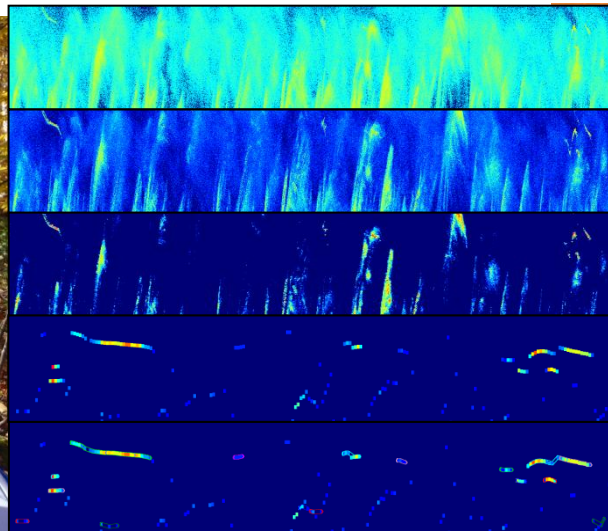


Passage and interactions of anadromous fish in the Penobscot River.

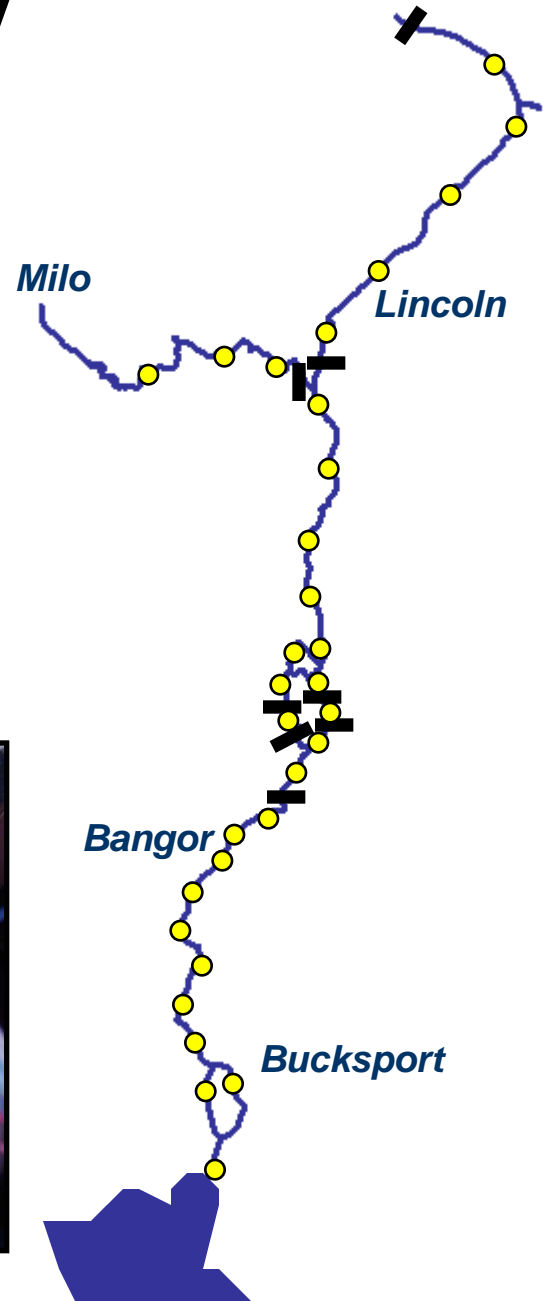
Projects presented include work by PI's
Michael Bailey, Stephen Coghlan, Cynthia Loftin, Joseph Zydlewski



Survival and Behavior of Migrating Atlantic Salmon smolts in the Penobscot River



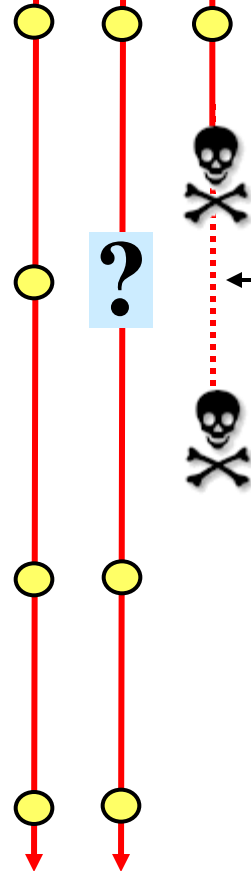
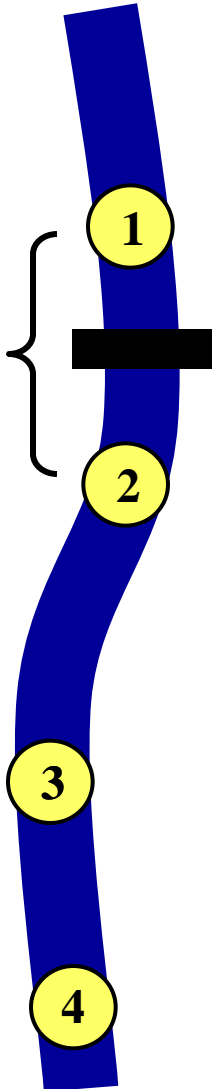
Acoustic Telemetry



Survival Estimation

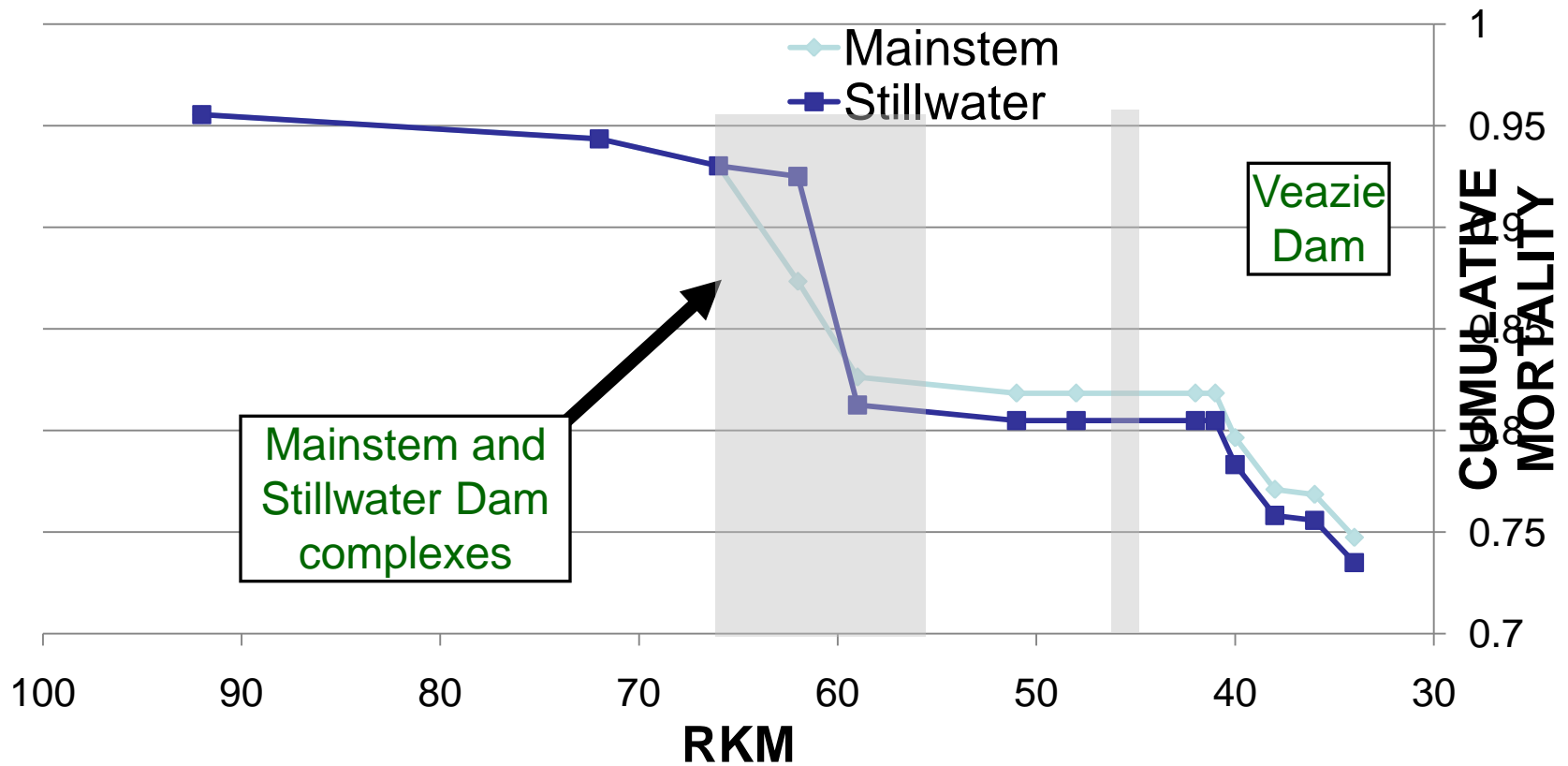
Cormack-Jolly-Seber

SURVIVAL ?



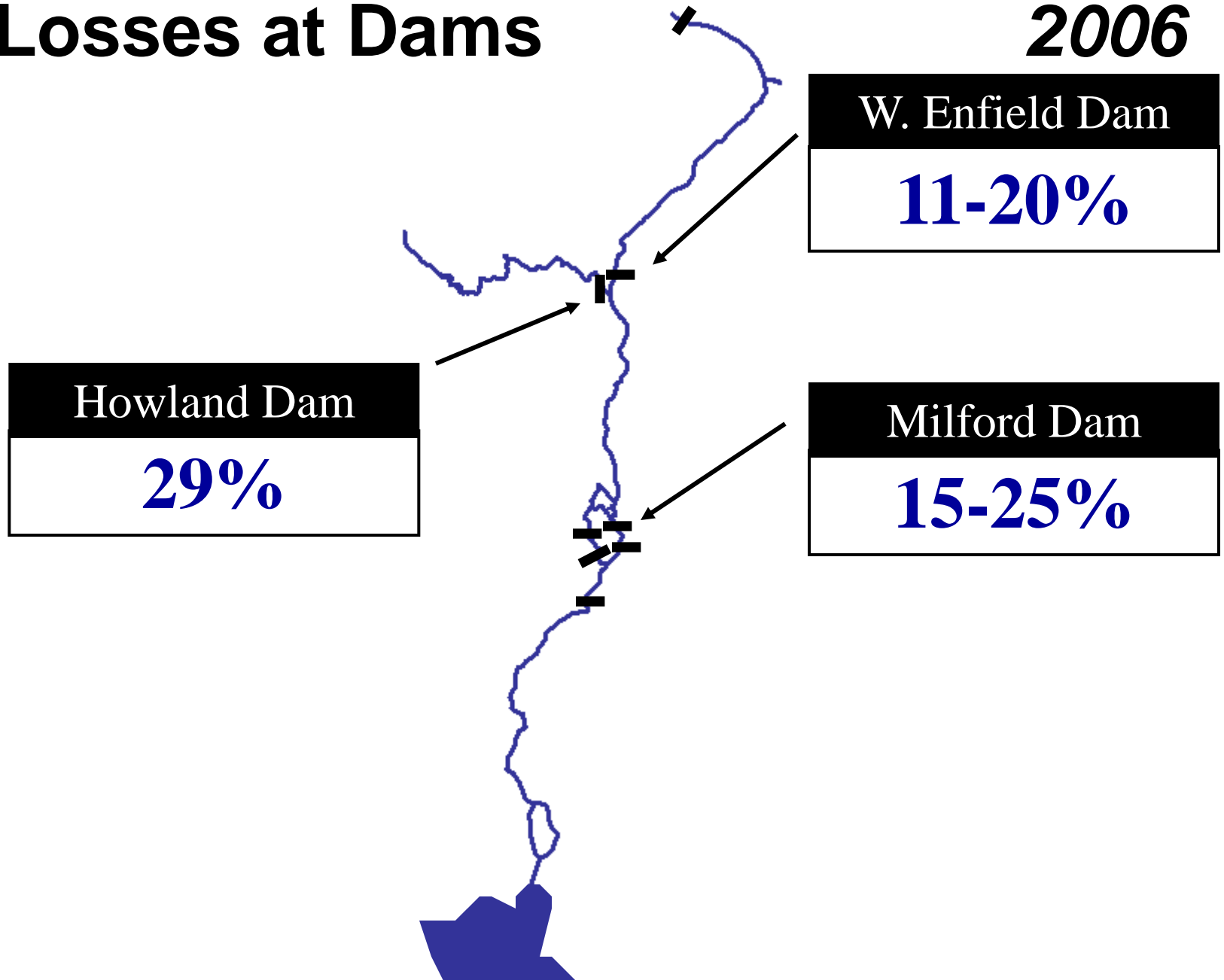
Detection Probability

Survival of fish by path



Losses at Dams

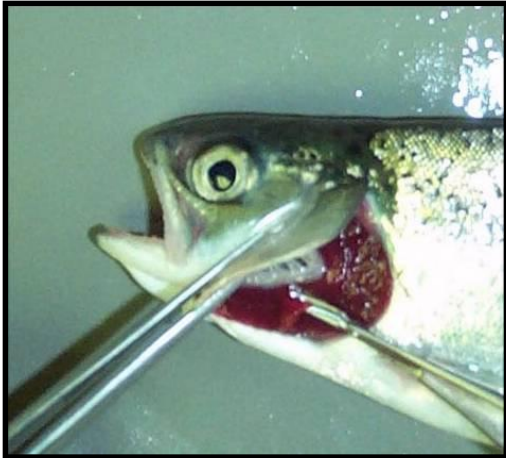
2006



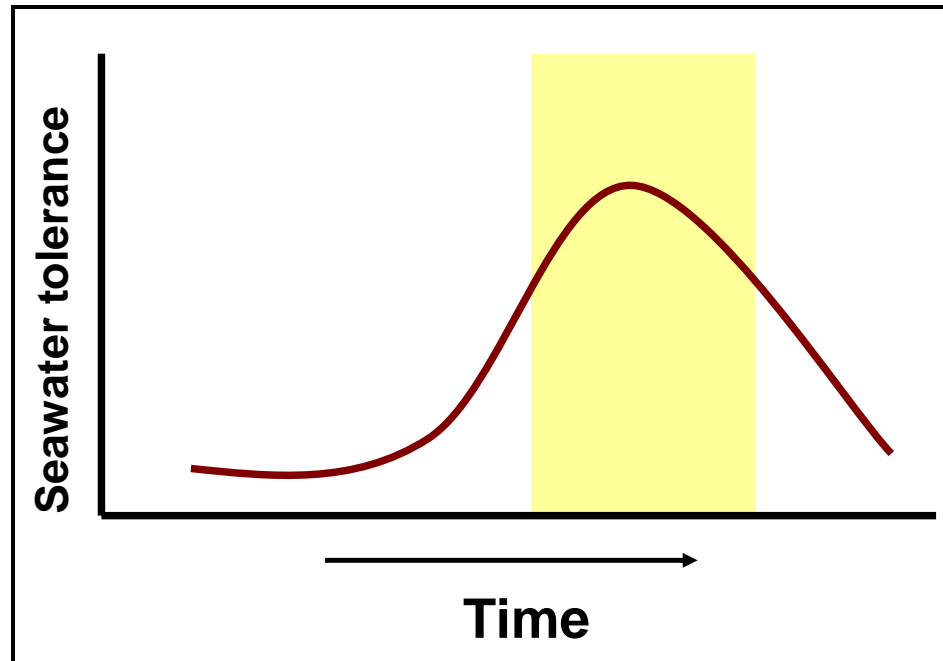
Monitoring smolts from imprinting pools



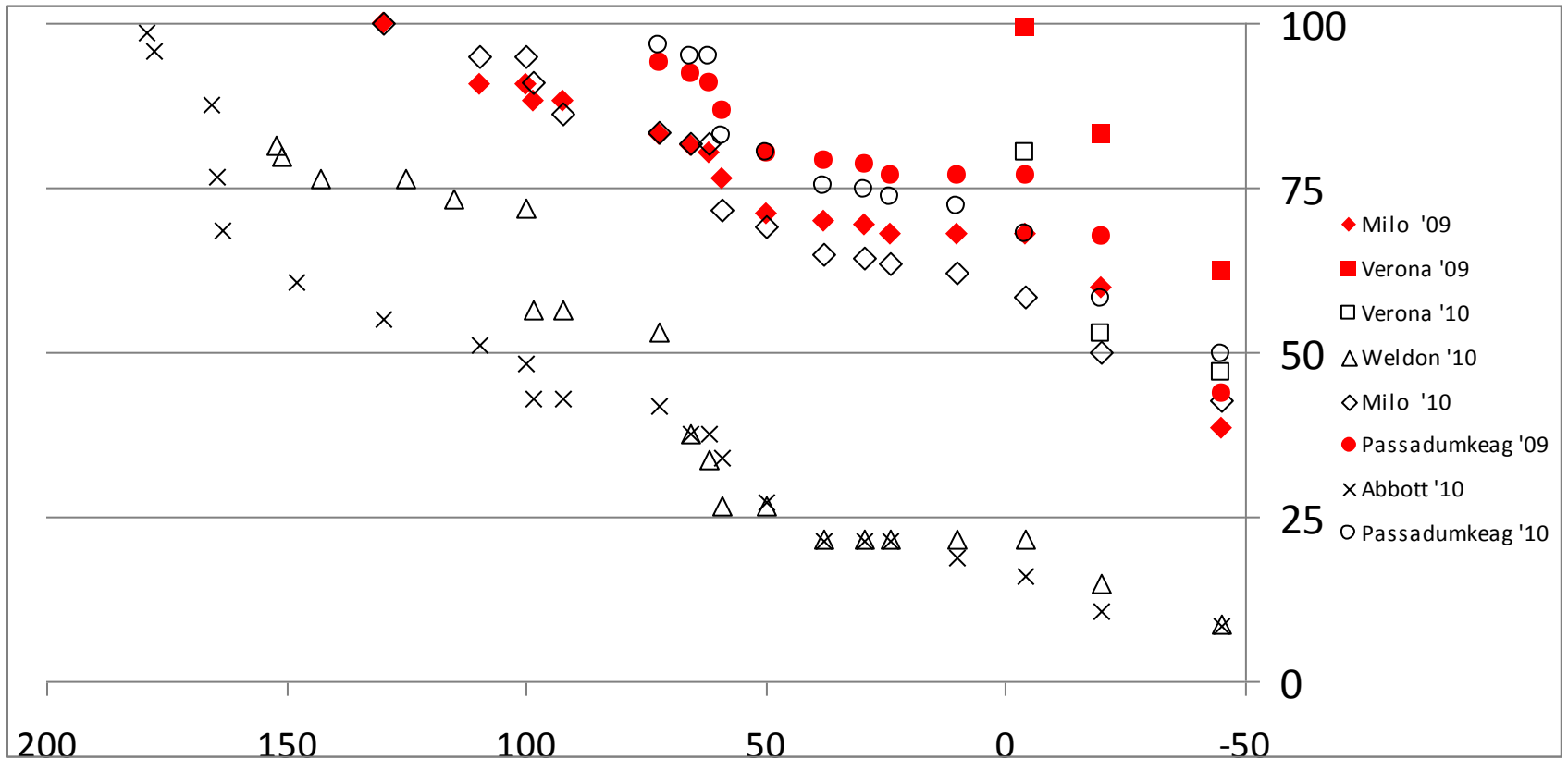
Physiology



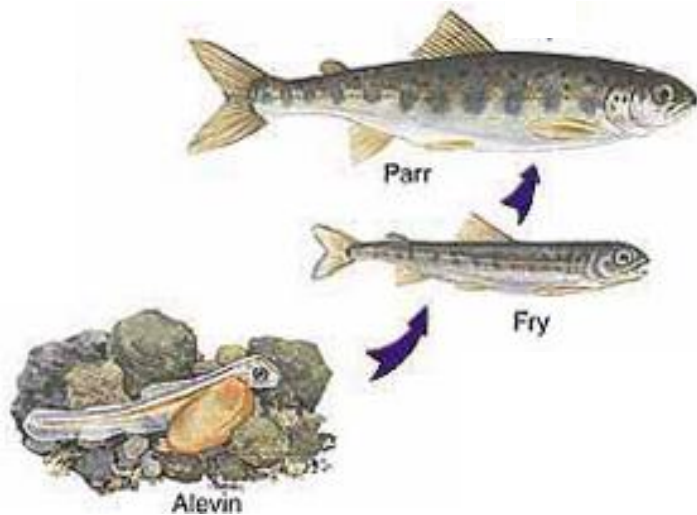
Gill Na^+ , K^+ -ATPase activity



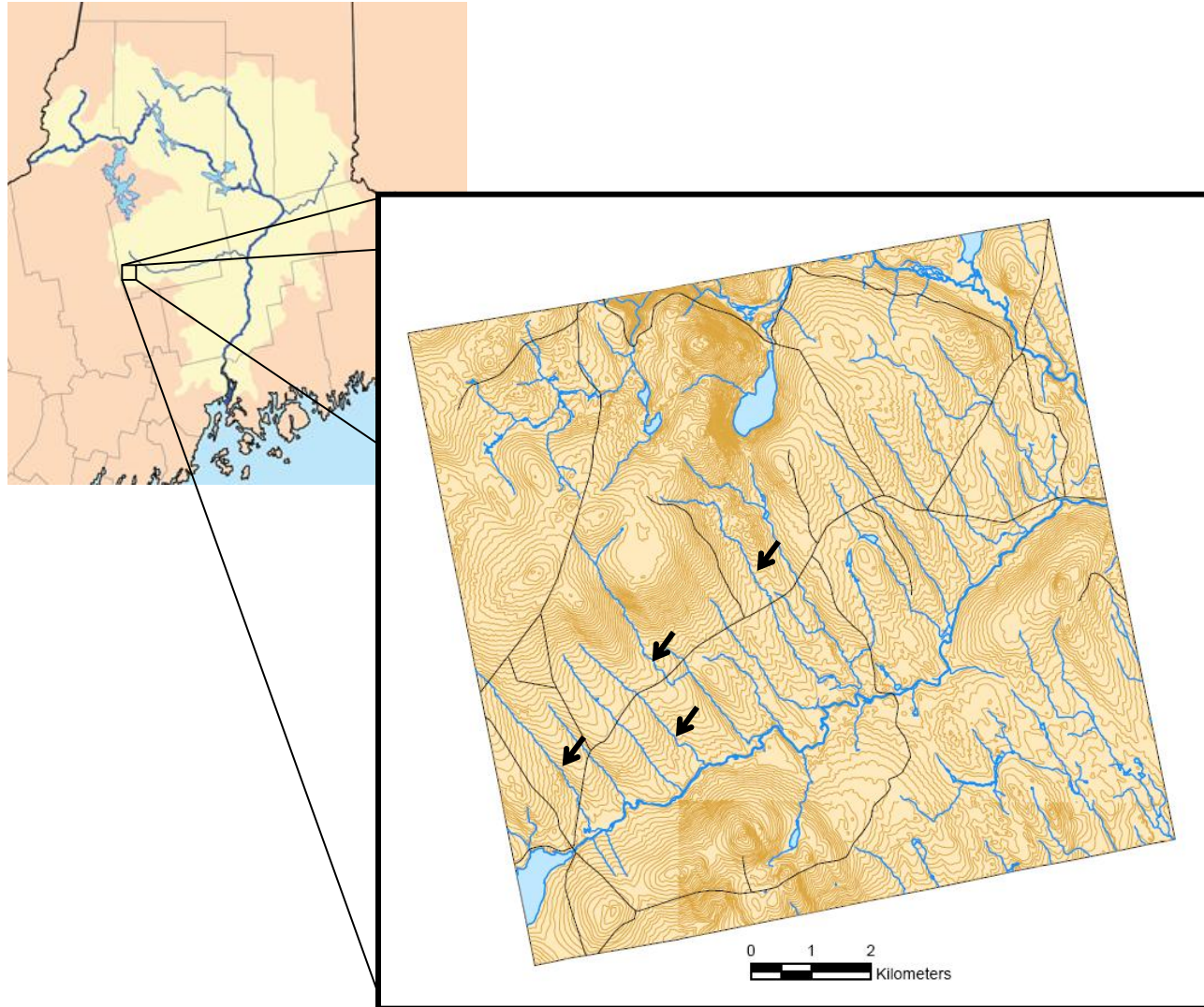
Survival to the ocean of imprinted smolts



Response of community components of Atlantic salmon nursery streams to MDNs



Controlled experiment in salmon nursery streams



Stocking



300/unit

Carcass analog



- Advantages:
 - Logistics
 - Free of pathogens
 - Standardized



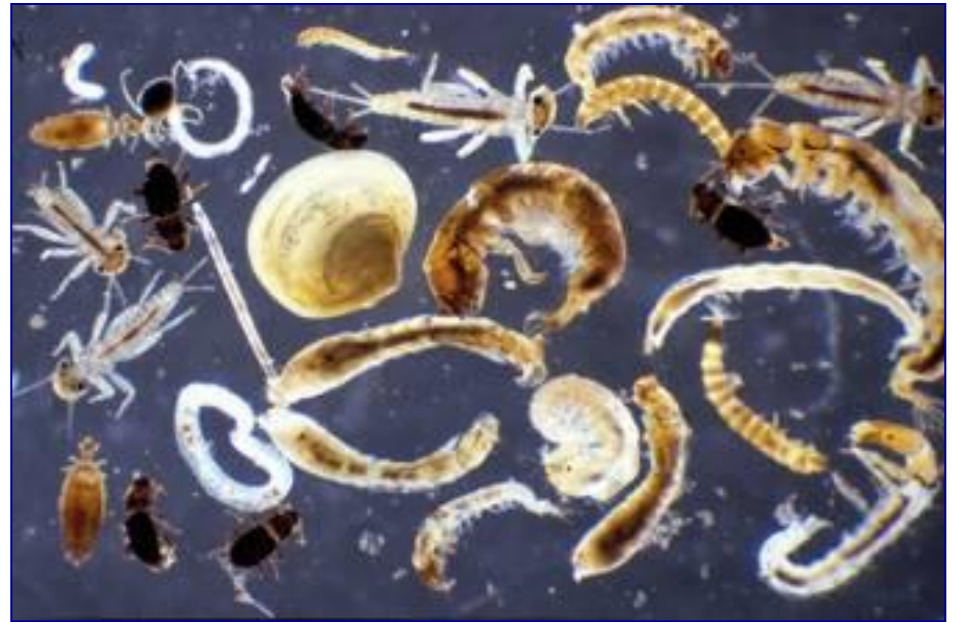
Age 0+ Atlantic salmon response

- Electrofishing
 - Growth rate ?
 - Condition factor?
 - Lipid contents?
 - Treatment sections?



Macroinvertebrate response

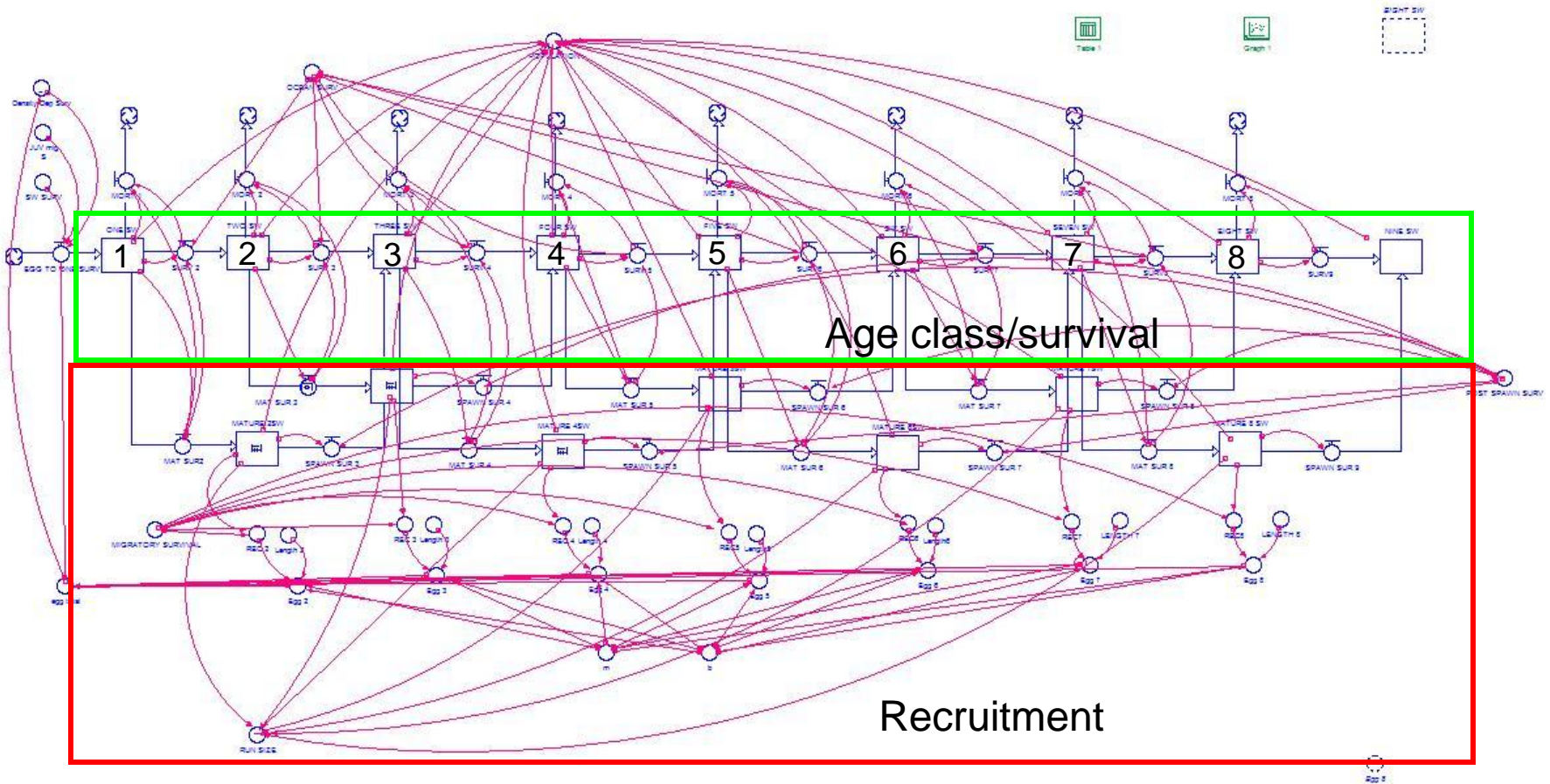
- Biomass increase?
- Community composition change?



American Shad in the Penobscot River



Modeling of shad population- Stella



Radio telemetry of shad

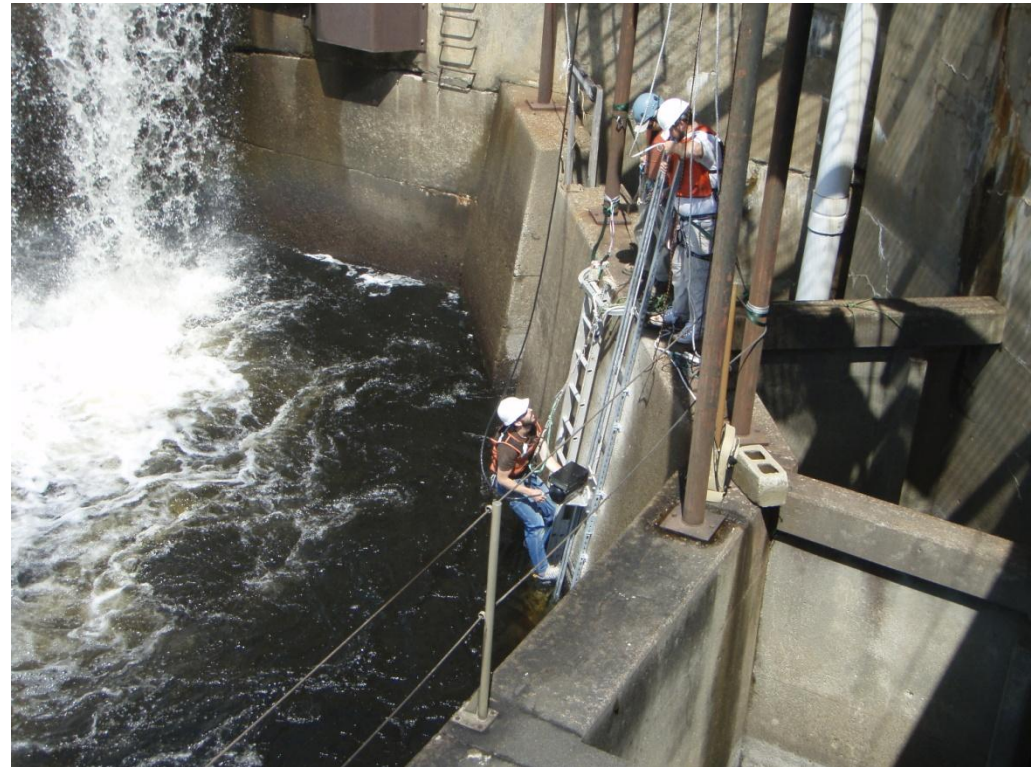


Didson- Dual Frequency Identification Sonar

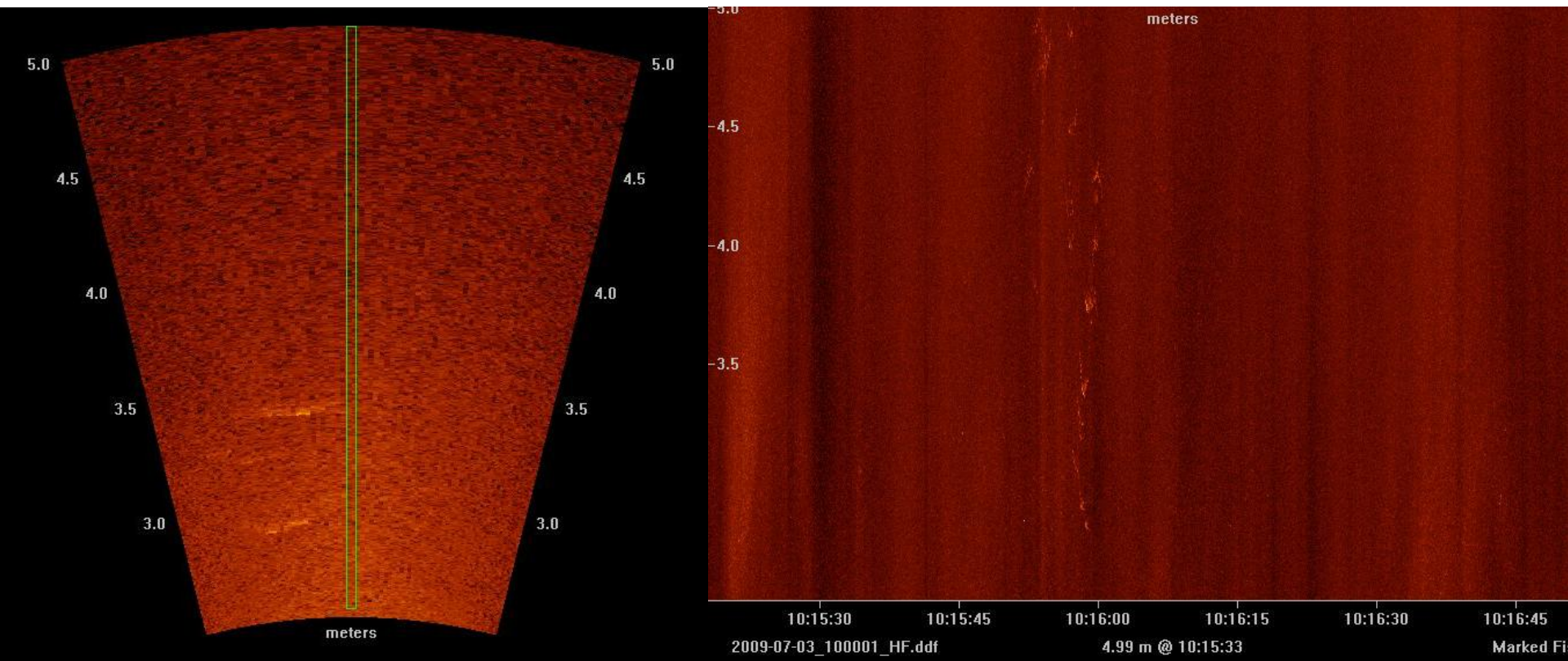


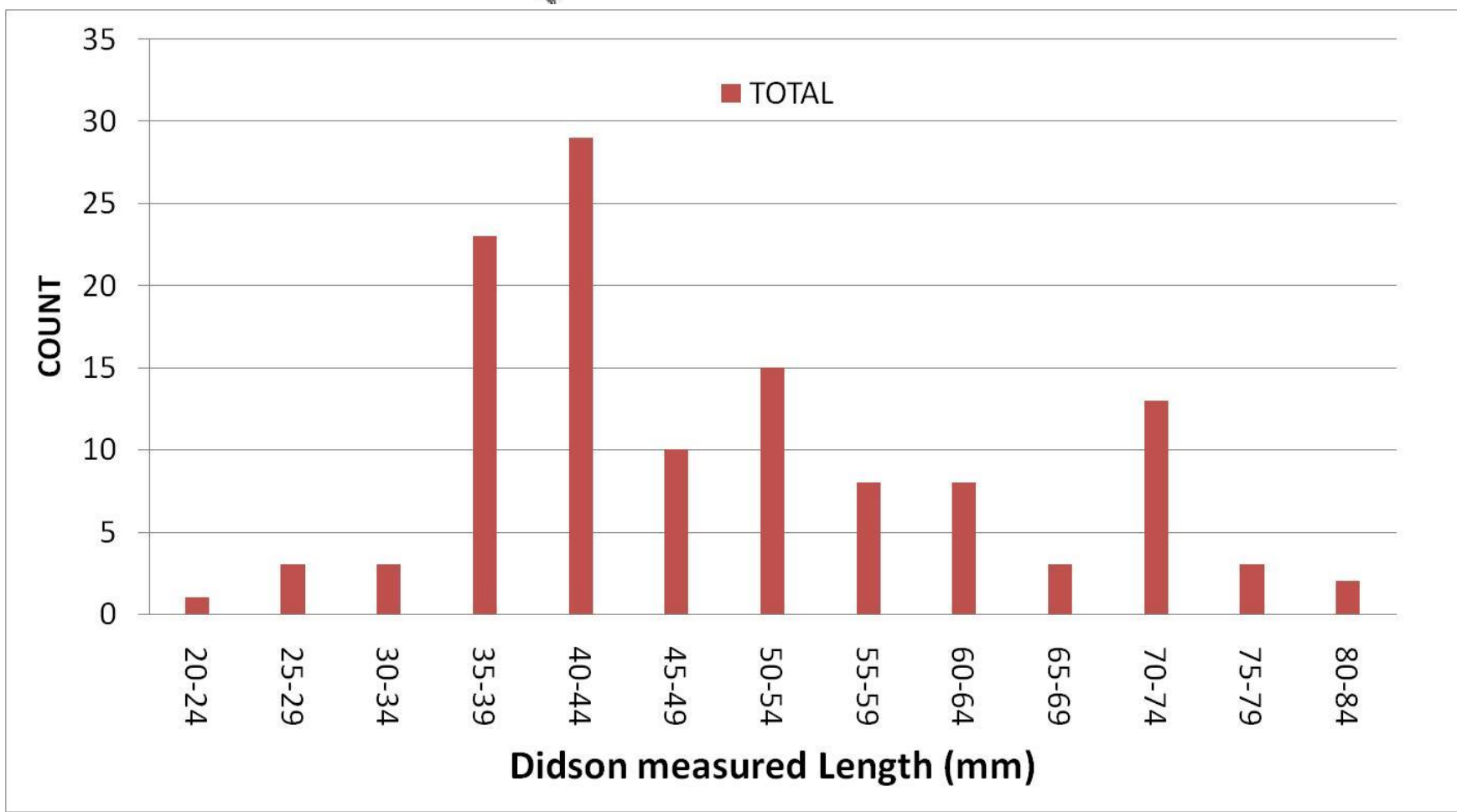
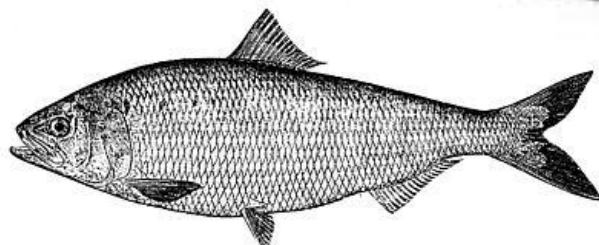
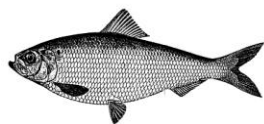
Didson installation at Veazie Dam

- June-July 2009



Didson images

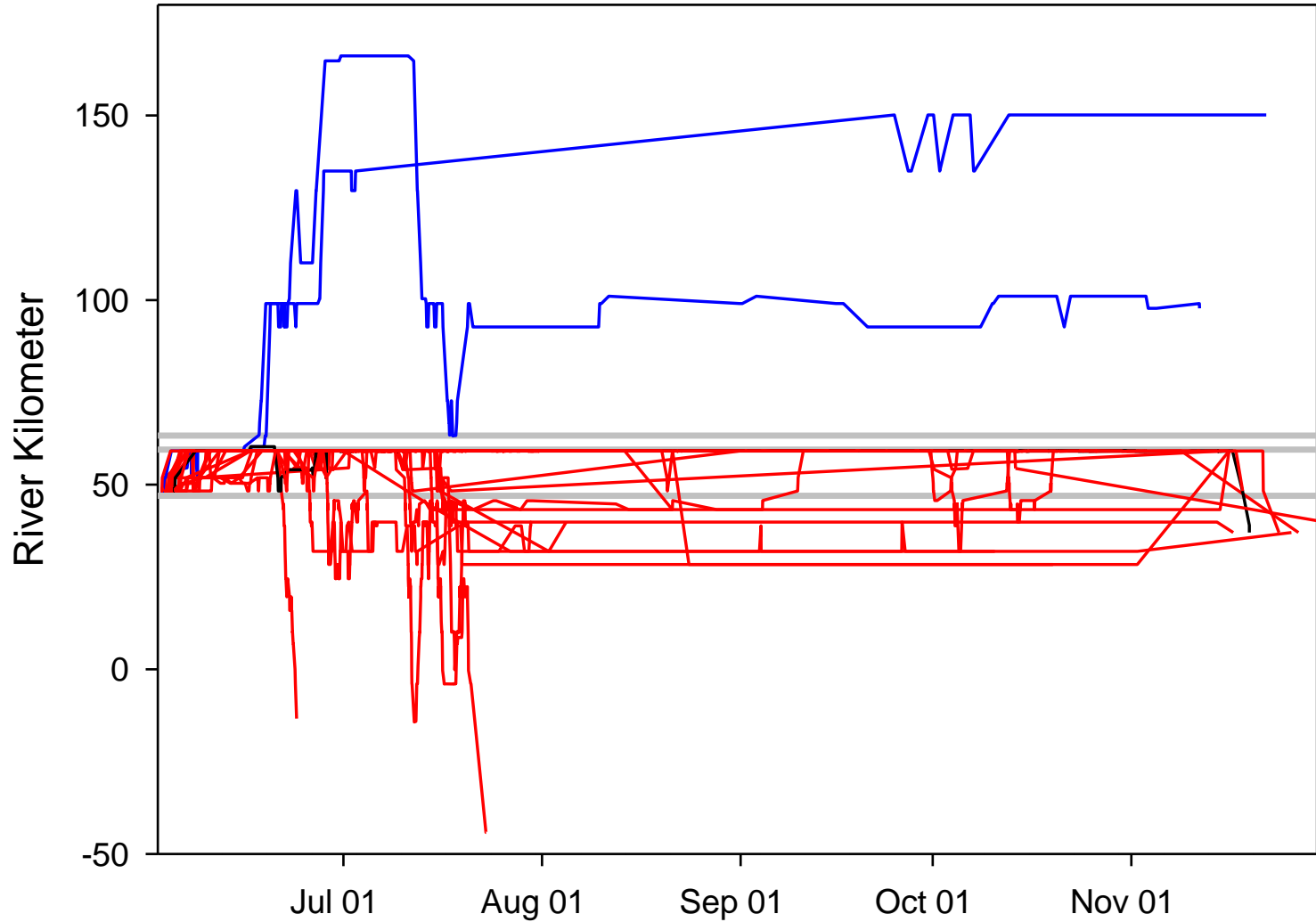




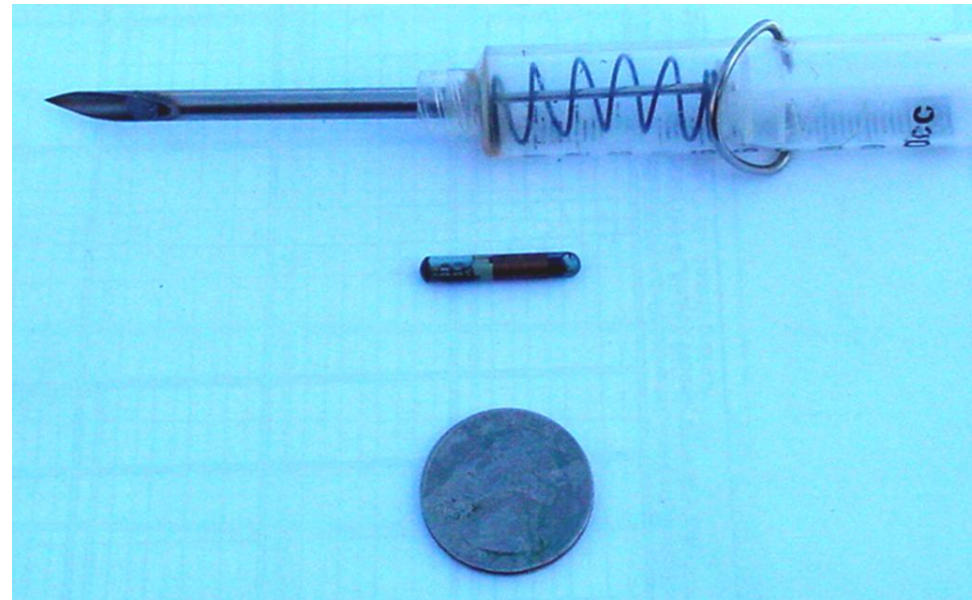
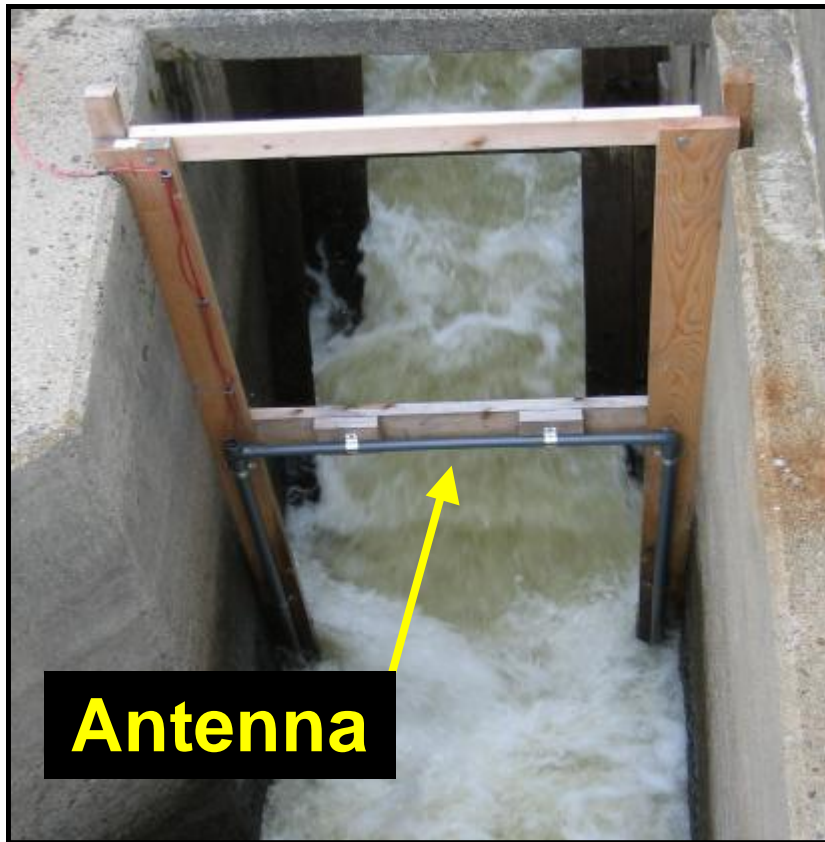
Adult salmon tracking



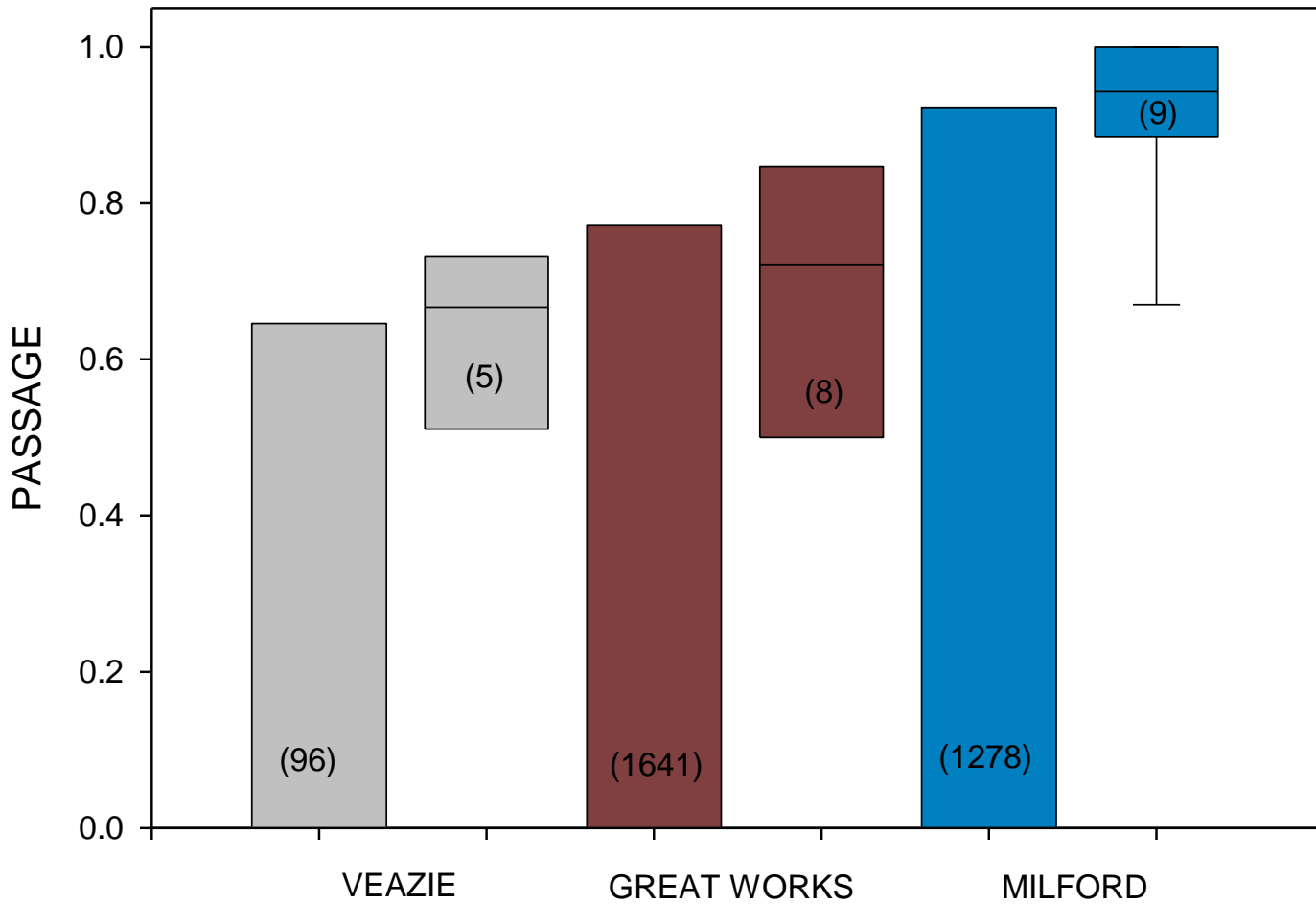
Adult Salmon Tracks 2006



PIT antenna and tag



PASSAGE OF ADULT SALMON AT MILFORD DAM



Installation of PIT antennas



Acknowledgements

- *PRRT*
- *National Fish and Wildlife Foundation*
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- *PPL Maine*
- *Atlantic Salmon of Maine*
- *A wicked lot of volunteers*

