

Wildlife response to woody biomass removal

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STA USDA

Bioenergy removal may have strong impacts on biodiversity and ecosystem function

Demand expected to triple by 2050

Clouded salamander, typically found under rotting logs

















Objective #1: quantify bee diversity relative to biomass removal and soil compaction treatments



Emergence trap (2014):

Captures bees emerging from eggs in ground nests that were laid in the previous year



Blue vane trap (2014-2015):

Lures foraging bees into traps by mimicking preferred flower colors







2 open plants/stand (pollination treatment) 2 bagged plants/stand (negative control)









- 48 bee species collected and identified comprising >1800 individuals
- Blue vane traps
 - Captured nearly all specimens
- Emergence traps
 - Only 16 individuals in 3600 trap-days!











NARA











- Biomass removal appears to favor groundnesting bees (e.g., *Agapostemon*) by creating nesting habitat
- Blue vane traps are very effective at sampling native bee communities
- Bees captured in 2015 are qualitatively similar to 2014, but there are more of them







