

A Brief History of Marine Artificial Reef Development in U.S. Waters

NOAA/ASMFC Artificial Reef Workshop
Alexandria, VA June 9-10, 2016

Big Fish Eat Little Fish

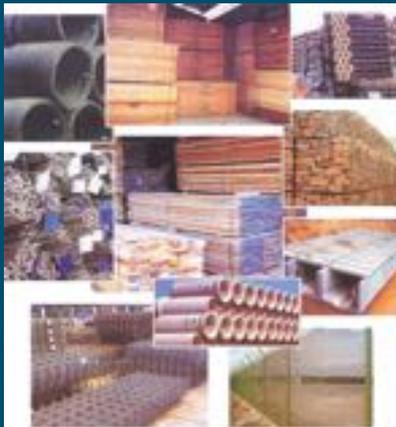


Big Fish Eat Little Fish



Driving Forces in Reef Development

- Engaged constituency
- Materials
- Funding
- Political/policy support



Materials



1966 NMFS Reef Research Program

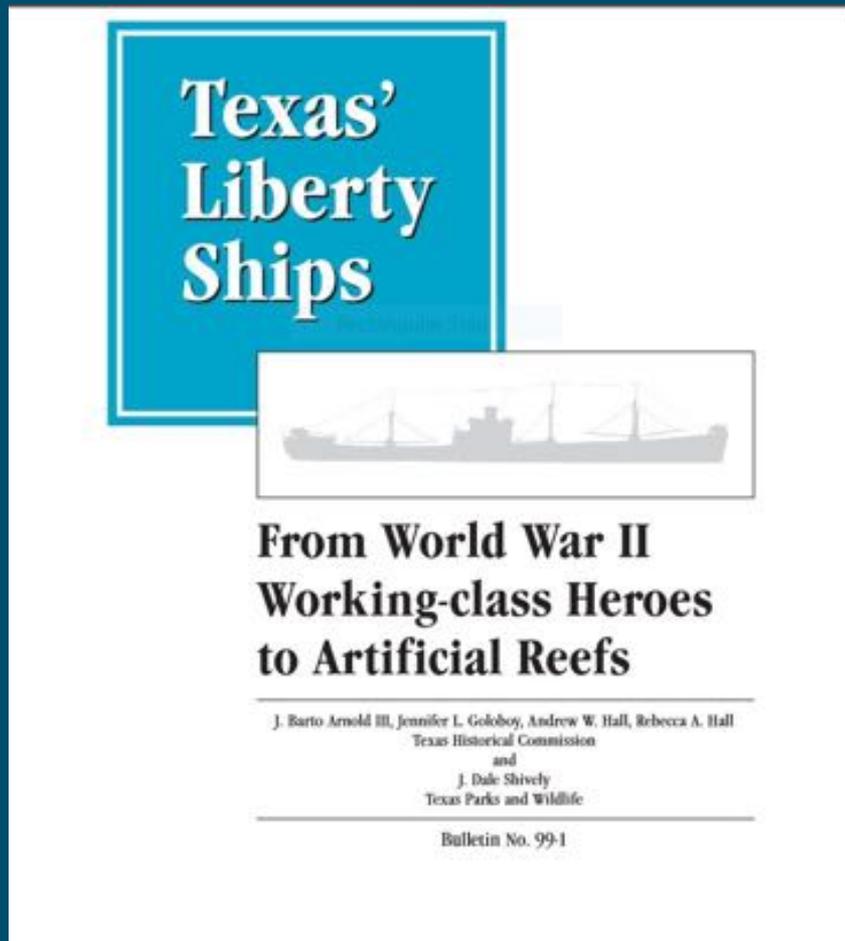


- Focused on how reefs could best be used to develop and conserve recreational fisheries.
- In 1974, funding was eliminated and the program dissolved.

Critical Legislation

- 1972 - P.L. 92-402 – Liberty Ship legislation
- 1972 - P.L. 92-532 – Marine Protection, Research, and Sanctuaries Act
- 1984 - National Fishing Enhancement Act
- 1984 - Wallop-Breaux Amendments to the Federal Aid in Sport Fish Restoration Act.

Liberty Ship Reefs - 1972



- P.L. 92-402 – Liberty Ship legislation
 - FY 1973 Appropriations for maritime programs of DOC
 - National Defense Reserve Fleet
- P.L. 92-532 – Marine Protection, Research, and Sanctuaries Act
 - Established COE permits to regulate intentional ocean dumping of materials.
 - Prevent ocean dumping under the guise of artificial reefs.

National Fishing Enhancement Act of 1984

- Requires Secretary of Commerce to develop national plan, intended as “working document” – starting point
- Provides:
 - Guidance on technical aspects for development
 - Permitting and management
 - Encourages regional, state and local reef plans focusing on specific conditions in those areas.
- Provided no funding to implement
- Introduced multiple user (recreational and commercial) for reefing

Mothballed MARAD Vessels



Inactive U.S. Navy auxiliary ships of the James River Reserve Fleet (1996)

Offshore Oil Platforms



- 2,996 active production platforms on the OCS
- more than 40% of these greater than 25 years old
- averaged 130 platform removals per year in last decade
- BSEE 2013 policy supports conversion to artificial reefs.

Rigs-to-Reefs

- Early 1980's, 1st generation platforms reached end of useful production.
- 1982, 1st production platform used as artificial reef.
- 1983 - REEFS tasks for set up under Sec of the Interior, James Watt
- NFEA of 1984 cleared the way for government endorsed Artificial reef program.
- MMS policy support 1983 & 1993, revisions in 1998 and 2000.
- BSEE current R2R policy established 2013 supporting past practices to use decommissioned structures for artificial reefs.

ReefEx – Obsolete Military Tanks

- Joint military operation designed to provide obsolete war tanks and vehicles for reef construction.
- In 1985, deployed 58 vehicles, including Sheridan tanks, vietnam-era tanks off Long Island, NY and New Jersey.



South Carolina partnership with Army National Guard deployed surplus vehicles onto artificial reef sites in in 2014 in this unique partnership established in 1997.

Designed Structures



Fish Aggregating Devices



Japanese Technology



FRP – Fiberglass Reinforce Plastic

State Artificial Reef Programs

- Approximately half the coastal states have artificial reef plans.
- Specific to geography and access to materials (e.g., oil production platforms)
- Alabama oldest (1953) and largest – 1260 mi²
- Major source of funding from Federal Aid in Sport Fish Restoration Program, aka: Wallop-Breaux



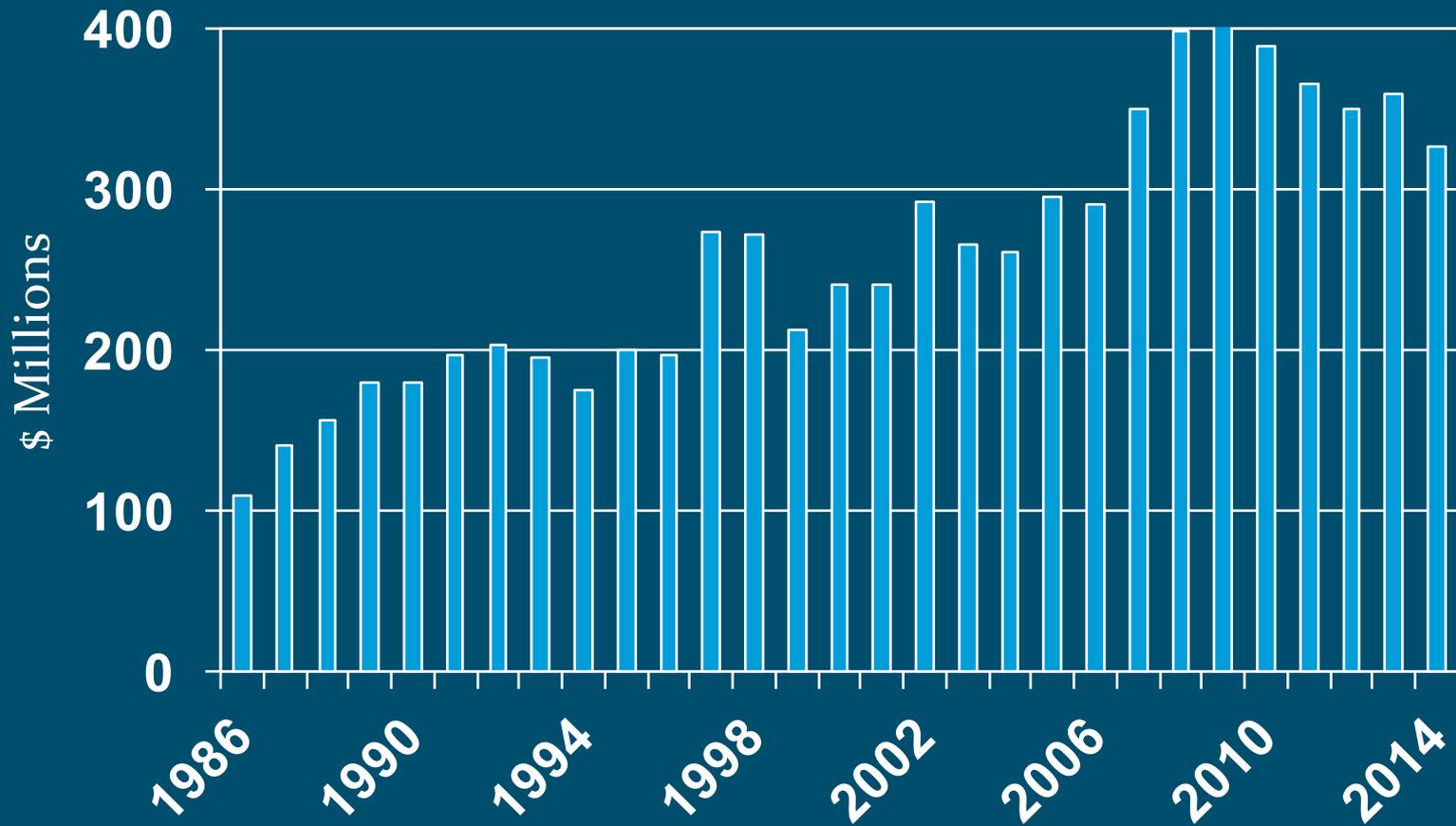
USFWS Federal Aid in Sport Fish Restoration Funds

- Dingell-Johnson Act of 1950
 - 10% manufactures excise tax on fishing equipment
 - Permanent, continuing appropriations.
- 1984 Wallop-Breaux Amendment
 - Added motorboat fuels
 - Mandated apportionments distributed between freshwater and marine.

In first year (1985) collections went from \$30 million to \$150 million.



SFR Federal Funding to States/Territories since Wallop-Breaux Amendment



Northeast Artificial Reefs

- \$14 million federal spent over 20-year period on up to 103 permitted sites
 - 2% of all northeast SFR expenditures
 - 6% of northeast marine SFR expenditures
- Gear restrictions to resolve recreational vs commercial user conflicts
- Special Management Zones for reefs outside state territorial waters

Northeast Artificial Reefs – Management Challenges

- User conflicts
- Management control issues
 - States required to exert control over use of capital improvements (e.g., reefs) constructed with SFR funds
 - States have no management authority for reefs outside state territorial waters (about 30 percent of total number in Northeast)
 - So states cannot limit usage of reefs outside 3 miles to recreational angling

Current Status of SFR Funding for Northeast Artificial Reefs

- No SFR funds allowed for reef construction without commercial fishing restrictions
- New Jersey reef program unfunded since 2011 as 82% of their reefs are outside state waters
- Delaware reef SMZ proposal approved by Mid-Atlantic Council and under NOAA review
- Will set precedent for other Northeast states to pursue SMZs, particularly New Jersey

Solution – Special Management Zones

- Regional fishery management councils have process to recommend SMZ designation



- NOAA Fisheries has regulatory authority to develop management measures to implement SMZs

