

ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

# **EPPO** Reporting Service

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# 2010/051 Isolated finding of *Bursaphelenchus xylophilus* in Spain

The NPPO of Spain recently informed the EPPO Secretariat that in 2008 *Bursaphelenchus xylophilus* (EPPO A1 pest) was detected in 1 *Pinus* tree in Sierra de Dios Padre, Cáceres (Extremadura region). This was the first record of *B. xylophilus* in Spain. A focus zone was delimited and all susceptible plants were destroyed within a radius of 3 km around this single infested tree. Intensive surveys (including visual observations and testing) were carried out across Spain in forests, wood processing industries and nurseries, and *B. xylophilus* was not detected.

The situation of *Bursaphelenchus xylophilus* in Spain can be described as follows: Transient, 1 isolated tree found near Cáceres (Extremadura region), under eradication.

Source: NPPO of Spain (2010-02).

Additional key words: new record, eradication

Computer codes: BURSXY, ES

# 2010/052 First report of *Tuta absoluta* in Hungary

The NPPO of Hungary recently informed the EPPO Secretariat of the first record of *Tuta absoluta* (Lepidoptera: Gelechiidae - EPPO A2 List) on its territory. At the beginning of February 2010, a grower located at Kiskunfélegyháza informed the regional PPO of the Bács-Kiskun county about conspicuous damage observed on tomato leaves. The infestation was observed in a plastic tunnel of 1 ha on tomatoes grown for fruit production. The identity of the pest was confirmed by the NPPO laboratory. The source of this infestation is unknown. Young plants used to establish this crop had been purchased from Hungary. It is thought that the likely source of infestation could be recycled packaging material (boxes) coming from infested countries. A chemical treatment was applied on the infested crop. Tomato growers and traders will be informed about this outbreak and the risks presented by *T. absoluta*. A survey with pheromone traps will be conducted to determine the extent of the infestation.

The pest status of *Tuta absoluta* in Hungary is officially declared as: Transient, in protected conditions, found in the middle of Hungary, under eradication.

Source: NPPO of Hungary, 2010-03.

Additional key words: new record

Computer codes: GNORAB, HU

# 2010/053 First report of *Listroderes costirostris* in Israel

Two females of *Listroderes costirostris* (Coleoptera: Curculionidae) were collected in April 1999 in Hod HaSharon, in the central coastal plain of Israel. No further details are provided on the current situation of this polyphagous insect in Israel.

Source: Friedman ALL (2009) The vegetable weevil, *Listroderes costirostris* Schoenherr (Curculionidae: Cyclominae): a new invasive pest in Israel. *Phytoparasitica* 37(4), 331-332.

Additional key words: new record

Computer codes: LISTCO, IL

# 2010/054 *Paysandisia archon* found in Friuli-Venezia Giulia region (IT)

In 2009, *Paysandisia archon* (Lepidoptera: Castniidae - EPPO A2 List) was found in the region of Friuli-Venezia Giulia, Italy. The pest was discovered in a campsite in the municipality of Grado (Gorizia province) on several plants of *Trachycarpus fortunei* and *Chamaerops humilis* which had been planted there for more than 3 years. Four specimens of *P. archon* could be recovered from the infested palm trees. However, as a chemical treatment had been applied all recovered stages (larvae and pupae) were dead. Further surveys conducted near the infested site did not detect the pest. However, a monitoring programme will continue during the next growing season.

Source: NPPO of Italy (2009-12).

Additional key words: detailed record

Computer codes: PAYSAR, IT

# 2010/055 First record of *Opogona sacchari* in Guadeloupe

The presence of *Opogona sacchari* (Lepidoptera: Tineidae - EPPO A2 List) is reported for the first time in Guadeloupe. Adults were collected in two instances: in November 2000 at Trois-Rivières on *Musa* sp. (banana), and in June 2001 at Capesterre-Belle-Eau on *Saccharum officinarum* (sugarcane).

The situation of *Opogona sacchari* in Guadeloupe can be described as follows: Present, first specimens were identified in 2000/2001 in two sites.

Source: Ramel JM, Etienne J, Germain JF (2009) Présence d'*Opogona sacchari* (Bojer, 1856), la teigne du bananier, en Guadeloupe (Lepidoptera Tineidae). *L'Entomologiste 4*(2), 67-69.

Additional key words: new record

Computer codes: OPOGSC, GD

# 2010/056 First report of *Opogona omoscopa* in France

The presence of *Opogona omoscopa* (Lepidoptera: Tineidae) is reported for the first time in the south of France. At first, this insect was confused with *O. sacchari* (EPPO A2 List) which is occasionally found under glasshouses, but recent studies have showed that the insect observed was in fact *O. omoscopa* and that the oldest specimens had been caught in 1998. *O. omoscopa* has been found in several localities in the coastal area of Alpes-Maritimes (Beaulieu, Cagnes-sur-Mer, Cap-Ferrat, Eze-sur-Mer, Nice, Saint-Blaise), and in palm glasshouses in Arriège. Larvae can bore into the crowns of plants (e.g. palm trees, strawberries, ornamentals) but it is generally considered that they are secondary pests attracted to decaying plant tissues.

*O. omoscopa* was originally described from Australia and is recorded from most tropical and subtropical regions of the world. In Europe, *O. omoscopa* has been reported mainly in glasshouses (e.g. botanical gardens, nurseries) in connection with imports of tropical plants but sometimes it has also been observed outdoors (e.g. in France, Guernsey, Portugal, Spain and the United Kingdom). According to the available literature, *O. omoscopa* has been found in the following European and Mediterranean countries:

EPPO region: Denmark (reported once in 1996), France (since 1998 in the coastal area of Alpes-Maritimes), Gibraltar (many specimens were trapped in 2006), Guernsey (first found

in 2005 and again in 2007, probably established), Netherlands (found in 1982 on stems of *Plumeria* imported from Hawaii), Portugal (mainland, Azores, and Madeira), Sweden (one record from a glasshouse of the Bergius botanical garden in Stockholm), United Kingdom (specimens caught in the wild in the north of England; other records are attributed to an outbreak from a plant nursery in Cornwall).

- Source: Billi F (2009) *Opogona omoscopa* (Meyrick, 1893), parasite occasionnel des palmiers, espèce nouvelle pour la France (Lep. Tineidae). *Oreina* no. 6, 13-14.
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  - Moths and butterflies of Guernsey 2008. La Société Guernesiaise. http://www.societe.org.gg/sections/entomology/entomology\_2008.pdf
  - Swedish Museum of Natural History (Naturhistoriska riskmuseet; Stockholm). <u>http://www2.nrm.se/en/svenska\_fjarilar/o/opogona\_omoscopa.html</u> UKmoths. <u>http://ukmoths.org.uk/show.php?bf=278a</u>

Additional key words: new records

Computer codes: OPOGSP, DK, FR, GB, GS, PT, SE

# 2010/057 New data on the distribution of *Scirtothrips dorsalis* in the Americas

In a recent US datasheet on *Scirtothrips dorsalis* (Thysanoptera: Thripidae - EPPO A2 List), new information is provided on the current geographical distribution and main host plants of this pest in the Greater Caribbean region.

# North America

In the USA, S. dorsalis occurs in Florida and Texas.

- Florida: *S. dorsalis* was first discovered in October 1991 (Okeechobee County). The pest has been found on numerous landscape ornamentals and plants in retail.

- Texas\*: it was first found in 2005 in South-Eastern Texas. It occurs on roses (*Rosa* sp.) outdoors, and on roses and *Capsicum annuum* in retail centres.

# Central America and the Caribbean

- Barbados\*: it was first reported in 2005 and occurs on *Capsicum annuum, Daucus carota, Gossypium barbadense, Phasolus vulgaris,* and *Solanum melongena*.
- Jamaica\*: it was first reported in 1995 but no major outbreak has been reported since (lastest information is from 2008).
- Puerto Rico\*: *S. dorsalis* was first reported in 2006 on *Mangifera indica*.
- St. Lucia: it was found in 4 of 8 districts (2004) on *Amaranthus* sp., *Capsicum annuum*, *Cucumis sativus*, and *Solanum melongena*.
- St. Vincent and the Grenadines: it was first reported in 2003 on the island of St. Vincent (in all districts) and it occurs on a large number of plants (*Abelmoschus esculentus, Amaranthus* sp., *Capsicum annuum, Citrullus Ianatus, Cucurbita pepo, Lycopersicon esculentum, Phaseolus vulgaris,* and *Solanum melongena*).
- Trinidad: it was first reported in 2003 and found in 6 out of 8 counties (2004). *S. dorsalis* has been observed on *Abelmoschus esculentus, Capsicum annuum,* cucurbits, and *Solanum melongena*, but in 2008 it was not considered as a major problem.

# South America

- Suriname\*: it was first reported in 2004 and *S. dorsalis* now occurs on *Capsicum* sp. (hot pepper), *Citrus* spp., and *Momordica charantia*.
- Venezuela\*: *S. dorsalis* was discovered in 2000 on grapevine (*Vitis vinifera*).

\* New records.

Source: Jha KV, Seal DR, Kakkar G (2009) Chilli thrips. *Scirtothrips dorsalis*. Featured Creatures. University of Florida, USA. <u>http://entomology.ifas.ufl.edu/creatures/orn/thrips/chilli\_thrips.htm</u>

Additional key words: new record, detailed record

Computer codes: SCITDO, BB, JM, LC, PR, SR, TT, US, VC, VE

# 2010/058 Situation of recently introduced pests in Spain

A list of insect pests introduced into Spain during the last decade has recently been published in the magazine Phytoma-España (Llorens Climent, 2009). The EPPO Secretariat has extracted data (i.e. crop concerned, date of first occurrence, current distribution in Spain) on a selection of pests (mainly those which are included in the EPPO A1/A2 List and Alert List), but the paper also includes information about: Aceria neocynarae (Acari: Eriophyidae), Chrysomphalus (Hemiptera: Diaspididae), aonidum Coccus pseudomagnoliarum (Hemiptera: Dactylopius opuntiae Coccidae), (Hemiptera: Dactylopiidae), *Eutetranychus banksi* (Acari: Tetranychidae), Greenidea ficicola (Hemiptera: Aphididae), Hypogeococcus pungens (Hemiptera: Pseudococcidae), Parlatoria blanchardi (Hemiptera: Diaspididae), Parlatoria camelliae (Hemiptera: Diaspididae), *Phenacoccus* spp. on *Bougainvillea* (Hemiptera: Pseudococcidae).

# • AGAVE

*Scyphophorus acupunctatus*\* (Coleoptera: Curculionidae - formerly EPPO Alert List): first found in 2007 in the province of Barcelona (Cataluña); now present in Cataluña and Comunidad Valenciana.

# AVOCADO

*Oligonychus perseae* (Acari: Tetranychidae - formerly EPPO Alert List): first found in 2004 in Málaga province (Andalucía); now present in all avocado-growing regions including Islas Canarias where it was detected for the first time in 2006.

# • CITRUS

*Anatrachyntis badia* (Lepidoptera: Cosmopterigidae): first observed in Alicante (Comunidad Valenciana) in 2002.

*Eutetranychus orientalis* (Acari: Tetranychidae - EPPO A2 List): first observed in 2001 in Málaga province (Andalucía); now present in Andalucía, Murcia and south of Comunidad Valenciana.

*Pezothrips kellyanus* (Thysanoptera: Thripidae - formerly EPPO Alert List): first observed in 2007 in Valencia province (Comunidad Valenciana); now present in Comunidad Valenciana and Cataluña.

*Trioza erytreae* (Hemiptera: Triozidae - EPPO A1 List): first found in 2002 in Las Palmas, Gran Canaria (Islas Canarias).

*Toxoptera citricidus* (Hemiptera: Aphididae - EPPO A2 List): first found in 2002 in Asturias; now present in Asturias, Cantabria, Galicia, and País Vasco.

*Unaspis yanonensis* (Hemiptera: Diaspididae - formerly EPPO A2 List): first observed in 2003 in the province of Girona (Cataluña) where it is under eradication; now present in the provinces of Barcelona and Girona (Cataluña).

# • EUCALYPTUS

*Ctenarytaina spatulata* (Hemiptera: Psyllidae - formerly EPPO Alert List): first found in 2003 in Pontevedra province (Galicia).

*Glycaspis brimblecombel*\* (Hemiptera: Psyllidae - formerly EPPO Alert List): first found in 2007 (this was also the first record for Europe); now present in Andalucía, Madrid, Comunidad Valenciana and Extremadura (see also Hurtado Hernández and Reina Belinchón, 2008; Prieto-Lillo *et al.*, 2009; Valente and Hodkinson, 2009).

*Leptocybe invasa* (Hymenoptera: Eulophidae - EPPO Alert List): first found in 1999 in the province of Cádiz (Andalucía); now present in Andalucía, Extremadura, Madrid, Murcia, Comunidad Valenciana, and also in Islas Baleares.

*Ophelimus maskelli* (Hymenoptera: Eulophidae): first found in 2001 in Barcelona province (Cataluña); now widespread in the South of Spain (Andalucía, Cataluña, Comunidad Valenciana, Extremadura, Madrid, Murcia) and also present in Islas Baleares.

# GRAPEVINE

*Scaphoideus titanus* (Hemiptera: Cicadellidae): probably occurring since 1996; now present in Girona and Pontevedra provinces (Cataluña and Galicia, respectively).

# HORSE CHESTNUT

*Cameraria ohridella* (Lepidoptera: Gracillariidae): first found in 2002 in Madrid; now present in Madrid and Cataluña.

# • PINUS

*Bursaphelenchus xylophilus* (EPPO A1 List): 1 infested tree detected in 2008 in the province of Càceres (Extremadura), this single case is under eradication (see EPPO RS 2010/051).

# • PALM TREES

*Diocalandra frumenti* (Coleoptera: Curculionidae - EPPO Alert List): first found in 1998 in Gran Canaria (Islas Canarias); now present in Gran Canaria, Fuerteventura, Lanzarote and Tenerife, under official control.

*Paysandisia archon* (Lepidoptera: Castniidae - EPPO A2 List): first reported in 2002, in the province of Girona (Cataluña); now present all along the Mediterranean coast and a few outbreaks have been reported from Madrid.

# Томато

*Tuta absoluta* (Lepidoptera: Gelechiidae - EPPO A2 List): first found in 2006 in the province of Castellón (Comunidad Valenciana); now present in all tomato-producing regions.

#### \* New records.

- Source: Llorens Climent JM (2009) Relación de nuevas plagas de cultivos encontradas en España en los últimos diez años. *Phytoma España* no. 212, 50-56.
  - Hurtado Hernández A, Reina Belinchón I (2008) Primera cita para Europa de 'Glycaspis brimblecombei' Moore (Hemiptera: Psyllidae), una nueva plaga del Eucalypto. *Boletin de la SEA* 43(8), 447-449.
  - Prieto-Lillo E, Rueda J, Hernández R, Sefla J (2009) [First record of red gum lerp psyllid, *Glycaspis brimblecombei* (Homoptera: Psyllidae) in the Comunidad Valenciana]. *Boletín de Sanidad Vegetal Plagas* 35(2), 277-281.
  - Valente C, Hodkinson I (2009) First record of the redgum lerp psyllid, *Glycaspis* brimblecombei Moore (Hem.: Psyllidae), in Europe. Journal of Applied Entomology 133(4), 315-317.

Additional key words: detailed record, new record

Computer codes: BURSXY, CTNRST, DIOCFR, EUTEOR, GLYSBR, GNORAB, LITHOD, LPCYIN, OLIGPA, OPHEMA, PAYSAR, PESTKE, PYROBA, TOXICO, TRIZER, SCAPLI, SCYPIN, UNASYA, ES

# 2010/059 First record of Acidovorax citrulli in Italy

The NPPO of Italy recently informed the EPPO Secretariat of the first record of *Acidovorax citrulli* (EPPO Alert List) on its territory. In 2009, the bacterium was detected in 2 samples of melon plants (*Cucumis melo*) showing suspect symptoms. These plants had been collected from a farm located in Ferrara province, Emilia-Romagna region. The infected melon crop had been established with plantlets from a nursery in Veneto region themselves issued from seeds supplied by an international seed company. It is noted that Emilia-Romagna is a major production area for melons and watermelons (*Citrullus lanatus*), with approximately 1570 ha for watermelon crops and 1487 ha for melon crops. The other main producing areas are located in Sicilia, Apulia and Lazio for watermelons, and in Sicilia, Lombardia, Apulia, Lazio and Sardegna for melons. Because *A. citrulli* is considered as a serious threat to the Italian production of melons and watermelons, the NPPO of Italy will sample and test imported seed lots for the presence of *A. citrulli*.

The pest status of *Acidovorax citrulli* in Italy is officially declared as follows: Transient, 1 outbreak under eradication, intensive monitoring to be carried out in the next growing season.

Source: NPPO of Italy, 2010-03.

Additional key words: new record

Computer codes: PSDMAC, IT

# 2010/060 First report of Xanthomonas axonopodis pv. dieffenbachiae in Poland

In July 2007, symptoms of bacterial blight were observed on leaves of *Anthurium andreanum* plants growing in a glasshouse in central Poland. Disease incidence was approximately 10% at the time of inspection. Leaves of affected plants initially showed water-soaked lesions which became dark brown with chlorotic margins, and plants rapidly died during the summer. Spathe infections were also observed. Laboratory analysis (isolation on selective growing medium, IF, PCR and AFLP) confirmed the presence of *Xanthomonas axonopodis* pv. *dieffenbachiae* (EPPO A2 List). This is the first time that *X. axonopodis* pv. *dieffenbachiae* is reported from Poland.

The situation of *Xanthomonas axonopodis* pv. *dieffenbachiae* in Poland can be described as follows: Present, first detected in 2007 in one glasshouse of *Anthurium andreanum* plants.

Source: Puławska J, Kordyla-Bronka M, Jouen E, Robene-Soustrade I, Gagnevin L, Pruvost O, Sobiczewski P, Orlikowski L (2008) First report of bacterial blight of *Anthurium andreanum* in Poland. *Plant Pathology* 57(4), p 775.

Additional key words: new record

Computer codes: XANTDF, PL

# 2010/061 First report of '*Candidatus* Liberibacter asiaticus' in the Dominican Republic

In August 2008, unusual symptoms (leaf mottle, yellowing, deformed fruits) were observed in Mexican lime trees (*Citrus aurantifolia*) in the municipality of Luperón, province of Puerto Plata on the north coast of the Dominican Republic. Symptoms were observed in an area of approximately 100 ha on both young and old *C. aurantifolia* trees which had been grown from seedlings. No commercial plantings of other citrus species were located in that area. As symptoms resembled those of huanglongbing (associated with '*Candidatus* Liberibacter asiaticus' - EPPO A1 List), symptomatic leaves were collected and tested (real-time PCR, sequencing). Results confirmed the presence of '*Candidatus* Liberibacter asiaticus'. This is the first report of '*Ca*. L. asiaticus' in the Dominican Republic. The situation of '*Candidatus* Liberibacter asiaticus' in the Dominican Republic can be described as follows: Present, first found in 2008 on *Citrus aurantifolia* on the north

coast (Province of Puerto Plata).

Source: Matos L, Hilf ME, Camejo J (2009) First report of '*Candidatus* Liberibacter asiaticus' associated with citrus huanglongbing in the Dominican Republic. *Plant Disease* 93(6), p 668.

Additional key words: new record

Computer codes: LIBEAS, DO

# 2010/062 First report of *Plasmopara obducens* in Norway

In August 2008, diseased *Impatiens walleriana* plants were received from a private garden in Oslo (Norway) for diagnosis. The pathogen was identified (morphology, PCR) as *Plasmopara obducens* (formerly EPPO Alert List). Severe disease outbreaks were later observed in 2008 on *I. walleriana* cv. 'Xtreme Red' in public parks in Oslo and Bergen (South-Western Norway). In 2009, the disease was again found outdoors at several places in South-Eastern Norway (also on cv. 'Xtreme Red'), and in 2 glasshouses on *I. walleriana* cv. 'Silhouette' which had been grown from imported cuttings. It is noted that in the past, *P. obducens* had been observed outdoors on *I. noli-tangere*, a native plant in Norway. However, it is not known whether the pathogen observed on *I. walleriana* is exactly the same as the one which was previously found in native *Impatiens* species in Norway.

Source: Toppe B, Brurberg MB, Stensvand A, Herrero ML (2010) First report of *Plasmopara* obducens (downy mildew) on *Impatiens walleriana* in Norway. *New Disease Reports* Volume 20 (2009-09 to 2010-01). http://www.bspp.org.uk/publications/new-disease-reports/ndr.php?id=020033

Additional key words: new record

Computer codes: PLASOB, NO

# 2010/063 First report of *Iris yellow spot virus* in Greece

From February to June 2008, 530 onion (*Allium cepa*) and 439 leek (*A. porrum*) samples showing different types of lesions were collected from several areas of Greece and tested for the presence of *Iris yellow spot virus* (*Tospovirus*, IYSV - EPPO Alert List). All sampled plants were infested with *Thrips tabaci*. IYSV was detected in both onion and leek samples collected from different prefectures, suggesting that the virus is already well established in Greece.

- On onion, IYSV was found in the following prefectures: Evros (detected in 36% of the tested samples), Heraklion (44%), Kavala (23.7%), Magnissia (61.7%), Pella (10%), Rodopi (55%), Thessaloniki (15.3%), Viotia (9.4%).
- On leek, IYSV was found in the following prefectures: Evros (5%), Pella (9.3%), Thessaloniki (13%).

The situation of *Iris yellow spot virus* in Greece can be described as follows: Present, first found in 2008 in leek and onion crops, widespread.

Source: Chatzivassiliou EK, Giavachtsia V, Orestiada N, Mehraban AH, Hoedjes K, Peters D (2009) Identification and incidence of *Iris yellow spot virus*, a new pathogen in onion and leek in Greece. *Plant Disease* 93(7), p 761.

Additional key words: new record

Computer codes: IYSV00, GR

# 2010/064 Situation of *Iris yellow spot virus* in Serbia

In Serbia, an intensive survey was conducted from 2005 to 2007 to determine the occurrence and distribution of *Iris yellow spot virus* (Tospovirus, IYSV - EPPO Alert List) on ornamental plants and onion crops (*Allium cepa*) grown in 14 and 9 districts, respectively. In total, 1,574 samples were collected and tested by DAS-ELISA. IYSV was not detected in any of the 668 samples of ornamental plants collected in 2005 and 2006, as well as in the 516 samples of ornamentals imported in 2005. The virus was only detected in onion

samples collected at two locations. IYSV was detected in symptomatic samples from an onion seed crop at Sirig (district of South Bačka - see EPPO RS 2008/164) and in asymptomatic samples collected from an onion bulb crop at Obrenovac (district of the City of Belgrade). In the seed crop (*A. cepa* cv. 'Stuttgarter'), the disease was observed in July 2007 with a high incidence (approximately 80%) and was associated with a high population of *Thrips tabaci*. In the onion bulb crop at Obrenovac, only two infected onion plants (of unknown cultivar) could be observed in the field with a relatively low population of *T. tabaci*.

Finally, seed transmission studies were carried out in Serbia but no virus transmission could be demonstrated in 5 000 tested seeds originating from IYSV-infected onion crops. Phylogenetic studies showed that the Serbian isolates obtained from the onion seed crop and the bulb crop belonged to two distant clades.

Source: Bulajić A. Djekić I, Jović J, Krnjajić S, Vučurović A, Krstić B (2009) Incidence and distribution of *Iris yellow spot virus* on onion in Serbia. *Plant Disease* 93(10), 976-982.

Additional key words: detailed record

Computer codes: IYSV00, RS

# 2010/065 First record of Squash leaf curl virus in Jordan

Until recently the presence of *Squash leaf curl virus* (*Begomovirus*, SLCV - EPPO A1 List) was restricted to the Americas. However, this virus was discovered in Saudi Arabia in 2000 (EPPO RS 2001/118), Israel in 2003 (EPPO RS 2003/117), and Egypt in 2005 (EPPO RS 2007/057). In Jordan, growers in the Jordan valley started to observe virus-like symptoms on squash (*Cucurbita pepo*) crops in spring 2005. Affected plants showed severe mottling, yellowing, leaf curling and stunting. In addition, they were heavily infested by *Bemisia tabaci* (EPPO A2 List). Leaf samples were collected from symptomatic squash (*C. pepo*) and cucumber (*Cucumis sativus*) plants, as well as from other cucurbits (i.e. *Citrullus colocynthis, Citrullus lanatus, Cucumis melo, Cucurbita foetidissima* and *Cucurbita moschata*). Laboratory studies (PCR, dot-blot hybridization, sequencing, whitefly transmission) confirmed the presence of SLCV in squash and cucumber plants at a high incidence in all surveyed areas in Jordan. SLCV was not detected in other cucurbit crops but could be found in the weed species, *Malva parviflora*. This is the first report of SLCV in Jordan.

The situation of *Squash leaf curl virus* in Jordan can be described as follows: Present, first detected in 2005, probably widespread.

Source: Al-Musa A, Anfoka G, Misbeh S, Abhary M, Ahmad FH (2008) Detection and molecular characterization of *Squash leaf curl virus* (SLCV) in Jordan. *Journal of Phytopathology* 156(5), 311-316.

Additional key words: new record

Computer codes: SLCV00, JO

# 2010/066 First report of *Cucurbit yellow stunting disorder virus* and *Cucumber vein* yellowing virus in Tunisia

In Tunisia, surveys were carried out on virus diseases of cucurbits from June to October 2005 and in August 2006. 118 samples of symptomatic cucurbit plants: *Cucumis melo* var. *flexuosus* (snake cucumber), *Cucurbita pepo* (zucchini), *Cucurbita moschata* (squash) and *Cucurbita melo* (melon) were collected from the main cucurbit-growing regions: Bizerte and Cap Bon (Northern Tunisia), Monastir (Sahel region) and Degache (Southern Tunisia). Results showed that in addition to mosaic-inducing viruses, viruses inducing cucurbit yellows were also detected: *Cucurbit aphid-borne yellows virus* (*Polerovirus*), *Cucurbit yellow stunting disorder virus* (*Crinivirus*, CYSDV - EPPO A2 List) and *Cucumber vein yellowing virus* (*Ipomovirus*, CYYV - EPPO A2 List) were detected. CYSDV and CVYV were found only in the Sahel and Southern part of the country, and both of them are reported for the first time from Tunisia.

The situation of both *Cucurbit yellow stunting disorder virus* and *Cucumber vein yellowing virus* in Tunisia can be described as follows: Present, first detected in 2005/2006 in the Sahel and Southern part of Tunisia.

Source: Yakoubi S, Desbiez C, Fakhfakh H, Wipf-Scheibel C, Marrakchi M, Lecoq H(2007) Occurrence of *Cucurbit yellow stunting disorder virus* and *Cucumber vein yellowing virus* in Tunisia. *Journal of Plant Pathology* 89(3), 417-420.

Additional key words: new record

Computer codes: CVYV00, CYSDV0, TN

# 2010/067 Melon severe mosaic virus: a new *Tospovirus* of cucurbits in Mexico

During the 2007 growing season, several melon plants (Cucumis melo) showed leaf mosaic and deformation, as well as fruit splitting, in the state of Guerrero in Mexico. Electron microscopic examination strongly suggested the presence of a virus belonging to the Bunyaviridae family, and possibly to the Tospovirus genus. Studies of the biological, serological and molecular properties of the virus, together with phylogenetic studies, confirmed that it was a new and distinct species of *Tospovirus*. This new species was tentatively called Melon severe mosaic virus (MeSMV). In February 2008, a preliminary survey of cucurbit crops was carried out across Mexico. In total, 147 cucurbit plants (Cucumis melo, Cucurbita pepo, Cucumis sativus, Citrullus lanatus) showing virus-like disease symptoms were collected and tested with RT-PCR for the presence of MeSMV. The new virus was found in 66% of the symptomatic plants which had been collected from Cucumis melo (melon), Cucurbita pepo (courgette), Cucumis sativus (cucumber), Citrullus *Ianatus* (watermelon) crops. The virus was also detected on cucurbit samples from various states (Campeche, Chiapas, Guerrero, Jalisco, Mexico, Michoacán, Puebla, Sinaloa) suggesting that it was already widespread and established in the country. For the moment, no insect vectors have been identified, but it was observed that Frankliniella occidentalis was present on MeSMV-infected plants.

Source: Ciuffo M, Kurowski C, Vivoda E, Copes B, Masenga V, Falk BW, Turina M (2009) A new *Tospovirus* sp. in cucurbit crops in Mexico. *Plant Disease* 93(5), 467-474.

Additional key words: new pest

Computer codes: MX

# 2010/068 First release of Aphalara itadori to control Fallopia japonica in the UK

On 2010-03-09, approval was granted by Defra (NPPO of the United Kingdom) to release *Aphalara itadori* (Hemiptera: Psyllidae), a biological control agent of *Fallopia japonica* (Polygonaceae, EPPO List of Invasive Alien Plants). In the UK, *F. japonica* is a devastating invasive plant which costs more than £150 million a year to control. This will be the first classical biological control release against an invasive alien plant in Europe. Like its host, *F. japonica*, *A. itadori* originates from Japan where it is one of more than 180 insects that feed on this plant. *A. itadori* is about 2 mm in length and its nymphs are capable of causing significant damage to the target plant.

CABI has carried extensive testing on this insect over the past 5 years to verify that it can be safely released into the environment. *A. itadori* has been tested on over 90 selected plants, focussing on closely related native species of the UK as well as important crops and ornamental species to ensure it does not damage other plants. Results have shown that these psyllids could not survive and develop even on the most closely related species to *F. japonica* in the UK.

A public consultation was carried out in the UK in summer 2009 on whether this biological control agent should be released. Twenty respondants were against the release, and 42 were in favour. On 2010-03-09, the British Wildlife Minister announced that *A. itadori* would initially be released on a few secret sites which would be monitored with contingency measures on standby, in the unlikely event that the insect would behave unexpectedly.

Source:

 CAB International (2010) Japanese Knotweed Alliance. <u>http://www.cabi.org/japaneseknotweedalliance/?site=139&page=356</u>
 DEFRA (2010) Bug tackles UK's knotty problem. <u>http://www.defra.gov.uk/news/2010/100309b.htm</u>
 Morelle R (2010) "Insect that fights Japanese knotweed to be released". BBC News, 2010-03-09. <u>http://news.bbc.co.uk/1/hi/sci/tech/8555378.stm</u>.

Morin H (2010) En Grande-Bretagne, le duel à mort entre un insecte et une plante invasive venus du Japon. Le Monde, 2010-03-12. <u>http://www.lemonde.fr/planete/article/2010/03/12/en-grande-bretagne-le-</u> <u>duel-a-mort-entre-un-insecte-et-une-plante-invasive-venues-du-</u>

japon\_1318196\_3244.html#xtor=AL-32280340 Shaw RH, Bryner S & Tanner R (2009) The life history and host range of the Japanese knotweed psyllid, *Aphalara itadori* Shinji: Potentially the first classical biological weed control agent for the European Union. *Biological Control* 49(2), 105-113.

Additional key words: invasive alien plants, biological control

Computer codes: POLCU, GB

# 2010/069 Risks of introduction of alien plant species via seeds imported for fodder and birdseed

Agricultural imports, particularly seeds, represent an important route for the introduction of alien plant species. Two studies on the occurrence of alien plants, especially from the genus *Ambrosia*, in lots of imported seeds have been undertaken. The pollen of *Ambrosia artemisiifolia* (Asteraceae, EPPO List of IAP) is particularly well known to trigger a severe hay-fever response in some people, thereby constituting a public health hazard.

One study considered the contamination, with seeds of alien plants, of kitchen herbs, seeds processed in livestock feed and vegetable cooking oil. In five products imported from six countries, seeds of at least 67 species were found. Of these, 15 are known as invasive alien plants among which *Ambrosia artemisiifolia*, *Ambrosia trifida* (Asteraceae), *Bidens* 

*pilosa* (Asteraceae), *Sorghum halepense* (Poaceae), and three *Ipomoea* species (Convolvulaceae).

The second study investigated the occurrence of alien plant species as contaminants of 'birdseed' ingredients. The seeds used in such products were from 14 crops and 10 different countries. In addition, 17 lots of mixed feed from Dutch shops were specifically examined for the occurrence of *Ambrosia* sp. *A. artemisiifolia* was found in seeds lots of sunflower (*Helianthus annuus*) and great millet (*Sorghum vulgare*) imported from France and Hungary. Of these *Ambrosia* seeds, 36% germinated within 3 weeks. In the mixed feed, *A. artemisiifolia* was found in two thirds of the lots; of these seeds, an average of 13% germinated in 3 weeks. In the birdseed lots, another 27 non-indigenous and 15 naturalised alien plant species were encountered as well as 21 indigenous species. In these lots, seeds of 17 species considered as invasive were found and included *Ambrosia artemisiifolia*, *Sorghum halepense, Abutilon theophrasti* (Malvaceae), *Bassia scoparia* (Chenopodiaceae), *Onopordum acanthium* (Asteraceae), *Eleusine indica* (Poaceae) and, of high interest, *Alternanthera philoxeroides* (Amaranthaceae, EPPO Alert List). The indigenous species posing the greatest risk of genetic contamination are *Chenopodium album* (Chenopodiaceae) and *Persicaria lapathifola* (Polygonaceae).

Source: van Denderen PD, Tamis WLM & van Valkenburg JLCH (2010) [Risks of introduction of alien plant species, particularly from the genus Ambrosia, via seeds imported for fodder and birdseed]. *Gorteria* 34(4), 67-85 (In Dutch).

Additional key words: invasive alien plants, pathway

Computer codes: ABUTH, ALRPH, AMBEL, AMBTR, ALRPH, BIDPI, CHEAL, ELEIN, IPOSS, KCHFC, ONRAC, POLSL, SORHA, NL

# 2010/070 New record of *Ludwigia peploides* subsp. *montevidensis* in Greece

According to Zotos *et al.* (2006), *Ludwigia peploides* (Onagraceae - EPPO List of Invasive Alien Plants) has been reported in Southern Turkey in 1998, and *Ludwigia peploides* subsp. *montevidensis* has been recorded in 2001 in 3 localities of the Lake Lysimachia, in the Western chain of the Greek wetlands, covering in total 0.7 ha. The Lake Lysimachia has a rich biodiversity and has been proposed to be part of Natura 2000 in Greece. At the time of the publication, *L. peploides* was recorded in 3 sites, and the total number of plants in these 3 sites was estimated as 10 000 individuals.

In 2 locations where this species is recorded, the invaded sites are seasonally flooded for 6 to 8 months in winter, and are subject to intensive human activities in summer, with the cultivation of tobacco and maize. In the third locality, flooding lasts all year long, and the banks of the channel are moderately inclined and link Lake Lysimachia to Lake Trichonida.

From phytosociological relevés performed on the invaded sites, it appears that *L. peploides* subsp. *montevidensis* develops in 2 types of vegetation community with the following soil characteristics:

- in *Phragmites australis* (Poaceae) communities, *L. peploides* subsp. *montevidensis* grows on loamy-sandy soils with an average moisture of 30.8%, average organic matter of 5.7%, and average pH of 7.5.
- in *Paspalum paspalodes* (Poaceae) communities, it grows on loamy sandy soils with an average moisture of 17.6%, average organic matter of 7.8%, and average pH of 7.4.

The pathway of introduction of *L. pelploides* in Lake Lysimachia remains unknown, but it may have been introduced by birds, as the lake is a station for migratory birds. The spread and behaviour of the species will be followed, in order to provide evidence on the dynamism and aggressive expansion of this species.

Source: Zotos A, Sarika M, Lucas E, Dimopoulos P (2006) *Ludwigia peploides* subsp. *montevidensis*, a new alien taxon for the flora of Greece and the Balkans. *Journal of Biological Research* 5, 71-78.

Additional key words: invasive alien plants, new record

Computer codes: LUDPM, PASDS, PHRCO, GR, TR

# 2010/071 A new record of *Cabomba caroliniana* in the French Pyrenees

The 'Conservatoire Botanique National des Pyrénées et de Midi-Pyrénées' has performed a floristic inventory on the river banks of the Canal du Midi, with the financial support of regional institutions. A new aquatic plant has been recorded between Ramonville-Saint-Agne and Toulouse which was identified a few months after its collection as *Cabomba caroliniana* (Cabombaceae, EPPO List of IAP). This identification was helped by the consultation of aquariophilist websites. The species is expected to have been introduced into the Canal du Midi through aquaria dumping.

In July 2009, *C. caroliniana* was found in 2 places:

- In the Pont des Demoiselles in Toulouse, where boats are moored, *C. caroliana* was found in sunny places with calm and deep waters. Green algae were observed growing through stands of *C. caroliniana*.

- *C. caroliniana* also formed large populations 6 km south of this first site, in a basin in Ramonville-Saint-Agne (at the location "Combes"). This basin is used for boats repairs. Fragments of the species were also found floating between the 2 sites.

*C. caroliniana* could survive during winter through small rooted fragments or fragments in the mud, and multiply and spread in summer when conditions are suitable.

This species should be monitored in the Canal du Midi, and is added to the list of aquatic alien plants occurring in the Pyrénées and introduced through aquaria, with *Egeria densa* (Hydrocharitaceae, EPPO List of IAP), *Ceratophyllum demersum* (Ceratophyllaceae) and *Myriophyllum spicatum* (Haloragaceae).

Source: Enjalbal M (2009) *Cabomba caroliniana* A. Gray : de l'aquarium au Canal du Midi. *Isatis* 31(9) 28-32. <u>http://www.isatis31.botagora.fr/fr/revue.aspx</u>

Additional key words: invasive alien plants, new record

Computer codes: CABCA, CEYDE, ELDDE, MYPSP, FR

# 2010/072 New record of *Sicyos angulatus* in Turkey

Sicyos angulatus (Cucurbitaceae, EPPO List of IAP) is recorded for the first time in Turkey in the Provinces of Artvin and Trabzon (Black Sea region). It is found infesting crops such as cucumber (*Cucumis sativus*), winter squash (*Cucurbita* sp), maize (*Zea mays*), onion, garlic and leek (Allium spp.), French beans (*Phaseolus vulgaris*), tomato (*Lycopersicon esculentum*), sweet pepper (*Capsicum annuum*), sugarbeet (*Beta vulgaris*), potato (*Solanum tuberosum*), eggplant (*Solanum melongena*), carrot (*Daucus carota*), lettuce (*Lactuca sativa*), and even tree plantations in the Trabzon Province. The Turkish NPPO considers that this species represents a potential threat for the Black Sea, Agean, Marmara and Mediterranean regions of Turkey as these areas are climatically suitable for *S. angulatus*. Monitoring, prevention and eradication should therefore be implemented against *S. angulatus* in these regions.

Source: NPPO of Turkey (2009).

Additional key words: invasive alien plants, new records

Computer codes: ALLSS, BEAVA, CUMSA, CUUSS, CPSAN, DAUSS, LACSA, LYPES, PHSVX, SOLME, SOLTU, SIYAN, ZEAMX, TR

# 2010/073 New record of *Sicyos angulatus* in Bulgaria

Sicyos angulatus (Cucurbitaceae, EPPO List of IAP) is recorded for the first time in Bulgaria. It was found in the Danubian Plain on the Belene (Persin) Island, and more specifically on the eastern part of the island in natural habitats near the Gurdata canal. It was found growing along riverbanks and in riverine forests. The species was found in association with another invasive plant: *Amorpha fruticosa* (Fabaceae, EPPO List of IAP). The blossom and fruiting period of *S. angulatus* is supposed to be from July to September or October. It is suspected that *S. angulatus* entered Bulgaria via the Danube from Romania and Central Europe.

Source: Tzonev R (2005) *Sicyos angulatus* (Cucurbitaceae): a new adventive species for the flora of Bulgaria. *Phytologia Balcanica* 11(1), 67-68. http://www.bio.bas.bg/~phytolbalcan/PDF/11\_1/11\_07\_Tzonev.pdf

Additional key words: invasive alien plants, new records Computer codes: AMHFR, SIYAN, BG

# 2010/074 The Code of conduct on horticulture and invasive alien plants available electronically in English, French, Spanish and Polish

The Code of conduct on horticulture and Invasive alien plants is a joint project of the Bern Convention (Council of Europe) and EPPO. The Code is addressed to Governments, the horticultural industry and trade (plant importers, commercial and municipal nurseries, garden centres, aquarists), and all those who play a role in deciding which species are grown in the landscape (e.g. landscape architects, municipal parks and gardens departments, recreation and leisure departments).

While the Bern Convention has published a comprehensive version of the Code of conduct (in English and French), EPPO has prepared a standardized version in the format of an EPPO Standard "Guidelines on the development of a Code of conduct on horticulture and invasive alien plants" in the series PM3 on Phytosanitary Procedures for National Plant Protection Organizations. These general guidelines are intended to be implemented at national level.

Finally, the Code of conduct has also been translated into Spanish and Polish. The Spanish version has been edited by the Ministerio de Medio Ambiente y Medio Rural y Marino and illustrated with pictures of invasive alien plants. It has printed in 1000 copies that will be sent to Autonomous Communities, horticulturists associations and Forestry Associations for distribution.

The Polish version is available from the portal of the General Directorate for Environmental Protection. In Poland, further efforts are being attempted to reach a wider audience through the media such as TV programmes on gardening and popular magazines on horticulture.

All these documents are freely available from the Internet.

 Code of conduct on horticulture and invasive alien plants English version: <u>https://wcd.coe.int/ViewDoc.jsp?id=1473857&Site=DG4-</u> <u>Nature&BackColorInternet=DBDCF2&BackColorIntranet=FDC864&BackColorLogged=FDC864</u>

French version:

https://wcd.coe.int/ViewDoc.jsp?Ref=T-PVS/Inf(2008)2&Language=lanFrench&Ver=original&Site=DG4-Nature&BackColorInternet=DBDCF2&BackColorIntranet=FDC864&BackColorLogged=FDC864 Spanish version:

http://www.coe.int/t/dg4/cultureheritage/nature/bern/IAS/CODIG0%20HORTICULTURA%20MAIL.pdf

Polish version: http://www.gdos.gov.pl/doc/2010/Kodeks\_postepowania-ogrodnictwo\_rosliny\_inwazyjne.pdf

- EPPO Standard PM3/74(1) Guidelines on the development of a Code of conduct on horticulture and invasive alien plants <a href="http://archives.eppo.org/EPPOStandards/procedures.htm">http://archives.eppo.org/EPPOStandards/procedures.htm</a>
- Source: Heywood V, Brunel S (2009) Code of conduct on Horticulture and Invasive Alien Plants. Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). Nature and environment, No. 155. Council of Europe Publishing. 74 p.

EPPO (2009) EPPO Standard PM3/74(1) Guidelines on the development of a Code of conduct on horticulture and invasive alien plants. *Bulletin OEPP/EPPO Bulletin* 39(3), 263-266.

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Additional key words: invasive alien plants, code of conduct

# 2010/075 A New Code of conduct on aquatic plants in the Netherlands

After 3 years of negotiations, a Code of conduct on aquatic plants was signed on the 2010-02-23 at the botanical garden of the Leiden University (NL). This Code of conduct was signed in a very appropriate setting: the tropical greenhouse adorned by luxurious palms, orchids, impressive lianas and some very ornamental tropical aquatic plants. Partners signing the Code of conduct represented both public and private sectors: management authorities suffering from the prolific growth of invasive aquatic plants, as well as stakeholders having an economic interest in the sale of these plants. Signatories are: the "Unie van Waterschappen" on behalf of all 26 local water boards of the Netherlands, the Ministry of Agriculture, Nature and Food safety, as well as umbrella organisations and various associations representing producers, importers, retailers and garden centres such as DIBEVO, Tuinbranche Nederland, De Nederlandse Bond van Boomkwekers, De Vereniging van Vasteplantenkwekers. Several individual importers and producers of aquatic plants also signed the Code of conduct.

As of 2011-01-01, the signatories of the Code of conduct should stop selling the following 6 species in the Netherlands as they are considered to be invasive: *Crassula helmsii* (Crassulaceae, EPPO A2 List), *Hydrilla verticillata* (Hydrocharitaceae, EPPO Alert List), *Hydrocotyle ranunculoides* (Apiaceae, EPPO A2 List - prohibited since 2010 in the Netherlands), *Ludwigia grandiflora* (Onagraceae, EPPO List of IAP), *Ludwigia peploides* (Onagraceae, EPPO List of IAP) and *Myriophyllum aquaticum* (Haloragaceae, EPPO List of IAP).

An additional 7 species will be on sale only accompanied by recommendations on the appropriate use and disposal of the plants. These species are: *Azolla spp.* (Salviniaceae),

Cabomba caroliniana (Cabombaceae, EPPO List of IAP), Egeria densa (Hydrocharitaceae, EPPO List of IAP), Eichhornia crassipes (Pontederiaceae, EPPO A2 List), Myriophyllum heterophyllum (Haloragaceae, EPPO Alert List), Pistia stratiotes (Araceae, EPPO Alert List) and Salvinia molesta (Salviniaceae, EPPO Alert List).

A communication campaign is part of the implementation of the Code of conduct, and several documents are produced for a vast audience. A leaflet for the general public providing information on how to use the plants wisely will be available in garden centres and pet shops selling aquatic plants. It can also be downloaded from the website of the Dutch Plant Protection Service. A similar leaflet to raise awareness among land managers will be launched in May 2010. This leaflet will be completed with a field guide to assist field staff in the identification of the 20 most troublesome aquatic alien plants.

The Dutch Plant Protection Service will closely monitor the compliance with the Code of conduct and the effects of the communication campaign.

Source: The website of the Dutch Plant Protection Service: <u>www.minlnv.nl/invasieve-</u> waterplanten (at present in Dutch only)

Personal communication with Johan van Valkenburg, Dutch Plant Protection Service, <u>J.L.C.H.van.valkenburg@minlnv.nl</u>

Additional key words: invasive alien plants, code of conduct

Computer codes: AZOSS, CABCA, CSBHE, EICCR, ELDDE, HYDRA, HYLLI, LUDUR, LUDPE, MYPHE, MYPBR, PIIST, SAVMO, NL

# 2010/076 6<sup>th</sup> NEOBIOTA Conference: Biological Invasions in a Changing World - from Science to Management, Copenhagen (DK), 2010-09-14/17

The 6th NEOBIOTA Conference "Biological Invasions in a Changing World - from Science to Management" will be organized in Copenhagen (DK) on 2010-09-14/17.

This conference focuses on biological invasions in a changing environment, including contributions from science and management. No particular species groups, habitats or regions are emphasized. The conference invites experts in global change components that control invasions. Sessions will allow discussions on contrasting methodological approaches to biological invasions, including macroecological analyses, population models and molecular methods. Impact, risk assessment, socio-economic aspects and control of invasive species will also be addressed.

The following keynote lectures will be given:

- Invasion biology meets restoration ecology, by Richard J. Hobbs, University of Western Australia

- Climate change as driver of species invasions, Jessica J. Hellmann, University of Notre Dame, USA.

- Global change components controlling invasions: propagule pressure, land use and eutrophication, by Richard N. Mack, Washington State University, USA

- Prevention, mitigation and control of invasive species in a changing world (Laura A. Meyerson, University of Rhode Island, USA

Source: NEOBIOTA 2010 Conference, "Biological Invasions in a Changing World - from Science to Management". http://cis.danbif.dk/neobiota2010

Additional key words: invasive alien plants, conference

Computer codes: DK