CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

California Pest Rating Proposal

***Pseudischnaspis bowreyi* (Cockerell): Bowrey scale**

Hemiptera: Diaspididae

Current Rating: Q

Proposed Rating: A

Comment Period: 12/17/2021 – 01/31/2022

Initiating Event:

Pseudischnaspis bowreyi is occasionally intercepted on plant material. It has not been rated. A pest rating proposal is needed.

History & Status:

Background: *Pseudischnaspis bowreyi* is known to feed on at least the following plants: Agavaceae: Agave sp.; Annonaceae: *Rollinia occidentalis*; Apocynaceae: *Aspidosperma quebracho blanco*; Arecaceae: *Chrysalidocarpus lutescens*; Asparagaceae: *Dracaena* sp.; Bignoniaceae*: Jacaranda mimosifolia*; Celastraceae: *Maytenus* sp.; Lauraceae: *Persea americana*; Moraceae: *Ficus* sp.; Musaceae: *Musa paradisiaca*; Myrtaceae: *Psidium guajava*; Oleaceae: *Olea europaea*; Orchidaceae; Rhamnaceae: *Ziziphus mistol*; Rosaceae: *Prunus* sp., *Rosa* sp.; Rutaceae: *Citrus* sp.; Salicaceae: *Salix humboldtiana*; Simaroubaceae: *Castela coccinea* ; Vitaceae: *Vitis* sp. (Amún and Claps, 2015; Evans et al., 2009; Gowdey, 1921; Miller et al., 1984; Peña et al., 1999; Peronti et al., 2001; Zamudio and Claps, 2005). Additional hosts are listed by Miller et al. (1984) and García Morales et al. (2016). Although specific information on damage was not found, *P. bowreyi* was reported to be a pest of guava and roses in Florida and of olive in Peru (Deckle, 1965; Guerrero and Torres, 1970; Peña et al., 1999).

Worldwide Distribution: *Pseudischnaspis bowreyi* is reported from Caribbean: Barbados, Puerto Rico, Trinidad and Tobago, United States Virgin Islands; Central America: Belize, Guatemala, Honduras, Panama; North America: Mexico, United States (Florida); South America: Argentina, Brazil, Colombia, Peru (Evans et al., 2009; Guerrero and Torres, 1970; Kondo and Muñoz, 2016; Miller et al., 1984; Peña et al., 1999; Peronti et al., 2001; Wei et al., 2021; Wolcott, 1941; Zamudio and Claps, 2005).

Official Control: *Pseudischnaspis bowreyi* is a quarantine pest in Mexico (EPPO Global Database).

California Distribution: *Pseudischnaspis bowreyi* is not known to be present in California.

California Interceptions: *Pseudischnaspis bowreyi* has been intercepted on plant material from Florida, Hawaii, and Costa Rica (California Department of Food and Agriculture).

The risk *Pseudischnaspis bowreyi* poses to California is evaluated below.

Consequences of Introduction:

1) **Climate/Host Interaction:** *Pseudischnaspis bowreyi* is polyphagous and suitable host plants are likely present over much of California. It appears, based on its known distribution, that it may be able to establish over much of central and southern California. Therefore, *P. pseudischnaspis* 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:** *Pseudischnaspis bowreyi* is polyphagous. Therefore, it receives a **High (3)** 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:** *Pseudischnaspis bowreyi* can be moved with infested plant material. 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**. *Pseudischnaspis bowreyi* is reported to be a pest of rose, guava, and olive, and *Prunus*, avocado, and citrus are among the known host plants. This scale could increase production costs of nursery plants, citrus, avocado, and stone fruit. It is considered a quarantine pest in Mexico, so trade could also be impacted. Therefore, it receives a **Medium (2)** in this category.

Economic Impact: B, C

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: Medium

– 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**. *Pseudischnaspis bowreyi* feeds on a wide variety of plants. It could impact native plants in warmer parts of California. It could also trigger treatments and impact ornamental plantings. Therefore, *P. bowreyi* receives a **High (3)** in this category.

Environmental Impact: A, D, E

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 *Pseudischnaspis bowreyi*: High (13)

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:** *Pseudischnaspis bowreyi* is not known to be established in California. 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: High (13)

Uncertainty:

There are no ongoing surveys for *P. bowreyi*, so it is possible that this scale is already established in California. It is possible that it may not be able to thrive in California for climatic reasons. Lastly, little specific information was found on damage caused by this scale.

Conclusion and Rating Justification:

Pseudischnaspis bowreyi is a polyphagous scale that may pose a threat to a wide variety of native, ornamental, and crop plants in California. It is not known to be established in this state. For these reasons, an “A” rating is justified.

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Responsible Party:

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*Comment Period: 12/17/2021 – 01/31/2022

*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.

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.

Proposed Pest Rating: A