



Big Fish Lake Fishery Update: Northern Pike Assessment

Joe Stewig
Area Fisheries Manager
6/13/15



Outline

- NOP Management History
- NOP Population Summary – Big Fish
- Next Steps
- LMB and BLG assessments



NOP History

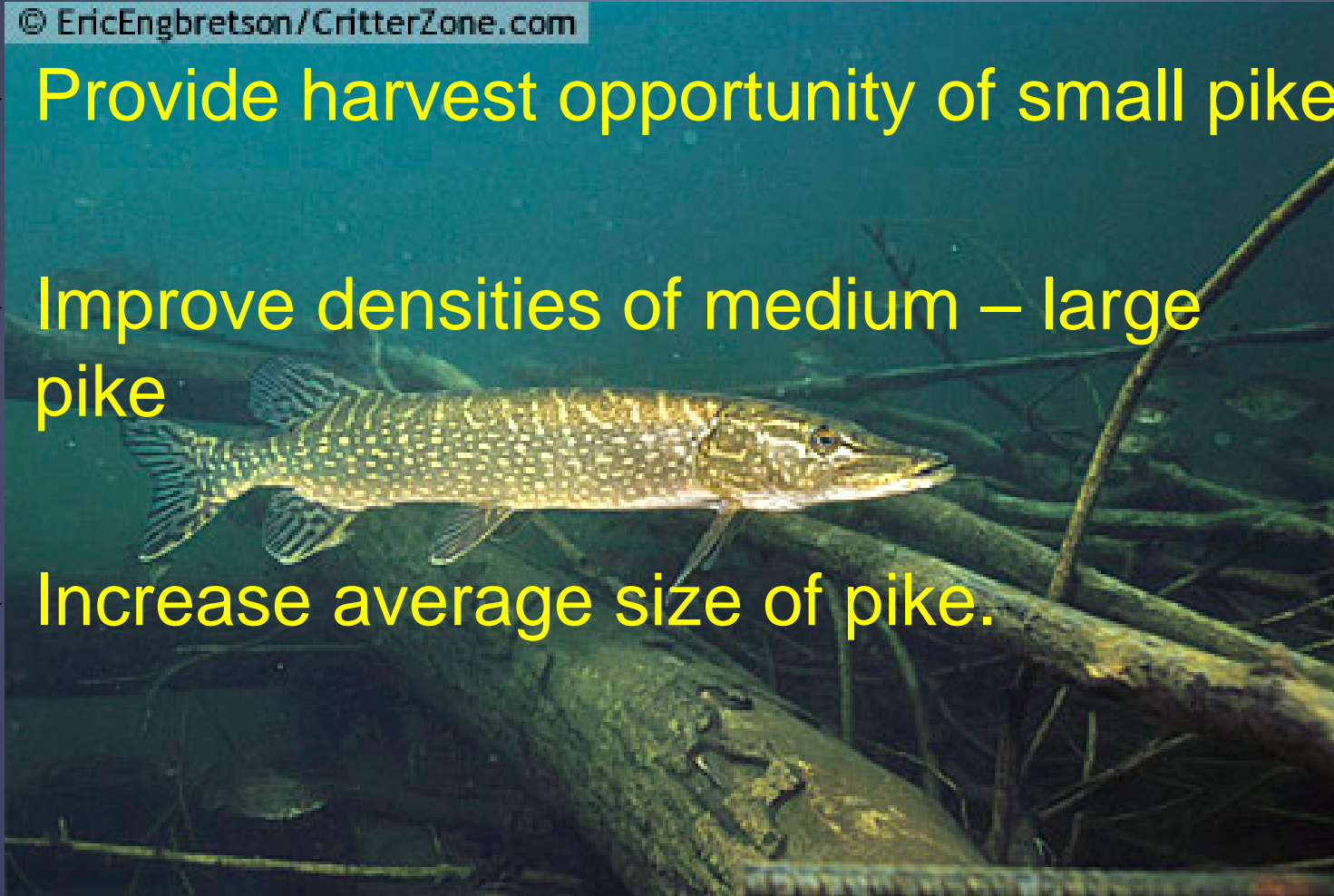
- **State regulation: 3 fish bag limit – 1 > 30" allowed**
 - Shift in population size structure
 - High densities of small NOP
- **Effects on fish community:**
 - Predation on stocked Walleye
 - Loss of perch as forage species
 - Stunted panfish populations
- **Individual Lake Management**
 - Special/ Experimental Regulations
 - Fit regulation to individual waters
 - Proven effective at shifting size structure
- ***Regulation proposal – 2004**



Goals

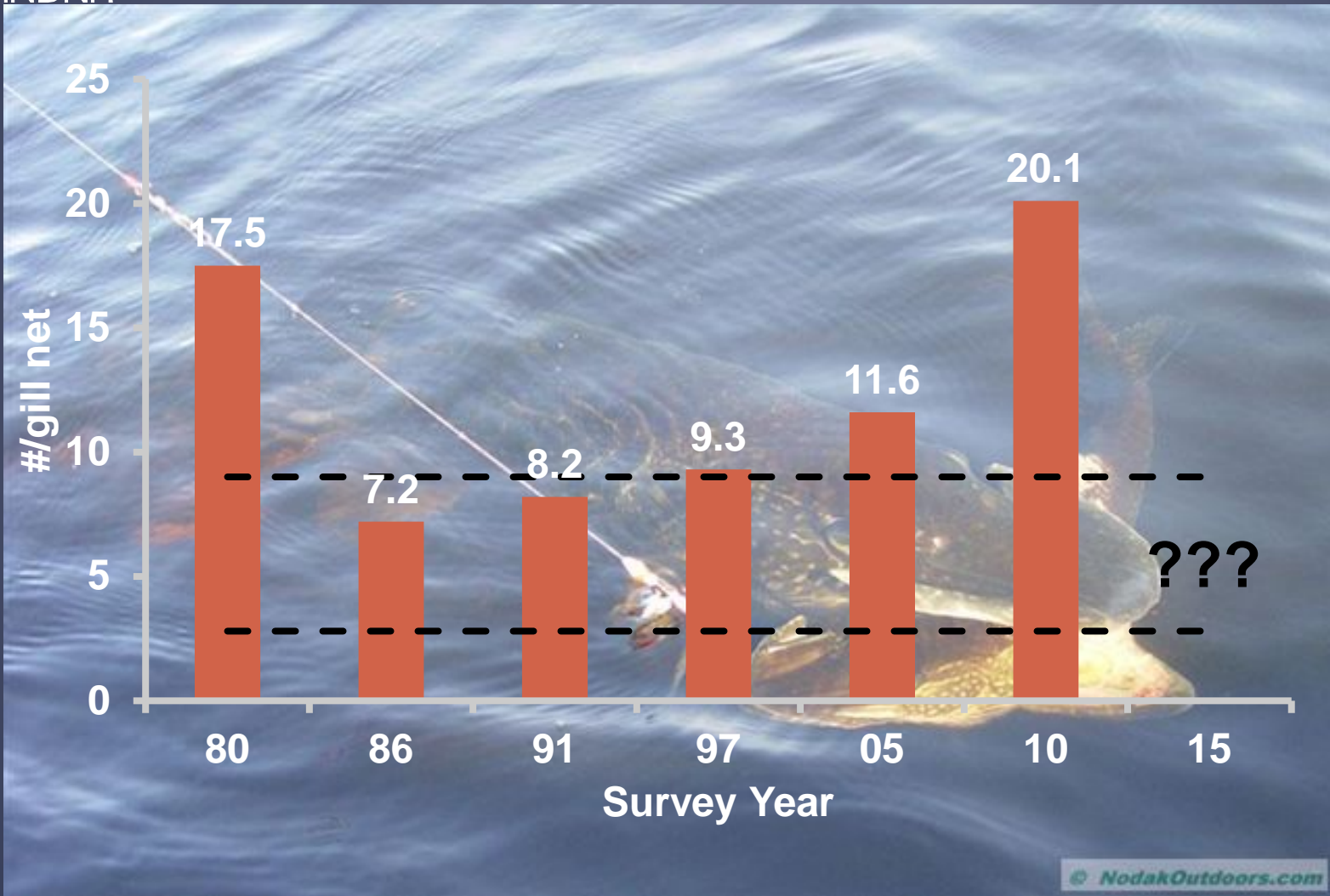
© EricEngbretson/CritterZone.com

- Provide harvest opportunity of small pike
- Improve densities of medium – large pike
- Increase average size of pike.



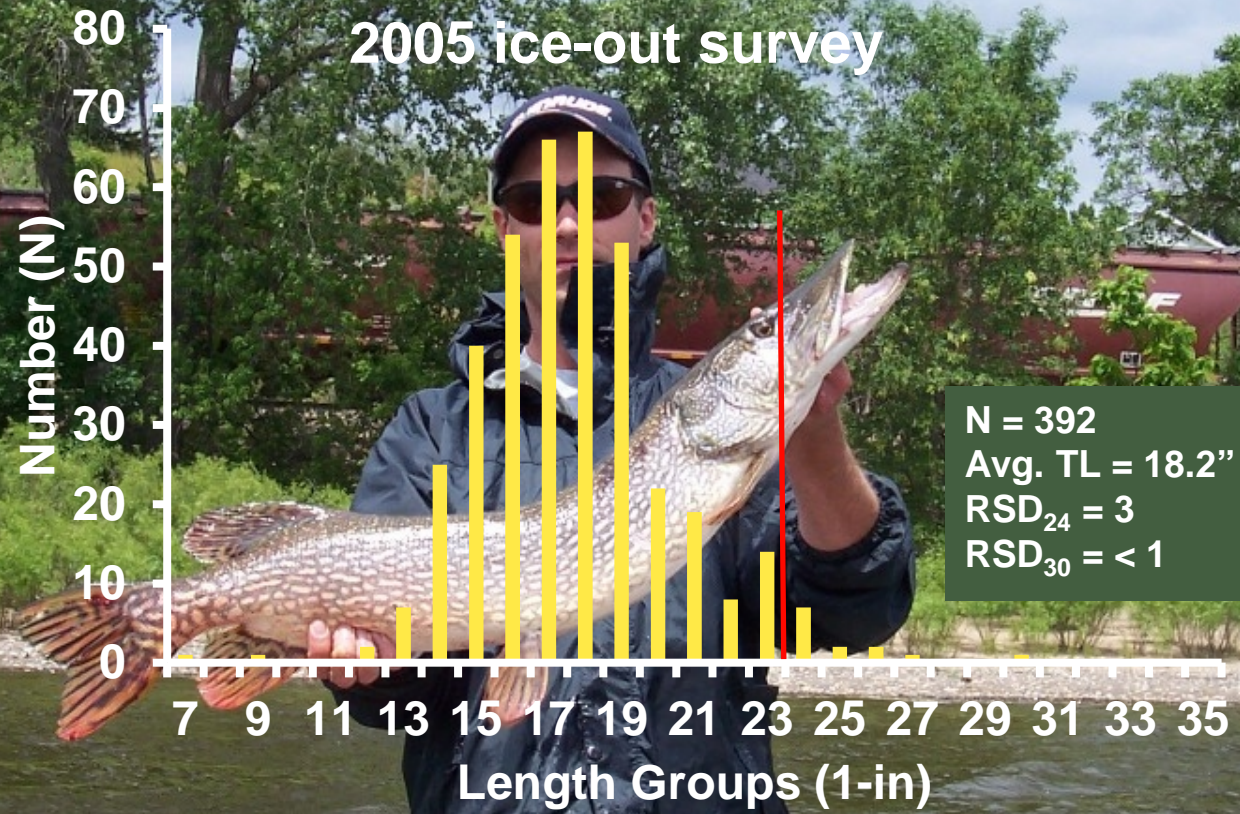


Big Fish NOP



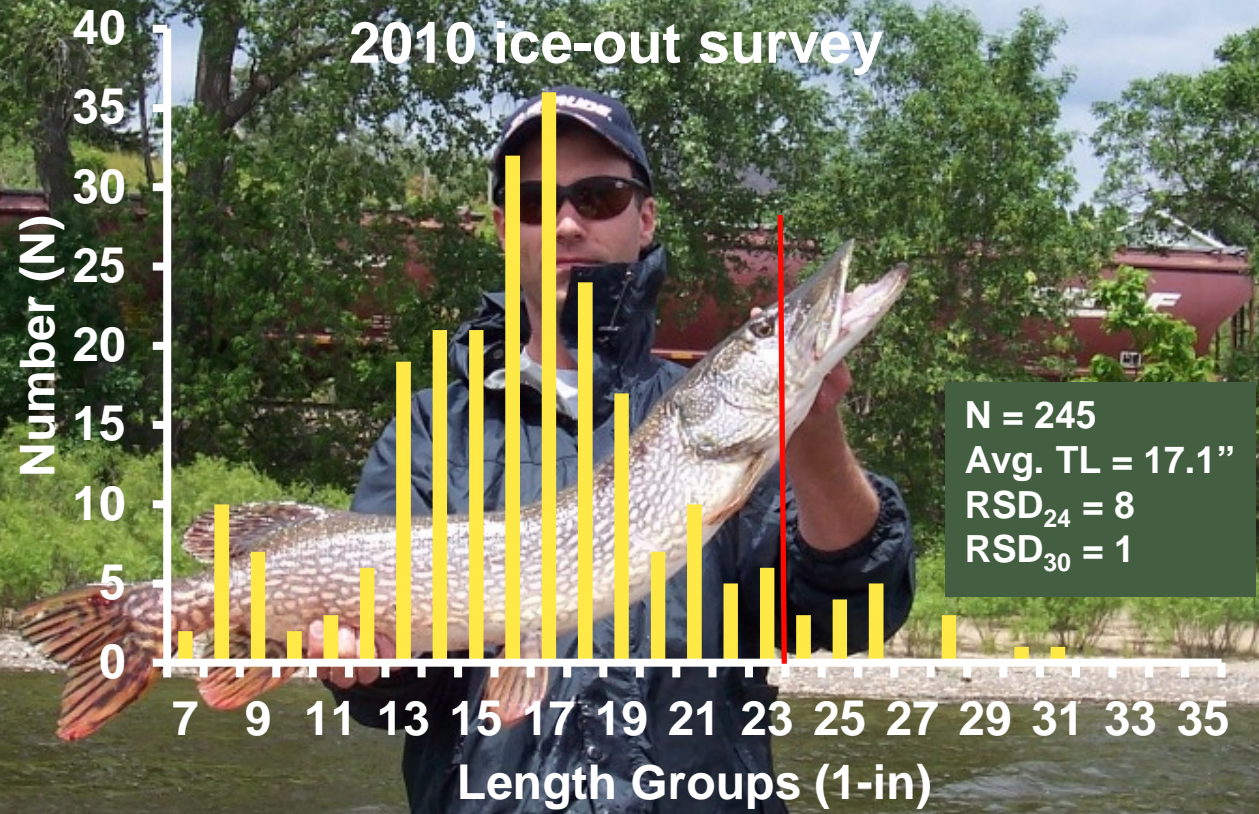


Size Structure



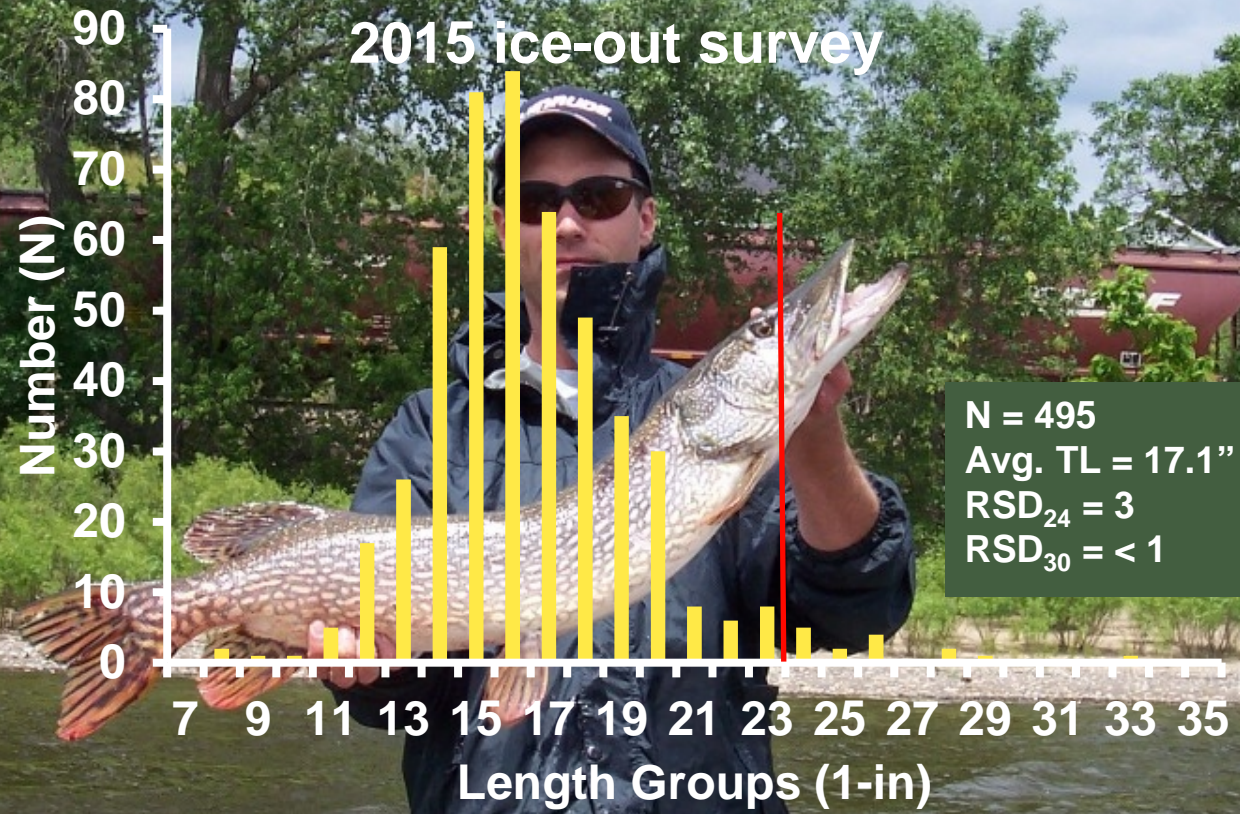


Size Structure





Size Structure





Size Structure

Year	N	Avg. TL	RSD ₂₄	RSD ₃₀
2005	392	18.2	3	< 1
2010	245	17.1	8	1
2015	495	17.1	3	< 1



Summary

- NOP Abundance remains high
- Size structure indices unchanged
- Winter Angling declining???
 - 1992-93 - Avg. 81 fish houses
 - 2003-04 - Avg. 19 fish houses
 - 2013-14 - ???
- Possible statewide NOP Regulation changes



Next Steps

- Spring NOP Assessment – 2015
- Summer Lake Survey – July 27 – 31, 2015
- Review survey data – Fall 2015
- Post Access – Spring 2016
- Public Input Meeting – Summer/Fall 2016
- Recommendation – March 1, 2017



Questions

- More information on Statewide Northern Pike Zone proposal
- <http://www.dnr.state.mn.us/pike/index.html>

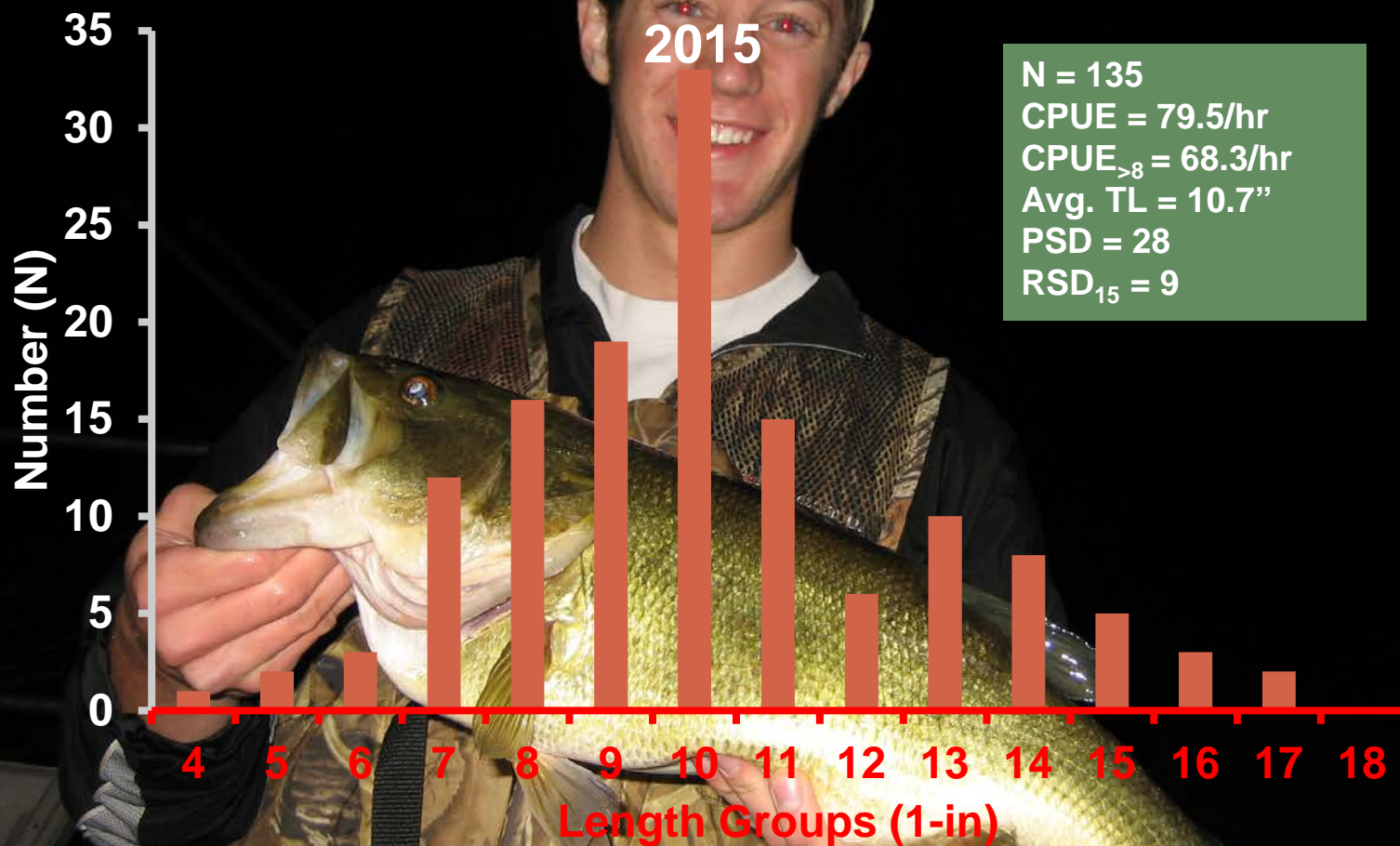


2015 sampling

- Northern Pike Ice-Out Assessment - completed
- Largemouth Bass Electrofishing - completed
- Bluegill assessment - completed
- Curly-leaf pondweed assessment - June
- Summer Lake Survey - July 27 – 31
- Emergent Plant mapping - July – Aug.



LMB Assessment



N = 135
CPUE = 79.5/hr
CPUE_{>8} = 68.3/hr
Avg. TL = 10.7"
PSD = 28
RSD₁₅ = 9



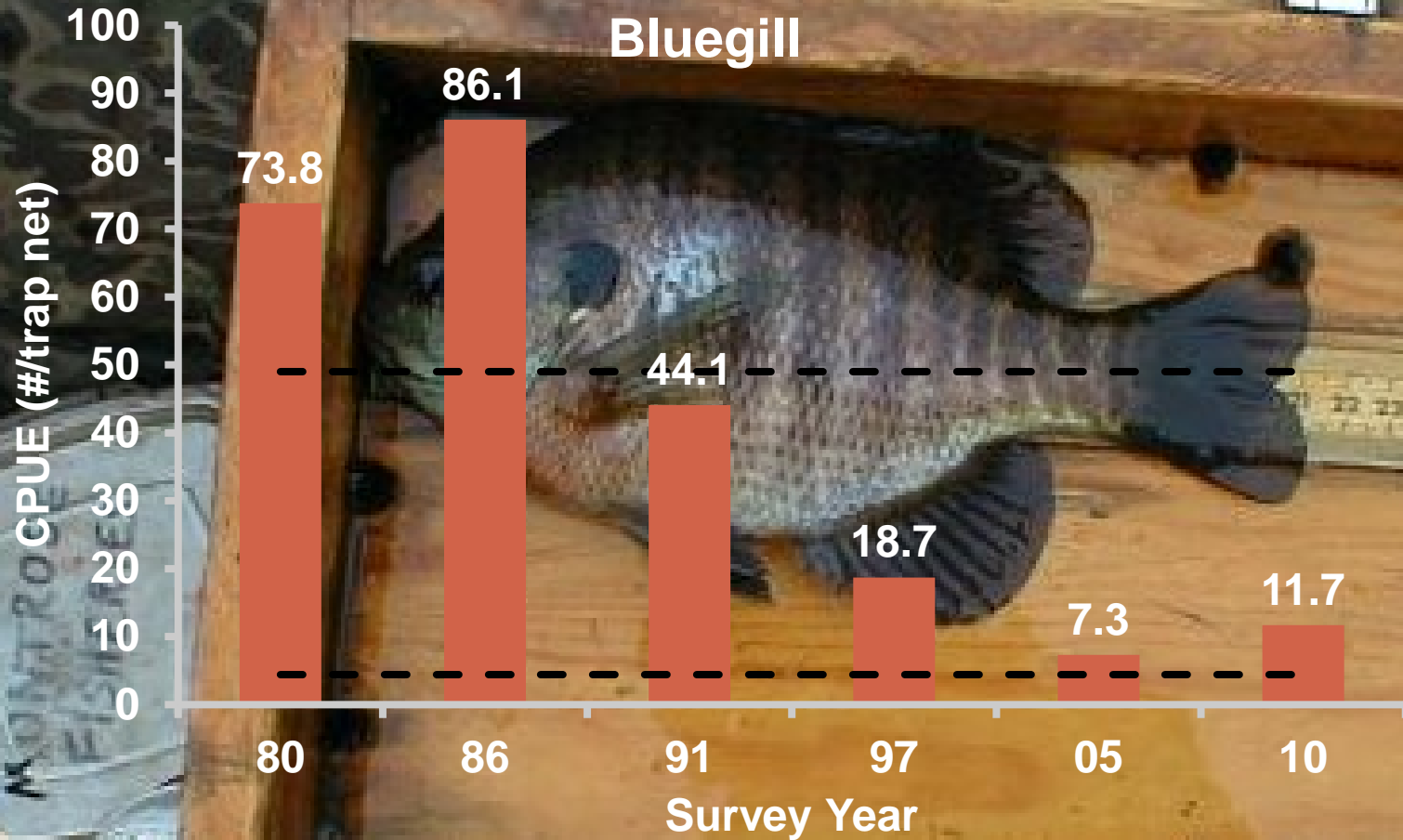
LMB Population

Year	N	CPUE (#/hr)	Avg. TL (in)	PSD	RSD ₁₅
2005*	114	86.4	11.7	53	3
2010	91	91.7	12.0	46	13
2015*	135	79.5	10.7	28	9

* - shocked at night



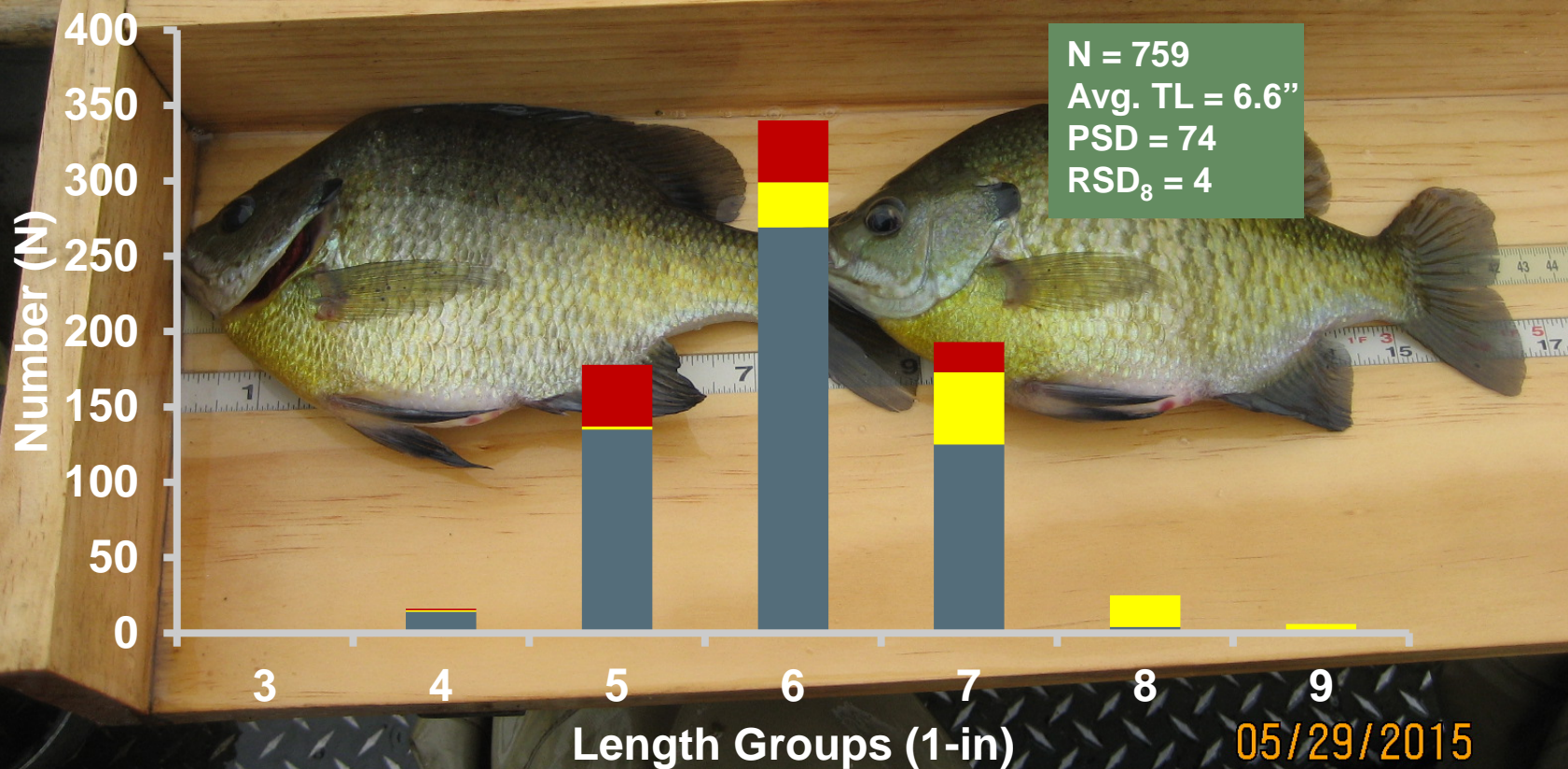
Panfish Assessment





Panfish Assessment

■ BLG ■ HSF ■ PMK



05/29/2015



Contact Information

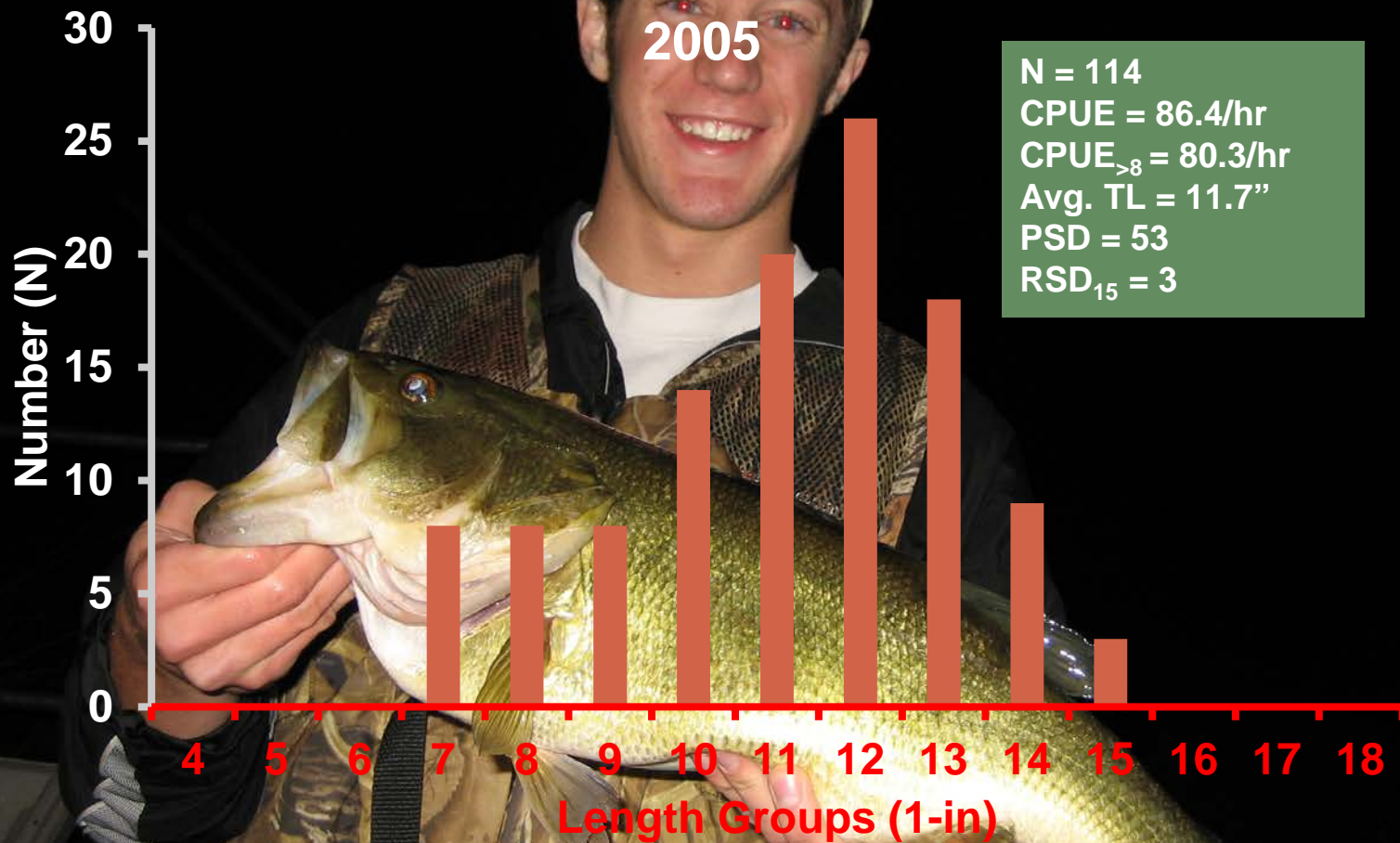
- **Montrose Area Fisheries Office**
 - Ph: 763-675-3301
 - Email: joe.stewig@state.mn.us
- **Montrose Area Web Site**
 - www.dnr.state.mn.us/areas/fisheries/montrose
- **DNR Website:** www.dnr.state.mn.us



MNDNR

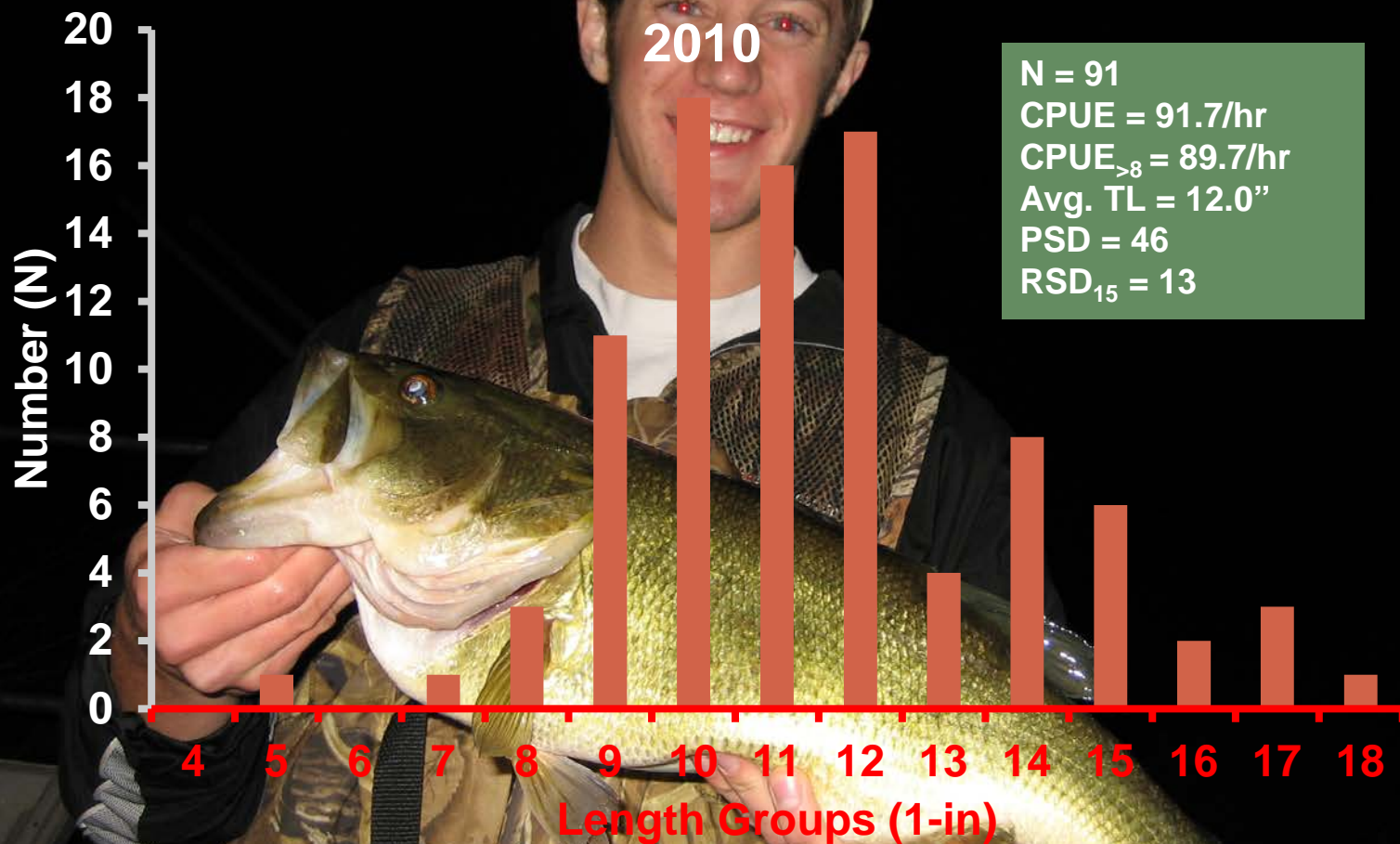


LMB Assessment





LMB Assessment



N = 91
CPUE = 91.7/hr
CPUE_{>8} = 89.7/hr
Avg. TL = 12.0"
PSD = 46
RSD₁₅ = 13