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_____ *Invasive Plants*

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2008/047 EPPO welcomes Bosnia and Herzegovina as its 50th member country

Bosnia and Herzegovina joined EPPO on the 2008-02-05. The Organization is glad to welcome Bosnia and Herzegovina as its 50th member country. The contact point for Bosnia and Herzegovina is:

Mr Milad ZEKOVIC
Department of Plant Health Protection
Ministry of Agriculture, Water Management and Forestry
SARAJEVO

Source: French Ministry of Foreign Affairs, 2008-03.
EPPO Secretariat, 2008-03.

Additional key words: new EPPO member country **Computer codes:** BA

2008/048 EPPO Standards for the Efficacy Evaluation of Plant Protection Products: the 2007 update is available

The EPPO standards for the efficacy evaluation of plant protection products describe the conduct of trials carried out to assess the efficacy of plant protection products against specific pests. They were republished in 2004 in five volumes, which covered all standards approved up to 2003-09. As the preparation of EPPO Standards is a continuous activity, new and revised standards have been approved since 2003 and published every year in separate updates. All new and revised standards approved in 2007-09 are now available in a new update (in English only). This 2007 update can be ordered from the EPPO Secretariat at the price of 50 EUR, and includes the following standards:

Revised Standards
PP1/053(3) Weeds in lupin and Vicia beans
PP1/076(3) Weeds in forage legumes
PP1/091(3) Weeds in *Phaseolus* and *Pisum*
PP1/093(3) Weeds in cereals
PP1/207(2) Effects on succeeding crops

New Standards
PP1/256(1) Effects on adjacent crops
PP1/257(1) Efficacy and crop safety extrapolations for minor uses
PP1/258(1) Aphids on top fruit
PP1/259(1) *Delia radicum* on oilseed rape
PP1/260(1) *Pleospora allii* on pear

More information about the EPPO Standards on efficacy evaluation of plant protection products can be found on the EPPO website:
http://www.eppo.org/PUBLICATIONS/efficacy_eval/efficacy.htm

Source: EPPO Secretariat, 2008-03.

Additional key words: publications

2008/049 First record of *Erwinia amylovora* in Syria

In Syria, a survey of all major pome fruit growing regions was conducted during 2005 and 2006 to establish whether *Erwinia amylovora* (EPPO A2 List) was present. Samples were collected from quince (*Cydonia oblonga*), pear (*Pyrus communis*) and apple (*Malus domestica*) trees suspected of being infected with *E. amylovora*. Seventy-five isolates of *E. amylovora* were recovered, mainly from quince and some from pear but none from apple. The identity of the bacterium was confirmed by PCR using specific primers. Fireblight was found in the Al-Zabadani region (Governorate of Rif Damashq, near the Lebanese border), an area with a moderate temperature range (10–29°C) and high relative humidity (above 70%) during the blossom period. This is the first report of *E. amylovora* from Syria.
The situation of *Erwinia amylovora* can be described as follows: **Present, first recorded in 2005/2006, isolated foci in the Governorate of Rif Damashq**.

Source: Ammouneh H, Arabi MIE, Al-Daoude A (2008) The first record and distribution of the fire blight pathogen *Erwinia amylovora* in Syria. *Australasian Plant Pathology* **37**(2), 137-140 (abst.).

Additional key words: new record **Computer codes:** ERWIAM, SY

2008/050 First record of *Monilinia fructicola* in the Czech Republic

Until recently, only *Monilinia laxa* and *M. fructigena* were causing brown rot on stone and pome fruits in the Czech Republic, and *M. fructicola* (EPPO A2 List) had never been reported. During a survey carried out in summer 2006, 56 samples were tested for the presence of *Monilinia* species. *M. fructicola* was detected (isolation, PCR) in 15 samples from 11 locations in the western area (Bohemia) of the Czech Republic, mainly on peaches (*Prunus persica*), apples (*Malus domestica*), sweet and sour cherries (*Prunus avium* and *Prunus cerasus*), and rarely on ornamental trees such as flowering plum (*Prunus triloba*) and *Malus* × *moerlandsii* cv. 'Liset'. In all cases, the pathogen was detected on fruits with one exception on a twig of *P. triloba*. *M. fructicola* was not detected on fruits of apricot (*Prunus armeniaca*) or pear (*Pyrus communis*) in 2006. These tested samples had been collected from orchards, private and public gardens. In 2007, the official survey continued. 80 samples were collected and 24 of these samples were found positive. *M. fructicola* was detected in fruits of apple, apricot, pear, peach, plum, sweet and sour cherries. This is the first report of *M. fructicola* in the Czech Republic.
The situation of *Monilinia fructicola* in the Czech Republic can be described as follows: **Present, first found in 2006, under official control.**

Source: Duchoslavová J, Širučková I, Zapletalová E, Navrátil M, Šafářová D (2007) First report of brown rot caused by *Monilinia fructicola* on various stone and pome fruits in the Czech Republic. *Plant Disease* **91**(8), p 907.

NPPO of Czech Republic, 2008-02.

Additional key words: new record **Computer codes:** MONIFC, CZ

2008/051 Further details on the situation of *Rhynchophorus ferrugineus* in France in 2007

In addition to the occurrences of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae – EPPO A2 List) reported in the south of France in summer 2007 (see EPPO RS 2007/168), more specimens were caught at the end of 2007. Adults were trapped at 3 sites in the region of Languedoc-Roussillon (1 site in Hérault, 2 in Pyrénées-Orientales) and at 2 sites in Provence-Alpes-Côte d'Azur (Bouches-du-Rhône).
The situation of *Rhynchophorus ferrugineus* in France can be described as follows: **Present, few outbreaks found in Corsica (Corse du Sud), Languedoc-Roussillon (Hérault, Pyrénées-Orientales), Provence-Alpes-Côte d'Azur (Alpes-Maritimes, Bouches-du-Rhône, Var), under eradication.**

Source: Anonymous (2007) Phyto-Régions. Languedoc-Roussillon. Palmiers et charançon rouge. *Phytoma – La Défense des Végétaux* No. 610, p 3.

Additional key words: detailed record **Computer codes:** RHYCFE, FR

2008/052 Living specimens of *Psacothea hilaris* (Coleoptera: Cerambycidae) found in Lombardia, Italy

The Regional Plant Protection Service of Lombardia, Italy, reported the finding of living specimens of *Psacothea hilaris* (Coleoptera: Cerambycidae – yellow spotted longicorn beetle). *P. hilaris* was found in August 2007 on 2 fig trees (*Ficus carica*) at Anzano del Parco (Province of Como). It can be recalled that in September 2005, 2 dead beetles had been found in Lombardia, at Almenno San Salvatore (province of Bergamo) near a wood warehouse on a private property (see EPPO RS 2005/182). *P. hilaris* occurs in China, Japan (Ryukyu Archipelago, Shikoku and Honshu), Taiwan, and probably in other Asian countries. In Japan, *P. hilaris* is considered to be an important pest of mulberry (*Morus alba*) and fig trees (*Ficus carica*).

Source: Regional PPO of Lombardia (IT), Giunta Regional, Direzione Generale Agricoltura, 2008-02.

Additional key words: phytosanitary incident **Computer codes:** PSACHI, IT

2008/053 First report of *Cinara curvipes* (Homoptera: Aphididae) in the Czech Republic

The NPPO of Czech Republic recently informed the EPPO Secretariat about the occurrence of an alien species *Cinara curvipes* (syn= *Todolachnus curvipes*, Homoptera: Aphididae). *C. curvipes* is a common species in Canada, Mexico and USA (California, Colorado, Oregon, Utah) where it lives on *Abies* species (*A. balsamea, A. lasiocarpa, A. magnifica* and *A. religiosa*) and occasionally on other conifers (*Cedrus deodara, Pinus contorta*). In Czech Republic, the presence of *C. curvipes* was first confirmed in several localities in spring 2007 after a very mild winter, but it is likely that the species was introduced a few years ago without being noticed. Interestingly, *C. curvipes* has also been introduced recently from North America into the following European countries:

- United Kingdom: in 1999.
- Germany: in 2000 in Brandenburg on *A. grandis* and *A. concolor*. The aphid is now also present in Berlin, Bayern, Hessen, Niedersachsen, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt.
- Serbia: in 2001, in Novi Sad on *A. concolor* and *C. atlantica*.
- Switzerland: in 2007 in the canton of Aargau on *A. concolor*.
- Slovakia: in 2007.

C. curvipes is considered to be a minor pest of *Abies* species, direct damage to trees is usually not significant. *C. curvipes* excretes large amounts of honeydew which can be a nuisance but also an important source of food for ants and wasps (bees have also been observed gathering this honeydew). However, large aphid colonies can cause esthetical damage to trees (large amounts of honeydew and development of sooty moulds). It can be noted that in Europe, many species of firs are planted in parks and gardens for ornamental purposes, or for the production of Christmas trees. In the Czech Republic, no phytosanitary measures will be taken against *C. curvipes* but attention will be paid to its occurrence in the future.

The pest status of *Cinara curvipes* in the Czech Republic is officially declared as: **Present, in some areas.**

Source: NPPO of Czech Republic, 2008-02.

Angst A, Scheurer S, Forster B (2007) [First record of *Cinara curvipes* (Patch) (Homoptera, Aphidina, Lachnidae) on *Abies concolor* in Switzerland.] *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* **80**, 247-252 (in German).

Martin JH (2000) Two new British aphid introductions since 1999, in the context of other additions over the preceding thirty years (Sternorrhyncha: Aphidoidea). *Entomologist's Gazette* **51**(2), 97-105 (abst.).

Poljaković-Pajnik L, Petrović-Obradović O (2002) Bow-legged fir aphid *Cinara curvipes* (Patch) (Aphididae, Homoptera) new pest of *Abies concolor* in Serbia. *Acta entomologica serbica* **7**(1/2), 147-150.

Scheurer S, Binazzi A (2004) Notes on bio-ecology and ethology of *Cinara curvipes* (Patch), a newly introduced species into Europe (Aphididae Lachninae). *Redia* **87**, 61-65 (abst).

Additional key words: new record **Computer codes:** TODOCU, CZ

2008/054 First report of *Pseudaulacaspis pentagona* (Homoptera: Diaspididae) in the Czech Republic

The NPPO of Czech Republic recently informed the EPPO Secretariat about the occurrence of *Pseudaulacaspis pentagona* (Homoptera: Diaspididae) on its territory. This scale insect was first recorded in 2005 in the city of Pardubice (Pardubice region) on *Catalpa bignonioides* (Bignoniaceae). In 2006/2007, further outbreaks were found in Prague and its surroundings on the same host plant. Apparently, all infested trees had been imported. In order to prevent any further spread of *P. pentagona* to other localities and other host plants (ornamental and fruit trees), phytosanitary measures have been taken. In all infested localities, infested plant parts have been removed and burned, and chemical treatments applied. National surveys on *P. pentagona* will be carried out.
The pest status of *Pseudaulacaspis pentagona* in the Czech Republic is officially declared as: **Present, found in a few areas on *Catalpa bignonioides*, control measures have been recommended.**

Source: NPPO of Czech Republic, 2008-01.

Additional key words: new record **Computer codes:** PSEAPE, CZ

2008/055 First report of *Mycosphaerella pini* in Belgium

The NPPO of Belgium recently informed the EPPO Secretariat of the first finding of *Mycosphaerella pini* (syn= *Scirrhia pini* – EU Annexes) on its territory. Symptoms of needle blight were observed in 2 forests in the communes of Meeuwen-Gruitrode (Limburg province) and Ravels (Antwerpen province) on pine trees (*Pinus nigra* subsp. *laricio*). Morphological analysis of the fungus revealed the presence of fruiting bodies and conidia of the anamorph stage of *M. pini* (*Dothistroma septospora*). These results were confirmed by another laboratory (morphological analysis and PCR) in November 2007. The owners of the forests concerned have been informed. Nursery inspections will be carried out focusing on the possible presence of *M. pini* symptoms.
The pest status of *Mycosphaerella pini* in Belgium is officially declared as: **Present, in forests in the provinces Antwerpen and Limburg.**

Source: NPPO of Belgium, 2008-03.

Additional key words: new record **Computer codes:** SCIRPI, BE

2008/056 First report of *Melampsora euphorbiae* on poinsettia in Norway: addition to the EPPO Alert List

In 2006, an outbreak of *Melampsora euphorbiae* was observed for the first time in Norway on different cultivars of poinsettias (*Euphorbia pulcherrima*) in one glasshouse. Rust damage to leaves and bracts was substantial and a large number of plants had to be destroyed with serious economic consequences for the grower. It is not known whether the fungus was introduced on imported cuttings or from infected *Euphorbia* weed species growing near the glasshouse. *M. euphorbiae* is common in Norway on wild species of *Euphorbia*, as well as in many other countries around the world, but so far its occurrence on poinsettias has been reported only in India, Mauritius and Tanzania. Because poinsettia

is an important crop in Europe, including Norway where it is the largest flowering potted plant crop with approximately 6 million plants produced every year, the NPPO of Norway suggested that *M. euphorbiae* should be included in the EPPO Alert List.

Melampsora euphorbiae (a rust of *Euphorbia* spp.)

Why	In 2006, an outbreak of *Melampsora euphorbiae* was observed for the first time in Norway on different cultivars of poinsettias (*Euphorbia pulcherrima*) causing economic damage. Although this rust is known to occur on many wild species of *Euphorbia* in Europe and other continents, it was the first time that it was reported causing damage to a valuable ornamental crop in Europe. The NPPO of Norway suggested that *M. euphorbiae* should be added to the EPPO Alert List.
Where	*M. euphorbiae* is quoted in the literature as a worldwide rust but data is lacking to substantiate its presence in individual countries and the problems it may cause. The following distribution is therefore most likely to be incomplete. **EPPO region**: Austria, Germany, Hungary, Italy, Norway, Serbia, Spain, Switzerland, Turkey, United Kingdom. **Asia:** China, India, Iran, Pakistan, Oman, Saudi Arabia, Turkey. **Africa:** Mauritius, Tanzania, Zimbabwe. **Oceania:** Australia, New Zealand. **North America:** Canada.
On which plants	*M. euphorbiae* lives on a large number of wild or cultivated species of *Euphorbia* (e.g. *E. amygdaloides, E. cyparissias, E. esula, E. exigua, E. helioscopia, E. heterophylla, E. hiberna, E. inarticulata, E. lagascae, E. paralias, E. pekinensis, E. peplus, E. rigida, E. seguieriana*). On *E. pulcherrima* (poinsettia) which is apparently the only host of economic importance, the rust has been reported in 4 cases only (i.e. India, Mauritius, Tanzania and Norway). *M. euphorbiae* is an autoecious rust (completing its life cycle on one host). Some authors have distinguished different *formae speciales* of *M. euphorbiae*, each infecting only one or two species of *Euphorbia*.
Damage	*M. euphorbiae* causes typical rust symptoms with orange pustules. On poinsettias in Norway, necrotic spots appeared on the upper surface of the leaves with orange spore masses on the lower surface. Images of symptoms on wild *Euphorbia* spp. can be viewed on the Internet: http://www.bioimages.org.uk/html/T32028.HTM http://zipcodezoo.com/Fungi/M/Melampsora_euphorbiae.asp http://www.asturnatura.com/fotografia/setas-hongos/melampsora-euphorbiae/3844.html
Dissemination	Little data is available in the literature about the biology of *M. euphorbiae* but as for other rusts, it is likely that spores can be spread by air currents over long distances. Trade of infected plants can also transport the pathogen.
Pathway	Plants for planting of *E. pulcherrima* (and possibly other *Euphorbia* species traded for ornamental or medicinal purposes).
Possible risks	*M. euphorbiae* is obviously a pathogen which can cause severe damage to its host plants. It has even been studied as a potential biocontrol agent of weeds such as *E. esula* and *E. cyparissias* in North America. Data is lacking on many aspects of the fungus biology, in particular, it is not clear whether fungal populations occurring on wild *Euphorbia* species can affect cultivated poinsettias (as host specialization has been suggested in the past). Nevertheless, because poinsettias are valuable ornamental crops in Europe and are subjected to an important international trade, more attention should be paid to the possible presence of *M. euphorbiae* in crops and on traded plants.
Source(s)	Baker SD (1956) Additions to the rust fungi of New Zealand, II. *Transactions of the Royal Society of New Zealand* **83**(3), 453-463. Bruckart WL, Turner SK, Sutker EM, Vonmoss R, Sedlar L, Defago G (1986) Relative virulence of *Melampsora euphorbiae* from Central Europe toward North American and European spurges. *Plant Disease* **70**(9), 847-850. Deadman ML, Al Sa'di AM, Al Maqbali YM, Al Jahdhami S, Patzelt A, Aime MC (2006) First report of the rust *Melamspora euphorbiae* on *Euphorbia heterophylla* in Oman. *Journal of Plant Pathology* **88**(2), p 229.

Gjærum HB, Talgø V, Toppe B, Herrero ML, Stensvand A (2007) First report of *Melampsora euphorbiae* on poinsettia (*Euphorbia pulcherrima*) in Norway. *Plant Health Progress*. http://www.plantmanagementnetwork.org/php/elements/sum.asp?id=6259&photo=3513
Holden ANG, Mahlberg PG (1995) Rusts for the biological control of leafy spurge (*Euphorbia esula*) in North America. *Proceedings of the 8th Symposium on biological control of weeds, Canterbury (NZ), 1992-02-02/07*, pp 419-424.
Kavak H (2004) *Melampsora euphorbiae*, a new rust disease found on *Euphorbia rigida* in Turkey. *New Disease Reports* Volume 9 (February – July) http://www.bspp.org.uk/NDR/july2004/2004-39.asp
Littlefield L, Hosford R (1985) Project 2327: Biological control of leafy spurge. *Proceedings of the Leafy Spurge Symposium, Bozeman, Montana (US), 1985-07-17/18*, pp. 108-109.
Mahmood TZ (1991) Seasonality of *Melampsora euphorbiae* (Schum) Cast a parasite of *Euphorbia helioscopia* Linn. in Pakistan. *Pakistan Journal of Weed Science Research* **4**(1), 32-34.
Pady SM (1971) Urediospore release in *Melampsora euphorbiae, M. lini* and *Puccinia pelargonii-zonalis. Mycologia* **63**(5), 1019-1023 (abst.)
Pascual Villalobos MJ, Jellis GJ (1992) Occurrence of *Melampsora euphorbiae* on *Euphorbia lagascae* in south-east Spain. *Plant Pathology* **41**,370-371.
INTERNET
Natural Environment Research Council (GB) Ecological Flora of the British Isles. *Melampsora euphorbiae*. http://www.ecoflora.co.uk/search_pathfung2.php?fungus=Melampsora%20euphorbiae
Flora of Zimbabwe. *Euphorbia heterophylla*. http://www.zimbabweflora.co.zw/speciesdata/species.php?species_id=136030

EPPO RS 2008/056
Panel review date - Entry date 2008-03

2008/057 Distribution of *Phakopsora pachyrhizi* in the USA in 2007

Since its first discovery in Louisiana in 2004 (see EPPO RS 2005/027), *Phakopsora pachyrhizi* (EPPO Alert List) has spread widely within the USA. The results of the 2007 surveys indicate that the Asian soybean rust is present in the following 19 states on continental USA (334 counties) and in Hawaii. In 2007, *P. pachyrhizi* spread towards the north and west, and it was found for the first time in Iowa, Kansas, Nebraska, and Oklahoma (so far, it has not been found in Ohio). In most areas in the Midwest and plains regions, soybean rust appeared late in the season and therefore did affect production.

Distribution in the USA in 2007:
Alabama (found in 40 counties), Arkansas (33 counties), Florida (24 counties), Georgia (51 counties), Hawaii (no details), Illinois (4 counties), Indiana (1 counties), Iowa* (14 counties), Kansas* (9 counties), Kentucky (3 counties), Louisiana (21 parishes), Mississippi (26 counties), Missouri (37 counties), Nebraska* (4 counties), North Carolina (6 counties), Oklahoma* (12 counties), South Carolina (7 counties), Tennessee (7 counties), Texas (26 counties), Virginia (9 counties).

* New state records.

Source: USDA – Integrated Pest Management – Pest Information Platform for Extension and Education. http://www.sbrusa.net/cgi-bin/sbr/public.cgi

Purdue University. Plant and Pest Diagnostic Laboratory. Asian soybean rust. *Phakopsora pachyrhizi*. http://www.ppdl.purdue.edu/PPDL/soybean_rust.html

Additional key words: detailed record **Computer codes:** PHAKPA, US

2008/058 First outbreak of *Puccinia horiana* in Turkey

In Turkey, chrysanthemum cut flowers are only grown in the Izmir province over a small area (5 ha in 2006). In February and March 2007, an outbreak of chrysanthemum white rust was observed in 12 different glasshouses in the Izmir province (Aegean region), resulting in yield losses of 80%. Morphological examination and pathogenicity tests confirmed the presence of *Puccinia horiana* (EPPO A2 List). This is the first record of *P. horiana* in Turkey.
The situation of *Puccinia horiana* in Turkey can be described as follows: **Present, first reported in 2007, one outbreak in 12 glasshouses (Izmir province).**

Source: Erhan Göre M (2007) White rust outbreaks on chrysanthemum caused by *Puccinia horiana* in Turkey. New Disease Reports, Volume 16 (August 2007-January 2008). http://www.bspp.org.uk/ndr/jan2008/2007-81.asp

Additional key words: new record **Computer codes:** PUCCHN, TR

2008/059 First report of *Xanthomonas arboricola* pv. *fragariae* in Turkey

During summer 2004, symptomless propagation material of strawberry (*Fragaria ananassa* cv. 'Camarosa') produced in the Mediterranean region of Turkey was tested for the presence of *Xanthomonas fragariae* (EPPO A2 List, and regulated in Turkey) before being allowed to be planted in the Aegean region (Manisa province). Propagation material was placed in a growth chamber to see whether symptoms of angular leaf spot caused by *X. fragariae* appeared. After 1 week, symptoms resembling those of bacterial leaf blight developed instead of those initially expected. Laboratory tests (biochemical, physiological, serological, PCR tests) were carried out and confirmed the presence of *Xanthomonas arboricola* pv. *fragariae* (formerly on the EPPO Alert List but subsequently removed because of its uncertain economic importance). This is the first report of *X. arboricola* pv. *fragariae* in Turkey. It is also the first time that the bacterium is detected in symptomless strawberry plants.

Source: Ustun N, Tjou-Tam-Sin NNA, Janse JD (2007) First report of bacterial leaf blight of strawberry caused by *Xanthomonas arboricola* pv. *fragariae* Janse *et al*. in Turkey. *Journal of Plant Pathology* **89**(1), 109-112.

Additional key words: new record **Computer codes:** XANTAF, TR

2008/060 New findings of *Iris yellow spot virus* in the Netherlands in 2007

The NPPO of the Netherlands recently informed the EPPO Secretariat about new findings of *Iris yellow spot virus* (*Tospovirus*, IYSV - EPPO Alert List). In August 2007, new infections of IYSV were detected in onion (*Allium cepa*) at different locations. In total, 31 plants out of 108 from 5 fields tested positive for IYSV. However, none of the tested plants showed any virus symptoms. In September 2007, IYSV was detected in one crop of *Eustoma* in the vicinity of two onion fields infected by IYSV. The origin of IYSV infections in onion remains unclear but may be attributed to the possible existence of wild host plants. Therefore, a more extensive survey in onion is planned for 2008.

In the Netherlands the following incidental findings of IYSV have been recorded since 1992.

Year	Crop	Number of thrips
1992	*Iris*	Many
1997	*Allium porrum*	Few
2004	*Alstroemeria* (2x)	Many
2005	*Alstroemeria*	Few
2005	*Allium cepa* (1 plant)	Many
2006	*Allium cepa* (3 plants)	Many
2006	*Eustoma*	Many
2007	*Allium cepa* (31 plants)	Many
2007	*Eustoma*	Few

On the infected crops, IYSV only caused local symptoms, with the exception of *Eustoma*, in which it was not clear whether the plants were infected locally or systemically. Therefore, in these hosts (*Eustoma* possibly excluded) the virus will not spread systemically to other plant parts, including the bulbs of onion and ornamental crops. This would mean that the virus has to be introduced into a crop by viruliferous thrips (*Thrips tabaci*). Therefore, economic losses caused by IYSV strongly depend on the number of viruliferous thrips present, which in itself is thought to be related to the presence of systemic hosts. In the Netherlands, the IYSV infections in *Iris* (1992) were recorded after lifting symptomatic leek plants (*Allium porrum*), and in *Alstroemeria* (2004) and *Eustoma* (2006 and 2007) after lifting onion plants, some of which had been infected by IYSV. These correlations suggest that leek and onion had been sources of infection for the ornamental crops. However, since IYSV causes local lesions on leek and onion, thrips can only acquire the virus from these local lesions. Such lesions are mainly present on older leaves whereas thrips prefer younger leaves for feeding. These two aspects considerably reduce the probability of acquisition of the virus by thrips. In *Alstroemeria* and *Eustoma* lesions are necrotic, which further minimizes the chances for virus acquisition by thrips. Therefore, the Dutch NPPO considered that eradication of all infected plants does not seem necessary for virus control in the crops mentioned above. Moreover, eradication of infected onion crops would result in similar thrips behaviour as observed during the lifting of onions at the end of the growing season. Instead of eradicating IYSV infected plants, it is felt that more attention should be given to thrips control during the period when onion and leek crops are lifted.
In contrast to reports from some other countries, IYSV was mainly found in symptomless onion plants in the Netherlands; only in 2006 were mild symptoms observed in three plants. Therefore, infestations by IYSV could be more widely spread in Europe than currently known. In addition, the main source(s) of infection for onion and leek still seem to be unknown. Therefore, the search should continue for a host plant that may be infected systemically.
The pest status of *Iris yellow spot virus* in the Netherlands is officially declared as follows: **Present, few occurrences, little damage.**

Source: NPPO of the Netherlands, 2008-03.

INTERNET (last retrieved in 2008-03)
Website of the Dutch Ministry of Agriculture, Nature and Food Quality. Pest record. Finding *of Iris yellow spot virus* in the Netherlands in 2007.
http://www.minlnv.nl/portal/page?_pageid=116,1640321&_dad=portal&_schema=PORTAL&p_file_id=26184

Additional key words: detailed record **Computer codes:** IYSV000, NL

2008/061 First report of *Citrus tristeza virus* in Angola and São Tomé e Príncipe

Studies have been carried out in Angola and São Tomé e Príncipe to assess the possible presence of *Citrus tristeza virus* (*Closterovirus*, CTV – EPPO A2 List). In São Tomé e Príncipe, young twigs were collected from 20 trees in different places and from different citrus varieties. In Angola, samples were collected from 7 old orange trees (*Citrus sinensis*) of unknown varieties in an orchard at Sumbe, in the province of Kwanza Sul. Two samples from São Tomé e Príncipe and all of the 7 samples from Angola were found infected by CTV (ELISA). These are the first reports of CTV in Angola and São Tomé e Príncipe.
The situation of *Citrus tristeza virus* in São Tomé e Príncipe can be described as follows: **Present, first reported in 2007.**
The situation of *Citrus tristeza virus* in Angola can be described as follows: **Present, first reported in 2007 in an orchard at Sumbe (Kwanza Sul province).**

Source: Silva G, Fonseca F, Santos C, Nolasco G (2007) Presence of *Citrus tristeza virus* in Angola and São Tomé e Príncipe: characterization of isolates based on coat protein gene analysis. *Journal of Plant Pathology* **89**(1), 149-152.

Additional key words: new record **Computer codes:** CTV000, AO, ST

2008/062 New data on quarantine pests and pests on the EPPO Alert List

By searching through the literature, the EPPO Secretariat has extracted the following new data concerning quarantine pests and pests included on the EPPO Alert List. The situation of the pest concerned is indicated in bold, using the terms from ISPM no. 8.

- **New records**

Acizzia jamatonica (Homoptera: Psyllidae – formerly on EPPO Alert List) was found on *Albizia julibrissin* in a private garden in Douglasville, Georgia (US) in September 2006. This is the first report of this pest in North America (Halbert, 2007a). **Present, first recorded in Georgia in 2006.**

Cameraria ohridella (Lepidoptera: Gracillariidae – formerly on EPPO Alert List) occurs in Sweden (Svensson, 2004). **Present, no details.**

Dendroctonus frontalis (Coleoptera: Scolytidae – EPPO A1 List) occurs in Nicaragua in pine forests (*Pinus caribaea, P. oocarpa*). A severe outbreak took place from 1998 to 2002 during which 30 000 ha of pine forests were killed. A strategic plan for fires and bark beetles has been put in place to protect forests in Nicaragua (Billings *et al.*, 2004). **Present, no details.**

Diaphorina citri (Homoptera: Aphalaridae - EPPO A1 List) occurs in Dominica. An infestation was reported on *Murraya paniculata* in Roseau in January 2007 (Halbert, 2007b). **Present, no details.**

Diaphorina citri (Homoptera: Aphalaridae - EPPO A1 List) occurs in Antigua and Barbuda. An infestation was reported on *Citrus* at a hotel in St. Johns, Antigua in March 2006 (Halbert, 2007b). **Present, found in Antigua.**

In Norway, *Fusarium foetens* (EPPO A2 List) was reported for the first time in 2006. It was found in 5 nurseries on begonias but not in propagation material (Bioforsk website). **Present, no details.**

Iris yellow spot tospovirus (EPPO Alert List) has been isolated from onion tissues (*Allium cepa*) collected in Guatemala (Nischwitz, 2007). **Present no details.**

Neotoxoptera formosana (Homoptera: Aphididae – formerly on EPPO Alert List) has been reported in Argentina and Venezuela on *Allium* crops since the 1990s (Vasicek *et al.*, 2007**). Present, no details.**

In 2006, *Metcalfa pruinosa* (Homoptera: Flatidae) was found in new sites in Croatia (Zagreb, Hvar, and Vrgorac) and its presence was recorded for the first time in the Herzegovina region of Bosnia and Herzegovina (Mostar and Ljubuški) causing severe damage to grapevine (Gotlin Čuljak *et al.*, 2007).

- **Detailed records**

In November 2007, 5 immature females of *Anastrapha ludens* (Diptera: Tephritidae – EPPO A1 List) were detected in the County of San Diego, California (US). Eradication measures were immediately applied. The pest status of *Anastrapha ludens* in the USA is officially declared as follows: **Transient, actionable, and under eradication** (NAPPO, 2007-12).

In Argentina, a single specimen of *Callidiellum rufipenne* (Coleoptera: Cerambycidae – formerly on EPPO Alert List) was first detected in 2003 at one site in the province of Buenos Aires. Further findings were then made, all in the province of Buenos Aires on old *Cupressus macrocarpa* dead branches, generally broken by strong winds and fallen to the ground or hanging from living trees (Turienzo, 2007).

In September 2007, 3 immature females and 10 adult males of *Ceratitis capitata* (Diptera: Tephritidae – EPPO A2 List) were detected in a residential area in the County of Solano, California (US). 33 larvae were also detected in peach fruits collected from the same area. In September and October 2007, *C. capitata* (3 males and 4 females) were caught in 4 private properties in the County of Santa Clara. In October and November 2007, *C. capitata* was also detected in the County of Los Angeles in 4 private properties. In all cases, eradication measures were immediately applied. The pest status of *Ceratitis capitata* in the USA is officially declared as follows: **Transient, actionable, and under eradication** (NAPPO, 2007-09, 2007-10, and 2007-11).

In Papua New Guinea, citrus huanglongbing (associated with '*Candidatus* Liberibacter asiaticus' – EPPO A1 List) was found during a delimiting survey in 2002, in the Sandaun Province near the border with Indonesia (see EPPO RS 2003/011). Later surveys done in 2002-2004 showed that the disease and its vector *Diaphorina citri* (EPPO A1 List) only had a limited spread. In addition, no evidence was found for the presence of '*Ca*. L. asiaticus' in Cook Islands, Fiji Islands, Samoa and Tonga. Finally, several citrus samples collected from Papua New Guinea and testing positive for '*Ca*. L. asiaticus' were also found infected by *Citrus tristeza virus* (Closterovirus, CTV – EPPO A2 List), thus confirming the presence of CTV in Papua New Guinea (Davis *et al.*, 2005).

Oligonychus perseae (Acari: Tetranychidae – EPPO Alert List) was reported for the first time in Florida (US) in August 2007. A minor infestation was found in Homestead (Miami-Dade County) on avocado (*Persea americana*) in a private garden (Halbert, 2007c).

In Canada, *Puccinia horiana* (EPPO A2 List) was detected in September 2007 in British Columbia. It was detected in one nursery growing chrysanthemum outdoors. Eradication measures were immediately applied. The pest status of *Puccinia horiana* in Canada is officially declared as follows: **Transient and under eradication** (NAPPO, 2007-10).

In April 2007, a single adult male of *Spodoptera litura* (Lepidoptera: Noctuidae – EPPO A1 List) was caught in a pheromone trap near a nursery in Miami-Dade County, Florida (US). Further traps were placed in the vicinity of the nursery concerned but no other specimens were caught (University of Florida Pest Alert, 2007).

In autumn 2006, *Tomato yellow leaf curl virus* (*Begomovirus* – EPPO A2 List) was detected for the first time in Arizona (US) on tomato plants growing in private gardens. Affected plants were also infested by *Bemisia tabaci* biotype B (ProMed, 2007).

- **Host plants**

In Jamaica, coconut lethal yellowing is the most important disease affecting coconuts (*Cocos nucifera*). Studies were conducted in 2005 to identify alternate hosts of the Coconut lethal yellowing phytoplasma (EPPO A1 List). The presence of a phytoplasma showing 99% similarity with the Coconut lethal yellowing phytoplasma found in Jamaica, Nevis and Florida (16Sr IV group) was detected in *Emelia fosbergii* and *Synedrella nodiflora* (both Asteraceae) (Brown *et al.*, 2008).

Natural infection by '*Candidatus* Phytoplasma solani' (Stolbur phytoplasma – EPPO A2 List) has been detected in *Solanum malacoxylon* (Solanaceae) plants growing in the botanical garden of Milan University, Italy. Affected plants showed yellowing symptoms with necrosis of leaf margins and a typical bending of the apical part of the stem. *S. malacoxylon* is a perennial shrub originating from South America where it grows in moist open grasslands. Because of its ability to produce vitamin D, this plant is of biomedical interest (Iriti *et al.*, 2008).

Source: Billings RF, Clarke SR, Espino Mendoza V, Cordón Cabrera, Meléndez Figueroa B, Ramón Campos J, Baeza G (2004) Bark beetle outbreaks and fire: a devastating combination for Central America's pine forests. FAO, Unasylva no. 217, 15-21.
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NAPPO Phytosanitary Alert System – Official Pest Reports (2007-11-14) *Ceratitis capitata* (Mediterranean fruit fly) - Quarantined area in Los Angeles County, California – United States. http://www.pestalert.org/oprDetail.cfm?oprID=294
NAPPO Phytosanitary Alert System – Official Pest Reports (2007-10-29) *Ceratitis capitata* (Mediterranean fruit fly) - Quarantined area in Santa Clara County, California. http://www.pestalert.org/oprDetail.cfm?oprID=291
NAPPO Phytosanitary Alert System – Official Pest Reports (2007-10-12) Chrysanthemum white rust (*Puccinia horiana*) – Find in British Columbia nursery facility. http://www.pestalert.org/oprDetail.cfm?oprID=289
NAPPO Phytosanitary Alert System – Official Pest Reports (2007-09-20) *Ceratitis capitata* (Mediterranean fruit fly) – Quarantine area in Solano County California – United States. http://www.pestalert.org/oprDetail.cfm?oprID=285
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Additional key words: new records, detailed records, new host plants

Computer codes: ACIZJA, CERTCA, CLLLRU, DENCFR, DIAACI, FUSAFO, IYSV00, LITHOD, METFPR, NEOTFO, OLIGPA, TYLCV0, AG, AR, BA, DM, GT, HR, NI, NO, SE, US, VE

2008/063 EPPO report on notifications of non-compliance

The EPPO Secretariat has gathered the notifications of non-compliance for 2007 received from Israel, Russia and Switzerland since the previous report (EPPO RS 2008/037). Notifications of non-compliance for 2008 received via Europhyt from EU countries are also presented below. When a consignment has been re-exported and the country of origin is unknown, the re-exporting country is indicated in brackets. When the occurrence of a pest in a given country is not known to the EPPO Secretariat, this is indicated by an asterisk (*).

The EPPO Secretariat has selected notifications of non-compliance made because of the detection of pests. Other notifications of non-compliance due to prohibited commodities, missing or invalid certificates are not indicated. It must be pointed out that the report is only partial, as many EPPO countries have not yet sent their notifications.

Notifications for 2007 for Israel, Russia and Switzerland

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Achatina achatina elegans	*Croton*	Cuttings	Netherlands	Israel	1
Aleyrodidae	*Rosa*	Plants for planting	Netherlands	Israel	1
Amaranthus tuberculatus	*Eleusine coracana*	Stored products	India	Israel	1
Aphelenchoides fragariae	*Scilla*	Bulbs (corms)	Netherlands	Israel	1
Aphididae	*Eupatorium*	Cuttings	Netherlands	Israel	1
Arianta arbustorum		Growing medium	Estonia	Israel	1
Aspergillus flavus	*Zea mays*	Stored products	Italy	Israel	1
Atherigona	*Typha*	Stalks/canes	Kenya	Israel	1
Aulacorthum solani	*Pelargonium*	Cuttings	France	Israel	1
Carnation mottle virus	*Dianthus*	Cuttings	Denmark	Israel	1
Cirsium arvense	*Daucus carota*	Seeds	Netherlands	Israel	1
	Raphanus sativus	Seeds	Italy	Israel	1
Claviceps purpurea	*Lolium perenne*	Seeds	USA	Israel	3
Commelina benghalensis	*Eleusine coracana*	Stored products	India	Israel	1
Cornu aspersum aspersum	*Brassica oleracea* var. *capitata*	Vegetables	Netherlands	Israel	1
Cuscuta	*Corchorus olitorius*	Seeds	Egypt	Israel	1
	Majorana	Seeds	Netherlands	Israel	1
	Ocimum basilicum	Seeds	Italy	Israel	1
Deroceras reticulatum	*Brassica oleracea* var. *capitata*	Vegetables	Netherlands	Israel	1
	Euonymus	Pot plants	Netherlands	Israel	1
	Hydrangea	Cuttings	Netherlands	Israel	1
Digitaria ciliaris	*Eleusine coracana*	Stored products	India	Israel	1
Duponchelia fovealis	*Begonia*	Pot plants	Netherlands	Israel	4
	Kalanchoe	Pot plants	Netherlands	Israel	1
Dysmicoccus brevipes	*Ananas comosus*	Fruits	Dominican Rep.	Israel	1
Dysmicoccus waustensis	*Xanthorrhoea*	Plants for planting	Australia	Israel	1
Echinospermun lappula	*Brassica napus*	Stored products	Ukraine	Israel	1
Elateridae	*Solanum melongena*	Fruits	Cyprus	Israel	1
Elytrigia repens	*Brassica napus*	Stored products	Ukraine	Israel	1
Erwinia chrysanthemi	*Phalaenopsis*	Tissue cultures	Thailand	Israel	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Fallopia convolvulus	*Beta vulgaris*	Seeds	Germany	Israel	1
	Beta vulgaris	Seeds	Netherlands	Israel	1
	Raphanus sativus	Seeds	Spain	Israel	1
	Salvia	Seeds	USA	Israel	1
Frankliniella intonsa	*Zantedeschia*	Cut flowers	Netherlands	Israel	1
Frankliniella occidentalis	*Alstroemeria*	Cut flowers	Netherlands	Israel	1
Fusarium verticilliodes	*Dianthus*	Cuttings	Germany	Israel	1
Insecta (larva)	*Solanum melongena*	Vegetables	Thailand	Switzerland	1
Iva xanthifolia	*Eleusine coracana*	Stored products	India	Israel	1
Lettuce mosaic virus	*Lactuca sativa*	Seeds	Netherlands	Israel	1
Leucoptera malifoliella	*Malus*	Fruits	Hungary	Israel	1
Limax maximum	*Guzmania*	Pot plants	Netherlands	Israel	1
Macrosiphum euphorbiae	*Tulipa*	Cut flowers	Netherlands	Israel	1
Phoma	*Capsicum annuum*	Seeds	Spain	Israel	1
Plutella xylostella	*Brassica oleracea* var. *capitata*	Vegetables	Netherlands	Israel	1
Polygonum persicaria	*Daucus carota*	Seeds	France	Israel	1
Quadraspidiotus perniciosus	*Cydonia sinensis*	Fruits	Greece	Israel	1
	Malus	Fruits	Hungary	Israel	1
	Malus	Fruits	Italy	Israel	1
Rumex patientia	*Allium shoenoprasum*	Seeds	France	Israel	1
Sclerotinia sclerotiorum	*Petroselinum crispum*	Seeds	France	Israel	1
Spodoptera littoralis	*Solanum melongena*	Fruits	Cyprus	Israel	1
Succineidae	*Croton*	Cuttings	Netherlands	Israel	1
Tetranychus urticae	*Cosmos*	Cuttings	Netherlands	Israel	1
	Helichrysum	Cuttings	Germany	Israel	1
Thielaviopsis basicola	*Dracaena sanderiana*	Cuttings	Taiwan	Israel	1
Thrips nigropilosus	*Zantedeschia*	Cut flowers	Netherlands	Israel	1
Thrips tabaci	*Zantedeschia*	Cut flowers	Netherlands	Israel	1
Tortricidae	*Cydonia sinensis*	Fruits	Spain	Israel	1
Trogoderma granarium	*Sesamum indicum*	Stored products	India	Russia	1
Xystrocera	*Xanthorrhoea*	Plants for planting	Australia	Israel	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Aleochara	Unspecified	Wood and bark	Ukraine	Israel	1
Altica bicarinata	Unspecified	Wood	Ukraine	Israel	1
Anaspis	Unspecified	Wood and bark	Ukraine	Israel	1
Anobium fulvicorne	Unspecified	Wood and bark	Russia	Israel	1
Anthicus	Unspecified	Wood	Bulgaria	Israel	1
	Unspecified	Wood and bark	Russia	Israel	1
Anthicus ater	Unspecified	Wood and bark	Ukraine	Israel	1
Aphodius	Unspecified	Wood and bark	Ukraine	Israel	1
Arhopalus rusticus	Unspecified	Wood	Ukraine	Israel	4
Attagenus woodroffei	Unspecified	Wood and bark	Ukraine	Israel	1
Berginus	*Bambusa*	Wood (canes)	China	Israel	1
	Unspecified	Wood	Bulgaria	Israel	1
Bethylus	Unspecified	Wood and bark	Romania	Israel	1
Bostrichidae	Unspecified	Wood and bark	Ukraine	Israel	1
Camponotus	*Bambusa*	Wood (canes)	China	Israel	1
Camponotus fallax	Unspecified	Wood and bark	Ukraine	Israel	1
Camponotus vagus	Unspecified	Wood and bark	Ukraine	Israel	1
Carpelimus	Unspecified	Wood	Russia	Israel	1
Cartodere nodifer	*Populus*	Wood	Ukraine	Israel	1
Cataulacus granulatus	*Bambusa*	Wood (canes)	China	Israel	1
Chrysididae	Unspecified	Wood	Ukraine	Israel	1
Corticaria ferruginea	Unspecified	Wood and bark	Ukraine	Israel	1
Cryptamorpha	*Bambusa*	Wood (canes)	China	Israel	1
Cryptolestes	*Pinus*	Wood	Madagascar	Israel	1
Cryptophagidae	*Bambusa*	Wood (canes)	China	Israel	1
	Unspecified	Wood and bark	Russia	Israel	1
Cryptophagus	*Bambusa*	Wood (canes)	China	Israel	1
	Unspecified	Wood	Bulgaria	Israel	1
Cucujidae	Unspecified	Wood and bark	Ukraine	Israel	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Dinoderus minutus	*Bambusa*	Wood (canes)	China	Israel	1
Dolichoderus quadripunctatus	Unspecified	Wood	Ukraine	Israel	2
Eurythyrea austriaca	Unspecified	Wood and bark	Ukraine	Israel	1
Gracillariidae	Unspecified	Wood and bark	Ukraine	Israel	1
Hylastes	Unspecified	Wood	Ukraine	Israel	1
Hylastes brunneus	Unspecified	Wood	Ukraine	Israel	2
Hylurgops palliatus	Unspecified	Wood and bark	Russia	Israel	2
Lasioderma	Unspecified	Wood and bark	Ukraine	Israel	1
Lasius	Unspecified	Wood	Ukraine	Israel	1
Lasius niger	*Populus*	Wood	Ukraine	Israel	3
Lathridiidae	*Bambusa*	Wood (canes)	China	Israel	1
Metophthalmus	Unspecified	Wood and bark	Ukraine	Israel	1
Monochamus sutor	Unspecified	Wood and bark	Ukraine	Israel	1
Monochamus urussovi	Unspecified	Wood	Ukraine	Israel	1
Notoxus	Unspecified	Wood and bark	Ukraine	Israel	1
Odontocolon	Unspecified	Wood and bark	Ukraine	Israel	1
Orthocentrus	Unspecified	Wood	Ukraine	Israel	1
Phyllotreta	Unspecified	Wood and bark	Russia	Israel	1
Pleurophorus	Unspecified	Wood and bark	Ukraine	Israel	1
Pseudoseioptera	Unspecified	Wood	Russia	Israel	1
Pterosticus	Unspecified	Wood	Ukraine	Israel	1
Scatopsidae	*Pinus*	Wood	Madagascar	Israel	1
Silvanus	Unspecified	Wood	Ukraine	Israel	1
Sinoxylon perforans	Unspecified	Wood and bark	Ukraine	Israel	1
Sitona macularius	*Populus*	Wood	Romania	Israel	1
Sphecidae	*Bambusa* Unspecified	Wood (canes) Wood and bark	Thailand Ukraine	Israel Israel	1 1
Tachyporus	Unspecified	Wood and bark	Ukraine	Israel	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Thanasimus formicarius	Unspecified	Wood	Ukraine	Israel	1
Tillus	Unspecified	Wood	Ukraine	Israel	1
Uloma culinaris	Unspecified	Wood and bark	Romania	Israel	1

Notifications for 2008 from EU countries and Switzerland

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Bemisia tabaci	*Anubias barteri, Anubias sp., Cryptocoryne*	Aquarium plants	Thailand	Denmark	1
	Aster	Cut flowers	Israel	Netherlands	2
	Aster, Eustoma, Gypsophila, Solidago	Cut flowers	Israel	Netherlands	1
	Gypsophila	Cut flowers	Israel	Netherlands	5
	Ocimum	Vegetables (leaves)	Thailand	United Kingdom	1
	Ocimum basilicum	Vegetables (leaves)	Israel	Ireland	2
	Ocimum basilicum	Vegetables (leaves)	Israel	Netherlands	1
	Solidago	Cut flowers	Zimbabwe	Netherlands	1
Calguia defiguralis	Unspecified	Vegetables	Thailand	United Kingdom	1
Dialeuropora decempuncta, Parabemisia	*Piper sarmentosum*	Vegetables (leaves)	Thailand	United Kingdom	1
Guignardia	*Citrus maxima*	Fruits	China	Netherlands	1
Helicoverpa armigera	*Dianthus*	Cut flowers	Egypt	Netherlands	1
	Dianthus	Cut flowers	Kenya	Netherlands	1
	Eryngium	Vegetables (leaves)	Zimbabwe	Netherlands	1
	Gypsophila	Cut flowers	Israel	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Netherlands	1
	Pelargonium	Cuttings	Spain (Canary isl.)	Netherlands	1
	Rosa	Cut flowers	Ethiopia	Netherlands	2
	Rosa	Cut flowers	Kenya	Netherlands	9
	Rosa	Cut flowers	South Africa	Netherlands	1
	Rosa	Cut flowers	Uganda	Netherlands	4
	Rosa	Cut flowers	Zimbabwe	Netherlands	2
Helicoverpa armigera, Thripidae	*Ocimum sanctum*	Vegetables (leaves)	Thailand	United Kingdom	1
Liriomyza	*Apium graveolens*	Vegetables	Thailand	United Kingdom	1
	Gypsophila	Cut flowers	Israel	Belgium	3
Liriomyza huidobrensis	*Gypsophila*	Cut flowers	Ecuador	Netherlands	1
Liriomyza sativae	*Ocimum basilicum*	Vegetables (leaves)	Thailand	France	1
Liriomyza trifolii	*Eustoma*	Cut flowers	Israel	Netherlands	1
	Gypsophila	Cut flowers	Israel	Netherlands	2
Maruca vitrata	*Citrus aurantiifolia*	Fruits	India	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Russellaspis pustulans	*Psidium, Solanum melongena*	Vegetables	India	United Kingdom	1
Spodoptera littoralis	*Rosa*	Cut flowers	Ethiopia	Netherlands	1
	Rosa	Cut flowers	Uganda	Netherlands	1
	Rosa	Cut flowers	Zimbabwe	Netherlands	5
Spodoptera litura	*Ipomoea aquatica*	Vegetables	Thailand	Netherlands	1
	Rosa	Cut flowers	India	Netherlands	1
Tetranychus	*Dianthus caryophyllus*	Cut flowers	Israel	Greece	1
Thripidae	*Momordica*	Vegetables	Dominican Rep.	United Kingdom	2
	Phlox drummondii	Cuttings	USA	United Kingdom	1
Thrips palmi	*Dendrobium*	Cut flowers	Thailand	Netherlands	1
	Momordica	Vegetables	Dominican Rep.	United Kingdom	1
	Momordica	Vegetables	Dominican Rep.	Netherlands	1
	Momordica	Vegetables	India	United Kingdom	1
Xanthomonas axonopodis pv. *citri*	*Citrus*	Fruits	Bangladesh	United Kingdom	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Grub holes > 3 mm	*Larix*	Wood and bark	Russia	Finland	2
Nematoda	Unspecified	Packing wood	USA	Finland	1
Sinoxylon	Unspecified	Packing wood	India	Germany	1
Trogoxylon	Unspecified	Packing wood	India	Germany	1

- **Bonsais**

Pest	Consignment	Country of origin	Destination	nb
Meloidogyne	*Trachycarpus fortunei, Trachycarpus wagnerianus*	Japan	Netherlands	1
	Unspecified	USA	Netherlands	3
Xiphinema americanum	*Acer palmatum*	Japan	Netherlands	1
	Cryptomeria japonica	Japan	Netherlands	1

Source: EPPO Secretariat, 2008-03.

2008/064 Invasive alien plants in China

China including Taiwan, Hong Kong and Macao is the third largest country in the world and covers five climatic zones: cold-temperate, temperate, warm-temperate, subtropical and tropical. China has a long history of introduction of non-native species.

Early introductions were associated with immigration and trade among different regions. In the 4th century BC, the Tamarind (*Tamarinda indica*, Fabaceae), originating from Africa, was introduced through the trade route linking China to India.

During the Han Dynasty (-206 BC to 220 AC), the Silk Road connected Asia to Europe (from the current Xi'an in China to Syria). Messengers from this dynasty brought back seeds from plants of economic importance: grapevine (*Vitis vinifera*, Vitaceae), alfalfa (*Medicago sativa*, Fabaceae), common pomegranate (*Punica granatum*, Punicaceae), and safflower (*Carthamus tinctorius*, Asteraceae). All except *Vitis vinifera* have escaped into the wild in Western China. The Tang Dynasty (618-907) was particularly involved with the import of exotic goods from almost every Asian nation.

During the Song Dynasty (960-1279), Quanzhou and Guanzhou became ports that connect China with Southeast Asian countries.

In 1645, Western Europeans arriving in India and in Southeast Asia by the "Gama Sea Route" introduced species newly collected in America. The Chinese brought back plants of economic importance from the Americas such as sweet potato (*Ipomoea batatas*, Convolvulaceae), tobacco (*Nicotiana tabacum*, Solanaceae), and blue passionflower (*Passiflora coerulea*, Passifloraceae). They also unintentionally introduced *Bidens bipinnata* (Asteraceae).

During the Dutch occupation of Taiwan (1624-1662), some American species such as *Leucaena leucocephala* (Fabaceae) and *Acacia farnesiana* (Fabaceae) were introduced into Taiwan and naturalized.

After the Opium war in 1842, many weeds were introduced through ports. Indeed, *Conyza bonariensis* (Asteraceae) was first recorded in 1857, *Conyza canadensis* (Asteraceae) in 1862 and *Erigeron annuus* (Asteraceae) in 1886. These species subsequently became invasive in the wild. Other plants were introduced through a variety of pathways. For instance, *Ulex europaeus* (Fabaceae) was introduced by a French missionary and then escaped into the wild.

Owing to its rapid economic development, including explosive growth in trade and transport systems, China will have to deal with invasive alien plants (currently in lag phase) present on its territory, as well as to invasive alien plants to be introduced in the future. Invasive alien plants have been reported all over China, except in a few remote reserves in the Qinghai-Tibet Plateau, in the Hengduan Mountains, in Xinjiang and in Inner Mongolia.

Current invasive alien plants in China presented in this report are defined as invasive according to the following criteria (following the definition of the Convention on Biological Diversity):

- the exotic species has been introduced through human activities
- it has naturalized in either cultivated or uncultivated ecosystems
- it has caused obvious changes in cultivated or uncultivated ecosystems.

Each species has been checked against the Global Compendium of Weeds (GCW) in order to indicate its invasive behaviour elsewhere in the world, as well as in Flora Europaea, Invasive Plant Species of the World, the DAISIE and EPPO databases to determine its occurrence within the EPPO region. This later information remains only indicative, and "/" indicates that no further information could be found.

Species and Family	Origin	Situation in China	GCW	Situation EPPO
Ageratina adenophora (= Eupatorium adenophorum = E. cannabinum) (Asteraceae)	C-Am.	This poisonous plant inhibits growth of plants and may even kill local plants and domestic animals. It spread from Myanmar to Southern Yunnan along roads in the 1940s. It is now widespread in South-Western China, and covers 247,000 km² in Yunnan.	W, AW, EW	Whole EPPO region
Ageratum conyzoides (Asteraceae)	Mexico	This plant is widely distributed in the tropical areas of the Eastern Hemisphere. It was first recorded in 1861 in Hong Kong, was then found in the Southern Yunnan Province in the late 19th century. It is now widespread in lowlands, mountains, hills and plains in the Yangtze Drainage basin and further South.	W, NW, AW, EW	Madeira (PT)
Ageratum houstonianum (Asteraceae)	N-Am.	This plant was introduced for ornamental purposes in Southern China, where it escaped in the wild.	W, NW, AW, EW	Madeira (PT), ES, casual in many countries
Alternanthera paronychioides (Amaranthaceae)	Trop. Am.	Reported in Wenchang in Hainan and Qi'ao Island in Guangdong Province and in Changhua and Pingtung in Taiwan.	W	Casual in BE
Alternanthera philoxeroides (Amaranthaceae) (EPPO Alert List)	Brazil	Introduced to Shanghai and Eastern China in the 1940s. Since the 50s, it has been introduced as a pig forage in Southern China, and it escaped into the wild. In 1986, a survey showed that the species covered more than 130,000 km² and was a major weed of vegetable crops, sweet potato fields and citrus orchards.	W, SW, NW, AW, EW	FR, IT
Alternanthera pungens (Amaranthaceae)	C-Am.	Recently introduced in coastal and open areas of Xiamen in Fujian Province and Changjiang in Hainan Province. This species is a troublesome weed because of its flowers' bristles.	W	ES, IL
Amaranthus albus (Amaranthaceae)	N-Am.	First recorded in 1935, and established in North and North-East China.	W, NW, AW, EW	Whole Eur.
Amaranthus blitoides (Amaranthaceae)	N-Am.	First reported in Liaoning in 1875 and then in Beijing, established in North and North-East China.	W, NW, AW	C and S Eur.
Amaranthus retroflexus (Amaranthaceae)	Trop. Am.	Widely distributed.	W, NW, AW, EW	Whole Eur., only casual in the N.
Amaranthus spinosus (Amaranthaceae)	Trop. Am.	Widely distributed.	W, AW, EW	ES, IT, Madeira (PT)
Amaranthus viridis (Amaranthaceae)	Trop. Af.	Widely distributed.	W, AW, EW	S-Eur.

Species and Family	Origin	Situation in China	GCW	Situation EPPO
Ambrosia artemisiifolia (Asteraceae) (EPPO List of IAP)	N-Am.	It was first collected in Hangzhou (Jiangsu Province) in 1935. By 1989, it expanded its range and was present in 12 provinces.	W, NW, AW, EW	C and S Eur.
Ambrosia trifida (Asteraceae)		This species invaded North-East China in the 1950s. By 1989, it spread and was present in 12 provinces.	W, NW, AW, EW	S-Eur.
Chenopodium ambrosioides (Chenopodiaceae)	Trop. Am.	First collected in Tamsui, Taipei in Taiwan in 1864, has spread on road sides. It is a weed in the Hong Kong region and is now widely distributed in tropical and sub-tropical areas.	W, AW, EW	W, C, S-Eur.
Chromolaena odorata (Asteraceae)	C-Am.	This plant was cultivated in Thailand in the early 1920s. It was present in Southern Yunnan in the early 1930s. It is now spreading in Yunnan, Guangxi and Hainan Provinces.	W, NW, AW, EW	/
Conyza bonariensis (Asteraceae)	S-Am.	This plant was first collected in Hong Kong in 1857 and rapidly spread to Guangdong and Shanghai, and was reported in Chongqing in 1887. It occurs primarily South of the Yangtze River and does not seem to adapt well to the dry and cold climate of Northern China.	W, AW	S-Eur.
Conyza canadensis (Asteraceae)	N-Am.	It was first collected in Yantai, Shandong Province, in 1860. Today, it is present across China.	W, NW, AW	Whole Eur.
Conyza floribunda (= C. sumatrensis) (Asteraceae)	S-Am.	It occurs primarily South of the Yangtze River and does not seem to adapt well to the dry and cold climate of Northern China.	W, AW	S-Eur.
Eichhornia crassipes (Pontederiaceae) (EPPO Alert List)	S-Am.	This plant was intentionally introduced into many areas of China as forage for domestic animals, for ornamental purposes, and to purify wastewater. Since its initial introduction in 1901, the species has spread widely in tropical and subtropical areas, particularly in Southern and South-Western China. In 1994, about 10 km^2 of Dianchi Lake in Yunnan Province - one of China's most famous and beautiful lakes - were completely covered by dense mats of this plant. The rapid spread of this weed has resulted in great economic losses to fisheries and tourism, as well as a reduction in native aquatic plants and threats to local biodiversity.	W, SW, NW, AW, EW	ES, IL, PT
Erigeron annuus (Asteraceae)	N-Am.	This plant was first collected in Shanghai in 1886. It is now found throughout most of China and is common in both temperate and subtropical regions.	W, AW	S and C-Eur.
Erigeron philadelphicus	N-Am.	This species was introduced after 1886 in China, and is now spreading in Jiangsu,	W, AW	Corse (FR), UK,

Species and Family	Origin	Situation in China	GCW	Situation EPPO
(Asteraceae)		Zhejiang and Shanghai.		casual in other countries
Lantana camara (Verbenaceae)	Trop. Am.	Introduced from Spain to Taiwan at the end of the Ming Dynasty (1368-1644), it spread throughout Southern China.	W, NW, AW, EW	Azores (ES), ES, IT, Baleares (ES), Canarias (ES), Corse (FR), Madeira (PT)
Lolium temulentum (Poaceae)	Eur.	This plant is a common weed in wheat fields in Europe and is consequently often found as a contaminant in grain consignments. It was first found in imported wheat from Bulgaria in 1954. By 1957, the species was established in Heilongjiang Province. By 1961, its range had expanded to 45 counties. The species was subsequently found in imported wheat from Australia, the USA, Canada, Argentina, France, Germany, Turkey, Greece, Egypt and the Netherlands. It has now invaded crop fields throughout most of China and is reported from all provinces and regions of China except Tibet and Taiwan. Its seeds are sometimes infested by a fungus which makes it poisonous to people and domestic animals.	W, NW, AW, EW	Indigenous in Eur.
Mikania micrantha (Asteraceae)	S-Am.	This species was first introduced into Malaysia and then spread to all of Southeast Asia. It climbs trees, blocks sunshine and then kills the trees. Its seeds are spread by wind and can reach remote areas and islands. It has been found in Hainan and South of Guangdong (Zhanjiang, Yangjiang, Taishan, Guangzhou, Zhuhai, Shenzhen and Hong Kong) in the late 1980s where it dominates large areas. It was first found in 1997 in the Futian national nature reserve located in the Neilingding Island in Shenzhen (Guangdong Province). After two years, it covered 40-60% of the total area, killed local plants in large numbers, threatening over 600 macaques living in the nature reserve.	W, SW, NW, AW, EW	/
Opuntia ficus-indica (Cactaceae)	Mexico	Introduced into Taiwan by the Dutch in 1645. It naturalized in South-Western China (including the South-East of Tibet) in dry and hot valleys.	W, NW, AW, EW	Medit.

Species and Family	Origin	Situation in China	GCW	Situation EPPO
Opuntia monacantha (Cactaceae)	S-Am.	Reported in Yunnan in 1625. Today, the species is widely present in Yunnan, Guangxi, Guangdong, Fujian and Taiwan.	W, NW, AW, EW	Medit.
Opuntia stricta var. dillenii (Cactaceae)	Coastal areas of the Caribbean	Introduced into Taiwan by the Dutch in 1645. It invaded large areas of coastal Southern China on dry and stony soils.	W, NW, AW, EW	Medit.
Plantago aristata (Plantaginaceae)	N-Am.	This species was first found in Qingdao (Shandong Province) in 1929, where it is now a widespread weed. It occurs on coasts, beaches, along roadsides, on hills and grasslands of the Jiangsu Province.	W, NW, AW, EW	Present in Eur.
Plantago virginica (Plantaginaceae)	N-Am.	This species was first collected in Nanchang in Jiangxi Province in 1951 and now occurs in grasslands and along roadsides and lake shores in the Southern part of Jiangsu Province and in Anhui, Zhejiang, Jiangxi and the North of Taiwan.	W, AW	FR
Solanum aculeatissimum (Solanaceae)	Trop. Areas of S-Am.	Some naturalized specimens were collected in Guizhou at the end of the 19th century, but the species may have been introduced earlier as an ornamental plant. It is a common weed South of the Yangtze River, its poisonous fruits are potentially lethal to cattle. *S. erianthum, S. torvum* and *S. laciniatum* are also naturalized in China.	W, AW	/
Solidago altissima (Asteraceae)	N-Am.	This plant was introduced from Japan to Taipei in Taiwan in 1935 as an ornamental plant. It was subsequently introduced into Shanghai and Lushan in Jiangxi, and has become wild in these regions. In Shanghai, it is now found in suburbs along the Kunshan-Shanghai railway, and in Pudong and Qingpu. The species reproduces prolifically by seeds and also spreads by rootstocks. It outcompetes other plants and has become a dominant species in many areas. It is particularly aggressive in disturbed areas, such as suburban wastelands, roadsides, river banks, and in residential and industrial areas and is spreading from such areas into surrounding orchards, arable crops, and vegetable fields, especially in Shanghai.	W, AW	/
Solidago canadensis (Asteraceae) (EPPO List of IAP)	N-Am.	This plant is naturalized in Shanghai, Wuhan and Lushan.	W, AW, EW	Whole Eur.
Solidago graminifolia (Asteraceae)	N-Am.	This species was introduced into the Lushan Botanic Garden from which it begun to invade local ecosystems.	W, AW, EW	W and C-Eur.

Species and Family	Origin	Situation in China	GCW	Situation EPPO
Spartina anglica (Poaceae)		This species is a hybrid of *S. alterniflora* and *S. patens*, originating from Western Europe. It was introduced on the coast of the Jiangsu Province from Denmark, The Netherlands and the United Kingdom in 1963 to protect banks from erosion and to improve soils. The species was also used for forage and for paper-making materials. Over the next 20 years, the species was widely cultivated North of Jingxi, in Niaoning and South of Guangxi, covering more than 300 km². It has become a predominant species in many of these regions, outcompeting other plants and threatening native plants.	W, NW, EW	Indigenous in GB, invasive in W-Eur.
Triodanis biflora (Campanulaceae)	N and S Am.	The species was first found in Anqing (Anhui Province) in 1981, and subsequently in Zhejiang, Fujiang and Northern Taiwan in the mid-1980s.	W	/
Triodanis perfoliata (Campanulaceae)	N and C Am.	It was first reported in the Wuyi mountain in 1974, and then in various places in Fujian Province in the 1980s. It grows along streams, in grasslands and on hills at elevations between 180 and 1000 m.	W	/

* Abbreviations for the Global Compendium of Weeds column:
W: weed; SW: sleeper weed; NW: noxious weed; AW: Agricultural Weed; EW: Environmental Weed.

All the species quoted as invasive in China, except *Lolium temulentum,* originate from the Americas. When present in the EPPO region, these species are often considered invasive as well. With the increase in trade between China and other countries, it is to be expected that new invasive species will also enter.
The following species would deserve particular attention since they represent an emerging risk for the EPPO region considering their climatic suitability and their limited distributed or absence in the EPPO region: *Alternanthera pungens*, *Mikania micrantha, Plantago aristata* and *Solidago altissima.*

Source: A Global Compendium of Weeds http://www.hear.org/gcw/alpha_select_gcw.htm
Delivering Alien Invasive Species Inventories for Europe (DAISIE). http://www.europe-aliens.org/
Tutin TG, Heywood VH, Burges NA, Moore DM, Valentine DH, Walters SM and Webb DA (1964/80) Flora Europeaea, Vol 1-5. Cambridge University Press, Cambridge (GB).
Weber, E (2003) Invasive Plant Species of the World. CABI Publishing Wallingford, (GB) pp. 548.
Xie L, LI Z, William PG, Li D (2000) Invasive species in China – An overview. Biodiversity *and Conservation* **10**(8), 1317-1341. http://www.chinabiodiversity.com/shwdyx/technical-report-e/x-1e.htm

Additional key words: Invasive alien plants, new records

Computer codes: ACAFA, AGECO, AGEHO, ALRPH, AMAAL, AMABL, AMARE, AMASP, AMAVI, AMBEL, AMBTR, BIDBI, CAUTI, CHEAM, EICCR, ERIAN, ERIBO, ERICA, ERIFL, ERIPH, EUPAD, EUPOD, IPOBA, LANCA, LOLTE, LUAGL, MEDSA, MIKMI, NIOTA, OPUFI, OPUST, OPUVU, PAQCO, PLAAR, PLAVI, PUNGR, SOLAC, SOOAL, SOOCA, SOOGR, SPTAN, TAMIN, TJDBI, TJDPE, ULEEU, VITVI, CN

2008/065 Predicting the spatial distribution of *Ageratina adenophora* in China

Ageratina adenophora (= Eupatorium adenophorum = E. cannabinum) (Asteraceae) was first discovered in the Yunnan Province of China around the 1940s. It is an herb invading riparian habitats, forest edges and disturbed areas. The well-documented invasion history of this plant provided the opportunity to examine the spatiotemporal patterns of its biological invasion. Datasets documenting 441 known localities invaded by *A. adenophora* in China over the past 50 years, and 23 environmental variables generated by the genetic algorithm for rule-set production model (GARP) have been used to test the predictability of *A. adenophora* distribution.

Maximum mean annual air temperature, precipitation in the coldest quarter and extreme low air temperature were considered to have the most influence on the prediction. Results indicated that *A. adenophora* may establish and spread out in Yungui Plateau, Sichuan Basin, South-Western Coastlands, Hainan Island and Taiwan, although is it currently absent or has only recently been recorded in these regions.

Ageratina adenophora's populations in China tended to be more recent towards the Northern and Southern limits of their distribution range. In the initial phase of the invasion, the range was limited to several isolated locations centered on the Yunnan region. Subsequently, the weed continued to expand and established clusters of invasion foci. Over the last 60 years, this weed has spanned 23.4° of latitude and 9.6° of longitude. Over the past 20 years, *A. adenophora* has spread from subtropical areas with higher annual mean temperature and lower climatic fluctuations to much cooler and dryer areas at higher altitudes. The localities where *A. adenophora* was present were all in areas with mean annual air temperature ranging from 4.4°C to 23.1°C and annual precipitation from 698 mm to 2254 m. Within the regions of predicted presence, the majority of habitats had mean annual air temperatures ranging from 10 to 22°C and annual precipitations from 800 to 2000 mm.

In the EPPO region, this species is widely distributed. It is established in Albania, Algeria, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Israel, Italy, Latvia, Lithuania, Moldova, Montenegro, Morocco, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Spain, Sweden, Switzerland and Turkey. It is therefore present in a very wide range of climatic conditions. It showed invasive behaviour in riparian habitats in Spain, but it is too widespread and there is not enough evidence of its negative impacts to be considered to be included in the EPPO lists.

Source: Global Invasive Species Database – *Eupatorium cannabinum.* http://www.issg.org/database/species/ecology.asp?si=802&fr=1&sts=sss

Zhu L, Sun OJ, Sang W, Li Z, Ma K (2007) Predicting the spatial distribution of an invasive plant species (*Eupatorium adenophorum*) in China. *Landscape Ecology* **22**(8), 1143-1154. http://www.springerlink.com/content/0663075744u9748h/

Additional key words: Invasive alien plant, climatic prediction **Computer codes:** EUPAD, CN

2008/066 Habitatitude: an American initiative to protect the environment by not releasing fish and aquatic plants

Habitatitude is a national initiative involving the U.S. Fish and Wildlife Service, as well as the pet and aquarium trade and the nursery and landscape industries. Habitatitude has been designed to unify all interested organizations and agencies aiming at protecting aquatic resources, and promoting an increased awareness of aquatic invasive alien species and responsible consumer behaviour to prevent their trade.
Aquarium hobbyists, backyard pond owners and others who are concerned about aquatic resource conservation are invited to follow these prevention recommendations:

- Educate yourself about your hobby's potential environmental consequences.
- To get rid of an invasive alien species, do not release it in the wild and adopt responsible consumer behaviours:
    - contact your retailer for proper management advice or for possible returns
    - donate to a local aquarium society, school, or aquatic business
    - seal aquatic plants in plastic bags and dispose in trash.
- Promote these behaviours within your peer groups as ways for aquarium hobbyists, backyard pond owners and water gardeners to show their environmental ethics and conservation behaviour.
- Become involved with policy solutions.

Additionally, the members of the public targeted by these recommendations are invited to learn more about invasive species issues, and the Habitatitude website provides information on impacts caused by these species, facts about the more common escapees or unintentionally released species, ideas to get involved with prevention efforts, etc.

Source: Habitatitude website: http://www.habitattitude.net

Additional key words: invasive alien species, code of conduct **Computer codes:** US

2008/067 Eradication of five invasive alien plants on the Poor Knights Islands (New Zealand)

The Poor Knights Islands are situated 16 km off the coast of Northland, New Zealand. The two main islands are administered by the New Zealand Department of Conservation. The general public is not allowed to access the islands. There are numerous alien plant species on the islands, but only five have been identified as likely to have adverse impacts on the islands if left uncontrolled. These species are:

- *Ageratina adenophora* (Asteraceae), originating from Central America,
- *Ageratina riparia* (Asteraceae), originating from Central America,
- *Cortaderia selloana* (Poaceae), originating from South America,
- *Cortaderia jubata* (Poaceae), originating from South America,
- *Araujia sericifera* (Apocynaceae), originating from South America.

These species invade open disturbed areas and outcompete natural regeneration. All five species were introduced to New Zealand as ornamental plants around 1900.
Where unmodified indigenous forest (*Metrosideros excelsa*) is found, there is a striking absence of invasives. All existing weed sites occur in areas of disturbance associated with exposed coastal faces, shrubland and broadleaf forests.

Every spring, four people spend in total seven days on both islands searching invaded sites. Some coastal faces could only be searched by aerial observations. An aerial search was conducted annually in early summer during the flowering of *Araujia serifera* and *Cortaderia* spp., and every second spring for the flowering of *Ageratina* spp. Information on locations and size of the sites was stored in a database.
On the Poor Knights Islands, 142 weed sites of these 5 species have been recorded since 1995. In 2001, 112 of these sites were weed free. All flowers and seed heads were removed from the plants and placed in secure bags for removal from the island. All plants were hand-pulled, soil was shaken from the roots and the plant was placed so that the roots were freed of soil to prevent any regrowth. Herbicides were also used.
Field trips in 1996 required 96 person/days per year: 40 person/days searching, and 56 person/days completing surveillance for new infestations. In 2002, it took 56 person/days: 40 person/days completing surveillance for new infestations and 16 person/days searching and controlling the existing sites.

Ageratina adenophora numbers have been reduced from several thousands to fewer than fifty. *Ageratina riparia, Cortaderia selloana,* and *Cortaderia jubata* have also drastically been reduced. *Araujia sericifera* continued to have high seedling germination in the following years, but it is now in decline, probably because of the depletion of the seedbank.

Source: Coulston GJ (2002) Control of invasive plants on the Poor Knights Islands, New Zealand. In Veitch CR, Clout MN (Eds) Turning the tide: the eradiction of invasive species. IUCN SSC Invasive Species Specialist Group. IUCN, Gland, Switzerland and Cambrigde, UK. 79-84.

Additional key words: invasive alien species, eradication **Computer codes:** AJASE, CDTJU, CDTSE, EUPAD, EUPRI, NZ

2008/068 *Araujia sericifera* **in the EPPO region: addition to the EPPO Alert List**

Considering the potential of invasiveness and the limited presence of *Araujia sericifera* in the EPPO region, the Secretariat considered that this species could usefully be added to the EPPO Alert List.

Why: *Araujia sericifera* (Apocynaceae) is a woody evergreen vine native to South America. The plant was introduced during the 19th century as an ornamental and textile plant. Its common name is "Cruel plant", as moths, bees and butterflies are often trapped and killed by the secretion within the flowers. Because *A. sericifera* has shown invasive behaviour where it has been introduced elsewhere in the world and is still limited in the EPPO region, it can be considered an emerging invader in Europe.

Geographical distribution
EPPO Region: France (Corse), Greece, Israel, Italy, Portugal (Azores, Madeira), Spain.

Africa: South Africa (Free State, Gauteng, Kwazulu Natal, Limpopo, Mpumalanga, North West, Western Cape).

North America: USA (California, Georgia).

South America (native): Argentina, Brazil, Paraguay, Uruguay.

Oceania: Australia (Australia Capital Territory, New South Wales, Queensland, Tasmania, South Australia, Victoria, Western Australia), New Zealand.

Morphology
A. sericifera is a climbing, evergreen vine reaching up to 10 m long and containing irritating and smelly sap. Stems are flexible, tough, and woody near the base. The opposed leaves are ovate-oblong, dark green and glabrous above, pale green and hairy below, 3-12 cm long and 2-6 cm wide. The bell shaped flowers are white, pale pink or creamish, and have corollas of 2-3 cm diameter. They occur in clusters of 2 to 4, and can trap and kill insects. Fruits are deeply grooved follicles, spongy, green if young, up to 12 cm long and 6 cm wide. They split to release about 400 black seeds of 7-8 mm length, each with a tuft of silky hairs of approximately 25 mm length.

Biology and ecology
The vine grows vigorously. The large quantities of seeds produced are viable for at least 5 years. Seeds are thought to be dispersed by the wind and by water.

Habitats
Banks of continental waters, riverbanks/canalsides (dry river beds), forests, arable land, permanents crops (e.g. vineyards, fruit tree and berry plantations, olive), green urban areas, including parks, gardens, sport and leisure facilities, road and rail networks and associated land, other artificial surfaces (wastelands).

Impacts
A. sericifera has dense foliage that smothers native shrubs and trees. Dense infestations prevent regeneration of native species. The heavy weight of fruiting vines can break tree branches. The sap of the plant is poisonous and causes skin irritation.

Control

Seedlings and smaller plants can be hand pulled or dug out, roots should be removed to prevent regrowth. Larger stems are cut at ground level, and the cut stumps treated with herbicide. Large infestations may be controlled by foliar sprays. Removed parts of the plant have to be gathered and destroyed, especially the fruits. Operators have to protect their skin and eyes from the abrasive milky sap of the plant by wearing long sleaves, gloves and protective glasses. A follow-up programme is necessary to control regrowth and seedlings for several years.

Source:

Agricultural Geo-Referenced Information System – South Africa – Weeds and Invasive Plants. http://www.agis.agric.za/wip

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Additional key words: invasive alien plants, alert list **Computer codes:** AJASE, ES, FR, GR IL, IT, PT

2008/069 European Commission consultation on invasive alien species

The European Commission has launched an internet consultation to gather views of all stakeholders on the scale of Invasive Alien Species problems and how to address these problems most effectively at EU level. All comments from interested parties, individual citizens, industry and consumer representatives and NGO organizations are welcome. The results of this consultation will be used for the development of EU policy in the field of invasive alien species. The options of this policy will be presented in a Communication from the Commission at the end of 2008.

Source: The European Commission.
http://ec.europa.eu/yourvoice/ipm/forms/dispatch?form=Invasive

Additional key words: invasive alien species **Computer codes:** EU