



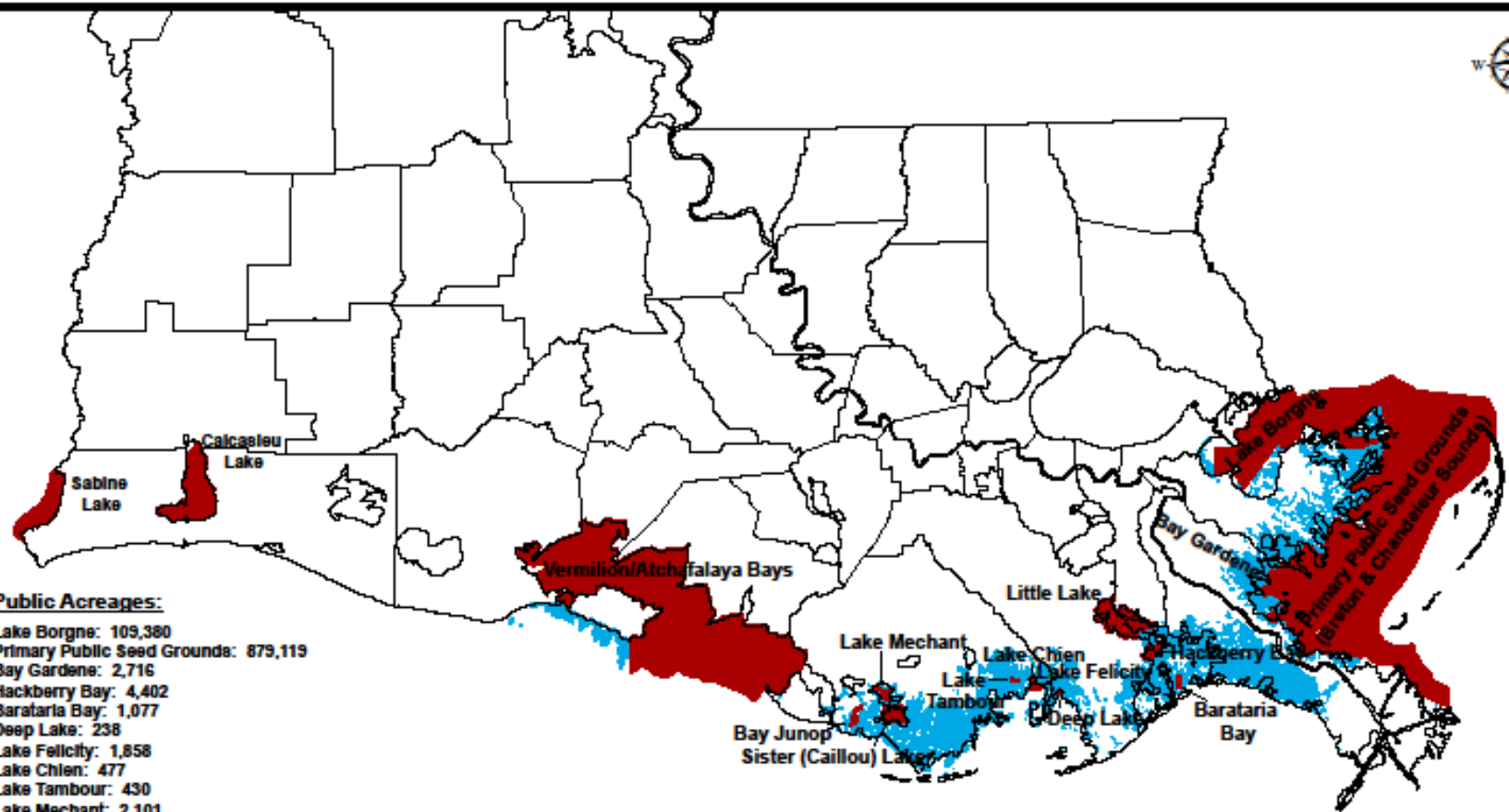
LDWF Oyster Habitat

Ty Lindsey | Oyster Habitat Managers Workshop | November 3, 2022

Briefest of Histories

- Louisiana Oyster Commission created in 1902
- Approximately 1.6M acres of Public Oyster Seed Grounds (POSGs)
- Approximately 400,000 acres of Private Oyster Leases
 - >800 leaseholder accounts
- Largest contributor to annual oyster landings





Public Acreages:

- Lake Borgne: 109,380
- Primary Public Seed Grounds: 879,119
- Bay Gardens: 2,716
- Hackberry Bay: 4,402
- Barataria Bay: 1,077
- Deep Lake: 238
- Lake Felicite: 1,858
- Lake Chien: 477
- Lake Tambour: 430
- Lake Mechant: 2,101
- Sister (Caillou) Lake: 9,151
- Bay Junop: 2,647
- Vermilion/Atchafalaya Bays: 541,787
- Calcasieu Lake: 58,260
- Sabine Lake: 34,067
- Little Lake: 35,548

Total Acreage within Public Areas: 1,683,258

Total Leased Acreage: 403,557

Total Number of Leases: 8,025

Gulf of Mexico

- Public Oyster Seed Areas
- Private Oyster Leases

Approximate Public Oyster Reef Acreage Sampled on an Annual Basis: 22,427 Acres

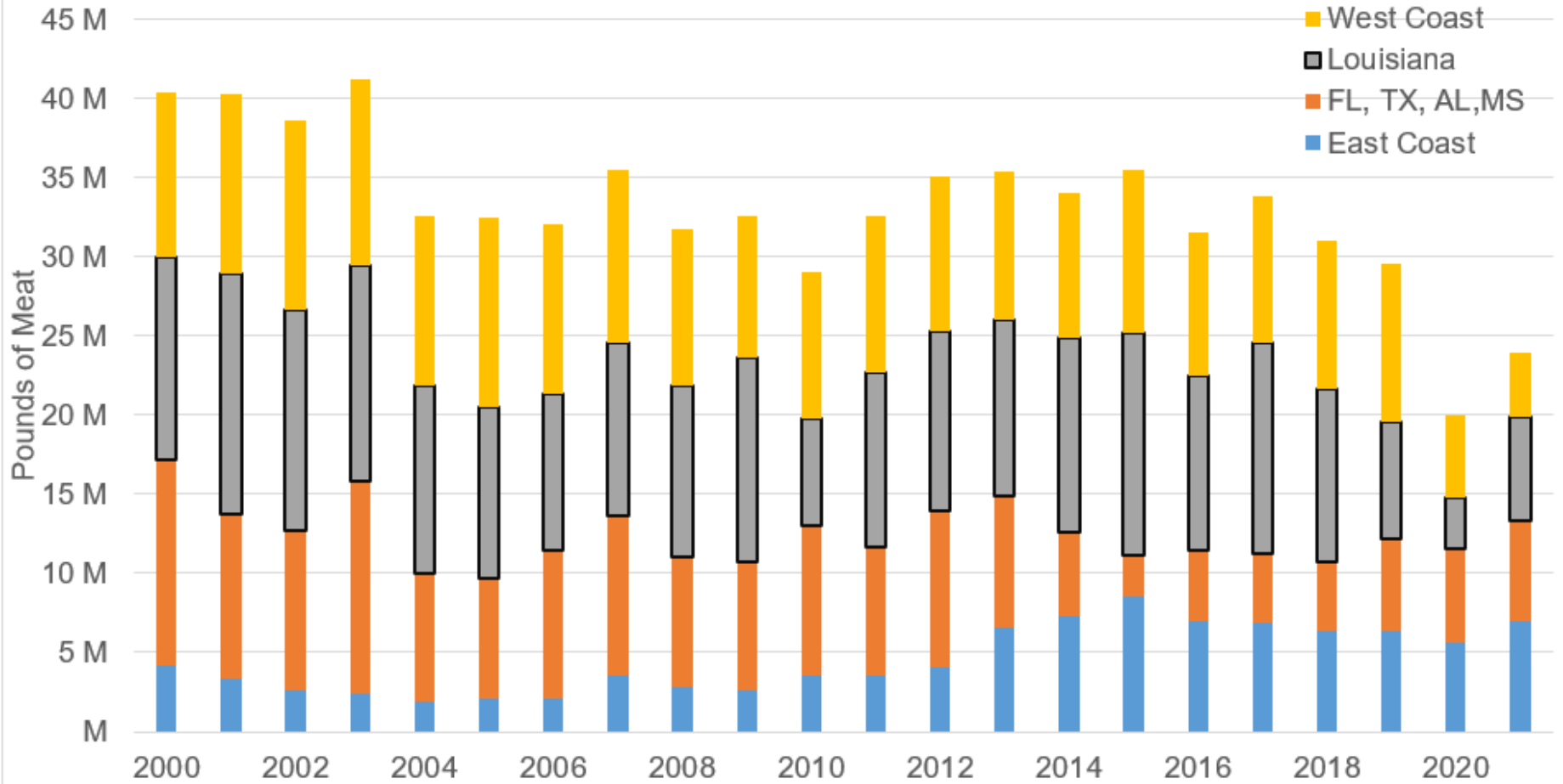
Louisiana Public Oyster Areas and Private Leases

Louisiana Department of Wildlife and Fisheries



May 23, 2019

2000- 2021 Oyster Landings: Weight



Cultch Plant Planning and Funding

- No dedicated staff
- Construction frequency determined by available funding
- Major funding through Feds
 - Hurricanes, floods, BP (Deepwater Horizon) oil spill
- Minor funding from State



Cultch Plant Site Selection

- Knowledge of productive areas
 - Independent sampling
 - Plotting location of harvest activity
 - Water bottom surveys
 - 700,000 acres surveyed since 2000
- Hydrology
- Future influences (e.g., freshwater, oil and gas activity)
- Marine traffic
- Funding restrictions on location



Cultch Plant Construction

- ~20 b/n 2007 - 2022
- Typical characteristics
 - All on public grounds
 - 200 – 400 acres
 - 23,000 – 35,000 cubic yards
 - Limestone #57 (~2-4” long)
 - Spray with some dragline
 - Fill project area
 - 2 – 12 inch layer of material
 - Plant over and adjacent to live reefs
- Work done by contractors through bid process



Spat-on-Shell (SoS)

- Produced by state-run Michael C. Voisin Oyster Hatchery in Grand Isle
- Inconsistent production
- Limited practice on public grounds
 - Mostly on brood reefs
- Monitoring shows some endurance
- Difficult to show impact, if any
 - Genetic marking study
 - Map SoS genetically
 - ID progeny
- Spat-on-Cultch on private leases and artificial reefs



Cultch Plant Monitoring

- LDWF field staff
- Quarter square-meter for two years
- >2 years, ↓ samples, ↑ to full square-meter
- “BP” CP’s have specific and unique monitoring requirements
 - Sample grids
 - Random sampling of grids
 - Up to 4 years of monitoring



Regular Oyster Sampling

- LDWF field staff
- Dredge
 - Monthly, except July
 - 72 sample stations
 - 1,628 individual samples/year
- Square-meter
 - Conducted in July
 - 102 sample stations
 - 510 samples/year
 - Basis of annual Oyster Stock Assessment (OSA)



Public Ground Seasons

- LWF Commission sets season
- Openings and limits based on OSA, Shell Budget Model, rotational opening schedule, industry input
- Public ground season September, all closed by April 30th
- Sack limits for market oysters ($\geq 3''$)
- Non-living reef limit on bedding loads
- Tonging, hand harvest only in Calcasieu Lake



Management through Access

- Typical licenses/permits to fish POSGs
 1. Vessel License - \$32.50
 2. Commercial Fisherman License - \$75.50
 3. Oyster Harvester License - \$100
 4. Oyster Scraper (Dredge) License/scrapper - \$37.50
 5. Public Oyster Seed Ground Vessel Permit - \$50
 6. Public Oyster Seed Ground Gear License - \$200 per scraper
- Non-Resident = fees x 4

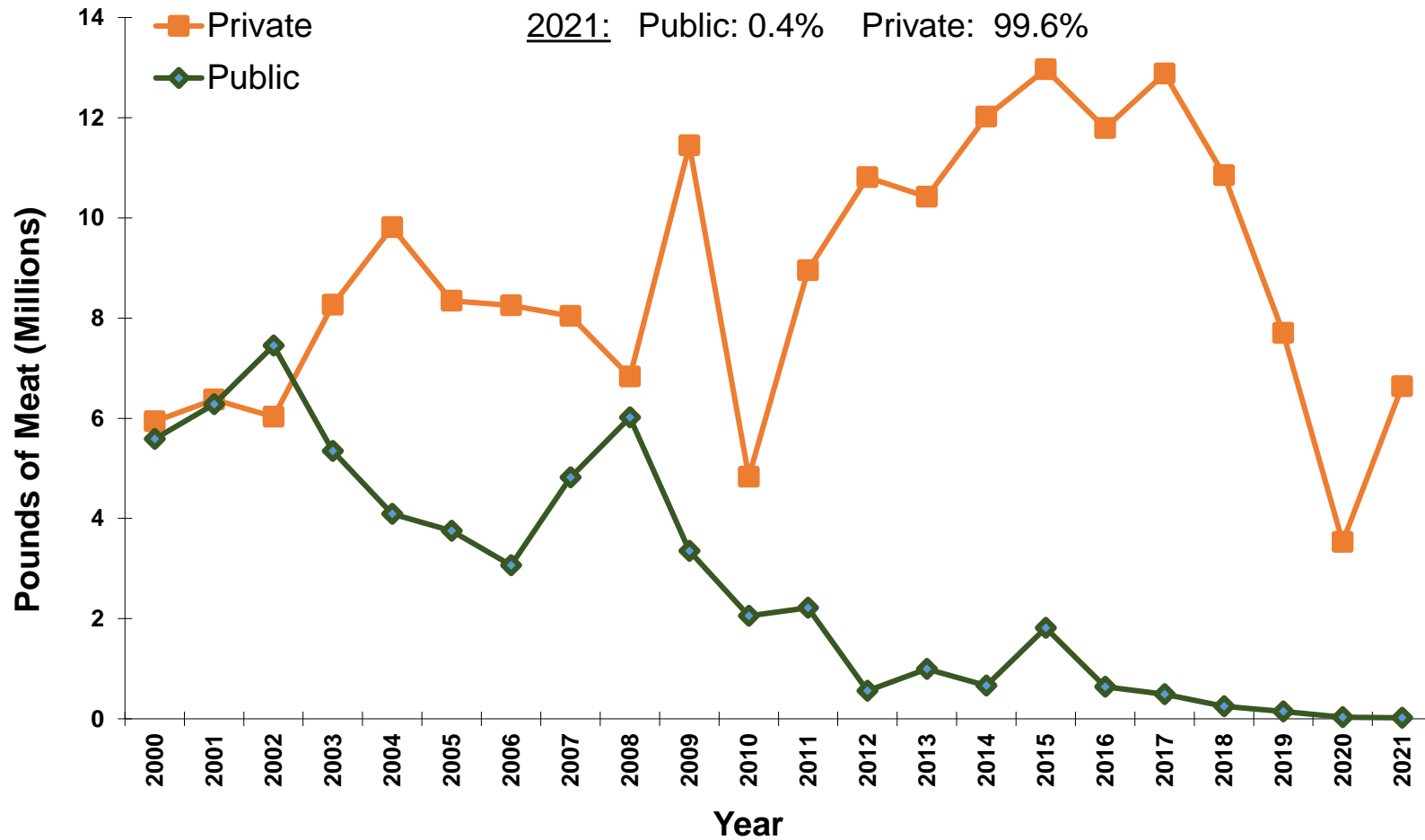


Private Leases

- LDWF does not manage harvest on private leases
 - LDWF serves as administrator
- Subject to health closures by sister agency (Dept. of Health)
 - Seasonal
 - Water quality data
 - Conditional
 - Flooding, storms
 - Gauge height – Calcasieu Lake
 - Sickness
- Same for AOC



Oyster Landings Trend



Note: Long-term average (2001 to 2020) for private landings is 9 million pounds. LTA for public landings is 2.7 million pounds.



Brood Reefs (Sanctuaries)

- Four reefs, all in 2021
- Location determination same as cultch plants
- BP funds
- 2 acres of reef in 10-acre plots
 - Add material as funding becomes available
- Focus on relief
- Large limestone (~12 – 18 inches)
- Oyster harvest prohibited by law



Artificial Reefs

- Primary purpose is finfish
- Oyster harvest prohibited by law
- Thirty-three
 - 16 are in POSGs
- Cost share b/n LDWF and NGO
- Multiple-acre plots, add material as funding becomes available
- Various material, sizes



AOC

- Relatively new
- <10 active permits
- One park by Grand Isle
- LSU Sea Grant working to create a park in Calcasieu Lake through an LDWF grant
 - Also, nursery, farm, and hatchery grants
- On and off-bottom cages, racks, or bags
 - Various innovations
- LDWF AOC Coordinator



Future

- AOC
 - Forces investment from industry
 - Investment longevity
 - Location flexibility
- Brood Reefs?
- Oyster larval modeling



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