

SSSS Research Portfolio

The Sea Grant SSSS national research portfolio is based primarily on the titles of SSSS-related **research** projects funded through omnibus, minibus, or NSIs from FY10-FY13. Education and extension projects are not included.

The Appendix lists the 297 projects that were compiled. The appendix is also attached in Excel format with this email.

The projects are assigned to one of fourteen broad categories. Each project was assigned to a single category that describes the main project's primary focus. The table and the graph below show the categories and number of projects in decreasing order (Table: top to bottom; Graph: left to right). Project funding typically ranges \$100-200k, with average ~\$150k.

Table 1. Number and categories of SSSS-related research projects funded through omnibus, minibus, or NSIs from FY10-FY13. In descending order by number of projects.

Project Type	Number of Projects
Aquaculture	80
Ecology	48
Stock assessment, management, policy	43
Toxins, contaminants, HAB, public health	24
Biology (including disease)	18
Recovery & restoration	13
Habitat	12
Social science	11
Climate & ocean acidification	11
Non-climatic stressors	11
Business development	9
Seafood safety & technology	7
Gear, bait and technology development	5
By catch	5
Total	297

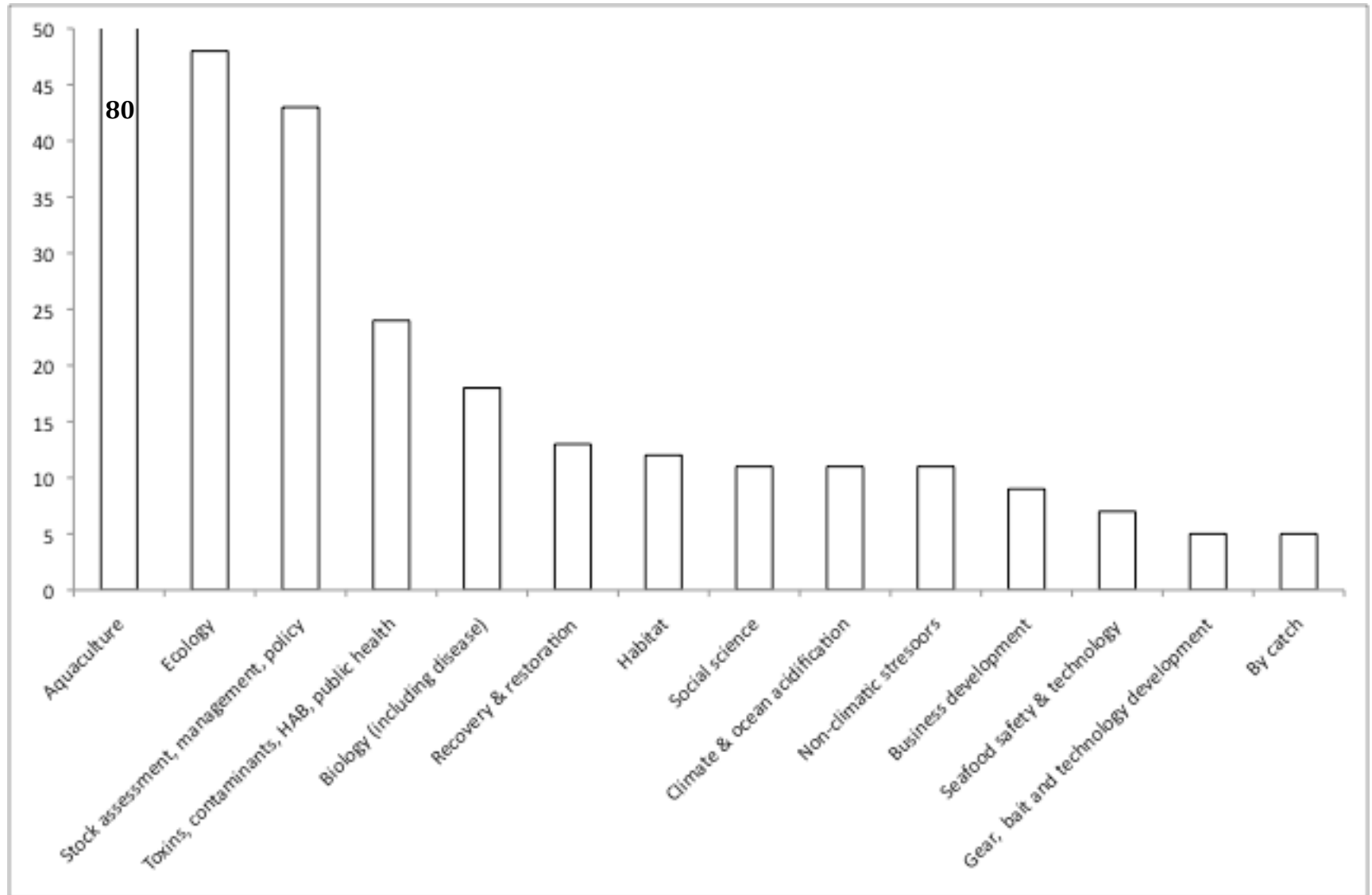


Figure 1. Number and categories of SSSS-related research projects funded through omnibus, minibus, or NSIs from FY10-FY13.

Appendix: SSSS-related research projects funded through omnibus, minibus, or NSIs from FY10-FY13 (300 total).

Aquaculture – 80 Projects

- VA PD--Selecting for improved eyed larvae production in the Eastern oyster, *Crassostrea virginica*: genetic relationships between hatchery and field performance
- WA Sea Grant Aquaculture Research Program: West Coast Shellfish Aquaculture-Economic Impacts, Barriers to Entry, and Opportunities for Expanded Production
- AK Sea Grant Aquaculture Research Program 2010: Expanding community based shellfish aquaculture opportunities in Alaska through technology transfer, education, and planning outreach to shellfish farmers and coastal communities
- AK Sea Grant Aquaculture Research Program 2010: Red King Crab Aquaculture in Alaska – Release Strategies and Critical Ecosystem Interactions
- CA Seaweed Strain Selection and Preservation to Optimize Harvest Yields for Abalone Culture
- CA Soft Egg Syndrome in Farmed White Sturgeon
- CA Minimizing the Use of Fish Meal and Fish Oil in the Diet of California Yellowtail, *Seriola lalandi* – a Top Candidate for Offshore Aquaculture
- CA Validation of parentage analysis accuracy in a farmed population of white sturgeon for future application to heritability studies
- CA Sea Grant Aquaculture Research Program 2010: Genomically Enabled Crossbreeding to Improve Yields of Farmed Pacific Oysters
- CA Development of Sustainable Tuna Aquaculture in the United States Using Yellowfin Tuna as a Model
- CA Sea Urchin Gonad Index a Key to Understanding Secondary Production in the Restoration of Giant Kelp Forests off Palos Verdes
- CT Development of Seaweed Culture System Technologies to Support Integrated Multi-trophic Aquaculture and Sea Vegetable Aquaculture in New England Coastal Waters
- CT Seaweed Aquaculture from Bioextraction of Nutrients from Long Island Sound

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- FL Dose Optimization of Human Chorionic Gonadotropin (HCG) for Induced Spawning of Pinfish

- FL SPECIES DIVERSIFICATION IN FLORIDA SHELLFISH AQUACULTURE: NURSERY AND GROW-OUT OF THE SUNRAY VENSUS CLAM

- FL Evaluating Performance of Pilot and Commercial Wastewater Systems Associated with Inland Production of High-Value Marine Fish

- GA Overcoming Constraints to the Development of a Sustainable Eastern Oyster, *Crassostrea virginica* Aquaculture Industry in Georgia

- HI The role of bottom sediments in nutrient cycling in Heeia Fishpond-II

- HI Impact of Invasive Mangrove Removal on He'eia Fishpond Biogeochemistry

- LA Determination of the Minimum Dietary Requirements of Florida Pompano (*Trachinotus carolinus*) for Essential Amino Acids: Lysine and Methionine

- LA Propagation of Marine Finfish: Commercial Scale Performance and Economics for Profitable Growout in Recirculating Systems

- LA Expanding the production of commercial marine finfish in the nGOM: Development of novel spawning protocols for difficult to spawn marine fishes

- LA Development of Non-lethal Sperm Collection for Cryopreservation in Oysters

- LA Evaluation of oyster stocks and grow-out methodologies for commercial production of eastern oysters in Gulf of Mexico estuaries

- LA Role of adjustable longline systems (ALS) in minimizing accumulation of potentially pathogenic vibrios in oysters.

- LA Contribution of maximum freshwater discharges from the Caernarvon diversion project to oyster mortality related to freshwater inflows in the Breton Sound estuary, LA

- MD DEVELOPING SUSTAINABLE YEAR-ROUND CAPTIVE SPAWNING TECHNOLOGIES FOR A NEW AQUACULTURE SPECIES, *SERIOLA DUMERILI*

- MD SEA GRANT AQUACULTURE RESEARCH PROGRAM 2010: PREDICTING SPATIAL IMPLACTS OF BIVALVE AQUACULTURE ON NUTRIENT CYCLING AND BENTHIC HABITAT QUALITY

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- ME The aquatic animal health ecology of an industry deployed integrated multi-trophic aquaculture system
- ME Maine Management of Aquaculture Research Project
- MI Integrated Assessment: Expansion of Michigan's Existing Commercial Aquaculture Activities into a Major Sustainable Seafood Production Industry
- MS-AL Farming the Fertile Crescent: Intensification of Oyster Culture in the Northern Gulf of Mexico
- MS-AL Sea Grant Research Program 2010: Eliminating human-pathogenic *Vibrio vulnificus* from Gulf Coast Oysters with high salinity depuration
- MS-AL Oyster Farming in Alabama: Identifying Most Viable Practices
- MS-AL SG Aquaculture Research Program 2010: An Engineered Multi-Trophic Approach to Minimizing Effluent Impacts from Marine Recirculating Aquaculture Systems
- NC Developing Tools for the Growth of North Carolina Shellfish Industry: Site Condition Assessment and Economic Impacts
- NC Optimizing All-Female Southern Flounder Culture in Low Saline Waters
- NC A novel approach to improving resistance to the parasite causing dermo in oyster
- NC The physiological basis of winter-induced stress and mortality in juvenile red drum
- NC Optimization of Ions for low salinity culture of southern flounder with emphasis on reduction of sodium chloride in recirculating aquaculture systems
- NC Managing Reproductive Failure in Fisheries and on Fish Farms: A Joint NC/SC Sea Grant Project
- NC Domesticated Broodstock and Selective Breeding for Hybrid Striped Bass (HSB) Farming: Enabling Industry Implementation
- NC Enhancing commercial aquaculture of southern flounder in North Carolina: requisite tools for brood stock husbandry and expanded all-female fingerling production

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- NC Egg Quality in Striped Bass: Profiling Ovarian Gene Expression by Microarray and RNA-Seq Methodologies
- NH Enhancement in Marine Finfish and Molluscan Shellfish Aquaculture
- NH Development of seaweed culture system technologies to support integrated multi-trophic aquaculture and sea vegetable aquaculture in New England coastal waters
- NH Alewife Population Assessment and Aquaculture
- NJ Marker-assisted Breeding Technology for the Eastern Oyster
- NJ VALIDATION OF DISEASE-RESISTANCE MARKERS FOR MARKER-ASSISTED SELECTION IN THE EASTERN OYSTER
- NY Improved predictions of condition and growth in alewives: Effects of dietary fatty acids, temperature, and ration
- NY Development of mitigation strategies to reduce the impact of QPX disease on hard clam transplant fishery
- NY Effects of Low Toxicity, High Concentration Alexandrium fundyense Blooms on Growth and Condition of Mercenaria mercenaria and Mya arenaria
- NY Functional genomics investigations of hard clam immune response and resistance against QPX infection
- OH Otolith Microchemistry as a Natural Tag for Mixed Stock Analysis of Hatchery Reared Steelhead
- OH Genetic improvement of yellow perch: Creating the fourth generation of fast-growing lines and performing on-farm and on-station performance testing
- PR Sea Grant Aquaculture Extension 2010: Outreach Mariculture Project as a Fisheries Alternative for Puerto Rico; Growout of Yellowtail and Lane Snappers (*Ocyurus chrysurus*, *Lutjanus synagris*) in Recirculation Systems Managed by a Fishery Association
- RI Integrating Gracilaria spp. into oyster aquaculture for nutrient / waste treatment

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- RI Extending the capacity and capability of longline mussel farming in Rhode Island.

- RI Assessment of scallop viscera hydrolysate for its feeding attractant and growth stimulant properties in juvenile European sea bass.

- RI Improving shellfish upweller nursery performance by manipulating flow through the silos.

- RI Soybean meal in summer flounder feeds: A sustainable alternative protein source and potential immunostimulant.

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- SC Commercialization of Bait Shrimp (*Litopenaeus setiferus*) Aquaculture Through Year Round Production in Indoor Facilities Using Clear Water and Biotic-Based Culture Systems

- SC Development of a Sustainable, Minimal-Water Exchange, Polyculture Biofloc-Based, Mariculture Production System

- SC Managing Reproductive Behavior in Fisheries and on Fish Farms: A Joint NC/SC Sea Grant Project

- SC Development of a Sustainable, Minimal-Water Exchange, Polyculture Biofloc-Based, Mariculture Production System

- TX Sea Grant Aquaculture Research Program 2010: Advancing Fishmeal Replacement in Diets of Marine Fish for Enhanced Production Efficiency, Health and Product Quality - PI Gatlin

- VA Assessing the Impacts of Emerging Harmful Algal Bloom Species on Shellfish Restoration and Aquaculture in Chesapeake Bay

- VA Development of baseline larviculture protocols and juvenile rearing diets for Atlantic spadefish *Chaetodipterus faber*

- VA Sea Grant Aquaculture Research Program 2010: Evaluation of molecular techniques for sensitive detection of pathogenic human norovirus in aquacultured bivalve shellfish

- VA MODIFICATION OF AQUACULTURE VACCINES FOR ORAL ADMINISTRATION

- VA THE GULF OYSTER INDUSTRY PROGRAM: PRIORITY 2 - HUMAN PATHOGENIC ORGANISMS: THE USE OF HIGH HYDROSTATIC INACTIVATED *VIBRIO PARAHAEMOLYTICUS* IN GULF COAST OYSTERS (*CRASSOSTREA VIRGINICA*)

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- VA GOIP PRIORITY 2 - HUMAN PATHOGENIC ORGANISMS: THE EFFECTS OF FREEZING TEMPERATURES AND TIMES ON THE INACTIVATION OF VIBRIO PARAHAEMOLYTICUS IN GULF COAST OYSTERS (CRASSOSTREA VIRGINICA)
- VA Developing strategies to sustain hard clam aquaculture while minimizing impacts
- VA Assessing Ecosystem-level Effects of Hard Clam Aquaculture in Water Quality and Nutrient Dynamics
- WA Sea Grant Aquaculture Research Program 2010: Community and multi-trophic implications of structure additions associated with intertidal geoduck aquaculture
- WHOI Multi-Cropping Shellfish and Macroalgae for Business and Bio-Extraction
- WI Urban Aquaculture - A Game Changer
- WI Development of Yellow Perch Broodstocks for Genetic Selection: Assessing Reproductive Performance and Manipulation for Out-of-Cycle Spawning
- WI GIS-Based Analysis of Sustainable Domestic Aquaculture Development in Wisconsin

Ecology – 48

- AK Developing High-Resolution Strontium Isotope Maps of Alaska Rivers to Track Pacific Salmon Migrations: The Nushagak River as a Case Study to Evaluate Spatial and Seasonal Variability
- AK The seasonal and interannual patterns of larvaceans and pteropods in the Coastal Gulf of Alaska, and their relationship to Pink Salmon survival
- CA Collaborative Fisheries Research: Evaluating Gear Types, New Life History of Species
- CA Ecology and Trophic Interactions of Jumbo Squid (*Dosidicus gigas*) in the California Current Ecosystem
- CA Modeling Interannual Krill Availability (MIKA) in the Central-Northern California Current, 1990-2009
- CA Match-mismatch in the timing of hatchery Chinook salmon releases and favorable ocean conditions
- CA Trophic Ecology of the gopher rockfish (*Sebastes carnatus*): providing baseline information for monitoring and evaluation of marine protected areas.
- CT Estimating anadromous river herring natal stream homing rates and timing juvenile emigration using otolith microchemistry of
- CT Using Technology to Assess the Invasive Sea Squirt, *Didemnum vexillum*, Impacts on Fisheries and Ecosystems (Regional Project - CT portion)

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- FL Assessing the impacts of catch-and-release fishing on elasmobranch fishes: Post-release mortality and ecosystem effects
- FL Understanding circulation dynamics and transport mechanisms of gag grouper larvae in the Florida Big Bend region
- FL Determining the Ecological and Epidemiological Consequences of Casitas in the Florida Spiny Lobster Fishery
- FL Environmental Controls on the Dynamics of Nursery Habitat Quality for Estuarine-Dependent Fishes
- LA Characterization of two coastal populations of alligator gar
- MD FILTRATION CAPACITY OF OYSTER REEFS: QUANTIFYING NON-OYSTER CONTRIBUTIONS AND HARVEST IMPACTS
- MD Advancing Ecosystem Based Fisheries Management: Biological Reference Points for Nutritional Status of Striped Bass (*Morone saxatilis*).
- MD INTRAPOPULATION BIODIVERSITY, AND RECRUITMENT PATHWAYS FOR CHESAPEAKE STRIPED BASS
- MD LARGE-SCALE BLUE CRAB RECRUITMENT LIMITATION IN UPPER CHESAPEAKE BAY NURSERIES: DISPERSAL AND POST-SETTLEMENT PROCESSES
- MD Monogemean Ectoparasites of the White Marlin, *Tetrapturus albidus*, Roundscale Spearfish, *T. georglii*, and Blue Marlin, *Makaira nigricans* Caught in Maryland Coastal Waters
- ME Modeling ecosystem dynamics for American lobster (*Homarus americanus*) in the Gulf of Maine
- ME A comparative study of different monitoring programs for coherence in quantifying the dynamics of American lobster fisheries in the state of Maine
- NC A Comprehensive Evaluation of Biological and Ecological Factors Influencing the Sustainable Management of Large Pelagic Fishes in North Carolina Waters
- NC Oyster dispersal and Metapopulation Dynamics in Pamlico Sound: Part II, Settlement, Survival and Spawning Potential
- NC Does Density-Dependent Mortality in a Juvenile Estuarine Fish Limit Recruitment?
- NC Application of genetic markers to inform river herring management
- NH Recruitment and Retention of Lobsters in a New England Estuary
- NJ Stock recruitment relationships
- NJ The decline of winter flounder: Influences of changes in connectivity between estuaries and the inner continental shelf
- NY Genomic Analysis of Oyster Dispersal and Recruitment Success
- OR A cooperative effort to track the Humboldt squid invasion in Oregon
- OR Geomagnetic Imprinting and Homing in Salmon and Steelhead
- OR Mate Choice In The Wild: Does It Account For Differences In Reproductive Success Between Hatchery And Wild Coho Salmon?
- PR LONG-TERM PASSIVE ACOUSTIC TRACKING OF JUVENILE BLACKTIP AND LEMON SHARKS: AN INVESTIGATION INTO THE SPATIOTEMPORAL DYNAMICS AND CONNECTIVITY OF SHARK NURSERY HABITAT IN ST. JOHN, USVI
- SC Field Evaluation of Diploid and Triploid Single Eastern Oysters in South Carolina Incorporating Physical Methods to Ameliorate Excessive Recruitment by Native Oysters
- SC Characterization of Southern Flounder Spawning, Spawning Locations and Larval Dispersal off South Carolina
- TX Investigation of Short-term Fluctuations in Shrimp Abundance in the Gulf of Mexico

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- TX Fish Larvae Recruitment to Texas Bays Through Aransas Pass
The role of variation in condition of individual young-of-the-year fish:
- VA implications for recruitment dynamics of striped bass and summer flounder in Chesapeake Bay
- VA New Reproductive Norm for the Blue Crab: Male and Female Contributions
Dynamics of ichthyoplankton ingress from the coastal ocean into Delaware and Chesapeake Bays: comparing spatiotemporal concordance and transport mechanisms
- VA CHARACTERIZATION OF THE SUB-POPULATION CONTRIBUTION OF AGE 0 ATLANTIC MENHADEN TO CHESAPEAKE BAY
- WA RECOVERY AND PERFORMANCE OF COMPLEX EXOPOLYMERS IN THE COLD LARVAL ROCKFISH DISPERSAL RATES FROM OCEANOGRAPHY, GENETICS AND OTOLITH MARKS
- WA Spatial and temporal factors influencing recruitment variability in estuarine bivalves
- WA Local adaptation in Puget Sound Pacific cod (*Gadus macrocephalus*)
- WHOI Controls on Calcification by Shellfish: Carbonate Chemistry of Bays and Estuaries in Southeastern Massachusetts
- WHOI Investigating Decadal-Scale Changes at the Base of the Georges Bank Food Web Through the Use of Compound-Specific Stable Isotope Analyses of Haddock Scales
- WI Fishing Tournament Organizers and Professional Anglers: Preventing the Spread of AIS by Extending AIS-HACCP and the Stop Aquatic Hitchhikers Campaign in the Great Lakes

Stock assessment, management and policy – 43 projects

- ME Emergency Surveillance Monitoring for MSX Disease in Maine Oyster Aquaculture Industry
- RI Assessing prevalence of Seaside Organism (*Haplosporidium costali*) in Rhode Island waters.
- VA THE OYSTER DISEASE RESEARCH PROGRAM: THE INFLUENCE OF DISEASE ON OYSTER GENERATION TIME AND IMPLICATIONS FOR FECUNDITY AND HABITAT MAINTENANCE
- WI Genetic Analysis of Virulence Factors of the Fish Pathogen *Flavobacterium Columnare*
- SC Tagging of Horseshoe Crabs in Conjunction with Commercial Harvesters and the Biomedical Industry in South Carolina
- SC Development of Non-Lethal Genetic Techniques for Age and Sex Determination in Two Recreationally Important Fishes in South Carolina
- AK Low intensity, low cost management of salmon fisheries
- CA Molecular Identification of Fish Eggs and Larvae: Enhancing the Value of Ichthyoplankton Surveys in Monitoring and Management
- CA Effects of Marine Reserves on Behaviorally-Mediated Changes in Spawning Success of California Sheephead
- FL Framing Sustainability for Our Nation's Fisheries - A Development Program for the GOM
- FL Ecosystem-Based Fishery Management: A Potential Interdisciplinary Approach to Evaluating Grouper Harvest Policies

- LA Using long-term data sets and controlled laboratory and field derived data of oyster growth, mortality and recruitment to refine a dynamic oyster model for predicting optimal conditions and formulating management strategies
- LA Identification and incorporation of quantitative indicators of ecosystem function into single-species fishery stock assessment models and the associated biological reference points
- LAW The Legal Landscape for Marine Spatial Planning in the United States, with Emphases on Territorial Use Rights in Fisheries (TURFS) and Emerging Ocean Uses
- LAW Effects of Catch Shares on Fisheries Compliance and Enforcement
- LAW The Regulatory Governance Network of Ecosystem-based Fisheries Management in Chesapeake Bay: Mapping Institutions and Regulatory Jurisdiction to Assess Integration across Local, State, and Federal Scales
- MD ANALYSING 70 YEARS OF OYSTER MONITORING DATA TO HELP GUIDE OYSTER RESTORATION IN MARYLAND
- ME Spatial dynamics in fisheries stock assessment
- ME The benefits of increased spatial resolution in management of New England groundfish stocks
- ME Safety and compliance in the Maine Commercial fishing Industry
- ME REGIONAL PROPOSAL: Mitigating Risk to Whales from Lobster Fishing
- ME Maximizing the utility and impact of the American Lobster Settlement Index Database
- MS-AL Mini-Grant Program: Enhancing Bottlenose Conservation in the Southeast United States in Cooperation with MASGC
- NC Stock Structure of Southern Kingfish: Defining Units for Stock Assessment and Management of North Carolina Fisheries
- NC A Comprehensive evaluation of Biological and Ecological Factors Influencing the Sustainable Management of Large Pelagic Fishes in North Carolina Waters
- NH Mitigating Risk to Whales from Lobster Fishing
- NY Stock identification of summer flounder using microsatellite analysis
- OH Temporal and spatial analyses of walleye and yellow perch genetic stock structure: a high-resolution data base for fishery management (part II)
- OR LINKING MANAGEMENT AND SEAFOOD TECHNOLOGY TO PROMOTE SUSTAINABLE FISHERIES AND COMMUNITIES
- OR Taking stock of Oregon's nearshore fisheries: development of simple assessment tools for better management
- PR An Interdisciplinary Evaluation of the Fishery for *Cittarium pica*
- PR Movement Patterns of Bonefish (*Albula* spp.) Inhabiting Reef Flats in Culebra, Puerto Rico: from Ecological Connectivity to Sustainable Use for Recreational Fishery
- PR Highly Migratory Species Recreational Fishery Data Collection Pilot Study in Puerto Rico
- PR Movement Patterns of Bonefish (*Albula* spp.) Inhabiting Reef Flats in Culebra, Puerto Rico: From Ecological Connectivity to Sustainable Use of a Recreational Fishery
- RI Evaluating the benefits of fisheries certification: Implications for Rhode Island fisheries.
- SC Development of a Novel Genetic Approach to Rapidly Detect and Quantify Fish Eggs of Economically Important Species: A New Tool for Fisheries Management

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- SC Developing Methodologies for Understanding Carrying Capacity as it Relates to the Introduction of Stocked Red Drum in Four South Carolina Estuaries
- USC THE IMPACT OF INTENSE RECREATIONAL FISHING PRESSURE ON SPAWNING AGGREGATIONS OF BARRED SAND BASS (*PARALABRAX NEBULIFER*) OFF THE LOS ANGELES METROPOLITAN AREA PHASE I: CAN WE ACCURATELY DETERMINE THE STANDING STOCK OF BARRED SAND BASS IN THE AGGREGATION AREA?
- VA Food web structure in Chesapeake Bay and environmental effects on fish diets in support of ecosystem-based fisheries management
- WA Accounting for spatial structure in stock assessments: the case of Pacific sardine
- WA Governing complex environmental commons: stakeholder partnerships in salmon recovery in WA, OR and CA
- WHOI Modeling as a Tool to Better Understand Bay Scallop Recruitment and to manage Bay Scallop Populations
- WI Effectiveness of a Lake Trout Refuge at Gull Island Shoal, Lake Superior

Toxins, contaminants, HABs, public health - 24

- CA Exposure of Santa Cruz Wharf Anglers to Domoic Acid Toxins
- CA Noroviruses in coastal waters: Implications for seafood cultivation and human health
- FL Implementation of Vibrio Monitoring Methods Needed to Sustain Florida Coastal Communities
- LA DETECTION OF VIBRIO VULNIFICUS BY IMMUNOMAGNETIC SEPARATION AND REAL-TIME PC
- LA Detection of Virulent *Vibrio vulnificus* in Eastern Oysters by a Simple Molecular Assay
- LA Identification and Characterization of Widely Dispersed Polysaccharide Genes which are Differentially Expressed Between Virulent Encapsulated and Avirulent Unencapsulated Strains of the Human Pathogen *Vibrio vulnificus*
- LA Rapid concentration and detection of enteric viruses in seawater
- MIT Development of real-time instrumentation for the robotic detection of Paralytic Shellfish Poisoning (PSP) toxins in Massachusetts coastal waters
- NH Interactions Between Salinity and the Resident Microbial Community in Excluding Pathogenic *Vibrio* from Oysters
- TX The Toxin(s) of the Texas Brown Tide Organism *Aureoumbra lagunensis*, and its impacts on shellfish
- VA Influence of high salinity on *Vibrio vulnificus* and its fate in relayed oysters
- VA Study of adenovirus and its infectivity in wastewater treatment plant effluent
- VA Ecologically-framed Mercury Database, Exposure Modeling, and Risk/Benefit Communication to Lower Chesapeake Bay Fish Consumers
- VA evaluation of *Vibrio vulnificus* occurrence in oysters harvested from Virginia waters and validation of high-salinity relay as a post-harvest processing method for their elimination
- WA HAB FORMATION BY A MOTILE ALGA, *HETEROSIGMA AKASHIWO*, IN DYNAMIC ESTUARINE ENVIRONMENTS
- WA Optical detection and characterization of pre-HAB populations of the fish-killing alga, *Heterosigma akashiwo*
- WA Recovery of Elwha River salmon and trout after dam removal: Recolonization and the awakening of dormant life history diversity

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WA	Using zebrafish to assess the health effects of persistent pollutants in Pacific salmon
WHOI	Giardia and Cryptosporidium in Cape Cod Seals and Their Flounder Prey: Issues of Fish, Seal, Fisherman and Consumer Health
WI	Evaluation of Sources and Uptake of Methylmercury in Farm-Raised Rainbow Trout (<i>Oncorhynchus Mykiss</i>) and Yellow Perch (<i>Perca Flavescens</i>)
WI	Novel Epidemiologic and Diagnostic Approaches for Reducing the Impact of Viral Hemorrhagic Septicemia Virus on Aquatic Ecosystems in Wisconsin
WI	PARALLEL TOXICOGENOMIC RESOURCES FOR ZEBRAFISH AND RAINBOW TROUT: IDENTIFYING CONSERVED MOLECULAR BIOMARKERS OF TOXICANT EXPOSURE
WI	Target Organ Toxicity and Blue Sac Syndrome
WI	Multigenerational Effects of Sublethal TCDD on Fish Reproduction and Development

Biology (including disease) – 18 projects

AK	Nutrition and Condition of Red King Crab Larvae: Enhancement of King Crabs to Improve Sustainability of Alaskan Coastal Communities
CA	Evaluating Disease Resistance in Pacific Oysters
DE	The influence of growth conditions on pressure resistance and recovery of <i>Vibrio parahaemolyticus</i>
MD	EFFECTS OF CYANOBACTERIA ON HEALTH AND DISEASE OF BLUE CRAB
MD	Monitoring for a fatal blue crab virus in rivers with soft shell production systems
MD	Monitoring for a Fatal Blue Crab virus in Rivers with Soft Shell Production Systems
MD	VIOLACEIN PRODUCING BACTERIA AND DEATH OF OYSTER LARVAE
ME	Developing Genetic Fingerprinting Techniques in Lobster Seeding Trials
ME	Spatial and Temporal Variation in the Growth of the Soft-shell Clam (<i>Mya arenaria</i>)
NY	Assessment of Viral Hemorrhagic Septicemia Virus egg transmission
OH	Development and implementation of a new molecular test for active VHS infection in fish
OH	Cytological events in the early development of normal and gynogenetic embryos of sea lamprey
OR	Effect of <i>Vibrio tubiashii</i> on West coast shellfish
RI	Investigation of feeding rates, growth rates of whelks, <i>Busycon</i> spp. held in captivity.
USC	Contaminant-Related Thyroid Disruption in Wild Fish in Southern and Northern California: Cause and Effect Evaluations
WA	LOCATING THE GENOMIC REGIONS UNDERLYING ADAPTIVE DIVERGENCE IN CHINOOK SALMON LIFE HISTORY TRAITS
WA	Linking genetic variation, selection and adaptation in Chinook salmon: next generation sequencing and an oligonucleotide microarray with complete genome coverage
WA	Effect of salmon Omega-3 Fatty Acids on PBDE toxicity

Recovery and restoration - 13 projects

- CA Monitoring Recovery of Endangered Coho Salmon in Russian River
- CT Restocking Connecticut's natural beds by remote-set disease-resistant oysters in biodegradable netting
- LA From the River to the Sea and Back Again: Life History Migrations of the River Shrimp *Macrobrachium ohione*, The Key to Conservation and Restoration of a Valuable Fishery Resource
- MD In situ setting of *Crassostrea virginica* larvae on restored reefs; a complementary method for restoring oyster populations
- ME Restoration of anadromous fishes: the effects of dam removal and habitat conditioning in spawning streams
- MN Testing the role of genetic makeup in reintroduction success
- NC To Seed or Not to Seed: The Value of Seeding Restored Oyster Reefs for Ecosystem Function
- NC Recruitment of Estuarine-Dependent Alosines to the Albemarle Sound: Will Food Availability or Nursery Habitat Limit Success of Restoration Programs?
- NH Establishing historic baselines and time series for rebuilding anadromous fish populations and coastal marine ecosystems in the Gulf of Maine
- NH Working with New England Communities to Restore Winter Flounder Populations
- TX Promoting larval survival through broodstock diet: Implications for fish stock enhancement
- TX Genetic Effective Size in Hatchery-Raised Spotted Seatrout, *Cynoscion nebulosus*, Released for Stock Enhancement in Texas Bays and Estuaries
- VA Opening the bottleneck in bay scallop restoration: Impacts of micropredators on recently settled bay scallops

Habitat – 12 Projects

HI	AUV-based High Resolution Benthic Mapping
LA	Are Louisiana's Shelf-Edge Banks the Center of Abundance and Historical Natural Refuge for the Gulf of Mexico's Most Valuable Reef Fish: A Pilot Study
MD	CONNECTIVITY OF FISH NURSERY HABITATS BETWEEN MARYLAND'S COASTAL BAYS AND NEAR SHORE OCEAN ENVIRONMENT
MN	Acoustic remote-sensing of native deep water lake trout spawning grounds in Eastern Lake Superior
NJ	Habitat Dynamics of Adult Winter Flounder: Connectivity between Estuaries and Inner Continental Shelves influence management of human impacts associated with dredging
OR	Predicting Habitat Quality Of Juvenile English Sole And Dungeness Crab in Coastal and Estuarine Nursery Grounds
RI	Mapping and characterizing fish habitat in Rhode Island's transitional seas
TX	Freshwater residence and habitat requirements of southern flounder determined by otolith chemistry
USC	The value of habitat diversity of marine reserves: Spiny lobster and sheephead use of the intertidal zone at Santa Catalina
VA	QUANTITATIVE VALUATION OF NURSERY HABITATS FOR THE BLUE CRAB
VA	Evaluation of nursery habitats: effects of carbon & nitrogen sources on juvenile fish growth
WHOI	Essential Fish Habitat: Quantifying the Roles of Euphausiid Behavior and Physical Aggregation Mechanisms in the Canyons of the New England Continental Shelf Break Using Broadband Acoustic Techniques

Social science – 11 projects

CA	Increasing Awareness about Local Commercial Fisheries
CA	Sustaining Fishing Communities by Enhancing Value in a Landings-Constrained Environment
CA	Social and economic effects of ITQs on the West Coast Groundfish fishery: solving the weak stock/bycatch problem
LA	Economic Assessment of Hired Labor in Louisiana Seafood Processing Industry
MD	SOCIOECONOMIC RESEARCH IN SUPPORT OF ECOSYSTEM BASED FISHERIES MANAGEMENT: COASTAL ECONOMY DATA AND ANALYSIS-YEAR 2
ME	An agent-based investigation of coupled human-natural system dynamics in three Gulf of Maine fisheries
ME	Social and Economic Impact Assessment of Catch Share Management in the Northeast
MSAL	A National Survey of Consumer Preferences for Branded Gulf Oysters and Risk Perceptions of Gulf Seafood
NY	Constraints and motivations related to bass fishing along the Lake Ontario coast
RI	REGIONAL CONSORTIUM PROJECT --- Social and economic impact assessment of catch share management in the Northeast multispecies fishery.
VA	Establishing economic weights for the VA oyster industry

Climate & ocean acidification – 11 Projects

WA	CLIMATE CHANGE EFFECTS ON STEELHEAD IN NORTH PACIFIC MARINE ECOSYSTEMS
CA	Consequences of nearshore low oxygen and low pH for coastal resources of southern California
FL	Preparing for Climate Change: Increasing Hard Clam Production in the Southeastern United States Using Biomarkers of Thermal Tolerance
OR	Modeling Myxozoan Disease in Pacific Salmon: Establishing Watershed Models for Predicting Effects of Climate Change
OR	Developing realistic metrics of acidification stress for commercially important bivalves in variable habitats
OR	Developing Realistic Metrics of Acidification Stress for Commercially Important Bivalves in Variable Habitats
WA	Effects of ocean acidification on declining Puget Sound calcifiers
WA	Effects of early exposure of Pacific oysters to ocean acidification on subsequent performance
WHOI	Ocean Acidification Impacts on Larval Shell Formation by Commercial Shellfish Species of New England: An Experimental Investigation
WHOI	Transgenerational Exposure of Bay Scallops to Ocean Acidification
WI	Climate Change Increases Sea Lamprey Impact in Lake Superior

Non-climatic stressors – 11 Projects

LA	The Toxicity of Dispersant Corexit 9500 on Blue Crab Juveniles under Gulf of Mexico Conditions
LA	Effects of the Deepwater Horizon oil spill on growth and mortality of <i>Farfantepenaeus aztecus</i> (Ives, 1891) and <i>Callinectes sapidus</i> (Rathbun, 1896) in an affected Louisiana estuary.
LA	Deepwater Horizon Oil Spill Effects on Blue Crab Recruitment
LA	Assessing oil spill impacts on juvenile fishes, crabs, and shrimp at the Chandeleur Islands: a comparison to baseline data
LA	Acute responses of oyster populations to the Deepwater Horizon oil spill across coastal Louisiana: examining hydrocarbon bio-accumulation and oyster health
LA	Rapid assessment of the impact of the Deep Horizon oil spill on Louisiana oyster reefs
MD	FACTORS ACCOUNTING FOR INTRASPECIFIC VARIANCE IN HYPOXIA TOLERANCE OF FUVENILE STRIPED BASS (<i>MORONE SAXITALIS</i>)
MD	Rapid Response Funding: Post Storm Survey of Upper Chesapeake Bay Clam Population
MD	EFFECTS OF DIEL CYCLING HYPOXIA ON ACQUISITION AND PROGRESSION OF <i>PERKINSUS MARINUS</i>
SC	Drought and the Decline of Blue Crabs in South Carolina
VA	Physiological impacts of hypoxia on healthy and <i>Mycobacterium</i> -infected striped bass (<i>Morone saxatilis</i>)

Business development – 9 projects

CA	Marketing Options for Commercial Fishermen
CA	Assessment of Alternative Marketing Networks for West Coast Fishing Communities
FL	Eliminating Barriers to Commercial Production of Sunray Venus Clams in Florida: Enhanced Hatchery Production, Growout Site Selection, and Definition of Wholesale Market Product Attributes
LA	Oyster Business Plan Feasibility Project
LAW	Legal Barriers and Opportunities to Developing Business Partnerships between Fisheries and Tourism
ME	The Seafood Links Project: Promoting Sustainable Seafood in Maine's Inland Areas
NH	Matching Alternative Marketing Opportunities with the N.H. Commercial Fishing Industry's Alternative Marketing Capacity
OR	Toward Resilience and Sustainable Seafood Supply: Assessing Direct Marketing Approaches for the West Coast Fishing Communities
RI	Utilization of Gracilaria for human consumption: processing, nutrient and sensory analysis

Seafood safety & technology – 7 projects

FL	Grouper Forensics for Seafood Quality Control
LA	Development of safe, convenient, and frozen oyster products for the frozen ready-meal market segment
NY	Development of genomics-based methods to determine effective combinations of growth inhibitors for <i>Listeria monocytogenes</i> on cold smoked salmon
NY	Determination of Effective Combinations of Bactericidal and Bacteriostatic Growth Inhibitor Treatments against <i>Listeria monocytogenes</i> on Cold Smoked Salmon
NY	Mercury and Nutrients in Commercial Seafood: Local and National Trends and Mechanisms
RI	Impact of spices on the growth of <i>Listeria</i> in ready to eat seafood products
WI	Reducing the Level of Bio-Contaminants in Fish-Based Foods

Gear, bait and technology development – 5 projects

CA	Collaborative Fisheries Research: Evaluating Gear Types, New Life History of Species
LA	Development of alternative bait for the commercial blue crab fishery
NH	Calibrating lobster ventless trap and standard trap surveys to optimize measurements of lobster abundance
NY	A Test of Acoustic Telemetry and Radio Frequency Identification Tagging Methods to Evaluate the Success of Fish Passage Restorations for Alewife, American Eel and Brook Trout in the Carman's River

WI Development of a Submersible Electroshocking Sampler for Invertebrates and Larval Fishes in Rocky Habitats

Bycatch – 5 projects

NC Marine Mammal Bycatch Reduction and Related Research in Cooperation with North Carolina Sea Grant

NC 2011 Bycatch Reduction of Marine Mammals in Mid-Atlantic Fisheries Research Funding Opportunity

RI Characterization of discards of scup from the floating fish trap fishery in Rhode Island

VA Foundation for future development of bycatch reduction strategies for commercial and recreational blue crab fisheries: Diamondback terrapin habitat mapping

NY Vulnerability of Hudson River Atlantic sturgeon to coastal bycatches