

Chinavia hilaris (Hemiptera: Pentatomidae)

This short description has been prepared in the framework of the EPPO Study on Pest Risks Associated with the Import of Tomato Fruit. The whole study can be retrieved from the EPPO website.

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Africa	Asia	Oceania	North America	South-Central America and Caribbean
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Chinavia hilaris (*Acrosternum hilare*, *Nezara hilaris*) (Hemiptera: Pentatomidae) (green stink bug)

Why	Identified in the EPPO tomato study. It is reported as a pest of a wide range of crops. The name <i>Acrosternum hilare</i> is used in many publications, although it seems that the current name is <i>Chinavia hilaris</i> (Rider, 2011).
Where	<p>EPPO region: absent</p> <p>Asia: Pakistan (Sarwar, 2006). [This is the only record found outside of North America.]</p> <p>North America: Canada (British Columbia, Ontario, Quebec), USA (Alabama, Arkansas, California, Florida, Georgia, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Missouri, New Jersey, North Carolina, Ohio, Oklahoma, South Carolina, Texas, Virginia, Washington) (CABI CPC), also USA (Arizona, CN?, Colorado, Connecticut, District of Columbia, Iowa, Indiana, Kansas, Maine, Michigan, Mississippi, Nebraska, New York, Pennsylvania, Rhode Island, Utah in Rider, 2011), Mexico (Jalisco?, Nuevo Leon) (Rider, 2011).</p> <p>Doubtful record: South America: Brazil. Schwertner and Grazia (2007), in a study on <i>Chinavia</i> spp. in Brazil, note that the presence of <i>C. hilaris</i> in Brazil was reported in the literature, but did not find specimens confirming this record and, in one case, the record was a misidentification.</p>
Climatic similarity	High. 14 common climates considering the countries and regions listed above.
On which plants	<i>C. hilaris</i> is highly polyphagous, with hosts in many families. UF (2010) mention it as a pest of seed, grain, nut and fruit, with favourite hosts such as black cherry and elderberry, flowering dogwood, evergreen blackberry, basswood and pine trees, and attacking a large number of important economic crops, including <i>Malus domestica</i> (apple), <i>Prunus armeniaca</i> (apricot), <i>Asparagus officinalis</i> (asparagus), <i>Phaseolus</i> (beans), cherries, <i>Zea mays</i> (maize), <i>Gossypium</i> (cotton), <i>Solanum melongena</i> (aubergine), <i>Prunus persica</i> (peach), <i>Pyrus communis</i> (pear), <i>Pisum sativum</i> (pea), <i>Glycine max</i> (soybean), <i>Nicotiana tabacum</i> (tobacco), <i>Solanum lycopersicum</i> (tomato). Daane et al. (ND & 2005) also mention pistachio. CABI CPC also refers to hosts such as <i>Citrus sinensis</i> (navel orange), <i>Medicago sativa</i> (lucerne), <i>Brassica oleracea</i> var. <i>capitata</i> (cabbage), <i>Corylus avellana</i> (hazel), <i>Fragaria ananassa</i> (strawberry), <i>Fraxinus</i> (ashes), <i>Juglans nigra</i> (black walnut), <i>Prunus domestica</i> (plum), <i>Rubus idaeus</i> (raspberry), <i>Ulmus rubra</i> , <i>Vitis vinifera</i> (grapevine), Wisteria (other hosts – CABI CPC).
Damage	Eggs are laid on leaves, stems, and occasionally fruit. Nymphs and adults feed on leaves, pods, seeds, buds and fruit. They are mobile, and adults fly. The pest is univoltine in the north and bivoltine in the South of its distribution. Reported as a serious pest of tomato and other vegetable crops, more damaging in Southern USA (Clemson Cooperative Extension, 2009). <i>C. hilaris</i> attacks fruit and seeds and reduce their quality. It also favours entry of pathogens. It causes different types of damage depending on the host and the stage of the fruit (depressions, scarring, corky areas etc.). Chemical control is often required (UF, 2010). Feeding on cotton and soybean leads to reduced yield and quality (Herbert and Toews, 2009). The pest is recorded to cause more damage to soybean and green beans in its southern distribution (Panizzi et al., 2000).
Dissemination	Eggs may be associated mostly to green parts associated to fruit, while nymphs and adults may also be associated with fruit (but are mobile). Adults fly.
Pathway	Plants for planting, fruit?, vegetables?, of host plants from countries where <i>C. hilaris</i> occurs.
Possible risks	Many host plants occur in the EPPO region, including vegetable crops, fruit trees, ornamental trees. The climatic similarity according to the EPPO Study between the area where it occurs and the EPPO region is high.
Categorization	Quarantine pest for Japan 2011, Korea Rep 2011 (from IPP)

Sources

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