Island treasures: threatened forests and endemic squirrels of the Madrean Archipelago and beyond

Tesoros de la isla: bosques amenazados y ardillas endémicas del archipiélago Madrean y más

Sky Island Biodiversity and Conservation 30 April 2021
Melissa Merrick
Why tree squirrels? ¿Por que ardillas de árbol

- 38 million years of coevolution with forests
  - Ecosystem services
  - Forests without squirrels = ?
  - Reflect biogeographic patterns - glacial cycles and community change
  - Test biogeographic theories
  - Indicators of forest ecosystem integrity
Coevolution with trees → natural history
Coevolución con árboles forma la historia natural

Coronado National Forest
Disturbance cascades – the “new normal”

Johnstone et al. 2016 Frontiers Ecology & Environment
Disturbance cascades – the “new normal”

Johnstone et al. 2016 Frontiers Ecology & Environment
Red squirrels as ecosystem engineers
Is there a threshold for midden adaptive value?
Western distribution of *Tamiasciurus*

Douglass’s squirrel

Red squirrel

Mearns’s squirrel
Douglas’s and red squirrel
Larder-hoarders

Mearns’s squirrel
Scatter-hoarders

No middens!
Larger jaw
Non-territorial
THANK YOU!

¡GRACIAS!