Fishers

**Question:** Fishers are supposed to be old growth obligates, but they thrive in Albany, while reintroductions in the Pacific NW routinely fail. Why?

**Introduction**:

The fisher (*Martes pennanti*) is an old-growth obligate that has a historic presence in the Pacific northwest, but was extirpated due to the fur trade (Merrill 2022). Moreover, heavy timber harvesting of conifer forests removed much of the dense coverage habitat that fishers most prefer as habitat (Aubry et al. 2003). The marten (*Martes americana*) has a very similar lifestyle and ecology to the fisher, and quite often there is “high niche overlap,” causing strain on their joint populations (Kautz et al. 2021). Efforts to reintroduce the fisher have been made since 2008, started first by the Olympic Fisher Reintroduction Project from 2008-2011, which reintroduced over 100 fishers back to the northwest over a three year period (Lewis et al 2011). However while these types of projects have had lukewarm results at best, fisher populations seem to be skyrocketing in the east all on their own, especially in the Albany area. This is even stranger as in the past, fishers actually fared very poorly in human-dominated regions, yet now they seem to have no trouble establishing in semi-urban areas (LaPoint 2013).

Thesis: The fisher, *Martes pennanti*, is unable to be successfully reintroduced in the Pacific Northwest due to human advancement in their historical range while their survival in Albany is largely due to their uninterrupted living (Hiller 2015).

Background

1. Historical range/general ecology

Fishers are arboreal mammals that used to live across most of most of the northern united states and lower Canada but due to overexploitation and habitat destruction in throughout the 18-1900s their range is greatly reduced and currently in NY live in about 26,000 square miles in NY scattered throughout the state. They prefer closed canopy deciduous, coniferous, and mixed wood forests. Fishers are generalist omnivores and will eat small to medium sized animals, birds, berries, nuts and are one of the only animals to eat porcupines. (DEC)

1. History of restoration efforts in the northwest and their outcomes
2. History of Fisher populations in Albany and their expansion
3. Differences between Albany and the Northwest

3-5 main points

1. Habitat loss due to human development and logging
2. Changes to past restoration efforts to make future efforts more effective
3. Niche compression
4. Behavioral differences in Albany (in the long article they tracked fishers and they changed their active hours to avoid humans)

Conclusion:  Fishers have a niche that can and has been filled by other similar mammals in some of their historical Norther American range.  In some areas such as Albany, NY however, fishers have been able to increase their population and insert themselves into the natural and unnatural ecosystem due to a limited amount of competition.

3 experts:

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Literature Cited: need 5

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2. Kautz, T. M., D. E. Beyer, Z. Farley, N. L. Fowler, K. F. Kellner, A. L. Lutto, T. R. Petroelje, and J. L. Belant. 2021. American martens use vigilance and short-term avoidance to navigate a landscape of fear from fishers at artificial scavenging sites. Scientific Reports 11:12146.
3. Aubry, K. B., Lewis, J.C. 2003. Extirpation and reintroduction of fishers (*Martes pennanti*) in Oregon: implications for their conservation in the Pacific States. Biological Conservation 114: 79-90 <https://doi.org/10.1016/S0006-3207(03)00003-X>
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5. LaPoint, S.D. 2013. Movement ecology of fishers (*Pekania pennanti*) within a semi-urban landscape. <http://kops.uni-konstanz.de/bitstream/handle/123456789/24838/Dissertation_Movement_ecology_of_fishers_within_a_semiurban_landscape_flat.pdf?sequence=1&isAllowed=y>
6. Hiller, T. L. 2015. Feasibility assessment for the reintroduction of fishers in western Oregon, USA. U.S. Fish and Wildlife Service, Portland, Oregon, USA.

**Planning/Logistics:** Our group has communicated frequently throughout the week.  We have a group chat to ensure that our work will be completed.   So far, each of our group members have communicated and contributed towards our goals. We have an understanding that we will divide the work evenly in a way to ensure we succeed at an efficient level.  We plan to meet with Chloe on 11/17 at 3:30.