



# The FEMC Sampler

New releases of regional data and tools from the Cooperative  
in 2020

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FEMC Director

*Presented at: FEMC Annual Conference 2020*

*December 18, 2020*

# Four FEMC Products



Forests and Water



Regeneration



Urban Pests



Data Rescue



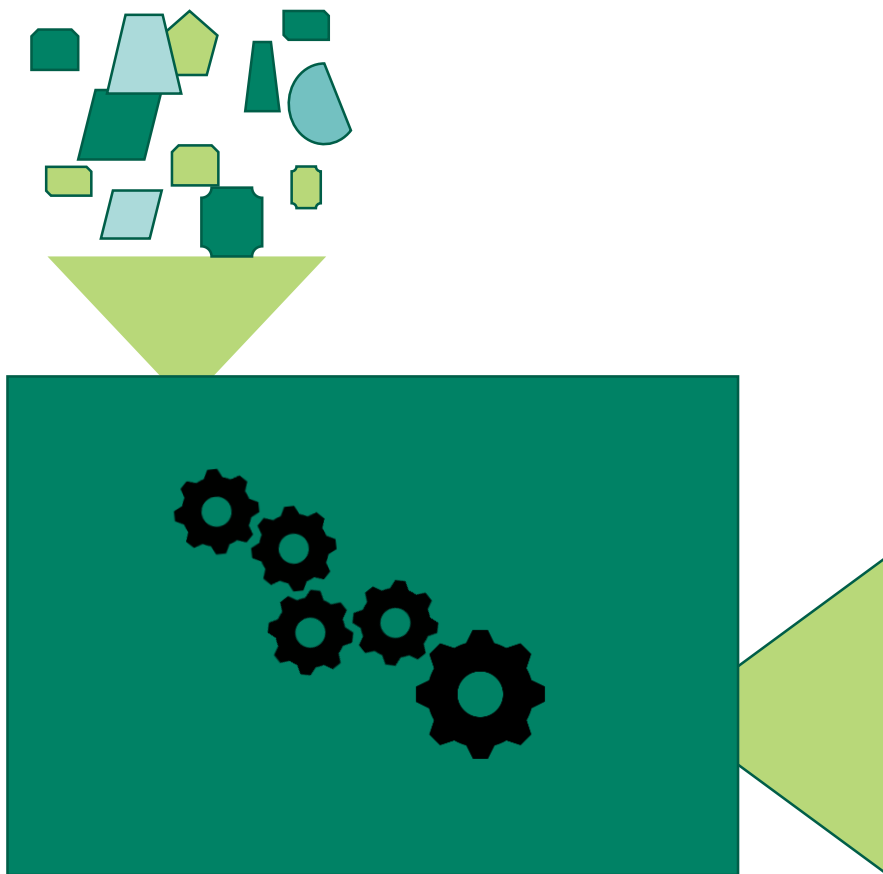
# Forest Cover and Water Quality



Complex connections between forest cover and water quality



# Forest Cover and Water Quality



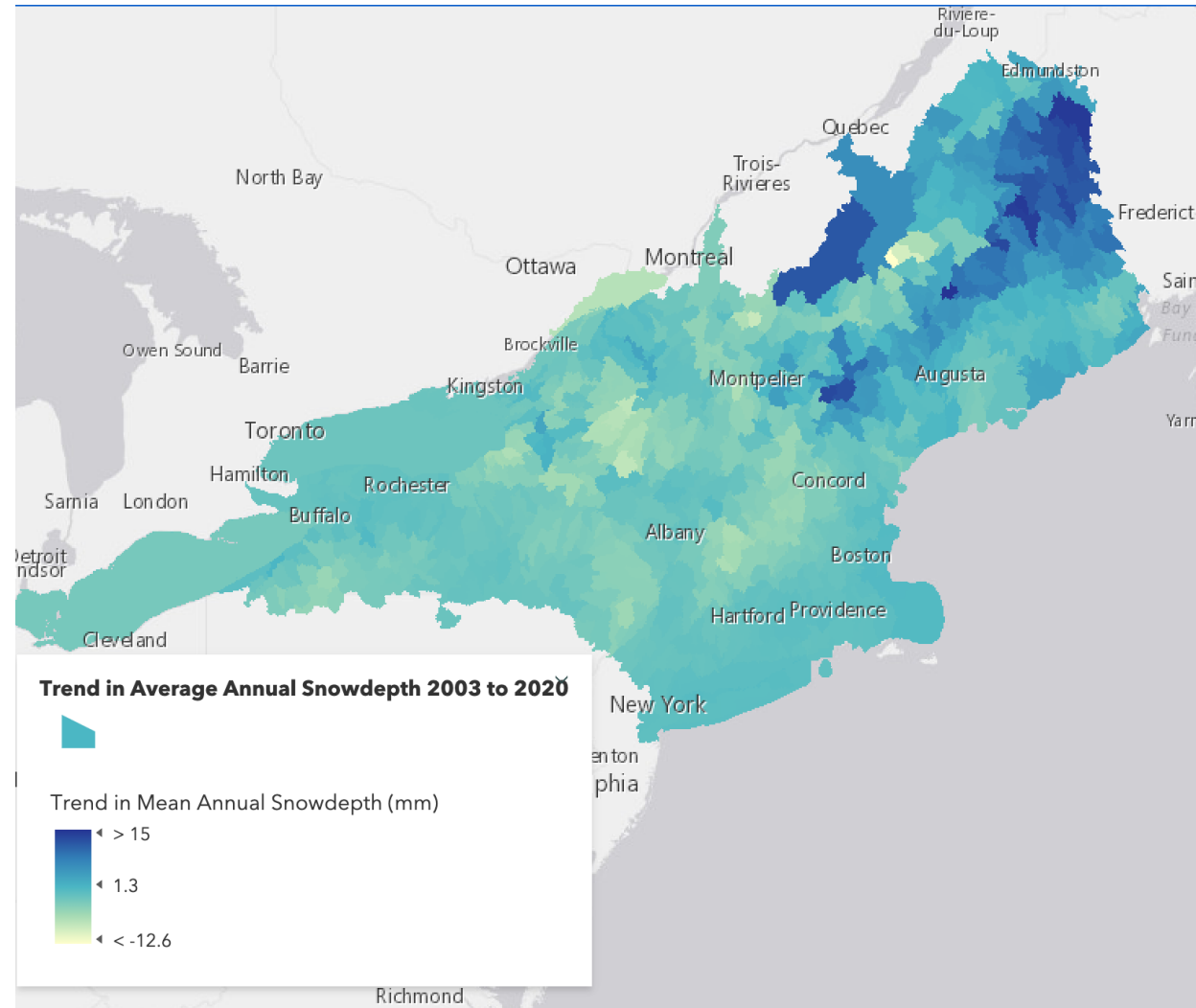
**30**  
**Spatial**  
**Datasets**



# Forest Cover and Water Quality



- Spatial data available to explore connections
- Scripts are available and can be adapted
- StoryMaps of interesting trends





# Northeastern Forest Regeneration Data Network

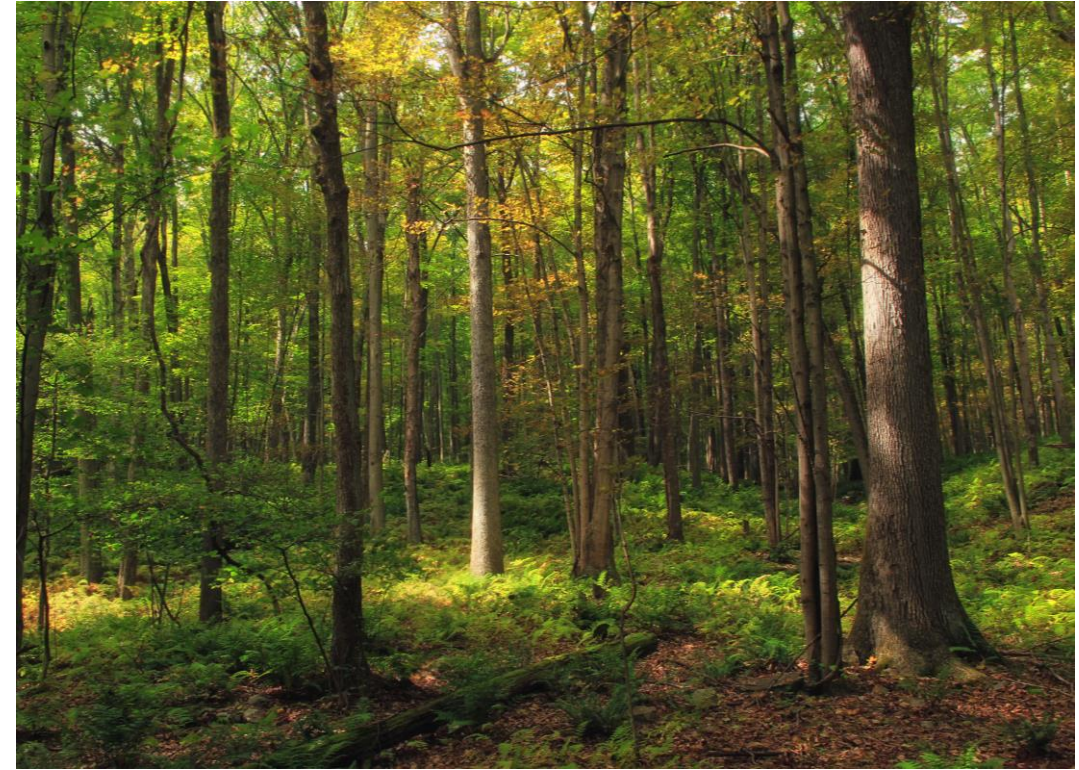
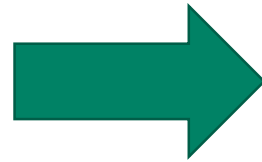


Photo credit: N. Tonelli, Wikimedia Commons

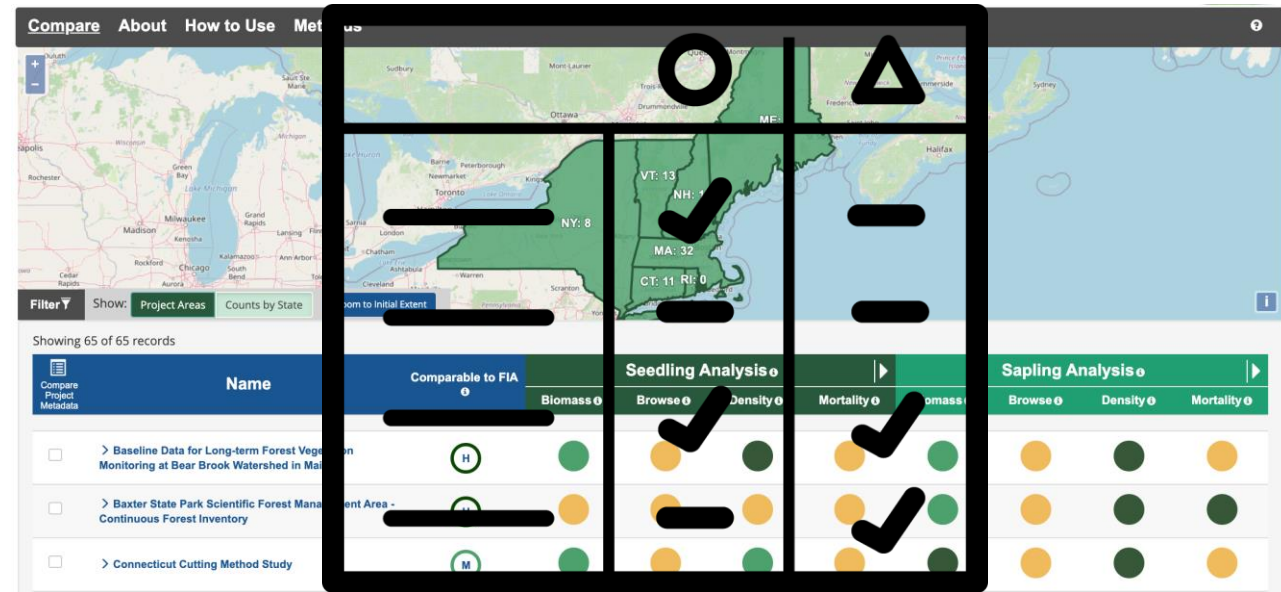


Seedlings and saplings of today become forests of tomorrow

# Northeastern Forest Regeneration Data Network



- Many projects across the region collect information about seedlings and saplings
- This tool allows for easy comparison of data and methods





# Northeastern Forest Regeneration Data Network



65 programs  
assessed

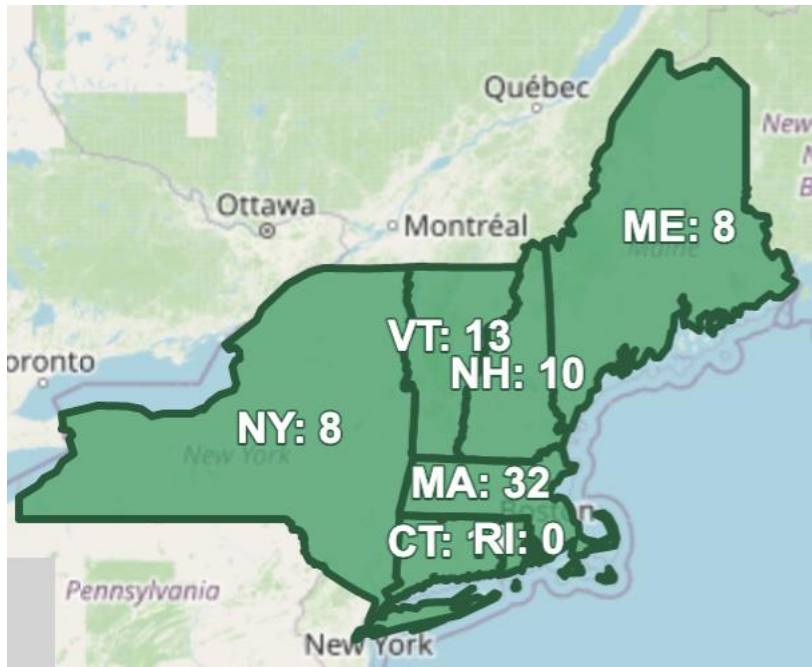
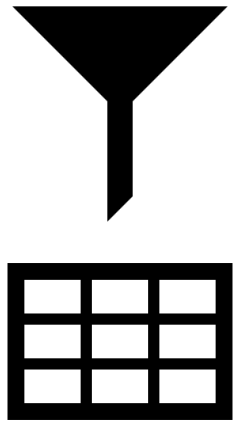


Photo credit: Oberski, Wikimedia Commons

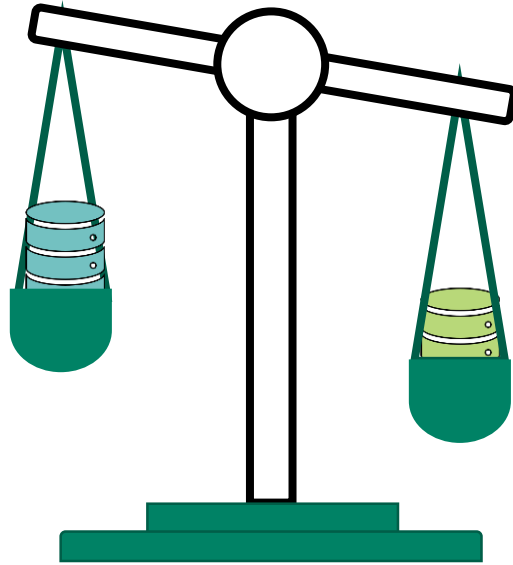




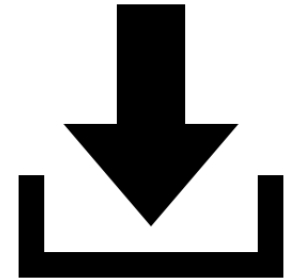
# Northeastern Forest Regeneration Data Network



Filter Data



Compare



Download



# Urban Pests



Photo credit: M. Hains, Wikimedia Commons

Urban trees provide value, but often experience stress, including damage from pests

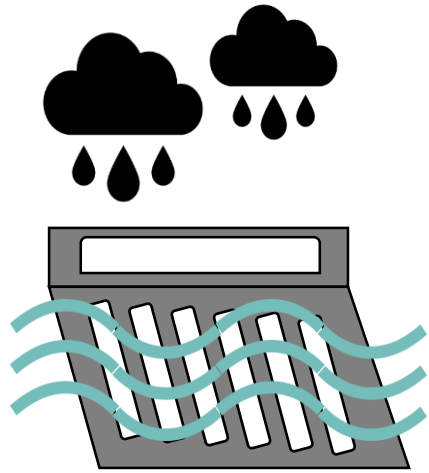




# Urban Pests



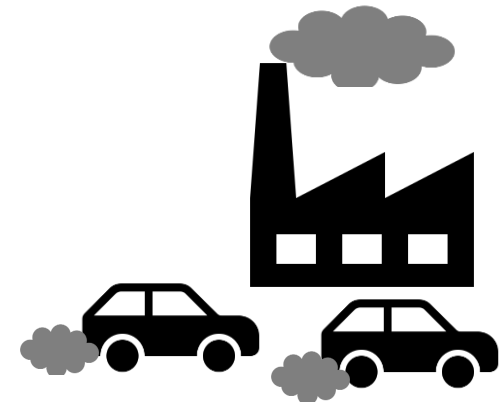
Loss of trees results in lost environmental services including:



Runoff  
avoidance



Carbon  
sequestration



Pollution removal



# Urban Pests



205 inventories

88  
economic  
assessments

Asian Longhorned Beetle



Gypsy Moth



Beech Leaf Disease



Hemlock Woolly Adelgid



Browntail Moth



Oak Wilt



Emerald Ash Borer



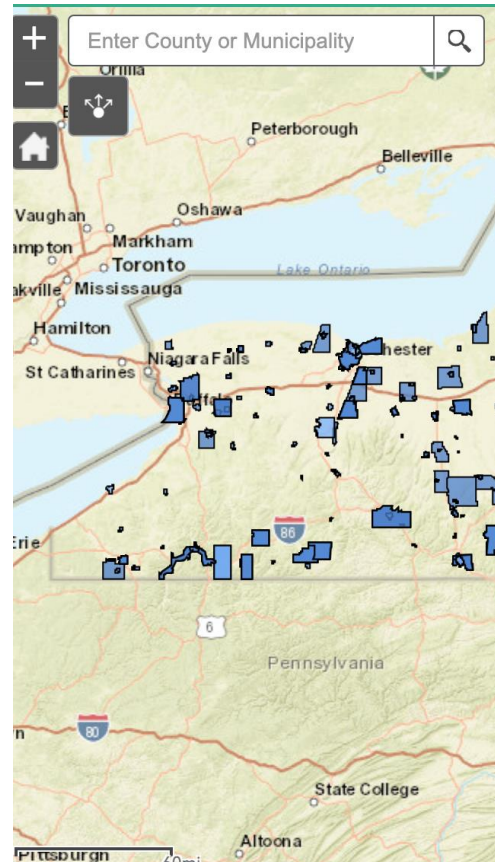
Spotted Lanternfly





# Urban Pests

- Map of tree inventories as well as data available to download
- Fact sheets provide estimate of community value and potential risk due to loss of services



## EMERALD ASH BORER

Total number of host trees <sup>1</sup>

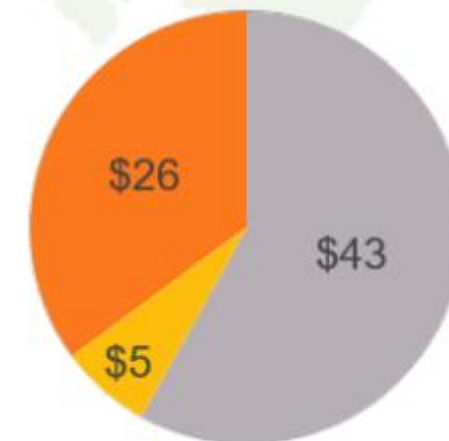
102

Total annual value <sup>2</sup>

\$72

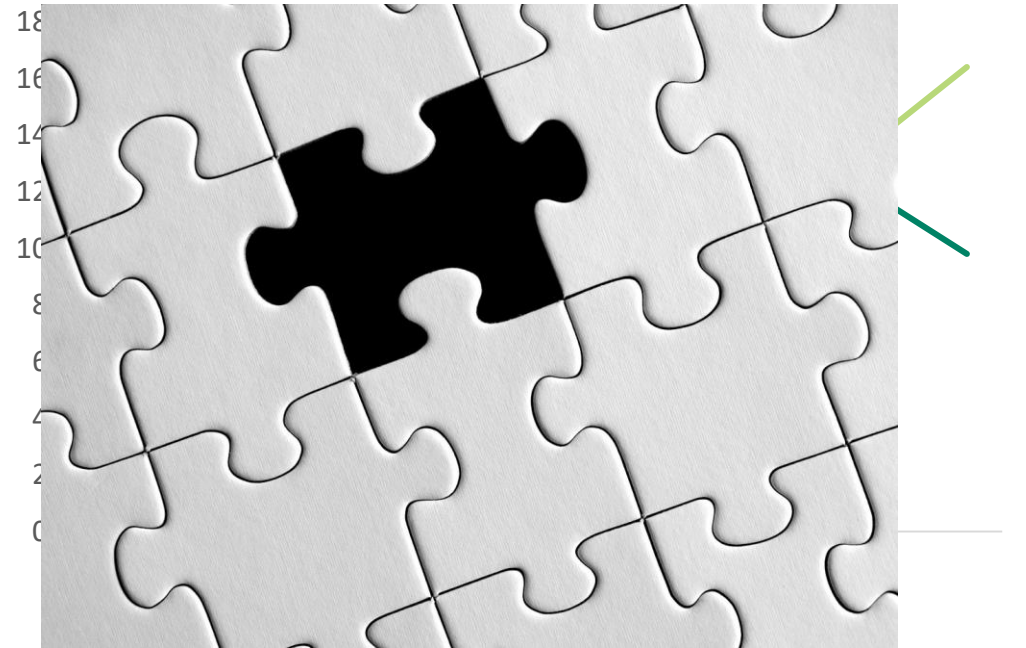
Total structural value <sup>3</sup>

\$39,983



# Data Rescue

- Rescuing data can help fill gaps
- More than data is contained in old files and notebooks
- Institutional knowledge can help understand why choices were made





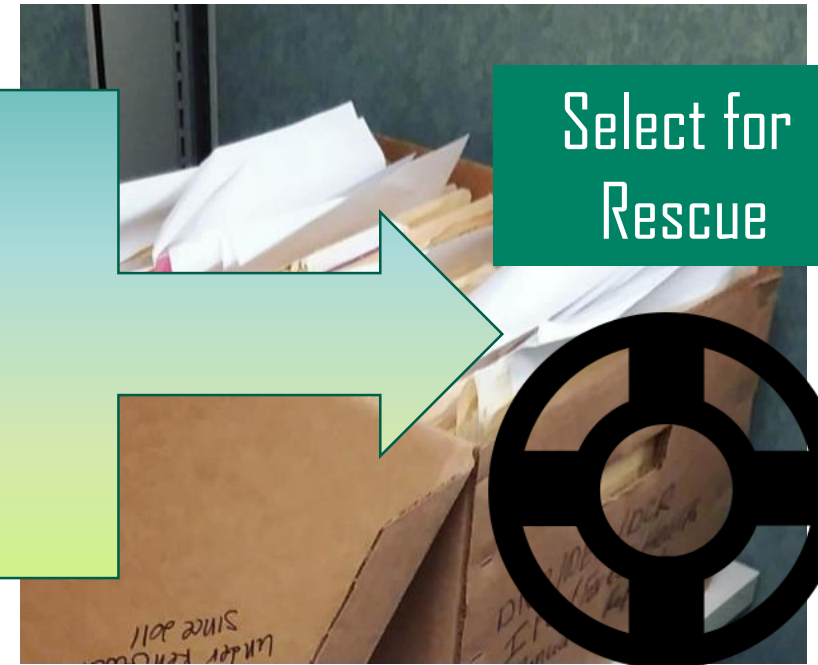
# Data Rescue



- Outdated file formats, old disks, data sheets and notebooks
- Prioritization

Applicability  
Rigor of study  
Repeated measures  
Risk of loss

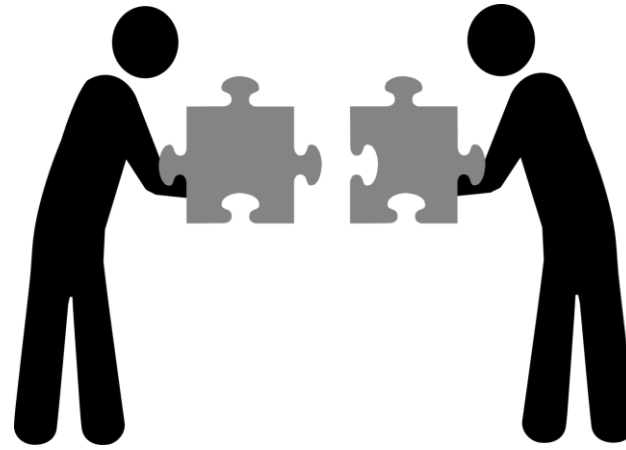
Select for  
Rescue



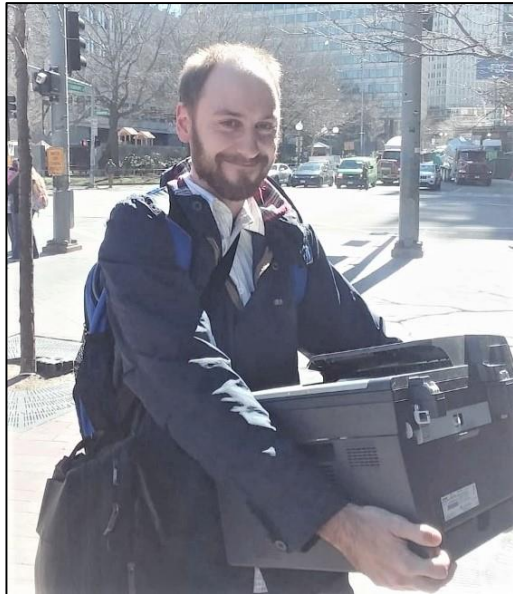
# Data Rescue



178  
Items  
to Date



Opportunity  
to  
Collaborate



**FEMC** | Data Rescue: Inventory  
Forest Ecosystem Monitoring Cooperative

Home | View Inventory | Suggest a Data Rescue | About

Search

Table

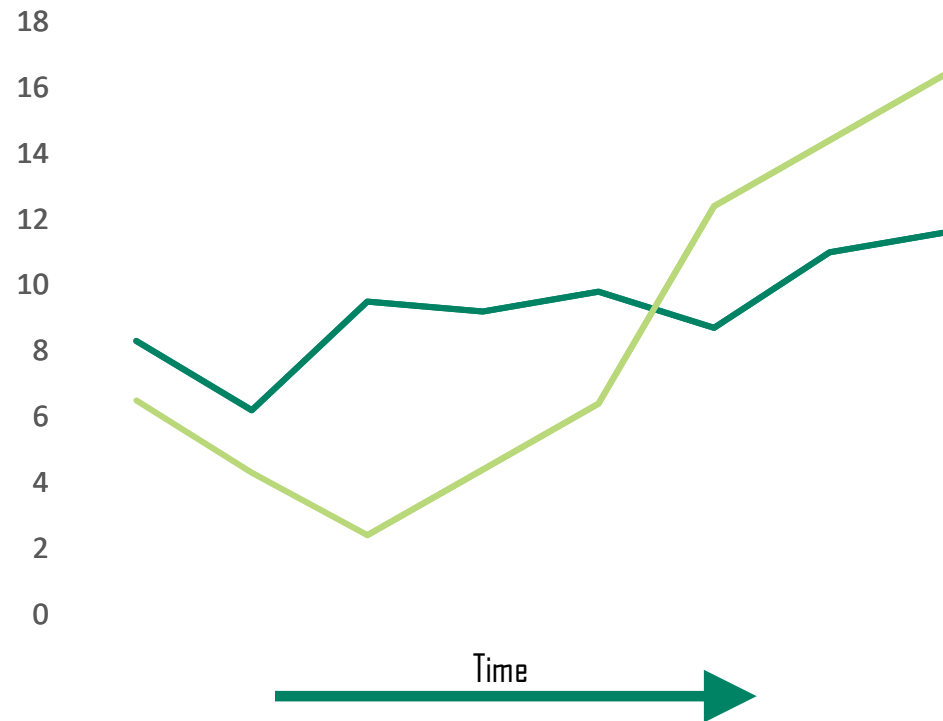
Map

Show 10 entries

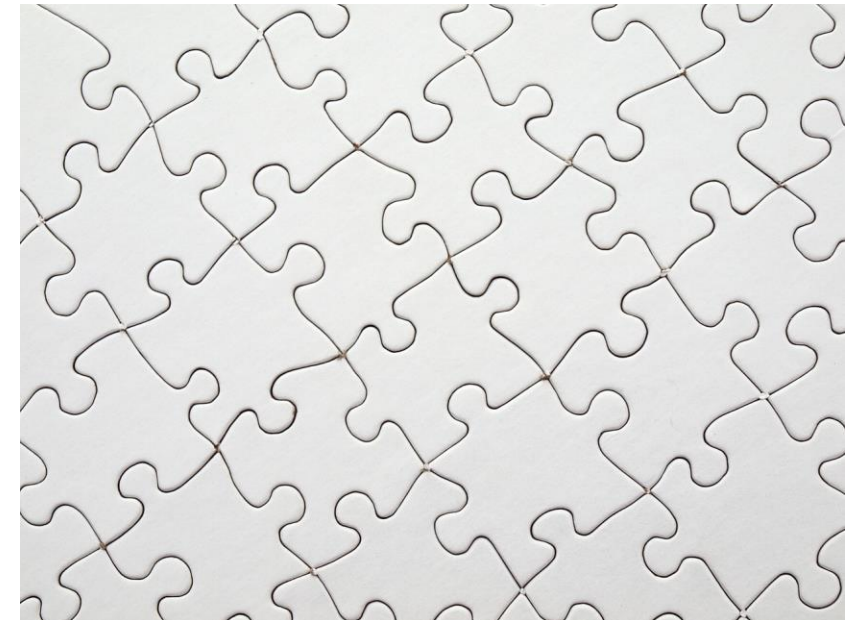
Rescue Name	Status	Organization	State	Year	Theme(s)
<a href="#">Volume of Coneparaboloid Neiloid Frustums</a>	Needs Rescuing	<a href="#">Native Tree Society</a>	Massachusetts	2019 - 2020	Forest
<a href="#">Trees of Peace Measurements</a>	Needs Rescuing	<a href="#">Native Tree Society</a>	Massachusetts	2019 - 2020	Forest
<a href="#">FIA vs NTS Pin Oak Comparison</a>	Needs Rescuing	<a href="#">Native Tree Society</a>	Massachusetts	2019 - 2020	Forest
<a href="#">FIA vs NTS Sugar Maple Comparison</a>	Needs Rescuing	<a href="#">Native Tree Society</a>	Massachusetts	2019 - 2020	Forest



# Data Rescue



Extend data series



Complete the puzzle





Thank you!