City of Dallas

Emerald Ash Borer-
Challenge to the Dallas Urban Forest

Environmental and Sustainability Committee
February 1, 2021

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City of Dallas

History and Issues with Emerald Ash Borer (EAB)

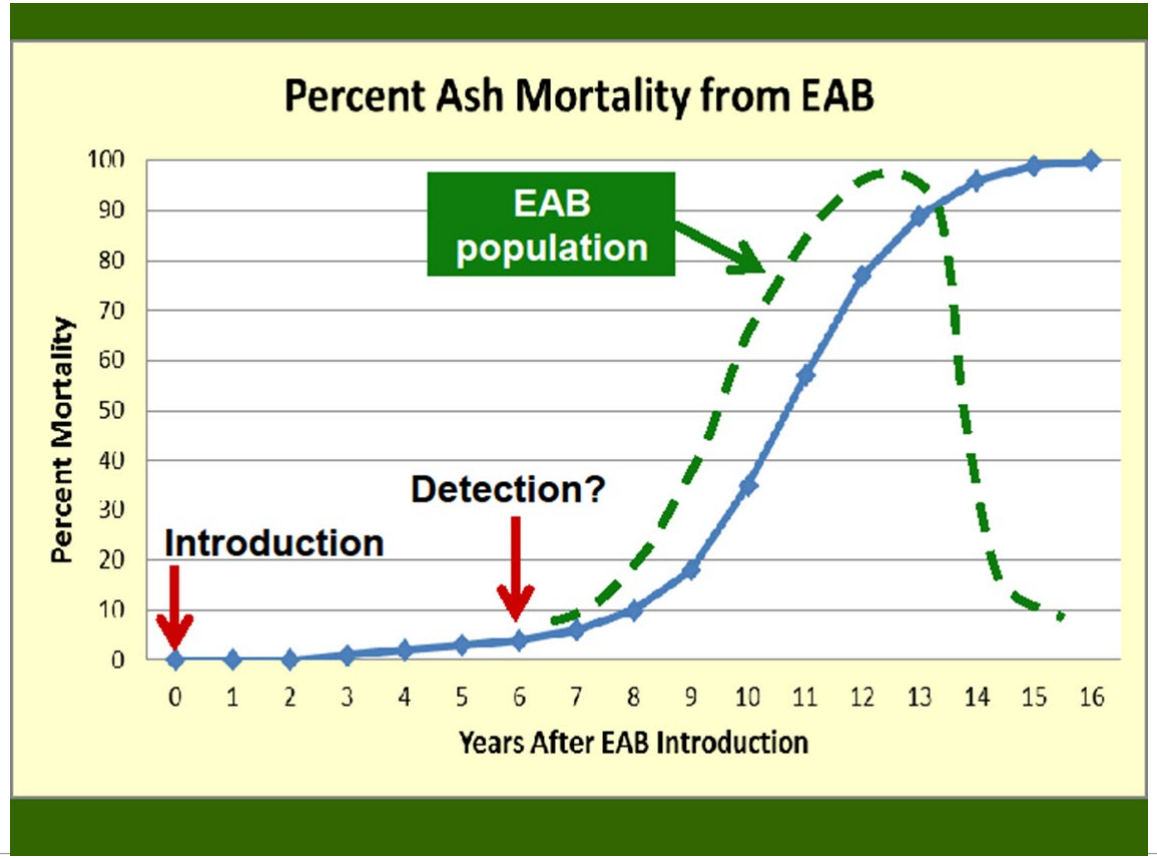
- Invasive boring insect originally in Asia
- First identified in Michigan in 2002 and has spread to 35 states
- Attacks Fraxinus (Ash) species in the US
- Has a 99.7% mortality rate once established

EAB History Continued-Texas

- In 2018, known in 3 East Texas counties and in Tarrant County
- Tarrant County is the ONLY known infestation in the state
- Not believed to be a transfer from East Texas
- Likely introduced through wood products transported in by individuals moving from infested states
- Confirmed establishment in Denton County in 2020

Background Concerns

Time from Introduction to Detection to Mortality is very quick



Background—Social Impacts

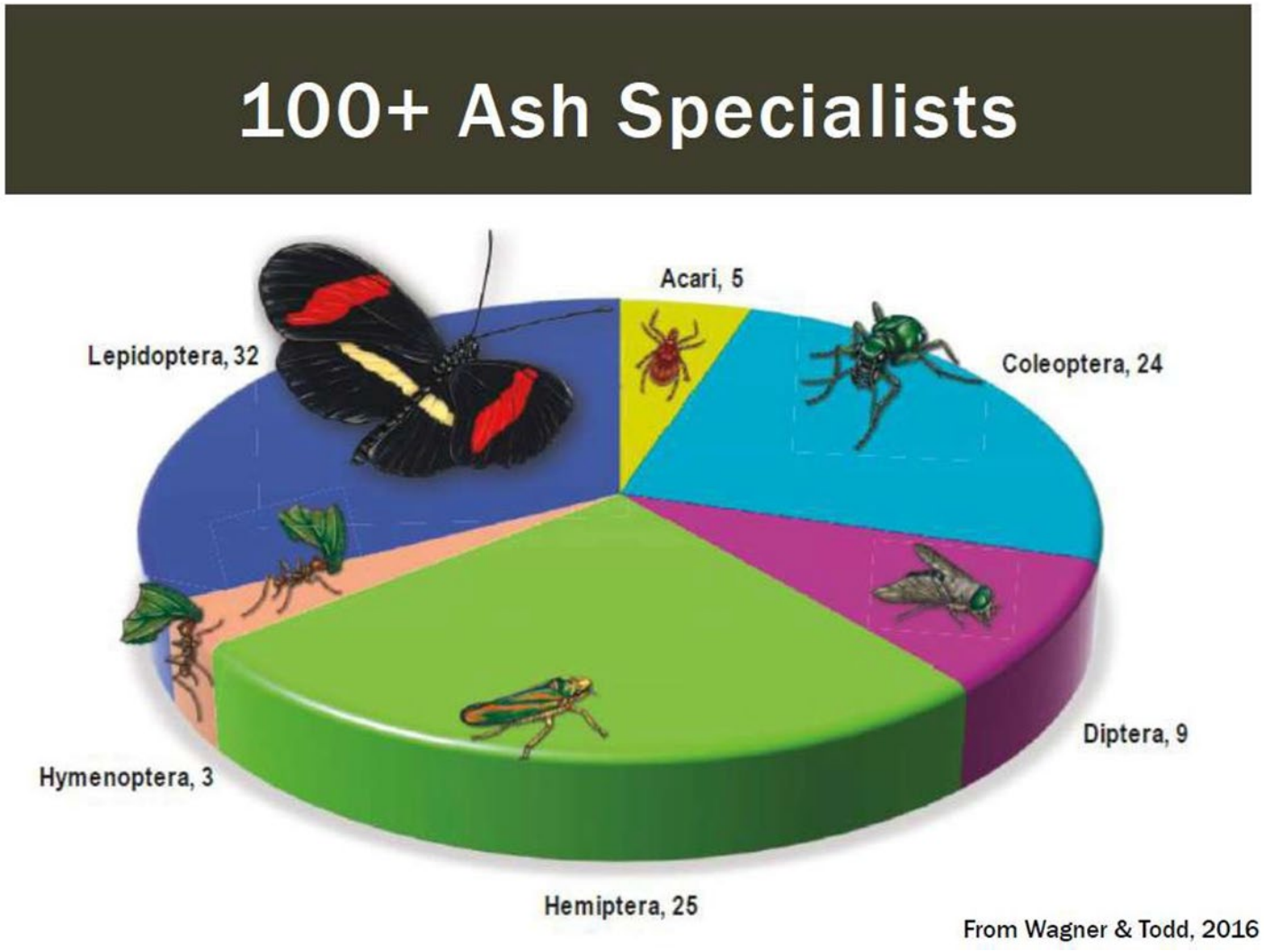
- Permanent loss of species in Urban Forest
- Replacement forest takes generations to develop
- Increased storm water run-off
- Increased water consumption
- Enhanced heat island

Background—Impacts continued

- Significant property value reduction
- Loss of neighborhood character
- More stress on poorest neighborhoods, increasing cost to maintain, heat & cool homes
- Decreases property value

(Photo credit: Troy Kimoto, Canadian Food Inspection Agency, via Bugwood.org)

Background—Ecological Impacts



Loss of ash as a forest (urban/rural) component means more than just losing trees!

Purpose-

EAB is coming to Dallas. Planning and mitigation will require a multi-departmental effort. The following is a brief review of what a potential action plan could involve.

Issues/Operational Concerns

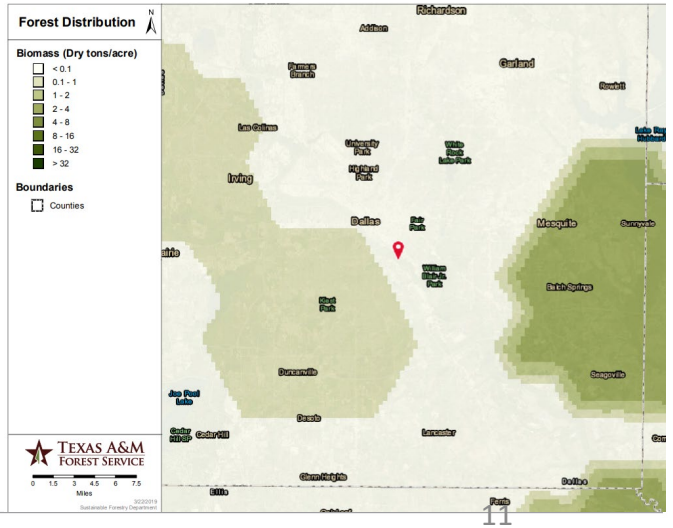
- Initiate SLAM (Slow Ash Mortality) program to slow spread, recommend by the Texas Forest Service
- Utilizes IPM principles
- SLAM will NOT eradicate EAB

SLAM Operation

- Delineate EAB population and density
- **Determine ash density and distribution***
- Develop upon and implement suppression strategies
- Regulatory efforts – State and Local
- **Public Outreach – communication and education***
- Evaluation

SLAM—Tree Inventory

- Conduct an inventory of Ash trees in Dallas—Streets, Parks, Great Trinity Forest (GTF)
- Complete or sampled estimate?
- Determine city vs. private trees
- Determine the current condition of the trees
- All management decision start with an inventory of the Ash trees



Operations—Treatment options

- Do Nothing – remove trees only upon death
- Preemptive removal of ALL ash trees over 5 years
- Preemptive removal of ash trees and replace with comparable non-ash trees
- Treat ALL ash trees with insecticides or select individuals

•VanNatta, A.R., R.H. Hauer, N.M. Schuettpelz. 2012. *Economic Analysis of Emerald Ash Borer (Coleoptera: Buprestidae) Management Options*. Journal of Economic Entomology 105(1):196–206.

Operations—Costs example

Mt. Pleasant, Michigan	
145 Trees Removed for EAB	
$35,000	Salaries, Planting, Watering, Maintenance
$34,940	Trees, Mulch, Topsoil & Supplies
$33,151	Equipment Costs (lease/rent/use)
$ 9,420	Fuel Expenses
$112,511	**Total Project Cost**
$776	**Total Cost Per Tree to Remove/ Replace**

- Arlington Heights Il
  - $11 Million to Remove 13,000 Trees
  - $846 Cost Per Tree to R&R
- Milwaukee, WI
  - A pprox.36,000 Boulevard Ash Trees $27 Million to R&R
  - $750 Cost Per Tree to R&R
  - **Treating 27,000 Ash**
- Chicago, IL
  - 81,000 Boulevard Ash Trees Estimate $95 Million to R&R
  - $1,173 Cost Per Tree to R&R
  - **Treating 60,000 Ash**

Proposed Actions

- Continue working with department staff on training, monitoring, and planning for EAB
- Remove ash species from planting plans until peak of infestation has passed
- Work with to be determined citywide Task Force in developing and implementing a SLAM program
- Coordinate with USACE about what is allowable and appropriate in the GTF mitigation areas

Staff Recommendation

- Staff recommends the to the Environmental and Sustainability Committee for consideration and approval:
  - Adoption of resolution to look at implementing a Emerald Ash Borer resource management plan.
  - Approval of the creation of a multi-departmental Task Force to determine the best management strategy for the City of Dallas

Next Steps

- Environmental and Sustainability Committee
  - Task Force developed by April 2021
  - Develop and implement management plan by December 2021
  - If not approved, continue working internally with city departments to minimize tree loss and associated tree hazards

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