**Arundo donax** (giant reed): an invasive weed of the Rio Grande Basin

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*Arundo donax* L., giant reed, is an exotic and invasive weed of riparian habitats, irrigation canals and transportation drainage of the southwestern USA and northern Mexico. Giant reed dominates these habitats, which leads to: loss of biodiversity; catastrophic stream bank erosion; damage to bridges; increased costs for chemical and mechanical control along irrigation canals. Most importantly, this invasive weed competes for water resources in an arid region where these resources are critical to the environment, agriculture and urban users. *A. donax* is a good target for biological control because it has no close relatives in North or South America, and several insects from Mediterranean Europe are known to be monophagous. Our research program includes: (1) remote sensing and ecohydrology to determine the distribution and water use of giant reed in the Rio Grande River Basin; (2) use of microsatellites to determine the origin(s) of the invasive North American vegetative clones; (3) field studies in the native range; (4) pre-release quarantine impact studies on candidate agents, integrating ecohydrology and plant architecture to select the most promising agent(s) for full host-range testing and potential release as biological control agents.

**Potential agents from Kazakhstan for Russian Olive biocontrol in USA**

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The Almaty, Kazakhstan biological control research group has been involved in Russian Olive biocontrol studies since 2006. This group has two goals: (1) to find effective biological agents (among insects) of Russian Olive and (2) to study their biological features under native conditions. Our research shows: there are about 30 insect species mentioned as strict specific natural enemies of *Elaeagnus angustifolia*: ten homopterans, two hemipterans, nine beetles, one fly and eight lepidopterans. The three most preferable potential Russian Olive biocontrol agents for introduction into the USA are one beetle and two psyllids: (1) *Altica balassogloi* Jcbs. (Coleoptera, Chrysomelidae) damages foliage and shoots, distributed in south and southeastern Kazakhstan (Arys, Ili, Karatal, Charyn rivers riparian forests); (2) *Trioza magnisetosa* Log. (Homoptera, Psylloidea), damages foliage (usually on young trees), distributed in south, central and west Kazakhstan; (3) *Trioza furcata* Low (Homoptera, Psylloidea), damages foliage (50–100% loss of foliage), distributed in central, south and west Kazakhstan. Preliminary studies indicate that the best agent for biocontrol of Russian Olive in the USA is *A. balassogloi*. 