ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

EPPO Reporting Service

NO. 1 PARIS, 2011-01-01

CONTENTS _Pests & Diseases_

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2011/001 Creation of the Near East Plant Protection Organization (NEPPO)

The Agreement for the establishment of the Near East Plant Protection Organization was signed in 1993 in Rabat and entered into force on 2009-01-08. Ten countries have deposited their instruments of ratification or accession with FAO. These countries are: Algeria, Egypt, Jordan, Libya, Malta, Morocco, Pakistan, Sudan, Syria, and Tunisia. The Agreement has been signed by Mauritania and Yemen but not yet ratified.

NEPPO is structured as follows:

- Chairman (elected): Dr Mohamed ElHaj AlOOBA (Minister of Sudan)
- Vice-Chairman (elected): Dr Hassan Kacem Mohamed BEKHEIT (Egypt)
- Executive Director (appointed): Mr Mekki CHOUIBANI (Morocco)
- Executive Committee (elected): Algeria, Jordan, Libya, Pakistan, Syria, Tunisia.

NEPPO, as a Regional Plant Protection Organization (RPPO), will play an important role in the international cooperation and in the implementation of the International Plant Protection Convention (IPPC) which aims to secure a common and effective action to prevent the spread and introduction of pests of plants and plant products while facilitating exchanges.

As stated in Article IX of the IPPC, the main functions of NEPPO include the following:

- Participation and coordination of the NPPO activities in order to promote and implement the objectives of the IPPC
- Cooperation within the regions in promoting harmonized phytosanitary measures
- Collection and dissemination of information, in particular on topics which relate to the IPPC
- Cooperation with the Commission on Phytosanitary Measures (CPM) and the IPPC Secretariat in developing and implementing the International Standards on Phytosanitary Measures (ISPMs)
- Harmonization of phytosanitary measures, together with the 9 other RPPOs, in order to control pests and prevent their introduction and/or spread, and to promote the establishment and use of appropriate ISPMs.

The provisional address of NEPPO is:

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Source: Personal communication with Mr Chouibani, Executive Director of NEPPO (2010-11).

Agreement for the establishment of the Near East Plant Protection Organization (FAO Legal Office). http://www.fao.org/Legal/treaties/024t-e.htm

Additional key words: RPPO

2011/002 EPPO Standards on efficacy evaluation of plant protection products: update of the web-based database

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

The database has been updated with new and revised standards adopted by EPPO Council in September 2010.

Specific standards

- *Chamaepsila rosae* (PP1/14)
- Aquatic weeds (PP1/115)
- Weeds in cotton (PP1/137)
- Weeds in flax/linseed and hemp (PP1/138)
- Weeds in tobacco (PP1/140)
- Potato desiccants (PP1/143)
- Control of lodging and growth regulation in brassica oil crops (PP1/153)
- Control of suckers in tobacco (PP1/155)
- Accelerated ripening of oilseed crops and large-seed legumes (PP1/156)
- Regulation of growth in *Pisum* (PP1/163)
- Sprout suppressants in potato: at storage or in store application (PP1/164)
- Reduction of lodging in sunflower (PP1/189)
- Fungal diseases on cultivated mushroom of *Agaricus* spp. (PP1/270) (new)
- Side-effects on honeybees (PP1/170)

General standards

- Study of unintentional effects of plant protection products on fermentation processes and characteristics of wine (PP1/268) (new)
- Comparable climates on global level (PP1/269) (new)

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

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

Source: EPPO Secretariat, 2010-12

2011/003 New data on quarantine pests and pests of the EPPO Alert List

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

- **New records**

In Mali, bacterial wilt caused by *Ralstonia solanacearum* (EPPO A2 List) is commonly found on potato (*Solanum tuberosum*), tomato (*Lycopersicon esculentum*), pepper (*Capsicum annuum*), aubergine (*Solanum melongena*), tobacco (*Nicotiana tabacum*) and peanut (*Arachis hypogaea*). Recent studies showed that *R. solanacearum* race 1 biovar 3 has a wide distribution in Mali. It was detected in samples collected from fields of potato, pepper, aubergine, tobacco and tomato near Baguineda, Sonityeni, Sotuba, Sikasso and Koulikoro. *R. solanacearum* race 3 biovar 2 was not detected (Thera *et al*., 2010).

Puccinia hemerocallidis (EPPO A1 List) was detected on daylily (*Hemerocallis* spp.) in the South-Western part of the state of Bahia. According to the EPPO Secretariat this is the first record in Brazil (Menezes *et al*., 2008). **Present, no details.**

The NPPO of Finland reported in 2010 the presence of *Zucchini yellow mosaic virus* (*Potyvirus*) on its territory. The virus was found on plants of cucumber (*Cucumis sativus*) in one glasshouse. The origin of the disease outbreak could not be identified. All infected plants were destroyed (NPPO of Finland, 2010-08). **Present, under eradication**.

- **Detailed records**

In Calabria, Southern Italy, a survey on *Citrus tristeza virus* (*Closterovirus*, CTV – EPPO A2 List) has been carried out since 2006. Citrus samples were collected from nurseries and orchards in 5 provinces of Calabria. CTV was not detected in the citrus-growing areas of Catanzaro or Crotone, but it was detected in 3 orchards in Cosenza, 3 orchards in Vibo Valentia and 12 orchards in Reggio Calabria. CTV was detected in a few plantlets in 2 citrus nurseries located near the main areas already infected. Mild strains were prevalent, although there is indication that some CTV strains found in Calabria might be severe. Concerning aphid vectors, *Aphis gossypii* and *A. spiraecola* were the most commonly found species; *Toxoptera citricidus* (EPPO A2 List) was not detected (Albanese *et al*., 2010).

In 2010, the NPPO of Italy reported the presence of *Meloidogyne incognita* in Emilia-Romagna region. The nematode was detected in 2 samples of potato (*Solanum tuberosum* cv. 'Hermes') produced for industrial processing, in a farm located in the province of Bologna (NPPO of Italy, 2010).

In 2010, the NPPO of Italy reported the presence of *Phoracantha recurva* (Coleoptera: Cerambycidae – formerly EPPO Alert List) in Lazio region. In Italy, this eucalyptus pest has already been reported in Calabria, Puglia, Sardinia, and Sicilia (NPPO of Italy, 2010).

The NPPO of Italy reported the presence of *Plum pox virus* (*Potyvirus*, PPV – EPPO A2 List) in Emilia-Romagna. PPV was detected on peach (*Prunus persica* cvs 'Kalos 1'; 'Kalos 3' and 'Ufo 3') in a plot of mother trees located in the municipality of Brisighella (Ravenna province). These plants had been planted in spring 2009. All infected trees were immediately destroyed, as along with trees located in their immediate vicinity (NPPO of Italy, 2010).

Tomato spotted wilt virus (*Tospovirus* – EPPO A2 List) was detected in 2006 in Sardegna (Italy) on artichoke (Testa *et al.*, 2008).

Oleander leaf scorch caused by *Xylella fastidiosa* (EPPO A1 List) was detected for the first time in Louisiana (US) in 2008 (Singh *et al.*, 2010).

- **Host plants**

A natural infection of *Abies magnifica* by *Phytophthora ramorum* (EPPO Alert List) has been observed in a single tree grown in a Christmas tree plantation in California (US). This infected tree (1 m tall) was located near the edge of the plantation, beneath an overstory of *Umbellularia californica* trees which were also infected. The completion of Kochs' postulates confirmed that *A. magnifica* can host *P. ramorum*, but the impact of the disease within the native range of this conifer species is still unknown (Chastagner and Riley, 2010).

In India, '*Candidatus* Liberibacter asiaticus' (EPPO A1 List) has been detected in *Citrus macroptera* trees which were showing typical symptoms of huanglongbing (Das and Kumar, 2010).

Meloidogyne enterolobii (EPPO A2 list) has been found on rhizomes of *Maranta arundinacea* (Marantaceae - arrowroot) in China. In July 2009, *M. arundinacea* plants cultivated in a field in Haikou (Hainan province) showed symptoms of decline, including stunting and yellows, as well as severe root galling (Rhuo *et al.*, 2010).

- **Eradication**

As reported in EPPO RS 2010/101, two outbreaks of *Ralstonia solanacearum* (EPPO A2 List) were detected on glasshouse tomatoes in Sardegna (IT). The NPPO of Italy confirmed these findings but explained that eradication measures were subsequently taken (destruction of infected plants, disinfection of premises, soil and irrigation water) and that the pathogen could no longer be found. The NPPO of Italy now considers that these outbreaks in Sardegna have been eradicated (NPPO of Italy, 2010).

- **Denied records**

PQR (version 4.6, 2007) erroneously mentioned the presence of '*Candidatus* Liberibacter americanum' (associated with huanglongbing – EPPO A1 List) in Paraguay. When tracing the original sources, it appeared that this was an error in data entry. This will be corrected in the next version of PQR which is currently under development. As officially confirmed by the NPPO, huanglongbing has never been found in Paraguay (NPPO of Paraguay, 2010).

The NPPO of Argentina stated that the earlier records of presence of *Anastrepha obliqua* and *A. serpentina* (Diptera: Tephritidae) on its territory are now invalid. The record of *A. serpentina* which appeared in Norrbom *et al*. (1988) was in fact based on a misidentification. Concerning *A. obliqua*, the fruit fly specimens considered in the publication of de Manero *et al*. (1989) were re-examined by Dr Eng. Norma Vaccaro who concluded that none of them were *A. obliqua* (but were *A. fraterculus, A. dissimilis* or *Ceratitis capitata*). Finally, the NPPO stated that both *A. obliqua* and *A. serpentina* have never been found during the regular surveys on fruit flies which are carried out in Argentina (NPPO of Argentina, 2010).

- **Epidemiology**

Hanssen *et al.* (2010) have demonstrated that *Pepino mosaic virus* (*Potexvirus*, PepMV – EPPO Alert List) can be transmitted by tomato seeds, highlighting the risk of using seeds from PepMV-infected plants and further spreading the disease. Other studies have indicated, although still in a preliminary way, that PepMV might be transmitted by a fungus vector, *Olpidium virulentus* (Alfaro-Fernández *et al.*, 2010).

Source:

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NPPO of Italy (2010-05).

NPPO of Paraguay (2010-12).

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Zhuo K, Hu MX, Liao JL, Rui K (2010) First report of *Meloidogyne enterolobii* on arrowroot in China. *Plant Disease* **94**(2), p 270.

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

Computer codes: ANSTOB,ANSTSE, ATAESP, CTV000, LIBEAM, LIBEAS, MELGIN, MELGMY, PEPMV00, PHOARE, PHYTRA, PPV000, PUCCHM, RALSSO, TSWV00, XYLEFA, ZYMV00, AR, BR, CN, FI, IN, IT, ML, PY, US

2011/004 Addition of *Meloidogyne ethiopica* to the EPPO Alert List

In 2003, a root-knot nematode *Meloidogyne ethiopica* was found for the first time on greenhouse tomatoes in Slovenia. This was also the first discovery of this tropical species in Europe. *M. ethiopica* was described in 1968 in Southern Africa (Tanzania) on tomatoes. It was then reported from other Southern African countries on many different host plants. In the 2000s, *M. ethiopica* was also reported from Brazil and Chile causing damage to grapevine (*Vitis* spp.) and kiwi (*Actinidia* spp.). Because *M. ethiopica* is a polyphagous species which has the potential to survive outdoors in parts of the EPPO region, the Panel on Quarantine Nematodes proposed that this root-knot nematode should be added to the Alert List and Dr Širca (Agricultural Institute of Slovenia) kindly provided most of the information which is presented below.

Meloidogyne ethiopica (root-knot nematode)

Why	In 2003, a tropical root-knot nematode species *Meloidogyne ethiopica* was found for the first time in a tomato greenhouse in Slovenia. This was also the first record for Europe. *M. ethiopica* is considered as a damaging species as it can multiply on many different types of plants (dicotyledons and monocotyledons). In addition, it has been shown that this tropical species has the ability to survive outdoors in temperate areas. The Panel on Quarantine Nematodes recommended that *M. ethiopica* should be added to the EPPO Alert List.
Where	*M. ethiopica* is a tropical root-knot species which was first described in 1968 in Southern Africa (Tanzania). **EPPO region:** Slovenia (not established). It was reported once in 2003 near the village of Dornberk on greenhouse tomatoes. The origin of this nematode in Slovenia remains unknown because the infected tomato plants had not been imported from abroad. The pest is not considered as established in Europe, as the infested tomato crop was destroyed and the pest was not detected again in Slovenia. **Africa**: Ethiopia, Kenya, Mozambique, South Africa, Tanzania, Zimbabwe. **South America:** Brazil (Distrito Federal, Rio Grande do Sul, Sao Paulo), Chile (detected in the Central Valley from Copiapo (north of Santiago) to Talca).
On which plants	*Meloidogyne ethiopica* is a polyphagous pest that is able to parasitize at least 80 different host plants, including many economically important crops. In Africa and South America, *M. ethiopica* has been observed on many different cultivated species such as: *Actinidia deliciosa* (kiwi), *Agave sisalana* (sisal), *Beta vulgaris* (beetroot), *Brassica oleracea* (cabbages), *Capsicum frutescens* (hot pepper), *Citrullus lanatus* (watermelon), *Cucurbita* spp., *Ensete ventricosum* (ensete), *Glycine max* (soybean), *Lactuca sativa* (lettuce), *Lycopersicon esculentum* (tomato), *Nicotiana tabacum* (tobacco), *Phaseolus vulgaris* (common bean), *Polymnia sonchifolia* (yacon), *Solanum tuberosum* (potato), *Vicia faba* (faba bean), *Vigna unguiculata* (cowpea), *Vitis vinifera* (grapevine), as well as on trees (*Acacia mearnsii*) and weeds (*Ageratum conyzoides, Datura stramonium, Solanum nigrum*). Host range experiments have also showed that *M. ethiopica* can multiply on a large number of cultivated plants of economic importance, for example: *Allium cepa* (onion), *Apium graveolens* (celery), *Cucumis sativus* (cucumber), *Daucus carota* (carrot), *Fagopyrum esculentum* (buckwheat), *Helianthus annuus* (sunflower), *Hordeum vulgare* (barley), *Medicago sativa* (lucerne), *Oryza sativa* (rice), *Pisum sativum* (pea), *Prunus persica* (peach), *Solanum melongena* (aubergine), *Spinacia oleracea* (spinach), *Zea mays* (maize).
Damage	As is the case with other root-knot nematodes, *M. ethiopica* damages plants by affecting the development of their root system which is distorted by small and large multiple galls and devoid of fine roots. Affected plants can also show above ground symptoms such as stunting and wilting. Pot experiments carried out on tomatoes demonstrated that the surface area of fine roots was reduced by 2.1-fold and 3.2-fold when plants were infested with low and high numbers of

M. ethiopica, respectively. *M. ethiopica* is considered to be particularly aggressive to several crops (e.g. beans, cucumber, tomatoes) where it causes very large galls and reproduces intensively (on these plants, its reproduction factor can reach more than 100). In Brazil and Chile, *M. ethiopica* is considered as a damaging species on kiwi and grapevine, as infestations lead to a reduction of plant growth, fruit size and quality. However, data is lacking on the extent of damage and the economic impact this nematode may cause on its different host plants. Data is also generally lacking on its biology.

Transmission: As a root-knot nematode species, *M. ethiopica* can easily be transmitted with soil and plant root material. In Chile, it is suspected that movements of contaminated grapevine nursery stock have probably resulted in serious infestations in various vineyards. In Brazil, it is also suggested that this nematode was introduced in 1989 to Rio Grando Sul on kiwi seedlings imported from Curicó (Chile), and that the pest was then moved to Distrito Federal on infested bulbs of *Polymnia sonchifolia* (yacón or Peruvian ground apple) from Rio Grande do Sul.

Pathway: Infested soil and growing media, plants for planting, bulbs and tubers from countries where *M. ethiopica* occurs are the most probable pathways to introduce this pest into the EPPO region. Soil attached to machinery, tools, footwear, or plant products is also another possible pathway.

Possible risks: *M. ethiopica* is a polyphagous species and many of its host plants are of economic importance to the EPPO region as they are cultivated as arable, vegetable, ornamental or fruit crops. The recent incursion of this pest in Slovenia clearly demonstrated that it has the potential to enter the region, although its pathway of introduction remains unknown. Recent studies have showed that, despite its tropical origin, *M. ethiopica* has the potential to survive outdoors under a continental climate (hot summers and cold winters) even in areas where soil temperatures fall below zero during winter, as well as under a sub-Mediterranean climate (hot summers and mild winters). This indicates that *M. ethiopica* could establish and spread in the southern and central parts of the EPPO region. In addition, *M. ethiopica* could survive under glasshouse conditions across the region. Once root-knot nematodes have been introduced, it is in general difficult to control or eradicate them. Based on morphological characteristics, *M. ethiopica* can be confused with *M. incognita*, and thus be easily overlooked. However, it can be noted that characteristic esterase isozyme patterns have been described for *M. ethiopica* to provide more reliable identification. Considering the wide host range of this species and its probable ability to survive in many parts of the EPPO region, it seems desirable to avoid its introduction.

Sources:

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EPPO RS 2011/004
Panel review date - Entry date 2011-01

2011/005 *Gymnosporangium yamadae* occurs in Northeastern USA

As reported in EPPO RS 2009/129, the occurrence of *Gymnosporangium yamadae* (EPPO A1 List - Japanese apple rust) in the USA was confirmed in 2009. This was the first record of this rust in North America. In Asia, the aecial stage *of G. yamadae* is found on *Malus* species and the telial stage on *Juniperus chinensis*. In the USA, the aecial stage of this rust was first observed in Wilmington (Delaware) and nearby in Media (Pennsylvania) on leaves of *Malus toringo*, an ornamental plant native to Asia. In April 2009, telial galls of *G. yamadae* were found on ornamental *J. chinensis* trees near the original finding site. In August 2009, *G. yamadae* was detected on leaves of apple trees (*Malus domestica)* growing on the farm of the University of Delaware, in Newark. Following these findings, USDA released a Pest Alert to draw the attention of fruit growers to this new disease. The analysis of more samples submitted to USDA/APHIS-PPQ indicated a widespread incidence of the aecial stage of *G. yamadae* in Northeast USA. *G. yamadae* has been detected in Connecticut, Maine, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, and Rhode Island. It is thought that *G. yamadae* has remained undetected for several years because of its similar symptomatology with *G. juniperi-virginianae* (EPPO A1 List – cedar apple rust) which occurs in North America.
The situation of *Gymnosporangium yamadae* in the USA can be described as follows: **Present, first observed in 2004 and 2008 on ornamental *Malus toringo*, then on apple trees (*Malus domestica*), now widespread in Northeastern USA (Connecticut, Delaware, Maine, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island).**

Source: Gregory NF, BischoffJF, Dixon LJ, Ciurlino R (2010) First report of the telial stage of Japanese apple rust on *Juniperus chinensis* in North America and the aecial stage on *Malus domestica*. *Plant Disease* **94**(9), p 1169.

INTERNET (last retrieved in 2010-11)
The Connecticut Agricultural Experiment Station. Gymnosporangium rusts: common cedar rust diseases in Connecticut by SM Douglas (dated October 2010)
http://www.ct.gov/caes/lib/caes/documents/publications/fact_sheets/plant_pathology_and_ecology/gymnosporangium_rusts_10-19-10.pdf

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

2011/006 First report of '*Candidatus* Phytoplasma pyri' (pear decline) in Canada

Pear seedlings (*Pyrus communis*) which are selected for the Canadian breeding programme (managed by Agriculture and Agri-Food Canada) are routinely tested for virus and virus-like diseases by the laboratory of the NPPO (Sidney Laboratory of the Canadian Food Inspection Agency). Virus testing of the selected plant material is initiated at the same time propagation starts. In early 2007, samples from 2 pear seedling selections which had been submitted in 2005 to the breeding programme tested positive for phytoplasmas. Additional tests confirmed the presence of '*Candidatus* Phytoplasma pyri' (associated with pear decline – EPPO A2 List). Further studies on young trees which had been propagated from this material were conducted. It was found that one pear selection had 39 nursery trees (out of 79 – 49%) infected by '*Ca*. P. pyri', while the other selection had 27 infected trees (out of 96 – 28%). On the seedling trees from which the material had originally been propagated, typical symptoms of pear decline (i.e. premature foliage reddening) could be observed. In 2007 and 2008, samples (leaves, dormant shoots, roots) were also collected from research and commercial pear orchards in Southern Ontario. As a result, '*Ca*. P. pyri' was detected in several pear cultivars from different sites, suggesting that pear decline has probably been present for some time in Ontario. This is the first time that pear decline is reported from Canada.
The situation of '*Candidatus* Phytoplasma pyri' in Canada can be described as follows: **Present first detected in 2007, occurs in several pear cultivars and locations in Southern Ontario.**

Source: Hunter DM, Svircev AM, Kaviani M, Michelutti R, Wang L, Thompson D (2010) First report of pear decline caused by '*Candidatus* Phytoplasma pyri' in Ontario, Canada. *Plant Disease* **94**(5), p 634.

Additional key words: new record **Computer codes:** PHYPPY, CA

2011/007 Cucurbit chlorotic yellows virus: a new *Crinivirus* of cucurbits spreading in Asia

In 2004, severe leaf yellowing symptoms were observed on glasshouse melons (*Cucumis melo*) in Kumamoto Prefecture (Kyushu), in the Southwest of Japan. Similar symptoms were observed in cucumber (*Cucumis sativus*) and watermelon (*Citrullus lanatus*). At approximately the same time, a pyrethroid-resistant strain of *Bemisia tabaci* (Hemiptera: Aleyrodidae – EPPO A2 List) emerged in that area, and was identified as biotype Q. Studies showed that the causal agent was a new virus, tentatively called Cucurbit chlorotic yellows virus (CCYV). This virus is transmitted by *B. tabaci* (biotypes B and Q). Inoculation experiments with whitefly vectors showed that all tested *Cucumis* species (except *C. anguria* and *C. zeyheri*) could be infected by CCYV. It was also found that *Citrullus lanatus, Cucurbita pepo*, and *Luffa cylindrica* were susceptible to the virus, although infection rates were low and symptoms unclear. In addition to cucurbits, other herbaceous plants could be systemically infected by CCYV during these experiments (*Beta vulgaris, Chenopodium amaranticolor, C. quinoa, Spinacia oleracea, Lactuca sativa,* and *Nicotiana benthamiana*). The complete genome of CCYV was sequenced and indicated that CCYV should be classified as a new and distinct *Crinivirus* species. It is also noted that CCYV-affected areas are increasing rapidly throughout Japan, most probably with the spread of *B. tabaci* biotype Q. After this initial discovery in Japan, CCYV was also detected on several cucurbit crops in China in 2008, and in Taiwan in 2009 (Okuda *et al*., 2010).

In China, systemic foliar chlorosis of melon, watermelon, and cucumber plants grown in plastic houses was first observed in Shanghai in 2008. By the end of October 2009, the disease had become prevalent across 13 000 ha of plastic houses in Shanghai, Ningbo (Zheijiang province) and Shouguang (Shandong province). It is estimated that crop losses ranged from 10 to 20%. Diseased crops were also infested by *B. tabaci*. Molecular studies confirmed presence of CCYV (Gu *et al*., 2011).

In Taiwan, CCYV was reported for the first time in 2009. In April 2009, symptoms of chlorosis, yellows, and bleaching accompanied with green veins and brittleness were observed on the lower leaves of melons (*Cucumis melo*) in Lunbei (Yunlin county). Similar symptoms were also observed on cucumber (*Cucumis sativus*), pumpkin (*Cucurbita moschata*), watermelon (*Citrullus lanatus*), bottle gourd (*Lagenaria siceraria*) and local types of melons planted in other areas of Yunlin and Changhua counties (Central Taiwan). Large populations of *B. tabaci* were observed in association with the diseased cucurbit crops, and were identified as biotype B. Molecular studies confirmed the presence of CCYV (Huang *et al*., 2010).

Pictures of CCYV symptoms can be viewed on the Internet:
http://www.jppn.ne.jp/kagoshima/yosatu/tokusyuhou/2007/pdf/no6.pdf
http://www.pref.saitama.lg.jp/site/fukyujoho/kyuritairyoku.html
http://konarc.naro.affrc.go.jp/veg/sisetu_team/Iden/album//index.html

Source:

Gu Q, Liu Y, Wang Y, Huangu W, Gu H, Xu L song F, Brown JK (2011) First report of Cucurbit chlorotic yellows virus in cucumber, melon and watermelon in China. *Plant Disease* **95**(1), p 73.

Huang LH, Tseng HH, Li JT, Chen TC (2010) First report of Cucurbit chlorotic yellows virus infecting cucurbits in Taiwan. *Plant Disease* **94**(9), p 1168.

Okuda M, Okazaki S, Yamasaki S, Okuda S, Sugiyama M (2010) Host range and complete genome sequence of *Cucurbit chlorotic yellows virus*, a new member of the genus *Crinivirus*. *Phytopathology* **100**(6), 560-566.

Additional key words: new pest **Computer codes:** CCYV00, CN, JP, TW

2011/008 First report of *Tomato chlorotic dwarf viroid* in Mexico

At the beginning of 2008, tomato plants (*Lycopersicon esculentum*) grown in a large glasshouse near Mexico city (Mexico) showed general stunting, leaf chlorosis which later turned bronze or purple, and fruit size reduction. The disease was initially confined to a 5 ha glasshouse but it quickly spread to 2 additional 5 ha glasshouses during summer 2008. By the end of 2008, approximately 5 % of tomato plants in 35 ha of glasshouses were infected. Samples were collected (12 in 2008 and 4 in 2009) from diseased tomato plants and tested. Samples tested negative for common tomato viruses but gave positive results when tested with specific primers for pospiviroids. In 2 samples, sequence analysis indicated a mixed infection with 2 pospiviroids: *Tomato chlorotic dwarf viroi*d (TCDVd) and a viroid closely related to *Mexican papita viroid**. In addition, the Mexican isolate of TCDVd was 99% identical to an isolate recently identified in Arizona, USA (EPPO RS 2008/006).

The close relationships between the Mexican and US isolates suggest that TCDVd in these two countries may share a common origin, and it is hypothetized that they might have been introduced with infected tomato seeds. This is the first time that *Tomato chlorotic dwarf viroid* is reported from Mexico.

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* *Mexican papita viroid* was first identified in Mexico in 1996 on papita (*Solanum cardiophyllum*).

Source: Ling KS, Zhang W (2009) First report of a natural infection by *Mexican papita viroid* and *Tomato chlorotic dwarf viroid* on greenhouse tomatoes in Mexico. *Plant Disease* **93**(11), p 1216.

Additional key words: new record **Computer codes:** TCDVDO, MX

2011/009 First report of *Tomato chlorotic dwarf viroid* on tomato in France

At the end of 2007, unusual symptoms were observed on glasshouse tomato plants (*Lycopersicon esculentum*) in Bretagne region, France. Within a group of glasshouses, 20 to 25% of the plants were showing bunchy top, leaf curling and symptoms of epinasty. Molecular analysis (RT-PCR, sequencing) of samples collected from 3 affected plants confirmed the presence of *Tomato chlorotic dwarf viroid* (*Pospiviroid*, TCDVd). The French TCVDd isolate was closely related to the isolate reported from Canada (EPPO RS 2008/006). Further studies were carried out to trace-back this infection. 2 500 seeds of the original seed lot (from which the infected plants had been grown) were sown and the resulting plants were tested (in batches of 10 plants) for TCDVd. The viroid was detected in 2 out of the 250 batches of plants and the same sequence of the amplified fragment was obtained, indicating a low level of seed transmission. These results suggested that the source of this outbreak was probably infected seeds. This is the first report of TCDVd in France.

Source: Candresse T, Marais A, Tassus X, Suhard P, Renaudin I, Leguay A, Poliakoff F (2010) First report of *Tomato chlorotic dwarf viroid* in tomato in France. *Plant Disease* **94**(5), p 633.

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

2011/010 First detection of *Tomato chlorotic dwarf viroid* in *Petunia* in Slovenia

Within the framework of a survey on host plants of *Potato spindle tuber viroid* (*Pospiviroid*, PSTVd - EPPO A2 List), 30 leaf samples of *Petunia* spp. were collected by phytosanitary inspectors from 22 production sites in Slovenia. At the time of sampling (April 2010), no disease symptoms were observed on *Petunia* plants. These samples were tested for the presence of PSTVd by real-time RT-PCR according to the EPPO diagnostic protocol (EPPO Standard PM 7/33). One sample of cv. Surfinia Purple (collected from the coastal region) and one sample of cv. Surfinia Hot Pink 05 (collected near Ljubljana) gave positive results indicating the presence of PSTVd or *Tomato chlorotic dwarf viroid* (TCDVd). Further analysis confirmed the occurrence of TCDVd in these 2 *Petunia* samples. Although TCDVd remains symptomless on *Petunia* spp., infected plants could be a source of infection for potato and tomato crops which can be damaged by TCDVd. Therefore, the infected Petunia stocks were destroyed. This is the first time that TCDVd is detected in Slovenia.

Source: Viršček Marn M, Mavrič Pleško I (2010) First report of *Tomato chlorotic dwarf viroid* in *Petunia* spp. in Slovenia. *Plant Disease* **94**(9), p 1171.

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

2011/011 First report of *Pepino mosaic virus* in Syria

In Syria, tomatoes (*Lycopersicon esculentum*) are widely grown in open fields, and there is an increasing production under glasshouses and plastic tunnels. During winter 2007/2008, tomato fruits were collected from the main markets in different cities of Syria, and 60 samples were tested (DAS-ELISA) for the possible presence of *Pepino mosaic virus* (*Potexvirus*, PepMV – EPPO A2 List). Results showed that one fruit sample was infected by PepMV. This infected sample had been collected from a tomato crop grown under plastic tunnel near Latakia. The identity of the virus was confirmed by bioassays, RT-PCR and sequencing. This Syrian isolate showed the highest sequence similarity with the EU-tomato strains of PepMV. This is the first time that PepMV is detected in Syria. Further studies are needed to determine the extent of the disease in Syrian tomato crops.
The situation of *Pepino mosaic virus* in Syria can be described as follows: **Present, detected for the first time in 2008 in one tomato sample collected near Latakia.**

Source: Fakhro A, Von Bargen S, Bandte M, Büttner C (2010) *Pepino mosaic virus*, a first report of a virus infecting tomato in Syria. *Phytopathologia Mediterranea* **49**(1), 99-101.

Additional key words: new record **Computer codes:** PEPMV0, SY

2011/012 First report of Tomato torrado virus in France

In June 2008, tomato plants (*Lycopersicon esculentum* cv. 'Fer de lance') grown in glasshouses near Perpignan (Southern France) showed symptoms resembling those of Tomato torrado virus (ToTV - EPPO Alert List). Laboratory analysis (RT-PCR) confirmed the presence of ToTV in 4 symptomatic plants. The presence of other tomato viruses was also studied in these 4 plants, and the presence of *Pepino mosaic virus* (EPPO Alert List) was detected in all samples. In addition, whitefly transmission experiments were conducted with *Trialeurodes vaporariorum* and *Bemisia tabaci,* and confirmed that both whitefly species can transmit ToTV. In April 2009, the presence of ToTV was again detected in the same area near Perpignan. This is the first time that ToTV is reported from France.
The situation of Tomato torrado virus in France can be described as follows: **Present, detected near Perpignan (South) in a small number of tomato samples.**

Source: Verdin E, Gognalons P, Wipf-Scheibel C, Bornard I, Ridray G, Schoen L, Lecoq H (2009) First report of Tomato torrado virus in tomato crops in France. *Plant Disease* **93**(12), 1352-1353.

Additional key words: new record **Computer codes:** TOTV00, FR

2011/013 First report of Tomato torrado virus in Italy

In 2009 and 2010, approximately 2% of tomato plants (*Lycopersicon esculentum*) grown in a glasshouse in Italy (unspecified location) showed unusual disease symptoms. Affected plants showed leaf chlorosis followed by necrosis, and a substantial reduction of fruit production. Molecular tests were conducted on samples from 5 symptomatic tomato plants and detected the presence of Tomato torrado virus (ToTV - EPPO Alert List). In addition, serological tests were conducted on these 5 symptomatic plants and on 25 additional plants from the same glasshouse which displayed typical symptoms of *Pepino mosaic virus* (*Potexvirus*, PepMV - EPPO Alert List). PepMV was detected in all samples, as well as in 3 of the samples which had tested positively for ToTV, suggesting that mixed infections occurred in this glasshouse. All ToTV-infected plants were destroyed. This is the first time that ToTV is detected in Italy.
The situation of Tomato torrado virus in Italy can be described as follows: **Transient, detected in 1 tomato glasshouse, all infected plants were destroyed**.

Source: Davino S, Bivona L, Iacono G, Davino M (2010) First report of Tomato torrado virus infecting tomato in Italy. *Plant Disease* **94**(9), p 1172.

Additional key words: new record **Computer codes:** TOTV00, IT

2011/014 Survey on Tomato torrado virus in Spain

From 2001 to 2008, a survey was conducted in Spain on Tomato torrado virus (ToTV - EPPO Alert List) in the main tomato-growing areas. Tomato leaves (451 samples) were collected from symptomatic plants in 92 glasshouses. ToTV was detected in samples from Alicante (Comunidad Valenciana), Almería (Andalucía), Barcelona (Cataluña), Murcia, Gran Canaria and Tenerife (Islas Canarias), and Mallorca (Islas Baleares). In this study, the incidence of ToTV in the tested samples varied from 58% in 2001 to 92% in 2005, with an average of 77% over the survey period. Approximately 60% of the samples were infected by *Pepino mosaic virus* (EPPO Alert List). Other viruses were also detected, such as: *Cucumber mosaic virus* (*Cucumovirus*), *Parietaria mottle virus* (*Ilarvirus*), *Potato virus* Y (*Potyvirus*), *Tomato chlorosis virus* (*Crinivirus* – EPPO A2 List), *Tomato mosaic virus* (*Tobamovirus*), *Tomato spotted wilt virus* (*Tospovirus* – EPPO A2 List), *Tomato yellow leaf curl virus* (Begomovirus – EPPO A2 List). This showed that torrado symptoms were not related to ToTV alone. ToTV is transmitted by whiteflies (*Bemisia tabaci* and *Trialeurodes vaporariorum*). Additional experiments confirmed that ToTV is efficiently transmitted by *T. vaporariorum* (up to 67% transmission efficiency) and that transmission efficiency varies between tomato cultivars. The authors also reported the susceptibility of a solanacearous weed species, *Datura stramonium*, to ToTV. Finally, they stressed that tissue-printing hybridization was a suitable detection technique which could be used to facilitate routine diagnosis of ToTV during large-scale surveys.
The situation of Tomato torrado virus in Spain can be described as follows: **Present, detected in tomato samples from Andalucía, Cataluña, Comunidad Valenciana, Murcia, Islas Canarias and Baleares.**

Source: Alfaro-Fernández, A, Córdoba-Sellés MC, Juárez M, Herrera-Vásquez JA, Sánchez-Navarro JA, Cebrián MC, Font MI, Jordá C (2010) Occurrence and geographical distribution of the 'Torrado' disease in Spain. *Journal of Phytopathology* **158**(7-8), 457-469.

Additional key words: detailed record **Computer codes:** TOTV00, ES

2011/015 Update on the situation of Tomato torrado virus in Hungary

Tomato torrado virus (ToTV – EPPO Alert List) was first found in Hungary in a commercial tomato glasshouse in October 2007 (EPPO RS 2008/129). Two other outbreaks were also reported by Alfaro-Fernández *et al*. (2009) in glasshouses producing tomato fruits. During surveys carried out in 2009, 29 samples were collected on young plants from 8 counties and all results were negative. 51 samples were also collected from tomato crops (intended for fruit production) and 1 sample tested positive by RT-PCR. The source of this infection, and that of the previous 3 cases, remains unknown. It was generally observed that the ToTV infections were detected in production sites which were heavily infested by *Trialeurodes vaporariorum*. The 4 outbreaks occurred at different sites in Hungary and no relation could be found between them. In all cases, measures were taken to eliminate the virus.
The pest status of Tomato torrado virus in Hungary is officially declared as: **Present, with a few occurrences. Survey will continue in 2010 in the tomato-growing areas of the country.**

Source: NPPO of Hungary, 2010-04.

Alfaro-Fernández A, Bese G, Cordoba-Selles C, Cebrian MC, Herrera-Vasquez JA, Forray A, Jorda C (2009) First report of Tomato torrado virus infecting tomato in Hungary. *Plant Disease* **93**(5), p 554.

Additional key words: detailed record **Computer codes:** ToTV00, HU

2011/016 First report of *Iris yellow spot virus* in Uruguay

From October to December 2005, onion (*Allium cepa*) plants in seed-production fields in South Uruguay (Canelones) showed symptoms resembling those of *Iris yellow spot virus* (*Tospovirus*, IYSV – EPPO Alert List). In 2006, samples were collected from four symptomatic onion seed crops and IYSV was detected in all tested crops. In 2007, the disease incidence was monitored in two onion fields and ranged from less than 1% to 7%. This is the first report of IYSV in Uruguay.
The situation of *Iris yellow spot virus* in Uruguay can be described as follows: **Present, first detected in 2006, found in the South on onion seed crops (*Allium cepa*).**

Source: Colnago P, Achigar R, González PH, Peluffo S, González H (2010) First report of *Iris yellow spot virus* on onion in Uruguay. *Plant Disease* **94**(6), p 786.

Additional key words: new record **Computer codes:** IYSV00, UY

2011/017 *Iris yellow spot virus* detected on onion in Veneto (IT)

In June 2009, *Iris yellow spot virus* (*Tospovirus*, IYSV – EPPO Alert List) was detected on 2 onion crops (*Allium cepa* cvs 'Borettana', 'Tonda Musona') in the municipality of Isola della Scala (province of Verona), Veneto region (Italy). Samples were tested using Western blot. The presence of *Thrips tabaci* was observed in affected crops. No crop losses were reported.

The situation of *Iris yellow spot virus* in Italy can be described as follows: **Present, first found in 2007, occasionally reported on onion crops in Emilia-Romagna and Veneto, low economic impact.**

Source: NPPO of Italy (2010-02).

Additional key words: detailed record **Computer codes:** IYSV00, IT

2011/018 Final Conference of the PRATIQUE project and a discussion on the future of Pest Risk Analysis in the European Union (York, GB, 2011-05-24/25)

The final Conference of the PRATIQUE project and a discussion on the future of Pest Risk Analysis in the European Union will take place at the Food and Environment Research Agency in York (GB) on 24-25th May 2011. The objectives of this Conference are:

1. To present the results of the PRATIQUE project
2. To discuss the future of PRA in the EU in the light of the revision to the EU Plant Health Regime and other developments

Online registration (deadline 2011-02-11) can be made here:
http://meeting.eppo.org/register.php/T2935

PRATIQUE is an EC-funded 7th Framework research project designed to address the major challenges for pest risk analysis (PRA) in Europe. The research project, which began in March 2008, is being undertaken by scientists from 13 institutes in the EU and one each from Australia and New Zealand with subcontractors from institutes in China and Russia. PRATIQUE has three principal objectives: (a) to assemble the datasets required to construct PRAs valid for the whole of the EU, (b) to conduct multidisciplinary research that enhances the techniques used in PRA and (c) to provide a decision support scheme for PRA that is efficient and user-friendly. It is producing a structured inventory of PRA datasets for the EU and undertaking targeted research to improve existing procedures and develop new methods for (a) the assessment of economic, environmental and social impacts, (b) summarising risk while taking account of uncertainty, (c) mapping endangered areas (d) pathway risk analysis and systems approaches and (e) guiding actions during emergencies caused by outbreaks of harmful organisms. The results are being tested and provided as protocols, decision support systems and computer programs with examples of best practice linked to a computerised version of the EPPO PRA scheme. Further details are available on the PRATIQUE website: https://secure.fera.defra.gov.uk/pratique/index.cfm

Source: Personal communication with Dr Richard Baker (Fera, York, GB), coordinator of the PRATIQUE project (2011-01).

Additional key words: conference

2011/019 Effect of *Carpobrotus edulis* on the density of the lizard *Chalcides striatus* in a Galician coastal locality (Spain)

Chalcides striatus (Reptilia: Scincidae) is a common species of lizard in coastal zones of Galicia (Spain). *Carpobrotus edulis* (Aizoaceae, EPPO List of Invasive Alien Plants) is widely present in Galicia where it invades coastal areas. Transects have been established along the coast in the municipality of Arteixo (province of La Coruña) to determine the population densities of *Chalcides striatus* per hectare present in three different zones:

- Natural vegetation areas characterized by a *Dauco gummifero-Festicetum pruinosae* formation,
- Areas with 75-90% coverage by *Carpobrotus edulis*,
- Areas with more than 90% coverage by *C. edulis*.

Significant differences were observed in the densities of *Chalcides striatus* in the 3 different zones:

Presence and abundance of *C. edulis*	**Average density in number of** *Chalcides striatus* **per hectare**
Without *C. edulis*	188.1 ± 52.3
C. edulis covering between 75 and 90%	25.2 ± 9.8
C. edulis covering more than 90%	4.9 ± 4.9

This survey suggested that the presence of *C. edulis* has a negative impact on *Chalcides striatus,* as the reptile had greatly reduced numbers when the invasive plant was present and was not found in some cases when the IAP has very high percentage cover.
Other studies conducted in Australia also concluded that reptiles preferred native vegetation formations because invasive plants created an environment with lower temperatures and it offered more limited opportunities to hide or catch prey. It is supposed that the same factors limit or reduce to zero *Chalcides striatus* populations in areas invaded by *C. edulis* in Galicia.

Source: Galán P (2008) Efecto de la planta invasora *Carpobrotus edulis* sobre la densidad del eslizón tridáctilo (*Chalcides striatus*) en una localidad costera de Galicia. *Boletín de la Asociación Herpetológica Española* **19**, 117-121.
http://www.herpetologica.org/BAHE/038_Cons04-BAHE19.pdf

Additional key words: invasive alien plants, impacts **Computer codes:** CBSED, ES

2011/020 A new publication on the exotic flora of Lombardia (Italy)

The Lombardia region and the city of Milano (IT) in partnership with the Museo di Storia Naturale di Milano published a 242 page paper guide (with numerous photos) on the exotic flora of Lombardia, which is also available as a CD-Rom. 282 naturalized neophytes, with indications on their biological type, area of origin, distribution in Lombardia, dates and pathways of introduction, invasiveness status, as well as their impact on biodiversity and management actions.
In addition to the information listed above, the CD-Rom contains short profiles (with photos) of other species that were not covered in the main text: 253 casual neophytes, 84 archaeophytes and 33 doubtful alien plants. Moreover, distribution maps with detail at the provincial level of the 652 species considered are included. Finally, a complete bibliography of literature cited in the text is provided.

The following species are considered as invasive in Lombardia, in the sense that they are able to cover vast areas: *Abutilon theophrasti* (Malvaceae), *Acalypha virginica* (Euphorbiaceae), *Acer negundo* (Aceraceae), *Ailanthus altissima* (Simaroubaceae, EPPO List of IAP), *Amaranthus deflexus, A. hybridus, A. powellii, A. retroflexus, A. tuberculatus* (Amaranthaceae), *Ambrosia artemisiifolia* (Asteraceae, EPPO List of IAP), *Ammannia coccinea* (Lythraceae), *Amorpha fruticosa* (Fabaceae, EPPO List of IAP), *Artemisia annua, A. verlotiorum* (Asteraceae), *Aster lanceolatum, A. squamatus* (Asteraceae), *Bidens bipinnata* (Asteraceae), *Bidens frondosa* (Asteraceae, EPPO List of IAP), *Broussonetia papyrifera* (Moraceae), *Buddleia davidii* (Scrophulariaceae, EPPO List of IAP), *Capsella grandiflora* (Brassicaceae), *Commelina communis* (Commelinaceae), *Conyza canadensis, C. sumatrensis* (Asteraceae), *Crepis sancta* (Asteraceae), *Cuscuta campestris* (Convolvulaceae), *Cycloloma atriplicifolium* (Chenopodiaceae), *Cyperus difformis, C. esculentus, C. glomeratus, C. microiria* (Cyperaceae), *Digitaria sanguinalis* (Poaceae), *Duchesnea indica* (Rosaceae), *Elaeagnus pungens* (Elaeagnaceae), *Eleusine indica* (Poaceae), *Elodea canadensis* (Hydrocharitaceae) and *E. nuttallii* (Hydrocharitaceae, EPPO List of IAP), *Eragrostis pectinacea* (Poaceae), *Erigeron annuus, E. karvinskianus* (Asteraceae), *Euphorbia maculata, E. nutans, E. prostrata* (Euphorbiaceae), *Fallopia x bohemica, F. japonica* (Polygonaceae, EPPO List of IAP), *Galinsoga parviflora, G. quadriradiata* (Asteraceae), *Helianthus tuberosus* (Asteraceae, EPPO List of IAP), *Heteranthera reniformis* (Pontederiaceae), *Humulus japonicus* (Cannabaceae, EPPO Alert List), *Impatiens balfourii* (Balsaminaceae), *Impatiens glandulifera* (Balsaminaceae, EPPO List of IAP), *Impatiens parviflora* (Balsaminaceae), *Juncus tenuis* (Juncaceae), *Lagarosiphon major* (Hydrocharitaceae, EPPO List of IAP), *Lemna minuta* (Hydrocharitaceae), *Lepidium virginicum* (Brassicaceae), *Ligustrum lucidum, L. sinense* (Oleaceae), *Lindernia dubia* (Linderniaceae), *Lonicera japonica* (Caprifoliaceae), *Ludwigia peploides* (Onagraceae, EPPO List of IAP), *Medicago sativa* (Fabaceae), *Mollugo verticillata* (Molluginaceae), *Muhlenbergia schreberi* (Poaceae), *Murdannia keisak* (Commelinaceae), *Nelumbo nucifera* (Nelumbonaceae), *O. latipetala, O. sesitensis, O. stuchii* (Onagraceae), *Oxalis dillenii, O. stricta* (Oxalidaceae), *Panicum capillare, P. dichotomiflorum, P. philadelphicum* (Poaceae), *Papaver rhoeas* (papaveraceae), *Parthenocissus quinquefolia* (Vitaceae), *Paspalum distichum* (Poaceae, EPPO List of IAP), *Persicaria filiformis, P. nepalensis, P. pensylvanica, P. virginiana* (Polygonaceae), *Phytolacca americana* (Phytolaccaceae), *Prunus laurocerasus, P. serotina* (Rosaceae), *Pueraria lobata* (Fabaceae, EPPO A2 List), *Quercus rubra* (Fagaceae), *Robinia pseudoacacia* (Fabaceae), *Rosa multiflora* (Rosaceae), *Rubus phoenicolasius* (Rosaceae), *Rumex cristatus* (Polygonaceae), *Sagittaria latifolia* (Alismataceae), *Senecio inaequidens* (Asteraceae, EPPO List of IAP), *Setaria pycnocoma* (Poaceae), *Sicyos angulatus* (Cucurbitaceae, EPPO List of IAP), *Solanum chenopodioides* (Solanaceae), *S. canadensis, Solidago gigantea* (Asteraceae, EPPO List of IAP), *Sorghum halepense* (Poaceae), *Spirea japonica* (Rosaceae), *Sporobolus vaginiflorus* (Poaceae), *Trachycarpus fortunei* (Arecaceae), *Vitis riparia, V. berlandieri x V. riparia* (Vitaceae), *Veronica filiformis, V. persica* (Plantaginaceae), *Viola cucullata* (Violaceae), *Xanthium orientale* subsp. *italicum*(Asteraceae).

Source: Banfi E, Galasso G (2010) La flora esotica Lombarda. Regione Lombarda. Comune di Milano. Museo di Storia Naturale di Milano, 273 pp.

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Additional key words: invasive alien plants

Computer codes: ABUTH, ACCVI, ACRNE, AILAL AMACH, AMADE, AMAPO, AMARE, AMATU, AMBEL, AMHFR, AMMCO, ANEKE, ARTAN, ARTVE, ASTLN, ASTSQ, BIDBI, BIDFR, BRNPA, BUDDA, CAPGR, CVCCA, CVPSA, CYMAT, CYPDI, CYPES, CYPGM, CYPMI, DIGSA,DUCIN, ELDCA, ELDNU, ELEIN, ELGPU, EPHMA, EPHNU, EPHPT, ERAPE, ERIAN, ERICA, ERIFL, ERIKA, GASCI, GASPA, HELTU, HETRE, HUMJA, IPABF, IPAPA, IPAGL, IUNTE, LEMMT, LEPVI, LIDDU, LIGLU,

LIGSI, LGAMA,LONJA, LUDPE, MEDSA, MOLVE, MUHSC, NELNU, OEOSE, OEOSH, OXAST, PANCA, PANDI, PANPH, PAPRH, PASDS, PHTAM, POLCU, POLNE, POLPY, POLVG, PRNLR, PRNSO, PRTQU, PUELO, QUERU, REYBO, ROBPS, ROSMU, RUBPH, RUMCT, SAGLT, SENIQ, SETPY, SIYAN, SOLCS, SOOCA, SOOGI, SORHA, SPVJA, SPZVA, TRRFO,VERFI, VERPE, VITRI, XANSI, IT

2011/021 Invasive alien species and social sciences

The French review journal 'Etudes rurales' edited by the 'Ecole des hautes études en sciences sociales' has dedicated its January-June 2010 issue to anthropological studies on invasive alien species and their environmental impacts. Some of the articles published in this issue are summarized below, as they open new perspectives on invasive alien species.
The EPPO Secretariat would be grateful to receive studies and publications linking invasive alien species and social sciences (e.g. anthropology, communication, etc.) that are available in EPPO member countries. Papers (in English, French, Italian or Spanish or with abstracts in any of the above languages) are welcomed and can be sent to:

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Source: Claeys C, Sirost O (eds.) (2010) Proliférantes natures. *Etudes rurales* **185**, 272 pp. http://www.editions.ehess.fr/revues/numero/proliferantes-natures/

Additional key words: invasive alien plants, anthropology, publication

2011/022 Social sciences perspectives: why new stories about invasive species are needed

In his paper Larson (2010) explains why our societies need to create new narratives about humans and invasive alien species. The author gives different perspectives on invasive plants, and ways to consider them. These include:

- Considerations of what is an invader, linked to perception of outsiders and reflections on the 'military' terminology which is used to describe invasions;
- Reflections on the human actions that create favorable environments for invasives;
- Reflections on the human actions that cause spread of species;
- Perceptions about what is natural and unnatural;
- Perceptions which can be linked to views of our own species (human beings) and the impacts we have on the environment;
- Considerations of the transient nature of the environment and the species living in it.

The author concludes that these factors emphasize that from a social sciences point of view, the invasive species concept is more complex than simply judging plants to be 'good/bad', 'insider/outsider', and 'natural/unnatural'.

Source: Larson BMH (2010) Reweaving narratives about humans and invasive alien species. *Etudes rurales* **185**, 25-38.

Additional key words: invasive alien plants, social sciences

2011/023 Social sciences perspectives: multidisciplinary project about the invasion of *Prunus serotina* in the Compiègne forest, France

In the framework of the French research project "Invabio", a multidisciplinary project has been started on the invasion of the Compiègne forest in Picardie region by *Prunus serotina* (Rosaceae, EPPO List of IAP) originating from North America. The project gathers ecologists, geographers, mathematicians, sociologists, anthropologists and land managers to improve understanding of the invasive dynamic of this tree in the Compiègne forest. Ethnology has been used in the project to understand how *P. serotina* was perceived in the forest, and how information circulated between the general public and professionals of the forestry sector. The objective of this study was to consider the role that an invasive species (i.e. *Prunus serotina*) could play in ecological changes, and how local actors/stakeholders perceive this species which seems to be blamed for overall ecological changes.

History of the introduction

P. serotina was introduced during the 19th century in Compiègne, and it was only in the 1970s that foresters understood that the species had spread and covered about one third of the forest. Nowadays, it covers more than 80% of the forest, sometimes in monospecific stands. *P. serotina* grows faster than commercial species such as *Quercus* spp. and *Fagus* spp. and outcompetes them, while it produces a low quality wood. It is supposed that *P. serotina* became established in Compiègne because of the aggressive forestry practices (perturbation of soil and clear cutting) in the 1960s-1980s, *P. serotina* was only considered as invasive in the 1990s, when the issue of invasive alien species became more widely spread by the media.

Opinions concerning the tree

Interviews revealed that (excluding the reactions of scientists or naturalists) *P. serotina* was appreciated by forest users: trekkers admire its foliage, horse riders eat its fruits, residents make marmalade out of its fruits, etc. Interviewed persons who had noticed the tree could not name it and referred to it as "the tree which is everywhere".

Management responsibilities

Responsibilities for the management of the species were rejected by most parties: naturalists accused managers and foresters in particular of not taking any action; managers accused the general public and plant sellers; the latter blamed the Government as there is no legislation in place. In practice, management actions were therefore undertaken only by a small number of persons with a scientific background.
Among scientists it is accepted that *P. serotina* is a threat to biodiversity, but this type of impact may be difficult to grasp by non-scientists especially when such a biological invasion has taken place over a long period of time. Indeed, the invasion by *P. serotina* is too slow to be perceived by local residents. In addition, the perception of *P. serotina* has changed over time: at the beginning of the 20th century, *P. serotina* was considered as a valuable species that improved the soil litter under conifer forestry plantations.
The authors considered that a debate involving all the stakeholders was needed to judge the most fitting management actions and to improve communication.

Source: Javelle A, Kalaora B, Decocq G (2010) De la validité d'une invasion biologique. *Prunus serotina* en forêt de Compiègne. *Etudes rurales* **185**, 39-50.

Additional key words: invasive alien plants, social sciences

Computer codes: PRNSO, FR

2011/024 Social sciences perspectives: How to categorize invasive alien species?

In her study, Menozzi (2010) analyzed scientific papers and papers for the general public on *Ludwigia peploides* and *L. grandiflora* (Onagraceae, EPPO List of IAP) in France. She found that scientific papers seek to characterize biological invasions by producing definitions and criteria whereas papers for the general public aim to describe the proliferation of a plant considered as noxious in a given territory. In both cases, uncertainties in the categorization of these species could be noted.

Interviews with residents (farmers, fishermen, canoe hire staff, mayors) revealed that they themselves recognize the species as invading the territory. The species was considered problematic once it perturbed activities such as fishing, hunting, and boating.
The author considered that among scientists, the consideration of negative impacts on the environment to define a biological invasion is controversial as some consider it as too subjective. The majority of the scientific community considers only exotic species to be invasive species but this criterion might still be controversial. The distinction between native and exotic was not made by the general public who considered that as long as the species is present on the territory, it is a local one. For the residents, a classification "useful/noxious" was more relevant than one based on the origin of the plant. Considering the terms used by scientists, managers, the press and the general public to talk about these species, it was observed that a military vocabulary was used (eradication, war, etc.). The author concluded that although social sciences researchers may consider the xenophobic dimension in the biological invasions discourses, the behaviors towards invasive species are rather pragmatic as these species are suppressed because they create nuisances.

Source: Menozzi MJ (2010) Comment catégoriser les espèces exotiques envahissantes. *Etudes rurales* **185**, 51-66.

Additional key words: invasive alien plants, social sciences **Computer codes:** LUDPE, LUDUR, FR

2011/025 Social sciences perspectives: how proliferating plant species in Camargue (FR) are perceived?

Taking the example of exotic species which are proliferating in the particular ecosystems of Camargue (South of France), Claeys (2010) studied how these species are perceived by different social groups using the simple terms of 'good' and 'bad'.
The rare and now protected ecosystems of Camargue have largely been influenced by man. They are the results of the release of freshwater from irrigation, and salt water from the salt industry. In this anthropogenic context, the author noted that some exotic species are considered as "good" when they adapt to the local ecosystem without creating problems, and when they are useful to humans. On the other hand, an exotic species is considered as "bad" when it affects ecosystems, causes negative impacts on human activities or human health. For example, *Baccharis halimifolia* (Asteraceae, EPPO List of Invasive Alien Plants) and *Cortaderia selloana* (Poaceae, EPPO List of Invasive Alien Plants) have been widely planted in gardens and in public green areas in Camargue. Naturalists qualify these species as "invasive", while this opinion is not shared by some residents who have planted them in their gardens, or by some amenity gardeners who have used them in public green. Among stakeholders such as landscapers, there may even be opposition against any type of measures to control these plant species. Others residents, although they have planted

these species, accept this adjective of 'invasive', but they consider the problem as secondary, and this is reinforced by the fact that these two species were perceived to be local. Concerning hunters and fishermen, they consider these two species as problematic as they invade some hunting and fishing areas. Hunters and fishermen are therefore creating alliances with naturalists and natural areas managers to control these species. The author concluded that when trying to characterize plant species, it was important to take into account both the biological and social viewpoints.

Source: Claeys C (2010) Les "bonnes" et les "mauvaises" proliférantes. Controverses camarguaises. *Etudes rurales* **185**, 101-118

Additional key words: invasive alien plants, social sciences **Computer codes:** BACHA, CDTSE, FR