

California Pest Rating Profile

***Pellaea stictica* (Dallas): stinkbug**

Hemiptera: Pentatomidae

Pest Rating: C

Comment Period: 11/19/2021 – 01/03/2022

Initiating Event:

Pellaea stictica was found on a *Bauhinia* species at a residence in San Diego County by an arborist on October 15, 2021. The next day, on October 16, 2021, Dr. Ricky Lara (CDFA) found *P. stictica* (again on a *Bauhinia* species) at a residence in Los Angeles County. This insect has not been rated and a permanent pest rating is needed.

History & Status:

Background: *Pellaea stictica* is dark with irregular orange spots. Its development time in the laboratory was reported to be 38 days (Sigueira, 2004). Its reported hosts include Bignoniaceae: *Hadroanthus impetiginosus*; Fabaceae: *Arachis hypogaea*, *Bauhinia* sp., *Inga* sp., and *Senna* spp., including *S. fruticosa*, Oleaceae: *Ligustrum lucidum*; Solanaceae: *Solanum sisymbriifolium* (CDFA; Dellapé, 2021; M. Forthman, pers. comm.; Lopes et al., 1974; Panizzi and Grazia, 2001; Young, 1984). Henry (1984) suggests citrus may be a host, and Juárez et al. (2017) report specimens associated with *Acacia macrocarpa*, *Prunus persica*, and *Azadirachta indica*. *Pellaea stictica* is reported to feed on pods, leaves, and stems of its hosts; on *Bauhinia* sp., it was reported to feed on seed in open pods (M. Forthman, pers. comm; Young, 1984.).

No reports were found suggesting that *Pellaea stictica* is a significant pest.

Worldwide Distribution: *Pellaea stictica* is reported from: Central America (Costa Rica, Honduras, Nicaragua, and Panama); North America (Mexico and the United States, including California and Texas); South America (Argentina, Brazil, Chile, Colombia, Guyana, Paraguay, Perú, and Venezuela) (Arismendi, 2003; Dellapé 2021; Henry, 1984; Kirkaldy, 1909; Lopes et al., 1974; Maes, 1994).

Official Control: *Pellaea stictica* is not known to be under official control anywhere.

California Distribution: *Pellaea stictica* was found at a residence in Los Angeles County in October 2021 by CDFA staff. It was also found and submitted by an arborist from a San Diego County residence in October 2021 (California Department of Food and Agriculture). Records of this species that appear to be accurately identified from Orange and Riverside counties were observed on the web site iNaturalist; these records date back to late 2019 (M. Forthman, pers. comm.).

California Interceptions: *Pellaea stictica* has not been intercepted in California (California Department of Food and Agriculture).

The risk *Pellaea stictica* poses to California is evaluated below.

Consequences of Introduction:

1) **Climate/Host Interaction:** *Pellaea stictica* appear to be somewhat polyphagous, so suitable hosts are presumed to be present in much of California. This insect appears to currently be limited to warmer climates, and it is likely that it will be limited to southern and coastal California.

Therefore, *P. stictica* receives a **Medium (2)** 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:** *Pellaea stictica* is reported to feed on plants in four families. Therefore, it receives a **Medium (2)** 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:** *Pellaea stictica* 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.** Although *P. stictica* is reported to feed on plants in at least four families, some of which contain agricultural crops, and it is widely distributed, no reports were found of this insect being a significant pest anywhere. Therefore, *P. stictica* 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.** *Pellaea stictica* is somewhat polyphagous, so it is possible that it may, at high densities, cause damage to native plants. It is reported to occur at high densities, so it may trigger treatments, for example, by homeowners. Therefore, *P. stictica* receives a **High (3)** in this category.

Environmental Impact: A, D

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: High (3)

- 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 *Pellaea stictica*: Medium (10)

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:** *Pellaea stictica* is established in southern coastal California. It receives a **Low (-1)** 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: Medium (9)

Uncertainty:

There is uncertainty regarding the potential of this insect to cause damage to California crops.

Conclusion and Rating Justification:

Pellaea stictica is a stink bug that appears to pose little risk to California. It is not known to be a significant pest anywhere and it is already established in southern California. For these reasons, a C rating is justified.

References:

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Henry, T. J. 1984. New United States records for two Heteroptera: *Pellaea stictica* (Pentatomidae) and *Rhinacloa pallidipes* (Miridae). *Proceedings of the Entomological Society of Washington* 86:519-520.

Lopes, O. J., Link, D., and Basso, I. V. 1974. Pentatomídeos de Santa Maria – Lista preliminar de plantas hospedeiras. *Revista do Centro de Ciências Rurais* 4:317-322.

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Responsible Party:

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***Comment Period: 11/19/2021 – 01/03/2022**

***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.

Pest Rating: C