



ORGANISATION EUROPEENNE  
ET MEDITERRANEENNE  
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN  
PLANT PROTECTION  
ORGANIZATION

# EPPO Reporting Service

No. 10 PARIS, 2009-10-01

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2009/188 First report of *Tuta absoluta* in Malta

In Malta, the presence of *Tuta absoluta* (Lepidoptera: Gelechiidae - EPPO A2 List) was reported for the first time in April 2009. The pest was discovered in a greenhouse in Dingli (South-West Malta). Monitoring surveys are being carried out by the NPPO to evaluate the spread of the pest and measures are being taken to eradicate the pest.

The situation of *Tuta absoluta* in Malta can be described as follows: Present, first found in April 2009, under eradication.

Source: Internet (last accessed in 2009-10)  
Plant Health Department of Malta.  
Press release: The tomato leafminer - *Tuta absoluta*.  
Guidelines for the control and eradication of *Tuta absoluta*.  
<http://www.planthealth.gov.mt>

Additional key words: new record

Computer codes: GNORAB, MT

2009/189 First report of *Tuta absoluta* in Switzerland

In Switzerland, the presence of *Tuta absoluta* (Lepidoptera: Gelechiidae - EPPO A2 List) was reported for the first time in July 2009. The pest was discovered in Geneva. Surveys using pheromone traps will be conducted in the main glasshouse tomato-producing areas to determine the extent of the infestation.

The situation of *Tuta absoluta* in Switzerland can be described as follows: Present, first found in July 2009 in Geneva, surveys are being undertaken.

Source: Internet (last accessed in 2009-10)  
Confédération Suisse. Administration fédérale.  
Communiqué de presse, Agroscope (2009-07-30) Un nouveau ravageur menace nos cultures de tomates.  
<http://www.news.admin.ch/message/index.html?lang=fr&msg-id=28286>

Additional key words: new record

Computer codes: GNORAB, CH

2009/190 *Aceria ilicis*, a gall mite found in the Netherlands

In March 2009, a population of *Aceria ilicis* (Acari: Eriophyidae) was detected in a nursery located at St. Oedenrode in the Netherlands on an imported *Quercus ilex* tree. *A. ilicis* is a gall mite which feeds on *Q. ilex*, and possibly on other oak species such as *Q. macrolepis*, *Q. coccifera*, *Q. ithaburensis* and *Q. robur*. *A. ilicis* occurs mainly around the Mediterranean Basin and its presence has been recorded at least in the following EPPO countries: Cyprus, France, Italy, Portugal, Spain, Turkey, and United Kingdom. It is likely that *A. ilicis* occurs in most countries where its major host, *Q. ilex*, is present. *A. ilicis* feeds and reproduces in erineae galls formed by expanded leaf hairs at the underside of leaves. Galls on inflorescences are less commonly reported. Affected trees are not severely damaged by *A. ilicis*, but their aesthetical value may be reduced.

In the Netherlands, *Q. ilex* is not widely cultivated because of its sensitivity to frost. The Dutch NPPO stated that no phytosanitary measures will be taken because of the low economic impact of *A. ilicis*.

- Source: NPP0 of the Netherlands (2009-06)  
Pest report. *Aceria ilicis* (Canestrini, 1890) - on *Quercus ilex* at a nursery in the Netherlands. [http://www.minlnv.nl/cdlpub/servlet/CDLServlet?p\\_file\\_id=38763](http://www.minlnv.nl/cdlpub/servlet/CDLServlet?p_file_id=38763)
- Denizhan E, Çobanoğlu S (2008) Eriophyoid mites of *Quercus robur* L. *Tarım Bilimleri Dergisi* 18(2), 79-82. [http://tarimdergisi.yyu.edu.tr/say18\(2\)pdfler/79-82.pdf](http://tarimdergisi.yyu.edu.tr/say18(2)pdfler/79-82.pdf)
- Stork AL, Wüest J (1996) Galles à *Aceria ilicis* (Acari: Eriophyoidea) sur inflorescences de *Quercus ilex* (Fagaceae) en Bretagne (France). *Annalen des Naturhistorischen Museums in Wien* 98B Suppl., 25-34. [http://www.biologiezentrum.at/pdf\\_frei\\_remote/ANNA\\_98BS\\_0025-0034.pdf](http://www.biologiezentrum.at/pdf_frei_remote/ANNA_98BS_0025-0034.pdf)

Additional key words: new record

Computer codes: ACEISP, NL

### 2009/191 First report of an unusual insect species in Hungary: *Acharia stimulea*

In 2007, larvae of *Acharia stimulea* (syn. *Sibine stimulea*, Lepidoptera: Limacodidae) were found at Miskolc in Hungary (Garai and Gyulai, 2008). *A. stimulea* is a polyphagous species which originates from the Eastern part of North America. Larvae feed on leaves of many host plants, including broadleaved trees and shrubs (e.g. *Castanea*, *Citrus*, *Prunus*, *Quercus*, *Tilia*, *Ulmus*, *Viburnum*), palm trees, herbaceous weeds and ornamental plants (e.g. *Astilbe*, *Dahlia*, *Canna*, *Phlox*). In the USA, damage to plant is generally insignificant and *A. stimulea* is not considered as an important plant pest. Adults are dark brown, stout-bodied moths. Larvae of *A. stimulea* have a striking appearance, they are brown with a bright lime-green area in the middle of the body. This green area has a white margin and a large oval dot in the middle, resembling a 'saddle' and a 'blanket', hence the common name 'saddleback moth caterpillar'. In addition, larvae have four very prominent horns with numerous spines, as well as smaller ones on both sides and rear of the body. These spines are connected to poison glands. *A. stimulea* can be a nuisance to humans because the contact of its spines with the skin is very painful and causes severe inflammation. In addition to Hungary, the presence of *A. stimulea* has been reported from several other European countries (Germany, Poland, Sweden, United Kingdom) but it seems that these occasional records were linked to imports of ornamental plants and that the insect has not been able to establish.

- Source: Franzén M (2004) Interesting Macrolepidoptera finds in Sweden 2003. *Entomologisk Tidskrift* 125(1/2), 27-42 (abst.)
- Garai A, Gyulai P (2008) [The appearance of the saddleback caterpillar moth (*Acharia (=Sibine) stimulea* (Clemens, 1860)) pest species in Hungary (Lepidoptera: Limacodidae)]. *Növényvédelem* 44(5), 226-228 (in Hungarian).
- Hepner JB (1995) Urticating caterpillars in Florida. 2 Slug caterpillars (Lepidoptera: Limacodidae). Entomology circular no. 372. Florida Department of Agriculture and Consumer Services (US), 4 pp.
- Labanowski G, Soika G (2002) [The present problems in ornamental plant protection against pests]. *Progress in Plant Protection* 42(1), 188-195 (in Polish).
- INTERNET (last retrieved in 2009-02)
- BBC News (2003-02-24). US caterpillar found in Somerset. [http://news.bbc.co.uk/go/pr/fr/-/2/hi/uk\\_news/england/2794333.stm](http://news.bbc.co.uk/go/pr/fr/-/2/hi/uk_news/england/2794333.stm)
- Portal für Schmetterlinge/Raupen (Germany). [http://www.schmetterling-raupe.de/art/stimulea\\_s.htm](http://www.schmetterling-raupe.de/art/stimulea_s.htm)

Additional key words: new record

Computer codes: SIBIST, HU

2009/192 *Leptodictya tabida*, a sugarcane lace bug detected in the Netherlands

During monitoring activities, the Dutch NPPO detected the presence of *Leptodictya tabida* (Hemiptera: Tingidae, sugarcane lace bug) for the first time in the Netherlands, and in Europe. The pest was found in January 2009, at one location (De Kwakel) on *Bambusa vulgaris*. These bamboo plants were 2-3 m high and had been imported from Costa Rica in 2008. Both adults and larvae caused feeding damage on the leaves.

The main host plant of *L. tabida* is *Saccharum officinarum* (sugarcane) but the pest has also been recorded on other Poaceae, such as *Bambusa* spp., *Echinochloa crus-galli*, *Euchlaena mexicana* (teosinte), *Panicum maximum*, *Sorghum halepense*, and *Zea mays* (maize). Adults and nymphs feed preferentially on the underside of sugarcane leaves, causing leaf discoloration and reduction of photosynthetic activity which may lead to a reduction of sugar content. *L. tabida* was first described in Mexico in 1839, and its currently known distribution is as follows:

North America: Mexico, USA (Florida, Hawaii, Texas). In Florida, the pest is considered as a recent introduction (detected for the first time in 1990).

Central America and Caribbean: Belize, Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Nicaragua, Panama.

South America: Venezuela.

Considering the fact that only an isolated population has been detected and that *L. tabida* thrives under tropical and subtropical climates, its establishment in Dutch field conditions was thought to be unlikely. Although *L. tabida* could establish under protected conditions, the number of its host plants grown in glasshouses is known to be very limited in the Netherlands. Therefore, no specific phytosanitary measures were taken by the Dutch NPPO.

The pest status of *Leptodictya tabida* in the Netherlands is officially declared as: Transient, non-actionable.

Source: NPPO of the Netherlands, 2009-01.  
Pest Record. First finding of *Leptodictya tabida* (Sugarcane lace bug) on *Bambusa vulgaris* in the Netherlands.  
[http://www.minlnv.nl/portal/page?\\_pageid=142,2268041&\\_dad=portal&\\_schema=PORTAL&p\\_file\\_id=34562](http://www.minlnv.nl/portal/page?_pageid=142,2268041&_dad=portal&_schema=PORTAL&p_file_id=34562)

CABI Crop Protection Compendium (2009).

<http://www.cabicompendium.org/cpc/home.asp>

Hall DG (1991) Sugarcane lace bug *Leptodictya tabida*, an insect pest new to Florida. *Florida Entomologist* 74(1), 148-149.

Nguyen R, Hall DG (2008) Sugarcane lace bug, *Leptodictya tabida*. Featured Creatures. University of Florida and Florida Department of Agriculture and Consumer Services.

[http://entomology.ifas.ufl.edu/creatures/field/sugarcane\\_lace\\_bug.htm](http://entomology.ifas.ufl.edu/creatures/field/sugarcane_lace_bug.htm)

Sétamou M, Showler AT, Reagan TE, Jones WA, Bernal JS (2005) *Leptodictya tabida* (Hemiptera: Tingidae): A potential threat to sugarcane production in Lower Rio Grande Valley of Texas. *Journal of Economic Entomology* 98(3), 1018-1023.

Additional key words: incursion

Computer codes: LEPATA, NL

2009/193 *Scirtothrips inermis*, a thrips caught in the United Kingdom

In the United Kingdom, *Scirtothrips inermis* (Thysanoptera: Thripidae) has been detected on sticky traps in a botanical garden in the South East of England. There had been 2 earlier findings of *S. inermis* in the United Kingdom, one on sticky traps in a botanical garden in 1999, and another in a different botanical garden on bay laurel (*Laurus nobilis*) in 2000. It is not known whether populations of *S. inermis* are still present at these 2 sites. Given the minute size of the insect (< 1 mm) and the difficulties of its identification, it cannot be excluded that *S. inermis* occurs in other sites but has remained undetected. *S. inermis* is reported to occur in the EPPO region in Cyprus and Spain (mainland and Islas Canarias), as well as in other parts of the world (Australia, New Zealand, and California (US)). Considering the low importance of *S. inermis* as a pest, and its known presence in Europe, no phytosanitary measures will be taken in the United Kingdom.

Source: NPPO of the United Kingdom (2009-06).

Additional key words: detailed record

Computer codes: SCITSP, GB

2009/194 *Harmonia axyridis* (Harlequin ladybird): an invasive species which continues to spread within Europe

As already reported in EPPO RS 2005/092, *Harmonia axyridis* (Coleoptera: Coccinellidae) is an invasive species originating from Asia which is currently spreading in Europe, as well as in the Americas. The insect has also been reported from South Africa and Egypt (established near Cairo). *H. axyridis* has originally been released as an efficient biological control agent to limit aphid populations. However, some of these introduced populations have escaped control and are now seriously affecting the abundance of native ladybird species which are beneficial insects (e.g. *Adalia bipunctata*, *Coccinella septempunctata*). This insect can be a nuisance for humans, as it tends to aggregate in houses in autumn searching for overwintering sites. Finally, *H. axyridis* can also feed on fruits (e.g. grapes, pears, raspberries) at the end of the growing season, yield is not significantly affected but fruit quality can be reduced. Recent studies carried out in Switzerland, have shown that the presence of *H. axyridis* contaminating grapes at harvest has a negative impact on wine quality (Linder *et al.*, 2009), confirming similar observations which had already been made in the USA.

#### Situation in Europe

A special issue of BioControl entitled '*From biological control to invasion: the ladybird Harmonia axyridis as a model species*' (Roy & Wajnberg (eds), 2008) provides useful information on its current geographical distribution, invasion history, prediction for further spread, impacts and possible control measures. A paper from Brown *et al.* (2008) summarizes the invasion history of *H. axyridis* in Europe (see Table below). *H. axyridis* was sold by various biological control companies from 1995 in France, Belgium and the Netherlands, and was also intentionally released in at least 9 other countries. It has spread very rapidly, particularly since 2002, and is now regarded as established in at least 13 European countries.

- Invasion history in Europe (table adapted from Brown *et al.*, 2008).

Country	First record in the wild	Deliberately introduced (earliest year of introduction)	Evidence of establishment	Comments
Ukraine	Unknown	Yes (1964)	Unknown	-
Belarus	Unknown	Yes (1968)	Unknown	-
Portugal	-	Yes (1984)	No	Released in 1984/1985 in Algarve and Azores, but no evidence of establishment
France	1991	Yes (1982)	Yes	Widespread in Northern France
Greece	1998	Yes (1994)	Limited	Massive releases were made but only small numbers of overwintering adults could be found in Attica in spring 1998 and 1999
Germany	1999	Yes (1997)	Yes	Widespread in the Western part
Belgium	2001	Yes (1997)	Yes	Widespread
Netherlands	2002	Yes (1996)	Yes	Widespread
Spain (mainland and Islas Canarias)	2003	Yes (1996)	Yes	Few specimens found in 2006 in Pais Vasco probably originating from France or imported goods entering the nearby Bilbao airport
Switzerland	2004	Yes (1996)	Yes	Widespread in North-Western Switzerland
Luxemburg	2004	No	Yes	Widespread
United Kingdom	2004 in England 2006 in Wales	No	Yes	Widespread in England and Wales
Jersey	2004	No	Yes	Established
Italy	2006	Yes (1990s)	Yes	Probably established in North-Eastern Italy
Czech Republic	2006	Yes (2003)	Yes	Flightless strain released in hop gardens but did not establish, current populations probably spread from Germany
Austria	2006	No	Yes	Established in the West, Centre and South of Austria
Denmark	2006	No	Yes	Established in the South near Germany
Norway	2006	No	No	Recorded on imported plants in Oslo in 2006 but probably not established
Liechtenstein	2007	No	Yes	Widespread
Sweden	2007	No	No	Recorded in Malmö in April 2007 in a house but probably not established

- Additional records

Since the paper from Brown *et al.* (2008) was published the presence of *H. axyridis* has been reported from the following countries:

- Poland: *H. axyridis* was reported for the first time in 2007 in two localities (Przewozny *et al.*, 2007).
- Serbia: it was reported for the first time in 2008 in Vorovo on the territory of the National Park Fruska Gora, province of Vojvodina (Thalji and Stojanovic, 2008).
- Hungary: in February 2008, an adult male of *H. axyridis* was found near Budapest (in the city of Szigetszentmiklós). It was overwintering together with other ladybirds (*Adalia bipunctata*) under the loose bark of a declining poplar tree. Because *H. axyridis* has never been released for biological control in Hungary, it is assumed that it spread naturally from nearby infested areas, such as the Eastern part of Austria (Merkl, 2008). After this initial record, *H. axyridis* rapidly spread across Hungary where it is reported from most regions (Markó and Pozgzai, 2009).
- Romania, Slovakia, and Ukraine: specimens of *H. axyridis* were collected in spring and summer 2009 from these countries (Markó and Pozgzai, 2009).

### Situation in the Americas

In North America, intentional releases began as early as 1916 in California (US) and intensified in the USA and Canada during the 1970s and 1980s. Established populations were first detected in Louisiana in 1988, and *H. axyridis* rapidly spread to most US states (with the exception of Arizona, Hawaii, Montana, New Mexico, and Wyoming). In Canada, *H. axyridis* occurs in the southern part of all provinces (with the exception of Saskatchewan, and in Alberta it has been detected but is not considered as established). In Mexico, it has been found in several cities in the states of Mexico, Coahuila, Jalisco, Morelos, and Puebla.

In South America, *H. axyridis* has a restricted distribution. It has been reported in Brazil (city of Curitiba, Paraná) and in Argentina (Buenos Aires), but it is considered that it has the potential to spread to more countries on this continent (Koch *et al.*, 2006).

- Source:
- Brown PMJ, Adriaens T, Bathon H, Cuppen J, Goldarazena, Hägg T, Kenis M, Klausnitzer BEM, Kovář I, Loomans AJM, Majerus MEN, Nedved O, Pedersen J, Rabitsch W, Roy HE, Ternois V, Zakharov IA, Roy DB (2008) *Harmonia axyridis* in Europe: spread and distribution of a non-native coccinellid. *BioControl* 53(1), 5-21.
  - Koch RL, Venette RC, Hutchison WD (2006) Invasions by *Harmonia axyridis* (Pallas) (Coleoptera: Coccinellidae) in the Western Hemisphere: implications for South America. *Neotropical Entomology* 35(4), 421-434.
  - Linder C, Lorenzini F, Kehrli P (2009) La coccinelle asiatique donne-t-elle un faux goût au Chasselas et au Pinot noir ? *Revue suisse de Viticulture, Arboriculture, Horticulture* 41(1), 61-62.
  - Markó V, Pozsgai G (2009) [Spread of harlequin ladybird (*Harmonia axyridis* Pallas, 1773) (Coleoptera, Coccinellidae) in Hungary, and the first records from Romania and Ukraine. *Növényvédelem* 45(9), 481-490 (in Hungarian).
  - Merkli O (2008) [First record of the harlequin ladybird (*Harmonia axyridis* Pallas) in Hungary (Coleoptera: Coccinellidae)]. *Növényvédelem* 44(5), 239-242 (in Hungarian).
  - Przewozny M, Barozek T, Bunalski M (2007) *Harmonia axyridis* (Pallas, 1773) (Coleoptera: Coccinellidae) new species of ladybird beetle for Polish fauna. *Polskie Pismo Entomologiczne* 76(3), 177-182 (abst.).
  - Thalji R, Stojanovic D (2008) First sighting of the invasive ladybird *Harmonia axyridis* Pallas (Coleoptera, Coccinellidae) in Serbia. *Biljni Lekar* 36(6), 389-393 (abst.).

Additional key words: invasive species, new records, detailed records

Computer codes: HARNAX, HU, RO, PL, RS, SK, UA

### 2009/195 First record of Grapevine flavescence dorée phytoplasma in Slovenia

In Slovenia, the presence of *Scaphoideus titanus* (Hemiptera: Cicadellidae) the vector of grapevine flavescence dorée phytoplasma (EPPO A2 List) was first noted in 1983. Until 2002, *S. titanus* was restricted to the southwestern part of Slovenia. In 2003, it was found in the northeastern part, near Maribor and Sebeborci. After 2003, *S. titanus* was caught in many new localities in the northeastern and southern parts of Slovenia and finally spread to all grapevine-growing regions of the country. For several years, grapevine flavescence dorée phytoplasma was not found in Slovenia, but in 2005 its presence was detected for the first time in a limited area close to the Adriatic coast. Phytosanitary measures (compulsory treatments against the insect vector) were taken to prevent any further spread of the disease.

The situation of Grapevine flavescence dorée phytoplasma in Slovenia can be described as follows: Present, first found in 2005 in a limited area near the Adriatic coast, under official control.

Source: Seljak G (2008) Distribution of *Scaphoideus titanus* in Slovenia: its new significance after the first occurrence of grapevine 'flavescence dorée'. *Bulletin of Insectology* 61(1), 201-202.

Additional key words: new record

Computer codes: PHYP64, SI

### 2009/196 First report of *Gibberella circinata* in Portugal

In November 2007, dieback symptoms (basal needle dieback, wilting and dieback of terminal shoot) were observed on *Pinus radiata* and *P. pinaster* in a tree nursery located in Anadia in the Central region of Portugal. Samples were collected from 20 symptomatic plants. A species of *Fusarium* was isolated from infected tissues and identified as *Fusarium circinatum* (teleomorph *Gibberella circinata* - EPPO A1 List) on the basis of morphological and cultural characteristics. The identity of the fungus was confirmed by PCR and pathogenicity tests. According to the authors this is the first time that *Gibberella circinata* is detected in Portugal.

The situation of *Gibberella circinata* in Portugal can be described as follows: Present, first detected in 2007 in 1 nursery on *Pinus radiata* and *P. pinaster*.

Source: Bragança H, Diogo E, Moniz F, Amaro P (2009) First report of pitch canker on pines caused by *Fusarium circinatum* in Portugal. *Plant Disease* 93(10), p 1079.

Additional key words: new record

Computer codes: GIBBCI, PT

### 2009/197 New *Phytophthora* species: *Phytophthora niederhauserii*

The NPPO of Spain informed the EPPO Secretariat that at the end of summer 2007 a severe decline of 2 year-old almond trees (*Prunus dulcis*) was noticed in 1 nursery in Valencia province (Comunidad Valenciana). Affected trees developed small chlorotic leaves, wilted and finally died showing cankers and gum exudation on the stems. A *Phytophthora* species was consistently isolated from the stems and roots of infected trees. The isolates obtained did not fit the morphological description of any described *Phytophthora* species but they were similar to other Spanish isolates obtained in 2001 from *Cistus monspeliensis* and *C. salvifolius*, and in 2005 from *Hedera* sp. (see also EPPO RS 2009/163). Sequence analysis of the ITS region of rDNA was performed and compared with other sequences deposited in the GenBank database. The ITS sequence showed high similarity with *Phytophthora niederhauserii*.

Although it has not yet been formally described, *Phytophthora niederhauserii* was reported as a new species in 2003 on *Thuja occidentalis* and *Hedera helix* plants grown in glasshouses in North Carolina (US). Since this initial discovery, *P. niederhauserii* has been reported from different continents on different plant species. In the USA, it was found in 2007 on *Ceanothus* sp. in the county of Santa Barbara, California. In Australia, *P. niederhauserii* has been detected on imported nursery plants and in natural ecosystems on *Banksia prionotes*. In Europe until its detection in almond trees, it was mainly detected in nurseries on ornamental plants grown in containers. In Sicilia (IT), *P. niederhauserii* was detected in spring 2003 on potted plants of *Callistemon citrinus* and *Cistus salvifolius*.

showing leaf chlorosis, defoliation and wilt associated with root and collar rot. On the mainland, it has also been reported from potted plants of *Banksia speciosa*. In Norway, *P. niederhauserii* has been detected on Begonia hybrids, *Hedera helix*, *Kalanchoe blossfeldiana*, *Sinningia speciosa*, and *Peperomia clusiifolia*. Symptoms included root and stem necrosis. On *H. helix* and *S. speciosa*, wilting of the whole plant was observed; on *Kalanchoe*, only root discoloration and reduced plant growth were seen. Finally in the United Kingdom, *P. niederhauserii* was detected on *Cistus* sp. grown under glasshouse conditions. Although further studies are needed to characterize *P. niederhauserii* and better understand its biology, this illustrates once more the necessity to build appropriate management strategies in nurseries to avoid the development and spread of *Phytophthora* diseases.

Source: NPP0 of Spain (2009-09).

- Abad ZG, Abad JA (2003) Advances in the integration of morphological and molecular characterization in the genus *Phytophthora*: the case of *P. niederhauserii* sp. nov. *Phytopathology* 93(6 suppl.), S1.
- Anonymous (2007) Plant pest diagnostics center. 2007 Annual Report. California, US. 121 pp. <http://134.186.235.120/phpps/ppd/PDF/PPDC2007.pdf>
- Burgess TI, Webster JL, Ciampini JA, White D, Hardy GES, Stukely MJC (2009) Re-evaluation of *Phytophthora* species isolated during 30 years of vegetation health surveys in Western Australia using molecular techniques. *Plant Disease* 93(3), 215-223.
- Cacciola SO, Pane A, Martini P, Agosteo GE, Raudino F, Magnano di San Lio G (2008) Recovery of *Phytophthora* species from potted ornamentals in commercial nurseries in Italy. *Journal of Plant Pathology* 90(2, suppl.), S2.185.
- Cacciola SO, Scibetta S, Pane A, Faedda R, Rizza C (2009) *Callistemon citrinus* and *Cistus salvifolius*, two new hosts of *Phytophthora* taxon *niederhauserii* in Italy. *Plant Disease* 93(10), p 1075.
- Davison EM, Drenth A, Kumar S, Mack S, Mackie AE, McKirdy S (2006) Pathogens associated with nursery plants imported into Western Australia. *Australasian Plant Pathology* 35, 473-475 (abst.).
- Denton G, Denton J, Waghorn I, Henricot B (2008) *Phytophthora* diversity in UK gardens. *Journal of Plant Pathology* 90(2, suppl.), S2.186.
- Herrero ML, de Cock AM, Klemsdal S, Tope B (2008) *Phytophthora niederhauserii* in greenhouse pot plants in Norway. *Journal of Plant Pathology* 90(2, suppl.), S2.188.
- Martini P, Scibetta S, Allatta C, Pane A, Cacciola SO (2007) New reports of *Phytophthora hedraiandra*, *P. niederhauserii* and *P. tentaculata* in Italy. *Journal of Plant Pathology* 89(3, suppl.), S47.

Additional key words: new pest

Computer codes: AU, ES, GB, IT, NO, US

2009/198 *Hop stunt viroid* detected in Finland

The NPPO of Finland recently informed the EPPO Secretariat that *Hop stunt viroid* (*Hostuviroid*, HSVd) has been found on plants of cucumber (*Cucumis sativus*) grown under glasshouse conditions. The grower had observed unusual symptoms on leaves and fruits, and samples were sent to the Finnish Food Safety Authority. The pathogen was identified as *Hop stunt viroid* and results were confirmed by the reference laboratory of the Dutch NPPO. The origin of this infection is unknown, so far. Appropriate treatments and quarantine measures were imposed by the NPPO. In particular, all infected plants were destroyed.

The pest status of *Hop stunt viroid* in Finland is officially declared as: Present, under eradication.

Source: NPPO of Finland, 2009-07.

Additional key words: new record

Computer codes: HSV000, FI

2009/199 *Pantoea stewartii* is absent from Brazil

The EPPO data sheet on *Pantoea stewartii* (EPPO A2 List) mentioned the presence of this bacterium in Brazil on the basis of a publication from Pereira & Zagatto (1968). In this publication, it was stated that a disease resembling *P. stewartii* was observed in the Avaré region (São Paulo state), but the identity of the bacterium was not confirmed at that time. Since then, there have been no further reports of *P. stewartii* (which is listed as an A1 quarantine pest in Brazil) and the Brazilian NPPO now officially confirms that *P. stewartii* is absent from its territory.

Source: NPPO of Brazil, 2009-10.

Pereira ALG, Zagatto AG (1968) [Occurrence of maize bacteriosis in the Avaré region]. *Biologico* 34(4), p 94.

Additional key words: denied record

Computer codes: ERWIST, BR

2009/200 New data on quarantine pests and pests of 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 of ISPM no. 8.

- New records

*Dacus ciliatus* (Diptera: Tephritidae - EPPO A1 List) occurs in Oman (Kaakeh *et al.*, 2007). Present, no details.

*Elsinoe australis* (EU Annexes) occurs in the Republic of Korea and it corresponds to a new pathotype affecting *Citrus natsudaoidai* (Hyun *et al.*, 2009). Present, no details.

*Leucinodes orbonalis* (Lepidoptera: Pyralidae - EPPO Alert List) occurs in the United Arab Emirates (Kaakeh *et al.*, 2007). Present, no details.

*Puccinia hemerocallidis* (EPPO A1 List) is reported for the first time from Colombia (Pardo-Cardona, 2006). Present, first reported in 2006.

*Stenocarpella maydis* (EPPO A2 List) occurs in Uganda. Surveys carried out in 2002/2003 in 11 maize-growing districts of the country showed that the disease incidence ranged from 2.5% to 32.5% (Bigirwa *et al.*, 2007). Present, no details.

- Detailed records

The presence of *Bemisia tabaci* biotype B (EPPO A2 List) was observed in 2006 on the Island of Rhodos (Greece), on tomato crops. These field and glasshouse crops were also infected by *Tomato yellow leaf curl virus* (*Geminivirus* - EPPO A2 List) (Papayiannis *et al.*, 2008).

*Bursaphelenchus xylophilus* (EPPO A1 List) was discovered in 1979 in the southeast of Kansas (US). Since then, pine wilt disease has moved westwards at approximately 15 km per year, killing thousands of pines (*Pinus nigra*, *P. sylvestris*), and is now present approximately halfway across the state (Kennelly *et al.*, 2009).

In Turkey, surveys have been carried out during 2006-2008 on citrus blight disease (EPPO A1 List) in the Eastern Mediterranean region and confirmed the presence of the disease (Kayim and Ciftci, 2009).

In Brazil, huanglongbing caused by ‘*Candidatus Liberibacter asiaticus*’ and ‘*Candidatus Liberibacter americanus*’ (both EPPO A1 List) was first found in the State of São Paulo in March 2004. As of March 2009, it has been reported in 241 municipalities in São Paulo, Paraná and Minas Gerais States (Lopes, 2009).

‘*Candidatus Liberibacter asiaticus*’ (EPPO A1 List) occurs in the Hunan province, China (Ding *et al.*, 2009).

During a survey on viruses of blackberries (*Rubus* spp.) carried out in Alabama (US), *Tomato ringspot virus* (*Nepovirus* - EPPO A2 List) and *Impatiens necrotic spot virus* (*Tospovirus* - EPPO A2 List) were detected in commercial plantations (Coneva *et al.*, 2009).

In Argentina, *Phakopsora pachyrhizi* (EPPO Alert List) was first detected in 2002. It then spread to the Northeast (Entre Rios, Chaco, Corrientes, Misiones, Formosa and East of Santiago del Estero), to the Northwest (Tucumán, Salta, Jujuy, Northwest of Santiago del Estero and Southeast of Catamarca) and to the Pampa region (Buenos Aires, Santa Fe, and Cordoba). It is found on soybean crops and kudzu (*Pueraria lobata*) (Carmona *et al.*, 2007).

In July 2008, the recombinant strain of *Plum pox virus* (Potyvirus, PPV - EPPO A2 List) was detected in three *Prunus* trees in a private property at Grimsby, Ontario (Canada). This is the first report of PPV-Rec in North America (only PPV-D and PPV-W had been found, so far). All infected plants were removed and intensive surveys carried out around the infected property did not detect other PPV-infected plants (Thompson *et al.*, 2009).

*Tomato ringspot virus* (*Nepovirus* - EPPO A2 List) occurs in Illinois (US). It was detected during surveys on viruses of cucurbit crops carried out from 2004 to 2006 (Jossey and Babadoost, 2008).

*Xanthomonas oryzae* pv. *oryzae* (EPPO A1 List) occurs in Rajasthan, India (Nayak *et al.*, 2009).

- Host plants

Studies carried out in Turkey showed that the following weed species, *Cichorium intybus*, *Heliotropium europaeum* and *Plantago major*, were alternative hosts for *Beet necrotic yellow vein virus* (*Benyvirus* - EPPO A2 List) (Yanar *et al.*, 2006).

The presence of *Impatiens necrotic spot virus* (*Tospovirus*, EPPO A2 List) was detected in spinach plants (*Spinacia oleracea*) showing severe stunting, interveinal yellowing, leaf thickening and deformation, in California, USA (Liu *et al.*, 2009).

Natural infection by *Iris yellow spot virus* (*Tospovirus*, EPPO Alert List) has been detected in the weed species, *Setaria viridis* (Poaceae, green foxtail), in Utah, USA (Evans *et al.*, 2009).

'*Candidatus Liberibacter asiaticus*' (EPPO A1 List) was detected in plants of *Atalantia buxifolia* (syn. *Severinia buxifolia*, Rutaceae) showing symptoms of leaf mottle and yellowing. These plants were growing near a citrus orchard in Guangzhou, China (Deng *et al.*, 2008).

- Source:
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Additional key words: new records, detailed records, host plants

Computer codes: BEMIR, BNYVVO, BURSXY, CSB000, DIPDMA, INSV00, INVS00, IYSV00, LIBEAM, LIBEAS, LIBEAS, LIBEAS, PHAKPA, PPV000, PUCCHM, TORSVO, TORSVO, XANTOR, AR, BR, CA, CN, CN, CO, GR, IN, TR, UG, US

## 2009/201 EPPO report on notifications of non-compliance

The EPPO Secretariat has gathered below the notifications of non-compliance for 2009 received since the previous report (EPPO RS 2009/183). Notifications have been sent directly to EPPO by Switzerland, and via Europhyt for the EU countries. 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. 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 (\*).

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
<b><i>Bemisia tabaci</i></b>	<i>Ajuga reptans</i>	Israel	Plants for planting	United Kingdom	1
	<i>Echinodorus</i>	Singapore	Aquarium plants	United Kingdom	1
	<i>Eryngium</i>	Thailand	Vegetables (leaves)	France	1
	<i>Eryngium foetidum</i>	Thailand	Vegetables (leaves)	France	6
	<i>Eryngium foetidum</i> ,	Vietnam	Vegetables (leaves)	France	1
	<i>Limnophila</i>				
	<i>Euphorbia pulcherrima</i>	Germany	Plants for planting	Finland	1
	<i>Euphorbia pulcherrima</i>	Netherlands	Plants for planting	Finland	1
	<i>Hibiscus rosa-sinensis</i>	Netherlands	Plants for planting	Finland	1
	<i>Limnophila aromatica</i>	Vietnam	Vegetables (leaves)	France	1
	<i>Lisianthus</i>	Kenya	Cut flowers	Netherlands	1
	<i>Ocimum basilicum</i>	Israel	Vegetables (leaves)	France	1
	<i>Ocimum basilicum</i>	Thailand	Vegetables (leaves)	France	1
	<i>Ocimum sanctum</i>	Thailand	Vegetables (leaves)	France	1
	<i>Polygonum odoratum</i>	Thailand	Vegetables (leaves)	France	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
<b><i>B. tabaci</i> (cont.)</b>	<i>Solidago</i>	Israel	Cut flowers	France	1
<b><i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i></b>	<i>Lycopersicon esculentum</i>	Poland	Plants for planting	Latvia	1
	<i>Lycopersicon esculentum</i>	Thailand	Seeds	France	3
<b><i>Diaphania indica</i></b>	<i>Momordica</i>	Bangladesh	Vegetables	Italy	1
<b><i>Guignardia citricarpa</i></b>	<i>Citrus sinensis</i>	South Africa	Fruits	Netherlands	1
<b><i>Helicotylenchus</i></b>	<i>Peltophorum pterocarpum</i>	USA	Plants for planting	Netherlands	1
<b><i>Heliothis</i></b>	<i>Ocimum basilicum</i>	Israel	Vegetables (leaves)	Czech Republic	1
<b><i>Hirschmanniella</i></b>	<i>Nymphaea</i>	USA	Plants for planting	Germany	1
<b><i>Leucinodes orbonalis</i></b>	<i>Solanum aethiopicum</i>	Ghana	Vegetables	Germany	2
	<i>Solanum melongena</i>	India	Vegetables	Germany	1
	<i>Solanum melongena</i>	Thailand	Vegetables	Germany	1
<b><i>Liriomyza</i></b>	<i>Coriandrum sativum</i>	Thailand	Vegetables	France	1
	<i>Ocimum americanum</i>	Thailand	Vegetables (leaves)	Denmark	1
	<i>Ocimum americanum</i>	Thailand	Vegetables (leaves)	France	2
	<i>Ocimum basilicum</i>	Thailand	Vegetables (leaves)	France	4
	<i>Trigonella</i>	India	Vegetables (leaves)	France	1
<b><i>Liriomyza sativae</i></b>	<i>Ocimum americanum</i>	Thailand	Vegetables (leaves)	France	1
	<i>Trigonella</i>	India	Vegetables (leaves)	France	1
<b><i>Liriomyza trifolii</i></b>	<i>Gypsophila</i>	Israel	Cut flowers	Netherlands	2
<b><i>Phytophthora ramorum</i></b>	<i>Rhododendron</i>	Netherlands	Plants for planting	Finland	1
<b><i>Plum pox virus</i></b>	<i>Prunus domestica</i>	Czech Republic	Plants for planting	Netherlands	1
<b><i>Pratylenchus</i></b>	<i>Bucida buceras</i>	USA	Plants for planting	Netherlands	1
<b><i>Spodoptera litura</i></b>	<i>Rosa</i>	India	Cut flowers	Netherlands	1
<b><i>Thrips</i></b>	<i>Solanum melongena</i>	Dominican Republic	Vegetables	Switzerland	1
	<i>Solanum melongena</i>	Thailand	Vegetables	Switzerland	1
<b><i>Thrips palmi</i></b>	<i>Momordica</i>	Dominican Republic	Vegetables	Germany	1
	<i>Orchidaceae</i>	Singapore	Cut flowers	Austria	1
	<i>Orchidaceae</i>	Thailand	Cut flowers	Austria	4
	<i>Solanum melongena</i>	Dominican Republic	Vegetables	Netherlands	1
<b>Thysanoptera</b>	<i>Momordica charantia</i>	Dominican Republic	Vegetables	France	1
	<i>Momordica charantia</i>	India	Vegetables	France	1
	<i>Solanum melongena</i>	Dominican Republic	Vegetables	Switzerland	1
	<i>Solanum melongena</i>	India	Vegetables	France	1
	<i>Solanum melongena</i>	Thailand	Vegetables	France	1
	<i>Solanum melongena</i>	Thailand	Vegetables	Switzerland	2
<b><i>Viteus vitifoliae</i></b>	<i>Vitis vinifera</i>	Spain	Plants for planting	Netherlands	1
<b><i>Xanthomonas axonopodis</i> pv. <i>citri</i></b>	<i>Citrus aurantiifolia</i>	Bangladesh	Fruits	United Kingdom	1
<b><i>Xanthomonas axonopodis</i> pv. <i>vesicatoria</i></b>	<i>Capsicum annuum</i> , <i>Lycopersicon esculentum</i> , <i>Solanum muricatum</i>	India	Seeds	Italy	1

## • Fruit flies

Pest	Consignment	Country of origin	Destination	nb
<i>Anastrepha</i>	<i>Mangifera indica</i>	Dominican Republic	United Kingdom	1
<i>Anastrepha obliqua</i>	<i>Mangifera indica</i>	Dominican Republic	United Kingdom	1
<i>Bactrocera correcta</i>	<i>Psidium guajava</i>	Thailand	France	1
<i>Bactrocera cucurbitae</i> , Thripidae	<i>Momordica</i>	Bangladesh	United Kingdom	1
<i>Bactrocera dorsalis</i>	<i>Annona muricata</i>	Vietnam	France	3
	<i>Annona squamosa</i>	Vietnam	France	5
	<i>Annona squamosa</i> , <i>Capsicum annuum</i> , <i>Mangifera indica</i>	Vietnam	France	1
	<i>Capsicum frutescens</i>	Thailand	France	1
	<i>Mangifera indica</i>	India	France	1
	<i>Mangifera indica</i>	Thailand	France	1
	<i>Bactrocera latifrons</i>	<i>Capsicum annuum</i>	Vietnam	France
<i>Bactrocera zonata</i>	<i>Mangifera indica</i>	India	France	1
	<i>Mangifera indica</i>	Pakistan	France	2
<i>Ceratitis cosyra</i>	<i>Mangifera indica</i>	Mali	France	2
Non-European Tephritidae	<i>Annona muricata</i>	Vietnam	France	1
	<i>Capsicum annuum</i>	Thailand	France	2
	<i>Capsicum frutescens</i>	Thailand	France	2
	<i>Mangifera indica</i>	Cameroon	France	1
	<i>Mangifera indica</i>	Dominican Republic	France	1
	<i>Mangifera indica</i>	Pakistan	United Kingdom	2
	<i>Mangifera indica</i>	Thailand	France	1
	<i>Momordica</i>	Thailand	Netherlands	1
	<i>Syzygium</i>	Thailand	Netherlands	1
<i>Ziziphus</i>	Thailand	France	1	

## • Wood

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
<i>Bursaphelenchus xylophilus</i>	<i>Pinus sylvestris</i>	Wood and bark	Mongolia*	France	1
Cerambycidae, Bostrichidae	Unspecified (crate)	Wood packing material	China	Netherlands	1
<i>Monochamus alternatus</i>	Unspecified	Wood packing material	China	Germany	1
Nematoda	Unspecified (pallet)	Wood packing material	China	Latvia	1
<i>Sinoxylon</i>	Unspecified (pallet)	Wood packing material	India	Germany	3
	Unspecified (pallet)	Wood packing material	Indonesia	Germany	3
	Unspecified (pallet)	Wood packing material	Malaysia	Netherlands	2

Source: EPPO Secretariat, 2009-10.

2009/202 EPPO Standards on efficacy evaluation of plant protection products:  
update of the web-based database

The EPPO standards for the efficacy evaluation of plant protection products (PP1) describe the conduct of trials carried out to assess the efficacy of plant protection products against specific pests. They are addressed to all institutions, official registration authorities, public institutes or private firms carrying out such trials. Until 2008, these Standards were published as paper brochures but following numerous demands, in February 2009 the EPPO Secretariat released a new database which contains the whole series of EPPO PP1 Standards (more than 260 standards covering a wide range of crops and pests). In this new database, all Standards can be easily retrieved as PDF files using a simple search tool.

The database has been updated with revised standards adopted by EPPO Council in September 2009.

- Weeds in grassland (PP 1/61)
- Weeds in strawberry (PP 1/92)
- Grassland renewal (PP 1/94)
- Weeds in forests (PP 1/116)
- Weeds on hard and semi-permeable surfaces (PP 1/117)
- Weeds in amenity grassland (PP 1/136)
- Weeds in tree and shrub nurseries (PP 1/141)
- Control of suckers in *Rubus* (PP 1/154)
- Regulation of growth in strawberry (PP 1/190)
- Whiteflies (*Trialeurodes vaporariorum*, *Bemisia tabaci*) on protected crops (PP 1/36)
- *Otiorhynchus* spp. on ornamentals and strawberry (PP 1/111)

All general Standards (e.g. design, conduct, reporting and analysis of trials, phytotoxicity, effects on succeeding crops, analysis of resistance risk, minor uses) can be accessed free of charge. Access to specific Standards (e.g. aphids on potato, weeds in cereals) is provided for an annual fee. Subscriptions should be made directly online via the database. For more information on the detailed contents of the database and subscriptions, please consult the EPPO web page: <http://www.eppo.org/DATABASES/pp1/pp1.htm>

Direct access to the database: <http://pp1.eppo.org>

Source: EPPO Secretariat, 2009-10.

2009/203 The situation of *Humulus japonicus* in France

*Humulus japonicus* (= *H. scandens*) (Cannabaceae) is an annual climber vine originating from East Asia. In Europe, it is only recorded in France, Hungary and Italy, and this species is registered on the EPPO Alert List.

In France, *Humulus japonicus* was observed as naturalized in Russan (municipality of Sainte-Anastasie) in the Gard Department in September 2004 in a degraded riparian habitat near the Gard River. It is thought to have escaped from a garden. The Conservatoire Botanique Méditerranéen de Porquerolles found the species 2 km upstream (in the municipality of Dions) on the Gardon which is tributary to the Gard River, and several kilometres downstream. In all these locations, the species colonizes dense nitrophilous fallowlands composed of high grasses.

In October 2009, surveys have been done on the location in Russan, highlighting different levels of invasion:

- in a stand of 140 m<sup>2</sup>, the species covered 100% of the stand;
- in a stand of 220 m<sup>2</sup>, *H. japonicus* covered 80% of the stand, where the diversity ranged from 0 to 3 plants species per m<sup>2</sup>, the other two species being the nitrophilous species *Chenopodium album* or the invasive species *Artemisia verlotiorum*. In comparison, non invaded neighbouring areas contained 8 to 10 plant species per m<sup>2</sup>;
- in another stand, plants of *H. japonicus* were dispersed, emerging from a thick litter made of the aerial parts of the plant in the previous years;
- in a stand of 100 m<sup>2</sup>, the plant only covered 10% and seemed to be outcompeted by *Parthenocissus inserta*.

*H. japonicus* has exhibited a high competitive ability, outcompeting tall species such as *Sorghum halepense* or even *Arundo donax*. Nevertheless, the invaded communities do not present a high floristic interest as they are mostly composed of ruderal and nitrophilous species (*Atriplex prostrata*, *Chenopodium album*, *Galium aparine*, *Torilis arvensis*), or other invasive species (*Ambrosia artemisiifolia* - EPPO List of Invasive Alien Plants, *Artemisia annua*, *Artemisia verlotiorum*, *Helianthus tuberosus* - EPPO List of IAP, *Parthenocissus inserta*). However, although being annual, *H. japonicus* forms an important litter that can modify the substrate for many years. The potential impact of this species on riparian habitats should therefore not be overlooked.

Source: Personal communication with Guillaume Fried, LNPV Station de Montpellier, SupAgro ([fried@supagro.inra.fr](mailto:fried@supagro.inra.fr))

EPPO Website:

[http://www.eppo.org/QUARANTINE/Alert\\_List/invasive\\_plants/Humulus\\_japonicus.htm](http://www.eppo.org/QUARANTINE/Alert_List/invasive_plants/Humulus_japonicus.htm)

Additional key words: invasive alien plants

Computer codes: HUMJA, FR

2009/204 Inventory of the non-native flora of Italy

A comprehensive inventory of the non-native vascular flora of Italy has been assembled by a network of Italian researchers, funded by the Italian Ministry for the Environment. This inventory lists 1023 non-native species and subspecies, which accounts for 13.4% of the entire Italian flora. The Italian non-native flora was divided into 103 archeophytes and 920 neophytes. The species were also divided according to their current invasion status in 437 casual (42.7% of all non-native), and 524 established taxa, the latter being divided into 361 non invasive and 163 invasive species. The majority of the non-native flora originally came

from the Americas (387) and Eurasia (366), followed by species of African origin (99) and those that have been introduced from other regions in the Mediterranean Basin (20). The families most represented in the non-native Italian flora are Asteraceae (112), Poaceae (88), Rosaceae (51) and Fabaceae (47).

The non-native species considered invasive in the Italian flora are listed below, with their family and origin.

Species	Origin
<i>Abutilon theophrasti</i> (Malvaceae)	Eur., Asia temp.
<i>Acacia dealbata</i> (Fabaceae) EPPO List of Invasive Alien Plants	Australia
<i>Acacia mearnsii</i> (Fabaceae)	Australia
<i>Acacia retinodes</i> (Fabaceae)	Australia
<i>Acacia saligna</i> (Fabaceae)	Australia
<i>Acalypha virginica</i> (Euphorbiaceae)	N-Am.
<i>Acer negundo</i> (Aceraceae)	N-Am.
<i>Agave americana</i> (Agavaceae)	N & C Am.
<i>Ailanthus altissima</i> (Simaroubaceae) EPPO List of IAP	China
<i>Amaranthus albus</i> (Amaranthaceae)	N-Am.
<i>Amaranthus blitoides</i> (Amaranthaceae)	N-Am.
<i>Amaranthus deflexus</i> (Amaranthaceae)	S-Am.
<i>Amaranthus graecizans</i> (Amaranthaceae)	Medit (Euras)
<i>Amaranthus hybridus</i> (Amaranthaceae)	Am.
<i>Amaranthus muricatus</i> (Amaranthaceae)	S-Am.
<i>Amaranthus powellii</i> (Amaranthaceae)	N & C Am.
<i>Amaranthus retroflexus</i> (Amaranthaceae)	N-Am.
<i>Amaranthus tuberculatus</i> (Amaranthaceae)	N-Am.
<i>Amaranthus viridis</i> (Amaranthaceae)	S-Am.
<i>Ambrosia artemisiifolia</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Ambrosia psilostachya</i> (Asteraceae)	N-Am.
<i>Ammannia coccinea</i> (Lytraceae)	N, C & S-Am.
<i>Amorpha fruticosa</i> (Fabaceae) EPPO List of IAP	N-Am.
<i>Apios americana</i> (Plantaginaceae)	N-Am.
<i>Araujia sericifera</i> (Apocynaceae) EPPO Alert List	S-Am.
<i>Artemisia annua</i> (Asteraceae)	E Eur, W & C Asia

Species	Origin
<i>Artemisia verlotiorum</i> (Asteraceae)	Asia temp.
<i>Arundo donax</i> (Poaceae)	Eur. Asia temp.
<i>Asclepias fruticosa</i> (Apocynaceae)	Trop & S Af., Madagascar
<i>Aster lanceolatus</i> (Asteraceae)	N-Am.
<i>Aster squamatus</i> (Asteraceae)	S-Am.
<i>Azolla filiculoides</i> (Azollaceae) EPPO List of IAP	Am.
<i>Baccharis halimifolia</i> (Asteraceae) EPPO List of IAP	N & C Am.
<i>Bidens bipinnata</i> (Asteraceae)	N-Am.
<i>Bidens connata</i> (Asteraceae)	Wide distribution
<i>Bidens frondosa</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Bidens subalternans</i> (Asteraceae)	S-Am.
<i>Boerhavia coccinea</i> (Nyctaginaceae)	Wide distribution
<i>Broussonetia papyrifera</i> (Moraceae)	China & E Asia
<i>Buddleia davidii</i> (Buddleiaceae) EPPO List of IAP	China
<i>Capsella grandiflora</i> (Brassicaceae)	SE Eur., W As.
<i>Carpobrotus acinaciformis</i> , (Aizoaceae) EPPO List of IAP	S Af.
<i>Carpobrotus edulis</i> (Aizoaceae) EPPO List of IAP	S-Af.
<i>Cenchrus incertus</i> (Poaceae) EPPO List of IAP	N, C & S Am.
<i>Cenchrus longispinus</i> (Poaceae)	N, C & S Am.
<i>Centaurea diluta</i> (Asteraceae)	Medit.
<i>Cestrum parqui</i> (Solanaceae)	S-Am.
<i>Chasmanthe aethiopica</i> (Iridaceae)	S-Af.
<i>Chorispora tenella</i> (Brassicaceae)	Eur., Asia temp., India
<i>Commelina communis</i> (Commelinaceae)	Asia
<i>Corispermum marschallii</i> (Chenopodiaceae)	Eur., Asia temp.

Species	Origin
<i>Cortaderia selloana</i> (Poaceae) EPPO List of IAP	S-Am.
<i>Cotula coronopifolia</i> (Asteraceae)	S-Af.
<i>Cuscuta campestris</i> (Convolvulaceae)	N-Am, Caribbean
<i>Cycloloma atriplicifolia</i> (Chenopodiaceae)	N-Am.
<i>Cyperus glomeratus</i> (Cyperaceae)	Eur. Asia temp.
<i>Cyperus microiria</i> (Cyperaceae)	Asia temp.
<i>Cyperus serotinus</i> (Cyperaceae)	Eur., Asia temp & trop.
<i>Cyperus strigosus</i> (Cyperaceae)	N-Am.
<i>Datura innoxia</i> (Solanaceae)	N, C & S- Am.
<i>Datura stramonium</i> (Solanaceae)	N & C Am.
<i>Chenopodium ambrosioides</i> (Chenopodiaceae)	Am.
<i>Duchesnea indica</i> (Rosaceae)	Asia temp & trop
<i>Eleusine indica</i> (Poaceae)	Tropics
<i>Elodea canadensis</i> (Hydrocharitaceae)	N-Am.
<i>Eragrostis pectinacea</i> (Poaceae)	N, C & S- Am.
<i>Erigeron annuus</i> (Asteraceae)	N-Am.
<i>Erigeron bonariensis</i> (Asteraceae)	S-Am.
<i>Erigeron canadensis</i> (Asteraceae)	N-Am.
<i>Erigeron karvinskianus</i> (Asteraceae)	C & S-Am.
<i>Erigeron sumatrensis</i> (Asteraceae)	S-Am.
<i>Euphorbia maculata</i> (Euphorbiaceae)	N-Am.
<i>Euphorbia prostrata</i> (Euphorbiaceae)	S-Am.
<i>Fallopia baldschuanica</i> (Polygonaceae) EPPO Alert List	W & C Asia, India
<i>Fallopia japonica</i> (Polygonaceae) EPPO List of IAP	China & E Asia
<i>Fallopia sachalinensis</i> (Polygonaceae) EPPO List of IAP	E Asia
<i>Fallopia x bohémica</i> (Polygonaceae) EPPO List of IAP	Hybrid
<i>Galinsoga parviflora</i> (Asteraceae)	S-Am.
<i>Galinsoga quadriradiata</i> (Asteraceae)	C & S Am.
<i>Helianthus tuberosus</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Heracleum mantegazzianum</i> (Apiaceae) EPPO List of IAP	Caucasus
<i>Heteranthera reniformis</i> (Pontederiaceae)	N & C Am.
<i>Humulus japonicus</i> (Cannabaceae) EPPO Alert List	Asia

Species	Origin
<i>Hydrocotyle ranunculoides</i> (Apiaceae) EPPO A2 List	N, C & S- Am.
<i>Impatiens balfourii</i> (Balsaminaceae)	India
<i>Impatiens glandulifera</i> (Balsaminaceae) EPPO List of IAP	India
<i>Impatiens parviflora</i> (Balsaminaceae)	E-Eur., Asia temp.
<i>Ipomoea indica</i> (Convolvulaceae)	S-Am.
<i>Isatis tinctoria</i> subsp. <i>tinctoria</i> (Brassicaceae)	Wide distribution
<i>Juncus tenuis</i> (Juncaceae)	N, C & S- Am.
<i>Kochia scoparia</i> (Chenopodiaceae)	Asia temp., India
<i>Lagarosiphon major</i> (Hydrocharitaceae) EPPO List of IAP	Tropics, S- Af.
<i>Lemna minuta</i> (Lemnaceae)	Tropics
<i>Lepidium virginicum</i> (Brassicaceae)	N & C Am.
<i>Lonicera japonica</i> (Caprifoliaceae)	China & E Asia
<i>Ludwigia peploides</i> subsp. <i>montevidensis</i> (Onagraceae)	N, C & S- Am.
<i>Matricaria discoidea</i> (Asteraceae)	Asia
<i>Aptenia cordifolia</i> (Aizoaceae)	S-Af.
<i>Mirabilis jalapa</i> (Nyctaginaceae)	S-Am.
<i>Mollugo verticillata</i> (Molluginaceae)	S-Am.
<i>Muhlenbergia schreberi</i> (Poaceae)	N-Am.
<i>Murdannia keisak</i> (Commelinaceae)	Asia
<i>Myoporum tenuifolium</i> (Scrophulariaceae)	Australia
<i>Nelumbo nucifera</i> (Nelumbonaceae)	Tropics
<i>Nicotiana glauca</i> (Solanaceae)	S-Am.
<i>Nonea pulla</i> (Boraginaceae)	Eur.
<i>Oenothera adriatica</i> (Onagraceae)	Hort.
<i>Oenothera biennis</i> (Onagraceae)	N-Am.
<i>Oenothera glazioviana</i> (Onagraceae)	Hybrid
<i>Oenothera oakesiana</i> (Onagraceae)	N-Am.
<i>Oenothera stuchii</i> (Onagraceae)	Hybrid
<i>Opuntia ficus-indica</i> (Cactaceae)	C-Am.
<i>Oryza sativa</i> (Poaceae)	Asia temp & trop
<i>Oxalis articulata</i> (Oxalidaceae)	S-Am.
<i>Oxalis corymbosa</i> (Oxalidaceae)	S-Am.
<i>Oxalis pes-caprae</i> (Oxalidaceae) EPPO List of IAP	S-Af.
<i>Oxalis stricta</i> (Oxalidaceae)	N-Am.
<i>Panicum capillare</i> (Poaceae)	N-Am.

Species	Origin
<i>Panicum dichotomiflorum</i> (Poaceae)	N, C & S-Am.
<i>Parkinsonia aculeata</i> (Fabaceae)	Am.
<i>Parthenocissus quinquefolia</i> (Vitaceae)	N-Am.
<i>Paspalum dilatatum</i> (Poaceae)	S-Am.
<i>Paspalum distichum</i> (Poaceae) EPPO List of IAP	S-Am.
<i>Pennisetum setaceum</i> (Poaceae) EPPO Alert List	N & trop. Africa
<i>Persicaria nepalensis</i> (Polygonaceae)	Asia temp. & trop.
<i>Persica virginiana</i> (Polygonaceae)	N-Am.
<i>Phytolacca americana</i> (Phytolaccaceae)	N-Am.
<i>Prunus laurocerasus</i> (Rosaceae)	SE Eur, W Asia
<i>Prunus serotina</i> (Rosaceae)	N & C Am.
<i>Pueraria lobata</i> (Fabaceae) EPPO A2 List	China & E Asia
<i>Quercus rubra</i> (Fagaceae)	N-Am.
<i>Ricinus communis</i> (Euphorbiaceae)	Trop. Africa
<i>Robinia pseudoacacia</i> (Fabaceae)	N-Am.
<i>Salvinia molesta</i> (Salviniaceae) EPPO Alert List	Brazil
<i>Senecio angulatus</i> (Asteraceae)	S-Af.
<i>Senecio inaequidens</i> (Asteraceae) EPPO List of IAP	S-Af.

Species	Origin
<i>Setaria italica</i> (Poaceae)	Tropics
<i>Setaria pycnocomma</i> (Poaceae)	Asia temp.
<i>Sicyos angulatus</i> (Cucurbitaceae) EPPO List of IAP	N-Am.
<i>Solanum linnaeanum</i> (Solanaceae)	Trop. & S-Africa
<i>Solanum sisymbriifolium</i> (Solanaceae)	S-Am.
<i>Solidago canadensis</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Solidago gigantea</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Sorghum halepense</i> (Poaceae)	Hybrid
<i>Spartina townsendii</i> (Poaceae)	Hybrid
<i>Spiraea japonica</i> (Rosaceae)	China, E Asia
<i>Sporobolus neglectus</i> (Poaceae)	N-Am.
<i>Sporobolus vaginiflorus</i> (Poaceae)	N-Am.
<i>Trachycarpus fortunei</i> (Arecaceae)	China & E Asia
<i>Tradescantia fluminensis</i> (Commelinaceae)	S-Am.
<i>Vitis riparia</i> (Vitaceae)	N-Am.
<i>Xanthium orientale</i> (Asteraceae)	N-Am.
<i>Xanthium spinosum</i> (Asteraceae)	S-Am.

Non-native species present in the Italian flora which are considered a threat or a potential threat by EPPO, but which are not considered invasive so far in Italy are listed below, with their family, origin, and status in the Italian flora:

Species	Origin	Status
<i>Akebia quinata</i> (Lardizabalaceae) EPPO Alert List	China & E Asia	Naturalized
<i>Alternanthera philoxeroides</i> (Amaranthaceae) EPPO Alert List	S-Am.	Naturalized
<i>Delairea odorata</i> (Asteraceae) EPPO Alert List	S-Af.	Casual
<i>Egeria densa</i> (Hydrocharitaceae) EPPO List of IAP	S-Am.	Naturalized
<i>Eichhornia crassipes</i> (Pontederiaceae) EPPO A2 List	S-Am.	Naturalized
<i>Elodea nuttallii</i> (Hydrocharitaceae) EPPO List of IAP	Tropics	Casual
<i>Lupinus polyphyllus</i> (Fabaceae) EPPO List of IAP	N-Am.	Naturalized
<i>Myriophyllum aquaticum</i> (Haloragaceae) EPPO List of IAP	S-Am.	Naturalized
<i>Pistia stratiotes</i> (Araceae) EPPO Alert List	Tropics	Casual
<i>Stipa neesiana</i> (Poaceae) EPPO Alert List	S-Am.	Casual
<i>Stipa trichotoma</i> (Poaceae) EPPO Alert List	S-Am.	Casual
<i>Sesbania punicea</i> (Fabaceae) EPPO Alert List	S-Am.	Casual
<i>Solanum elaeagnifolium</i> (Solanaceae) EPPO A2 List	N & C-Am.	Naturalized

Source: Celesti-Grapow L, Alessandrini A, Arrigoni PV, Banfi E, Bernardo L, Bovio M, Brundu G, Cagiotti MR, Camarda I, Carli E, Conti F, Fascetti S, Galasso G, Gubellini L, La Valva V, Lucchese F, Marchiori S, Mazzola P, Peccenini S, Poldini L, Pretto F, Prosser

F, Siniscal C, Villani MC, Viegi L, Wilhalm T, Blasi C (2009) Inventory of the non-native flora of Italy. *Plant Biosystems* 143(2), 386-430.

Additional key words: invasive alien plants

Computer codes: ABUTH, ACADA, ACAMR, ACART, ACASA, ACCVI, ACRNE, AGVAM, AILAL, AKEQI, ALRPH, AMAAL, AMABL, AMADE, AMAGR, AMACH, AMAMU, AMAPO, AMARE, AMATU, AMAVI, AMBEL, AMBPS, AMMCO, AMHFR, ANEKE, APOAM, AJASE, ARTAN, ARTVE, ABKDO, GOPFR, AZOFI, BACHA, BIDBI, BIDCN, BIDFR, BIDSU, BOECC, BRNPA, BUDDA, CBSAC, CBSED, CCHPA, CCHLO, CENDL, CEMPA, EPHMA, EPHPT, CSHAE, COBTE, COMCO, CRQMA, CDTSE, CULCO, CVCCA, CYMAT, CYPGM, CYPMI, CYPSE, CYPST, DATIN, DATST, DUCIN, CHEAM, ELEIN, ELDCA, ELDDE, ELDNU, ERAPE, ERIAN, ERIBO, ERICA, ERIKA, ERIFL, BIKBA, GASPA, GASCA, HELTU, HERMZ, HETRE, HUMJA, HYDRA, IPABF, IPAPA, IPAGL, IPOAC, ISATI, IUNTE, KCHSC, LGAMA, LEMMT, LEPVI, LONJA, LUDPM, LUPPO, MATMT, APJCO, MIBJA, MOLVE, MUHSC, MYMAC, NELNU, NIOGL, NONPU, OEOBI, OPUFI, ORYSA, OXAAR, OXACB, OXAPC, OXAST, PANCA, PANDI, PAKAC, PRTQU, PASDI, PASDS, PESSA, PHTAM, PIIST, POLCU, PRNLR, PRNSO, PUELO, QUERU, REYBO, REYSA, RIICO, ROBPS, SAVMO, SENAN, SENIQ, SETIT, SETPY, SIYAN, SOLSO, SOLSI, SOOCA, SOOGI, SORHA, SPTTO, SPVJA, SPZNE, SPZYA, ASTLN, ASTSQ, TRRFO, TRAAAL, VITRI, XANOR, XANSP, MYPBR, SENMI, SEBPU, SOLEL, STDNE, STDTR, IT

### 2009/205 An identification guide to the main invasive aquatic plants in the South of France

A guide to identify invasive alien plants present in aquatic ecosystems in the South of France has been published by the Agence Régionale Pour l'Environnement Provence-Alpes-Côte d'Azur and the Conservatoire Botanique National Méditerranéen de Porquerolles. It presents 40 species with their detailed botanical description and illustration, their distribution in the South of France and the risk they may present. The species described are the following:

#### Major invasive alien species

These species are widely distributed in the South of France and will require long term management measures, and rapid actions when new outbreaks are found in the region.

Species	Origin
<i>Ambrosia artemisiifolia</i> (Asteraceae) EPPO List of Invasive Alien Plants	N-Am.
<i>Amorpha fruticosa</i> (Fabaceae) EPPO List of IAP	N-Am.
<i>Aster squamatus</i> (Asteraceae)	N-Am.
<i>Azolla filiculoides</i> (Salviniaceae) EPPO List of IAP	Trop & temp. Am.
<i>Baccharis halimifolia</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Bidens frondosa</i> (Asteraceae) EPPO List of IAP	N-Am.
<i>Bidens subalternans</i> (Asteraceae)	S-Am.
<i>Buddleia davidii</i> (Buddleiaceae) EPPO List of IAP	China
<i>Cyperus eragrostis</i> (Cyperaceae)	Trop. Am.
<i>Cortaderia selloana</i> (Poaceae) EPPO List of IAP	S-Am.
<i>Elodea canadensis</i> (Hydrocharitaceae)	N-Am.
<i>Fallopia japonica</i> (Polygonaceae) EPPO List of IAP	Asia
<i>Impatiens balfourii</i> (Balsaminaceae)	Himalayas
<i>Impatiens glandulifera</i> (Balsaminaceae) EPPO List of IAP	Himalayas
<i>Lemna minuta</i> (Lemnaceae) EPPO List of IAP	Am.
<i>Lippia canescens</i> (Verbenaceae)	S-Am.
<i>Ludwigia grandiflora</i> (Onagraceae) EPPO List of IAP	S-Am.
<i>Ludwigia peploides</i> (Onagraceae) EPPO List of IAP	S-Am.
<i>Parthenocissus inserta</i> (Vitaceae)	N-Am.
<i>Paspalum dilatatum</i> (Poaceae)	S-Am.
<i>Paspalum distichum</i> (Poaceae) EPPO List of IAP	Trop. Am.
<i>Xanthium italicum</i> (Asteraceae)	N-Am.

Emerging invasive alien species

These species have a limited distribution in the South of France, and major impacts are reported from elsewhere in the world. Urgent management measures should be undertaken.

Species	Origin
<i>Egeria densa</i> (Hydrocharitaceae) EPPO List of IAP	S-Am.
<i>Elodea nuttallii</i> (Hydrocharitaceae) EPPO List of IAP	N-Am.
<i>Heracleum mantegazzianum</i> (Apiaceae) EPPO List of IAP	Caucasus
<i>Lagarosiphon major</i> (Hydrocharitaceae) EPPO List of IAP	S-Am.
<i>Lindernia dubia</i> (Scrophulariaceae)	N-Am.
<i>Myriophyllum aquaticum</i> (Haloragaceae) EPPO List of IAP	Trop & subtrop Am.
<i>Sagittaria latifolia</i> (Alismataceae)	N-Am.

Species to monitor

These species have a very limited distribution in the South of France. The following species are still casual and should be removed.

Species	Origin
<i>Bidens connata</i> (Asteraceae)	N-Am.
<i>Eichhornia crassipes</i> (Pontederiaceae) EPPO A2 List	S-Am.
<i>Pistia stratiotes</i> (Araceae) EPPO Alert List	Trop.

The impact of the following species is unknown, but they should be monitored, mainly in the rice fields and their surroundings:

Species	Origin
<i>Ammannia coccinea</i> (Lythraceae)	Am.
<i>Ammannia robusta</i> (Lythraceae)	Am.
<i>Cyperus difformis</i> (Cyperaceae)	Af., Asia, S-Eur (native in FR)
<i>Cyperus glomeratus</i> (Cyperaceae)	Eurasia (native in FR)
<i>Heteranthera limosa</i> (Pontederiaceae)	Trop Am.
<i>Heteranthera reniformis</i> (Pontederiaceae)	Trop Am.

The impact of the following species is unknown, but it should be monitored, mainly in vineyards and their surroundings:

Species	Origin
<i>Vitis riparia</i> (Vitaceae)	N-Am.

Source: ARPE, CBNMP (2009) Plantes envahissantes - Guide d'identification des principales espèces aquatiques et de berges en Provence et Languedoc. Agence Régionale Pour l'Environnement Provence Alpes Côte d'Azur. 113 p.  
<http://www.arpe-paca.org/info.asp?InNum=In00002005&ThNum=Th00000251>

Additional key words: invasive alien plants, publication

Computer codes: AMBEL, AMHFR, AMMCO, AMMRB, ASTSQ, AZOFI, BACHA, BIDCN, BIDFR, BIDSU, BUDDA, CYPDI, CYPER, CYPGM, EICCR, ELDC, ELDD, ELDNA, HERMZ, HETLI, HETRE, IPABF, IPAGL, LEMMT, LGAMA, LIDDU, LIPCA, LUDPE, LUDUR, MYPBR, PASDI, PASDS, PIIST, POLCU, PRTIN, SAGLT, VITRI, XANSI, FR

2009/206 Invasive alien plants: new information on the EPPO website

The EPPO webpage on invasive alien plants has been updated with information on alien species that were the object of a summary on previous issues of the Reporting Service, although they were not added to the Alert List. Mini data sheets can now be found for the following species:

- *Alternanthera pungens*
- *Alternanthera sessilis*
- *Asparagus asparagoides*
- *Cotula coronopifolia*
- *Eragrostis curvula*
- *Spirea* spp.
- *Rudbeckia laciniata*

[http://www.eppo.org/QUARANTINE/ias\\_plants.htm](http://www.eppo.org/QUARANTINE/ias_plants.htm)

Furthermore, a new webpage is now dedicated to the study by the EPPO Secretariat on the risks presented by the imports of aquatic plants into the EPPO region.

[http://www.eppo.org/QUARANTINE/plants/pathway\\_analysis/aquarium\\_plants.htm](http://www.eppo.org/QUARANTINE/plants/pathway_analysis/aquarium_plants.htm)

Source: EPPO Secretariat (2009-10).

Additional key words: invasive alien plants

Computer codes: ALRRE, ALRSE, ASPAS, CULCO, ERACU,  
RUDLA, SPVSS