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CONTENTS _____ *Pests & Diseases*

_____ *Invasive Plants*

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2009/128 First record of *Monilinia fructicola* in Switzerland

Following the discovery of *Monilinia fructicola* (EPPO A2 List) in several European countries (i.e. France in 2001, Spain in 2006, and Czech Republic in 2007), surveys were carried out in Switzerland in 2003 and 2005. Fruit samples (71 in 2003, 165 in 2005) were collected from *Prunus* orchards located in different Swiss cantons but all results were negative. In 2008, it was decided to focus the efforts on apricots (*Prunus armeniaca*) from the canton of Valais which is one of the main *Prunus*-growing area in Switzerland and which is neighbouring France where the disease occurs. In 2008, 222 symptomatic apricot fruits were collected and tested. Most samples were found infected by *M. fructigena* or *M. laxa* but 10 samples (*P. armeniaca* cvs. 'Luizet' and 'Orangered') coming from a single orchard (commune of Riddes) were found infected *by M. fructicola*. These positive results were confirmed by using the EPPO Diagnostic protocol*. The origin of this infection is still unknown. However, it is noted that the infested orchard which was originally planted with cultivar 'Luizet' only, had been partly replanted with the cultivar 'Orangered' during the last few years. It is suspected that the disease was introduced with infected young plants of cultivar 'Orangered' and investigations are under way to trace back their origin. Control strategies are currently being developed in Switzerland to eradicate or contain *M. fructicola*. This is the first report of *M. fructicola* in Switzerland.
The situation of *Monilinia fructicola* in Switzerland can be described as follows: **Present, first detected in 2008 in one apricot orchard (Valais canton).**

* EPPO (2003) EPPO Standards. PM 7/18 Diagnostic protocol. *Monilinia fructicola*. *Bulletin OEPP/EPPO Bulletin* **33**(2), 245-247. http://archives.eppo.org/EPPOStandards/PM7_DIAGNOS/pm7-18(1).pdf

Source: Mayor JP (2009) Faits marquants en 2008 à Agroscope ACW. ACW diagnostique la première apparition de *Monilinia fructicola* dans un verger suisse de fruits à noyau. *Revue suisse de Viticulture, Arboriculture, Horticulture* **41**(3), 157-164.

Patocchi A, Bünter M, Gerber A, Hilber-Bodmer M (2009) Première apparition de *Monilinia fructicola* dans un verger de fruits à noyau en Suisse. *Revue suisse de Viticulture, Arboriculture, Horticulture* **41**(2), 113-116.

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

2009/129 First report of *Gymnosporangium yamadae* in the USA

In the USA, in August 2004 and July 2008, the aecial stage of a rust fungus was observed in Wilmington (Delaware) and nearby in Media (Pennsylvania) on leaves of *Malus toringo*, an ornamental plant native to Asia. On the basis of morphological and molecular characteristics, the fungus was identified as *Gymnosporangium yamadae* (EPPO A1 List). This is the first time that *G. yamadae* (Japanese apple rust) is reported from the USA, and from North America.
The situation of *Gymnosporangium yamadae* in the USA can be described as follows: **Present, first observed in 2004 and 2008 in Delaware and Pennsylvania respectively, on** *Malus toringo*.

Source: Yun HY, Minnis AM, Rossman AY (2009) First report of Japanese apple rust caused by *Gymnosporangium yamadae* on *Malus* sp. in North America. *Plant Disease* **93**(4), p 430.

Additional key words: new record **Computer codes:** GYMNYA, US

2009/130 Isolated finding of *Diaporthe vaccinii* in the Netherlands

The NPPO of the Netherlands recently informed the EPPO Secretariat of the first finding of *Diaporthe vaccinii* (anamorph: *Phomopsis vaccinii* - EPPO A1 List) on a single plant of *Vaccinium corymbosum*. During a routine survey carried out in 2006 on *Vaccinium* crops, symptoms were observed on the twigs of one plant in a company producing blueberry fruits (located in Horst, province of Limburg). The fungus was identified as *Phomopsis* sp. in 2006, and the identification of the pathogen as *D. vaccinii* could only be ascertained in 2007. The NPPO of the Netherlands considers that *D. vaccinii* is no longer present as the infected plant was destroyed, but surveys are being carried out at blueberry production facilities to confirm the absence of this fungus.
The pest status of *Diaporthe vaccinii* in the Netherlands is officially declared as: **Absent, only one isolated finding.**

Source: NPPO of the Netherlands, 2009-07.

INTERNET (last retrieved in 2009-07)
Dutch Ministry of Agriculture, Nature and Food Quality. Pest Report.
http://www.minlnv.nl/cdlpub/servlet/CDLServlet?p_file_id=38469

Additional key words: incursion **Computer codes:** DIAPVA, NL

2009/131 *Hymenoscyphus albidus* is the teleomorph of *Chalara fraxinea*

In 2008, studies were carried out in affected ash (*Fraxinus* spp.) stands in Poland (near Kraków) to try to identify the teleomorph of *Chalara fraxinea* (EPPO Alert List), the causal agent of ash dieback. In Poland, a discomycete was observed in a nursery and in a forest affected by ash dieback. The apothecia of this fungus occurred preferentially on ash petioles from the previous year in the litter, but occasionally also on the shoots of 1-3 year-old dead ash seedlings. Apothecia were flat discs of 1.5-3 mm diameter, first whitish or creamy, and then turning into cinnamon brown. This fungus was identified as *Hymenoscyphus albidus* and was shown to be the teleomorph of *C. fraxinea* (ascospore cultures, comparison of morphology and ITS sequences). *H. albidus* is considered to be widespread in Europe (it was already described in 1850 as *Peziza albida*), but it has rarely been collected and herbarium material is scarce. According to the literature, *H. albidus* occurs exclusively on *Fraxinus* petioles in the leaf litter; although in Poland it has occasionally been observed on shoots of dead seedlings (see above). It is also noted that in contrast to the sticky conidia of *C. fraxinea*, the ascospores of *H. albidus* are wind-dispersed which might explain the rapid spread of the disease. As *H. albidus* is apparently native and widespread in Europe, the emergence of a new disease caused by this species is difficult to explain. It is considered that the taxonomy of the *H. albidus/C. fraxinea* complex should be further studied to better understand the possible causes of the emergence of ash dieback in Europe.

Source: Kowalski T, Holdenrieder O (2009) The teleomorph of *Chalara fraxinea*, the causal agent of ash dieback. *Forest Pathology* (in press).

Additional key words: taxonomy, etiology **Computer codes:** CHAAFR

2009/132 A new real-time PCR assay to detect *Chalara fraxinea*

A real-time PCR assay has been developed to detect *Chalara fraxinea* (EPPO Alert List) directly in plant tissue. This new assay was found to be more efficient than isolation on agar plates. Isolation of *C. fraxinea* is particularly difficult and time-consuming because of its poor growth on artificial growing media (*C. fraxinea* is easily outcompeted by faster growing fungi). This real-time PCR assay successfully detected the presence of *C. fraxinea* in 28 out of 33 ash samples displaying typical dieback symptoms, either in sapwood or in necrotic inner and outer bark; whereas pure cultures of *C. fraxinea* could only be obtained from 12 of the 33 samples. The specificity of real-time PCR was also successfully checked with a collection of European fungal species, either phylogenetically close to *C. fraxinea* or sharing the same ecological niche. It is considered that this new real-time PCR assay will be a useful tool for both monitoring programmes and research on the epidemiology of ash dieback.

Source: Ioos R, Kowalski T, Husson C, Holdenrieder O (2009) Rapid *in planta* detection of *Chalara fraxinea* by a real-time PCR assay using a dual-labelled probe. *European Journal of Plant Pathology* (in press).

Additional key words: diagnostics **Computer codes:** CHAAR

2009/133 *Acidovorax citrulli*: addition to the EPPO Alert List

The EPPO Panel on bacterial diseases has suggested that the bacterium *Acidovorax citrulli* should be added to the Alert List because of the severe losses it may cause to melon and watermelon crops (see also RS 519/10 of 1992 and RS 95/221).

Acidovorax citrulli (bacterial fruit blotch of cucurbits)

Why Bacterial fruit blotch of cucurbits is caused by *Acidovorax citrulli* (syn: *Acidovorax avenae* subsp. *citrulli*, *Pseudomonas pseudoalcaligenes* subsp. *citrulli*). Recent taxonomic studies (Schaad *et al.*, 2008) on the different subspecies of *Acidovorax avenae* concluded that *Acidovorax avenae* subsp. *citrulli* should be reclassified and elevated to species rank as *Acidovorax citrulli* comb. nov. In the USA, the first outbreaks and crop losses caused by bacterial fruit blotch started to be reported in 1989 in commercial fields of watermelons in Florida, South Carolina and Indiana. Although similar symptoms of a bacterial disease had already been reported in the 1960s, the identity of the causal agent could not be ascertained at that time. The disease which is seed-transmitted was then also reported from other parts of the world. Because *A. citrulli* can be a serious threat to cucurbit crops (in particular melon and watermelon), the EPPO Panel on bacterial diseases considered that it should be added to the EPPO Alert List.

Where **EPPO region:** Hungary (first found in 2007 on watermelon crops in Southern Hungary), Israel (first outbreaks observed in 2000/2003 on melon and watermelon crops), Turkey (first found in 1995 in Edirne province (Marmara region) on watermelon crops, reported in 2005 in Adana Province (Mediterranean region)). In Israel, *A. citrulli* is a quarantine pest and in 2006, the NPPO declared that the disease was present only in a limited number of production sites and was under eradication (EPPO RS 2006/012). In Hungary, the disease was observed on 20-30 ha of watermelons in July 2007 during a hot summer period (mean maximum daytime temperature > 32°C). The source of infection could not be determined, but it was noted that grafted watermelon transplants had been imported from Turkey.

Asia: China (Fujian, Jilin, Neimenggu, Xinjiang), Japan (Honshu), Taiwan, Thailand. There is an isolated record of *A. avenae* subsp. *citrulli* on *Paliurus spina-christi* (Rhamnaceae) from Iran.
North America: USA (Alabama, Arkansas, California, Delaware, Florida, Georgia, Iowa, Illinois, Indiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, Oregon, South Carolina, Texas). In a paper from Latin and Hopkins (1995), it is stated that that in some US states (Delaware, Iowa and Maryland) the disease was seen in 1989 but has not been found later on (at least until 1995, no more recent data could be found).
South America: Brazil (Ceará, Pernambuco, Minais Gerais, Rio Grande do Norte, Rio Grande do Sul, Roraima).
Central America: Costa Rica. In Nicaragua, *A. citrulli* was reported on crops which had been grown from seeds imported from Costa Rica in 1997, but it was subsequently declared eradicated.
Oceania: Australia (Queensland), Guam, Northern Mariana Islands.

On which plants: The most susceptible hosts are watermelons (*Citrullus lanatus*) and melons (*Cucumis melo*) which develop symptoms on fruit and leaves. Other cucurbits such as *Cucumis sativus* (cucumber), *Cucurbita pepo* (squash), and *C. moschata* only develop foliar symptoms. Wild cucurbits such as *Citrullus lanatus* var. *citroides*) can host *A. citrulli* and probably act as reservoirs for the bacterium. In artificial inoculation studies, solanaceous plant species (i.e. *Capsicum* spp., *Lycopersicon esculentum, Solanum melongena*) could develop foliar symptoms.

Damage: Symptoms on fruits appear as dark olive green stain (or blotch) on the upper side of the fruit. Lesions usually become apparent shortly before fruit ripening. The epidermis of the rind can then rupture and frequently bacterial ooze is produced. On leaves, small dark brown, somewhat angular and water-soaked lesions can appear, but they are generally inconspicuous. On seedlings, water-soaked areas on the underside of cotyledons can be seen and lesions on the hypocotyl cause collapse of the emerging plants. Some seedlings may remain symptomless until fruit set.
In the USA, the disease usually occurs in relatively few fields but under favourable conditions (warm and wet weather) fruit losses of up to 90-100% have been observed in some commercial fields of watermelons. In Brazil, the disease is causing severe losses in the Nordeste (mainly Rio Grande do Norte and Ceará) on melon crops. In 2000, crop losses in Rio Grande do Norte were estimated at 40-50%, reaching 100% in some melon crops. In a survey carried out in 2001 in 18 melon fields, the disease was present in all fields with an incidence varying from 4% to 47%.

Transmission: *A. citrulli* is mainly transmitted through seeds. In the field or transplant units, the bacterium can also be spread by water, in particular by overhead irrigation. Volunteer seedlings from infected seeds, buried infected rinds, and weed host plants can also act as inoculum sources. In US watermelon crops, it is now considered that the disease cycle usually begins with contaminated seeds which then result in infected seedlings. Overhead irrigation disperses the pathogen throughout transplant facilities and infected seedlings with inconspicuous lesions are transplanted to the field where the bacteria can spread to neighbouring plants. Diseased fruits often decay in the field and their seeds may then remain in the soil and eventually start a new disease cycle. Over long distances, trade of infected seed lots or transplants of *Citrullus lanatus* and *Cucumis melo* is probably the most important pathway for spreading the disease.

Pathway: Seeds, plants for planting, fruits of *Citrullus lanatus* and *Cucumis melo*.

Possible risks: Cucurbit crops such as melons and watermelons are widely grown in Southern Europe and around the Mediterranean Basin. *A. citrulli* has already been reported in the EPPO region (Israel, Hungary, and Turkey) and more details would be needed on its current economic impact in these countries. In Israel and Turkey, *A. citrulli* is listed as a quarantine pest. In most countries where it occurs, *A. citrulli* seems to appear sporadically but it can lead to very severe losses (probably when climatic and cropping conditions are favourable). Management

strategies have been developed in the USA and are based on the use of uncontaminated seed lots (seed treatments are not considered effective), careful inspection of transplants and destruction of all symptomatic plants, standard glasshouse sanitation procedures when growing transplants, control of volunteer or wild cucurbit plants in the field, ploughing to eliminate plant debris, use of resistant/tolerant cultivars, application of copper-containing fungicides, and crop rotation. Although more data would be needed on the climatic requirements of *A. citrulli* to better understand its potential of establishment across the EPPO region, it seems highly desirable to avoid any further spread of this bacterium, in particular via infected melon and watermelon seed lots or transplants.

Source(s)

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EPPO RS 2009/133

Panel review date - Entry date 2009-07

2009/134 First report of *Chrysanthemum stunt viroid* in Finland

In April 2009, the presence of *Chrysanthemum stunt viroid* (*Pospiviroid*, CSVd – EPPO A2 List) was detected for the first time in Finland on planting material of Petunia. The viroid was detected by conventional RT-PCR (using Pospi1 primers) and identified by sequencing; positive results were also confirmed by the Food and Environment Research Agency (Fera) in the United Kingdom by using TaqMan-PCR. Investigations showed that CSVd had spread to 8 places of production in Finland with planting material of Petunia (cv. 'Littletunia breezy pink') which had been originally imported from Sweden. Appropriate treatments and quarantine measures were applied to eradicate CSVd.
The pest status of *Chrysanthemum stunt viroid* in Finland is officially declared as: **Present, under eradication.**

Source: NPPO of Finland, 2009-04.

Additional key words: new record **Computer codes:** CSVD000, FI

2009/135 First report of *Tomato chlorotic dwarf viroid* in Finland

In April 2009, the presence of *Tomato chlorotic dwarf viroid* (*Pospiviroid*, TCDVd) was detected for the first time in Finland on planting material of Petunia in 1 place of production. The infected lots (cvs 'Mini Red' and 'Pink Star') had been imported from Israel. The viroid was detected by conventional RT-PCR (using Pospi1 primers) and identified by sequencing; positive results were also confirmed by Fera in the United Kingdom by using TaqMan-PCR. Appropriate treatments and quarantine measures were applied to eradicate TCDVd.
The pest status of *Tomato chlorotic dwarf viroid* in Finland is officially declared as: **Present, under eradication.**

Source: NPPO of Finland, 2009-04.

Additional key words: new record **Computer codes:** TCDVD0, FI

2009/136 Transmission of *Tomato chlorotic dwarf viroid* by tomato seeds

Tomato chlorotic dwarf viroid (*Pospiviroid*, TCDVd) has been detected in several ornamental plants (e.g. *Brugmansia*, *Petunia*) and in tomatoes (*Lycopersicon esculentum*) grown in commercial glasshouses in Manitoba (Canada), Arizona (US) and Japan (RS 2008/006, RS 2009/021). Although seed-transmission was not obtained during the initial description of the viroid, its presence in commercial glasshouses raised again the possibility of transmission through tomato seeds. Studies were carried out in Canada on a viroid strain initially isolated from *Vinca minor* (which is also reported as a new host of TCDVd) and they showed that TCDVd was seed-borne in tomato. The viroid could be detected in high percentages in tomato seeds and seedlings. Soaking infected tomato seeds in a low concentration of sodium hypochlorite did not eliminate the viroid. This strongly

suggested that TCDVd is seed-transmitted but further studies with different strains are needed to confirm these preliminary results.

Source: Singh RP, Dilworth AD (2009) *Tomato chlorotic dwarf viroid* in the ornamental plant *Vinca minor* and its transmission through tomato seeds. *European Journal of Plant Pathology* **123**(1), 111-116.

Additional key words: epidemiology **Computer codes:** TCDVD0

2009/137 *Potato spindle tuber viroid* detected on tomatoes growing near infected *Solanum jasminoides* in Liguria, Italy

In Italy, *Potato spindle tuber viroid* (*Pospiviroid*, PSTVd – EPPO A2 List) was first reported in 2007 (EPPO RS 2008/008) on asymptomatic plants of *Solanum jasminoides* and *S. rantonnetii* in Lazio and Puglia. More recently, PSTVd was detected in Liguria on plants of *S. jasminoides*, indicating that the pathogen was probably more widespread than originally thought. In autumn 2008, surveys were carried out in Liguria region on the possible presence of PSTVd in *S. jasminoides* plants. During these surveys, tomatoes (*Lycopersicon esculentum*) growing nearby *S. jasminoides* and showing typical symptoms of PSTVd were noticed in the Albenga plain ('Piana di Albenga', Liguria region). In a family plot adjacent to *S. jasminoides* plants, approximately 60 tomato plants were showing severe stunting, leaf distortion, chlorotic/necrotic lesions, and discoloured fruits. Molecular tests (RT-PCR, sequencing) confirmed that both asymptomatic *S. jasminoides* and symptomatic tomatoes were infected by PSTVd. Considering the fact that the infected *S. jasminoides* and tomatoes were grown in close vicinity, it is suspected that the viroid originally came from *S. jasminoides*. It is stressed that research on the epidemiology of PSTVd and in particular on the possible role of ornamental Solanaceae as viroid reservoirs should be intensified.

Source: Silletti MR, Navarro B, Bozzano G, Trisciuzzi VN, Di Serio F (2009) [PSTVd a threat to tomato and potato crops]. *L'informatore Agrario* no. 11, 89-90 (in Italian).

Additional key words: detailed record **Computer codes:** PSTVD0, IT

2009/138 *Strawberry vein banding virus* detected in Italy

In Italy during regular surveys on strawberry crops, the regional Plant Protection Service of Emilia-Romagna detected the presence of *Strawberry vein banding virus* (*Caulimovirus*, SVBV - EPPO A2 List) in 2008. In addition to SVBV, two other viruses were detected, *Apple mosaic virus* (*Ilarvirus* - EU Annexes) and Strawberry chlorotic fleck virus*. These viruses were identified with molecular diagnostic tools (PCR and RT-PCR with specific primers and positive controls provided by the USDA/ARS National Germplasm Repository of Corvallis, Oregon, USA). In the nursery concerned, infected strawberry plants were destroyed. However, some strawberry plants belonging to a collection of old varieties were not destroyed but they will be maintained under quarantine (screen house) and will not be allowed to be further multiplied.

The situation of *Strawberry vein banding virus* in Italy can be described as follows: **Present, occasionally found, under official control.**

* Chlorotic fleck is a graft- and aphid-transmitted disease of strawberry which was identified more than 45 years ago in Louisiana (US) but its causal agent has remained unknown. Recent studies have shown that the disease was associated with several viruses, including a previously undescribed *Closterovirus* which was tentatively called Strawberry chlorotic fleck virus. Detection methods have subsequently been developed for its identification (Tzanetakis and Martin, 2007).

Source: NPPO of Italy, 2009-02.

Tzanetakis IE, Martin RR (2007) Strawberry chlorotic fleck: identification and characterization of a novel *Closterovirus* associated with the disease. *Virus Research* **124**(1/2), 88-94 (abst.).

Additional key words: detailed record **Computer codes:** SVBV00, IT

2009/139 Incursion of *Tomato spotted wilt virus* in Finland

Tomato spotted wilt virus (*Tospovirus*, TSWV – EPPO A2 List) is occasionally found in Finland in glasshouse crops but it is always subject to eradication measures to prevent its establishment (EPPO RS 2001/201, 2003/167). On 2009-03-20, TSWV was detected on pot plants of *Osteospermum* cv. 'Purple flush' at 1 place of production. The infected plants had been grown from planting material imported from Germany. The virus was first detected by a diagnostic kit (spot check lateral flow) and by DAS-ELISA. Appropriate treatments and quarantine measures were taken to eradicate TSWV.
The pest status of *Tomato spotted wilt virus* in Finland is officially declared as: **Present, under eradication.**

Source: NPPO of Finland, 2009-04.

Additional key words: detailed record **Computer codes:** TSWV00, FI

2009/140 Incursion of *Bemisia tabaci* in Finland

Bemisia tabaci (Homoptera: Aleyrodidae – EPPO A2 List) is occasionally found in Finland on glasshouse crops but is always subject to eradication measures to prevent its establishment (EPPO RS 2002/039, 2008/159). On 2009-04-06, *B. tabaci* was found on pot plants of *Calibrachoa* and *Begonia* at 1 place of production. *B. tabaci* was also found at another place of production on pot plants of *Begonia* on 2009-04-08. The origins of these outbreaks are still unknown for the moment. Appropriate treatments and quarantine measures were taken to eradicate the pest.
The pest status of *Bemisia tabaci* in Finland is officially declared as: **Present, under eradication.**

Source: NPPO of Finland, 2009-04.

Additional key words: detailed record **Computer codes:** BEMITA, FI

2009/141 Incursion of *Liriomyza huidobrensis* in Finland

In Finland, *Liriomyza huidobrensis* (Diptera: Agromyzidae – EPPO A2 List) has occasionally been found in glasshouses during the last decades, but each incursion has been subjected to eradication measures to prevent its establishment (see EPPO RS 93/014, 97/181, 2003/021, 2003/167). In 2009, *L. huidobrensis* was found at 3 places of production:
- on bedding plants of *Petunia hybrida* 'Surfinia', *Sutera cordata* and *Helianthus annuus* (on 2009-03-05),
- on bedding plants of *Viola* sp. (on 2009-04-01),
- it was caught on sticky traps at 1 place of production of bedding plants of *Argyranthemum* (on 2009-04-08).

The origins of these infestations are unknown for the moment. Appropriate treatments and quarantine measures have been taken in order to eradicate the pest.
The pest status of *Liriomyza huidobrensis* in Finland is officially declared as: **Present, under eradication.**

Source: NPPO of Finland, 2009-04.

Additional key words: detailed record, incursion **Computer codes:** LIRIHU, FI

2009/142 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**

The sycamore lace bug, *Corythucha ciliata* (Heteroptera: Tingidae) was found for the first time in the Netherlands in September 2008, on *Platanus orientalis* in Maastricht. It is considered that the origin of this finding is most likely due to natural spread from other European countries (NPPO of the Netherlands, 2009). **Present, first found in 2008 in Maastricht (southern part).**

In the Republic of Macedonia, the presence of bois noir (Stolbur phytoplasma) was reported for the first time in 2003 during a survey carried out in a small region near Veles and Skopje. Further molecular studies were done in 2006 in the main grapevine-growing regions and showed that bois noir phytoplasmas occurred in the areas of Kavadarci, Negotino, Radovis, Stip, Strumica, and Veles. Grapevine flavescence dorée was not detected during this study (Mitrev *et al.*, 2007). **Present, first detected in 2003, bois noir occurs in the main grapevine-growing regions.**

The eucalyptus pest, *Leptocybe invasa* (Hymenoptera: Eulophidae – EPPO Alert List) has been found in Broward County, Florida (US) in July 2008. This is the first report of this pest in North America (Pest Alert, 2008). **Present, first found in 2008 in Florida**.

- **Detailed records**

In Ontario (Canada), the presence of *Agrilus planipennis* (Coleoptera: Buprestidae – EPPO A1 List) has been reported in the following new sites: 1) in a residential area of the city of Sault Ste Marie; 2) in a private campground outside the community of Bayfield, municipality of Bluewater (Huron County); 3) in the city of Pickering, municipality of Durham; 4) in the city of Hamilton (NAPPO, 2008 and 2009).

Ceratocystis fagacearum (EPPO A1 List) is reported for the first time in New York State (US). In August 2008, it was detected on wilting red oaks (*Quercus rubra*) growing in a residential area in Scotia. According to the owners of the property, 12 red oaks have died during the last 3 years (each tree died within one growing season after wilting symptoms were noticed). Investigations showed that 12 additional trees were infected by *C. fagacearum* in the same area. According to the authors, this discovery expands the known range of *C. fagacearum* to the north-east by at least 300 km, supporting the hypothesis that this fungus continues to spread via animal vectors and/or human activities within the USA (Jensen-Tracy *et al.*, 2009).

In Liguria (Italy), *Dryocosmus kuriphilus* (Hymenoptera: Cynipidae – EPPO A2 List) continues to spread. In 2009, the pest has been found in 4 communes (Ortonovo, Castelnuovo Magra, Sarzana, and S. Stefano Magra) in the province of La Spezia (Regional PPO of Liguria, 2009).

In Poland, larvae of *Helicoverpa armigera* (Lepidoptera: Noctuidae – EPPO A2 List) were observed on sweet maize (*Zea mays*) near Rzeszów in July 2007. It is supposed that these specimens belonged to the second or third generation of the pest, and that they were resulting from adults that had flown over to South-Eastern Poland (Bereś, 2008).

Two incursions of *Paysandisia archon* (Lepidoptera: Castniidae – EPPO A2 List) were noted in 2007 in the United Kingdom. In May 2007, 4 live adult moths were discovered in the atrium of an office building in Kent. They emerged from *Phoenix canariensis* trees of 4.5 m high which had been imported in October 2006 from Spain. During the following weeks, 5 other adults were captured on the same site. In July 2007, 3 living larvae of *P. archon* were discovered in a nursery in North London damaging *Trachycarpus fortunei* imported from Italy. All affected palms were destroyed (Reid, 2008).

In Turkey, severe outbreaks of *Plasmopara halstedii* (EU Annexes) were observed in commercial fields of sunflower (*Helianthus annuus*) in the region of Marmara during springs 2007 and 2008. It is felt that the low temperatures and heavy rains favoured the disease (Göre, 2008).

- **Host plants**

In blackberry crops (*Rubus* spp.) displaying symptoms of blackberry yellow vein disease, *Impatiens necrotic spot virus* (*Tospovirus*, INSV – EPPO A2 List) has been detected in addition to Blackberry yellow vein associated virus. More than 400 plants from North Carolina, South Carolina and Virginia (US) showing symptoms of blackberry yellow vein disease or other virus-like symptoms were tested for INSV by ELISA, and 33% were found infected by INSV (Tzanetakis *et al.*, 2009).

Natural infections of *Iris yellow spot virus* (*Tospovirus*, IYSV – EPPO Alert List) have been detected in *Atriplex micrantha* (Chenopodiaceae). Infected weeds were collected in commercial onion fields in Utah (US). Leaves of *A. micrantha* displayed a range of symptoms including spotting, chlorosis and necrosis (Evans *et al.*, 2009).

In July 2008, *Pepino mosaic virus* (*Potexvirus*, PepMV – EPPO Alert List) was detected in plants of basil (*Ocimum basilicum*) in Sicilia, Italy. Affected plants showed interveinal chlorosis on young leaves. Although the disease does not cause severe symptoms on basil, this species is frequently grown near tomatoes and could therefore act as a virus reservoir (Davino *et al.*, 2008).

Source: Bereś PK (2008) [Cotton bollworm (*Helicoverpa armigera* Hüb.) – quarantine maize pest. *Progress in Plant Protection* **48**(1), 90-93 (in Polish).

Davino S, Accotto GP, Masenga V, Torta L, Davino M (2008) Basil (*Ocimum basilicum*), a new host of *Pepino mosaic virus*. *New Disease Reports* vol. 18 (August 2008 to January 2009). http://www.bspp.org.uk/publications/new-disease-reports/ndr.php?id=018021

Evans CK, Bag S, Frank E, Reeve JR, Ransom C, Drost D, Pappu HR (2009) Natural infection of *Iris yellow spot virus* in twoscale saltbush (*Atriplex micrantha*) growing in Utah. *Plant disease* **93**(4), p 430.

Florida Department of Agriculture and Consumer Services (US). Pest Alert. A *Eucalyptus* pest, *Leptocybe invasa* Fisher and LaSalle (Hymenoptera: Eulophidae), genus and species new to Florida and North America by J Wiley and P Skelley (2008-12-01). http://www.doacs.state.fl.us/pi/enpp/ento/leptocybe_invasa.html

Göre ME (2008) Epidemic outbreaks of downy mildew caused by *Plasmopara halstedii* on sunflower in Thrace, part of the Marmara region of Turkey. *New Disease Reports* vol. 18 (August 2008 to January 2009). http://www.bspp.org.uk/publications/new-disease-reports/ndr.php?id=018008

Jensen-Tracy S, Kenaley S, Hudler G, Harrington T, Logue C (2009) First report of oak wilt fungus, *Ceratocystis fagacearum*, in New York State. *Plant Disease* **93**(4), p 428.

NAPPO Pest Alert System. Official Pest Reports

Canada (2008-09-22) Update on the emerald ash borer (*Agrilus planipennis* Fairmaire) in Canada – Detection in Sault Ste. Marie, Ontario. http://www.pestalert.org/oprDetail.cfm?oprID=346

Canada (2008-10-23) Update on the Emerald Ash Borer (*Agrilus planipennis* Fairmaire) in Canada - Detection in the Municipality of Bluewater, Ontario. http://www.pestalert.org/oprDetail.cfm?oprID=350

Canada (2008-12-23) Update on the Emerald Ash Borer (*Agrilus planipennis* Fairmaire) in Canada - Detection in Pickering, Ontario. http://www.pestalert.org/oprDetail.cfm?oprID=355

Canada (2009-02-03) Update on the Emerald Ash Borer (*Agrilus planipennis* Fairmaire) in Canada - Detection in Hamilton, Ontario. http://www.pestalert.org/oprDetail.cfm?oprID=367

NPPO of the Netherlands, 2009-05.

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Regional Plant Protection Service of Liguria, Italy (2009-05).

Reid S (2008) Recent quarantine interceptions of *Paysandisia archon* Burmeister. *Atropos* **33**, 25-27.

Tzanetakis IE, Guzman-Baeny TL, VanEsbroeck ZP, Fernandez GE, Martin RR (2009 First report of *Impatiens necrotic spot virus* in blackberry in the Southeastern United States. *Plant disease* **93**(4), p 432.

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

Computer codes: AGRLPL, CERAFA, CRTHCI, DRYCKU, HELIAR, INSV00, IYSV00, LPCYIN, PAYSAR, PEPMV0, PHYP10, PLASHA, CA, GB, IT, MK, NL, PL, TR, US

2009/143 Quarantine List of Moldova

The NPPO of Moldova provided the EPPO Secretariat with its current List of Quarantine Pests (approved in 2006-09).

Quarantine pests absent from the territory of the Republic of Moldova (A1 pests)

Insects

Agrilus mali
Anoplophora glabripennis
Aonidiella aurantii
Bruchidius incarnatus
Callosobruchus analis
Callosobruchus chinensis
Callosobruchus maculatus
Callosobruchus phaseoli
Callosobruchus spp.
Carposina niponensis
Caryedon serratus serratus (C. gonagra)
Caulophilus latinasus
Ceratitis capitata
Conotrachelus nenuphar
Diabrotica virgifera
Dinoderus bifoveolatus
Icerya purchasi
Keiferia (Phthorimaea) lycopersicella
Liriomyza trifolii
Naupactus (Pantomorus) leucoloma
Numonia pyrivorella
Paralispa gularis
Phthorimaea operculella
Popillia japonica
Pseudaulacaspis pentagona
Rhagoletis pomonella
Scrobipalpopsis (Tecia) solanivora
Sinoxylon conigerum
Spodoptera littoralis
Spodoptera litura
Thrips palmi
Trogoderma spp.
Zabrotes subfasciatus

Fungi

Cercospora kikuchii
Cochliobolus heterostrophus
Cryptosporella (Phomopsis) viticola
Diaporthe phaseolorum var. *caulivora*
Didymella ligulicola
Phialophora cinerescens
Phymatotrichopsis omnivora
Puccinia horiana
Stenocarpella macrospora

Synchytrium endobioticum
Thecaphora (Angiosorus) solani
Tilletia indica

Bacteria and phytoplasmas
Burkholderia caryophylli
Erwinia amylovora
Grapevine flavescence dorée phytoplasma
Pantoea stewartii
Rathayibacter (Clavibacter) tritici
Xylophilus ampelinus

Nematodes
Bursaphelenchus xylophilus
Globodera pallida
Globodera rostochiensis
Meloidogyne chitwoodi

Viruses and virus-like organisms
American plum line pattern virus (*Ilarvirus*)
Peach latent mosaic viroid (Pelamoviroid)

Plants
Acroptilon repens
Ambrosia psilostachya
Cuscuta approximata
Cuscuta europaea
Cuscuta lehmanniana
Cuscuta monogyna
Iva axillaris
Solanum elaeagnifolium
Solanum rostratum
Solanum triflorum
Striga spp.

Quarantine pests of limited distribution on the territory of the Republic of Moldova (A2 pests)

Insects
Grapholita molesta
Pseudococcus comstocki

Plants
Ambrosia trifida
Cenchrus spinifex (C. pauciflorus)
Solanum carolinense

Source: NPPO of Moldova, 2008-12.

Additional key words: quarantine list **Computer codes:** MD

2009/144 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 2009/121). Notifications have been sent directly to EPPO by Croatia and 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
Agromyzidae	*Ocimum basilicum*	Vegetables (leaves)	Thailand	France	2
Anoplophora	*Acer*	Plants for planting	China	Netherlands	1
	Acer palmatum	Plants for planting	China	Germany	1
Bemisia tabaci	*Apium graveolens*	Vegetables	Thailand	United Kingdom	1
	Eryngium foetidum	Vegetables (leaves)	Vietnam	France	6
	Hygrophila corymbosa	Aquarium plants	Singapore	United Kingdom	1
	Hygrophila polysperma, Hygrophila corymbosa	Aquarium plants	Indonesia	France	1
	Hygrophila salicifolia	Aquarium plants	Singapore	France	1
	Limnophila	Vegetables	Sri Lanka	France	1
	Murraya	Vegetables (leaves)	India	Ireland	1
	Murraya koenigii, Momordica charantia, Mangifera indica	Fruits and Vegetables	India	Ireland	1
	Nomaphila	Aquarium plants	Singapore	Ireland	1
	Ocimum	Vegetables (leaves)	Thailand	United Kingdom	1
	Ocimum basilicum	Vegetables (leaves)	Ethiopia	United Kingdom	2
	Ocimum basilicum	Vegetables (leaves)	Israel	Ireland	1
	Ocimum basilicum	Vegetables (leaves)	Israel	Switzerland	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	United Kingdom	1
	Ocimum sanctum	Vegetables (leaves)	Thailand	France	1
	Ocimum sanctum	Vegetables (leaves)	Thailand	United Kingdom	1
	Piper sarmentosum	Vegetables (leaves)	Thailand	Sweden	1
	Unspecified	Aquarium plants	Singapore	Ireland	1
	Unspecified	Cuttings	Singapore	United Kingdom	1
Coleoptera	Unspecified	Cut trees with foliage	Cameroon	Spain	1
Criconematidae, *Helicotylenchus, Meloidogyne, Pratylenchus*	*Phoenix roebelenii*	Plants for planting	Costa Rica	Netherlands	1
Curculionidae	*Polygonum odoratum*	Vegetables (leaves)	Vietnam	Czech Republic	1
Ditylenchus destructor	*Solanum tuberosum*	Ware potatoes	Turkey	Bulgaria	1
Globodera pallida	*Solanum tuberosum*	Ware potatoes	Cyprus	Finland	3
Globodera rostochiensis	*Solanum tuberosum*	Ware potatoes	Cyprus	Finland	2
Guignardia citricarpa	*Citrus sinensis*	Fruits	Bangladesh*	United Kingdom	1
	Citrus sinensis	Fruits	Ghana*	United Kingdom	2
Helicoverpa zea	*Asparagus*	Vegetables	Peru	Netherlands	1
Hirschmanniella	*Cryptocoryne beckettii*	Aquarium plants	Singapore	France	1
Hymenoptera	*Gypsophila paniculata*	Cut flowers	Kenya	France	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Lepidoptera	*Lycopersicon esculentum*	Vegetables	Tunisia	France	1
	Unspecified	Vegetables	Sri Lanka	Cyprus	4
	Vigna	Vegetables (leaves)	Sri Lanka	Cyprus	1
Liriomyza	*Mentha*	Vegetables (leaves)	Vietnam	Czech Republic	3
	Ocimum americanum	Vegetables (leaves)	Thailand	France	8
	Ocimum basilicum	Vegetables (leaves)	Egypt	France	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Czech Republic	3
	Ocimum basilicum	Vegetables (leaves)	Thailand	France	21
	Ocimum basilicum	Vegetables (leaves)	Vietnam	France	1
	Ocimum basilicum, Ocimum americanum	Vegetables (leaves)	Thailand	France	1
	Ocimum basilicum, Ocimum americanum, Ocimum sanctum	Vegetables (leaves)	Thailand	France	1
	Ocimum sanctum	Vegetables (leaves)	Thailand	France	1
	Trigonella, Vigna unguiculata	Vegetables (leaves)	India	France	1
	Vigna unguiculata	Vegetables (leaves)	India	France	1
Liriomyza huidobrensis	*Eryngium*	Cut flowers	Kenya*	Netherlands	1
	Eryngium	Cut flowers	Zimbabwe*	Netherlands	1
	Gypsophila	Cut flowers	Ecuador	Netherlands	1
Liriomyza sativae	*Ocimum*	Vegetables (leaves)	Thailand	United Kingdom	1
	Ocimum americanum	Vegetables (leaves)	Thailand	France	1
	Ocimum americanum	Vegetables (leaves)	Thailand	Sweden	5
	Ocimum americanum, Ocimum sanctum	Vegetables (leaves)	Thailand	France	1
	Ocimum basilicum	Vegetables (leaves)	Egypt	France	1
	Ocimum basilicum	Vegetables (leaves)	India	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	France	1
Liriomyza sativae, Liriomyza trifolii	*Ocimum basilicum*	Vegetables (leaves)	Thailand	Sweden	1
Liriomyza trifolii	*Apium graveolens*	Vegetables	Thailand*	Netherlands	1
	Apium graveolens	Vegetables	Thailand*	Sweden	1
	Gypsophila	Cut flowers	Israel	Netherlands	2
	Ocimum	Vegetables (leaves)	Thailand*	Sweden	1
	Ocimum americanum	Vegetables (leaves)	Thailand*	France	1
	Ocimum americanum	Vegetables (leaves)	Thailand*	Sweden	1
Liriomyza, Heliothis	*Ocimum basilicum*	Vegetables (leaves)	Israel	Czech Republic	1
	Ocimum basilicum	Vegetables (leaves)	Vietnam	Czech Republic	1
Meloidogyne	*Enkianthus perulatus*	Plants for planting	Japan	Netherlands	1
	Trachycarpus fortunei	Plants for planting	China	France	1
Pepino mosaic virus	*Lycopersicon esculentum*	Vegetables	Morocco*	United Kingdom	1
	Lycopersicon esculentum	Vegetables	Spain (Canary Isl.)	United Kingdom	1
Phytophthora ramorum	*Rhododendron*	Plants for planting	Netherlands	Estonia	1
	Rhododendron	Plants for planting	Netherlands	Slovenia	1
Potato spindle tuber viroid	*Solanum jasminoides*	Plants for planting	Italy	Germany	1
	Solanum rantonnetii	Plants for planting	(Germany)	Austria	1
Radopholus similis	*Anubias*	Aquarium plants	Thailand	Netherlands	1
	Anubias barteri	Aquarium plants	Singapore	France	1
Ralstonia solanacearum	*Solanum tuberosum*	Ware potatoes	Egypt	Croatia	1
	Solanum tuberosum	Ware potatoes	Egypt	Italy	1
	Solanum tuberosum	Ware potatoes	Egypt	Netherlands	7
Scirtothrips dorsalis	*Crinum*	Plants for planting	Thailand	Netherlands	1
	Momordica, Solanum melongena	Vegetables	Kenya	United Kingdom	1
Spodoptera	*Verbena*	Plants for planting	Tunisia	France	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Spodoptera littoralis	*Eryngium*	Cut flowers	Zimbabwe	Netherlands	1
	Rosa	Cut flowers	Kenya	Netherlands	1
	Rosa	Cut flowers	Uganda	Netherlands	1
	Rosa	Cut flowers	Zambia	Netherlands	2
	Rosa	Cut flowers	Zimbabwe	Netherlands	24
Synchytrium endobioticum	*Solanum tuberosum*	Ware potatoes	Turkey	Bulgaria	2
Tetranychidae	*Viola*	Cuttings	Australia	United Kingdom	1
Thripidae	*Momordica*	Vegetables	Dominican Rep.	United Kingdom	1
	Solanum melongena	Vegetables	Dominican Rep.	United Kingdom	1
Thrips palmi	*Dendrobium*	Cut flowers	Thailand	Belgium	7
	Dendrobium	Cut flowers	Thailand	Netherlands	5
	Momordica	Vegetables	Bangladesh	Sweden	1
	Momordica	Vegetables	Dominican Rep.	Netherlands	1
	Momordica	Vegetables	Dominican Rep.	United Kingdom	1
	Momordica	Vegetables	India	Sweden	2
	Momordica	Vegetables	India	United Kingdom	1
	Momordica	Vegetables	Thailand	Netherlands	1
	Momordica	Vegetables	Thailand	United Kingdom	2
	Momordica charantia	Vegetables	Dominican Rep.	Netherlands	1
	Momordica charantia	Vegetables	Thailand	France	1
	Ocimum basilicum	Vegetables (leaves)	India	Netherlands	1
	Oncidium	Cut flowers	Thailand	Netherlands	1
	Orchidaceae	Cut flowers	Malaysia	Netherlands	1
	Solanum melongena	Vegetables	Dominican Rep.	Netherlands	1
	Solanum melongena	Vegetables	Dominican Rep.	United Kingdom	1
	Solanum melongena	Vegetables	India	Netherlands	1
	Solanum melongena	Vegetables	Thailand	Netherlands	4
	Unspecified	Vegetables	Sri Lanka	Cyprus	1
Thrips palmi, Scirtothrips	*Momordica*	Vegetables	India	United Kingdom	1
Thysanoptera	*Momordica charantia*	Vegetables	Sri Lanka	France	1
	Momordica charantia	Vegetables	Thailand	France	18
	Momordica charantia, Solanum melongena	Vegetables	Thailand	France	3
	Solanum melongena	Vegetables	Bangladesh	France	1
	Solanum melongena	Vegetables	Dominican Rep.	France	1
	Solanum melongena	Vegetables	Thailand	France	22
Tomato chlorotic dwarf viroid	*Petunia*	Cuttings	Israel*	Finland	1
Unaspis citri	*Citrus sinensis*	Fruits	China	United Kingdom	1
Xanthomonas	*Citrus*	Fruits	Bangladesh	United Kingdom	1
	Citrus	Fruits	Thailand	United Kingdom	1
	Citrus, Solanum melongena	Fruits and Vegetables	India	United Kingdom	1
	Citrus, Syzygium samarangense	Fruits	Thailand	United Kingdom	1
Xiphinema incognitum	*Pinus*	Plants for planting	Japan	Netherlands	1

- **Fruit flies**

Pest	Consignment	Country of origin	Destination	nb
Anastrepha	*Diospyros kaki*	Brazil	France	1
	Mangifera indica	Dominican Rep.	United Kingdom	1
Bactrocera	*Mangifera indica*	Thailand	United Kingdom	1
	Psidium guajava	Pakistan	United Kingdom	2
	Syzygium samarangense	Thailand	France	1
Bactrocera correcta	*Syzygium samarangense*	Thailand	France	2

Pest	Consignment	Country of origin	Destination	nb
Bactrocera cucurbitae	*Momordica charantia*	Thailand	France	1
Bactrocera invadens	*Mangifera indica*	Cameroon	Switzerland	1
Bactrocera zonata	Unspecified	Sri Lanka	Cyprus	4
Ceratitis	*Annona squamosa*	Vietnam	France	1
Ceratitis cosyra	*Mangifera indica*	Kenya	France	1
Non-European Tephritidae	*Annona squamosa*	Vietnam	France	1
	Capsicum annuum	Thailand	France	1
	Capsicum frutescens	Thailand	France	1
	Mangifera indica	Cameroon	France	1
	Mangifera indica	Dominican Rep.	United Kingdom	1
	Mangifera indica	Ghana	Netherlands	1
	Mangifera indica	Philippines	Netherlands	1
	Mangifera indica	Sri Lanka	Netherlands	1
	Psidium	Pakistan	United Kingdom	2
	Syzygium samarangense	Thailand	Netherlands	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Anoplophora	Unspecified	Wood packing material	China	Netherlands	3
Aphelenchoides	Unspecified	Wood packing material	China	Germany	2
Bostrychidae	Unspecified (crate)	Wood packing material	Thailand	Germany	1
Bursaphelenchus	Unspecified (pallet)	Wood packing material	Portugal	Austria	1
Bursaphelenchus xylophilus	Unspecified	Wood packing material	Portugal	Ireland	1
	Unspecified	Dunnage	USA	Denmark	1
	Unspecified (crate)	Wood packing material	Portugal	Sweden	1
Bursaphelenchus, **Cerambycidae, Scolytidae**	Unspecified (pallet)	Wood packing material	Portugal	Austria	1
Coleoptera	Unspecified	Wood packing material	China	Germany	1
Grub holes > 3 mm	Unspecified	Wood packing material	China	Netherlands	1
Monochamus	Unspecified	Wood packing material	China	Poland	1
Monochamus alternatus	Unspecified (crate)	Wood packing material	China	Netherlands	1
Nematoda	Unspecified	Wood packing material	Canada	Finland	1
	Unspecified	Wood packing material	USA	Finland	2
Scolytidae	Unspecified (crate)	Wood packing material	India	Germany	1
Sinoxylon	Unspecified	Wood packing material	India	Germany	1
	Unspecified (crate)	Wood packing material	India	Germany	1
	Unspecified (pallet)	Wood packing material	India	Germany	2
	Unspecified (pallet)	Wood packing material	Japan	Germany	1
	Unspecified (pallet)	Wood packing material	Malaysia	Netherlands	1

- **Bonsais**

Pest	Consignment	Country of origin	Destination	nb
Gymnosporangium asiaticum	*Juniperus chinensis*	Japan	United Kingdom	4
	Juniperus chinensis, Juniperus rigida	Japan	United Kingdom	1
Helicotylenchus, Tylenchorhynchus	*Ilex crenata, Podocarpus macrophyllus*	Japan	Netherlands	1
Tylenchorhynchus annulatus	*Zelkova*	China	United Kingdom	1
Xiphinema	*Ilex crenata*	Japan	Netherlands	1

Source: EPPO Secretariat, 2009-06.

2009/145 New records of *Hydrocotyle ranunculoides* in France

Hydrocotyle ranunculoides (Apiaceae – EPPO A1 List) is now reported from several locations in France. The species was first found in 1987 in the Essonne department in one site, and since then, it has been recorded in 7 new sites belonging to the same water system (G. Arnal, pers. comm., 2009). It also occurs in several rivers in Picardie and in the Nord (including Villeneuve D'ascq and Haverskerque) and Eure departments. In 1999, the plant was reported in the surroundings of Paris and in Corsica, and in 2007, the plant was observed in the Loire-Atlantique departement.
In Loire-Atlantique, the species was found in January 2007 in La Turballe covering 40 m² of a deep ditch adjacent to salt marshes, together with *Eichhornia crassipes* (Pontederiaceae – EPPO A1 List) and *Pistia stratiotes* (Araceae – EPPO Alert List). The presence of these 3 species probably results from the cleaning of an ornamental pond. The latter two species were easily removed, but the control of *H. ranunculoides* was more difficult. Manual removal of *H. ranunculoides* was organized in February 2007 with 7 volunteers. The species was monitored several times at this location in order to detect and remove plant fragments hidden in the mud, which could lead to new infestations. In August 2007, the species was observed again on the same site and was removed. This site is now the object of constant monitoring. The authorities and relevant organizations have been informed of the occurrence of this invasive plant, and several articles have been written.
In Loire-Atlantique, the species has also been observed in Saint-Brévin les Pins, covering a lake. Although the species had been mechanically removed from this location, it has subsequently reinvaded the lake.
In 2008, the species was also found in the Authion Valley, East of Angers in the Maine-et-Loire department, and a monitoring programme will be organized in 2009.

Source: Agence de l'eau Artois-Picardie (2005) Les espèces végétales invasives des milieux aquatiques et humides du bassin Artois-Picardie. 40 pp. http://www.eau-artois-picardie.fr/IMG/pdf/Flore-4.pdf

Buchet J (2007) Le jouet du vent : Lettre d'information semestrielle du Conservatoire botanique national de Bailleul, numéro 18, p 4. http://80.118.32.9/digitale-rft/site/Telechargements/JouetDuVent_Pdf/jouet_18.pdf

Lachaud A (2009) Une nouvelle invasive pour le Massif armoricain : Hydrocotyle ranunculoides L. f. Conservatoire Botanique National de Brest, *ERICA* **22**: 3-10

Reduron JP (2007) Ombellifères de France. Bulletin de la SBCO, nouvelle série - n° spécial 28, tome X, 1542-1543.

Personal communication with G. Arnal, Conservatoire Botanique du Bassin Parisien (FR), 2009.

Additional key words: invasive alien plants, detailed record **Computer codes:** EICCR, HYDRA, PIIST, FR

2009/146 Report of the Bern Convention meeting on Invasive Alien Species, Brijuni National Park (HR), 2009-05-05/07

The 8th Meeting of the Bern Convention Group of Experts on Invasive Alien Species (IAS) was held in Brijuni National Park (HR) on 2009-05-05/07. It was attended by 73 experts from 29 contracting parties and 7 observer organisations (including EPPO). This group meets every two years to follow progress on IAS by States and international organisations and to make proposals for further work on IAS-related matters. The work of this group is a European contribution to the implementation of the Convention on Biological Diversity (CBD) guidelines on IAS adopted at the 6th meeting of its Conference of Parties (COP).

During this meeting, the delegates presented the progress achieved in the implementation of the European Strategy on IAS. They examined reports on specific issues (IAS and climate change, IAS and biofuels, Code of conduct of horticulture and IAS), made proposals for new activities and prepared 4 new draft recommendations, of which the following 2 concern invasive alien plants:

- Draft recommendation on potentially invasive alien plants being used as biofuel crops;
- Draft recommendation on interpreting CBD definition of invasive alien species to take into account climate change.

Furthermore, the Group of Experts identified a number of subjects in which further work on IAS would be useful at the European level, such as:

- Awareness of codes of conduct;
- National workshop on implementation of the European Strategy;
- Early warning and information systems, rapid response;
- IAS on European islands;
- Guidelines for risk assessment (including guidelines for "fast" risk assessment);
- Guidelines for eradication of invasive plants;
- Manual of best practice in IAS prevention.

Additional information is available at:
http://www.coe.int/t/dg4/cultureheritage/Conventions/Bern/GoE_IAS/default_en.asp#TopOfPage

Source: Personal communication with Eladio Fernandez Galiano, Bern Convention, 2009.

Additional key words: invasive alien plants

2009/147 "Plant invasion in Italy, an overview": a new publication

The booklet "Plant invasion in Italy, an overview" was published in April 2009 and presents the outcome of a project on the inventory of the non native flora of Italy. This project aimed to use a standardized system to gather information on the non-native vascular flora growing spontaneously in Italy and to identify, among the high number of plant species present, the few that may, owing to their invasiveness or negative potential impact, pose a threat to the environment, human health or the economy. The booklet was presented during the Environmental G8 held in Syracusa (IT) on 2009-04-22/24, as it is targeted to a broad audience. The main results of the project are summarized in this booklet which provides information on:
- the history of plant introductions in Italy,
- the species distribution across the country,

- the main characteristics of invasive plants in Italy (i.e.: the majority of them originate from North America, the most invasive ones are perennials, and the most invaded region is Lombardia),
- the 10 most problematic IAP in Italy which are: *Ailanthus altissima, Ambrosia artemisiifolia, Amorpha fruticosa, Carpobrotus* spp., *Fallopia japonica, Heracleum mantegazzianum, Impatiens glandulifera, Ludwigia peploides* subsp. *montevidensis, Prunus serotina* and *Robinia pseudoacacia*.

Copies of the booklet can be obtained upon request from Laura Celesti Grapow (laura.celesti@uniroma1.it) or Giuseppe Brundu (gbrundu@tin.it)

Source: Celesti-Grapow L, Pretto F, Brundu G, Carli E & Blasi C (edit.) (2009) A thematic contribution to the National Biodiversity Strategy. Plant invasion in Italy, an overview. Ministry for the Environment Land and Sea Protection, Nature Protection Directorate, Roma: 1-32 + CD-ROM.

INTERNET (last accessed in 2009-07)
Environment G8 in Syracusa (IT), 2009-04-22/24.
http://www.g8ambiente.it/%5C?id_lingua=3

Additional key words: invasive alien plants, publication

Computer codes: 1CBSG, AILAL, AMBEL, AMHFR, HERMZ, IPAGL, LUDPM, POLCU, PRNSO, ROBPS, IT

2009/148 New data on alien plants in Italy

Following the conference on "Alien species in Italy: inventories, invasiveness and action plans" held in Milano (IT) on 2008-11-27/28, new data on invasive alien plants in Italy can be noted:

- *Trachycarpus fortunei* (Arecaceae) is well established in North-Western Piemonte, in prealpine Lombardia, and in Torino where the climate seems to be more suitable than other places in Italy.
- *Robinia viscosa* (Fabaceae) is recorded between Milano and Varese in Lombardia, where it exhibits a moderately invasive behaviour. It behaves as a pioneer species and is found in degraded scrublands and forests margins.
- In Lombardia, *Phytolacca americana* (Phytolaccaceae) has caused 50 reported intoxications in Milan in 10 years, when mistaken with wild asparagus and ingested.
- Observations have been made on alien species escaped from the Hanbury botanical garden in Liguria that colonize the Ponente river. The distributions of *Senecio deltoideus* (Astercaeae), *Wigandia urens* and *W. caracasana* (Hydrophyllaceae) are being monitored. Additionally, it was noted that the following escaped and naturalized species are spread by birds: *Sollya heterophylla* (Pittosporaceae), *Pittosporum heterophyllum* and *P. tobira* (Pittosporaceae), *Cotoneaster integerrimus* (Rosaceae), *Rosa banksiae* var. *normalis* (Rosaceae), *Jasminum fruticans* (Oleaceae), *Enchylaena tomentosa* (Chenopodiaceae); or by mammals, feeding on the fruits of *Chamaerops humilis* (Arecaceae) and *Phoenix canariensis* (Arecaceae). *Mirabilis jalapa* (Nyctaginaceae) is spread by water, and *Agave angustifolia* (Agavaceae) colonizes cliffs due to its capacity to produce huge quantities of bulbils.
- Lately, *Rumex cristatus* originating from the Balkans and Sicilia, and *Rumex kerneri*, originating from the Balkans only, are expanding their range to Southern Italy, from the Adriatic coast to Marche region.
- In Sicilia, *Myoporum tenuifolium* (Myoporaceae) is recorded as naturalized.

Source: Galasso G, Chiozzi G, Azuma M, Banfi E (2008) [Allochtonous species in Italy: inventories, invasiveness and action plans] Proceedings of the conference held in Milano on 2008-11-27/28. Volume XXXVI – Fascicolo 1. Memorie della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale di Milano, 96 pp [In Italian].

Additional key words: invasive alien plants

Computer codes: AMATU, AMBEL, CMEHU, CTTIT, ENLTO, IASFR, MIBJA, MYMAC, PHTAM, PHXCA, PTUHE, PTUTO, ROSBA, TRRFO, ROBVI, SENDE, SOYHE, WIGCA, WIGUR, IT

2009/149 Lists of invasive alien plants in Russia

In Russia, A1 and A2 Lists of quarantine weeds were established shortly after the creation of the Quarantine Service in 1931. The A1 List of quarantine weeds not known to occur in USSR was drafted in 1935 (listing 5 species) and it now contains the following species: *Bidens pilosa* (Asteraceae), *Cenchrus spinifex* (Poaceae), *Helianthus ciliaris* (Asteraceae), *Ipomoea hederacea* (Convolvulaceae), *Ipomoea lacunosa* (Convolvulaceae), *Iva axillaris* (Asteraceae), *Solanum elaeagnifolium* (Solanaceae - EPPO A2 List) and *Striga* spp. (Scrophulariaceae).
In 1938, the A2 List of quarantine weeds known to occur in USSR (containing 22 species) was first drafted, and the most recent update was in 2007. It now constitutes a supplement to the Federal Law on Plant Quarantine adopted in 2000 by the Russian Federation. The situation for some of these species in Russia is as follows:

- *Acroptilon repens* (Asteraceae – EPPO List of Invasive Alien Plants) originates from Central Asia and was introduced into Russia at the end of the 19th century. It is considered to be limited by low temperatures and by rainfall superior to 500 mm/year, and its potential distribution is therefore thought to be in latitudes south of 55°N. It can be a threat in crops, gardens, vineyards, meadows, pastures and natural habitats.
- *Ambrosia artemisiifolia* (Asteraceae – EPPO List of IAP) originates from North America and was introduced into Russia in 1918 where it now colonizes 6 millions hectares. It can potentially establish in latitudes south of 50° to 55°N (according to the areas). The species is considered to be limited by low temperature. It can invade and threaten crops, gardens, vineyards, meadows, pastures, and also has a health impact by causing allergies.
- *Ambrosia psilostachya* (Asteraceae) originates from North America and was introduced into Russia in 1945 and is now present in several locations. It was eradicated from the Krasnodar region in the 1990s. It is considered to be able to establish south of 60°N. It can be a threat in crops, meadows and pastures, and also has a health impact by causing allergies.
- *Ambrosia trifida* (Asteraceae) originates from North America and was introduced into Russia in 1935-1940, where it is now present in several locations. It was eradicated from the Irtkusk region. Its potential distribution is thought to be in latitudes south of 60°N. It can be a threat in crops and gardens and also has a health impact by causing allergies.
- *Cuscuta* spp. (Cuscutaceae) include the following species: *Cuscuta campestris, C. approximata, C. epithymum, C. epilinum, C. europaea, C. lehmanniana, C. monogyna* and *C. lupuliformis.* These species originate from America and Eurasia and were introduced into Russia at the beginning of the 20th century. These species have colonized 1.7 million hectares and are parasites of crops and wild plants of grasses, shrubs and trees.

- *Solanum carolinense* (Solanaceae) originates from North America and was introduced into Russia at the beginning of the 21st century. So far, small outbreaks are reported in the Primorsky region, but the plant could potentially threaten crops, gardens and pastures in latitudes south of 50° and 55°N (according to the areas).
- *Solanum rostratum* (Solanaceae) originates from North America and was introduced into Russia in 1918. It was eradicated in the Volgograd and Khabarovsk regions. The plant could potentially threaten crops, meadows and pastures south of 60°N.
- *Solanum triflorum* (Solanaceae) originates from North America and was introduced into Russia in 1943. The plant could potentially threaten crops, meadows and pastures south of 60°N.

Recently, a non official list of invasive alien plants was drafted in the framework of the national strategy on biodiversity, composed of the following species: *Acer negundo* (Aceraceae), *Amelanchier spicata* (Rosaceae – EPPO List of IAP), *Aster lanceolatus* (Asteraceae), *Bidens frondosa* (Asteraceae – EPPO List of IAP), *Calystegia sepium* subsp. *americanum* (Convolvulaceae), *Echinocystis lobata* (Cucurbitaceae), *Elodea canadensis* (Hydrocharitaceae), *Festuca arundinacea* (Poaceae), *Heracleum sosnowsky* (Apiaceae – EPPO List of IAP), *Hordeum jubatum* (Poaceae), *Impatiens glandulifera* (Balsaminaceae – EPPO List of IAP), *Impatiens parviflora* (Balsaminaceae), *Lupinus polyphyllus* (Fabaceae – EPPO List of IAP), *Oenothera biennis* (Onagraceae), *Solidago canadensis* (Asteraceae – EPPO List of IAP).

Additional information can be found at:
http://www.agroatias.ru, www.biodat.ru and www.mcx.ru.

Source: Personal communication with Mrs Mariam Mironova, Russian Plant Quarantine Centre, 2009.

Additional key words: invasive alien plants

Computer codes: 1STRG, ACRNE, AMBEL, AMBPS, AMBTR, AMESP, ASTLN, BIDFR, BIDPI, CAGSA, CCHPA, CENRE, CVCAP, CVCCA, CVCEP, CVCEU, CVCEY, CVCLE, CVCLU, CVCMO, ECNLO, ELDCA, FESAR, HELCI, HERSO, HORJU, IPAGL, IPAPA, IPOHE, IPOLA, IVAAX, LUPPO, OEOBI, SOLCA, SOLEL, SOLRS, SOLTR, SOOCA, RU

2009/150 The new NOBANIS Newsletter

NOBANIS, the gateway to information on invasive alien species in Northern and Central Europe, now releases a newsletter providing information such as: new contact points within countries, new outbreaks of invasive alien species, eradication programmes, national action plans and strategy. The January and June 2009 issues can be found on the NOBANIS website.

Source: NOBANIS Website: http://www.nobanis.org/

Additional key words: invasive alien plants, publication

2009/151 The Convention on Biological Diversity magazine "business 2010" dedicated to invasive alien species

The Secretariat of the Convention on Biological Diversity publishes a biannual magazine called "Business 2010". Following the 22nd of May which was the Biodiversity day dedicated to invasive alien species, the June issue of Business 2010 focussed on this topic. It contains topical articles, such as "Increasing number of invasives pose threat to European flora, fauna and habitats", "Invasive alien species and the aquarium industry", "industry and bioinvasion: costs and responsibilities".

The magazine "Business 2010" can be found at:
http://www.cbd.int/doc/newsletters/news-biz-2009-06-en.pdf

Source: EPPO Secretariat, 2009-07.

Additional key words: invasive alien plants, publication