Downeast Salmon Habitat Recovery Unit

Atlantic Salmon Collaborative Management Strategy

Public Meeting

April 15th, 2021

Downeast Coordinating Committee:

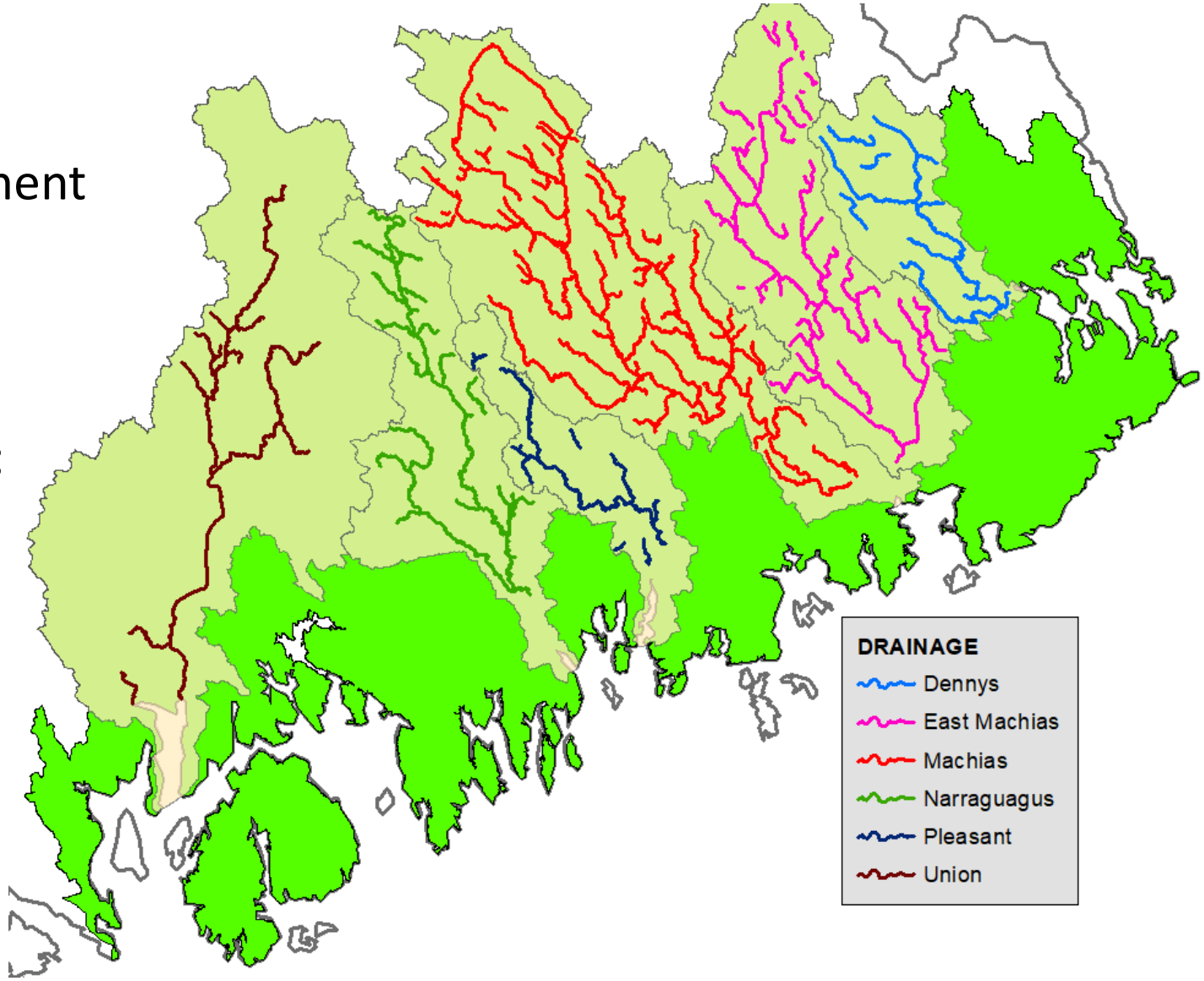
Ernie Atkinson - MDMR (Chair)

Colby Bruchs – MDMR

Denise Buckley – USFWS

Scott Craig – USFWS

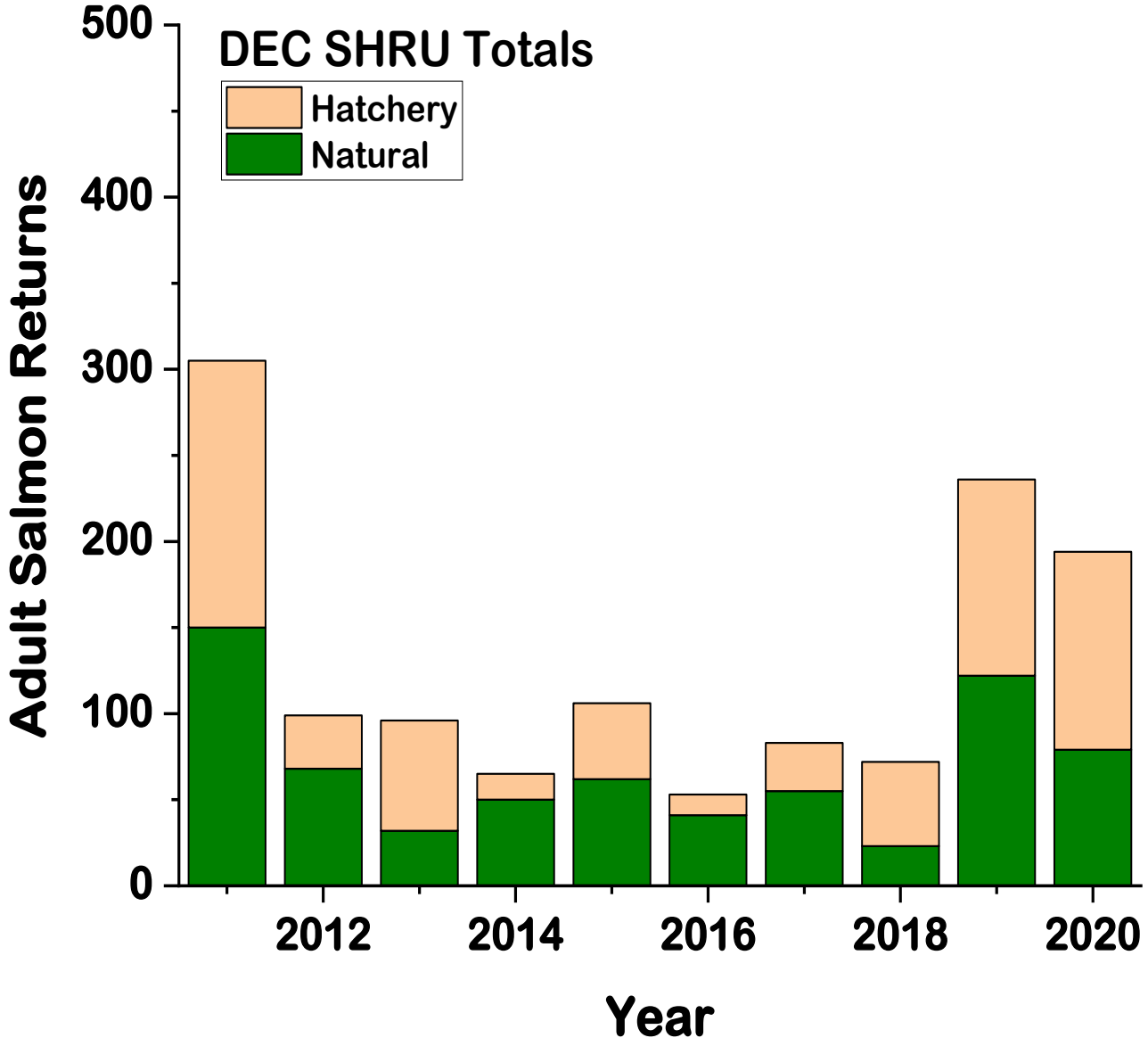
Rory Saunders - NMFS



Abundance

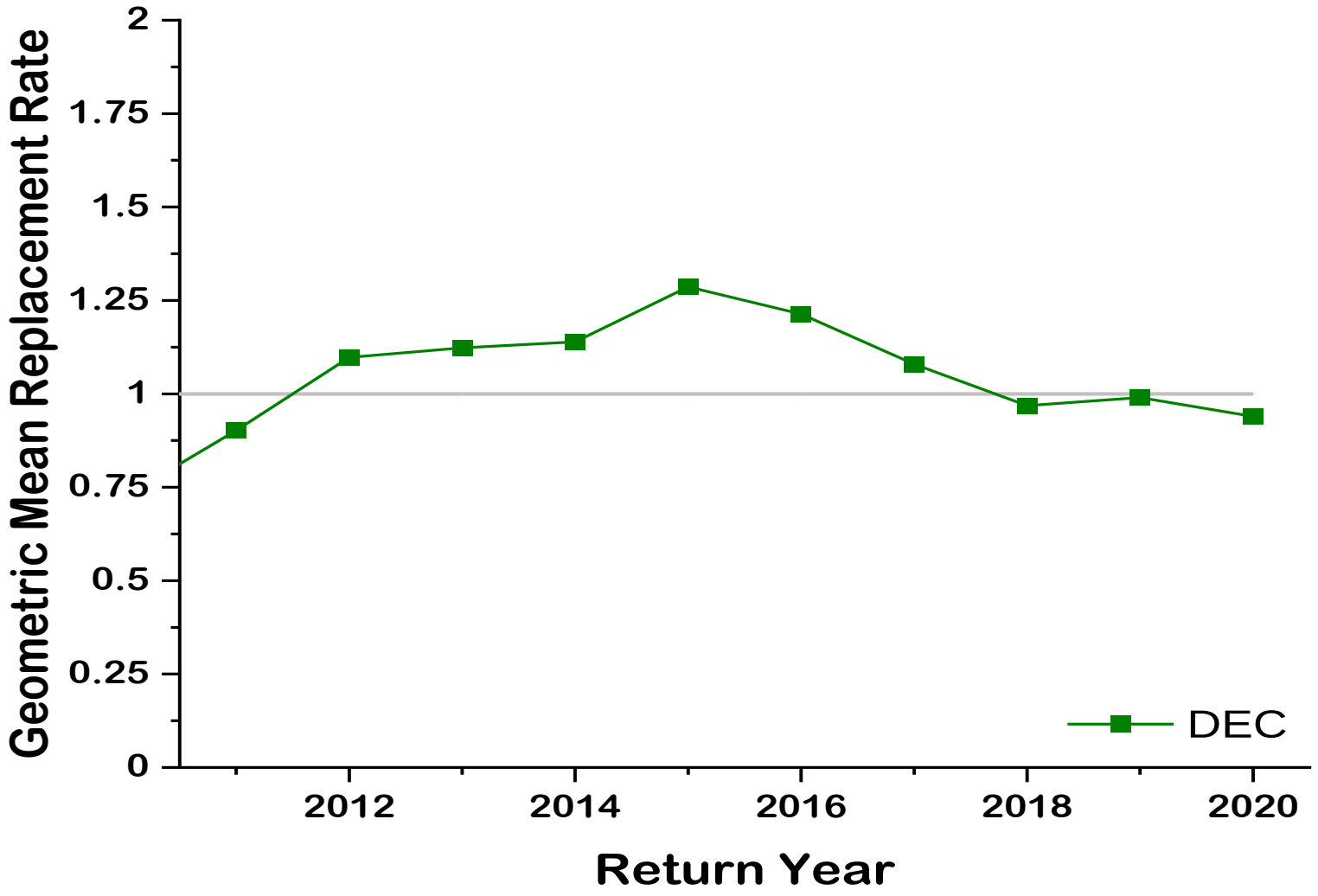
2020 Adult Returns to DE SHRU -194

- Naturally Reared - 79
- Hatchery origin - 115



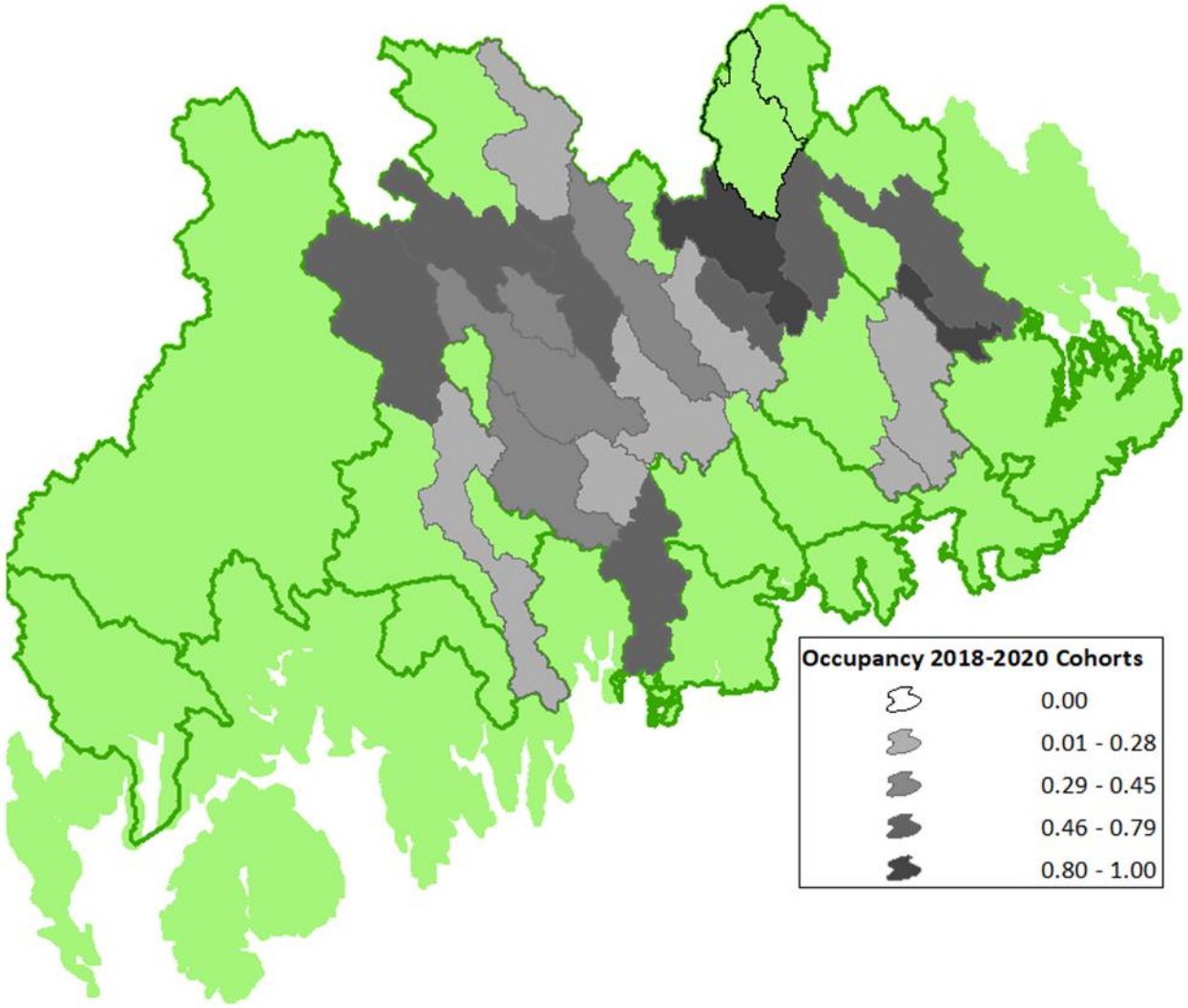
2020 Replacement rate of naturally-reared salmon

- 10-year geometric replacement rate – 0.94 (0.52 to 1.69)



Spatial Distribution

- Occupancy reflects all cohorts contributing to 2021 smolt.
- Spatial distribution closely correlated to stocking
- Out of 72 HUC12's, 21 (29%) had an occupancy > 0.01
- Occupied Drainage mean 41%, max 97%, min 0%



Stocking Activities

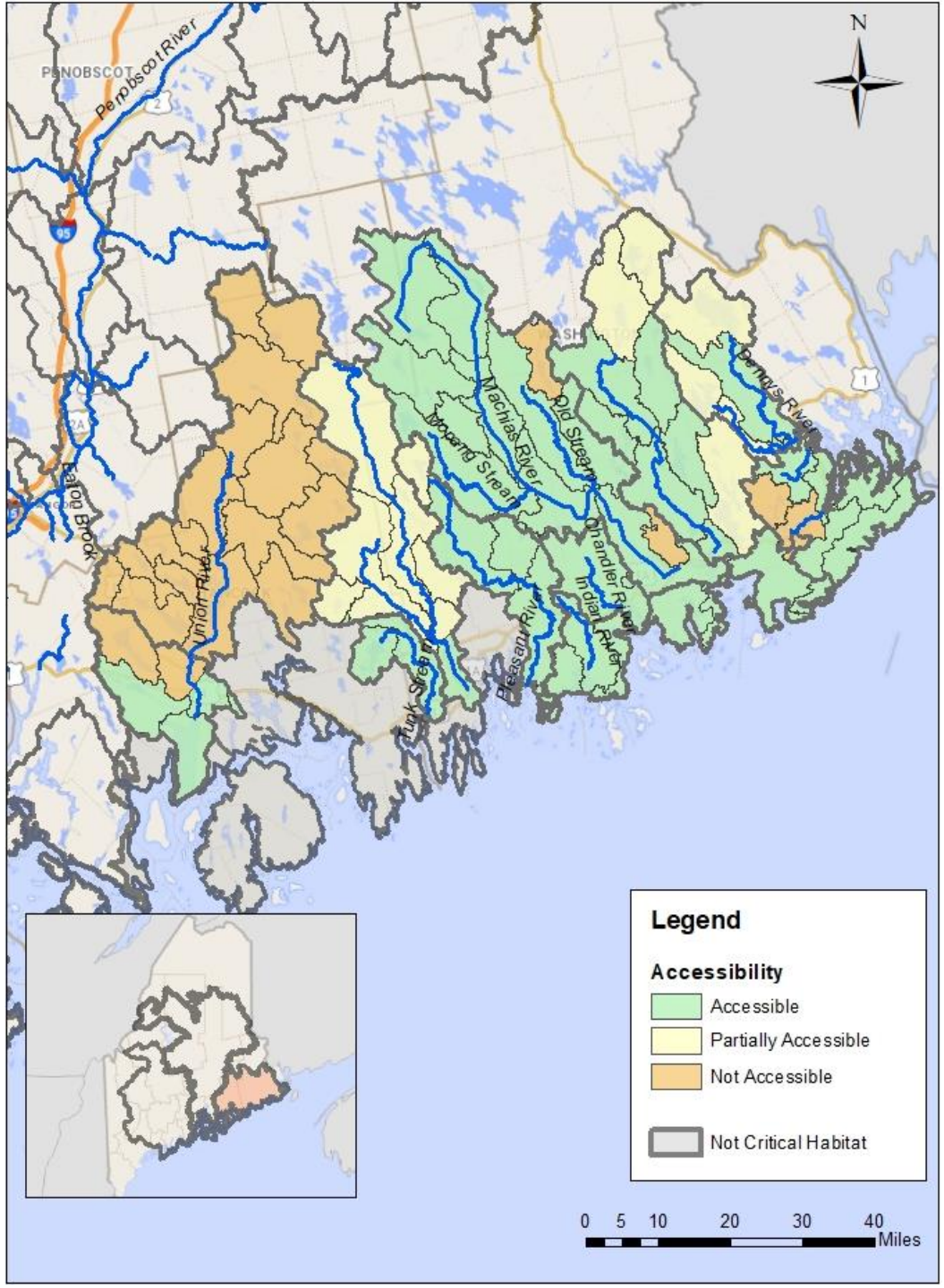
Total 963,076 salmon stocked:

- 585,000 fry
- 84,000 fall parr
- 293,000 eyed eggs
- 1,076 post-spawn adults

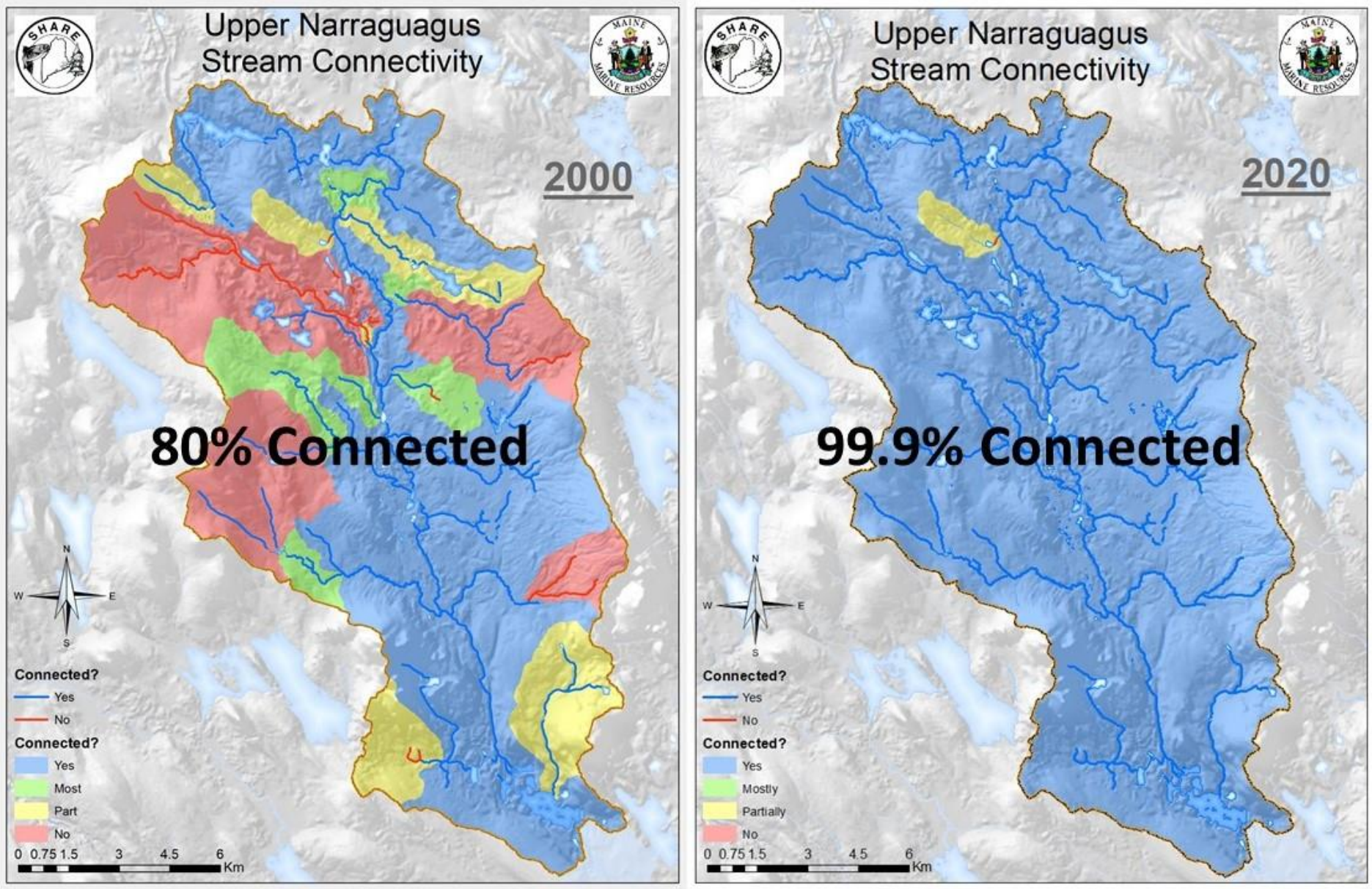
River	Life stage	Number
Union	Fry	2,000
Narraguagus	Egg	66,000
	Fry	164,000
	Post-Spawn adult	291
Pleasant	Egg	85,000
	Fry	89,000
	post-spawn adult	169
East Machias	0+ parr	68,000
	post-spawn adult	220
Machias	Egg	102,000
	Fry	181,000
	0+ parr	16,000
	post-spawn adult	198
Dennys	Egg	40,000
	Fry	149,000
	post-spawn adult	198
	Total	**963,076**

Habitat Access

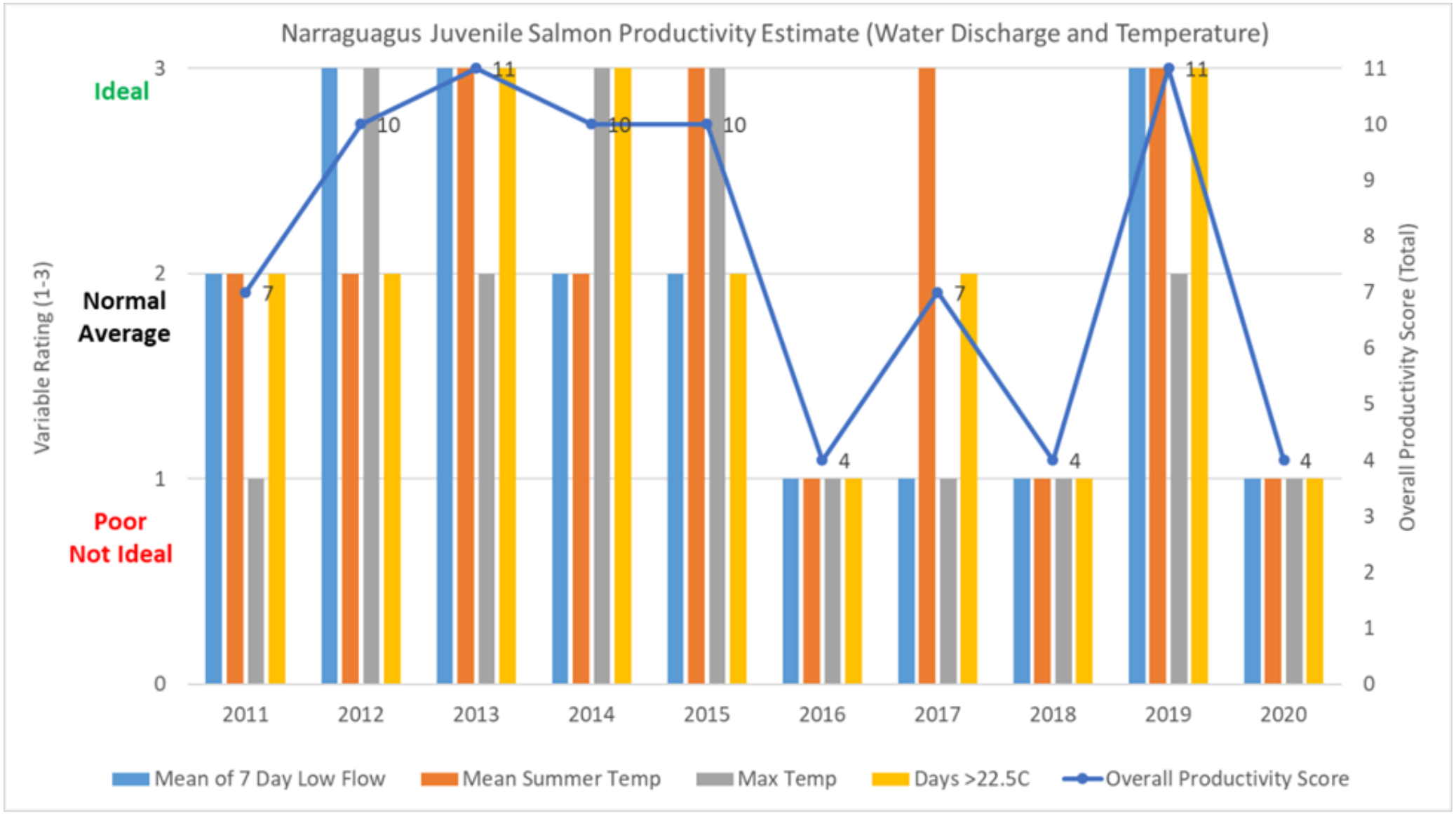
- Currently accessible habitat at the Hydrologic Unit 10 level
  - Consistent with delisting criteria in part 2F/2G of the final recovery plan and described in detail on p. 23.
  - *habitat is accessible above a dam with upstream and downstream passage*
  - *accessible above road stream crossings set at the correct elevation*



Recovery Related Projects completed in 2020

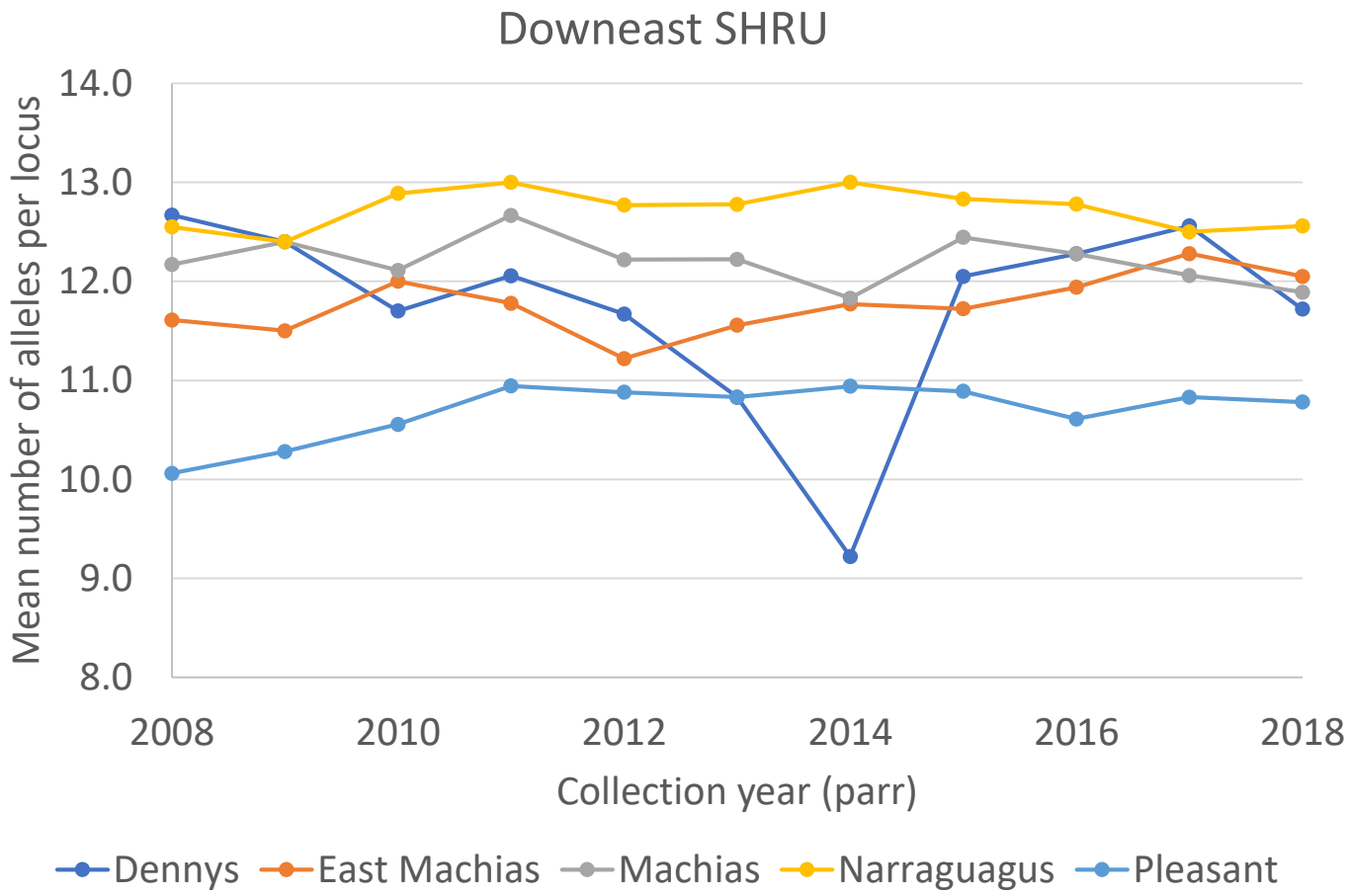


Habitat Suitability



Allelic Diversity: 2018

- Allelic diversity stable 2017 to 2018 (Dennys, Narraguagus, Pleasant)
- Decreasing (East Machias and Machias) but with in range of previous years.
- East Machias 2018 parr all hatchery origin. 2005 to 2018 mean 75.5% hatchery
- Continued monitoring essential



2021 Workplan

- Meddybemps Powerhouse
- Curry Brook - Culvert
- Cherryfield Dam – Fish passage
- Habitat Complexity - Narraguagus
- 0+ parr in Narraguagus

Priorities

- Improve Habitat complexity and function
  - Coarse wood additions
  - Route 9 habitat complexity project
- Partners
  - Project SHARE
  - USFWS
  - MDMR
  - NOAA
  - USFS
  - Jordan Engineering
  - NFWF

photo credits: Chris Federico, Project SHARE

Priorities

- Remove aging infrastructure
  - Removal of Meddybemps Powerhouse and stream rehabilitation
- Partners
  - MDMR
  - DSF
  - FWS
  - Town of Meddybemps

Priorities

- Continue improving connectivity
  - Stillwater Dam – Narraguagus River
  - Improving passage will reach DEC 30,000 units minimum accessible goal
- Partners
  - MCHT
  - DSF
  - NOAA
  - MDMR
  - Town of Cherryfield
  - USACOE

Priorities

- Apply alternate stock enhancement strategies
  - Expansion of 0+ parr stocking into other Downeast drainages
  - ≈ 150,000 0+ parr into Narraguagus fall 2021
  - Infrastructure to fully evaluate strategy
- Partners
  - DSF
  - MDMR
  - FWS
  - NOAA

Photo: Downeast Salmon Federation

Thank you!