Tropical Soda Apple (TSA), *Solanum viarum*, is an invasive shrub native to Argentina, Brazil, and Paraguay. Its abundant fruits and seeds are disseminated by cattle, wildlife, and movement of contaminated seed, hay, and sod, which has facilitated its spread to Asia, Africa, and North and Central America. TSA was introduced into the U.S.A. in Florida in the 1980’s. Its rapid dissemination has led to infestations of more than 0.50 million ha (1.25 million acres) of agricultural and natural areas in Florida and eight other states (Alabama, Georgia, Louisiana, Mississippi, North Carolina, Pennsylvania, South Carolina, and Tennessee). Investigations of arthropods associated with TSA have been conducted in the southeastern U.S.A. to identify potential biological control agents and any niches they might occupy. More than 75 spp. of arthropods were collected from TSA. Many species were incidental, but approximately 2/3 were phytophagous. Some of these herbivores included polyphagous pests such as *Heliothis virescens*, *Pseudoplusia includens*, and *Nezara viridula*. Several oligophagous folivores that fed on TSA are also pest species, such as *Manduca sexta*, *Leptinotarsa decemlineata*, and *Keiferia lycopersicella*. Other native oligophages specializing on Solanaceae also fed on TSA, such as a mirid called the suckfly, *Tupiocoris notatus*, and a pyralid, *Lineodes integra*. *Tupiocoris notatus* caused severe leaf chlorosis on TSA and was found throughout the growing season, with populations reaching maximum densities in Autumn (up to 500/plant). *Lineodes integra* cut and tied leaves and damaged TSA foliage in the field and completely defoliated potted TSA plants in the greenhouse. In the southeastern U.S.A., impact of herbivory of existing arthropods on TSA is apparently limited as this weed continues to grow, reproduce, and spread at an alarming rate. Several niches are available for exploitation by imported South American natural enemies of TSA.

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**Screening Foreign Plant Pathogens for Biological Control of *Polygonum perfoliatum*, Mile-A-Minute (MAM)**

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More than 200 fungal isolates have been collected from MAM in China, and 30 have been screened for biological control of this alien invasive weed, which is of potential importance in the eastern United States. Pathogenicity assays were conducted in the containment greenhouse facility at the FDWSRU. Inoculation methods included: spraying foliage with fungal spore suspensions, drenching soil, or stabbing plant stems with infested toothpicks. Isolate SM1-2, collected from a wilting MAM plant in Liaoning Province, China, caused wilting and death in 50% of toothpick-inoculated plants within one week.
Isolate SM1-2 has not sporulated either on Potato Dextrose Agar or Potato Carrot Agar. Symptoms were not observed on plants inoculated with SM1-2 using a soil drench. Research continues to confirm these results and to identify additional candidate isolates for evaluation as biological control agents.

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**Selection of Natural Enemies for the Biological Control of *Chromolaena odorata* in South Africa**

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*Chromolaena odorata* (Asteraceae), a neotropical shrub, has invaded many areas of the Old World tropics and sub-tropics. Its rapid spread and increasingly negative impact on biodiversity in South Africa prompted the initiation of a biological control programme in 1988. The suite of insects and pathogens prioritised for this programme was recently revised. Vegetative parts of the plant are still being targeted in preference to reproductive structures, although capitulum-attacking insects may be considered at a later stage. It is envisaged that a combination of the newly-prioritised leaf-, stem-, and root-attacking candidates, most of which destroy rather than modify plant tissue, will reduce photosynthetic ability and act as a resource sink. Defoliators that are being, or recently have been, investigated are *Pareuachaetes insulata* (Lepidoptera: Arctiidae), *Actinote thalia pyrrha* (Lepidoptera: Nymphalidae), and the leaf-miner *Calycomyza flavinotum* (Diptera: Agromyzidae). *Pareuachaetes pseudoinsulata* has been released in the Northern Province during the past wet summer season, and *P. insulata*, which may be more climatically suited to the highly seasonal regions, is soon to be released. The stem-tip borer *Melanagromyza eupatoriella* (Diptera: Agromyzidae), a stem-galling *Conotrachelus* sp. (Coleoptera: Curculionidae), and the stem-borer *Lixus aemulus* (Coleoptera: Curculionidae) are being investigated because of their effective damage to the photosynthetic stems of *C. odorata*. *Longitarsus horni* (Coleoptera: Chrysomelidae: Alticinae) has been targeted because of the larval damage to roots, especially those of young plants. Several fungal pathogens, including *Septoria ekmaniana* (Coelomycetes) and *Mycovellosiella perfoliata* (Hyphomycetes), have been collected from the neotropics but thus far have developed poorly on the southern African form of *C. odorata*. This form is dissimilar to those that have invaded elsewhere and its exact origin is unknown. It is desirable to determine the origin to ensure greater compatibility of insects and especially pathogens with the weed. Thus far, plant specimens from parts of the Caribbean seem most similar in appearance to the local form of *C. odorata*. 