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Innovations I: When Enough is Enough: How the Effectiveness of Fish Passage Can Influence the Recovery of a Fish Population

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When Enough is Enough: How the Effectiveness of Fish Passage Can Influence the Recovery of a Fish Population

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How Effective Are We?



Noonan et al. 2012. Fish + Fisheries 13:450

How does the efficiency of fish passage affect the recovery of a fish population?

- Upstream passage (adults)
- Downstream survival (juveniles)
- Combined

Context



Study Species





Study Method



Velez et al. 2013. Theor. Pop. Biol. 85:1-11

Upstream Passage Efficiency



Upstream Passage Efficiency



Downstream Passage Survival



Upstream + Downstream Passage



Conclusions

We should be careful with our expectations for passage efficiency

- Recovery can occur even if passage is only partially successful
- There could be circumstances where highly efficient passage is undesirable



Trap + Sort Fish Passage



Limit on age 6+ female walleye passed per year

Smyth et al. 2013. CJFAS in revision