

Managing Pathways: Hawaii

Montana Invasive Species Summit



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Hawaii Invasive Species Council



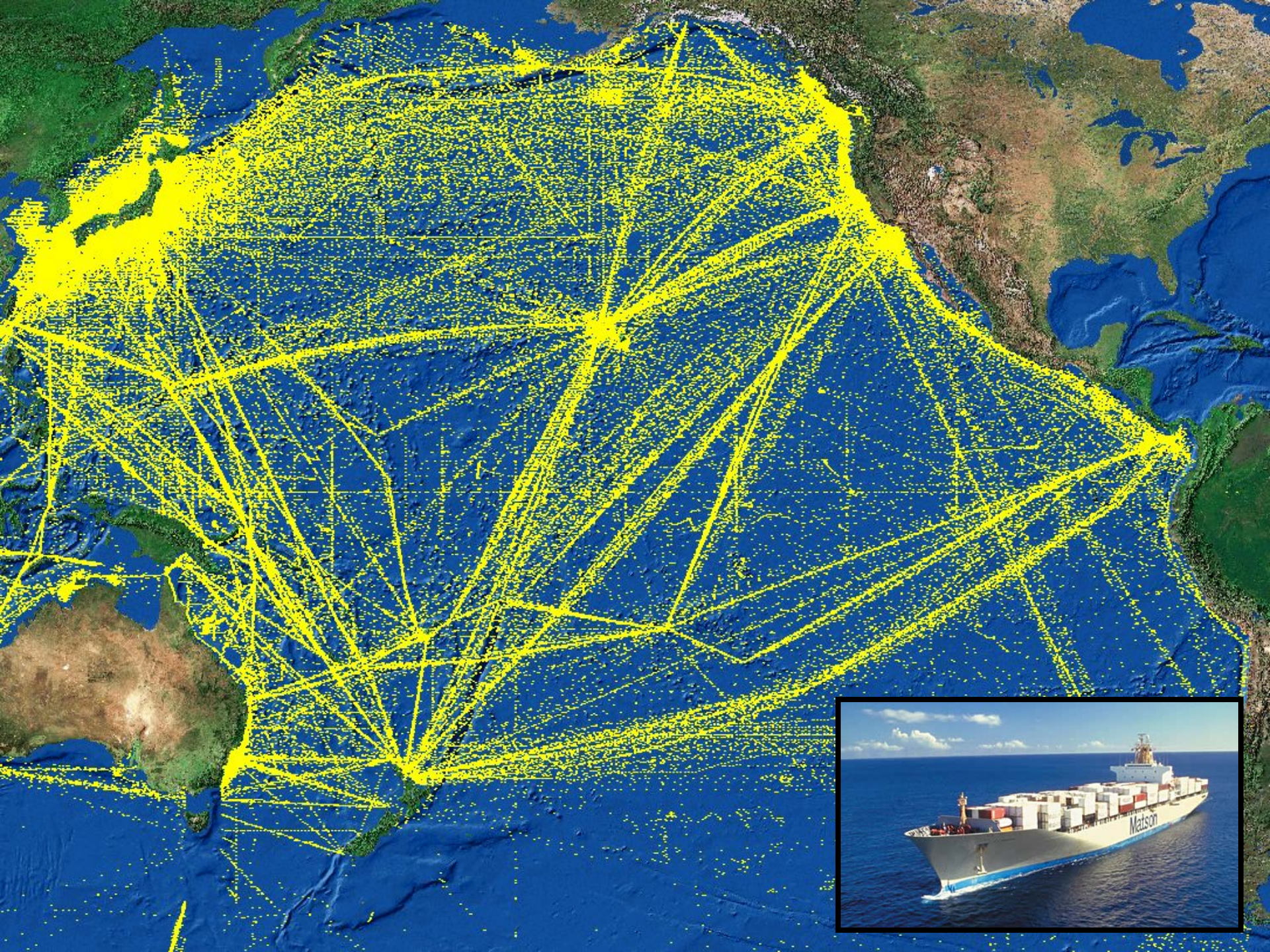


Google earth



Data SIO, NOAA, U.S. Navy, NGA, GEBCO
US Dept of State Geographer

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Image Landsat



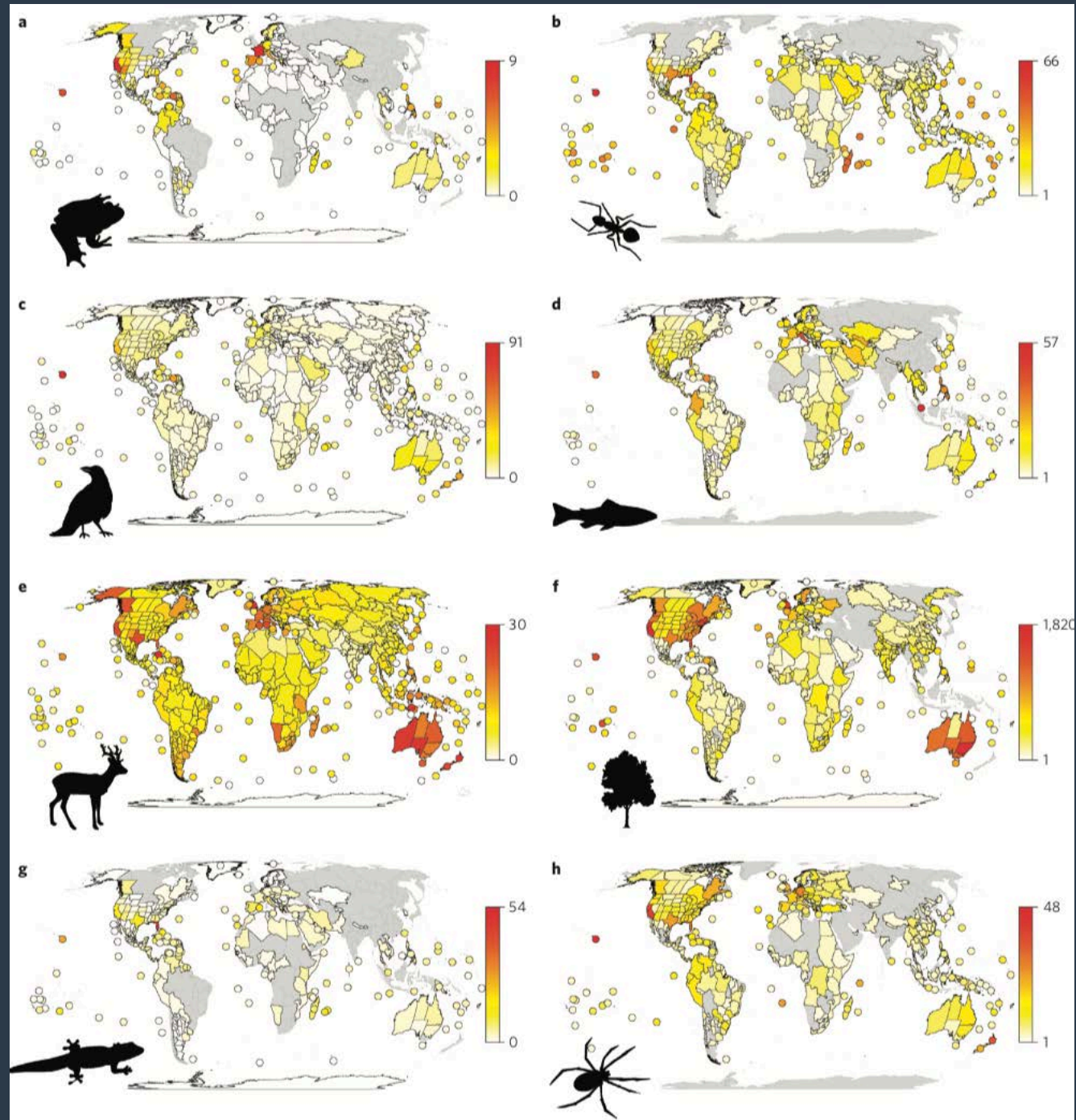


According to the International Air Transport Association, by 2036 half of all air traffic will be in the Pacific region.

Source: Rockwell Collins

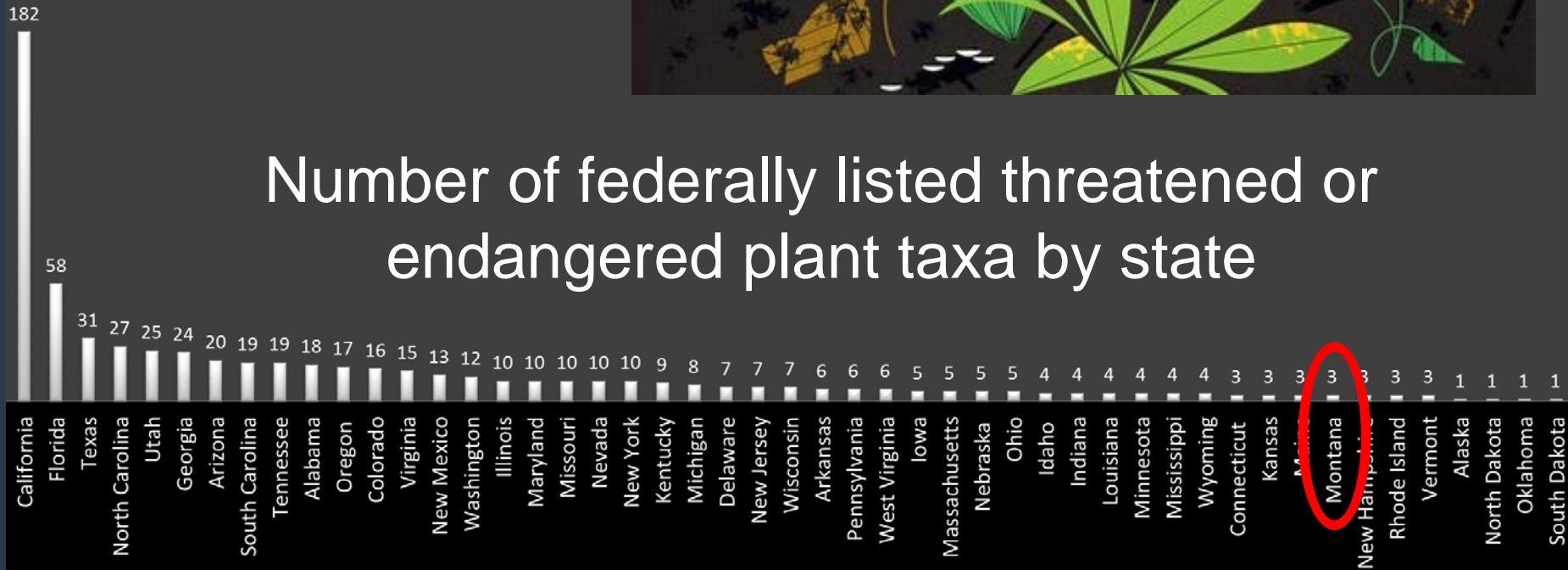
Global hotspots and correlates of alien species richness across taxonomic groups

Dawson et al. 2017,
Ecology & Evolution,
1(186)





Number of federally listed threatened or endangered plant taxa by state

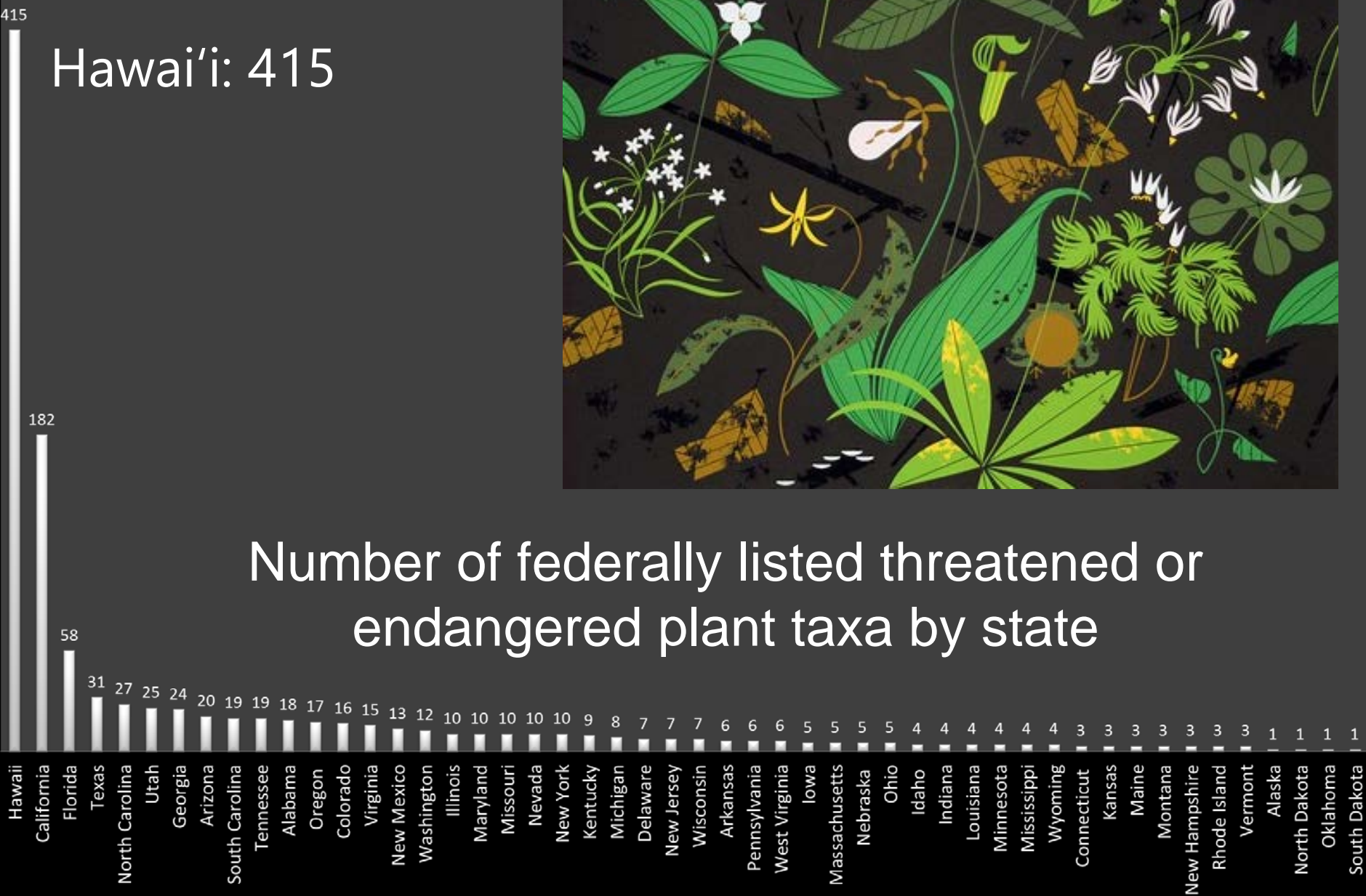


*data compiled from the US Fish and Wildlife Service website on 7/17/2014

Hawai'i: 415



Number of federally listed threatened or endangered plant taxa by state



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Pathways vs Species

- Many species, few pathways
- Don't always know what species will arrive
- Species lists are quickly outdated
- Species characteristics define risk *within* different pathways, but pathway risk is primary



Pathway Problems

- Kahului Airport Risk Assessment (2002)
 - Blitz inspections ahead of runway expansion
 - Assessed pathways:
 - Passenger carry-ons & aircraft cabins
 - Checked baggage
 - 100% inspection of ag air cargo



Pathway Problems

Passenger carry-ons & cabins

- Ag commodities found in 81% of flights
- Passengers failed to declare 16% of items
- 11 of 771 items (1.4%) infested
- Pathway considered low risk



Pathway Problems

Checked baggage

- Detector dogs found 1,747 items on 546 flights, mostly apples, bananas, oranges
- 4 restricted commodities found, one heavily infested
- Passengers failed to declare 71% of items



Pathway Problems

Ag products in air cargo

- 24% of products infested
- 49% of products infested more than 10% of the time
- 279 insect species intercepted, 125 (45%) not known to occur in Hawaii
- Pathway designated high risk



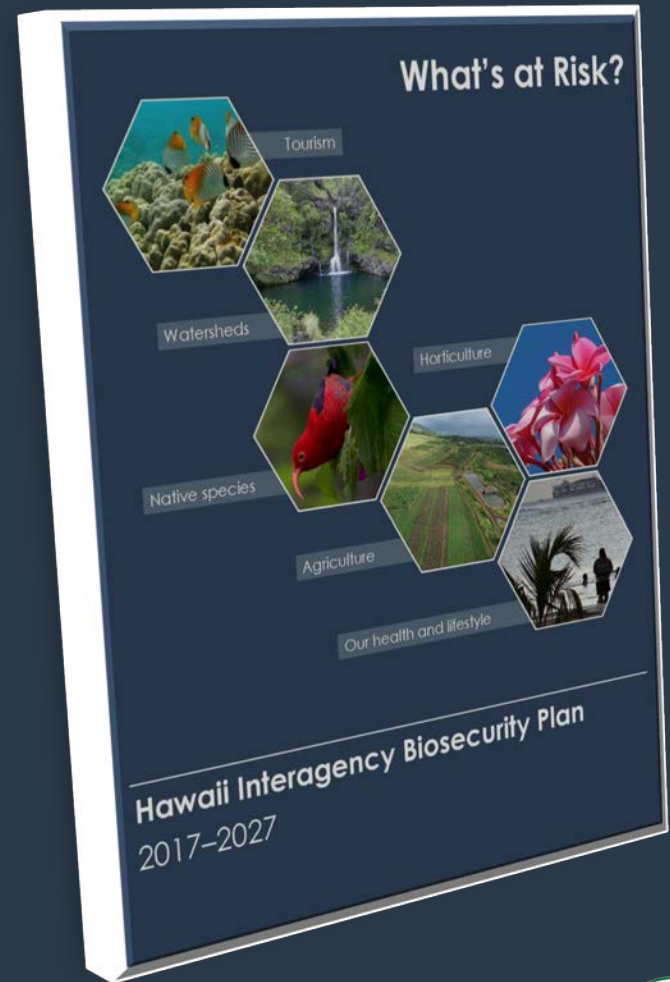
Pathway Problems

- Kahului risk assessment results
 - 10.8 pest interceptions per day
 - 5x the statewide rate from 1995-2001
 - Resulted in development of joint State-Federal inspection facility
- Challenges
 - Can't build joint facilities statewide
 - Can't provide inspection capacity equivalent to Kahului blitz



The Hawaii Interagency Biosecurity Plan 2017-2027

- ❖ Comprehensive in scope
- ❖ Multidisciplinary, collaborative approach
- ❖ 150 action items to address gaps and weakness in our biosecurity system
- ❖ A 10-year path forward



What Aren't We Doing?

Known Gaps:

INFORMATIONAL	STAFF	FACILITIES	POLICY	FUNDING
Import database Risk assessments	Fewer staff now than in 2008 at multiple agencies	Inspection facilities Biocontrol lab	Ballast and biofouling	Soft funds Shrinking fed grants 1.4% of budget to DLNR and HDOA



HIBP Recommendations

- Transitional Facilities
 - Third party facilities, built to specifications
 - Off-site, for high risk commodities
 - Starting with produce companies
- Electronic manifesting
 - Allows substantial advance notification
 - Specifies which containers contain high risk commodities
 - Connected to import/interception database



Questions?



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