

# Rookery Monitoring and Protection in Estero Bay Aquatic Preserve

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# Introduction

- Estero Bay - Florida's 1<sup>st</sup> Aquatic Preserve (1966)
- Monthly Surveys  
1998-2007 (April)  
2008-2009 (Feb – Aug)
- Management Issues  
Recreational Use  
Environmental Factors  
Water Quality



# Program Objectives

- Provide peak estimates of nesting effort for each species of colonial nesting bird.
- Monitor population trends.
- Document movement of colonies.
- Document human disturbance and bird fatalities due to fishing-line entanglement.
- Reduce the number of entanglements and fatalities due to fishing-line and trash within the Bay.
- Provide recommendations for long term monitoring of nesting wading bird colonies in Estero Bay Aquatic Preserve.



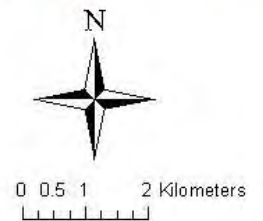


# Estero Bay Aquatic Preserve Colonial Bird Nest Monitoring and Protection Program

## Project Location



● Rookery Islands  
□ Estero Bay Aquatic Preserve Boundary  
DOQQ 2004 (aerial photos-Image Server)



# Volunteer Training





# Materials and Methods



# Data Collection

Unknown



Incubating



Chick(s)



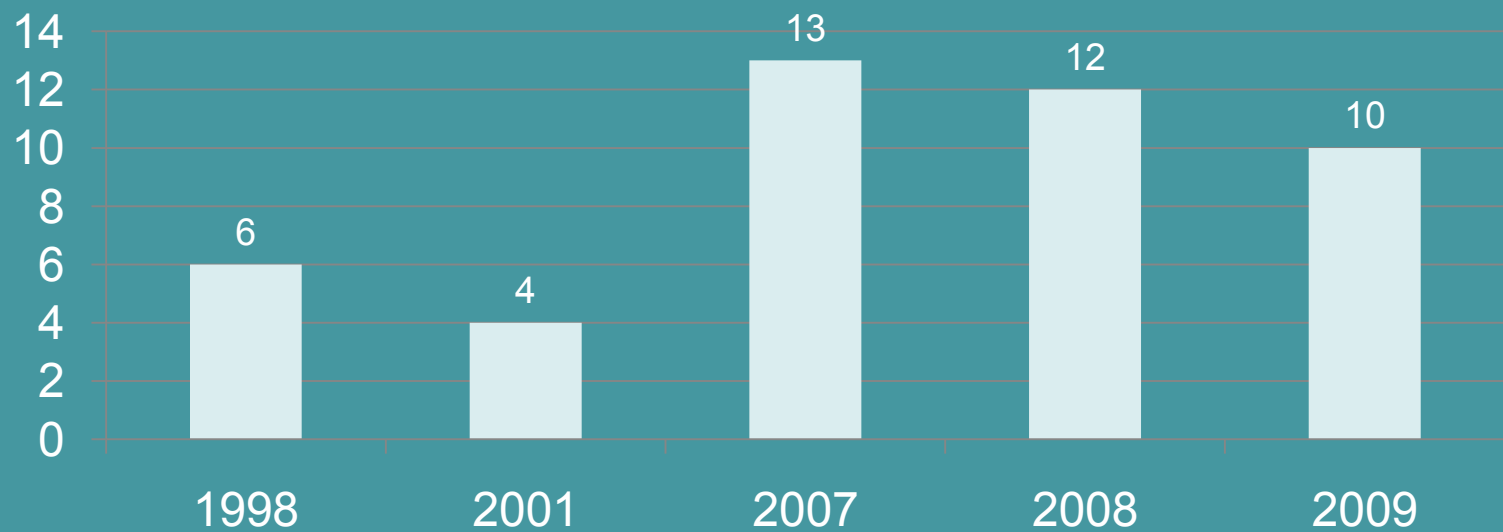
# Results





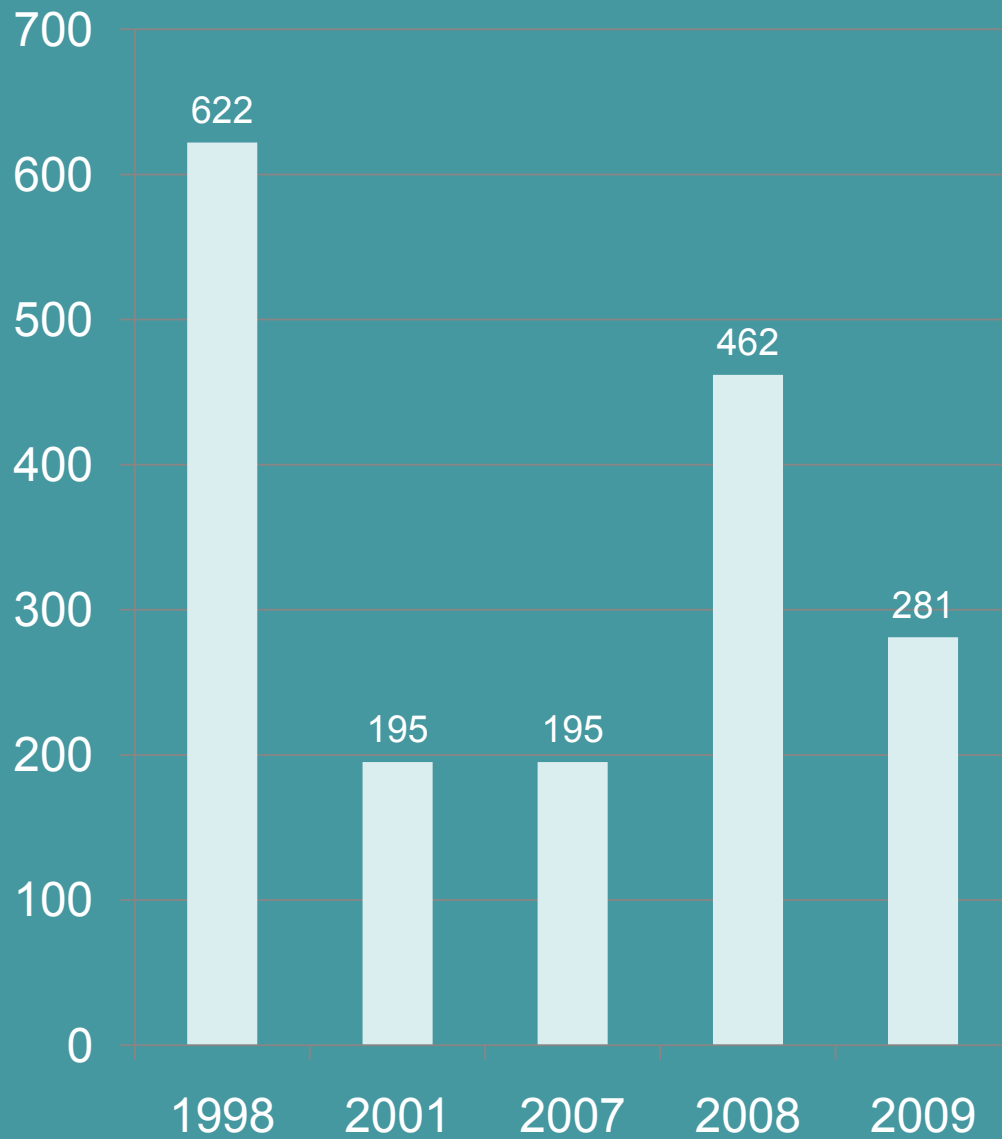


## Number of Active Rookeries during April Surveys in Estero Bay

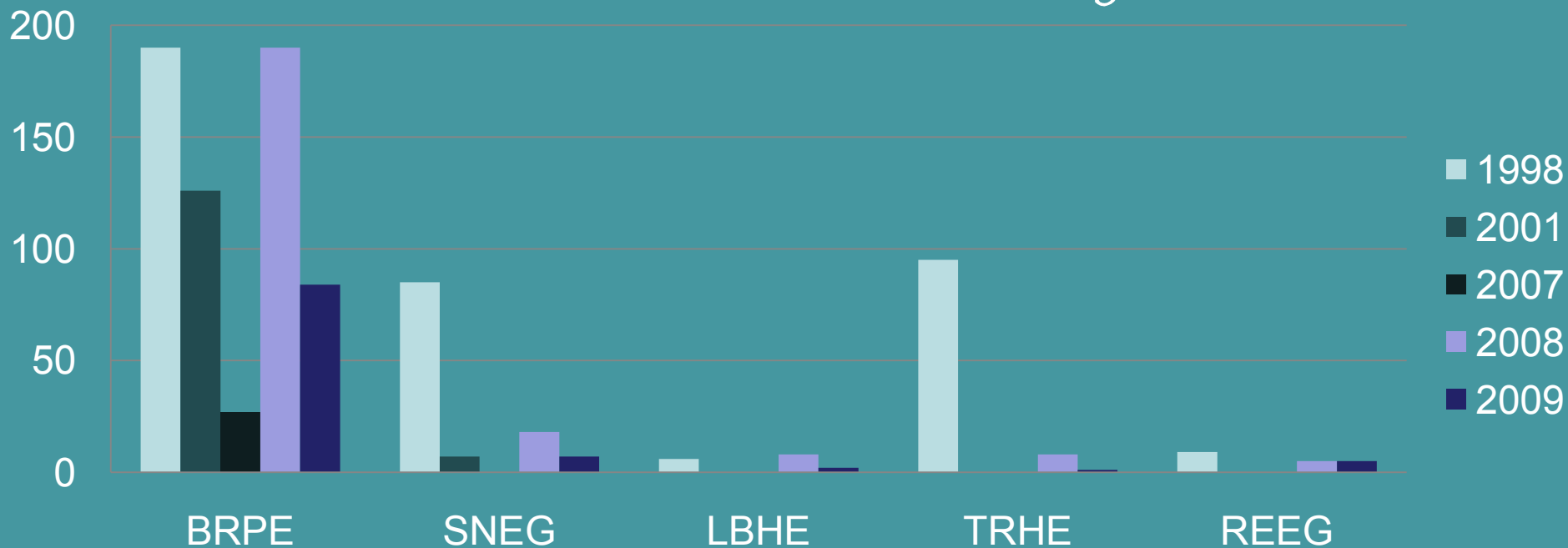




## April Survey Counts of Active Nests in Estero Bay

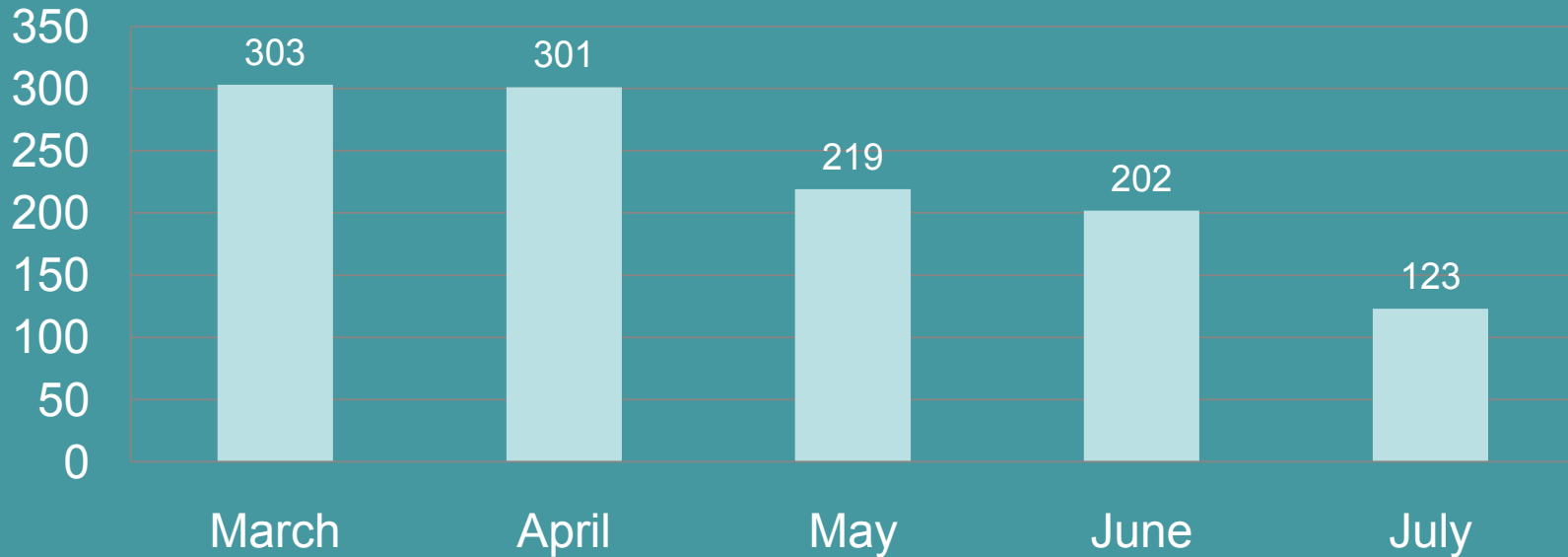


# Species of Special Concern; April Survey Counts of Active Nests in Estero Bay

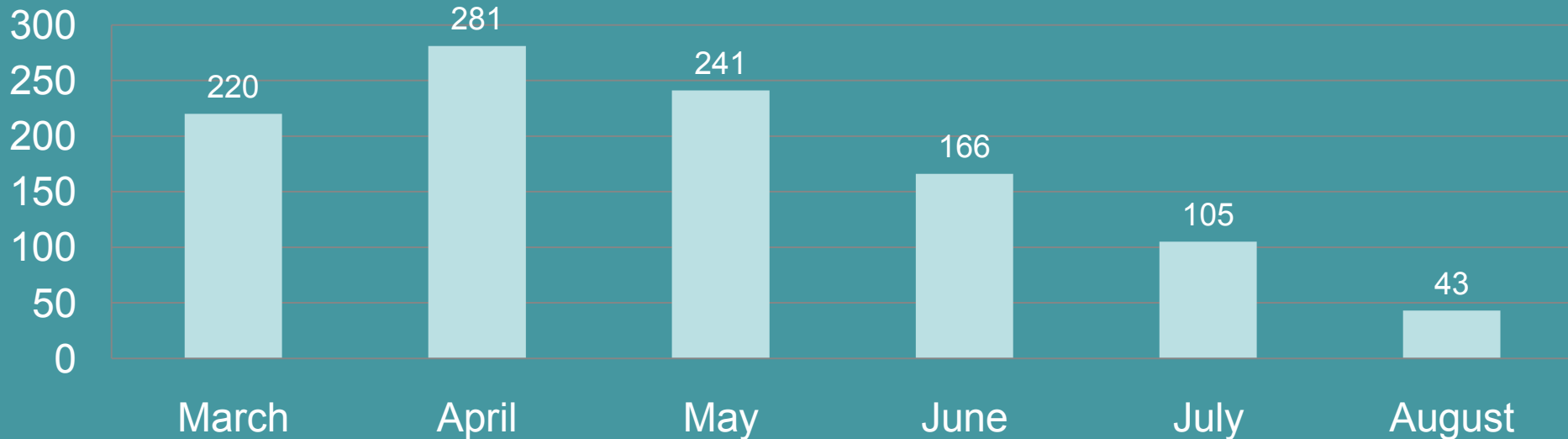




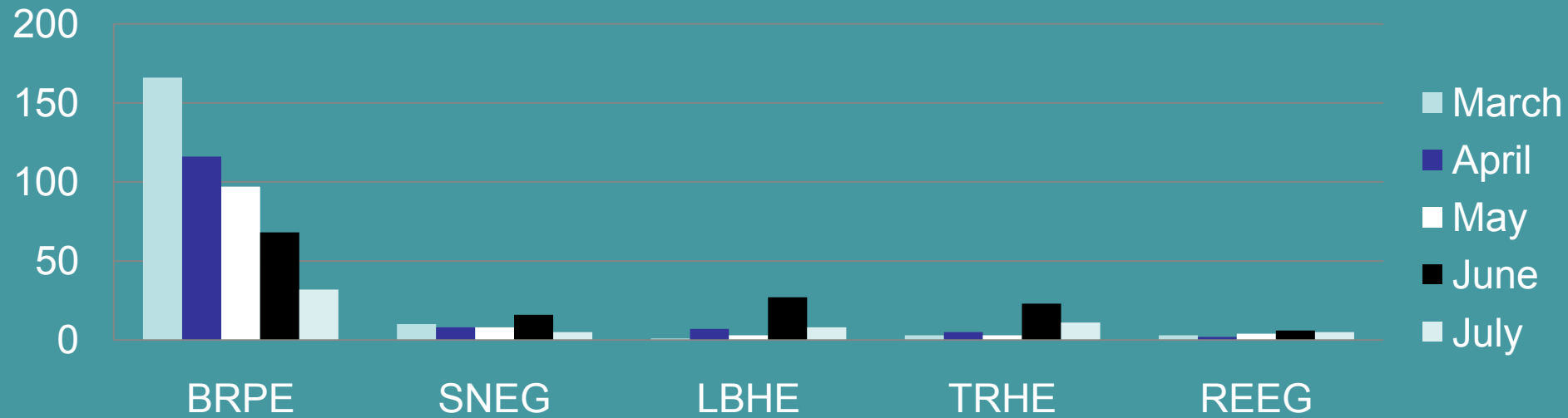
## 2008 Monthly Survey Counts of Active Nests



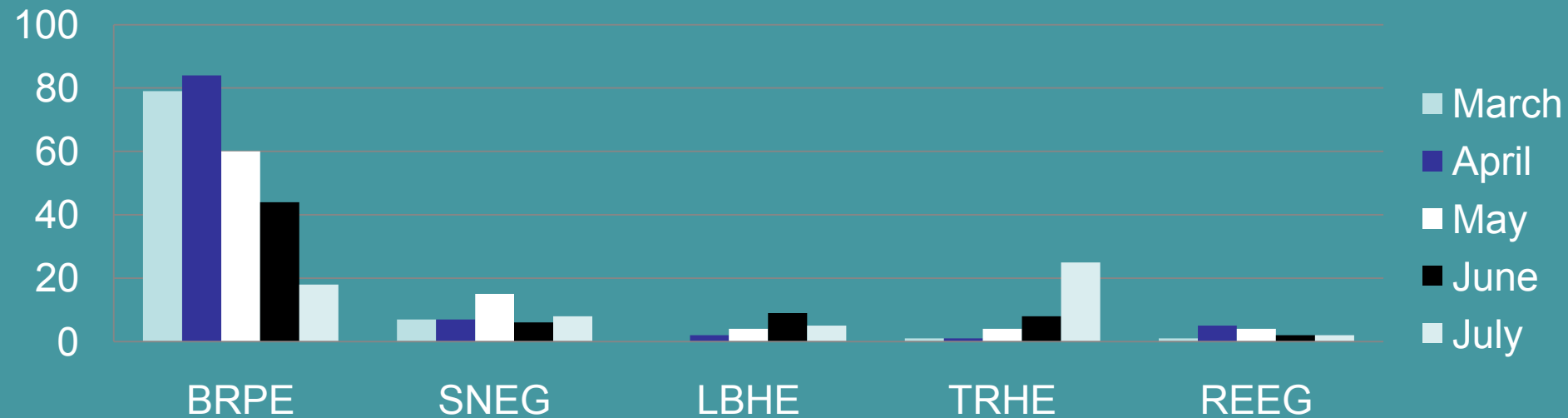
## 2009 Monthly Survey Counts of Active Nests



## 2008 Species of Special Concern Monthly Counts



## 2009 Species of Special Concern Monthly Counts



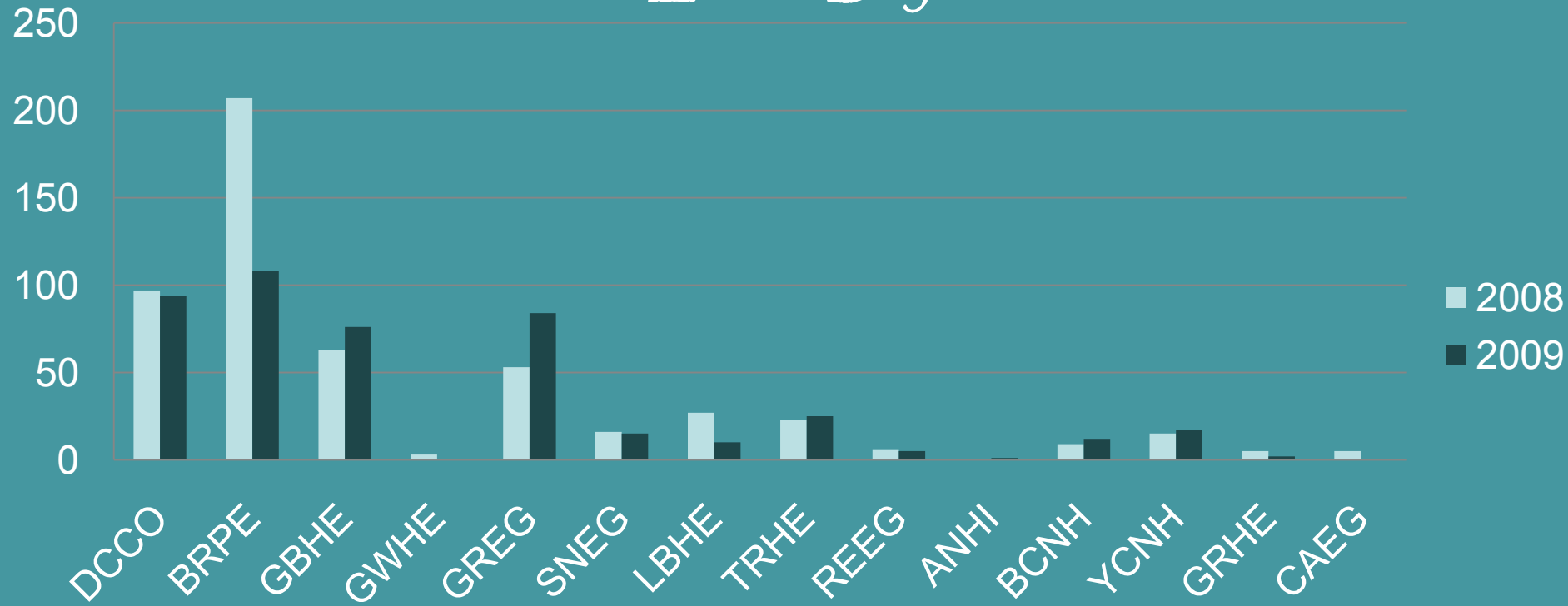


Peak numbers of nests found in Estero Bay Aquatic Preserve colonies between February and August 2009														
Colony	DCCO	BRPE	GBHE	GWHE	GREG	SNEG	LBHE	TRHE	REEG	ANHI	BCNH	YCNH	GRHE	Total
Big Carlos Pass M-43	5	15	8	0	10	0	0	2	0	0	0	0	0	40
Big Carlos Pass M-48	0	0	1	0	0	0	0	0	0	0	1	0	0	2
Big Carlos Pass M-50&52	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Big Carlos Pass S of M-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Carlos Pass W of M-46	0	0	1	0	0	0	0	0	0	0	1	2	0	4
Big Carlos Pass W of M-52	10	11	1	0	12	0	0	3	0	1	2	0	0	40
Big Hickory E of M-85	9	1	12	0	3	0	0	0	0	0	0	0	0	25
Big Hickory M-83	9	0	4	0	0	0	1	0	0	0	2	8	0	24
Coconut Point East	0	0	8	0	0	0	0	0	0	0	0	1	0	9
Coconut Point West	13	26	5	0	9	0	0	0	0	0	0	0	0	53
Hogue Channel M-78	3	0	2	0	0	0	0	0	0	0	2	3	2	12
Matanzas Pass*	26	55	11	0	35	13	9	20	5	0	3	2	0	179
New Pass M-21	0	0	5	0	0	0	0	0	0	0	0	0	0	5
New Pass M-9	7	0	6	0	0	0	0	0	0	0	0	0	0	13
North Coconut E of M-3	12	0	12	0	15	2	0	0	0	0	1	0	0	42
North Coconut M-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>94</b>	<b>108</b>	<b>76</b>	<b>0</b>	<b>84</b>	<b>15</b>	<b>10</b>	<b>25</b>	<b>5</b>	<b>1</b>	<b>12</b>	<b>17</b>	<b>2</b>	<b>449</b>

\*surveys were not conducted at Matanzas Pass in February



# Peak Number of Nests, by species, Observed in Estero Bay



# Fishing-line Fatalities

30 bird fatalities were  
documented on nesting  
islands February through July







# Fishing-line Cleanup

## Scheduled Events

October 8, 2009

January 7, 2010



# Future Monitoring and Protection

- Continue current programs.
- Document species composition related to vegetation type and islands acreage.
- Continue working with FWC and local governments to increase protection of nesting birds.



# Acknowledgements and Special Thanks



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