

## California Pest Rating Proposal

### *Centrocoris volxemi* (Puton): leaf-footed bug

Hemiptera: Coreidae

Current Rating: A

Proposed Rating: C

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Comment Period: **03/05/2026 – 04/19/2026**

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#### Initiating Event:

Although it is still not yet represented by an official sample from the state, based on numerous citizen science reports from California and neighboring states, *Centrocoris volxemi* is likely established in California. Therefore, a revised pest rating proposal is needed.

#### History & Status:

**Background:** Reported host plants of the leaf-footed bug *Centrocoris volxemi* include *Kochia scoparia* and *Salsola* (Russian thistle) (including *S. tragus*), although Linnavuori and Modarres (1998) reported the broader (but inclusive of *Salsola* spp.) category of halophytic Chenopodiaceae (Schumm, 2022; Zahniser et al., 2022). Zahniser et al. (2022) reports that *S. tragus* is the primary host in Utah and that the *Kochia scoparia* the bugs were found on was dead or dried, suggesting *Kochia* may not be a host. Some finds on other plants, including *Asparagus officinalis* (Asparagaceae), *Pinus* sp., *Descurainia sophia* (Brassicaceae), and *Alhagi pseudohalgi* (Fabaceae) are presumed not to represent feeding records, as they are (when numbers of specimens are given) typically single specimens and this is a mobile insect (Zahniser et al., 2022; Zeinodini et al., 2013). This insect is not known to feed on any native (to California) plants. None of the plants associated in photographs with the iNaturalist reports in the western United States were identified as native California plants.

*Centrocoris volxemi* is not reported to have any economic or environmental impacts, although it appears to be widely distributed in the western United States. It is reported to seek shelter around structures and could be a nuisance if it enters homes, for example (Stokes, 2022).

**Worldwide Distribution:** *Centrocoris volxemi* is native to the Old World and has been introduced to the United States. It is reported from **Asia:** Afghanistan, Armenia, Azerbaijan, China, Georgia, Iran, Iraq, Kazakhstan, Kirgizia, Kuwait, Mongolia, Saudi Arabia, Tajikistan, Turkey, Turkmenistan, and Uzbekistan; **Europe:** Russian Federation; **North America:** United States (Idaho and Utah) (Amr, 2021; Blöte, 1935; Dolling, 2006; Ghahari et al., 2012; Linnavuori, 1993; Medetov et al., 2021; Sabuncu et al., 2021; SCAN; Schumm, 2022). It has been reported to be present in Utah since at least as early as 2020 (Schumm, 2022). Numerous research-grade reports from across the western United States, including California (reports from Los Angeles, Kern, Riverside, San Bernardino, and Ventura counties appear to have been correctly identified), Nevada, Arizona, and Oregon (iNaturalist).

**Official Control:** *Centrocoris volxemi* is not known to be under official control anywhere.

**California Distribution:** *Centrocoris volxemi* is not represented by any official records from California (see Uncertainty).

**California Interceptions:** *Centrocoris volxemi* was intercepted on firewood at the border in 2023 and 2026 (California Department of Food and Agriculture).

The risk *Centrocoris volxemi* poses to California is evaluated below.

## Consequences of Introduction:

- 1) **Climate/Host Interaction:** This bug feeds on Russian thistle, which is widely distributed in California. It is widely established in the western United States and probably in California as well. Therefore, it receives a **High (3)** in this category.
  - Low (1) Not likely to establish in California; or likely to establish in very limited areas.
  - Medium (2) may be able to establish in a larger but limited part of California.
  - **High (3) likely to establish a widespread distribution in California.**
- 2) **Known Pest Host Range:** There do not appear to be legitimate (suggestive of feeding) *C. volxemi* host records outside of the Chenopodiaceae, and it is possible that this bug is restricted to the genus *Salsola*. Therefore, it receives a **Low (1)** in this category.
  - **Low (1) has a very limited host range.**
  - Medium (2) has a moderate host range.
  - High (3) has a wide host range.
- 3) **Pest Reproductive and Dispersal Potential:** *Centrocoris volxemi* can presumably fly. Therefore, it receives a **Medium (2)** in this category.
  - Low (1) does not have high reproductive or dispersal potential.
  - **Medium (2) has either high reproductive or dispersal potential.**
  - High (3) has both high reproduction and dispersal potential.
- 4) **Economic Impact:** *Centrocoris volxemi* is not reported to cause direct impacts to its host plants and it is not reported to have any economic impacts. One crop in the host family Chenopodiaceae, spinach, is grown in the general area of the Old World where this bug occurs,

and there are no reports of damage to spinach from it, so this crop does not appear to be at risk. Therefore, it receives a **Low (1)** in this category.

**Economic Impact:**

- A. The pest could lower crop yield.
- B. The pest could lower crop value (includes increasing crop production costs).
- C. The pest could trigger the loss of markets (includes quarantines).
- D. The pest could negatively change normal cultural practices.
- E. The pest can vector, or is vectored, by another pestiferous organism.
- F. The organism is injurious or poisonous to agriculturally important animals.
- G. The organism can interfere with the delivery or supply of water for agricultural uses.

**Economic Impact Score: Low**

- **Low (1) causes 0 or 1 of these impacts.**
- Medium (2) causes 2 of these impacts.
- High (3) causes 3 or more of these impacts.

- 5) **Environmental Impact:** *Centrocoris volxemi* has not been reported to have any environmental impacts in its introduced range in the United States. There are numerous native Chenopodiaceae in California. However, this insect is not known to feed on any native (to California) plants. None of the plants associated in photographs with the iNaturalist reports in the western United States appear to be plants native to California (see Uncertainty, below). Regarding the plant genus *Salsola*, a reported host, there are no native species in this genus in California, but several invasive weeds. Therefore, *C. volxemi* could have a positive environmental impact in California. Therefore, *C. volxemi* receives a **Low (1)** in this category.

**Environmental Impact:**

- A. The pest could have a significant environmental impact such as lowering biodiversity, disrupting natural communities, or changing ecosystem processes.
- B. The pest could directly affect threatened or endangered species.
- C. The pest could impact threatened or endangered species by disrupting critical habitats.
- D. The pest could trigger additional official or private treatment programs.
- E. The pest significantly impacts cultural practices, home/urban gardening or ornamental plantings.

**Environmental Impact Score: Low (1)**

- **Low (1) causes none of the above to occur.**
- Medium (2) causes one of the above to occur.
- High (3) causes two or more of the above to occur.

**Consequences of Introduction to California for *Centrocoris volxemi*: Low (8)**

Add up the total score and include it here.

- Low = 5-8 points**
- Medium = 9-12 points
- High = 13-15 points

**6) Post Entry Distribution and Survey Information:** Although there are numerous iNaturalist reports of *Centrocoris volxemi* in California associated with photographs specimens that appear to have been correctly identified, and it appears that this species is established in California, there are no official records of it here. It receives a **Not established (0)** in this category.

- Not established (0) Pest never detected in California, or known only from incursions.**
- Low (-1) Pest has a localized distribution in California, or is established in one suitable climate/host area (region).

–Medium (-2) Pest is widespread in California but not fully established in the endangered area, or pest established in two contiguous suitable climate/host areas.

–High (-3) Pest has fully established in the endangered area, or pest is reported in more than two contiguous or non-contiguous suitable climate/host areas.

### **Final Score:**

7) The final score is the consequences of introduction score minus the post entry distribution and survey information score: Low (8)

### **Uncertainty:**

It is considered very likely that this species is present in California based on the numerous reports of it here on iNaturalist. Although no reports were found (including on iNaturalist) of it feeding on native California plants, there is uncertainty regarding the potential for *C. volxemi* to feed on native California Chenopodiaceae.

### **Conclusion and Rating Justification:**

Although it is not yet supported by an official sample, *Centrocoris volxemi* is probably established in California. It does not appear to pose a threat to agriculture (this is supported, in part, by the lack of crops among its reported host plants), and it appears unlikely to pose a threat to the environment, based on its widespread distribution in the western United States but lack of reports of either impacts or feeding on plants native to California. For these reasons, a “C” rating is justified.

### **References:**

Amr, Z. S. 2021. The state of biodiversity in Kuwait. IUCN, Gland, Switzerland.

Blöte, H. C. 1935. Catalogue of the Coreidae in the Rijksmuseum van Natuurlijke Historie. Part II. Coreinae, First Part. Zoölogische Mededeelingen 18:181-227.

California Department of Food and Agriculture. Pest and damage record database. Accessed January 7, 2026:

<https://pdr.cdfa.ca.gov/PDR/pdrmainmenu.aspx>

Dolling, W. R. 2006. Family Coreidae Leach, 1815. pp. 43-101 *in* (Aukema, B. and Rieger, C., eds.) Catalogue of the Heteroptera of the Palearctic Region. Volume 5. Pentatomorpha II. The Netherlands Entomological Society, Amsterdam, The Netherlands.

Ghahari, H., Moulet, P., Linnavuori, R. E., and Ostovan, H. 2012. An annotated catalog of the Iranian Coreidae, Rhopalidae, and Stenocephalidae (Hemiptera: Heteroptera: Pentatomorpha: Coreoidea). *Zootaxa* 3519:1-31.

iNaturalist. Accessed February 17, 2026:  
[www.inaturalist.org](http://www.inaturalist.org)

Linnavuori, R. E. 1993. Hemiptera of Iraq. II. Cydnidae, Thaumastellidae, Pentatomidae, Stenocephalidae, Coreidae, Alydidae, Rhopalidae, and Pyrrhocoridae. *Entomologica Fennica* 4:37-56.

Linnavuori, R. E. and Modarres, M. 1998. Studies on the Heteroptera of the Khorasan province in N.E. Iran. I. Nepomorpha, Gerromorpha, Leptopodomorpha, Cimicimorpha (Nabidae, Anthocoridae), and Pentatomorpha (Coreoidea). *Entomologica Fennica* 9:237-241.

Medetov, M. J., Musaev, D. M., Abdullaeva, J. K., and Реймов, К. Д. 2021. Studies on true bugs (Heteroptera: Cimicimorpha, Pentatomorpha) on the Ustyurt Plateau in North Western Uzbekistan. *Volatiles & Essential Oils* 8:11837-11868.

Sabuncu, Y., Mamay, M., and Özgen, I. 2021. Overwintering insect (Arthropoda: Insecta) biodiversity in pistachio orchards of the Middle Euphrates Valley, Turkey. *Harran Tarım ve Gıda Bilimleri Dergisi* 25:185-192.

Schumm, Z. 2022. Tumbleweed-feeding insect new to North America found in Utah. *Utah Pests Quarterly* 16:1-2.

Stokes, B. 2022. *Centrocoris volxemi*—A newly introduced Idaho insect. Accessed February 17, 2026: [https://verso.uidaho.edu/view/pdfCoverPage?instCode=01ALLIANCE\\_UID&filePid=13325596240001851&download=true](https://verso.uidaho.edu/view/pdfCoverPage?instCode=01ALLIANCE_UID&filePid=13325596240001851&download=true)

Zahniser, J. N., Henry, T. J., Schumm, Z. R., Spears, L. R., Nischwitz, C., Scow, B., and Volesky, N. 2022. *Centrocoris volxemi* (Puton) (Hemiptera: Heteroptera: Coreidae), first records for North America and second species of the genus in the United States. *Proceedings of the Entomological Society of Washington* 123:878-888.

Zeinodini, N., Modarres Awal, M., and Karimi, J. 2013. Faunistic and molecular surveys on the pistachio Hemiptera of Rafsanjan region and vicinity, south east Iran. *Journal of the Entomological Research Society* 15:23-31.

## Responsible Party:

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**\*Comment Period: 03/05/2026 – 04/19/2026**

### **\*NOTE:**

You must be registered and logged in to post a comment. If you have registered and have not received the registration confirmation, please contact us at [permits\[@\]cdfa.ca.gov](mailto:permits[@]cdfa.ca.gov).

## Comment Format:

- ❖ Comments should refer to the appropriate California Pest Rating Proposal Form subsection(s) being commented on, as shown below.

### Example Comment:

Consequences of Introduction: 1. Climate/Host Interaction: [Your comment that relates to “Climate/Host Interaction” here.]

- ❖ Posted comments will not be able to be viewed immediately.

- ❖ Comments may not be posted if they:

Contain inappropriate language which is not germane to the pest rating proposal;

Contains defamatory, false, inaccurate, abusive, obscene, pornographic, sexually oriented, threatening, racially offensive, discriminatory or illegal material;

Violates agency regulations prohibiting sexual harassment or other forms of discrimination;

Violates agency regulations prohibiting workplace violence, including threats.

- ❖ Comments may be edited prior to posting to ensure they are entirely germane.
- ❖ Posted comments shall be those which have been approved in content and posted to the website to be viewed, not just submitted.

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**Proposed Pest Rating: C**