



# Lake Trout Technical Work Group

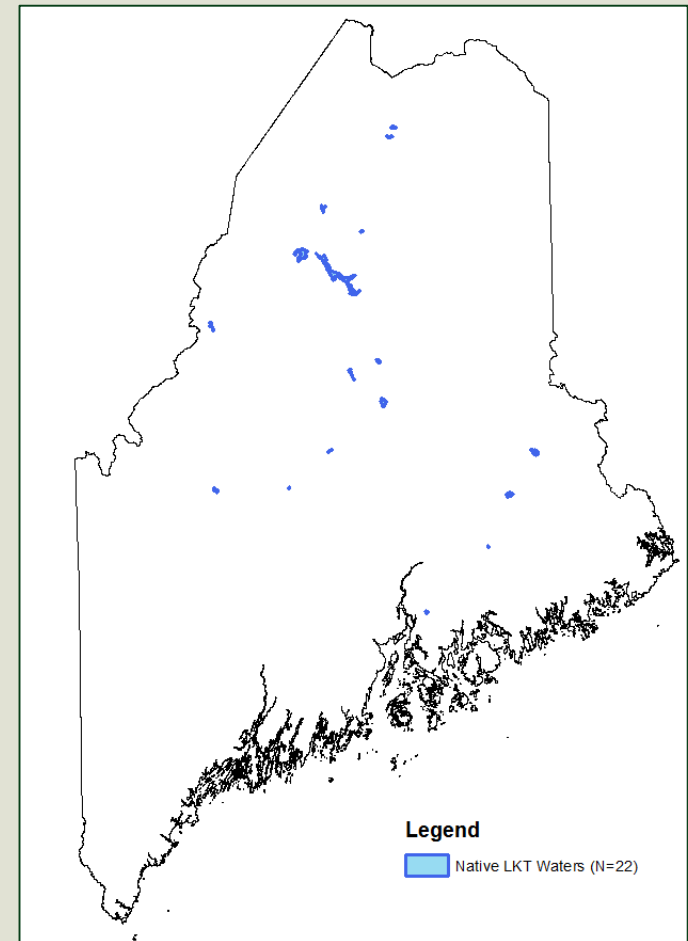
Lake Trout Species Author:

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Grand Lakes Region



# Lake Trout History in Maine

- Lake Trout are historically native to Maine
- Approximately 22 waters had native populations prior to hatchery stockings
- Maine's hatcheries currently stock approximately 9 waters annually
- In 1980 – 55,000 Lake Trout were stocked into 55 lakes. In 2016 – 11,700 were stocked into 9 lakes.



# Management History



- \* Early Lake Trout strains used were from the Finger Lakes of New York, from New Hampshire and Manitoba, as well as from Maine's Allagash Lake.
- \* Prior to 1950 the Lake Trout bag limit was 25 fish with no minimum length limit; general law bag limits and length limits have changed many times since.
- \* Regulation changes occurred due to increased use and harvest, precipitated by improved access and more modern equipment.
- \* Since the 1970's, stricter general law regulations were put in place to protect more spawning fish and stabilize populations.
- \* This was done first by establishing more restrictive minimum lengths limits and bag limits, such as 14 inches – 2 fish, 16 inches – 2 fish, and then to our current general law of 18 inches – 2 fish.

# Current Management

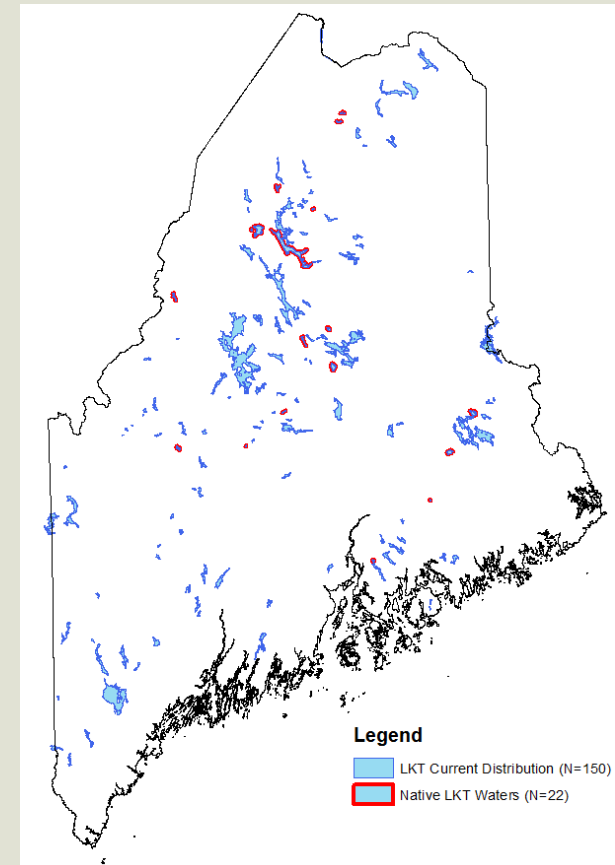


- Current Lake Trout monitoring methods include summer and fall sampling and winter and open-water creel surveys.
- Data used to make management decisions include length class distributions, winter and open-water harvest numbers, catch-rate measurements and angler size class desires.
- Current General Law is 2 fish bag limit with an 18-in length limit.
- Other regulations commonly-used are S-Codes: S-25 – bag limit 1 fish. S-26 – daily bag limit 3, minimum length 14 inches, only 1 fish may exceed 18 inches.
- In addition, 1 fish bag limit – minimum length of 23 inches. No size or bag limit under 18 inches. No size or bag limit under 23 inches, no kill between 23 and 33 inches, only 1 over 33 inches.

# Current Distribution



- Currently, waters stocked with Lake Trout are waters with no, or very little, natural reproduction but have large, deep areas to manage Lake Trout in, with very little conflict with other cold-water species.
- Regulations on stocked waters usually range from general law to more restrictive, depending on the water's potential, use, and public's desires.
- Regulations of wild waters usually range from liberal length limits and bag limits to very restrictive, depending on the water's potential, use, and public's desires.

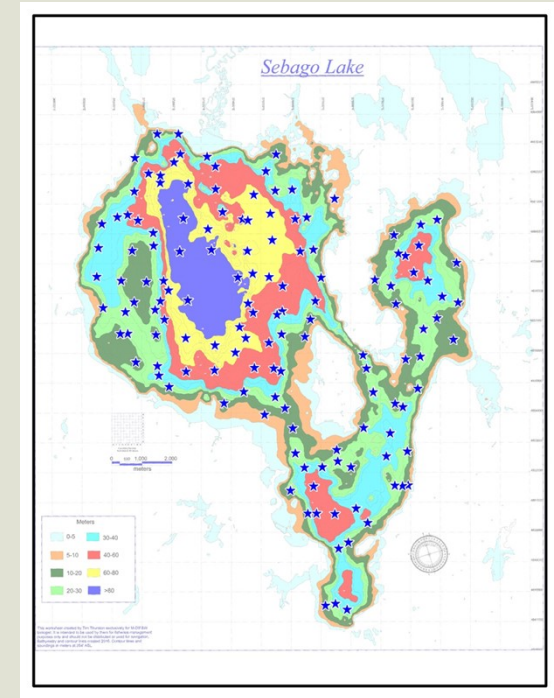




## Recent MDIFW Initiatives

### SPIN- Summer Profundal Index Netting (Steve Sandstrom and Nigel Lester, 2009)

- Random sampling using 64m long gillnets with varying mesh sizes
- Relies on bathymetric data to set up sampling schedule
- Nets set for 2–2.33hrs in 7 depth strata
- Effort equally distributed across lake and within each strata (proportionally)
- # of net sets depends on acreage (~30 to max of 140)
- Target sample of 75+LKT and CPUE RSE <0.15

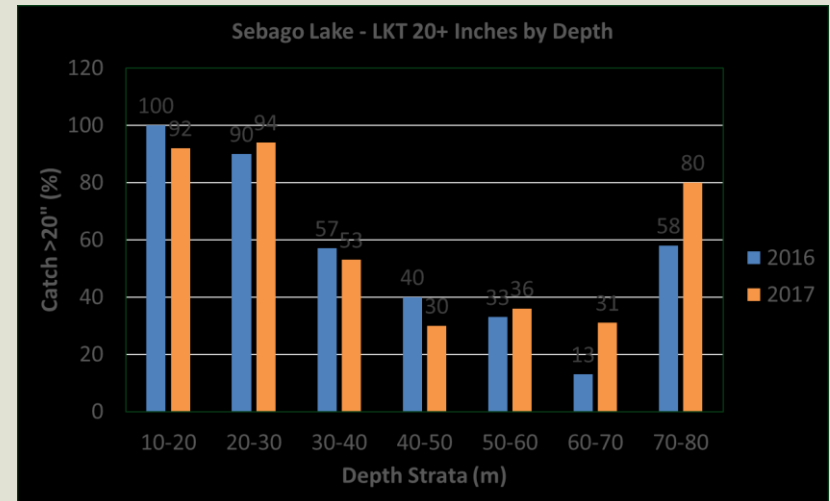




# Recent MDIFW Initiatives

SPIN outputs:

- Population estimate
- Distribution among strata
- Size at maturity (via otoliths)
- Size class distribution
- Growth and catch curves & more...



Stratum Info	Total Catch (%)		Mean CUE		Mean FLEN	
	2016	2017	2016	2017	2016	2017
Stratum 1 (0-10m)	---	---	0.00	0.00		
Stratum 2 (10-20m)	11%	15%	0.62	0.93	526	524
Stratum 3 (20-30m)	14%	13%	0.77	0.84	538	551
Stratum 4 (30-40m)	23%	31%	1.33	1.95	471	470
Stratum 5 (40-60m)	29%	27%	1.78	1.89	426	422
Stratum 6 (60-80m)	23%	14%	2.12	1.45	434	446
Stratum 7 (80+m)	---	---	0.00	0.00		
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>0.86</b>	<b>0.95</b>	<b>485</b>	<b>489</b>

Year	Density (ha)	Pop Est	CPUE
<b>2016</b>	<b>3.2</b>	<b>39,200</b>	<b>0.86</b>
<b>2017</b>	<b>3.5</b>	<b>43,649</b>	<b>0.95</b>



# 2016 Angler Survey Summary

	Open Water	Ice
<b>Gear types used</b> (multiple responses allowed)	Trolling (71%)	Traps/tip-ups (94%)
	Bait (19%)	Jigging (33%)
	Spin (19%)	
	Fly (15%)	
<b>Most often targeted: Wild vs Hatchery</b>	No distinction (63%)	No distinction (73%)
	Wild (30%)	Wild (27%)
	Hatchery (5%)	Hatchery (0%)
<b>Size Quality</b>	Quality- $\geq 18''$	
	Trophy- $\geq 26''$	



# 2016 Angler Survey Summary



- Most open-water anglers fished for Lake Trout in Cumberland County (22%), Piscataquis County (18%), Aroostook County (12%)
- Most ice fishing anglers fished for Lake Trout in Cumberland County (17%), Piscataquis County (16%)