



# **Adaptive Management in the Northeastern US: Common Strategies and Motivations of Rural and Urban Foresters**

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# Global change and our forests



Christopher Riely



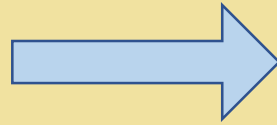
VA Institute of Marine Science



Kerry Britton, USDA FS

# Adaptive forest management

- Resistance
- Resilience
- Transition



- How are these three strategies represented on the landscape?
- What limits or facilitates their adoption?

(Adapted from Millar et al., 2007)

# Research questions

1. What adaptation practices are utilized by Northeastern foresters?
2. What adaptation strategies do these practices represent?
3. What factors influence foresters' use of different practices and strategies?
4. How can foresters be supported in advancing their adaptation?

...for both urban and rural foresters!



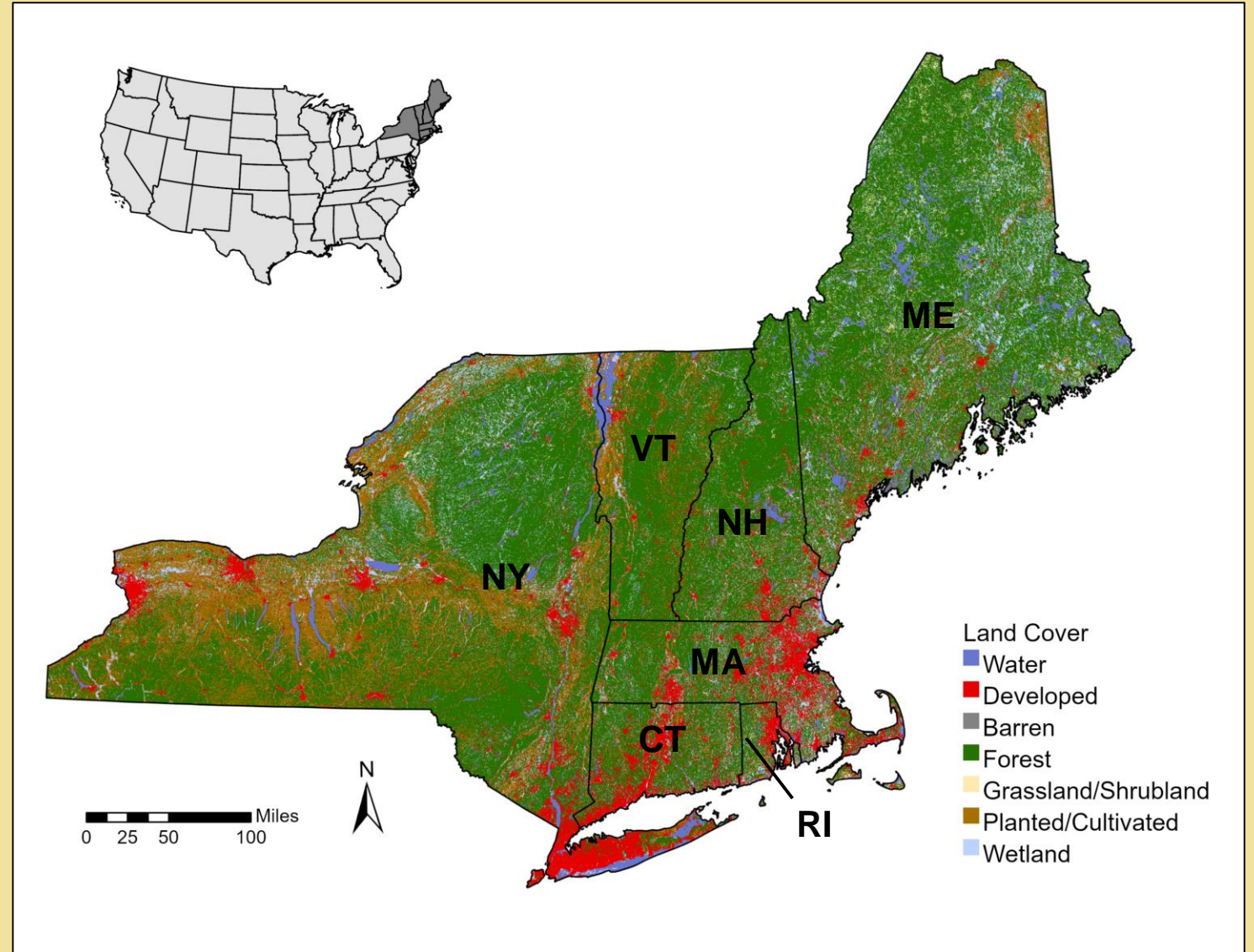
# Methods

## In-depth interviews

- 17 rural participants
- 15 urban participants

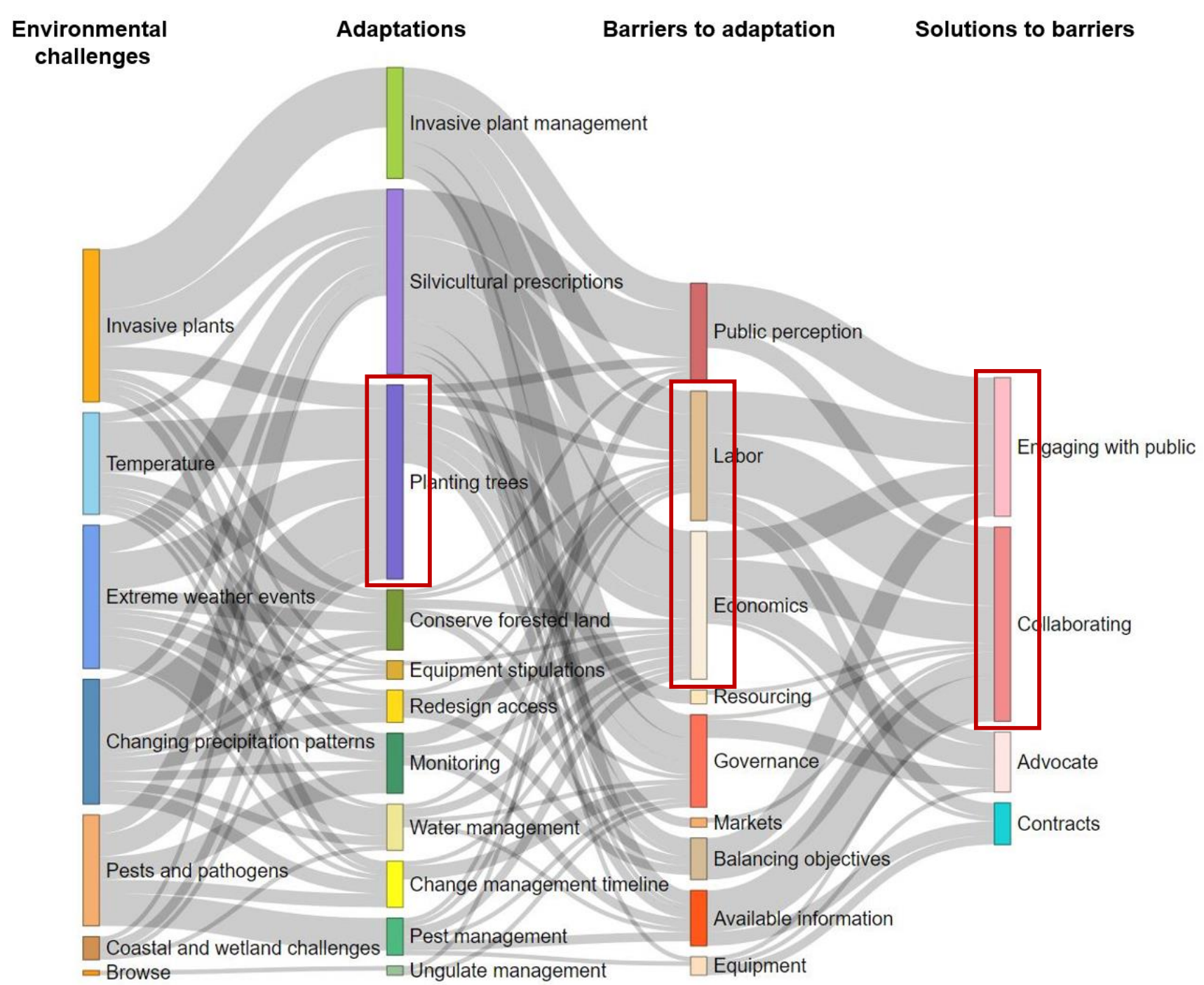
## Qualitative analysis

- Double-coding in Nvivo
- Emergent themes



**Rural  
participants**

# Urban participants



# Adaptation strategies

## Resistance

(e.g. *redesigning access, invasive plant management*)

“[Adaptation] is not really necessarily changing everything you do on the ground. You might make some slight adjustments to things. But... the things that you're doing that are *appropriate for good management also are good for climate.*”

## and Resilience

(e.g. *harvesting and planting for species and structural diversity*)

“What we're doing differently, we're emphasizing diversity. We're just *hedging our bets* because there's all this stuff going on. Some of it, we understand fairly well what's happening and why... but then there's things that we have no idea, we've never even heard of...”

## Transition?

(e.g. *assisted migration*)

### Rural:

“We're not ready to go there yet... The [tree species] that are on site right now aren't *not* thriving, so we're *not going to jump that gun too much.*”



### Urban:

“The one that's changed has really just been how we view those species... what used to be those very hard and fast and rigid, 'No, that's from down south,' or, 'No, that's from a different climate zone,'... We just have to kind of *broaden our view a little bit.*”



# Conclusions

## Adaptation is common

- Mainly employing resistance and resilience
- Transition uncommon

## Choice of strategies guided by risk

## Recommendations

- Cost-share programs for riskier, transition strategies
- Framing strategies as risk management
- Accessible trainings
- Communication tools





# Acknowledgements

## Co-authors

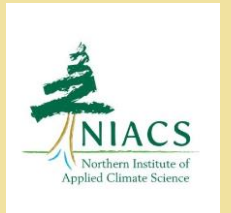
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## References

Millar, Constance I., Nathan L. Stephenson, and Scott L. Stephens. 2007. "Climate Change and Forests of the Future: Managing in the Face of Uncertainty." *Ecological Applications* 17(8):2145–51. doi: 10.1890/06-1715.1.