



Landlocked Salmon Technical Work Group

Landlocked Salmon Species Author:

Liz Thorndike
Fisheries Resource Biologist
Rangeley Lakes Region

Introduction



- *Native to 4 river basins in Maine*
 - evolved from sea-run Atlantic Salmon *Salmo salar* through a gradual physiological adaptation to the lake environment
- *Life span of up to 13 years*
 - Typically harvested between 2 – 5 years of age
- *Optimal habitat:* large, clear lake with rocky shores, cool (<50° F throughout the year), deep, well-oxygenated (>8 ppm) water
 - *Can tolerate marginal habitat*

Introduction



- *Require outlets or large inlets to spawn*
 - *Males 3-4 years of age and Female 4-5 years of age*
 - *2 years in river system before emigrating*
- *Forage primarily on smelt as adults*
- *Reared in 4 of 9 Department hatcheries*
 - *Fry, fall fingerlings, spring yearlings, fall yearlings, adult*
- *Maine supports one of the largest sport fisheries for this species in the world.*

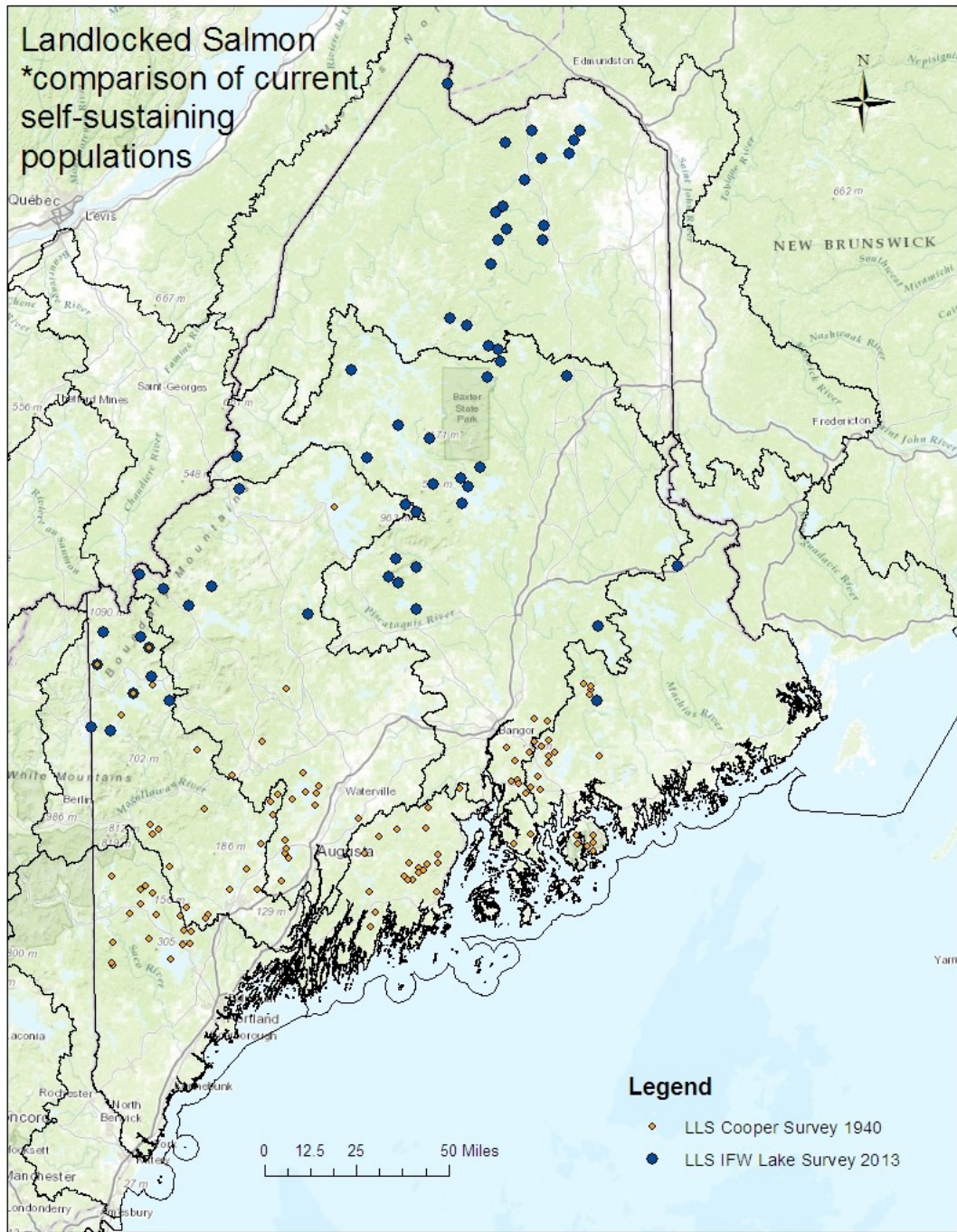
Management History



- *Distribution expanded with improved roads in the early 20th century*
- *First stocking occurred in 1868*
 - *800 eggs from Grand Lake Stream*
- *Period of “abuse” and poaching eventually lead to:*
 - *Ice fishing closures*
 - *Shortening open water seasons*
 - *Restricting angling gear*
 - *Reduced bag*
 - *Length limits*
- *Restrictive regulations led to suppression in some waters*

Landlocked Salmon

*comparison of current self-sustaining populations



Current Management



➤ General Laws:

- Lakes & Ponds: *2 salmon – 14 inch minimum*
- Rivers & Streams: *2 salmon – 14 inch minimum & 25 inch maximum*

➤ S-Codes:

- S-7: *All salmon caught must be release alive at once*
- S-10: *Closed to all fishing from December 1 – March 31*
- S-22: *Daily bag limit on landlocked salmon: 1 fish*
- S-33: *Maximum length on landlocked salmon: 25 inches*

➤ 94 water specific salmon regulations

- 3 salmon: 12 inch minimum, only 1 may exceed 16 inches
- Minimum length 16 inches
- No size or bag on salmon under 16 inches, only 1 may exceed 16 inches

Current Management



➤ Sampling and Monitoring Methods:

- Creel Survey
- Trapnetting
- Gillnetting
- Seining
- Electroshocking
- Radio telemetry studies
- Weir

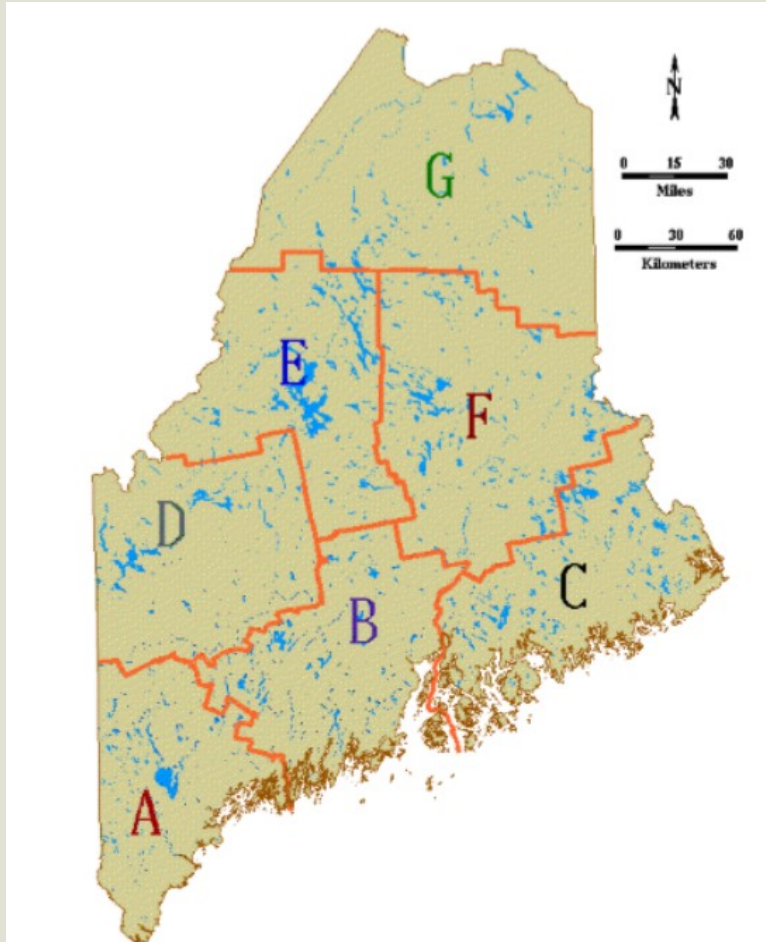


Current Management

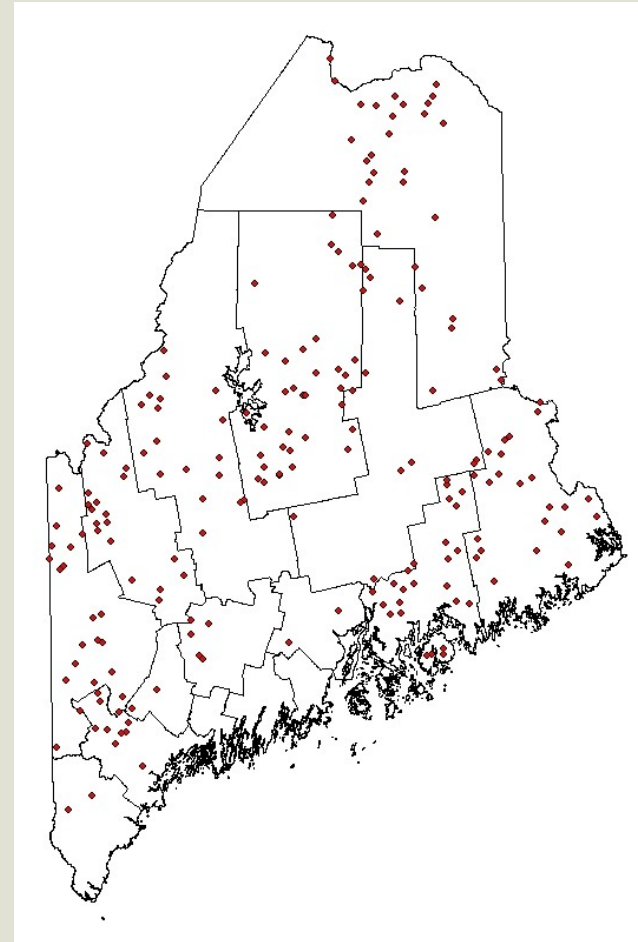


- *Currently stock 100,000 salmon annually*
 - *Transition from fall fingerling to spring yearling*
 - *Spring yearling 8-10 inches*
 - *90% of annual stocking*
 - *Fall yearling 12-14 inches*
 - *Immediate winter fishery & river fishery*
- *Stocked salmon populations*
 - *Tend to grow faster and provide higher size quality*
 - *Provide ability to control number of smelt predators*
 - *Easier to adjust management to achieve goals*

Current Distribution



■ Maine Department IF&W Regions



■ Distribution of Principal Salmon Fisheries in Lakes, 2016
LANDLOCKED ATLANTIC SALMON

Current Distribution



PRINCIPAL FISHERIES FOR LANDLOCKED SALMON

REGION	NO. OF LAKES	NO. OF LAKES AS PERCENT OF TOTAL	AREA OF LAKES (ACRES)	AREA OF LAKES AS PERCENT OF TOTAL	AVERAGE LAKE SIZE
A	25	12	55,608	11	2,224
B	8	4	10,861	2	1,358
C	38	19	71,279	14	1,876
D	35	17	67,369	13	1,925
E	33	16	152,881	29	4,633
F	32	16	116,154	22	3,630
G	30	15	49,902	10	1,663
STATE	201	100	524,054	100	2,607



Current Distribution

REGION	NO. OF LAKES SUSTAINED BY NATURAL REPRODUCTION	NO. OF LAKES SUSTAINED BY DIRECT STOCKING
A	0	25
B	0	8
C	1	36
D	14	19
E	14	17
F	8	22
G	20	10
STATE	57	137

REGION	NUMBER OF RIVER REACHES	NUMBER OF MILES
A	3	33.8
B	1	3.9
C	2	3.5
D	10	80.3
E	16	93.8
F	10	57.8
G	8	48.3
STATE	50	321

2016 Angler Survey Summary



	Open Water	Ice
Gear Types Used (multiple responses allowed)	Trolling (64%)	Traps/tip-ups (100%)
	Bait (15%)	Jigging (22%)
	Spin (16%)	
	Fly (35%)	
Size Quality	Quality \geq 16"	
	Trophy \geq 23"	

2016 Angler Survey Summary



- While the statewide average quality landlocked salmon size is 16", there's a considerable difference between Northern Maine anglers and Central Maine anglers who believe that quality size should be ≈12" and ≈18.0" respectively.
 - This example helps illustrate the importance of identifying broad management goals that can satisfy anglers statewide and provides a good opportunity to mention water-specific planning.
- 31% of ice fishing anglers targeted salmon
 - Downeast and Northern regions > 50%
 - Southern region 19%
- 22% of open water anglers targeted salmon