



NFWF

EasyGrantsID: 40877

National Fish and Wildlife Foundation – Shell Marine Habitat Program - 2013, Full Proposal

Title: American Oystercatcher Habitat Restoration in Florida

Organization: Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute

Grant Information

Title of Project

American Oystercatcher Habitat Restoration in Florida

Total Amount Requested	\$ 141,085.45
Matching Contributions Proposed	\$ 141,085.45
Proposed Grant Period	07/01/ 2014 - 07/01/ 2016

Project Description

Restore and increase the amount of quality high tide roost habitat available for the AMOY and increase apparent overwintering survival of AMOY.

Project Abstract

The American Oystercatcher AMOY is a species of high conservation concern. Restoration of wintering habitat is a key conservation strategy. The Cedar Key region supports the highest concentration of wintering AMOY, representing ~1,100 individuals or 10% of the AMOY population. This area shows excellent promise as a long term conservation area for the species, but roosting sites on offshore oyster reefs have declined by over 80% in 30 yr. While the cause of decline is decreased freshwater flows and high salinity, the process of reef loss can be reversed by providing durable substrate, allowing spat to recolonize bars after periods of high salinity and mortality. The prospects for restoration of oyster reefs are good, with locally adapted and tested methods, a history of successful permit applications, and strong interest from state and federal agencies and local fishers. Research from phase I of this project demonstrated that high tide roosting habitat is a limiting factor for AMOY in this critical wintering ground. This second phase of the project will use proven construction techniques and local materials to rebuild reefs at two roosts used by 90% of individuals. This process is likely to increase long term stability and resilience of the roost sites because it uses living reef that can easily outgrow sea level rise. This will increase the amount of quality high tide roost habitat available for the AMOY and will increase apparent overwintering survival of AMOY.

Organization and Primary Contact Information

Organization	Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute
Organization Type	State or Local Government
Organization Web Address	www.myfwc.com
Organization Phone	
Street Line 1	100 Eighth Avenue Southeast
Street Line 2	
City, State, Country, Postal Code	St. Petersburg, Florida, North America - United States 33710
Region (if international)	
Organization Congressional District	District 3 (FL)



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Primary Contact

Position/Title

Street Line 1

Street Line 2

City, State, Country, Postal Code

Region (if international)

Phone and E-mail

Keywords

Sub-keywords

Other Keyword(s)

Ms. Janell Marie Brush

Assistant Research Scientist

FWC - Fish and Wildlife Research Institute

100 8th Avenue SE

St. Petersburg, Florida, North America - United States, 33701

352-334-4202 x ; janell.brush@myfwc.com

Other; Species

Bird – Shorebird - Haematopus palliatus (American Oystercatcher); Other

Oyster Restoration



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Project Location Information

Project Location Description	The project will be located in the Cedar Key area of the Florida Big Bend in Dixie and Levy Counties.
Project Country(ies)	North America - United States
Project State(s)	Florida
Project Congressional District(s)	District 3 (FL)

Permits and Approvals

Permits/Approvals Description:	We will be pursuing a Noticed General Environmental Resource permit for construction in state waters.
Permits/Approvals Status:	Intend to Apply
Permits/Approvals Agency-Contact Person:	USACOE- James Davidson
Permits/Approvals Submittal-Approval Date:	8/1/2014 12:00:00 AM



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Organization: Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute

Reviewer Type:	Conservation NGO
Reviewer Name:	Shiloh Schulte
Organization	Manomet Center for Conservation Sciences
Position/Title:	American Oystercatcher Recovery Campaign Coordinator
Street Line 1:	Manomet Center for Conservation Sciences
City, State, Country, Postal Code:	Manomet, Massachusetts, North America - United States, 02345
Region (if international):	
Phone and E-mail:	207-502-0026 sschulte@manomet.org

Reviewer Type:	Academic
Reviewer Name:	H. Percival
Organization	USGS FL Cooperative Fish and Wildlife Research Unit
Position/Title:	Unit Leader - Professor
Street Line 1:	USGS FL Cooperative Fish and Wildlife Research Unit
City, State, Country, Postal Code:	Gainesville, Florida, North America - United States, 32611
Region (if international):	
Phone and E-mail:	352-846-0543 percivaf@ufl.edu

Reviewer Type:	Federal
Reviewer Name:	Andrew Gude
Organization	Lower Suwannee and Cedar Keys National Wildlife Refuge
Position/Title:	Refuge Manager
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Region (if international):	
Phone and E-mail:	352-493-0238 Andrew_Gude@fws.gov

Reviewer Type:	State
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National Fish and Wildlife Foundation – Shell Marine Habitat Program - 2013, Full Proposal

Title: American Oystercatcher Habitat Restoration in Florida

Organization: Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute

Reviewer Name:
Organization
Position/Title:
Street Line 1:
City, State, Country, Postal Code:

Nancy Douglass
Florida Fish & Wildlife Conservation Commission
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Reviewer Type:
Reviewer Name:
Organization
Position/Title:
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City, State, Country, Postal Code:

Resource Industry
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University of Florida
Extension Agent, Shellfish Aquaculture
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Cedar Key, Florida, North America - United States, 32625

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352-543-5057
Inst@ufl.edu



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Salaries and Benefits

	Units	Cost Per Unit	Total
OPS Salary	2240	\$22.13	\$49,571.20

Total Salaries and Benefits			\$49,571.20
30 weeks (Sept 2014-Mar 2015) and 26 weeks (Oct 2015 - March 2016) \$17.50/hr + 26.45% fringe			

Equipment

	Units	Cost Per Unit	Total

Total Equipment			\$0.00

Contractual Services

	Units	Cost Per Unit	Total
UF - Consultation/Construction	1	\$67,808.00	\$67,808.00

Total Contractual Services			\$67,808.00
Includes 10% UF overhead, 4.5% salary for the Co-PI + 26.3% for fringe, all oyster restoration costs for the contractor.			

Supplies and Materials

	Units	Cost Per Unit	Total
Camera Traps	3	\$225.00	\$675.00

Total Supplies and Materials			\$675.00
Includes cameras and mounting equipment to build camera traps to document AMOY use of restored bars.			



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Printing

	Units	Cost Per Unit	Total

Total Printing			\$0.00

Travel

	Units	Cost Per Unit	Total
Truck mileage LSNWR to Cedar Key	68	\$17.10	\$1,162.80
Truck mileage Gainesville to Cedar Key	30	\$52.20	\$1,566.00
Outboard Gas	2	\$200.00	\$400.00
Airboat Gas	2	\$500.00	\$1,000.00

Total Travel			\$4,128.80
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Travel costs include mileage and gas for field missions. Number of units is equivalent to number of trips to the field site. Unit cost was calculated by the distance to the field site x 0.445 cents per mile. Gas for the outboard and airboat are for two field seasons (# of units) and cost was estimated based on previous project budgets.

Other

	Units	Cost Per Unit	Total
Boat Maintenance	1	\$500.00	\$500.00
Indirect Costs	1	\$18,402.45	\$18,402.45

Total Other			\$18,902.45
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Indirect costs at 15% of total direct cost

Budget Grand Total			\$141,085.45
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Organization: Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute

Matching Contributions

Matching Contribution Amount:

\$23,485.45

Type:

Cash

Status:

Received

Source:

Salaries paid for by the state of Florida related fringe benefits and indirect cost

Source Type:

Non-Federal

Description:

Salaries paid for by the state of Florida related fringe benefits and indirect cost. The PI and additional staff will dedicate time to the project which is recorded as match.

Matching Contribution Amount:

\$117,600.00

Type:

Cash

Status:

Received

Source:

Cultch and live material for oyster restoration

Source Type:

Non-Federal

Description:

Abandoned clam bags have cultch and live materials which serve as building blocks for the restoration. Match is for equivalent amount of material we would have to obtain for restoration.

Total Amount of Matching Contributions \$141,085.45



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Title: American Oystercatcher Habitat Restoration in Florida

Organization: Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute

Activities and Outcomes

Funding Strategy: Planning, Research, Monitoring

Activity / Outcome: SMHP - Monitoring - Acres being monitored

Description: Enter the number of acres being monitored

Required: Recommended

Acres being monitored - Current: 0.00

Acres being monitored - Grant Completion: 91.00

Notes: Project success will be assessed through monitoring of restored habitat. We will document AMOY numbers at restored areas, including five previously restored bars, using camera traps in addition to ground surveys. We will calculate the percentage of the overall wintering AMOY population using the restored bars. Our habitat monitoring protocol will follow the oyster habitat characterization methods we developed during the first phase of the project. We will collect elevation data as well as oyster habitat metrics (i.e. density of live oysters, size classes and evidence of recruitment) prior to and immediately following project construction and monthly during the winter seasons for two years. This data will be compared over time and with bar elevation data prior to restoration. In addition, we will conduct surveys at high tide to document densities of AMOY and resight banded birds to enable us to document use of the restored bars and estimate apparent survival of wintering AMOY.

Funding Strategy: Habitat Restoration

Activity / Outcome: SMHP - Land, wetland restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 0.00

Acres restored - Grant Completion: 10.00

Notes: An output of this project will be restoration of critical AMOY roosting habitat, having immediate and long term benefits for AMOY populations. The most frequently used high tide roosts are offshore bars that are in rapid decline, with vertical erosion rates of 8.5 cm/yr common in the area (Seavey et al. 2011). At this rate, the two bars proposed for restoration will be unusable by AMOY within 10-15 years. Restoration will reverse this decline by increasing the elevation of the bar, increasing bar area, and reducing erosion. This restoration will increase optimal AMOY high tide roosting habitat by 13% (10 acres).

Funding Strategy: Species Outcome

Activity / Outcome: American Oystercatcher - Species outcome will be measured by project impact on wintering AMOY population and survival. The two roosts selected for restoration have been documented to support = 90% (968 individuals) of the Cedar Key wintering AMOY population on any given day. Loss of these critical roosts will force AMOY to suboptimal roosting habitats. This is predicted to have a



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negative impact on survival and population of wintering AMOY. Restoration will prevent the predicted decline.

Description:

Required: Optional

N/A: N/A

Notes:



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The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Statement of Litigation

A-133 Audit

Board of Trustees, Directors, or equivalent

Spatial Data

GAAP audited financial statements

Indirect Rate Agreement

Full Proposal Narrative 2010

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.



Full Proposal Project Narrative

Instructions: Save this document on your computer and complete the narrative in the format provided. The final narrative should not exceed six (6) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Activities: Elaborate on the primary activities that will be employed through the grant. Explain how these activities are expected to lead to the outcome(s). Describe how these activities relate to established plans (management, conservation, recovery, etc.) and priority conservation needs in the specific project location.

Our long-term conservation outcome is to increase overwinter survival and size of the American Oystercatcher (AMOY) Gulf Coast wintering population by increasing quality and extent of prime wintering habitat in the Cedar Key region.

Major threats and opportunities

In the U.S. Shorebird Conservation Plan, the American Oystercatcher (*Haematopus palliatus*) is listed as a species of "high conservation concern" due to its small population size, declining trend and widespread degradation of coastal habitat. The species is listed as threatened in Florida. American Oystercatchers migrate from Atlantic and Gulf coast breeding sites to coastal wintering sites on both the south Atlantic, and Gulf of Mexico. Two major wintering aggregations exist in the range of this species: Cape Romain, SC and Big Bend, FL. While considerable effort has been focused on breeding habitat conditions for this declining species, little has been devoted to understanding or improving wintering habitat along the Gulf coast (Schulte et al. 2007).

The area of the Florida Gulf Coast from Crystal River to Horseshoe Beach (hereafter Big Bend), FL, has the largest undeveloped section of coastline in the continental United States, and is likely to remain undeveloped because of public ownership of much of the coast, and lack of beaches. This area is also part of the Gulf coast region that contains over 90% of the remaining healthy oyster reef habitat in the world (Beck et al. 2009). The Big Bend area contains wintering AMOY banded from nearly all states conducting AMOY research, and the geographic and ecological separation of this site from Cape Romain makes it an independent and critical conservation unit. Within the Big Bend the Cedar Key region supports the highest concentration of wintering AMOY, representing ~1,100 individuals or >10% of this species population.

While the location of wintering AMOY concentrations in a highly conserved and undeveloped part of the coast is encouraging, there has been a well-documented decline in the extent of oyster reefs in the Big Bend area since the 1970s years (Baker et al. 2003, Bergquist et al. 2006, Seavey et al. 2011). Research suggests that the causes are likely to be a mix of coastal erosion and related sedimentation exacerbated by sea level rise, and poor recruitment and survival of oysters due to disease, settlement substrate, and freshwater discharge (Baker et al 2003, Seavey et al. 2011). Repeated episodes of low freshwater discharge and high salinity have led to high mortality, followed by the breakup of the oyster shell substrate. The lack of settlement substrate means that larval oysters can no longer survive on the remaining sand substrate, even during periods of intermediate salinity. Much of the loss of oyster reefs has been on the most productive offshore bars, which is particularly important for roosting AMOY (Nol and Humphrey 1994, Brush et al. 2013). The documented decline in habitat quality suggests strongly that former carrying capacity for AMOY in the Big Bend was higher than at present, and consequently, that restoration efforts could markedly affect both the size of the wintering population, and overwinter survival. In addition, timing and success of breeding has been related to overwinter condition of several species of birds (Baker et al. 2004).

There is strong interest from both fisheries and conservation communities in restoration of oyster habitat in the Big Bend. A key feature of this estuary is that it continues to show high production of oyster larvae from inshore bars. The main intervention strategy is to create durable substrate that lasts through periods of high and low recruitment, allowing oyster communities to repeatedly recolonize bars that have experienced high mortality. Durable substrate is available locally in the form of oyster-encrusted clam aquaculture bags, which typically contain over 200 lbs of dead shell and ca 8,000 live oysters. An existing pilot project (Atsena Otie) has demonstrated these bags can be used to build a living oyster reef with full complement of fauna. This reef has also been resilient to a recent oyster die-off event, faring better than surrounding natural reefs. Construction on a second restoration project involving a chain of oyster reefs in Suwannee Sound (Lone

Cabbage) is underway, with an expected completion date of December 2013. These projects demonstrate that resilient oyster reef habitat can be built using local techniques, and can stabilize sediments on eroding bars.

Project progress and goals

This is the second phase of a two-phase project. In the first phase, we found that AMOY used the full suite of offshore, nearshore, and inshore oyster reefs. Offshore reefs were important as roost sites while nearshore and inshore reefs served primarily as foraging habitat. Foraging habitat and prey availability were not limiting factors for this population and this part of the habitat seemed likely to be able to support many more birds than were present. However, high tide roosting habitat was found to be a limiting factor for AMOY. Although high tide roosts are significantly higher in elevation than randomly selected oyster bars in the area, many high tide roosts are already threatened by overwash and erosion during the normal tidal cycle. The most frequently used high tide roosts are offshore bars that are in rapid decline, with vertical erosion rates of 8.5 cm/yr common in the area (Seavey et al. 2011). AMOY strongly preferred a small number of offshore bars as roost sites, likely because they offer the best protection from aerial and terrestrial predators. Previous studies have shown that shorebirds will select habitats that are farther from wooded areas, presumably because trees provide cover for avian predators (Yasue 2006).

Restoration efforts should therefore focus on maintaining and improving the existing high tide roosts. The goal of the second phase of the project is to ensure long term viability of high tide roosts using oyster reef restoration techniques. Based on the research in the first phase, we recommend two specific restoration activities.

First, we propose to stabilize two existing high-use roosts; these roosts support up to 90% of the area AMOY population on any given day. Stabilization will be accomplished by using oyster bag revetment in the intertidal range and terraforming in the supertidal range. This will serve to reduce erosion on the sides of the bar, increase bar elevation and area, and eventually result in the colonization of the bar by oysters throughout the tidal range. Second, we will monitor the sediment dynamics and AMOY use of these roosts following restoration to ensure the effectiveness and sustainability of the restoration effort.

This project achieves many of the conservation actions listed In the Conservation Action Plan for the American Oystercatcher (2007). A conservation action listed for non-breeding habitat is “better management of shell rakes” where AMOY roost and nest. In addition, one outcome the plan and our project share is to reduce the rate of loss of wintering habitat, resulting in improved annual survival rates and increased population trend. Population monitoring is also listed in the plan as high ranking conservation actions for the AMOY. This project will focus on monitoring the Cedar Key wintering population and its response to habitat restoration activities. The plan identifies our defined study area as having one of the largest concentrations of wintering AMOY in the U.S. and is a priority area for conservation and habitat restoration.

Specific Activities

Restore two high tide AMOY roosts: We plan to restore two existing high tide roosts of known importance, making them higher in elevation and more resistant to erosion. Restoration efforts will involve rebuilding of roost elevation and profile using a combination of techniques. Roosts are typically on living or former oyster bars dominated by oysters and oyster shell in the intertidal zone and by oyster shell and sediment in the supratidal zone. We plan to 1) increase elevation of the supratidal zone by terraforming using heavy equipment, and 2) stabilize and armor the intertidal sediments using oyster bags. This combination will result in a stable reef that eventually will grow vertically to create durable substrate to the top of the intertidal zone, forming a trap for loose sediments in the supratidal zone.

Restored habitat characterization: All habitat monitoring activities will be conducted pre-restoration, immediately post-restoration, and monthly for two winters (Oct – Mar). Our habitat monitoring protocol will follow the oyster habitat characterization methods we developed during the first phase of the project. We will measure roost elevation, slope, and area. Elevation data will be collected via two global positioning units and permanent benchmarks established at each restoration site as well as at additional roosts for comparison. We will also estimate percent cover of live oysters, substrate, and vegetation. Random points on the constructed reef will be selected using ArcGIS. Oyster growth and density on constructed reefs will be sampled. At each point, we will count and measure all live oysters within a ¼ m² quadrat. Similar data will be taken on two neighboring “reference” roosts, which will allow us to quantify the effects of restoration.

AMOY numbers and survival: Using automated camera traps and ground surveys we will document AMOY use of the restored roosts. In addition, we will monitor AMOY use at the five previously restored bars. We will quantify number of AMOY using the roosts as well as the duration of AMOY use. We will describe the type of behaviors AMOY engage in while they are present, in order to assess whether AMOY use the restored bars for foraging as well as roosting. In addition, band resighting surveys will be conducted at high tide throughout the Cedar Key region to document AMOY at restored roosts and estimate survival. Six years of pre-restoration band resighting data from Cedar Key will be used to generate a pre-restoration survival estimate for wintering AMOY. This estimate will be compared to post-restoration survival.

Outcome(s): Elaborate on the outcome(s) summarized previously in the application; discuss what makes this outcome(s) achievable and important.

Improved AMOY roost habitat

An output of this project will be restoration of critical AMOY roosting habitat, having immediate and long term benefits for AMOY populations. The most frequently used high tide roosts are offshore bars that are in rapid decline, with vertical erosion rates of 8.5 cm/yr common in the area (Seavey et al. 2011). At this rate, the two bars proposed for restoration will be unusable by AMOY within 10-15 years. Restoration will reverse this decline by increasing the elevation of the bar, increasing bar area, and reducing erosion. This restoration will increase optimal AMOY high tide roosting habitat by 13% (10 acres).

Increase or maintain wintering AMOY population and survival

Ultimately, the outcome from this work will be measured by project impact on wintering AMOY population and survival. The two roosts selected for restoration have been documented to support $\geq 90\%$ (968 individuals) of the Cedar Key wintering AMOY population on any given day. Loss of these critical roosts will force AMOY to suboptimal roosting habitats. This is predicted to have a negative impact on survival and population of wintering AMOY. Restoration will prevent the predicted decline.

Tracking Metrics: Indicate how the project will monitor/assess progress on the metrics selected previously in the application. Please note any challenges or limitations anticipated with tracking the metrics.

Project success will be assessed through monitoring of restored habitat. We will document AMOY numbers at restored areas, including five previously restored bars, using camera traps in addition to ground surveys. We will calculate the percentage of the overall wintering AMOY population using the restored bars. Our habitat monitoring protocol will follow the oyster habitat characterization methods we developed during the first phase of the project. We will collect elevation data as well as oyster habitat metrics (i.e. density of live oysters, size classes and evidence of recruitment) prior to and immediately following project construction and monthly during the winter seasons for two years. This data will be compared over time and with bar elevation data prior to restoration. In addition, we will conduct surveys at high tide to document densities of AMOY and resight banded birds to enable us to document use of the restored bars and estimate apparent survival of wintering AMOY.

Based on data from our monitoring program and targeted metrics, ***success for the research project will be quantified by*** (a) increased stabilization and elevation of restored bars (b) increased surface area of restored bars (c) increase or maintain numbers of AMOY using the restored roosts (d) increase or maintain wintering AMOY survival.

Project Team: List key individuals and describe their qualifications relevant for project implementation.

Janell Brush. M.S. Wildlife Ecology and Conservation, University of Florida. Janell has managed avian research projects in the Florida for over 13 years. She is the Project Investigator for two State Wildlife Grant funded coastal waterbird projects in Florida. She joined the Florida Fish and Wildlife Conservation Commission in 2006 as an Avian Research Scientist. Janell will serve as co-PI for this project and will oversee project design and analysis, supervise project manager, participate in field-sampling, and prepare reports and manuscripts.

Peter Frederick. PhD, Research Professor, Department of Wildlife Ecology and Conservation, University of Florida (see <http://www.wec.ufl.edu/faculty/frederickp/>). Dr. Frederick has 25 years experience in research on waterbirds and their habitats, and has experience with marine and coastal systems from work at University of North Carolina, Belle Baruch Marine Lab, Marine Biological Laboratories, Bermuda Biological Station, and National Audubon Research Center in the

Florida Keys. Dr. Frederick will serve as a co-PI of this project and will participate in design, field sampling, analysis and reporting of this project. Dr. Frederick is a PI on the companion oyster restoration project.

Amy Schwarzer. M.S. Interdisciplinary Ecology, University of Florida. Amy has 13 years of research and monitoring experience, with the last 6 years spent designing, implementing, and managing projects on coastal avian species in Florida with the Florida Fish and Wildlife Conservation Commission. Amy's expertise is focused on population demographics, avian breeding and wintering ecology, and habitat use of beach and salt marsh birds. Amy will serve as project manager and will coordinate daily field activities as well as participate in design, analysis and reporting of this project.

Literature Cited

- Baker, P., D. Bergquist and S. Baker. 2003. Oyster Reef Assessment in the Suwannee River Estuary. Final Report to St. Johns River Water Management District. 35 pgs.
- Baker, A.J., P.M. Gonzalez, T. Piersma, L.J. Niles, I. Nascimento, P.W. Atkinson, N.A. Clark, C.D Minton, M.K. Peck, and G. Aarts. Rapid population decline in red knots: fitness consequences of decreased fuelling rates and late arrival in Delaware Bay. *Proceedings of the Royal Society* 271(1541): 875-882.
- Beck, M.B., R.D. Brumbaugh, L. Airoidi, A. Carranza, L.D. Coen, C. Crawford, O. Defeo, G.J. Edgar, B. Hancock, M. Kay, H. Lenihan, M.W. Luckenbach, C.L. Toropova, G. Zhang. 2009. Shellfish Reefs at Risk: A Global Analysis of Problems and Solutions. The Nature Conservancy, Arlington VA. 52 pp.
- Bergquist, D.C., J. A. Hale, P. Baker and S. M. Baker. 2006. Development of Ecosystem Indicators for the Suwannee River Estuary: Oyster Reef Habitat Quality along a Salinity Gradient. *Estuaries and Coasts* 29; 353 – 360.
- Brush, J.B., A.C. Schwarzer, and P. Frederick. 2013. American Oystercatcher Habitat Restoration in Cedar Key, Florida. Final report submitted to National Fish and Wildlife Foundation, March 30, 2013. 16 pp.
- Hand, C., 2008. Foraging Ecology of American Oystercatchers in the Cape Romain Region, South Carolina., M.S. Thesis, Clemson University, Clemson, SC, USA.
- Nol, Erica and Robert C. Humphrey. 1994. American Oystercatcher (*Haematopus palliatus*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/082> doi:10.2173/bna.82
- Seavey, J. R., W. E. Pine, III, P. Frederick, L. Sturmer, and M. Berrigan. 2011. Decadal changes in oyster reefs in the Big Bend of Florida's Gulf Coast. *Ecosphere* 2(10): 114.
- Yasue, M. 2006. Environmental factors and spatial scale influence shorebirds' responses to human disturbance. *Biological Conservation* 128: 47-54.



NFWF

Statement of Litigation

Instructions: Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Litigation: In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

The Florida Fish and Wildlife Conservation commission is not required to complete this section.



Florida Fish and Wildlife Conservation Commission

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United States Department of the Interior

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2180 Harvard Street, Suite 430

Sacramento, CA 95815



November 8, 2012

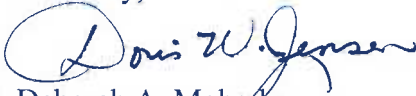
Ms. Linda C. Grove, Assistant Chief Financial Officer
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

Dear Ms. Grove:

Enclosed is an original copy of the Indirect Cost Negotiation Agreement for the 12-month periods ending June 30, 2013, and 2014, between the Federal Government and the Florida Fish and Wildlife Conservation Commission.

Please visit our Web site at <http://www.aqd.nbc.gov/ics> for guidance and updates on submitting indirect cost proposals. In addition, you will find helpful tools such as a completeness checklist, indirect cost and lobbying certificates, sample proposals, Excel worksheet templates, and important links to other Web sites.

Sincerely,


Deborah A. Moberly
Indirect Cost Coordinator

Enclosure

Ref: J:Florida/Ffwch023/Issue.ltr

We want to hear from you! Please let us know how we are doing in meeting your needs by taking a short survey at: <http://www.aqd.nbc.gov/survey>.

Phone: (916) 566-7111
Fax: (916) 566-7110



E-mail: ICS@nbc.gov
Internet: <http://www.aqd.nbc.gov/ics>

Revised 03/2012

**State And Local Department/Agency
Indirect Cost Negotiation Agreement**

EIN: 59-3105845

Organization:

Florida Fish and Wildlife
Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

Date: November 8, 2012

Report No(s) .: 13-A-0112(13)
13-A-0113(14)

Filing Ref.:

Last Negotiation Agreement
dated March 23, 2011

The indirect cost rates contained herein are for use on grants, contracts, and other agreements with the Federal Government to which 2 CFR 225 (OMB Circular A-87) applies, subject to the limitations in Section II.A. of this agreement. The rates were negotiated by the U.S. Department of the Interior, National Business Center, and the subject organization in accordance with the authority contained in 2 CFR 225.

Section I: Rates

Type	Effective Period		Rate	Locations	Applicable
	From	To			To
Fixed Carryforward	07/01/12	06/30/13	26.72%*	All	1/
Fixed Carryforward	07/01/12	06/30/13	9.72%**	All	2/
Fixed Carryforward	07/01/13	06/30/14	37.35%*	All	1/
Fixed Carryforward	07/01/13	06/30/14	12.77%**	All	2/

1/ All programs of the Fish and Wildlife Research Institute (FWRI).

2/ All other programs except the programs of the Fish and Wildlife Research Institute (FWRI).

***Base:** Total direct costs, less capital expenditures and passthrough funds.

****Base:** Total direct salaries and wages, including fringe benefits.

Treatment of fringe benefits: Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs.

Section II: General

Page 1 of 3

A. Limitations: Use of the rates contained in this agreement is subject to any applicable statutory limitations. Acceptance of the rates agreed to herein is predicated upon these conditions: (1) no costs other than those incurred by the subject organization were included in its indirect cost rate proposals, (2) all such costs are the legal obligations of the grantee/contractor, (3) similar types of costs have been accorded consistent treatment, and (4) the same costs that have been treated as indirect costs have not been claimed as direct costs (for example, supplies can be charged directly to a program or activity as long as these costs are not part of the supply costs included in the indirect cost pool for central administration).

B. Audit: All costs (direct and indirect, federal and non-federal) are subject to audit. Adjustments to amounts resulting from audit of the cost allocation plan or indirect cost rate proposals upon which the negotiation of this agreement was based will be compensated for in a subsequent negotiation.

C. Changes: The rates contained in this agreement are based on the organizational structure and the accounting system in effect at the time the proposals were submitted. Changes in organizational structure, or changes in the method of accounting for costs which affect the amount of reimbursement resulting from use of the rates in this agreement, require the prior approval of the responsible negotiation agency. Failure to obtain such approval may result in subsequent audit disallowance.

D. Fixed Carryforward Rate: The fixed carryforward rate is based on an estimate of the costs that will be incurred during the period for which the rate applies. When the actual costs for such period have been determined, an adjustment will be made to the rate for a future period, if necessary, to compensate for the difference between the costs used to establish the fixed rate and the actual costs.

E. Agency Notification: Copies of this document may be provided to other federal offices as a means of notifying them of the agreement contained herein.

F. Record Keeping: Organizations must maintain accounting records that demonstrate that each type of cost has been treated consistently either as a direct cost or an indirect cost. Records pertaining to the costs of program administration, such as salaries, travel, and related costs, should be kept on an annual basis.

G. Reimbursement Ceilings: Grantee/contractor program agreements providing for ceilings on indirect cost rates or reimbursement amounts are subject to the ceilings stipulated in the contract or grant agreements. If the ceiling rate is higher than the negotiated rate in Section I of this agreement, the negotiated rate will be used to determine the maximum allowable indirect cost.

H. Use of Other Rates: If any federal programs are reimbursing indirect costs to this grantee/contractor by a measure other than the approved rates in this agreement, the grantee/contractor should credit such costs to the affected programs and the approved rates should be used to identify the maximum amount of indirect cost allocable to these programs.

I. Central Service Costs: Where central service costs are estimated for the calculation of indirect cost rates, adjustments will be made to reflect the difference between provisional and final amounts.

J. Other:

1. The purpose of an indirect cost rate is to facilitate the allocation and billing of indirect costs. Approval of the indirect cost rates does not mean that an organization can recover more than the actual costs of a particular program or activity.

2. Programs received or initiated by the organization subsequent to the negotiation of this agreement are subject to the approved indirect cost rate if the programs receive administrative support from the indirect cost pool. It should be noted that this could result in an adjustment to a future rate.

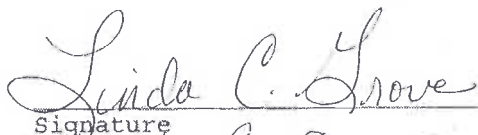
3. New indirect cost proposals are necessary to obtain approved indirect cost rates for future fiscal or calendar years. The proposals are due in our office 6 months prior to the beginning of the year to which the proposed rates will apply.

Section III: Acceptance

Listed below are the signatures of acceptance for this agreement:

By the State Department/Agency:

By the Cognizant Federal Government
Agency:



Signature

Linda C. Grove

Name (Type or Print)

Assistant CFO

Title

11/2/2012

Date

/s/



Signature

Deborah A. Moberly

Name

Indirect Cost Coordinator

Indirect Cost Services

Title

U.S. Department of the Interior

National Business Center

Agency

Date

NOV 08 2012

Negotiated by Sujoy Mukhopadhyay

Telephone (916) 566-7009