

## California Pest Rating Proposal

### *Notallus nerii* Keifer: an oleander mite

Acari: Eriophyidae

Current Rating: Q

Proposed Rating: C

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Comment Period: **05/31/2024 – 07/15/2024**

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#### Initiating Event:

*Notallus nerii* was found on an oleander plant in a residential area in Mendocino County in August 2023. A pest rating proposal is needed.

#### History & Status:

**Background:** *Notallus nerii* is reported to occur on oleander (Bahirai et al., 2021). It is considered a vagrant and is not known to cause galls. It is not known to cause damage to plants.

**Worldwide Distribution:** **Africa:** Kenya (Nairobi); **Asia:** China, Iran (Khorramabad and Lorestan);

**North America:** United States (California) (Abou-Awad and Elbanhawy, 1991; Bahirai et al., 2021; California Department of Food and Agriculture, 2024; Ren et al., 2021).

**Official Control:** *Notallus nerii* is not known to be under official control.

**California Distribution:** *Notallus nerii* was found in a residential area in Mendocino County, California in 2023 (California Department of Food and Agriculture, 2024). The oleander plants were reported to have likely been in the ground for at least 10 years.

**California Interceptions:** *Notallus nerii* has not been intercepted in California (California Department of Food and Agriculture, 2024).

The risk *Notallus nerii* poses to California is evaluated below.

### **Consequences of Introduction:**

- 1) **Climate/Host Interaction:** *Notallus nerii* occurs on oleander, which is commonly planted in California. The areas it is reported to occur in include an area in Iran with a Mediterranean climate. In addition, it is already known to be present in Mendocino county, California. Therefore, *N. acerii* 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:** *Notallus nerii* is only known to feed on one species of plant. 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:** *Notallus nerii* is not known to have any special reproductive or dispersal potential. Therefore, it receives a **Low (1)** 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.** This mite is not known to cause impacts to its host plant, oleander. 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.** *Notallus nerii* is not known to cause impacts to its host plant. Therefore, *N. nerii* 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 *Notallus nerii*: Low (7)**

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:** *Notallus nerii* is present in Mendocino County, 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: Low (6)

### **Uncertainty:**

*Notallus nerii* may be more widespread in California. It is a vagrant mite that is not known to cause impacts to its host plant, so it could easily go unnoticed. This mite may have a broader host range than is currently known; if so, it is possible it could cause impacts to California native plants.

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

*Notallus nerii* is a mite that is only known to feed on oleander. This plant is an important ornamental in California, but the mite is not known to cause impacts. *Notallus nerii* is already present in Mendocino County. For these reasons, a “C” rating is justified.

### **References:**

Abou-Awad, B. A., Elbanhawy, E. M. 1991. New mites of the family Eriophyidae from Kenia (Acari: Eriophyoidea). *Acarologia* 32:330-333.

Bahirai, F., Jafari, S., Lotfollahi, P., Shakarami, J. 2021. Eriophyoidea (Acari: Trombidiformes) of the Lorestan Province and first record of *Aceria querci* (Garnam, 1883) outside of the USA. *Persian Journal of Acarology* 10:111-119.

California Department of Food and Agriculture. Pest and damage record database. Accessed May 13, 2024:

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

Ren, L., Guan, K., Tan, M., Yang, J., Wang, G. 2021. Description of four new species, two new records, and mitochondrial COI gene of eriophyoid mites from Nanning, China (Acari: Eriophyoidea). *Systematic & Applied Acarology* 28:1195-1223.

### **Responsible Party:**

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**\*Comment Period: 05/31/2024 – 07/15/2024**

### **\*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**