Mini data sheet on *Scolytus schevyrewi*

Added in 2005 – Deleted in 2008

Reasons for deletion:
EPPO Panel on Quarantine Pests for Forestry considered that the pest *Scolytus schevyrewi* was not more damaging than existing European *Scolytus*. In 2008, it was therefore removed from the EPPO Alert List.

Scolytus schevyrewi (Coleoptera: Scolytidae) – banded elm bark beetle

Why	In 2003, the first specimens of *Scolytus schevyrewi* were trapped in USA in Colorado and Utah. However, it is suspected that this insect had been present for several years (in examining insect collections, it was discovered that it had been collected already in 1994 and 1998 from Colorado and New Mexico, respectively). This bark beetle of Asian origin was later found colonizing American and Siberian elms in many other states (*U. americana* and *U. pumila*). Because *S. schevyrewi* can damage *Ulmus* trees and is suspected to transmit Dutch elm disease, the EPPO Secretariat decided to add it to the EPPO Alert List.
Where	**Asia**: China (Beijing, Hebei, Heilongjiang, Henan, Ningxia, Shaanxi, Xinjiang), Korea Republic, Korea DPR, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Turkmenistan, and Uzbekistan. **North America**: USA (Arizona, California, Colorado, Idaho, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, Oklahoma, Oregon, South Dakota, Utah, Wyoming).
On which plants	*Ulmus* species (including *U. carpinifolia, U. laevis, U. minor, U. procera*) are the main hosts. In Asia, *S. schevyrewi* is reported on forest, ornamental and fruit tree species: *Ulmus* spp., *Caragana* spp., *Elaeagnus angustifolia*, *Salix* spp., *Prunus* spp. (including *P. armeniaca, P. dulcis, P. persica, P. salicina*) and *Pyrus* spp. In USA, *S. schevyrewi* has been collected from *U. americana, U. pumila, U. thomasii* and *U. procera*, but not from any other hosts noted in the Asian literature.
Damage	Larvae feed in the inner bark. Removal of bark will reveal characteristic gallery patterns. Trunks of heavily attacked trees are often covered with brown boring dust and occasionally sap flow on the bark surface near the entrance hole. Attacked trees may also show wilting of the foliage, and branch breakage. In Asia, the severity of damage to elms is dependant on tree vigour and only weakened tree showed severe damage. Repeated attacks on declining trees can lead to tree death. In the USA, mortality of large elms, perhaps on drought-stressed trees, has been observed. The biology of *S. schevyrewi* is similar to that of *S. multistriatus*. In areas where *S. schevyrewi* is now well established, it is much more abundant in dying elms than is *S. multistriatus*. A major concern is the potential ability of *S. schevyrewi* to transmit Dutch elm disease (*Ophiostoma ulmi* or *P. novo-ulmi*). During studies done in 2004 in USA, it was observed that adults *S. schevyrewi* collected from logs cut from trees showing symptoms of Dutch elm disease were carrying spores of *O. novo-ulmi* (no spores of *O. ulmi* were found). Further studies are being done on this possible transmission. Pictures can be viewed on Internet: http://www.fs.fed.us/r2/fhm/reports/pest_update_s-schevyrewi.pdf http://www.ceris.purdue.edu/napis/pests/barkb/schevy/schevyrewi_ID_new1A.pdf http://www.colostate.edu/Depts/CoopExt/LARIMER/plantinsectid/Banded%20elm%20bark%20beetle.pdf
Dissemination	Adults are weak fliers but can spread from tree to tree. Over long distances, trade of plants for planting and wood with bark (including wood packing material) can ensure pest spread. It is suspected that *S. schevyrewi* has been introduced into USA in wood packaging with bark attached.
Pathway	Plants for planting, wood with bark (including wood packing material) of host species.

Possible risks *Ulmus* species are valuable forest and ornamental trees in the EPPO region, which were already devastated by Dutch elm disease. Although the direct impact of *S. schevyrewi* and its potential role in transmitting Dutch elm disease need to be further investigated, this species could present a significant risk to elm trees in Europe. The fact that in its area of origin, *S. schevyrewi* is able to attack fruit tree species adds to the risk, although this feature has not been observed in the USA.

Source(s)

Haack RA (2006) Exotic bark- and wood-boring Coleoptera in the United States: recent establishments and interceptions. *Canadian Journal of Forest Research* **36**(1), 269-288.

Jacobi WR, Koski RD, Harrington TC, Witcosky JJ (2007) Asssociation of *Ophiostoma novo-ulmi* with *Scolytus schevyrewi* (Scolytidae) in Colorado. *Plant Disease* **91**(3), 245-247.

Negrón JF, Witcosky JJ, Cain RJ, LaBonte JR, Duerr DA II, McElwey SJ, Lee JC, Seybold SJ (2005) The banded elm bark beetle: a new threat to elms in North America. *American Entomologist,* **51**(2), 84-94.

CABI Crop Protection Compendium 2005. http://www.cabicompendium.org/cpc/home.asp

EPPO RS 2005/181, 2006/208, 2007/050

Panel review date 2007-03 Entry date 2005-11