New Diseases in the North Bay

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Boxwood Blight

Calonectria pseudonaviculata
(=Cylindrocladium buxicola, anamorph*)*

Black Longitudinal Lesions

Found on east Coast in 2011

Images: Kathy Kosta, CDFA

Easily moved by touch
Sweeps through plantings quickly
Humid and rainy conditions promote spread

Images: Kathy Kosta, CDFA

The fungus grows in leaves and stems.
Leafy debris harbors the pathogen
and infests the soil for at least 5 years.

Images: Kathy Kosta, CDFA

Other Diseases of Boxwood With Similar Symptoms

- *Volutella* – branches +

- Winter Browning

Phomopsis dieback – tips, small black dots

Images: Kathy Kosta, CDFA

If you see this, call your Local Agricultural Commissioner

Look for the black stem lesions!

Images: Kathy Kosta, CDFA


Image: Mary Ann Hansen, Virginia Tech
5507242

Treatment

Take extreme caution in disposal

Wear disposable gloves, booties and suits if possible

Double bag and safely transport to the landfill

Sanitize all equipment used

Slide: Kathy Kosta, CDFA

Boxwood Blight Identification Guide

INITIAL SYMPTOMS

Dark leaf spots (left) and spores of the boxwood blight fungus (*Calonectria pseudonaviculata)* on lower leaf surfaces (right).

Zonate leaf lesions.

Black stem lesions.

LANDSCAPE AND NURSERY SYMPTOMS

Foliar and stem symptoms result in severe defoliation leading to decline and death of boxwood plants. Boxwood blight affects all species of boxwood, pachysandra, and sarcococca.

Infected boxwood and pachysandra in the landscape (left) and leaf spots on pachysandra (right).

Stem lesions on pachysandra (left) and fungal spores on lower surface of pachysandra leaves (right).

All photos from CAES.
Funding from FY2013 Farm Bill, USDA-APHIS.

For more information:
www.ct.gov/caes/boxwoodblight
www.boxwoodblight.org

CAES
The Connecticut Agricultural Experiment Station
Putting Science to Work for Society since 1875

Lots of Info on the Internet

[PDF] Best Management Practices for Boxwood Blight in the ... - Virginia Te...
https://pubs.ext.vt.edu/PPWS/PPWS-29/PPWS-29-pdf.pdf
tria pseudonaviculata1, is a serious fungal disease of boxwood that results in defoliation and decline of susceptible boxwood. In Virginia **boxwood blight** was first ...

[PDF] Prevention and Management of Boxwood Blight - NC Cooperative ...
https://www.ces.ncsu.edu/wp-content/uploads/.../**Boxwood-Blight**-Guide-01.03.13.pdf
Common names of the disease: **Boxwood blight**, box blight, Cylindrocladium box ... Scientific name: Most literature refers to the fungus that causes box blight as ...

[PDF] Boxwood Blight--A New Disease for Connecticut and the US - CT.gov
www.ct.gov/.../**boxwood_blight-_a_new_disease_for_connecticut_and_the_u.s.__12-**...
by SM Douglas - Cited by 3 - Related articles
was tentatively identified as **boxwood blight**, caused by the fungus Cylindrocladium buxicola (syn. C. pseudonaviculatum). Since this fungus had not been ...

Boxwood blight - Wikipedia
https://en.wikipedia.org/wiki/**Boxwood_blight**
Boxwood blight is a widespread fungal disease affecting boxwoods caused by Cylindrocladium buxicola (also called C. pseudonaviculatum). Contents. [hide].
History · Hosts · Symptoms and disease process · Prevention and treatment

Boxwood Blight | Fine Gardening
www.**finegardening.com/boxwood-blight**
Since the first confirmed case in the United States about a year ago, **boxwood blight** (caused by Cylindrocladium pseudonaviculatum) has spread to 10 states ...

Boxwood Blight-Cylindrocladium buxicola - Saunders Brothers
www.**saundersbrothers.com/index.cfm/fuseaction/home.showpage/.../index.htm**
Boxwood Blight Update. We hope everyone is having a great winter, but more importantly, we hope everyone is ready for spring to start very soon. We are back ...

Image: Kathy Kosta, CDFA

Laurel defoliation

- Calonectria sp.
- Symptoms
  - Spotting / blackening leaves on vigorous bay laurel
  - Extensive leaf drop / defoliation
  - Only reported in rainy years
    - Newly introduced?
- Confirmed from San Mateo and Santa Cruz
- Trees with similar symptoms seen in Marin & Sonoma Counties in 2017

Strawberry Tree

- Arbutus ‘Marina’
- Arbutus unedo
- 3 Species of Phytophthora
- Cankers
  - Eutypa?

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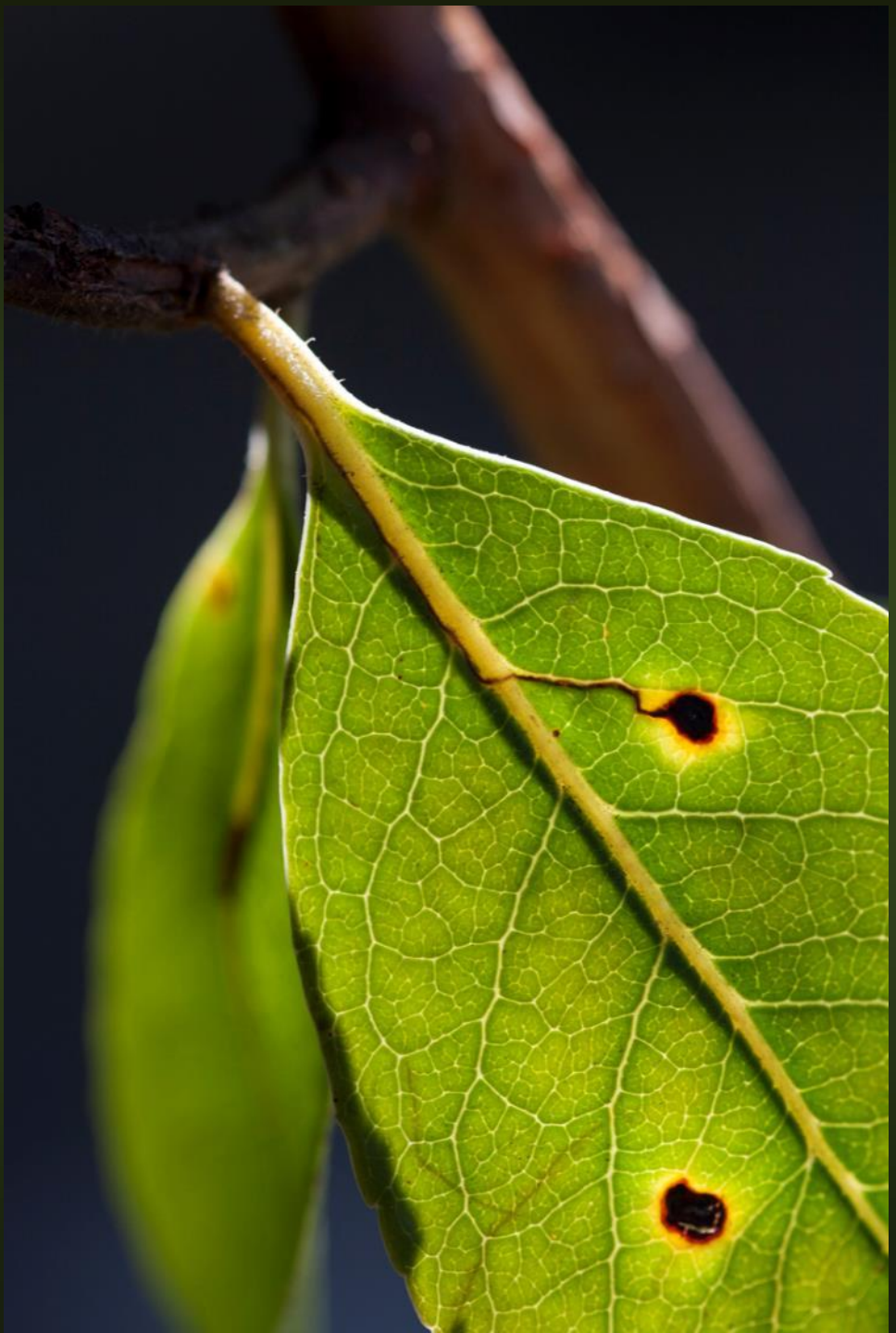

Ericaceous twig borer

- Starts as a leaf miner
- Moves down midvein to petiole
- Becomes a cambium miner
- Microlepidopteran
  - (small moth)
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  - Arctostaphylos spp.
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Ericaceous twig borer

- Lifecycle:
  - Native hosts:
    - Single generation?
  - Strawberry trees
    - Two generations
  - Infestation correlates with blooms
  - Cambium mines often intersect
    - Multiple larvae
- Genetic sequencing in progress
- Tentative ID: Nepticulidae

Ericaceous twig borer

- Larvae:
  - Unique head capsule
    - Super delicate!
  - 2-4mm long
  - Consistency of jello
- Known distribution:
  - SF North Bay
    - Marin, Napa, Sonoma

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Phytophthora ramorum

- New additions to the host list
- Not “typical”
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Image: CDFA, Suzanne Latham

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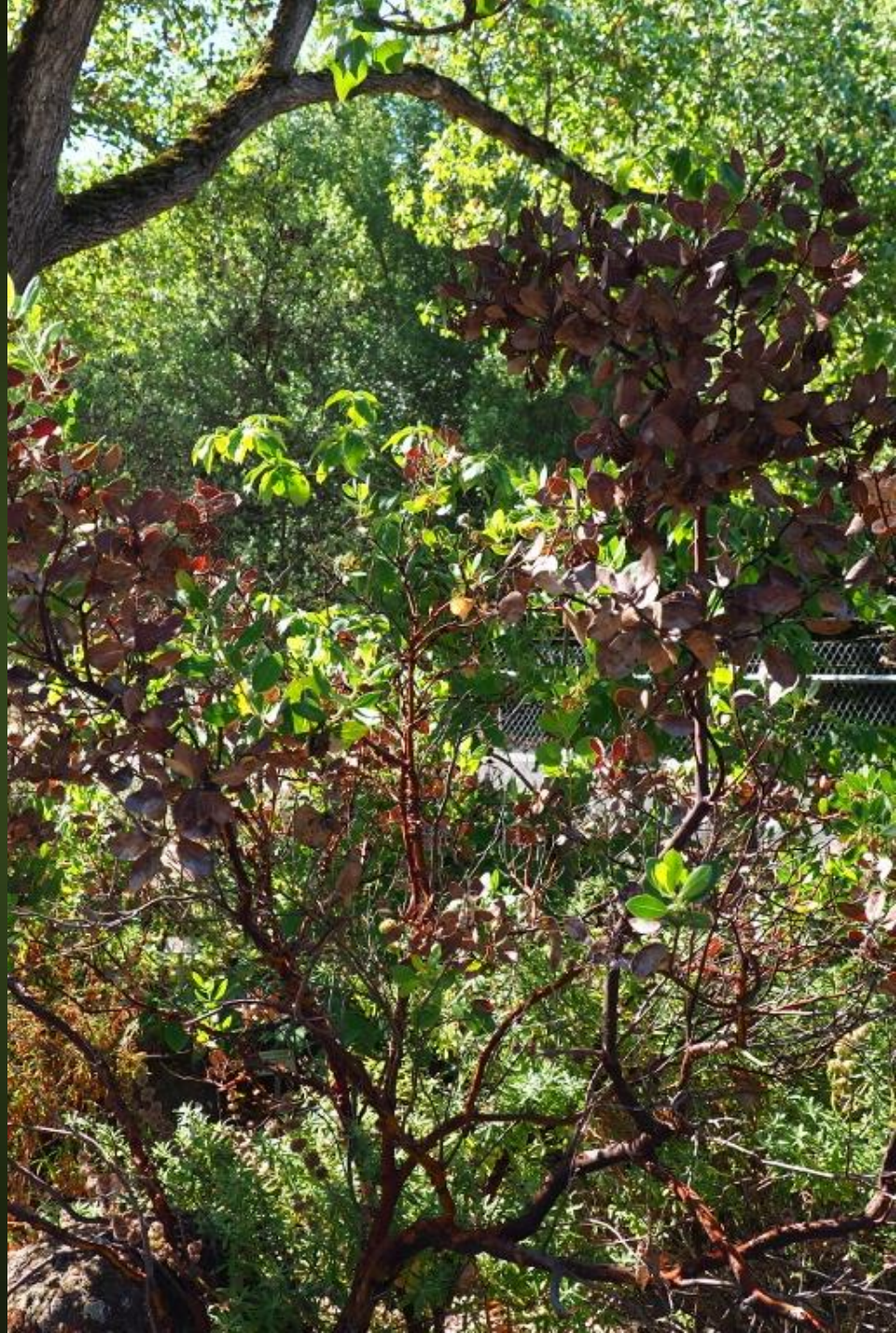

Image: Suzanne Latham, CDFA

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Asian Citrus Psyllid (ACP)

- *Diaphorina citri*
- ~4mm long (1/6 inch)
- Head down pose
- Curlycue wax filaments
- Carries Huanglongbing (HLB) disease

Asian Citrus Psyllid (ACP)

- ACP found recently in Pacifica (<20), San Jose (>25) Stockton (<10), Napa (<10), and others
- If you suspect you've found it, please report immediately
- More info: http://www.ipm.ucdavis.edu/PMG/C/D-CI-CAND-FF.001.html

Tamarixia radiata

- Biocontrol introduced into Florida and California
- Still evaluating efficacy

Photos courtesy CSIR

Image: qbelab.ucdavis.edu

Huanglongbing (HLB)

- *Candidatus liberibacter asiaticus*
- Bacterial pathogen vectored by ACP
- Fatal to citrus trees
- Brought Florida's citrus industry to its knees
  - Loss of >8,000 jobs
  - 2.72 billion $

Acknowledgements

- Suzanne Latham, CDFA: *Calonectria* and some *P. ramorum* photos
- Kathy Kosta, CDFA: Boxwood blight photos

- Presentation will be on-line at: http://ucanr.edu/MarinIPM
- Steven Swain: svswain@ucanr.edu
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