

Pacific Pests, Pathogens and Weeds - Online edition

Myrtle rust (476)

Summary

- Worldwide distribution. In Australia, New Caledonia, New Zealand.
- Serious fungal disease of Myrtaceae causing spots, distortions, defoliation, dieback and death depending on species. Major threat to native environments.
- Pustules (uredinia) on foliage and flowers, sometime purplish borders, producing masses of vivid yellow spores (urediniospores); occasionally, another thick-walled survival spore (teliospores) forms in the pustules on underside of leaves.
- Spread: spores on the wind; rain splash; on clothing, vehicles, animals, and the trade in wood and live plants.
- Biosecurity: difficult because wind dispersed, but regulation of movement of plant hosts important.
- Cultural control: regulate plant nurseries; avoid replanting susceptible species; hygiene measure (clothing, tools, vehicles) avoiding transfer of spores to healthy areas.
- Chemical control: strobilurin and sterol biosynthesis inhibitor (SBI) fungicides registered in Australia. Copper and mancozeb fungicides also likely effective.

Common Name

Myrtle rust. It has other names based on the hosts infected, e.g., guava rust, eucalyptus rust, ohī'a rust.

Scientific Name

Austropuccinia psidii; previous names are *Puccinia psidii*, and *Uredo rangelii*. There are several strains or races that show different reactions on a range of host plants.

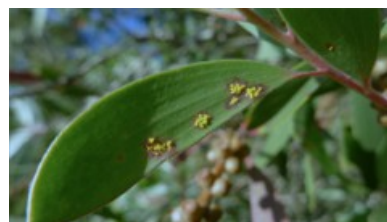


Photo 1. Myrtle rust, *Austropuccinia psidii*, on broad-leaved paperbark, *Melaleuca quinquenervia* (NSW, Australia),



Photo 2. Powdery spore masses (urediniospores) of *Austropuccinia psidii* (as *Puccinia psidii*) on paperbark tree (Hawaii).



Photo 4. Red-purple spots, myrtle rust, *Austropuccinia psidii* (as *Puccinia psidii*), on paperbark tree (Hawaii).



Photo 3. Myrtle rust, *Austropuccinia psidii* (as *Puccinia psidii*), forming spores (urediniospores), on the calyx tube around the ovary of *Myrtus communis* (Hawaii).

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Information from Myrtle rust (2015) Prime Fact. Department of Primary Industries. NSW Government. (https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0011/573707/primefact-myrtle-rust.pdf); and Myrtle rust (undated) Department of Primary Industries. NSW, Australia. (<https://www.dpi.nsw.gov.au/biosecurity/plant/insect-pests-and-plant-diseases/myrtle-rust>); and Myrtle rust (2019) Business Queensland. Queensland Government. (<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/priority-pest-disease/myrtle-rust>); and Invasive Species Council (undated) Environmental impacts of myrtle rust. (https://invasives.org.au/wp-content/uploads/2014/02/fs_myrtle_rust.pdf); and from CABI (2019) *Austropuccinia psidii* (myrtle rust). Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/45846>). Photo 1 John Tann Myrtle rust on broad-leaves paperbark. Photos 2&4 Scott Nelson Paperbark tree: Myrtle rust. Photo 3 Forrest & Kim Starr, Starr Environmental. (File:Starr 080326-3705 Myrtus communis.jpg).

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