

Status and Trends of Predator Populations in Lookout Point Reservoir

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Objectives

- Provide baseline (pre-drawdown) information on relative abundance, size, and distribution of predators in LOP
 - Standardized sampling with boat electrofishing and gill nets
 - May-June (2013-2015)

- *Monitor movement, habitat, and spawning activities of Northern Pikeminnow*
 - Radio-telemetry (2015)
 - Tags donated from OHRC

The Four Target Species in LOP

Largemouth Bass



Northern Pikeminnow



Walleye

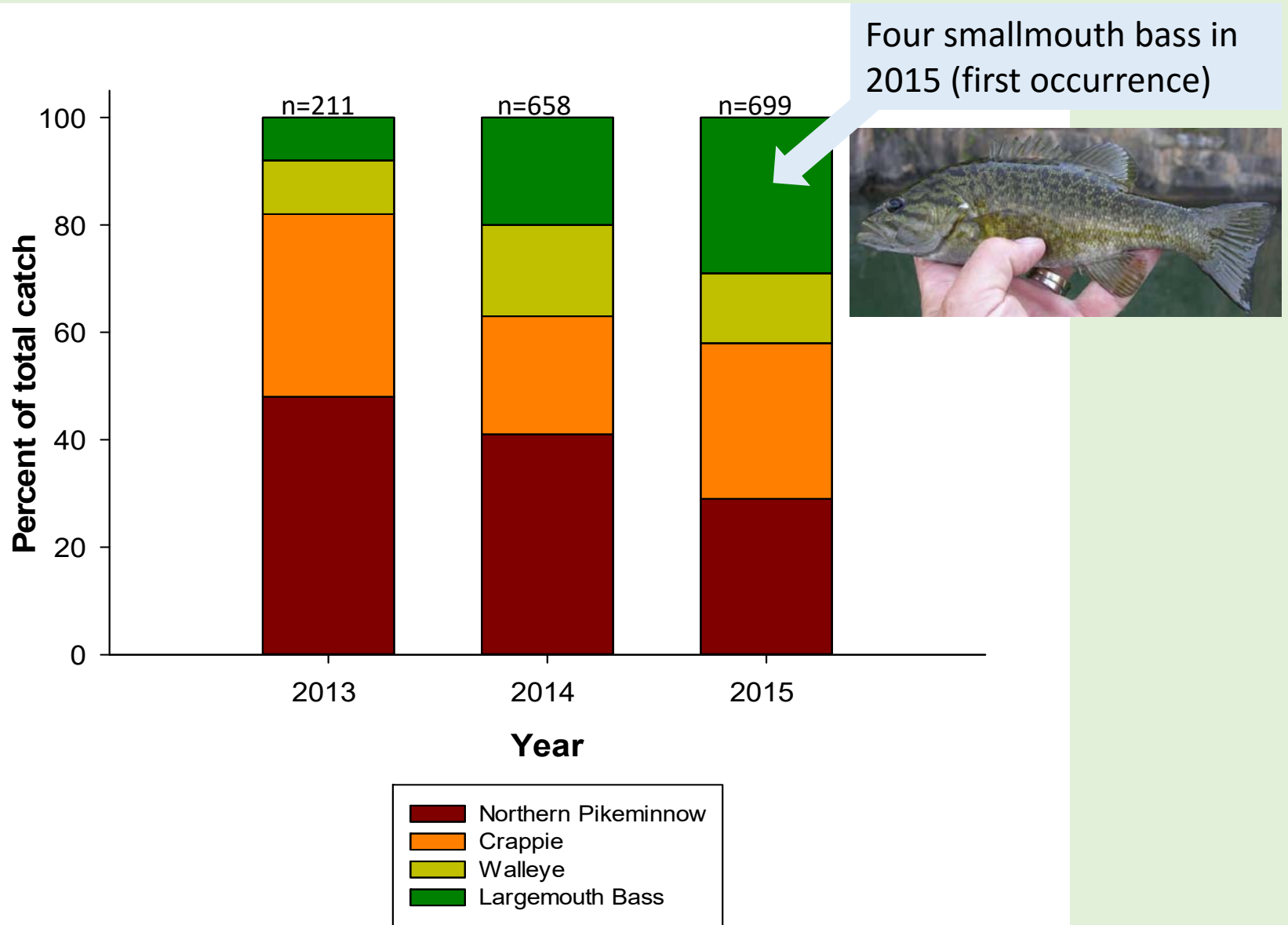


Crappie



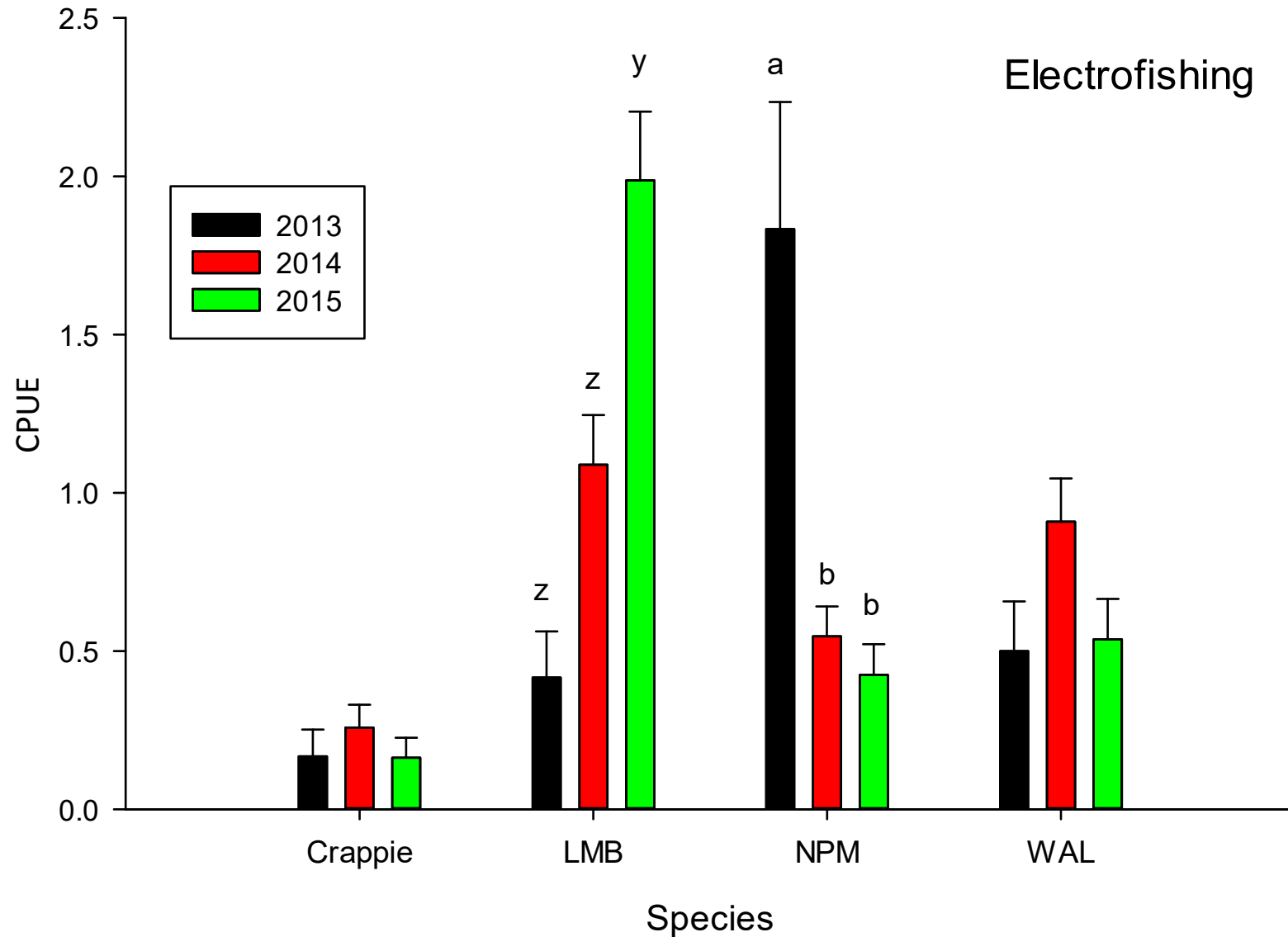
Results

Relative Abundance



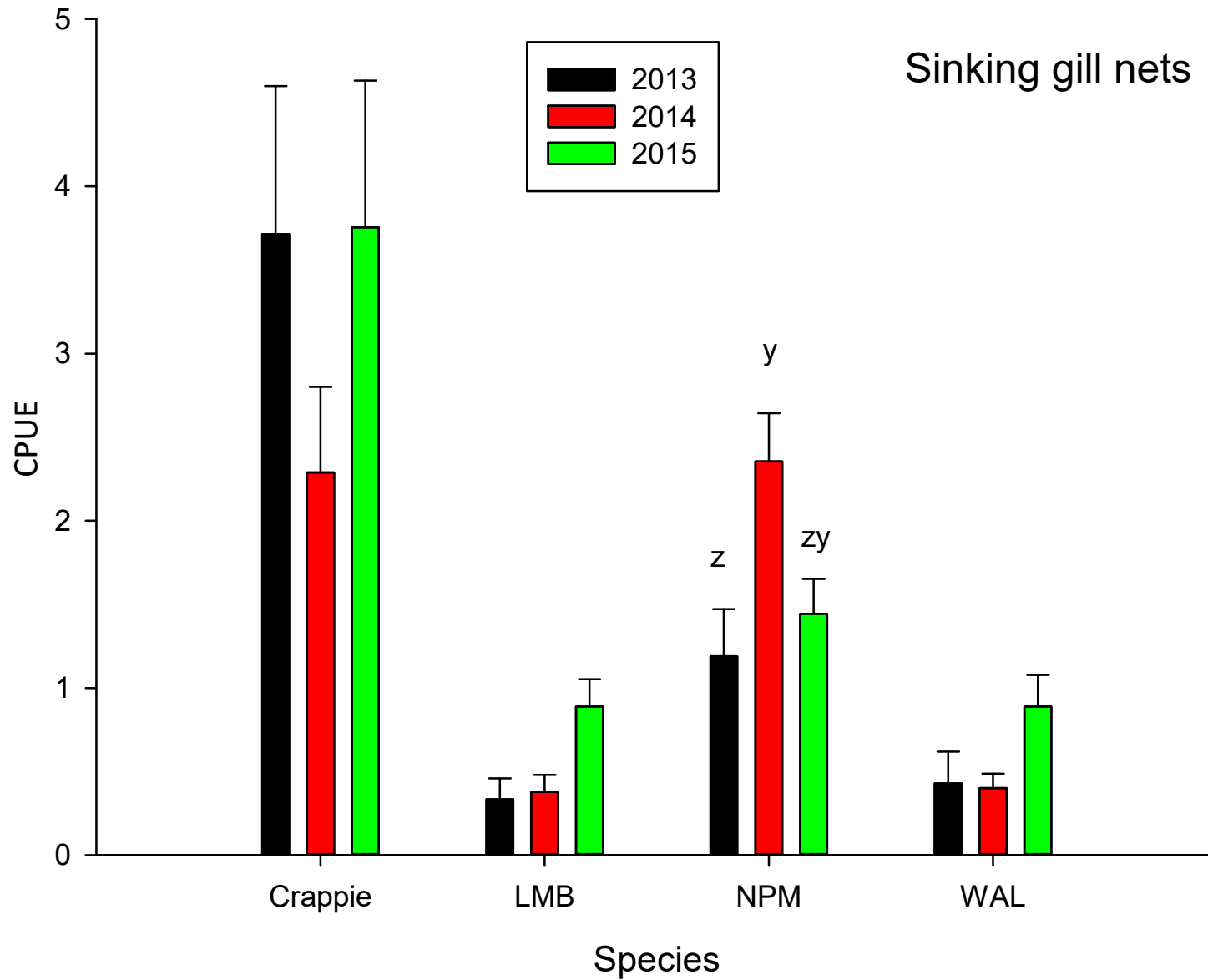
Results

Relative Abundance



Results

Relative Abundance

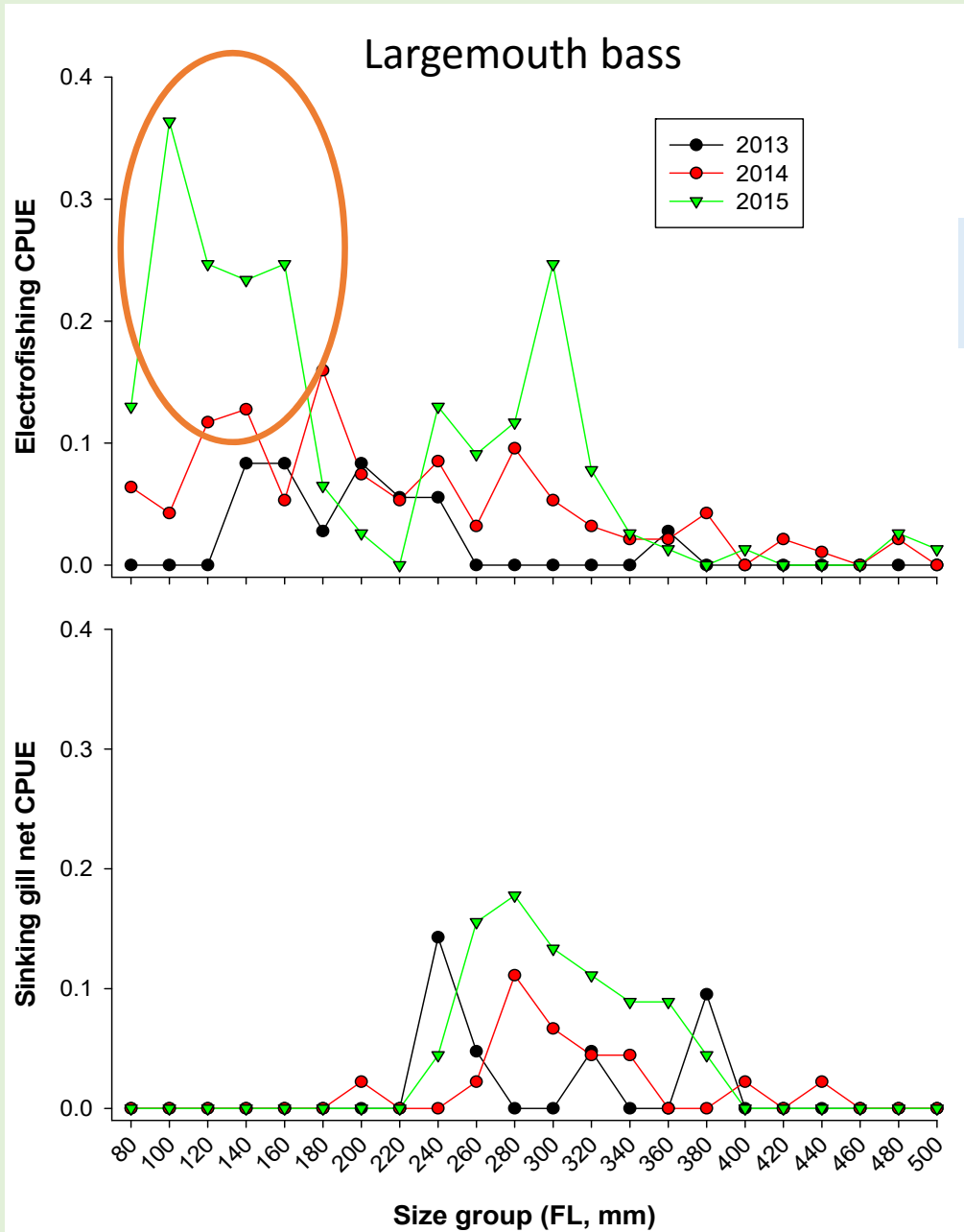


Why so variable?

Variation in CPUE among years possibly due to interplay of:

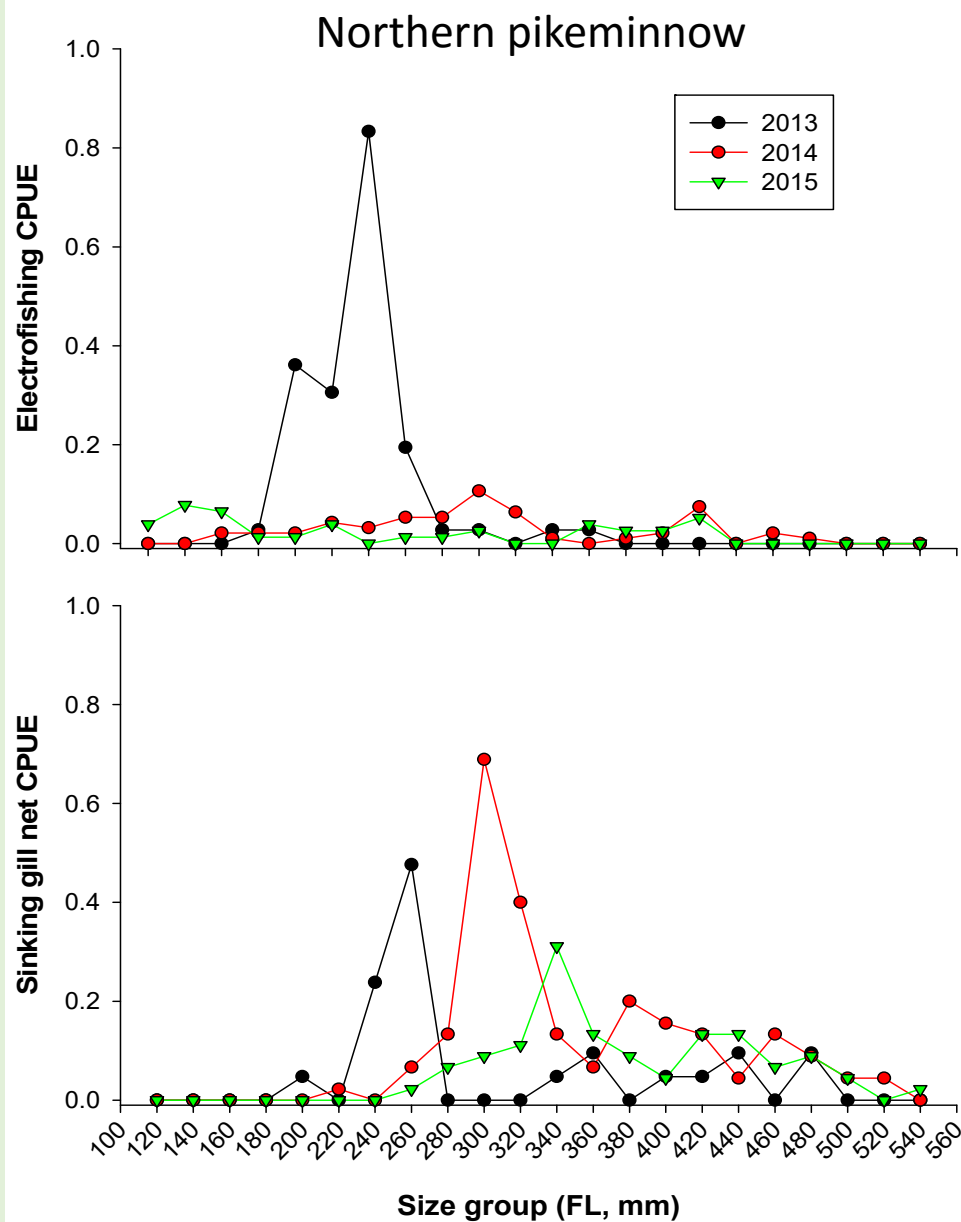
- Size selectivity of gear type
- Increasing fish size as a year-class grows
- Variation in year-class recruitment of a species

CPUE by Size Group



2015 recruitment of LMB 100-180 mm FL
-Age 1 (2014 year-class)

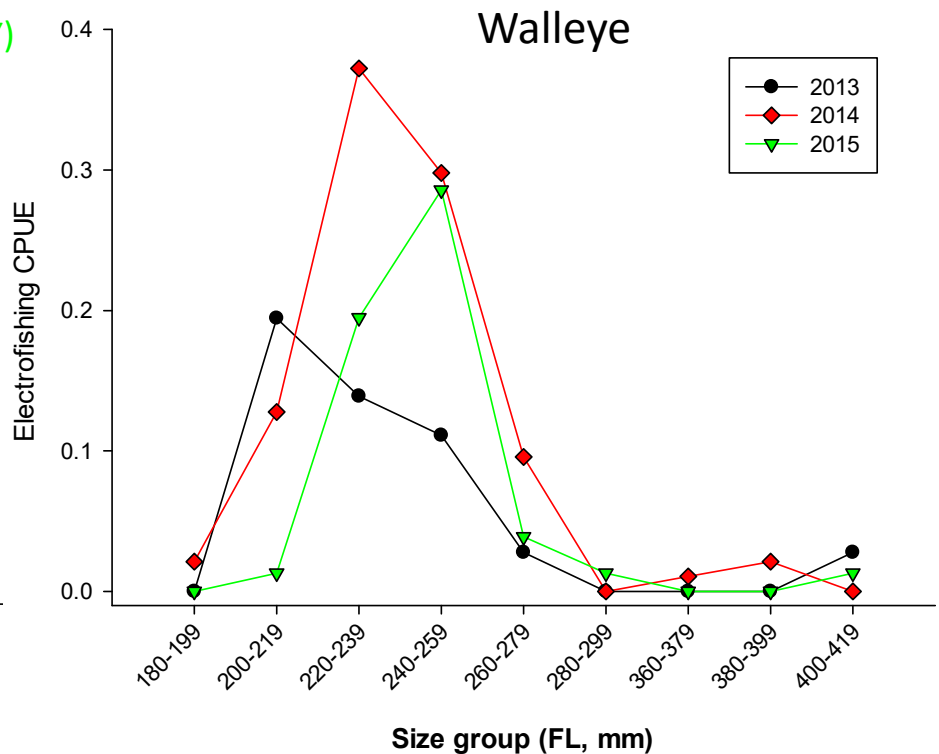
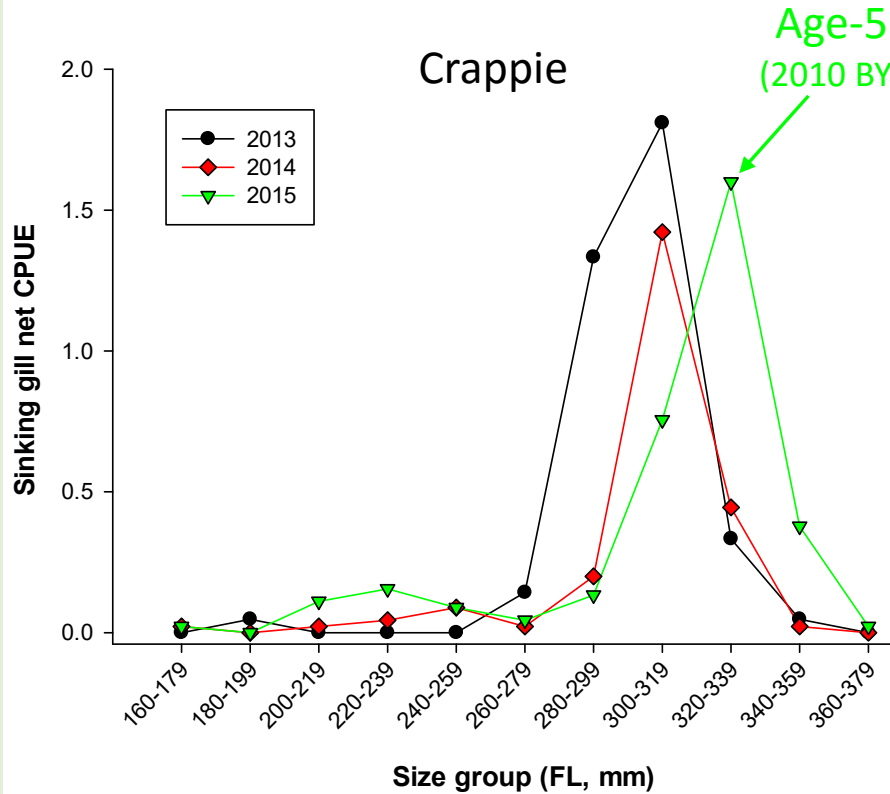
CPUE by Size Group



Variation in CPUE among years possibly due to:

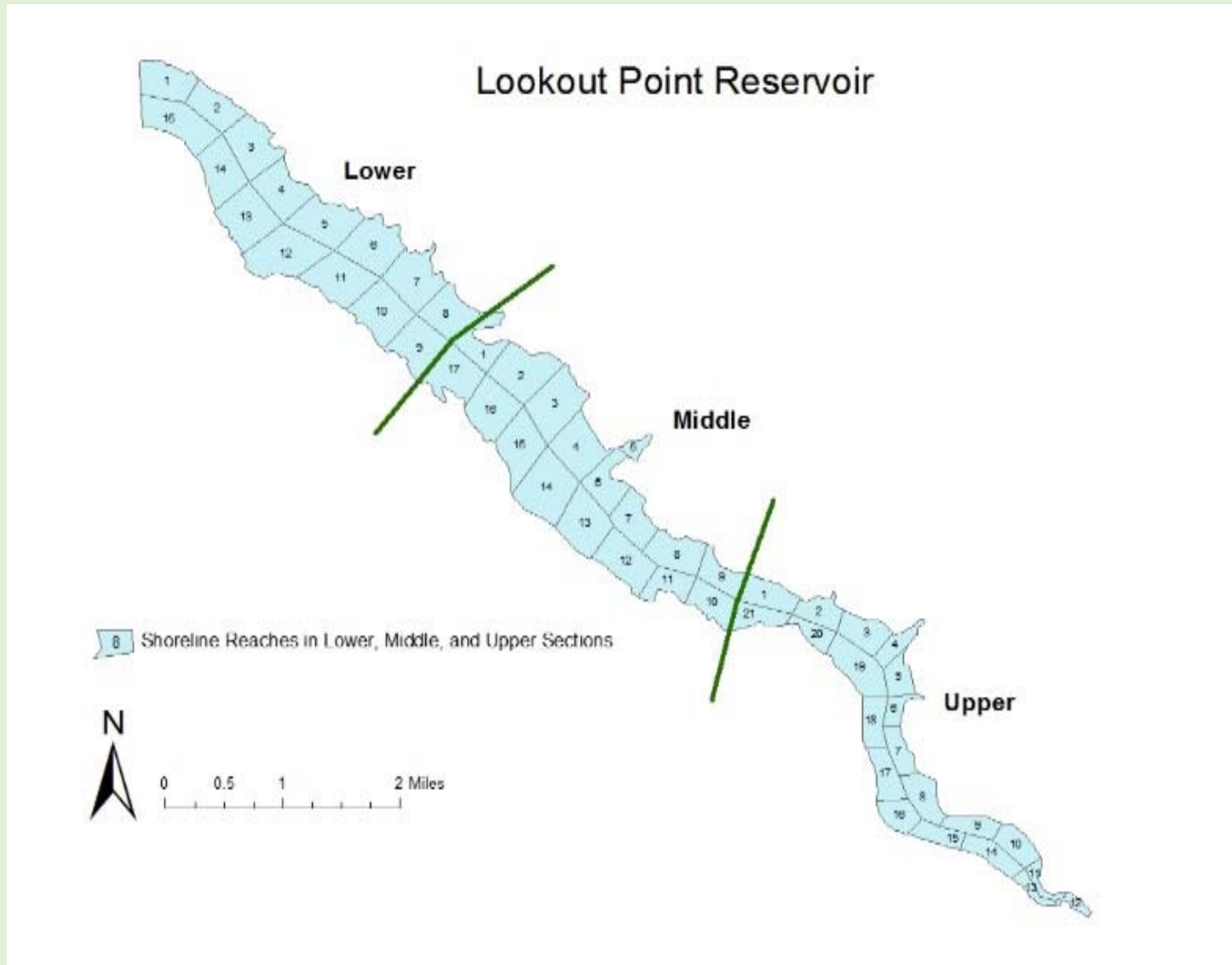
- Size selectivity of gear type
- Changes in age structure (size) within a species
- Shifts in habitat (RT study)

CPUE by Size Group



Mean Fork Length (mm)		
Year	Crappie	Walleye
2013	300.4	236.1
2014	305.1	240.7
2015	311.4	247.2

Results Distribution



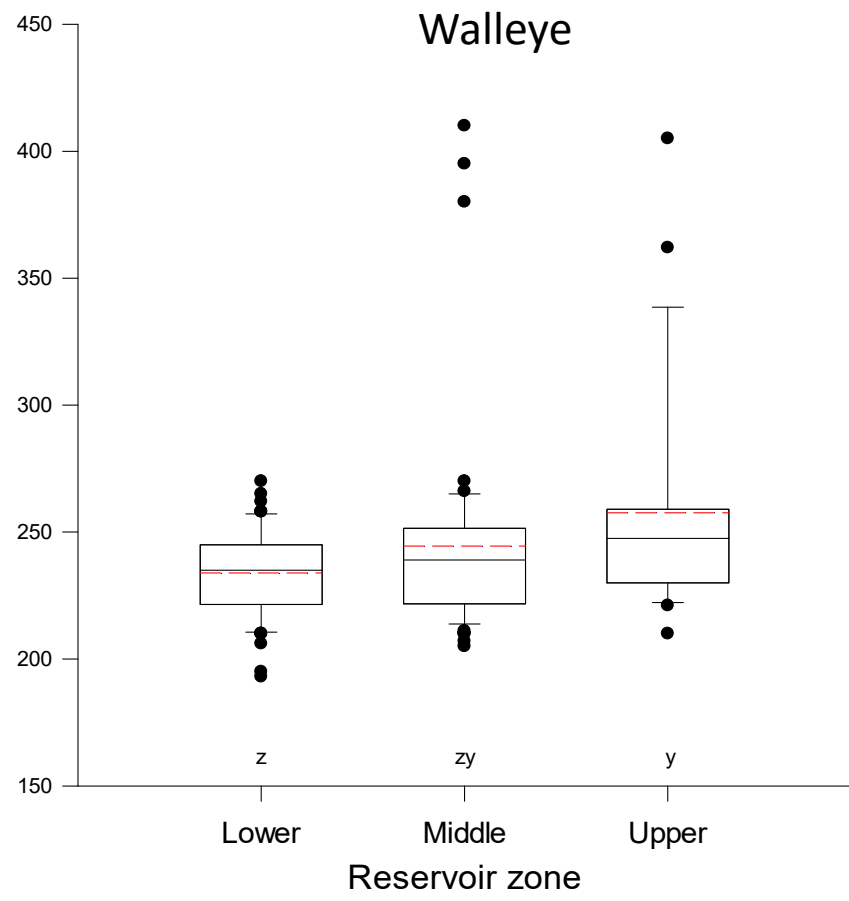
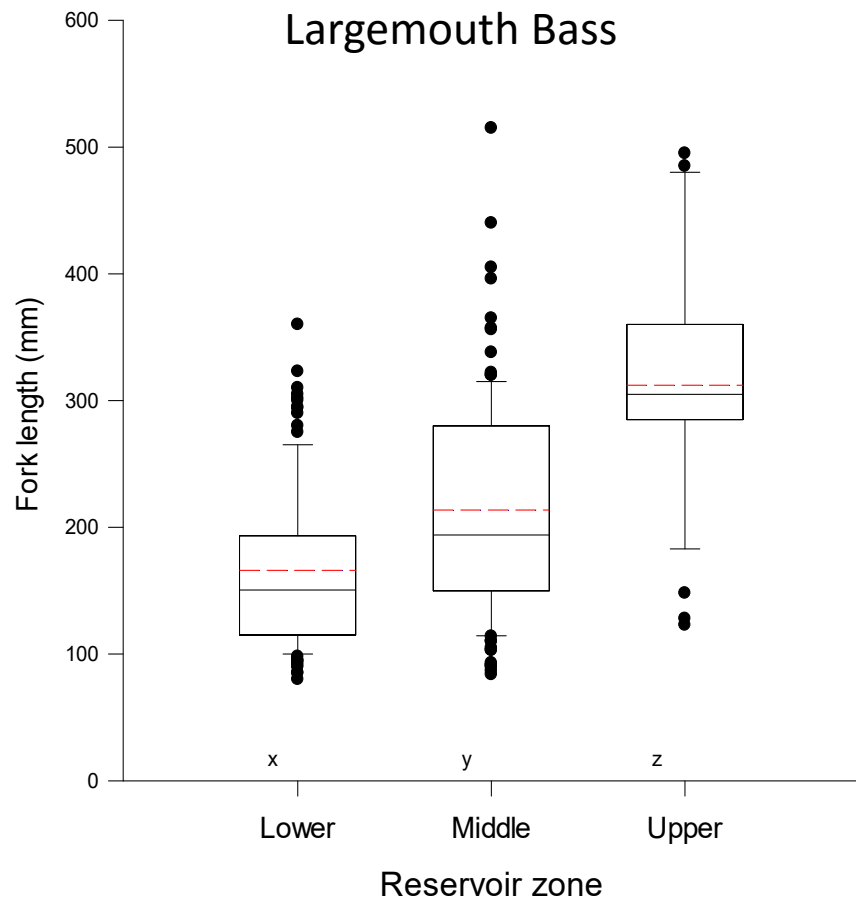
Results

Distribution

- In all years Crappie had a lower CPUE in the Lower 1/3 of the reservoir compared to the Middle and Upper zones.
- Northern Pikeminnow CPUE was significantly greater in the Upper zone.
- Largemouth bass and Walleye CPUE was similar among reservoir zones (but larger fish were more often in upper zone)

Results Distribution

Size by Reservoir Zone



Northern Pikeminnow RT Study



12 fish tagged in May (tracked 10)

374-463 mm FL

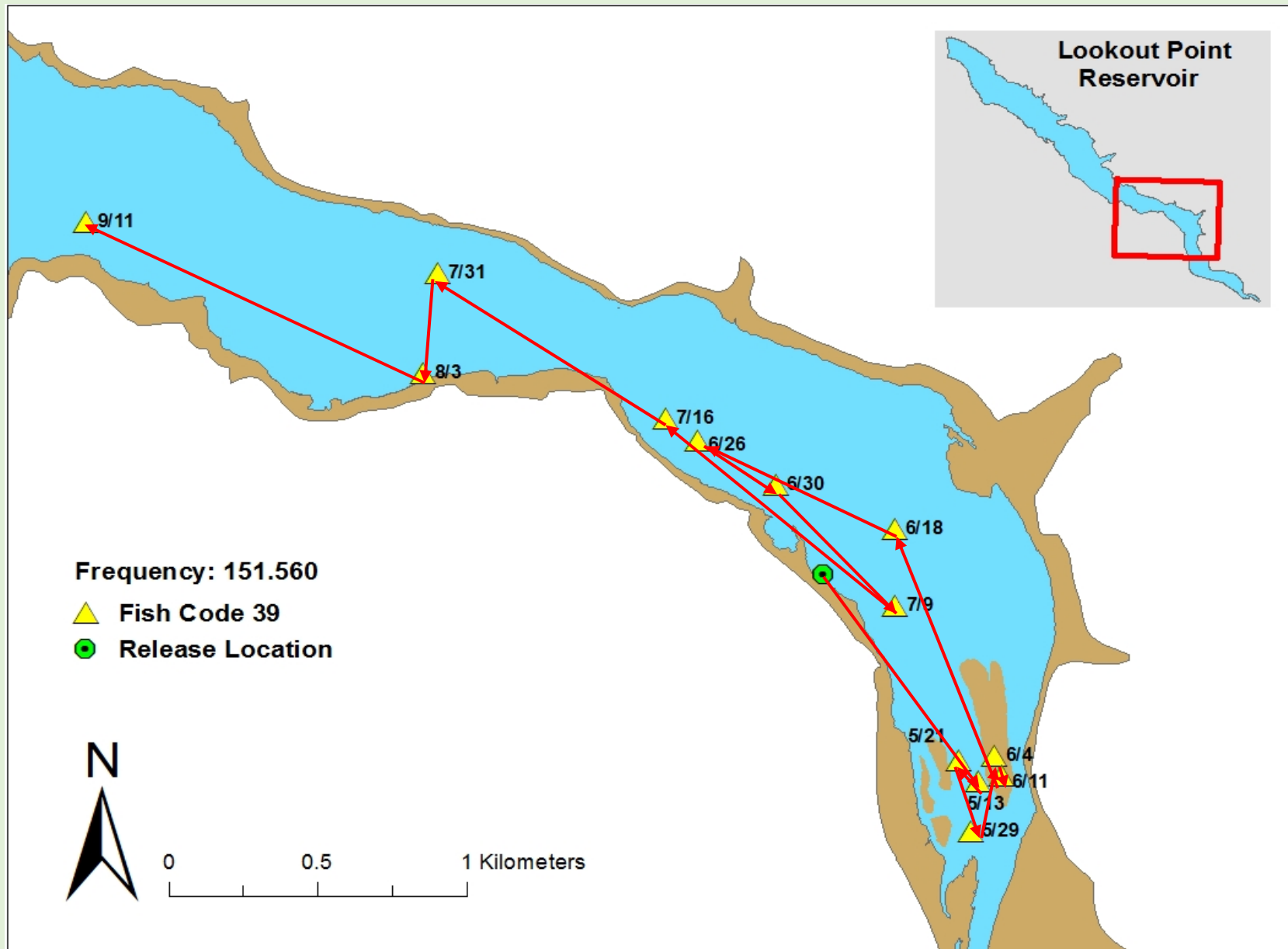
Tracked through mid-September

Results

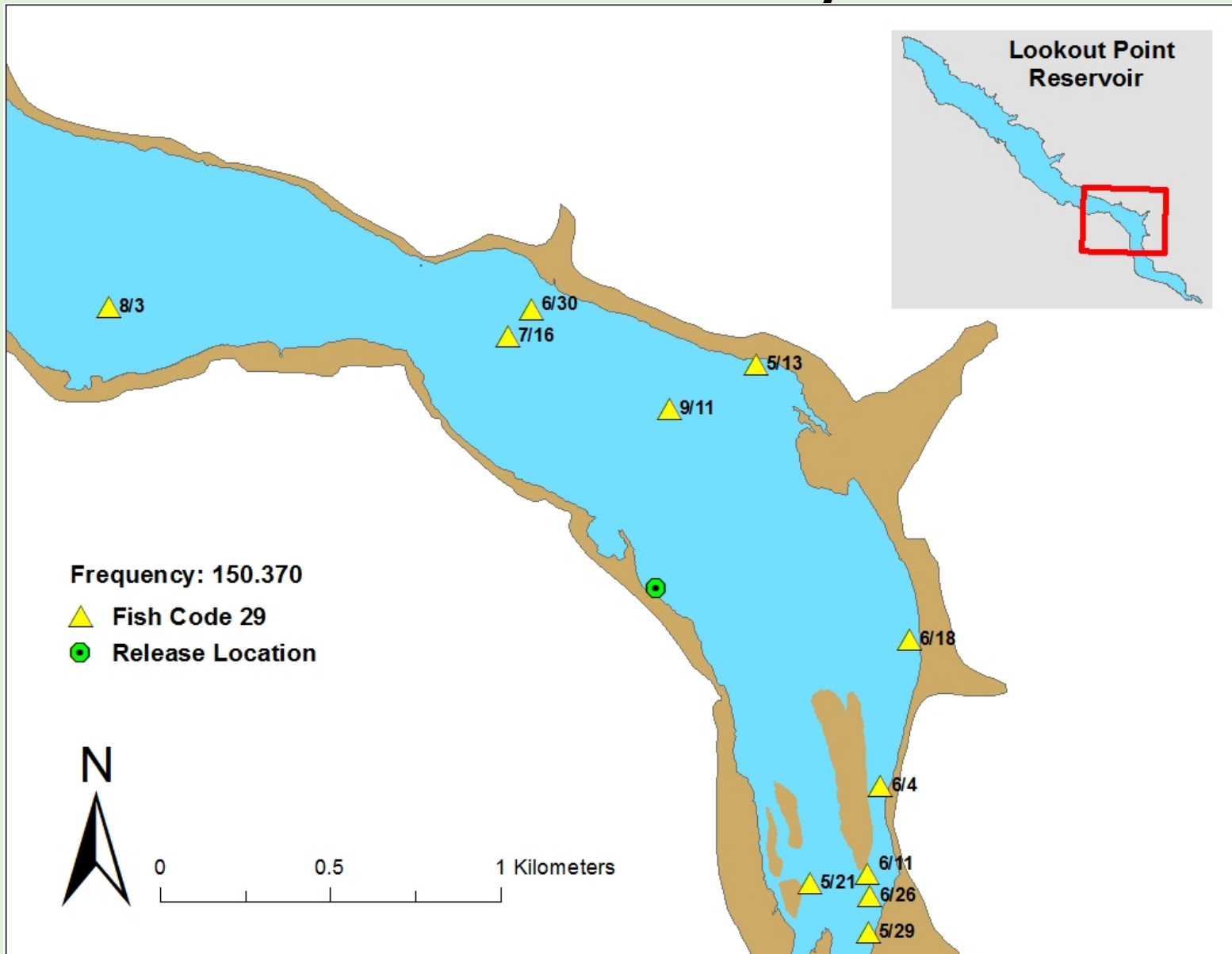
Northern Pikeminnow

- Reservoir 'stayers' (n=6)
- River 'spawners' (n=4)

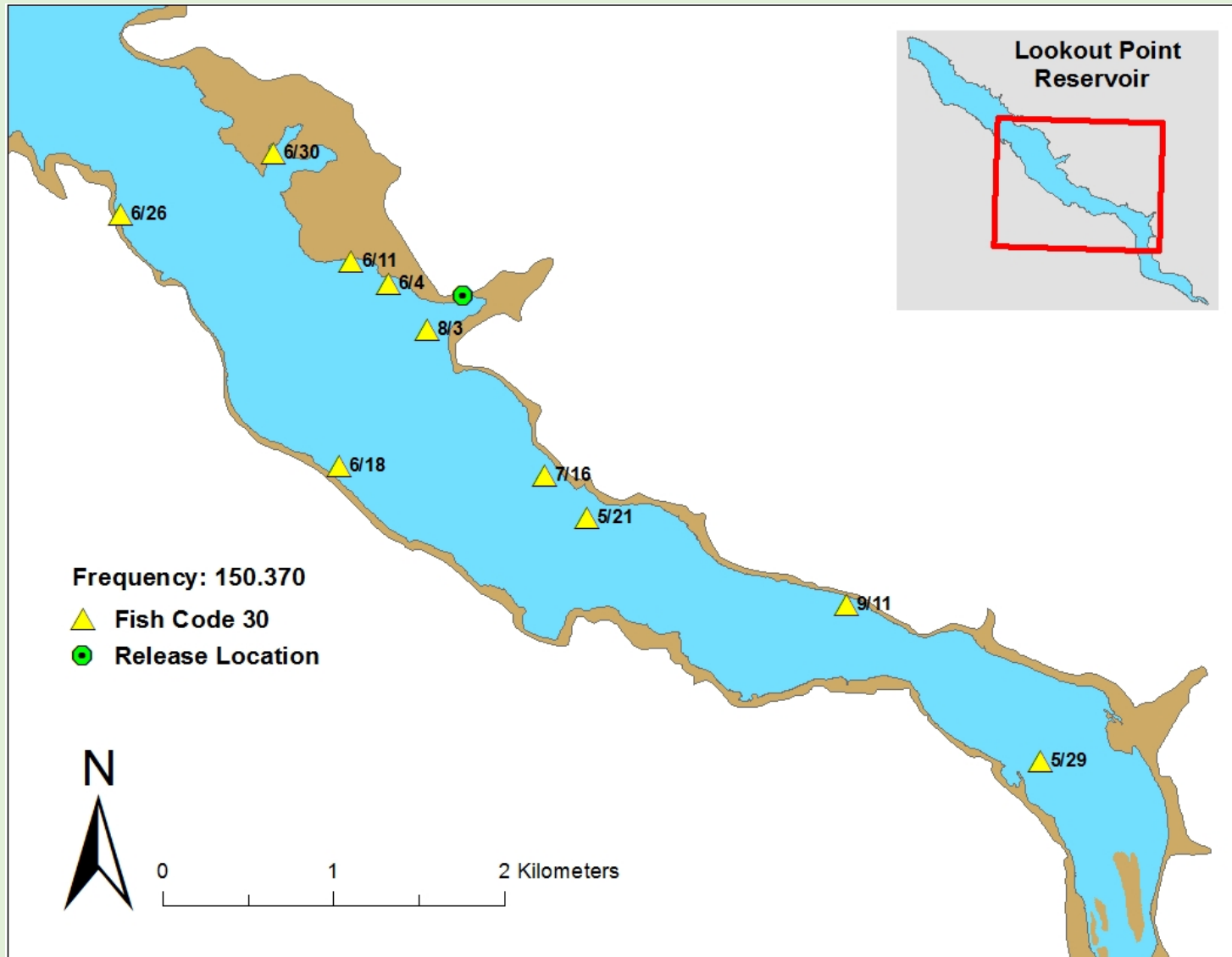
Reservoir Stayer



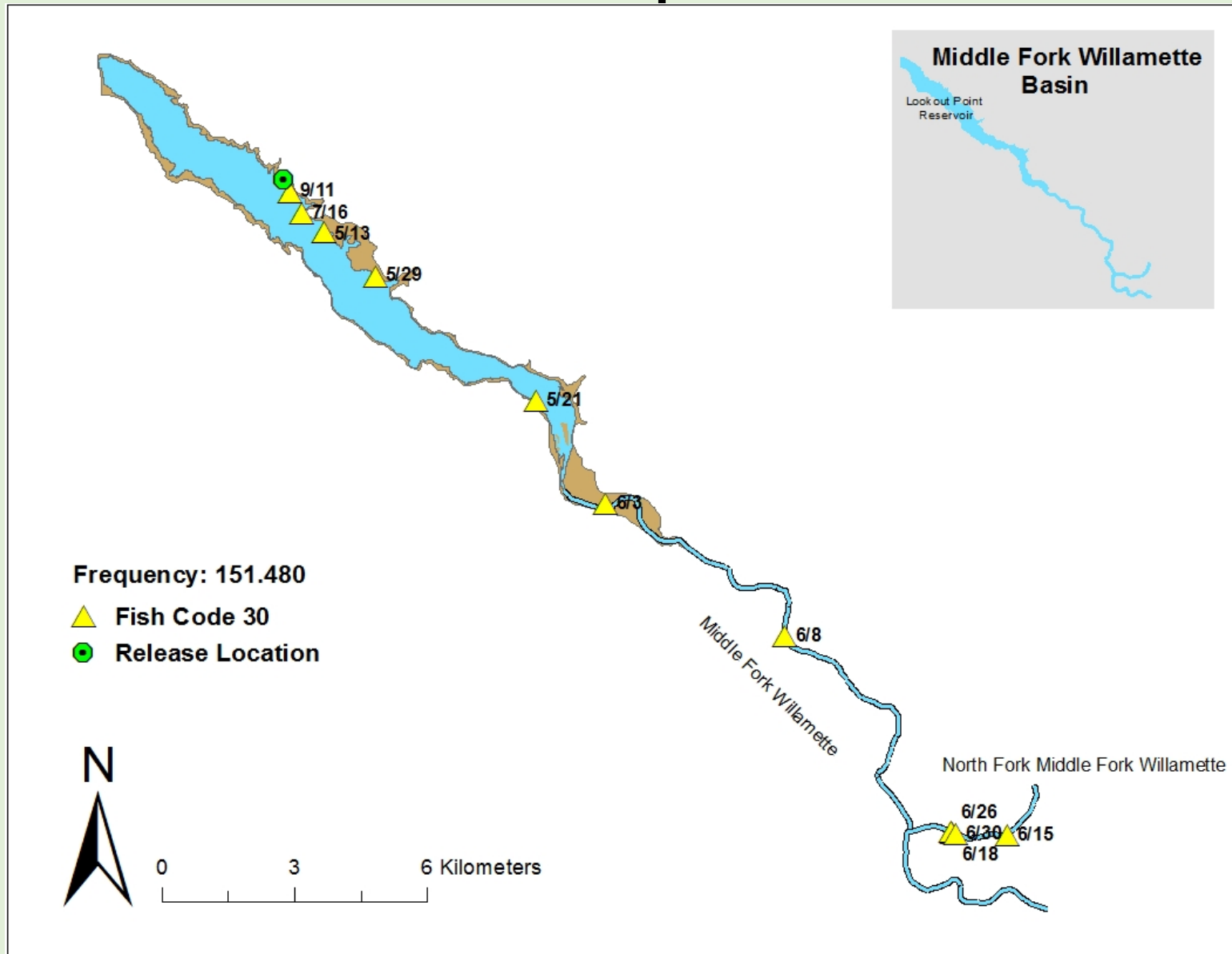
Reservoir Stayer



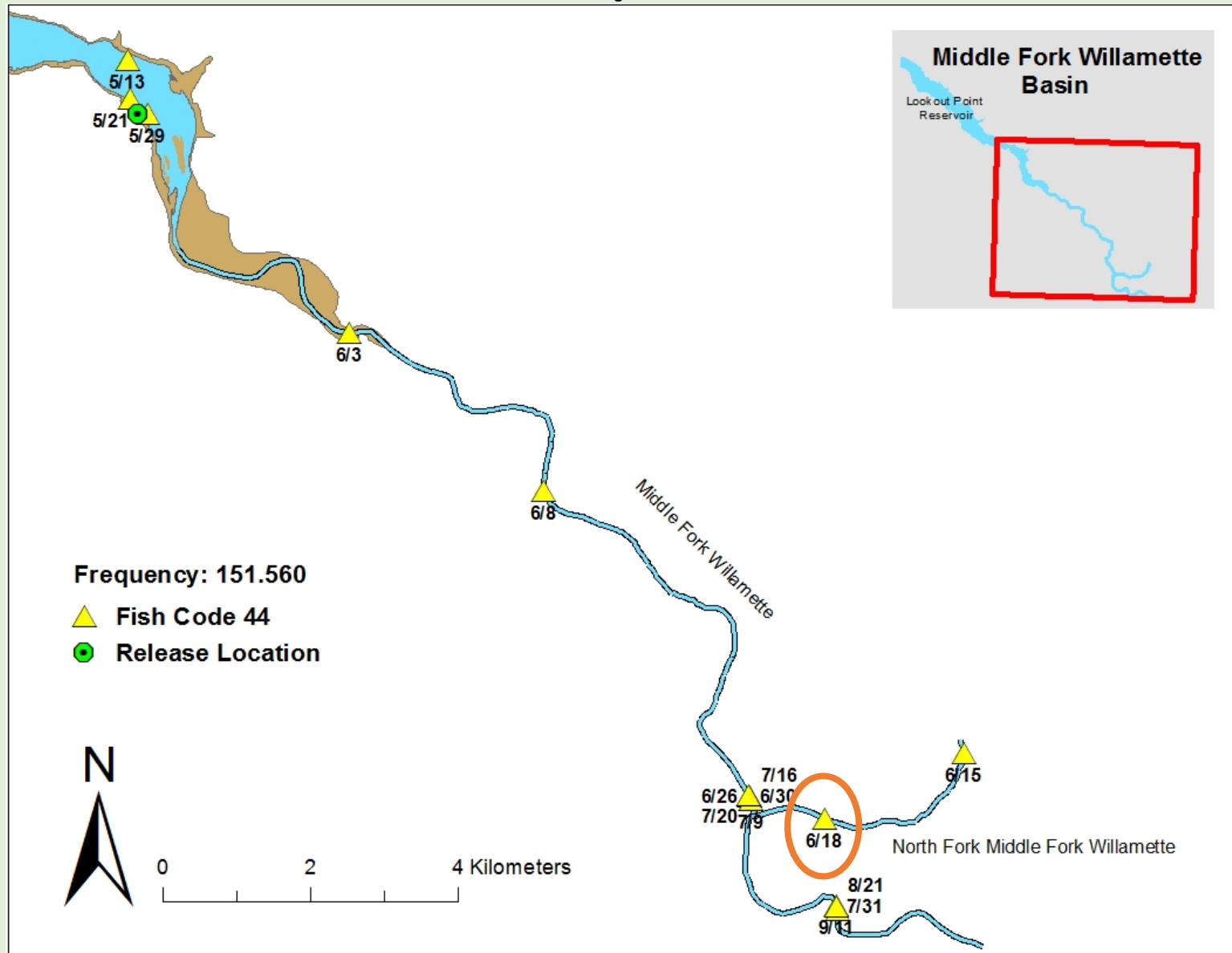
Reservoir Stayer




River Spawner



River Spawner



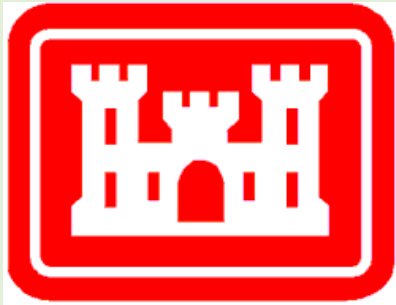


Spawning Aggregation

Conclusion

- Relative abundance of predator species can be highly variable among years
 - Strong recruitment classes of some species
 - Assessment would need to occur just prior to a drawdown
- Predators tended to be more abundant in the middle and upper reservoir
- NPM stayed in upper reservoir (May-Sep)
- NPM spawn in river above reservoir

Acknowledgments



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