known to the genus. It is native to tropical and temperate regions of the old world and is thought to originate on the Indian Subcontinent of Asia. It is now found from the Mediterranean Sea to Sri Lanka and is expected to occur in other parts of Southeast Asia. *A. donax* was thought to be introduced into the United States in the 1700s by French settlers and was used as both windbreaks and as roofing materials. Biological control offers the best option for long-term, affordable and environmentally friendly management of Arundo. The ARS European Biological Control Laboratory (Montpellier, France) in cooperation with a US ARS lab have initiated a foreign exploration program in 1999 which has already located potential agents in the Mediterranean Basin and have additional trips planned this winter into India and Sri Lanka.
- **Tropical Soda Apple** (TSA) (*Solanum viarum*)-TSA was introduced into southern Florida from Brazil several years ago. The plant is now well established over half of the Florida peninsula, and is rapidly spreading from southern Florida to other states of the South, with serious outbreaks confirmed in Georgia and Mississippi, and sightings as far north as Pennsylvania. TSA is a serious pest primarily in pastures and uncropped areas but has the potential to invade cropped fields as well. The most important means of spread of TSA is through the manure of cattle. Seeds have also been spread in bags of composted manure sold to gardeners, and in hay from infested pastures, as well as by wildlife. TSA is a coarse plant with attractive fruits that animals like, and when they eat the fruits it takes a week or more for the seeds to pass through the digestive system. Cattle that have grazed in infested pastures need to be quarantined during that period to avoid spreading the weed. Natural enemies of TSA and other *Solanum* spp. are being sought in Brazil by ARS and partners. If acceptably specific biological control agents are found in South America, their use could help reduce the spread of TSA, and may be the only mechanism available for cost-effective management in the long term.

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IAAPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to a the world's crop and forest ecosystems.

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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