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2008/115 First report of *Anoplophora chinensis* in Germany

In June 2008, two outbreaks of *Anoplophora chinensis* (Coleoptera: Cerambycidae - EPPO A1 List) have been reported from two Federal States of Germany (Bayern and Nordrhein-Westfalen). The pest was found on *Acer palmatum* plants which had been originally imported from China. Adult beetles in single plants were detected by private customers who had purchased them from subsidiary companies of a supermarket chain company. In both cases, the plants originated from a consignment purchased from the Netherlands in May 2008. The plant protection service of The Netherlands has been informed. The central department of the supermarket chain has been invited to recall the plants from that consignment. The situation is being considered as extremely serious as the sale of these plants has been completed. Infested plants can only be detected by the private owners themselves. A press release has been widely distributed to the general public, in order to make people aware of the situation, look for symptoms and beetles, and report to their relevant plant protection services. Post-entry control by use of destructive sampling (1% out of 28,000 plants) of this already imported and released consignment of *Acer* plants from China has resulted in the identification of 25 infested plants. Destruction under official control and disposal on a dumping ground with sufficient soil cover was imposed. The situation of *Anoplophora chinensis* in Germany can be described as follows: **Present, 2 outbreaks detected in 2008 on *Acer palmatum* plants imported from China in Bayern and Nordrhein-Westfalen, under eradication.**

Source: NPP0 of Germany, 2008-06.

Additional key words: new record

Computer codes: ANOLCH, DE

2008/116 First record of *Anascirtothrips arorai* (Thysanoptera: Thripidae) in Israel

In Israel, an unusual thrips species identified as *Anascirtothrips arorai* (Thysanoptera: Thripidae) was observed for the first time in 2003. The insect was found on young shoots of *Ficus benjamina* and inside leaf galls caused by another thrips species (*Gynaikothrips ficorum*). In 2004, *A. arorai* was also detected inside fig fruits (*Ficus carica*); the insects had penetrated the figs through a natural opening which occurs in ripening fruits.

A. arorai was first described in India where it is widely distributed on *Ficus religiosa*. It breeds on leaves of *Ficus* species. The presence of *A. arorai* has also been reported from the following countries:

- Australia (Northern Territory): it was observed on different *Ficus* species (including *F. microcarpa*) on the campus of the University of Darwin.
- Pakistan: it was reported in 1996 from Punjab.
- United Arab Emirates: a single female was caught in a light trap.
- USA (Florida): it was observed in winter 1997-98 on young leaves of *F. microcarpa* in a nursery.

It is suggested that *A. arorai* is being spread by the international trade of *Ficus* plants. However, there is no record of damage or economic impact in the literature.

Source: Mound LA, Chin-Ling Wang (2000) The genus *Anascirtothrips* (Thysanoptera: Thripidae), from leaves of *Ficus* trees in Taiwan, India and Australia. *Chinese Journal of Entomology* 20, 327-3 33. Available online: <http://www.entsoc.org.tw/chinese/publication/journal/pdf/c2004/c200406.pdf>

Saeed M, Yousuf M, Zafar MH (1996). Some thrips of the family Thripidae (Thysanoptera) from Punjab (Pakistan). Second International Congress of Entomological Sciences, Islamabad (Pakistan) 1996-03-19/21, p 5 (abst.).

Available online:

<http://www.fao.org/agris/search/display.do;jsessionid=49516FEAE492894392FDD4DBBCEE034C?f=/1999/v2509/PK1999000135.xml:PK1999000135>

Zur Strassen R, Kuslitzky W (2007) *Anascirtothrips arorai* Bhatti (Thysanoptera: Thripidae): a new thrips for Israel. *Phytoparasitica* 35(3), 253-254.

Additional key words: new record

Computer codes: IL

2008/117 *Pseudacysta perseae*: a pest of avocado spreading in the Americas

Pseudacysta perseae (Hemiptera: Tingidae) is a lace bug which feeds on *Persea americana* (avocado), *P. borbonica* and *Cinnamomum camphora* (all Lauraceae). Adults and nymphs feed in colonies on the undersides of leaves. On avocado, feeding damage results in necrotic brown spots which can lead to defoliation and reduced fruit yield (no direct damage to fruits). Until the 1990s, *P. perseae* was considered to be a minor pest of avocado and its geographical distribution was limited to Florida (US) and Mexico. But during the last 10 years, severe damage to avocado crops has been reported; first in Florida and then in Puerto Rico (in 1990), Dominican Republic (in 1990), Mexico, Bermuda (in 1990), Cuba (in 1996). Further reports were later made in Venezuela (in 2001-2002), French Guiana (in 2003) and California (first found in 2004 but limited to private gardens in San Diego County). In the French Antilles, *P. perseae* was collected in Martinique in 2005 but no data is available on its current distribution and impact. In 2007, high populations of *P. perseae* were observed in Guadeloupe damaging avocado. Further surveys showed that *P. perseae* occurred in many localities and it is suspected that it has been present in Guadeloupe since 2005.

The currently known distribution of *P. perseae* in the Americas is as follows:

North America: Mexico, USA (California, Florida, Georgia, Louisiana, Texas).

Central America and Caribbean: Bermuda, Cuba, Dominican Republic, Guadeloupe, Martinique, Puerto Rico.

South America: French Guiana, Venezuela.

Source: Etienne J, Streito JC (2008) Premier signalement en Guadeloupe et en Martinique de *Pseudacysta perseae* (Heidemann, 1908), un ravageur de l'avocatier (Hemiptera, Tingidae). *Bulletin de la Société entomologique de France* 113(1), 121-122.

Sandoval Cabrera MF, Cermeli M (2005) Presencia de *Pseudacysta perseae* (Heidemann, 1908) (Insecta: Hemiptera: Tingidae) en Venezuela. *Entomotropica* 20(3), 271-273.

Streito JC, Morival Y (2005) Première capture en Guyane française de *Pseudacysta perseae* (Heidemann, 1908) un ravageur de l'avocatier (Heteroptera, Tingidae). *Nouvelle Revue d'Entomologie* (NS) 22(2), 191-192.

INTERNET (last retrieved 2008-06)

University of Florida (US). Featured Creatures. *Pseudacysta perseae* (Heidemann) (Insecta: Hemiptera: Tingidae). Avocado lace bug.

http://creatures.ifas.ufl.edu/fruit/AVOCADO_LACE_BUG.HTM

Hoddle M, Morse J, Stouthamer R (2007) *Pseudacysta perseae*. Biology and management of avocado lace bug in California. Production Research Report, California Avocado Commission (US).

<http://www.avocado.org/growers/pdf/symposium-2007/Hoddle-Pests-Lace-Bug.pdf>

Additional key words: geographical distribution

Computer codes: PSEYPE, BM, CU, DO, GD, GF, MQ, MX, PR, US, VE

2008/118 First reports of 'Candidatus Liberibacter asiaticus' and *Diaphorina citri* in Louisiana (US)

In May 2008, *Diaphorina citri* (Homoptera: Aphalaridae - EPPO A1 List, vector of huanglongbing) was observed for the first time in Louisiana (US). The first specimen was collected at a private property in Algiers, Orleans Parish on a lime tree (*Citrus aurantifolia*). Delimiting surveys were carried out in the vicinity of the initial find. As a result, *D. citri* was found at 7 sites (4 residential properties and 3 retail nurseries) in Jefferson and Orleans Parishes. Emergency actions have been taken to prevent the movement of plants infested by *D. citri* from nurseries. So far in the USA, the presence of *D. citri* has only been reported from Florida, Hawaii and Texas. In June 2008, the presence of 'Candidatus Liberibacter asiaticus' associated with citrus huanglongbing (EPPO A1 List) was detected in the lime tree where the first specimen of *D. citri* had been collected. Phytosanitary measures are currently being developed in Louisiana to prevent any further spread of citrus huanglongbing. So far in the USA, 'Ca. L. asiaticus' has only been reported from Florida where it is submitted to containment measures.

The pest status of *Diaphorina citri* in the USA is officially declared as follows: **Transient, actionable, under surveillance.**

The pest status of 'Candidatus Liberibacter asiaticus' in the USA is officially declared as follows: **Present, only in some areas (localized in Florida and Louisiana) of the United States and under official control for the purpose of containment of the pest.**

Source: NAPPO Pest Alert System. Official Pest Reports. United States. Detection of Asian citrus psyllid, *Diaphorina citri* Kuwayama, in Louisiana (2008-06-09). <http://www.pestalert.org/oprDetail.cfm?oprID=319>
Confirmation of Huanglongbing or citrus greening ('Candidatus Liberibacter asiaticus') in Louisiana - United States (2008-06-13). <http://www.pestalert.org/oprDetail.cfm?oprID=321>

Additional key words: detailed record

Computer codes: DIAACI, LIBEAS, US

2008/119 First report of *Diaphorina citri* in Baja California (MX)

In June 2008, during surveys carried out in the northern part of Mexico on *Diaphorina citri* (Homoptera: Aphalaridae) and huanglongbing (both EPPO A1 List), the presence of *D. citri* was detected for the first time in the state of Baja California. It must be noted that huanglongbing is not known to occur in Mexico. *D. citri* was observed on orange trees (*Citrus sinensis*) in 2 localities situated in the urban area of Tijuana, Baja California. Phytosanitary measures are currently being implemented to prevent any further spread of the pest. The presence of *D. citri* had been reported for the first time in Mexico in 2004 at 1 locality in the state of Queretaro (EPPO RS 2004/104).

The situation of *Diaphorina citri* in Mexico can be described as follows: **Present, first recorded in 2004, isolated finds in the states of Baja California and Queretaro, under official control.**

Source: NAPPO Pest Alert System. Official Pest Reports. Mexico (2008-06-26). [Detection of Asian citrus psyllid, *Diaphorina citri* Kuwayama (Homoptera: Psyllidae) in Tijuana, Baja California, México] (in Spanish). <http://www.pestalert.org/oprDetail.cfm?oprID=322>

Additional key words: detailed record

Computer codes: DIAACI, MX

2008/120 First record of *Diaphorina citri* in Oman

Mexican lime (*Citrus aurantifolia*) is the most important citrus species grown in Oman (e.g. covering approximately 1200 ha with a production of 5800 tons in 2004). Although earlier surveys had not detected any psyllids on citrus in Oman, *Diaphorina citri* (Homoptera: Aphalaridae - EPPO A1 List, vector of citrus huanglongbing) was first observed in September 2005 at Barka (Al-Batinah region), in the North of the country. Since then, the pest has been regularly observed in most citrus orchards of the Al-Batinah region. As of April 2008, *D. citri* was found to be present in 3 locations: Barka, Al-Rustaq in the Al-Batinah region, and Masirat Al-Rawajeh near Nizwa in the A'Dakhliyah region. At Barka, all stages of *D. citri* were observed in citrus fields, large numbers of insects were caught and infested trees presented clear symptoms (leaf malformation and distortion). Because of its wide distribution in Oman, it is suspected that *D. citri* was introduced some time before 2005. In the Arabian Peninsula, *D. citri* has been reported from Saudi Arabia, Yemen and more recently from the United Arab Emirates. In addition, it has been found in Eastern Iran. Concerning the pathogens it transmits, '*Candidatus Liberibacter asiaticus*' and '*Candidatus Liberibacter africanus*' (EPPO A1 List) have both been reported in Saudi Arabia and Yemen, but not in Oman.

The situation of *Diaphorina citri* in Oman can be described as follows: **Present, first recorded in 2005, widespread in citrus orchards in the Northern part of the country (Al-Batinah and A'Dakhliyah regions).**

Source: Al-Zadjali TS, Ibrahim R, Al-Rawahi AK (2008) First record of *Diaphorina citri* Kukayama (Homoptera: Psyllidae) from the Sultanate of Oman. *Insecta Mundi* 0039, 1-3.

Additional key words: new record

Computer codes: DIAACI, OM

2008/121 Presence of *Guignardia citricarpa* confirmed in Uganda

In November 2006, orange fruits (*Citrus sinensis*) showing black spot symptoms were observed in the eastern part of Uganda (Teso sub-region). Small lesions (4-5 mm) with light centres, surrounded by a darker red to purple rim were observed on the surface of the fruit. Within the lesions, numerous dark black fruiting bodies were seen. Studies (morphology, real-time PCR) carried out by different laboratories in the United Kingdom (Global Plant Clinic, CABI, Central Science Laboratory) confirmed the presence of *Guignardia citricarpa* (EPPO A1 List) on the diseased fruits. There had been earlier records of citrus black spot in Uganda but this is the first confirmed report of *G. citricarpa* in this country.

The situation of *Guignardia citricarpa* in Uganda can be described as follows: **Present, observed on *Citrus sinensis* fruits in the eastern part (Teso sub-region) and confirmed in 2008.**

Source: Reeder R, Kelly PL, Harling R (2008) First confirmed report of citrus black spot caused by *Guignardia citricarpa* on sweet oranges (*Citrus sinensis*) in Uganda. *New Disease Reports*, Volume 17, February 2008 - July 2008.
<http://www.bspp.org.uk/ndr/july2008/2008-38.asp>

Additional key words: new record

Computer codes: GUIGCI, UG

2008/122 First report of *Xanthomonas axonopodis* pv. *citri* in Mali

In 2004, citrus canker symptoms were reported on limes, sweet oranges, tangerines and sour oranges from different orchards around Bamako and in the Koulikoro Province of Mali. Bacterial strains collected from citrus in the epidemic area were isolated on semi selective medium. As a result, 21 *Xanthomonas*-like strains were tested (PCR, AFLP, pathogenicity tests) and identified as *Xanthomonas axonopodis* pv. *citri* (EPPO A1 List). This is the first report of *X. axonopodis* pv. *citri* in Mali and the first confirmed record for West Africa. A survey was conducted in 2006 in 9 orchards and revealed disease incidences of 50, 25, 24, and 15% for lime (*C. aurantifolia*), tangor (*Citrus x nobilis*), sour orange (*C. aurantium*) and sweet orange (*C. sinensis*), respectively. It is reported that since this survey, citrus canker has spread to new citrus orchards and that this is probably due to movements of infected citrus material from small nurseries. It is stressed that the spread of citrus canker should be closely monitored in Mali and neighbouring countries, and that strict surveillance of citrus nurseries should be performed in West Africa.

The situation of *Xanthomonas axonopodis* pv. *citri* in Mali can be described as follows:
Present, first reported in 2006 in several orchards.

Source: Traoré YN, Gui Thi Ngoc L, Vernière C, Pruvost O (2008) First report of *Xanthomonas citri* pv. *citri* causing citrus canker in Mali. *Plant Disease* 92(6), p 977.

Additional key words: new record

Computer codes: XANTCI, ML

2008/123 First report of *Xanthomonas axonopodis* pv. *citri* in Somalia

In 2006 and 2007, symptoms of citrus canker were observed on 8- to 10-year-old lime (*Citrus x limetta*) and grapefruit (*Citrus x paradisi*) trees in Northern and Southern Somalia, respectively. Ten leaf samples showing suspect symptoms were collected and tested (real-time PCR, pathogenicity tests) in a USDA laboratory (Fort Detrick, Maryland, US). The presence of *Xanthomonas axonopodis* pv. *citri* (EPPO A1 List) was confirmed in 5 grapefruit samples collected from Southern Somalia but it was not detected in lime samples collected from the northern part. This is the first report of citrus canker in Somalia.

The situation of *Xanthomonas axonopodis* pv. *citri* in Somalia can be described as follows:
Present, first observed in 2006/2007 and confirmed in 2008 on 5 samples.

Source: Balestra GM, Sechler A, Schuenzel E, Schaad NW (2008) First report of citrus canker caused by *Xanthomonas citri* in Somalia. *Plant Disease* 92(6), p 981.

Additional key words: new record

Computer codes: XANTCI, SO

2008/124 New plant pathogens reported in Greece from 1990 to 2007

New plant pathogens which have been recorded for the first time in Greece during the period 1990-2007 are presented in a review paper by Elena *et al.* (2008). Information was based on data published in Greek and international literature. During this period, 47 new plant pathogenic fungi have been reported in Greece, most of them causing damage to cultivated plants or forest trees (only a few of them seem to have a negligible effect). 5 bacteria have newly been reported, all were found on horticultural crops. 52 new viruses and viroids have been reported in Greece and characterized; 9 of them were considered to present the most serious threats affecting important crops such as citrus, tomato, cucumber and potatoes. It is noted that most pathogens described in this review paper result from survey work which was initiated to determine the sanitary situation of vegetatively propagated crops (e.g. fruit trees, grapevine, garlic, onions, orchids). It is also stressed that molecular methods have greatly contributed to the identification and characterization of pathogens, in particular of viruses and viroids. Finally, eradication, application of strict phytosanitary measures and use of virus-free propagation material are keys aspects in the control of these newly introduced pathogens. The EPPO Secretariat has extracted the following data concerning regulated pests:

- Fungi

Ceratocystis fimbriata f.sp. *platani* (EPPO A2 List): as reported earlier (EPPO RS 2004/009, 2007/189), this pathogen has a serious impact on the natural populations of *Platanus orientalis* in a small area of Southwestern Peloponnese.

Plasmopara halstedii *(EU Annexes): sunflower downy mildew was reported in 1991 in Thrace, Northern Greece.

- Viruses

Cherry necrotic rusty mottle virus* (CNRMV, formerly EPPO A2 List) and *Little cherry virus 1** (*Closterovirus*, LChV1, EU Annexes) were both detected during a small scale survey of cherry trees (*Prunus avium*) carried out in 3 counties of Northern Greece (Piera, Pella, Imathia). Both viruses were found at high incidence (36% for CNRMV and 32% for LChV1).

Citrus tristeza virus (*Closterovirus*, CTV - EPPO A2 List): the presence of CTV was confirmed in 2000 on a sweet orange tree (*Citrus sinensis* cv. Lane Late) grafted on Carrizo citrange in Argolis county, Peloponnese (EPPO RS 2002/053). This tree belonged to a lot of 20 trees which had been illegally introduced from Spain in 1994. Phytosanitary measures were taken and the disease is thought to have been eradicated in Argolis. However, in Crete, the other region which had accepted the same infected material, the situation is more critical because CTV has been identified in Chania (where plant material was originally introduced) as well as in Rethymnon and Heraklion prefectures. More than 4000 trees have been destroyed so far. In addition, CTV has recently been detected in orange trees in the Arta valley (Northwestern Greece) and in clementine trees (*C. clementina* cv. Clemenpons) in Skala Lakonias (Southern Peloponnese) which had been imported from Spain. It is considered that the situation is rendered more critical with the recent introduction of *Toxoptera citricida* in Spain and Portugal, and that strict phytosanitary measures should be imposed.

Tomato yellow leaf curl virus (*Begomovirus*, TYLCV - EPPO A2 List): TYLCV was first detected in 2000 in Crete (Ierapetra, Tympaki) and Southern Peloponnese (Lakonia) on

glasshouse tomatoes (see also EPPO RS 2001/107). Since then, the virus has become endemic in these regions and has been detected in others (Preveza, Karditsa). In 2005, a new outbreak of tomato yellow leaf curl disease occurred in Crete, Southern Peloponnese and Rhodos Island. Molecular analysis revealed the presence of a second virus species *Tomato yellow leaf curl Sardinia virus* (*Begomovirus*, TYLCSV - EPPO A2 List) in Crete and Peloponnese (EPPO RS 2007/055). Both species are commonly found in mixed infections. In 2007, the presence of TYLCV was reported on common bean (*Phaseolus vulgaris*) growing in the vicinity of infected tomatoes.

* New record according to the EPPO Secretariat.

Source: Elena K, Alivizatos AS, Varveri C (2008) New plant pathogens reported in Greece, 1990-2007. *Hellenic Plant Protection Journal* 1(1), 1-25.

Additional key words: new records, detailed records

Computer codes: CERAFP, CRNRMV, CTV000, LCHV01, PLASHA, TYLCSV, TYLCV0, GR

2008/125 First report of *Clavibacter michiganensis* subsp. *michiganensis* in Syria

In Syria, extensive surveys for *Clavibacter michiganensis* subsp. *michiganensis* (EPPO A2 List) were conducted in tomato glasshouses from March to mid-April 2007. These surveys were carried out in the coastal provinces of Latakia and Tartus, where a large proportion of Syrian fresh-market tomatoes are grown. The occurrence of typical symptoms was observed in 7 % of the 150 inspected glasshouses (on *Lycopersicon esculentum* cvs. Dima, Huda and Astona). It was estimated that in these infected glasshouses, disease incidence reached 15%. Laboratory analysis (morphology, biochemical and biological tests, PCRs) confirmed the presence of *C. michiganensis* subsp. *michiganensis*. This is the first record of this bacterium in Syria.

The situation of *Clavibacter michiganensis* subsp. *michiganensis* in Syria can be described as follows: Present, first detected in spring 2007 on glasshouse tomatoes, in the provinces of Latakia and Tartus (Northwest).

Source: Ftayeh R, von Tiedemann A, Koopmann B, Rudolph K, Abu-Ghorrah M (2008) First record of *Clavibacter michiganensis* subsp. *michiganensis* causing canker of tomato plants in Syria. *Plant Disease* 92(4), p 649.

Additional key words: new record

Computer codes: CORBMI, SY

2008/126 First report of *Xanthomonas axonopodis* pv. *poinsettiicola* in Austria

In September 2007, typical symptoms of bacterial leaf spot were observed on potted plants of *Euphorbia pulcherrima* in a commercial nursery in Kärnten (Carinthia), Southern Austria. Leaf symptoms were characterized by dark to rust-brown spots with yellow haloes which sometimes coalesced. Laboratory analysis (colony morphology, PCR assays, sequencing, pathogenicity tests) confirmed the presence of *Xanthomonas axonopodis* pv. *poinsettiicola* (EPPO Alert List). This is the first report of this bacterium in Austria. It is considered that outbreaks of this disease in nurseries may have a major economic impact because the Austrian production of *E. pulcherrima* plants reaches approximately 3.5 million units per year.

The situation of *Xanthomonas axonopodis* pv. *poinsettiicola* in Austria can be described as follows: **Present, first found in 2007 in one nursery in Kärnten (Carinthia).**

Source: Gottsberger RA, Plenck A (2008) First report of *Xanthomonas axonopodis* pv. *poinsettiicola*, the bacterial leaf spot pathogen on *Euphorbia pulcherrima* in Austria. *New Disease Reports*, Volume 17, February 2008 - July 2008.
<http://www.bspp.org.uk/ndr/july2008/2008-36.asp>

Additional key words: new record

Computer codes: XANTPN, AT

2008/127 Situation of *Phytophthora ramorum* in Finland

In Finland, *Phytophthora ramorum* (EPPO Alert List) was first found in spring 2004 on rhododendron plants which had originally been produced in other EU countries. In August 2004, *P. ramorum* was detected in one Finnish nursery (see EPPO RS 2004/159). Since 2004, despite strict regulations on the movements of plants, *P. ramorum* has been found every year on imported material. From 2004 to 2006, a total of 586 samples was collected from symptomatic host plants, and *P. ramorum* was detected in 51 rhododendron plants. However, in domestic plant production, *P. ramorum* was found in only one Finnish nursery in 2005, and all infected plants were destroyed. During these studies, another pathogen *Phytophthora inflata* was identified in 2005 on several cultivars of rhododendron.

The situation of *Phytophthora ramorum* in Finland can be described as follows: **Present, few outbreaks, under official control.**

Source: Lilja A, Rytönen A, Kokkola M, Parikka P, Hantula J (2008) First report of *Phytophthora ramorum* and *P. inflata* in ornamental rhododendrons in Finland. *Plant Disease* 91(8), p 1055.

Additional key words: detailed record

Computer codes: PHYTRA, FI

2008/128 First report of *Chalara fraxinea* in Austria

Ash dieback was first observed in Austria in 2005 and by 2006-2007, this phenomenon was widespread and serious. Ash trees (*Fraxinus excelsior*) of all ages were affected but mortality was particularly common on saplings. Symptoms observed in Austria resembled those of ash dieback observed in other European countries, where the newly described fungus *Chalara fraxinea* (EPPO Alert List) is thought to be involved. However, the pathogenicity of *C. fraxinea* and its role in ash dieback still need to be determined. In June 2007, *C. fraxinea* was isolated for the first time from young symptomatic *F. excelsior* trees at 2 localities in Austria (Edt bei Lambach in Oberösterreich, Altaussee in Steiermark). From July 2007 to March 2008, *C. fraxinea* was also found at 11 localities (2 in Oberösterreich, 7 in Niederösterreich, 2 in Wien). It is recalled that *C. fraxinea* has been isolated in Poland (in 2006), then in Germany, Sweden, Lithuania and now in Austria.

Source: Halmschlager E, Kirisits T (2008) First report of the ash dieback pathogen *Chalara fraxinea* on *Fraxinus excelsior* in Austria. New Disease Reports, Volume 17, February 2008 - July 2008. <http://www.bspp.org.uk/ndr/july2008/2008-25.asp>

Additional key words: new record

Computer codes: CHAAFR, AT

2008/129 Incursion of *Tomato torrado virus* in Hungary

In early October 2007, a tomato plant (*Lycopersicon esculentum*) showing unusual symptoms was observed in a commercial glasshouse in the county of Csongrád, South-Eastern Hungary. Symptoms were initially characterized by yellow blotches at the base of the leaflets which later developed into necrotic spots, giving a burnt-like appearance to the plant. These symptoms resembled those which have recently been described in association with Tomato torrado virus (ToTV), a newly described virus detected in Spain and Poland (EPPO RS 2007/128 and 2007/174). Laboratory analysis (DAS-ELISA, RT-PCR, dot-blot hybridization) of one leaf sample confirmed the presence of ToTV. Other tomato viruses such as *Potato virus Y*, *Tomato mosaic virus*, *Tomato spotted wilt virus* and *Pepino mosaic virus* were not detected. The identification of ToTV was confirmed by another laboratory in Spain (Instituto Agroforestal Mediterráneo, Universidad Politécnica de Valencia). The source of this infection was unknown. Tomato seeds originated from the Netherlands but the possible role of seeds in disease transmission has not been clarified. It is suspected that the disease is mainly transmitted by *Trialeurodes vaporariorum*.

In Hungary, no official measures were taken as the ToTV infection was detected at the end of the growing season and all tomato plants were destroyed as part of routine practice. Since this outbreak, no new infection has been observed at this place of production and biological control has been applied to maintain whitefly population density at a low level. A national survey will be conducted to determine the current status of ToTV in Hungary. The pest status of Tomato torrado virus in Hungary is officially declared as: **Absent, eradicated.**

Source: NPPO of Hungary, 2008-06.

Additional key words: incursion

Computer codes: ToTV00, HU

2008/130 Ornamental plants as invasive aliens in Kruger National Park, South Africa

Kruger National Park (KNP) covers an area of 20 000 km² in the Northeast corner of South Africa. It extends 360 km north to south, and 90 km east at its widest point. The KNP maintains about 885 km of paved road, 1700 km of gravel roads open to tourists, and 737 km of gravel roads for park management. There are 5 large tourist camps, and about 36 smaller camps and ranger outposts. The villages and camps in the KNP are all landscaped to varying degrees. Until recently, landscaping typically involved the use of many alien species. As was the case elsewhere in South Africa, despite the rich local flora, alien plant species were often favoured over indigenous species for ornamental use. Three factors play a role in the spread of these introduced plants: the large number of mammalian and avian seed dispersers; the proximity of the tourist camps and staff villages to the rivers; and the fact that the camps are evenly distributed across the entire KNP landscape.

Management of ornamental alien plants started in the Skukuza village in the mid 1980s. This initiative was not well supported by the staff, and resulted in continuous resistance from residents towards the alien plant control team. As a result, less effort was placed on preventative control measures in the village and work continued on alien plant species that had already escaped into the surrounding areas (mainly *Opuntia stricta* and *Lantana camara*). From the early 1980s until the mid 1990s, the alien plant control team focused on about 30 well known alien plants, and allowed the use of numerous other potential invasive species to continue, for example *Wedelia trilobata* and *Alpinia zerumbet*. Following the 1999 survey of alien plants in the villages, KNP management approved a new policy, and a substantial program was launched to remove the alien species.

The species recorded as invasive in the KNP are listed below. Each species has been checked against the Global Compendium of Weeds (GCW) in order to indicate its invasive behaviour elsewhere in the world, as well as in DAISIE and EPPO databases to determine its occurrence and invasiveness within the EPPO region. This later information remains only indicative, and “/” indicates that no further information could be found.

Species	Origin	Cult.	GCW*	EPPO region
<i>Agave sisalana</i> (Agavaceae)	Neotrop.	Yes	W, NW, AW, EW	ES, IT
<i>Ageratum conyzoides</i> (Asteraceae)	Mexico	Yes	W, NW, AW, EW	PT (incl. Madeira)
<i>Ageratum houstonianum</i> (Asteraceae)	N-Am.	Yes	W, NW, AW, EW	ES, PT (incl. Madeira), casual in many countries
<i>Amaranthus spinosus</i> (Polygonaceae)	Trop. Am.	No	W, AW, EW	ES, IT, PT (incl. Madeira)
<i>Antigonon leptopus</i> (Polygonaceae)	N & S-Am.	Yes	W, SW, AW, EW	PT (incl. Madeira)
<i>Argemone mexicana</i> (Papaveraceae)	N & S-Am.	No	W, SW, AW, EW	ES
<i>Argemone subfusiformis</i> (Papaveraceae)	S-Am.	No	W, NW, AW, EW	/
<i>Aristolochia elegans</i> (Aristolochiaceae)	S-Am.	Yes	W, NW, SW, AW, EW	/
<i>Arundo donax</i> (Poaceae)	W-As.	Yes	W, NW, AW, EW	Widely distributed
<i>Asclepias curassavica</i> (= <i>A. syriaca</i>) (Asclepiadaceae)	N-Am.	Yes	W, NW, AW, EW	Widely distributed

Species	Origin	Cult.	GCW*	EPP0 region
<i>Bidens pilosa</i> (Asteraceae)	N & S-Am.	No	W, AW, EW	CY, ES (incl. Islas Canarias), FR, IT, PT (incl. Azores, Madeira),
<i>Caesalpinia decapetala</i> (= <i>C. sepiaria</i>) (Caesalpiaceae)	As.	No	W, NW, AW, EW	/
<i>Callisia repens</i> (Commelinaceae)	N & S-Am.	Yes	W	/
<i>Cannabis sativa</i> (Cannabaceae)	Asia	No	W, NW, AW, EW	Widely distributed
<i>Cardiospermum grandiflorum</i> (Sapindaceae)	Af. N & S-Am.	Yes	W, NW, AW, EW	IT, PT (incl. Madeira)
<i>Cardiospermum halicacabum</i> (Sapindaceae)	Af., As., N & S-Am.	Yes	W, NW, AW, EW	ES, FR, GR
<i>Cassia bicapsularis</i> (Fabaceae)	Caribbean	?	W, AW, EW	PT (incl. Madeira)
<i>Cassia didymobotrya</i> (Fabaceae)	Af.	Yes	W, AW, EW	PT (incl. Madeira)
<i>Cassia occidentalis</i> (Fabaceae)	S-Am.	?	W, NW, AW, EW	/
<i>Cassia floribunda</i> (Fabaceae)	N-Am.	?	W, AW, EW	PT (incl. Madeira)
<i>Eupatorium odoratum</i> (= <i>Chromolaena odorata</i>) (Asteraceae)	N & S-Am.	No	W, NW, AW, EW	/
<i>Datura ferox</i> (Solanaceae)	China	No	W, NW, AW, EW	ES (incl. Baleares), FR, IT
<i>Datura innoxia</i> (Solanaceae)	N & S-Am.	No	W, NW, AW, EW	CY, ES (incl. Baleares, Islas Canarias), FR (Corse), HR, IT (Sardinia), PT (Madeira), TR
<i>Datura stramonium</i> (Solanaceae)	N-Am.	No	W, NW, AW, EW	AD, CY, DE, ES (incl. Baleares, Islas Canarias), FR (incl. Corse), GB, GR, HR, IT (Sardinia), LT, LV, NL, PL, PT (incl. Azores, Madeira), SE, SK
<i>Flaveria bidentis</i> (Asteraceae)	S-Am.	No	W, AW, EW	/
<i>Ipomoea alba</i> (= <i>Calonyction aculeatum</i>) (Convolvulaceae)	N & S-Am.	Yes	W, SW, NW, AW, EW	/
<i>Kalanchoe daigremontiana</i> (Crassulaceae)	Madagascar	Yes	W	ES (incl. Baleares), PT (incl. Madeira)
<i>Kalanchoe tubiflora</i> (Crassulaceae)	Madagascar	Yes	W	IT, PT (incl. Madeira)
<i>Lantana camara</i> (Verbenaceae)	S-Am.	Yes	W, NW, AW, EW	ES (incl. Baleares, Islas Canarias), FR (incl. Corse), IL, IT, PT (incl. Azores, Madeira)
<i>Melia azedarach</i> (Meliaceae)	As., Australas.	Yes	W, NW, SW, AW, EW	CY, ES (incl. Baleares), FR, IL, IT, MT, PT (incl. Madeira)

Species	Origin	Cult.	GCW*	EPPO region
<i>Mimosa pigra</i> (Fabaceae)	Af., N & S-Am.	?	W, NW, AW, EW	/
<i>Myriophyllum aquaticum</i> (Haloragaceae) (EPPO List of IAP)	S-Am.	Yes	W, NW, AW, EW	Widely distributed
<i>Nerium oleander</i> (Apocynaceae)	Euras, Af.	Yes	W, NW, AW, EW	Indigenous - Widely distributed
<i>Opuntia stricta</i> (Cactaceae)	N & S-Am.	Yes	W, NW, AW, EW	Medit. area.
<i>Parthenium hysterophorus</i> (Asteraceae)	C & S-Am.	No	W, NW, AW, EW	/
<i>Passiflora edulis</i> (Passifloraceae)	S-Am.	Yes	W, NW, AW, EW	PT (incl. Azores, Madeira)
<i>Pistia stratiotes</i> (Araceae) (EPPO Alert List)	S-Am.	Yes	W, SW, NW, AW, EW	ES (incl. Islas Canarias), PT, SI
<i>Pontederia cordata</i> (Pontederiaceae)	N & S-Am.	Yes	W, NW, AW, EW	ES, FR, GB, IE, IT, NL
<i>Psidium guajava</i> (Myrtaceae)	N & S-Am.	Yes	W, SW, NW, AW, EW	ES (incl. Islas Canarias), PT (incl. Madeira)
<i>Ricinus communis</i> (Euphorbiaceae)	Af.	No	W, NW, AW, EW	Widely distributed
<i>Sesbania bispinosa</i> (Fabaceae)	Af., As.	No	W, AW	/
<i>Sesbania punicea</i> (Fabaceae)	S-Am.	Yes	W, SW, NW, AW, EW	PT (incl. Madeira)
<i>Solanum seaforthianum</i> (Solanaceae)	N & S-Am.	Yes	W, NW, AW, EW	/
<i>Tagetes minuta</i> (Asteraceae)	S-Am.	No	W, NW, AW, EW	CY, ES, FR (incl. Corse), GR, HR, IT, TR
<i>Tecoma stans</i> (Bignoniaceae)	N & S-Am.	Yes	W, SW, NW, AW, EW	PT (incl. Madeira)
<i>Thevetia peruviana</i> (Apocynaceae)	Peru	Yes	W, NW, EW	/
<i>Tithonia diversifolia</i> (Asteraceae)	C-Am.	Yes	W, NW, AW, EW	/
<i>Verbena bonariensis</i> (Verbanaceae)	S-Am.	?	W, AW, EW	FR, IT, PT (incl. Azores, Madeira)
<i>Verbena brasiliensis</i> (Verbanaceae)	S-Am.	?	W, EW	/
<i>Wedelia trilobata</i> (Asteraceae)	N & S-Am.	Yes	W, SW, NW, AW, EW	/

* Abbreviations for the Global Compendium of Weeds column:

W: weed; SW: sleeper weed; NW: noxious weed; AW: Agricultural Weed; EW: Environmental Weed.

Of particular interest are species which are invasive in the KNP and elsewhere in the world according to the Global Compendium of Weeds, and that are not recorded in the EPPO region, or which have a very limited distribution.

Among these species, some were used as ornamental plants in the KNP: *Aristolochia elegans*, *Ipomoea alba*, *Sesbania punicea*, *Solanum seaforthianum*, *Wedelia trilobata*.

Others were not known to be used as ornamentals: *Argemone subfusiformis*, *Caesalpinia decapetala*, *Cassia occidentalis*, *Eupatorium odoratum*, *Parthenium hysterophorus*.

Source: Foxcroft L, Richardson D (2008) Ornamental plants as invasive plants: problems and solutions in Kruger National Parl, South Africa. *Environmental management* 41, 32-51.

Additional key words: invasive alien plants, new records

Computer codes: ABKDO, AGVSI, AGECO, AIGLE, AMASP, ARGME, ARGSU, ARPEL, ASCCU, BIDPI, CAESE, CASDI, CASLA, CILRE, CLYAC, CNISA, CRIGR, CRIHA, DATFE, DATST, EUPOD, FLABI, KANDA, KANTU, MEIAZ, MIMPI, MYPBR, NEROL, OPUST, PAQEF, PSIGU, PTNHY, RIICO, SEBBI, SOLSE, TAGMI, TECST, TITDI, TVHPE, VEBBO, VEBBS, WEDTR, ZA

2008/131 The Southern African Plant Invaders Atlas (SAPIA)

The Southern African Plant Invaders Atlas (SAPIA) is a mapping project, launched in 1994, to collate information on the distribution, abundance and habitat type of invasive alien plants in Southern Africa. The SAPIA database is a computerized catalogue of some 40 000 locality records of more than 400 naturalized alien plants. The database incorporates records gathered by about 180 participants between 1994 and 1998 and from roadside surveys conducted by Lelsey Henderson between 1979 and 1993. A trimestrial newsletter is produced and provides information on the distribution of some invasive alien plants, new emerging weeds, up-dates on legislation, biological control of invasive plants.

Source: Weeds and Invasive Plants Website: www.agis.agric.za/wip

Additional key words: invasive alien plants, database

Computer codes: ZA

2008/132 Code of Conduct on Invasive Alien Plants and Horticulture for European and Mediterranean countries

EPPO and the Council of Europe are conjointly developing guidelines for countries to develop codes of conduct on invasive alien plants and horticulture. A code of conduct is voluntary: its aim is to enlist the cooperation of the horticultural industry, nursery trade and associated professionals to adopt good practices in (a) raising awareness of this topic among professionals, (b) preventing the spread of invasive alien species already in cultivation, and (c) preventing the introduction of possible new plant invaders into Europe. The nursery industry will benefit from following a code of conduct by presenting an environmentally friendly image to the public, and they may also benefit economically by selling non-invasive plants as substitutes.

The following elements may be included in a code of conduct:

Awareness

1. Identify species to which the code of conduct applies
2. Identify exactly what you are growing and trading: ensure that material introduced into cultivation is correctly named
3. Be aware of regulations concerning invasive alien plants

Collaboration

4. Encourage other stakeholders in the chain to commit to the code of conduct

Action

5. Avoid further trade of invasive alien plants
6. Make substitutes for invasive alien plants available
7. Be careful how you get rid of plant waste: adequate disposal of unwanted stock of plants and plant-containing waste
8. Follow good production practices to avoid unintentional introduction and spread

Communication

9. Apply good practices for labelling
10. Engage in publicity and outreach activities

Two documents will be published on this initiative:

- the EPPO guidelines, directed to NPPOs in their discussion with the nursery industry, to be published in 2009;
- the Council of Europe document, more detailed, to be published in November this year.

Source: EPPO Guidelines on the development of a code of conduct on horticulture and invasive alien plants - in preparation

Heywood V & Brunel S (in press) Code of conduct on horticulture and invasive alien plants. Convention on the Conservation of European wildlife and natural habitats, 33 pp. Available at: <http://www.cbd.int/doc/?mtg=sbstta-13> (go to "Others", point 8).

Additional key words: invasive alien plants, code of conduct, horticulture

2008/133 *Humulus japonicus*, an emerging invader in Hungary

Humulus japonicus (Cannabaceae, EPPO Alert List) is a fast growing annual climber vine originating from East Asia. In North America and Europe it has been planted over a century as an ornamental and its occurrence in the wild is thought to be from garden escapes. In Hungary and Italy, the plant is naturalized and is becoming invasive. The plant is casual in Austria, the Czech Republic, southern France, Germany, Switzerland, United Kingdom, and Ukraine. In Hungary, the first record in the wild of the species dates from 1894. It is noteworthy that the earlier occurrences of the plant are only confirmed by recent records in a few cases.

The main pathway of entry for this species is voluntary introduction as an ornamental plant. The variegated form of the species *H. japonicus* var. *foliis variegatis* is very popular as an ornamental plant. *H. japonicus* was at first considered disappointing by gardeners because of its uncertain germination in greenhouses or pots. Gardeners then rapidly discovered that seeds should be sown directly into the fields. Additionally, some biotechnological projects might consider the plant as a new genetic source for *H. lupulus* breeding, cultivated for producing beer. Korean investigations also indicated that *H. japonicus* could be a good fodder crop for ruminants, and in China, experiments have highlighted that the plant acts as a botanical insecticide.

In a sunlight area, single *H. japonicus* plant can cover up to 50 m². Flowers are wind pollinated and flowering time is July to September. Fruits ripen from mid-August and disappear from the seed bank within three years.

In Hungary, the plant occurs in moderately continental, wet habitats characterized by being over-fertilized and rich in nitrogen. *H. japonicus* is a strong competitor and uses its vining strategy to produce a dense, heavy canopy, even in vigorous tall herbaceous communities. *H. japonicus* out competes alien invasive species such as *Helianthus tuberosus* (Asteraceae, EPPO List of IAP) and *Impatiens glandulifera* (Balsaminaceae, EPPO List of IAP). The information on pathogens of *H. japonicus* is limited. Natural infection of the plant has been observed by *Hop latent virus* (*Carlavirus*) and *Humulus japonicus virus* (*Ilarvirus*).

In terms of impacts, the species could be a reservoir of the viruses that may affect *H. lupulus*. *H. japonicus* is a major weed in orchards in Korea. It also impacts human health by provoking pollen allergy and dermatitis. Both in its native range (Japan) and exotic range (the USA), *H. japonicus* is considered to be a serious weed in riparian areas and floodplains rich in nitrogen where it decreases the diversity of plant communities. Although *H. japonicus* is present in an increasing number of localities in Hungary (44 invaded sites reported as to 2007), it is rarely considered a threat as it is confused with the indigenous *H. lupulus*.

The species has occurred as a casual alien species in Europe since the late 19th century, only naturalized in a few places, and has not proved to be invasive outside Hungary. This species is a good candidate for national measures such as a Code of Conduct on Invasive Alien Plants and Horticulture, as well as for surveillance and early warning systems.

Source: Balogh L, Dancza I (2008) *Humulus japonicus*, an emerging invader in Hungary. In Tokarska-Guzik B, Brock JH, Brundu G, Child L, Daelher CC & Pyšek P (eds) Plant Invasions: Human perceptions, ecological impacts and management. Backhuys Publishers, Leiden, The Netherlands. Pp 73-91.

Additional key words: invasive alien plant, new record, code of conduct

Computer codes: HU, HUMJA

2008/134 Conclusions of the EPPO/Council of Europe Workshop on *Eichhornia crassipes* (Mérida, ES, 2008-06-02/04)

Eichhornia crassipes is a floating aquatic plant originating from South America sold for ornamental purposes. The plant is recognized as one of the most invasive alien plants in the world. It has huge detrimental economic impacts: it is a threat to agriculture, plant health, the environment, public safety, recreation activities, water quality and quantity, and human health.

The workshop on *Eichhornia crassipes* gathered 40 participants from Czech Republic, Croatia, Estonia, France, Germany, Morocco, the Netherlands, Portugal, South Africa, Slovenia, Spain, Turkey, and Zambia. More than 15 papers and posters were presented during the Workshop on the biology, distribution, pathways, and impacts of the plant. Emphasis was given to management measures taken against *E. crassipes* in Africa (South Africa, Zambia) and in the EPPO region. In Spain, the removal of nearly 200 000 tons of the plant from the Guadiana River (along 75 km) cost 14 680 000 euros from 2005 to 2008. In Portugal, the management actions carried out by the Municipality of Agueda cost 278 000 euros from December 2006 to May 2008.

During this Workshop, a Pest Risk Analysis was performed and it concluded that the species has the potential to establish and cause detrimental effects in the whole Mediterranean Basin. It was concluded that *E. crassipes* should be proposed for regulation as a quarantine pest (EPPO A2 List) in 2008, and that an EPPO Standard on a National Regulatory Control System should be prepared.

Additionally, the Council of Europe will publish a recommendation to invite its Member Countries:

- to prohibit the sale, movement, possession and planting of the plant,
- to monitor the species and share information with other countries, and
- to draft a national action plan to manage the plant.

Source: EPPO Website.
http://archives.eppo.org/MEETINGS/2008_conferences/eicchornia_workshop.htm

Additional key words: invasive alien plants, workshop

Computer codes: EICCR