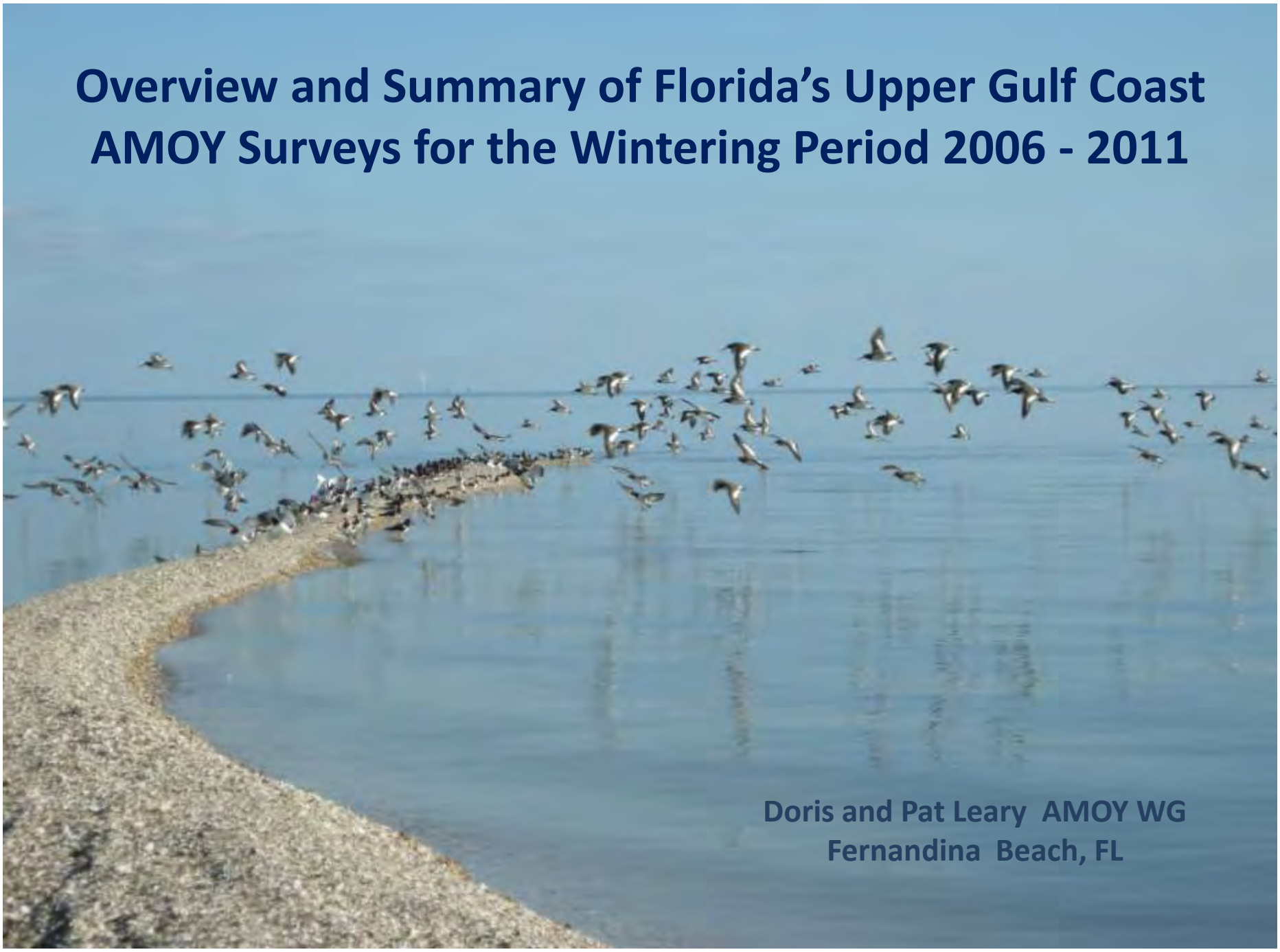
Overview and Summary of Florida's Upper Gulf Coast AMOY Surveys for the Wintering Period 2006 - 2011



Doris and Pat Leary AMOY WG
Fernandina Beach, FL

Florida Upper Gulf Survey Region
ESCAMBIA
SANTA ROSA
OKALOOSA
WALTON
HOLMES
JACKSON
WASHINGTON
BAY
CALHOUN
LIBERTY
GADSDEN
LEON
WAKULLA
JEFFERSON
MADISON
TAYLOR
FRANKLIN
GULF
LAFAYETTE
HAMILTON
SUWANNEE
COLUMBIA
BAKER
NASSAU
DUVAL
CLAY
UNION
BRADFORD
ALACHUA
DIXIE
GILCHRIST
LEVY
MARION
PUTNAM
FLAGLER
VOLUSIA
CITRUS
SUMTER
LAKE
SEMINOLE
HERNANDO
ORANGE
PASCO
HILLSBOROUGH
OSCEOLA
POLK
BREVARD
INDIAN RIVER
FLORIDA
MANATEE
HARDEE
OKEECHOBEE
ST. LUCIE
HIGHLANDS
SARASOTA
DE SOTO
MARTIN
CHARLOTTE
GLADES
HENDRY
PALM BEACH
LEE
BROWARD
COLLIER
MONROE
DADE

Principal Characteristics of Upper Gulf Wintering Region

Abundant oyster reefs – bars – rakes along entire coast

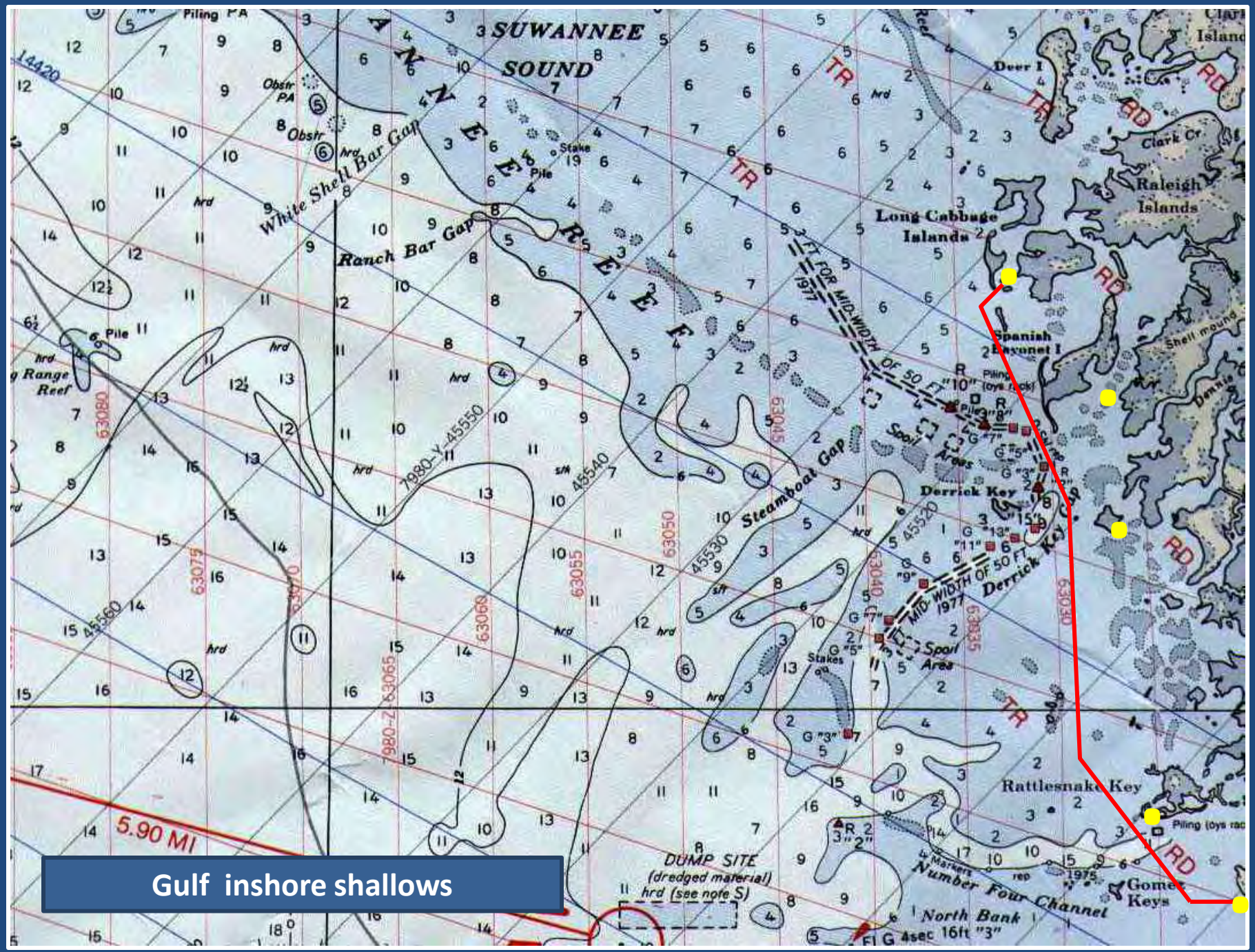
High density of smaller oysters facilitates foraging?

Expansive shallow inshore waters - modified wave action

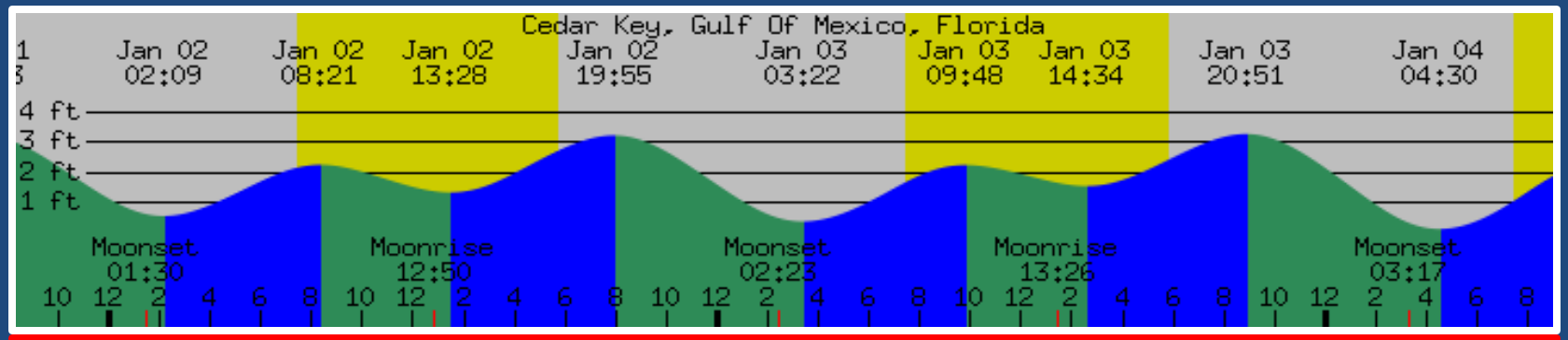
Low tidal amplitude accommodates long foraging period

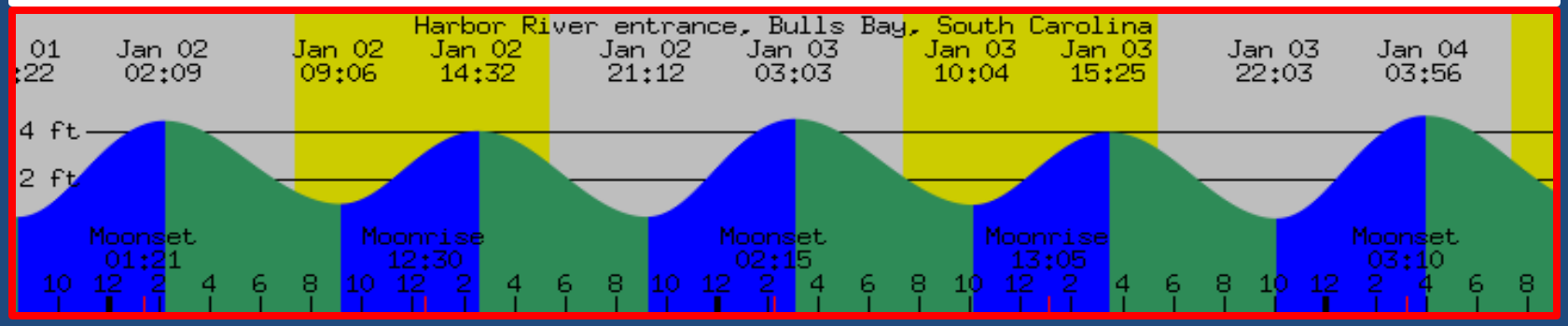
Modified winter weather

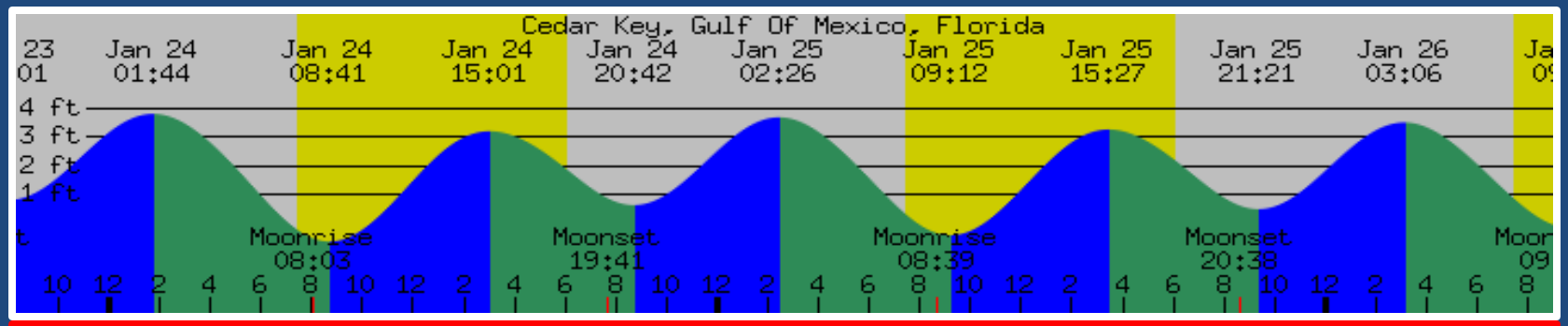
Coastline is remote and predominantly undeveloped

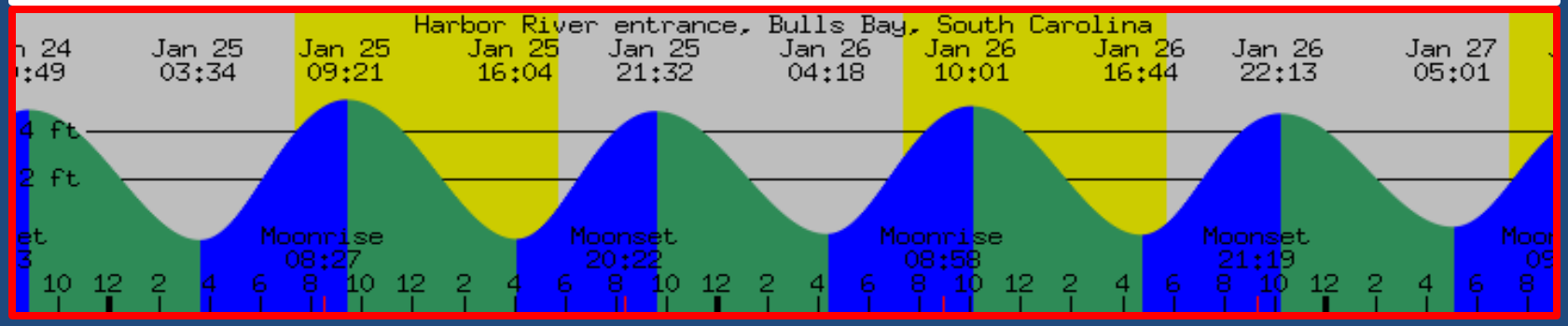


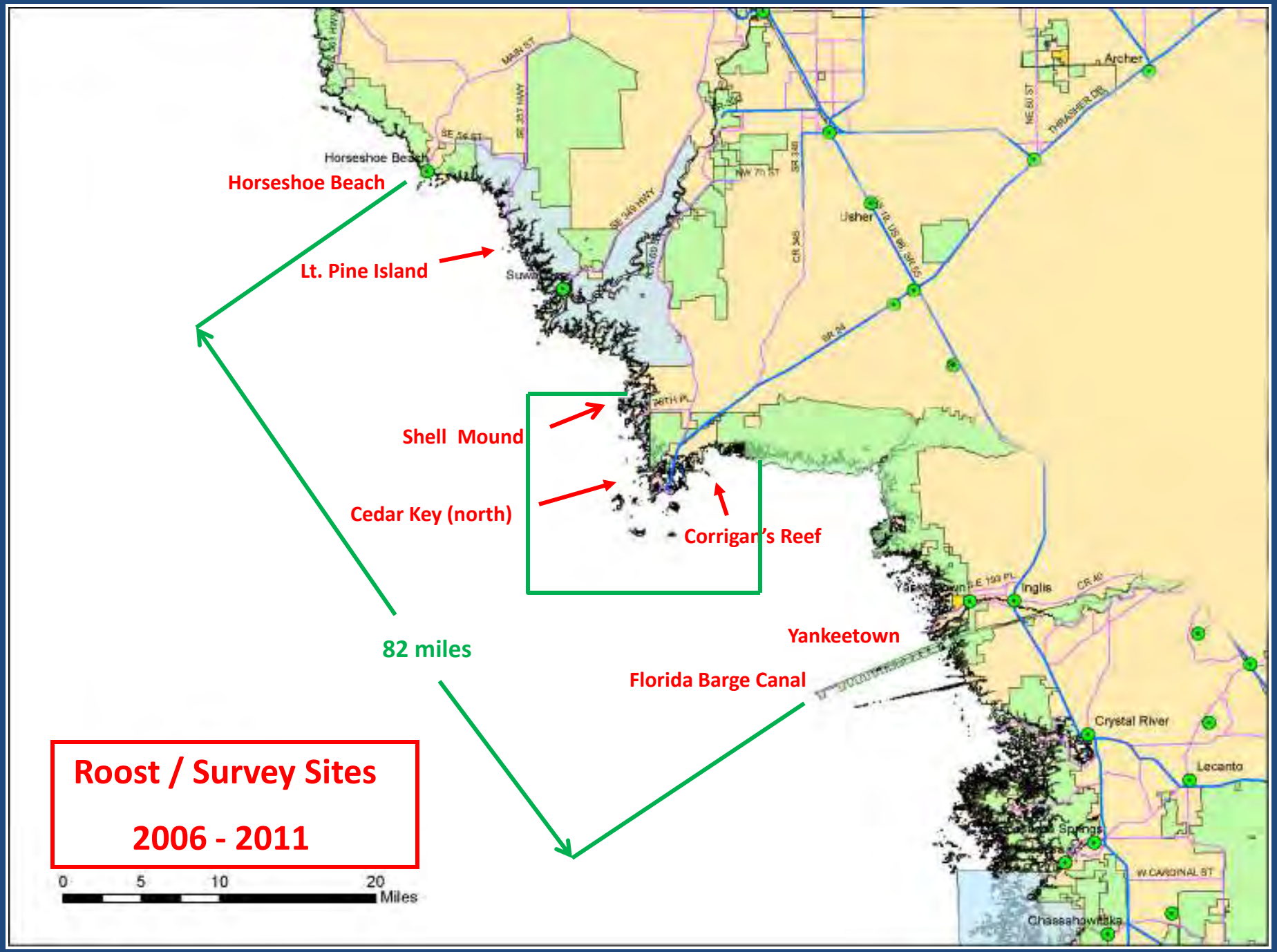
Gulf inshore shallows


Cedar Key, Gulf Of Mexico, Florida
Jan 02 02:09
Jan 02 08:21
Jan 02 13:28
Jan 02 19:55
Jan 03 03:22
Jan 03 09:48
Jan 03 14:34
Jan 03 20:51
Jan 04 04:30
4 ft
3 ft
2 ft
1 ft
Moonset 01:30
Moonrise 12:50
Moonset 02:23
Moonrise 13:26
Moonset 03:17


Harbor River entrance, Bulls Bay, South Carolina
Jan 02 02:09
Jan 02 09:06
Jan 02 14:32
Jan 02 21:12
Jan 03 03:03
Jan 03 10:04
Jan 03 15:25
Jan 03 22:03
Jan 04 03:56
4 ft
2 ft
Moonset 01:21
Moonrise 12:30
Moonset 02:15
Moonrise 13:05
Moonset 03:10


Cedar Key, Gulf Of Mexico, Florida
Jan 24 01:44
Jan 24 08:41
Jan 24 15:01
Jan 24 20:42
Jan 25 02:26
Jan 25 09:12
Jan 25 15:27
Jan 25 21:21
Jan 26 03:06
4 ft
3 ft
2 ft
1 ft
Moonrise 08:03
Moonset 19:41
Moonrise 08:39
Moonset 20:38


Harbor River entrance, Bulls Bay, South Carolina
Jan 25 03:34
Jan 25 09:21
Jan 25 16:04
Jan 25 21:32
Jan 26 04:18
Jan 26 10:01
Jan 26 16:44
Jan 26 22:13
Jan 27 05:01
4 ft
2 ft
Moonrise 08:27
Moonset 20:22
Moonrise 08:58
Moonset 21:19


Horseshoe Beach
Lt. Pine Island
Shell Mound
Cedar Key (north)
Corrigan's Reef
82 miles
Yankeetown
Florida Barge Canal
Roost / Survey Sites
2006 - 2011
0
5
10
20
Miles
Horseshoe Beach
Suwannee
Usher
Archer
Inglis
Crystal River
Lecanto
Springs
Chassahowitzka
MAIN ST
SE 56 ST
SE 35T HWY
SE 349 HWY
NW 7th ST
SR 340
CR 345
NE 50 ST
THRASHER DR
SR 24
CR 40
W CARDINAL ST

Horseshoe Beach south jetty view toward mainland community

02.21.2011 14:29

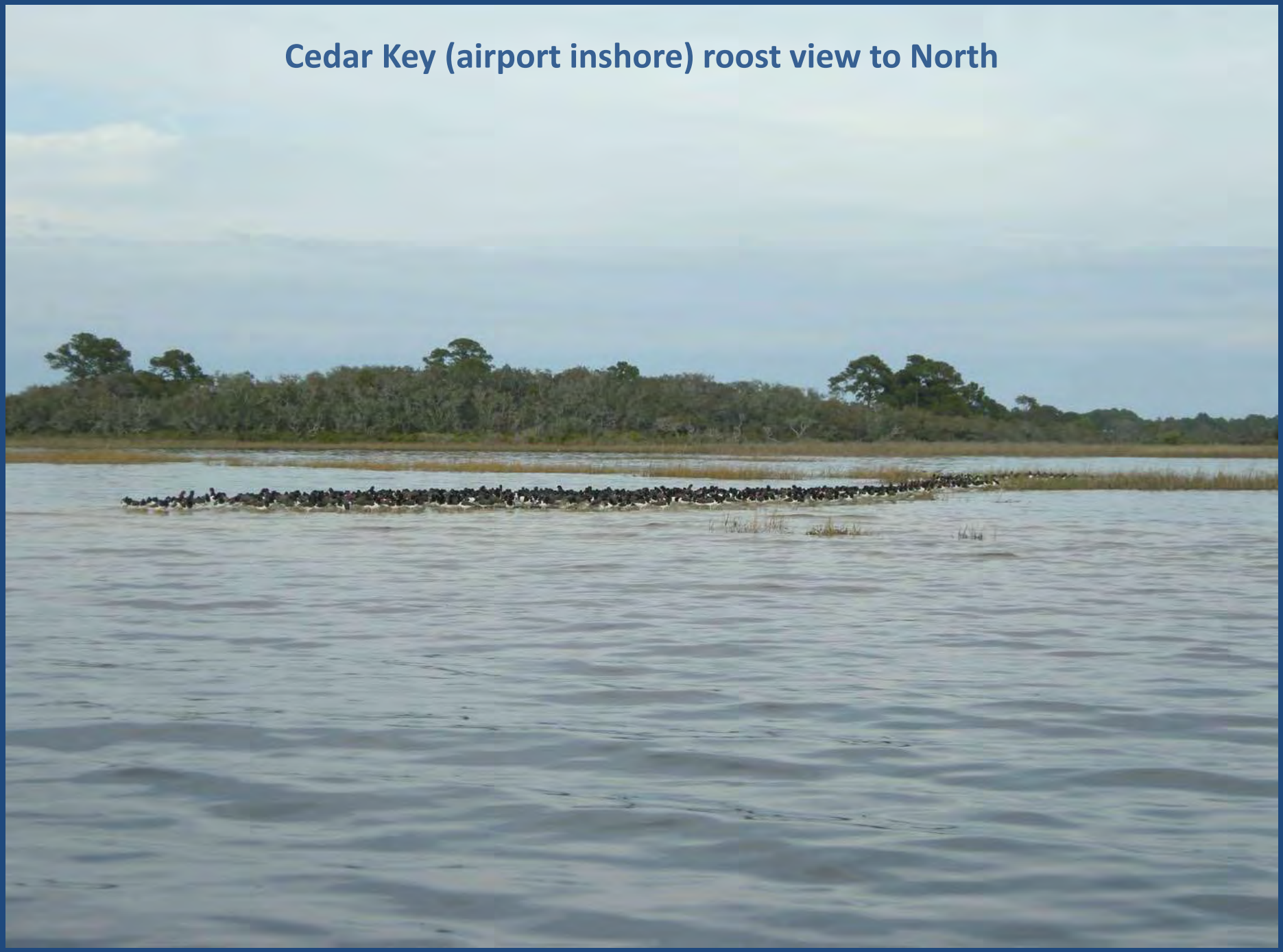
Lt. Pine Island roost view to NE

11.21.2011 10:02

03 . 03 . 2007

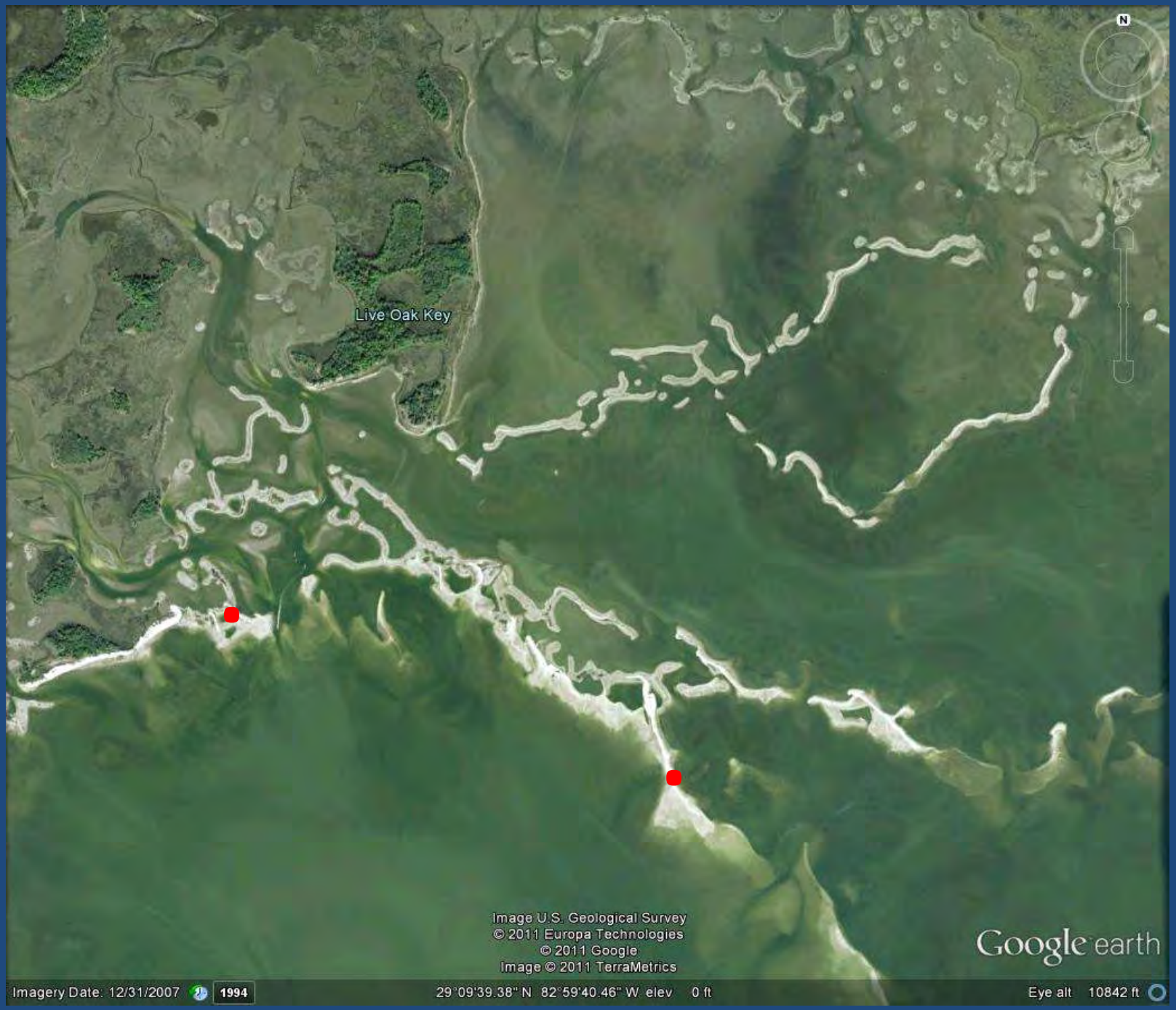
Long Cabbage Island roost view to NE

Cedar Key (airport inshore) roost view to North



Cedar Key (airport offshore) roost site view to East

Corrigan's Reef roost flock with Barge Canal Power Plant on the horizon


N
Live Oak Key
Image U.S. Geological Survey
© 2011 Europa Technologies
© 2011 Google
Image © 2011 TerraMetrics
Google earth
Imagery Date: 12/31/2007
1994
29°09'39.38" N 82°59'40.46" W elev 0 ft
Eye alt 10842 ft

Yankeetown channel roost view to NW toward Cedar Key (over horizon)

N
© 2011 Google
Google earth
Imagery Date: 1/26/2011
1995
29°00'08.23" N 82°46'17.62" W elev 0 ft
Eye alt 1095 ft

Florida Barge Canal Spoil Island roost view to SE

Regional Population Census for the period: 2007 - 2011

2007	1,296
2008	1,029
2009	1,692
2010	1,683
2011	1,973*
Mean	1,535

* Highest total since initiation of annual surveys

Regional AMOY Population Census for November 2011
(seven day interval between first and last surveys)

Survey Sites (N to S)	Date	Count
Horseshoe Beach , Dixie Co.	11/21/11	311
Shired Creek, Dixie Co.	11/21/11	107
Cedar Key (north), Levy Co.	11/14/11	643
Cedar Key (south), Levy Co.	11/13/11	450
Yankeetown, Levy Co.	11/22/11	200
Barge Canal, Citrus Co.	11/22/11	262
Total Regional count for November, 2011 …….		**1,973**

Note: *preponderance of marked birds not recorded at more than one site on sequential surveys, but the incidence of unmarked birds shifting between sites is unknown*

Collected Banding Data for the period: 2006 - 2011

Total individually marked birds recorded..... 355

Total (old) color banded birds recorded 16

Total engraved color bands recorded 339

Massachusetts	YE	111
North Carolina	DG	83
Virginia	BK	78
New Jersey	OR	38
Georgia	RE	25
South Carolina	DB	4
Florida	RE	2

Longevity and Site Fidelity of Banded Cohort

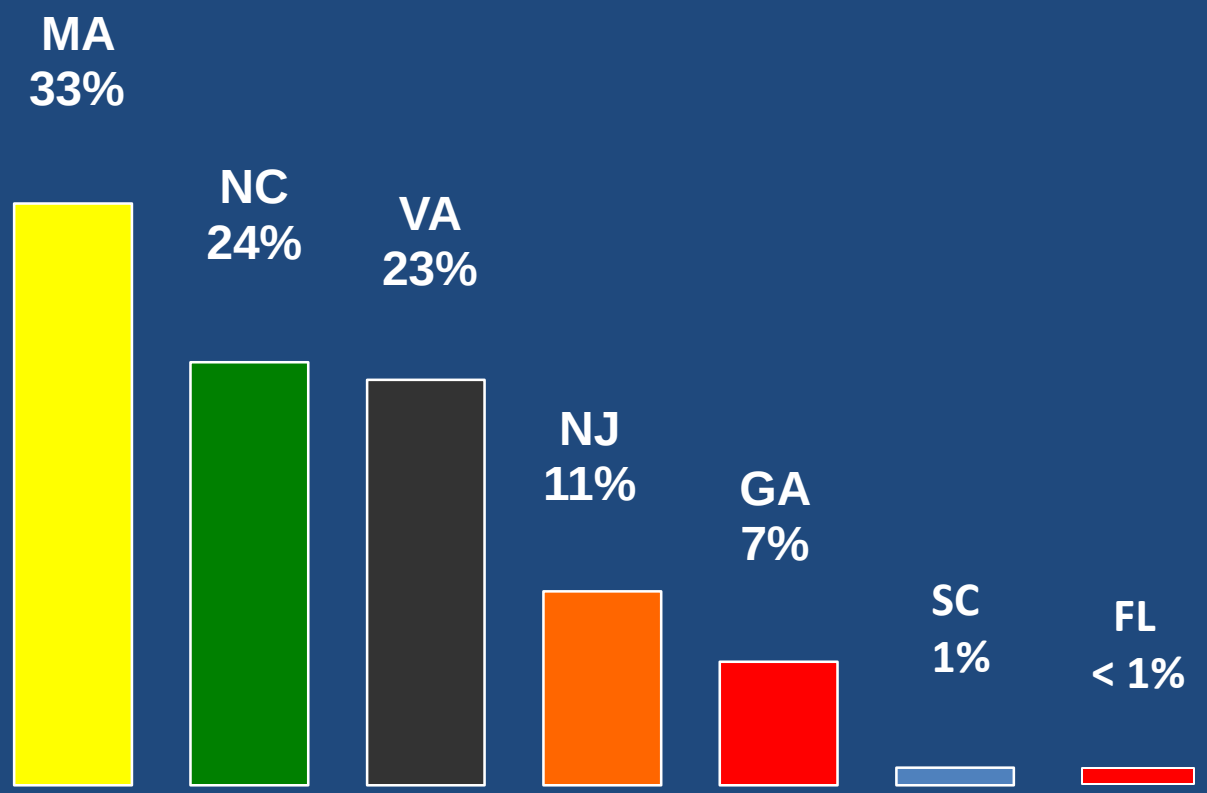
Band Code	Years Recorded	Locations
YE[E2]	07, 08, 09, 10, 11	Levy
YE[F2]	07, , , 10, 11	Dixie Levy
YE[F9]	07, , 11	Levy
YE[TI]	07, , 09, , 11	Dixie Levy Citrus
YE[UI]	07, 08, 09, 10, ??	Levy
YE[08]	07, , 09, , 11	Dixie
YE[33]	07, , 09, , 11	Dixie Levy
YE[25]	07, 08, 09, , 11	Dixie Levy Citrus
BK[15]	07, 08, 09, 10, 11	Dixie Levy
BK[16]	07, 08, 09, 10, 11	Dixie Levy Citrus
BK[56]	07, 08, 09, 10, 11	Levy
BK[68]	07, 08, 09, 10, 11	Levy
BK[73]	07, 08, 09, 10, 11	Levy
BK[AN]	07, 08, 09, , 11	Dixie
BK[FL]	07, , , 10, 11	Dixie
BK[MF]	07, , 09, , 11	Dixie Levy
BK[NK]	07, , 09, 10, 11	Dixie Levy Citrus
BK[OW]	07, , 09, 10, 11	Levy
BK[4X]	07, 08, 09, 10, 11	Levy
BK[8C]	07, 08, 09, , 11	Levy
BK[9N]	07, 08, 09, 10, 11	Dixie

Longevity and Site Fidelity of Banded Cohort

Band Code	Years Recorded	Locations
OR[A7]	07, 08, 09, 10, 11	Dixie Levy
OR[AY]	07, 08, 09, 10, 11	Dixie Levy
OR[CA]	07, 08, 09, 10, 11	Levy
OR[T4]	07, 08, 09, 10, 11	Levy
OR[T2]	07, 08, 09, 10, 11	Levy
DG[12]	07, 08, 09, 10, 11	Levy
DG[EO]	07, 08, 09, 10, 11	Levy
DG[J5]	07, , 09, 10, 11	Dixie Levy
DG[UI]	07, 08, 09, 10, 11	Dixie Levy
RE[E3]	07, 08, 09, 10, 11	Dixie Levy
RE[P4]	07, 08, 09, 10, 11	Dixie Levy

State Representation as Percentage of total Band Codes Recorded

(not correlated to the total no. of birds banded in each state)



Early and Late Dates for Region

Date	Location	Bands
9/14/2011	Corrigan's Reef	DG[XN] [W3] [T3] YE[74] [76] [FU] [87] [WO] BK[YM] [90] [4X] [L5] OR[3J]
9/14/2011	McClamory Key	FG[AAY] YE[85]
9/15/2011	Horseshoe Beach	BK[NK] YE[CN] OR[EX] RE[CU]
3/19/2011	Cedar Key (airport)	YE[54] [M6] [86] [68] [36] [KM] [57] [52] [TO] [64] [98] [RX] [51] BK[F3] [89] [K9] [PR] [PJ] OR[CA] DG[RF] RE[O/E] [E/L]
3/19/2011	McClamory Key	YE[85]

Shortest and Longest Migratory Routes to Gulf Wintering Region

Central GA ..... 290 km
Eastern MA ..... 1,870 km
differential ..... 1,580 km

MA birds travel 6.4 X the distance of GA birds

Acknowledgments

Janell Brush …… FWC Research Office Gainesville, FL

Richard and Marie Middleton …….. Old Town, FL

AMOY WG ……. Range wide support

“Mother Nature “…… Ecosystem and natural resources