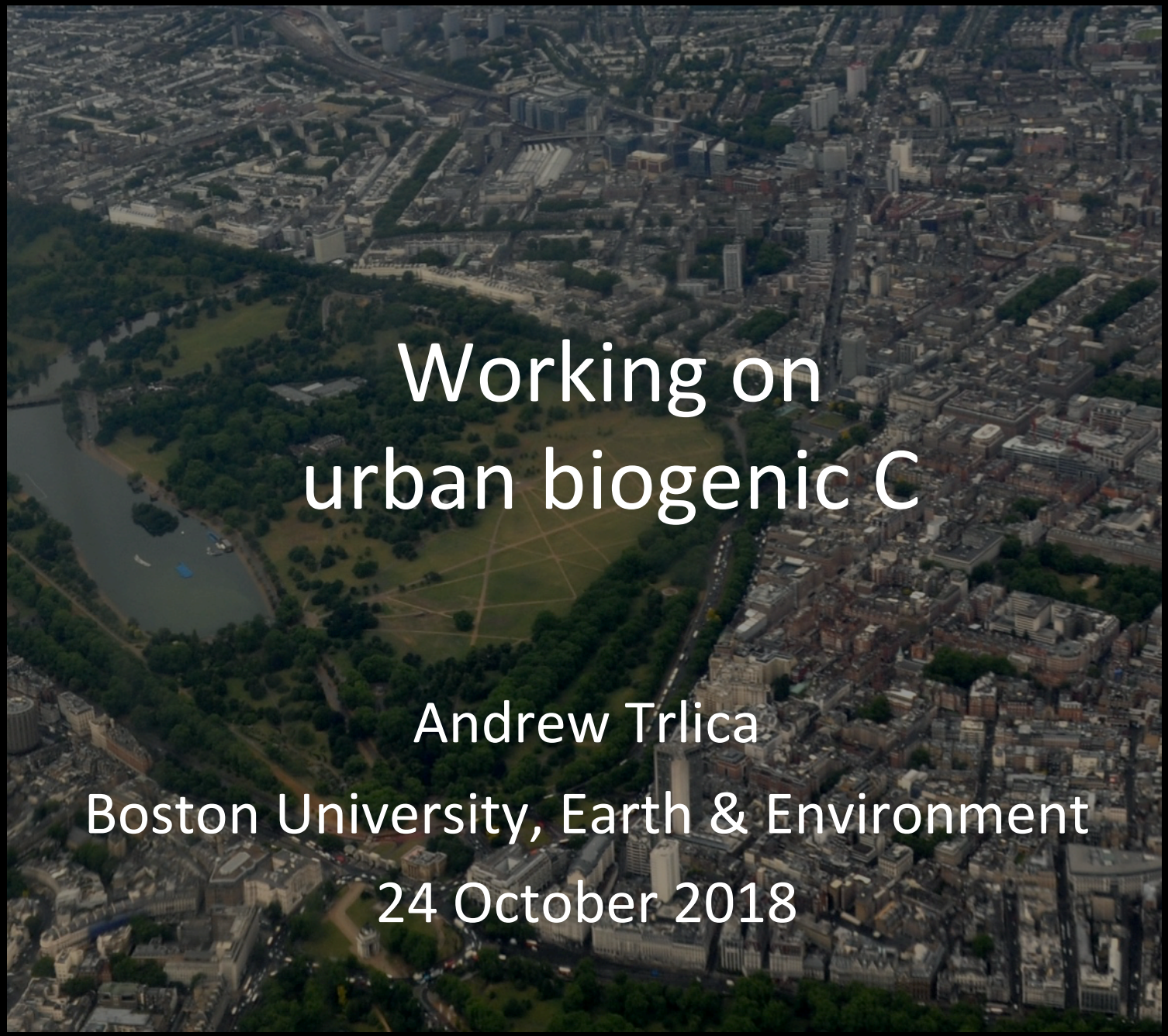


Working on urban biogenic C

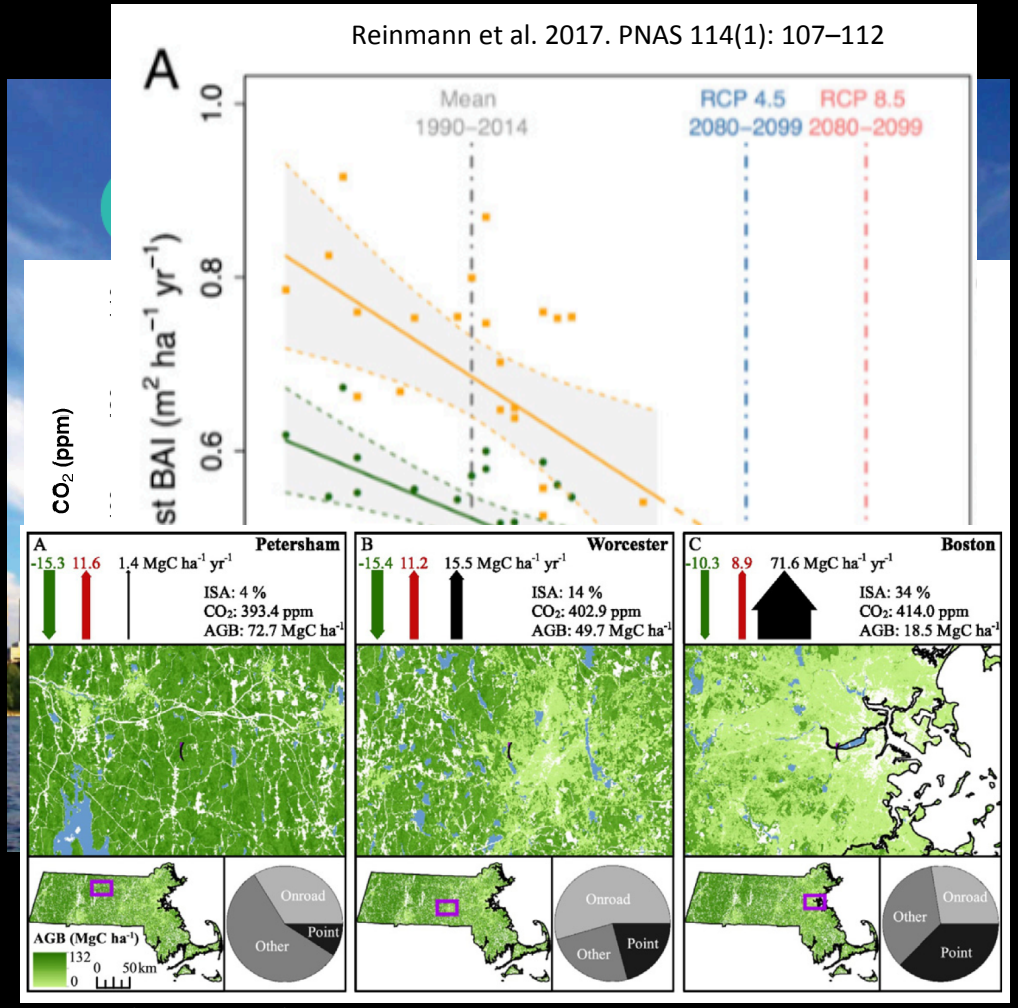
Andrew Trlica

Boston University, Earth & Environment

24 October 2018

The biogenic gap

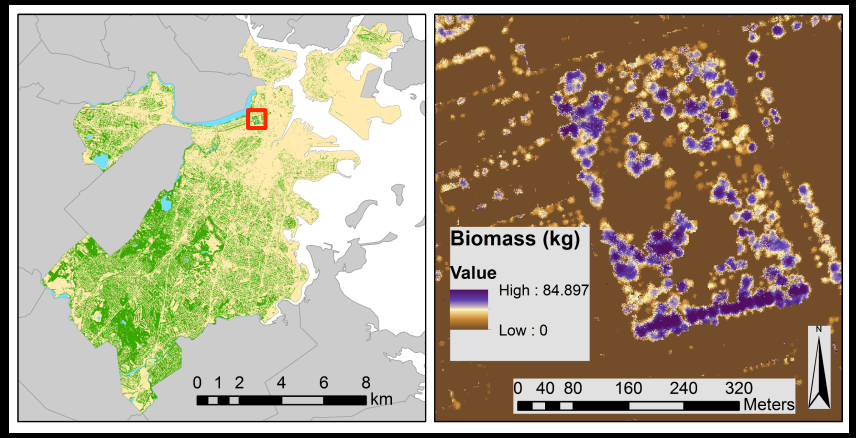
- Emissions reductions goals and enhancing services from "green" infrastructure.
- Urban biogenic C flux can be significant…
- …but urban ecosystem function is special...
- ... and difficult to take into account

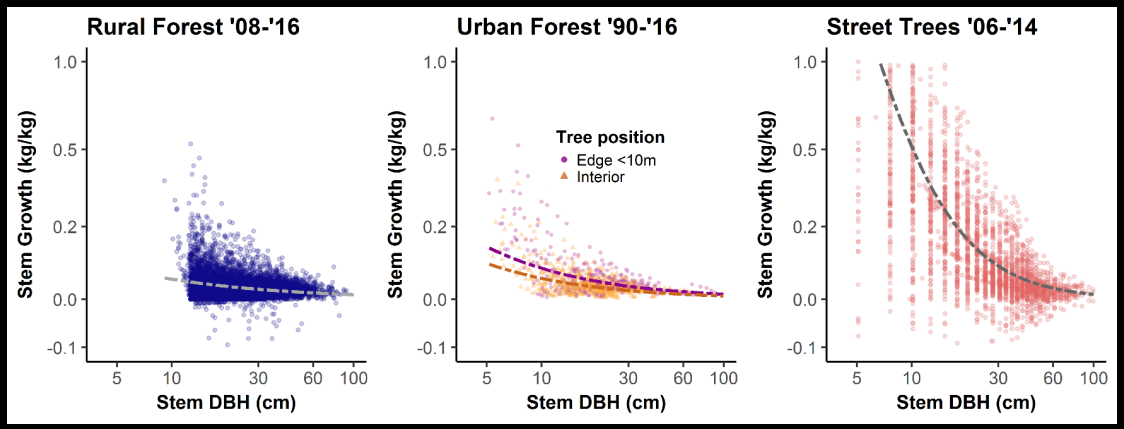


Hardiman et al., 2017. STOTEN 592: 366-372.

Boston forest C uptake

- 1 m tree canopy + biomass map
- Local urban tree growth observations
  - Rural for comparison

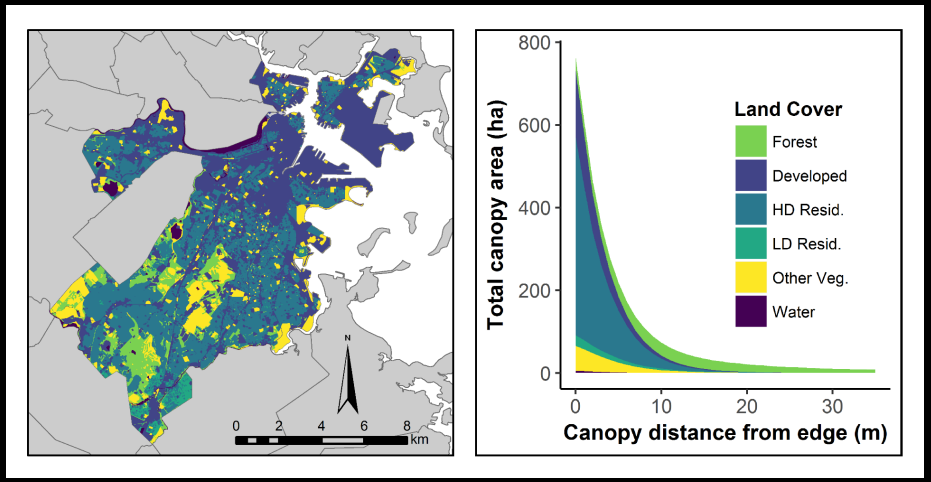




- Simulator for policy affecting tree mortality/planting through 2040

Results – More in Poster

- Growth C uptake 2x estimate based on rural function
  - Allocated spatially at 30 m
  - ~1 MgC/ha/yr, most in residential areas



- Urban canopy highly fragmented
- Tree mortality drives future C uptake