

Global collaboration: The International Plant Sentinel Network

David Gale

Manager, Data Management and
Surveillance Communities (PHA)

Katherine O'Donnell

Head of Seed Conservation and
Plant Health (BGCI)

Improving national biosecurity outcomes through partnerships



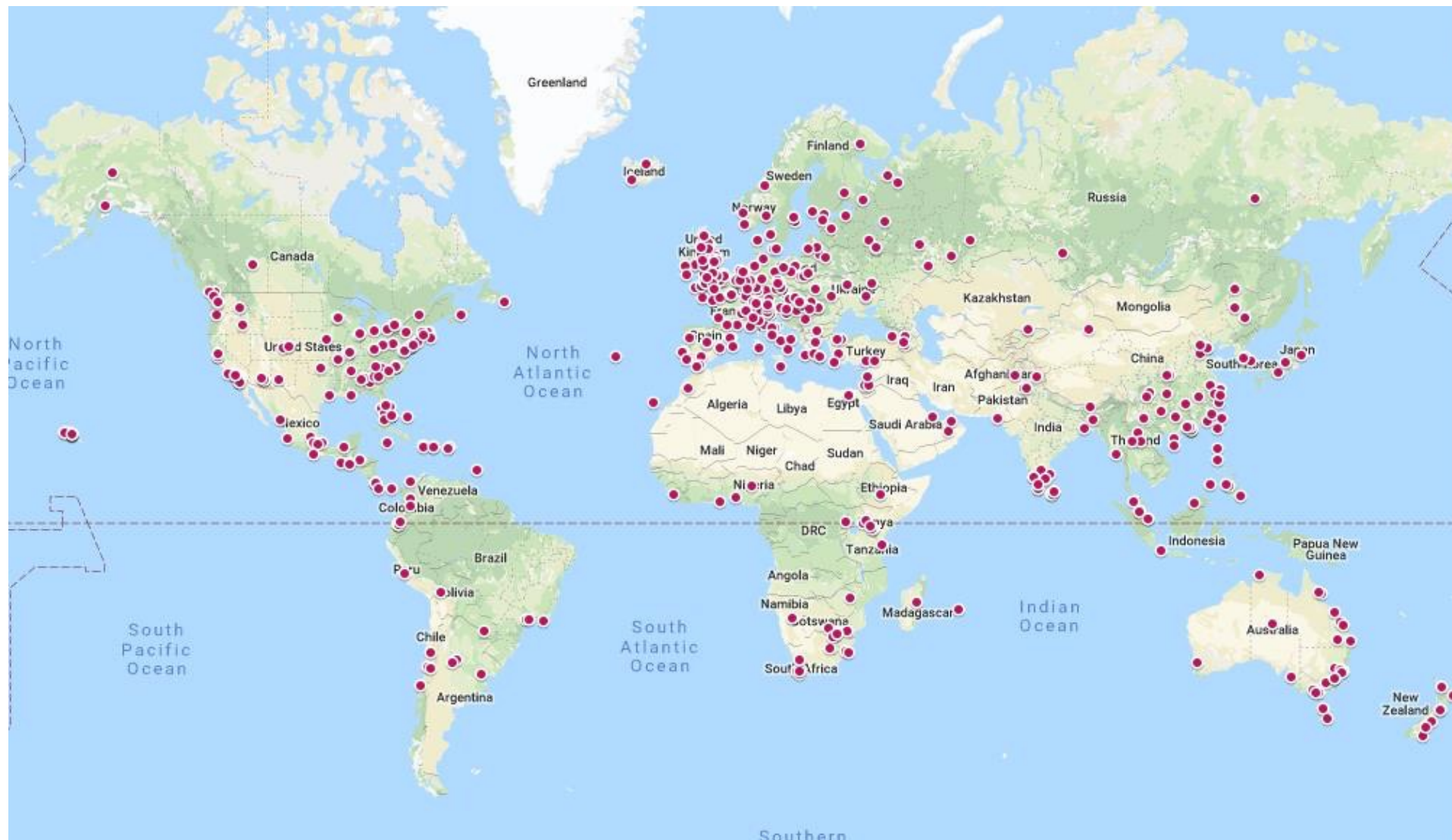
21
years

For context

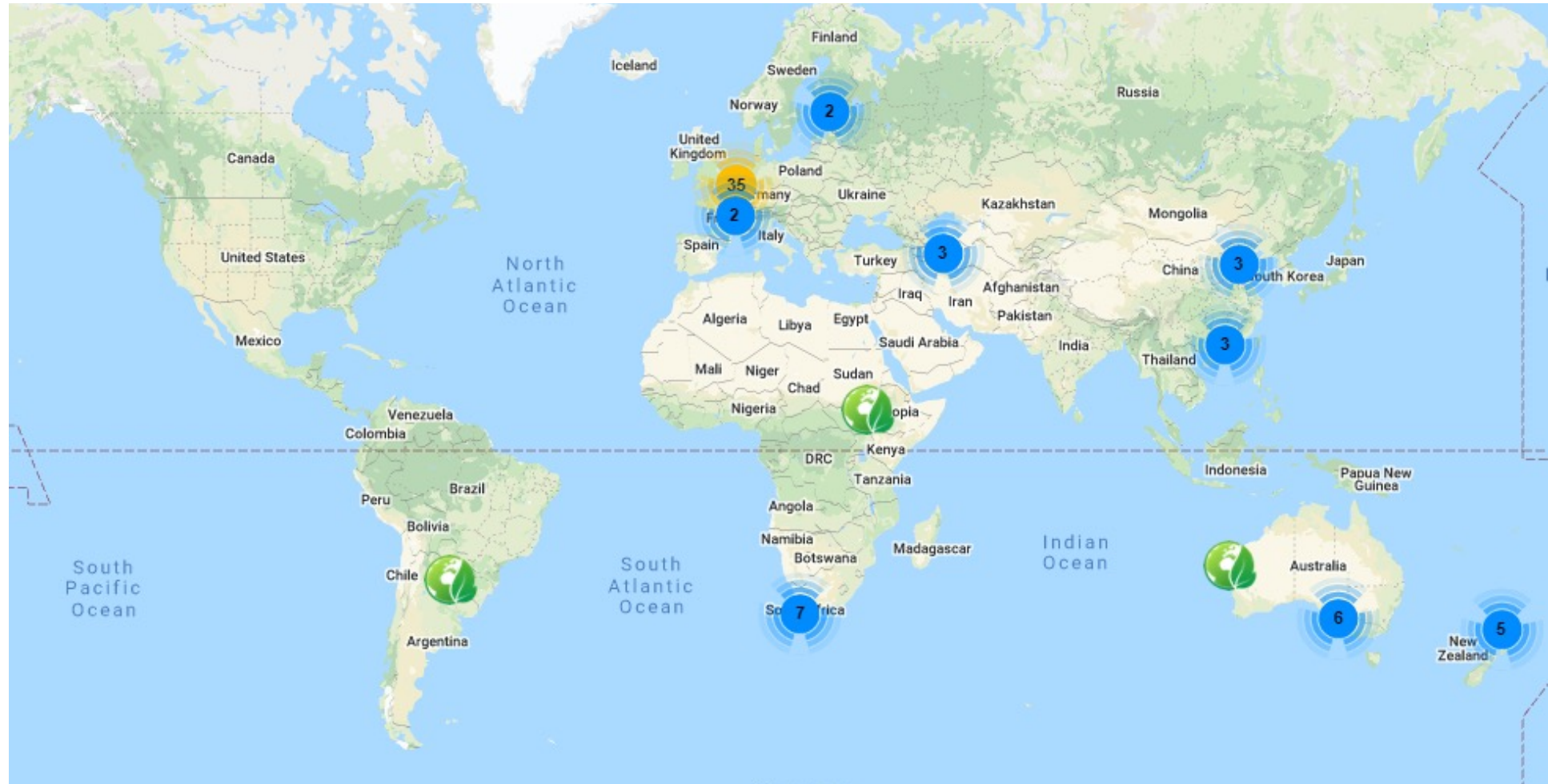
- Plant Health Australia (PHA)
 - The national coordinator of the government – industry partnership for plant biosecurity in Australia.
 - Not-for-profit, member-based company
 - Working in partnership with industry, governments, researchers and others to facilitate and manage improvements in biosecurity policy and practice across Australia's plant industries
- Botanic Gardens Conservation International (BGCI)
 - Worldwide botanic garden networking organisation
 - Established in 1987
 - Headquartered at Royal Botanic Gardens Kew, UK
 - Offices in USA, Kenya, Singapore and China

The International Plant Sentinel Network

- A global network of botanic gardens, arboreta, plant health institutes and National Plant Protection Organisations (NPPOs) coordinated by BGCI.
- Provides an early warning system for new and emerging insect pest and pathogen threats
- Plants growing outside their native range can be monitored for damage by pests and pathogens which are native or naturalised to the 'host' country
- Information collated on the risk these organisms could pose if introduced into the plant's native range



Supplied by BGCI



Supplied by BGCI

Australia's contribution to the IPSN

1. *Quercus robur/petraea* – English/Irish Oak
2. *Pinus sylvestris* – Scots Pine
3. *Rosa spp.* - Roses
4. *Picea sitchensis* – Sitka spruce
5. *Fagus sylvatica* - European beech

International Plant Sentinel Network
Plant Health Checker - Step 1

Name of Botanic Garden / Arboretum: *Kew Gardens*
Country: *UK*
Address:

Name of IPSN contact: *K. Marfleet*
Survey carried out by: *K. Marfleet*
Date of survey: *06.06.19*
Best description of season: *Summer*
Reason for surveying this particular individual: *Deadwood observed*

Plant details
Species (Cultivar): *Platanus Orientalis*
Accession number: *1985-5454*
Native to: *C.E. Europe*

General description (please tick)
Generally healthy ☒ Some damage ☒
Dying ☒ Dead ☒
Any recent changes in health or overall look:

General description of environment
Any management issues (e.g. irrigation, soil pH, sun, bleaching) or any recent use of pesticides/fungicides/herbicides: *N/A, maybe close to other trees*
Description of environment (focusing on recent changes and individuals in close proximity): *Between 2 large trees, competition?*

For each section of the plant give it a rating dependent on how healthy it appears:
Red (R) = In very poor health and of imminent concern due to significant damage potentially resulting in death of individual
Orange (O) = Not currently a concern but could develop; should be checked frequently to monitor progress
Green (G) = As would be expected on a 'healthy plant'
Black (X) = Absent/not applicable
Where an orange or red rating is given, ensure you give a description of why you've given it this rating in notes.

Notes: *Deadwood + peeling bark on branches.*

1.) Crown
R ☐ O ☐ G ☒ X ☐

2.) Flowers / Fruits (circle)
R ☐ O ☐ G ☒ X ☐

3.) New growth
R ☐ O ☐ G ☒ X ☐

4.) Leaves
R ☐ O ☐ G ☒ X ☐

5.) Branches
R ☐ O ☐ G ☒ X ☐

6.) Base and Roots (if exposed)
R ☐ O ☐ G ☒ X ☐

What do you think is wrong with this plant?
(give an indication of how sure you are of this diagnosis)
1.) Is a re-survey required? ☒ 2.) If yes, in what timeframe (include a suggested date):

3.) Should this be escalated to an appropriate staff member to carry out STEP 2? ☒ 4.) Name of person escalated to (if applicable): *K. Marfleet* 5.) Date: *06.06.19*

Reference/file name of any photographs taken:

Copyright © 2016 Botanic Gardens Conservation International. All Rights Reserved.

Australia's contribution to the IPSN



Mohammed El Damir,
Bugwood.org



Mary Ann Hansen, Virginia
Polytechnic Institute and
State University,
Bugwood.org



Steven Conaway,
Greenwich Land Trust,
Bugwood.org



NSW DPI



W de Beer, FABI
University of Pretoria

The Biosecurity, Health, Trade Nexus

- With international trade constantly increasing there is increasing risk of moving insect pests and pathogens quickly around the globe on host plants and as hitchhikers.
- Through engagement with botanic gardens in Australia and globally there is an opportunity to get a 'heads-up' on which pests might cause significant issues to various plant species.
- Thinking ahead, by incorporating botanic gardens into projects there is an opportunity for mutual development of skills and knowledge on insect pests and pathogens for the benefit of Australia and the partner country

David Gale

Manager, Data Management and Surveillance Communities (PHA)

dgale@phau.com.au / (02) 6215 7718

Katherine O'Donnell

Head of Seed Conservation and Plant Health (BGCI)

katherine.o'donnell@bgci.org



Plant Health
AUSTRALIA

21
years