Enhance it and they will come

Everglade Snail Kite utilization of habitat management areas on Lake Okeechobee

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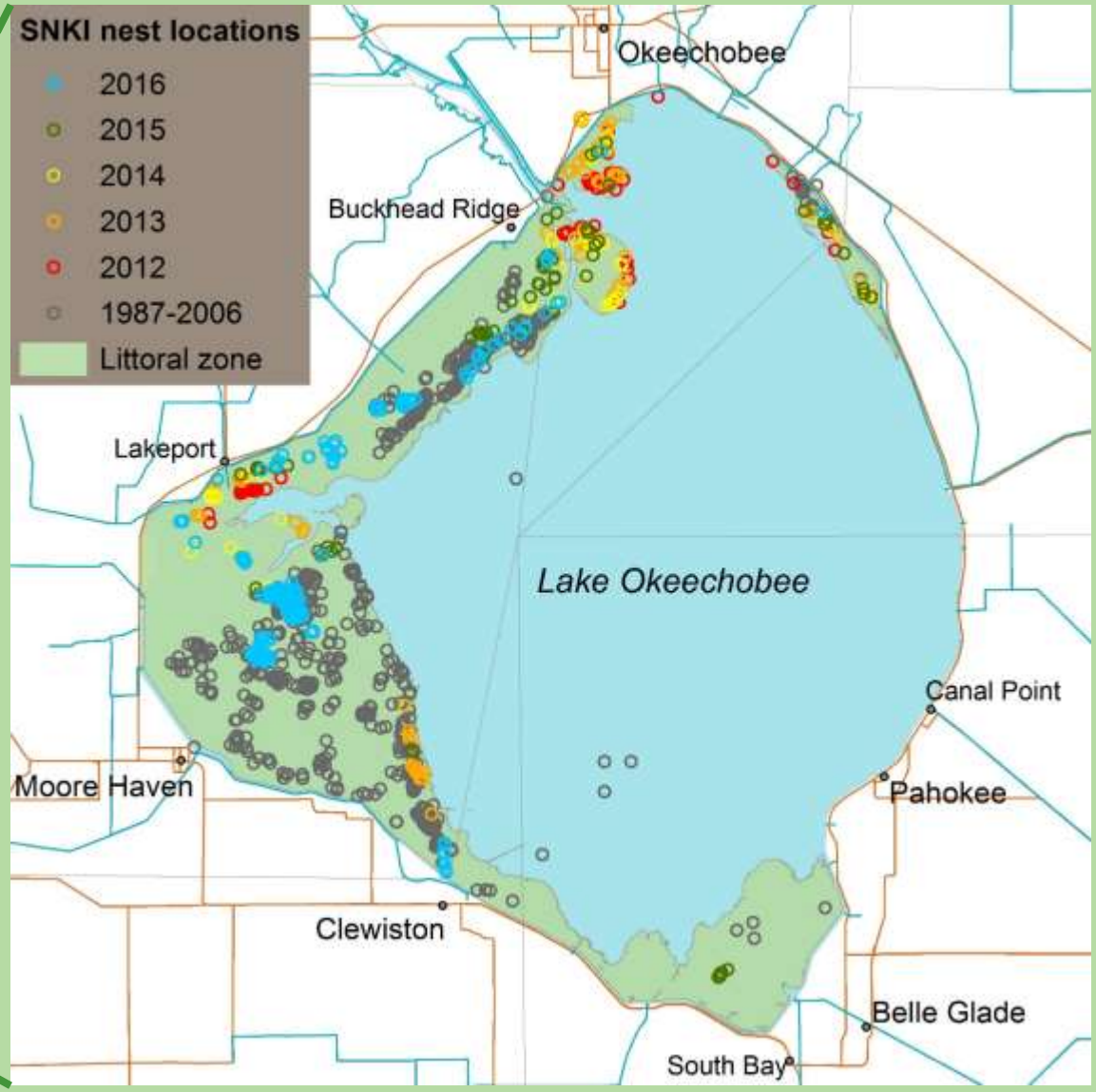
Snail Kite nesting on Lake Okeechobee

- Critical habitat
- Nest location
  - Lake stage
  - Prey availability
  - Marsh vegetation



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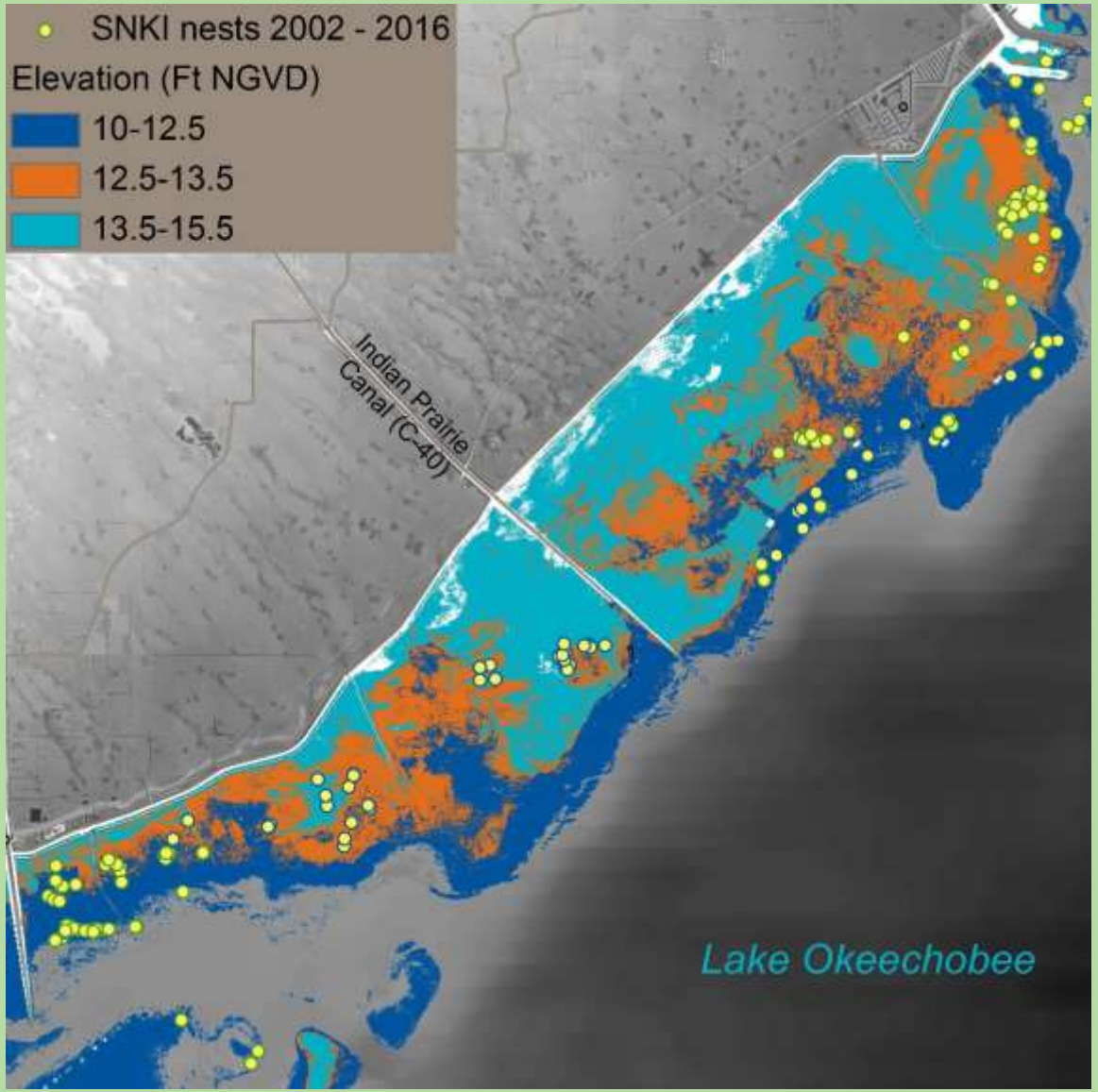
Nesting season marsh characteristics

- Upper marsh dry
- Near-shore unstable
- Middle marsh hydrologically suitable

Snail Kite nesting - Lake Okeechobee			
	12.5-13.5'	total	%
2002-2015	122	436	27
2015	38	77	49
2016	169	245	69
Littoral zone (acres)	26,000	150,000	17



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Middle marsh vegetation

- Nesting substrate dominated
  - ~60% = cattail, bulrush, Phragmites, willow, woody
  - ~35% = cattail
- Foraging habitat limited
  - ~6% = open water, spikerush, SAV

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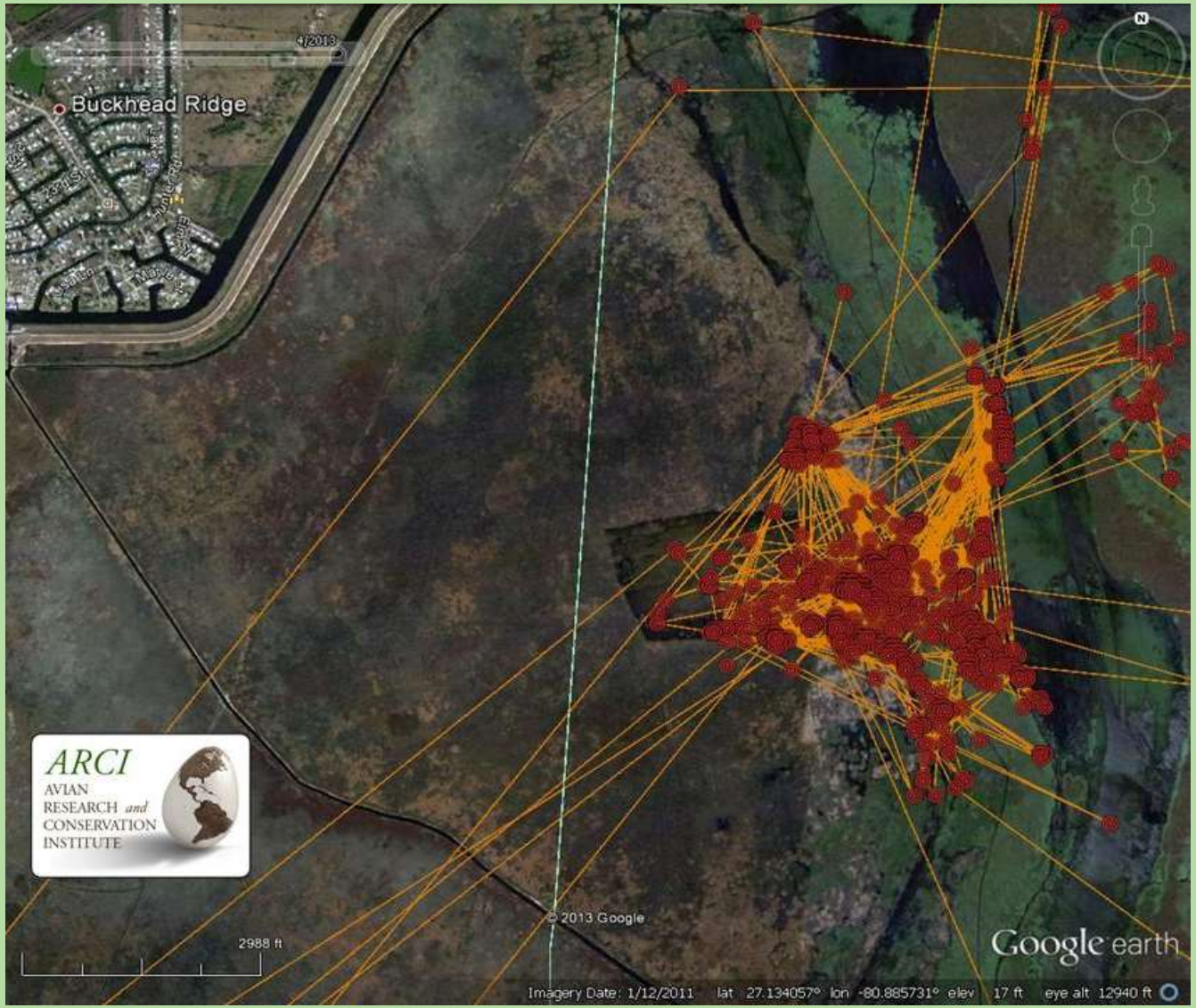
Lake Okeechobee habitat management

- Diverse objectives
- Various methods
- Large scale
- Wildlife utilization



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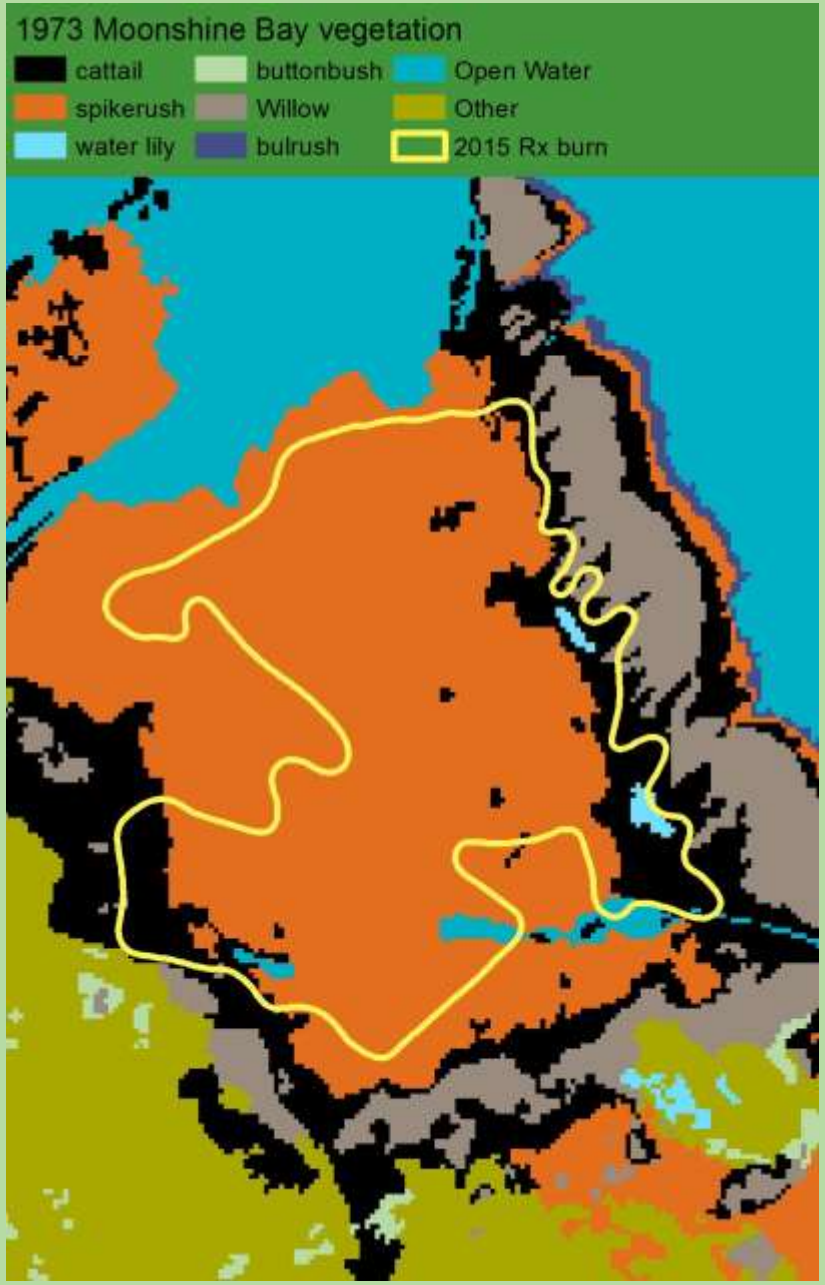
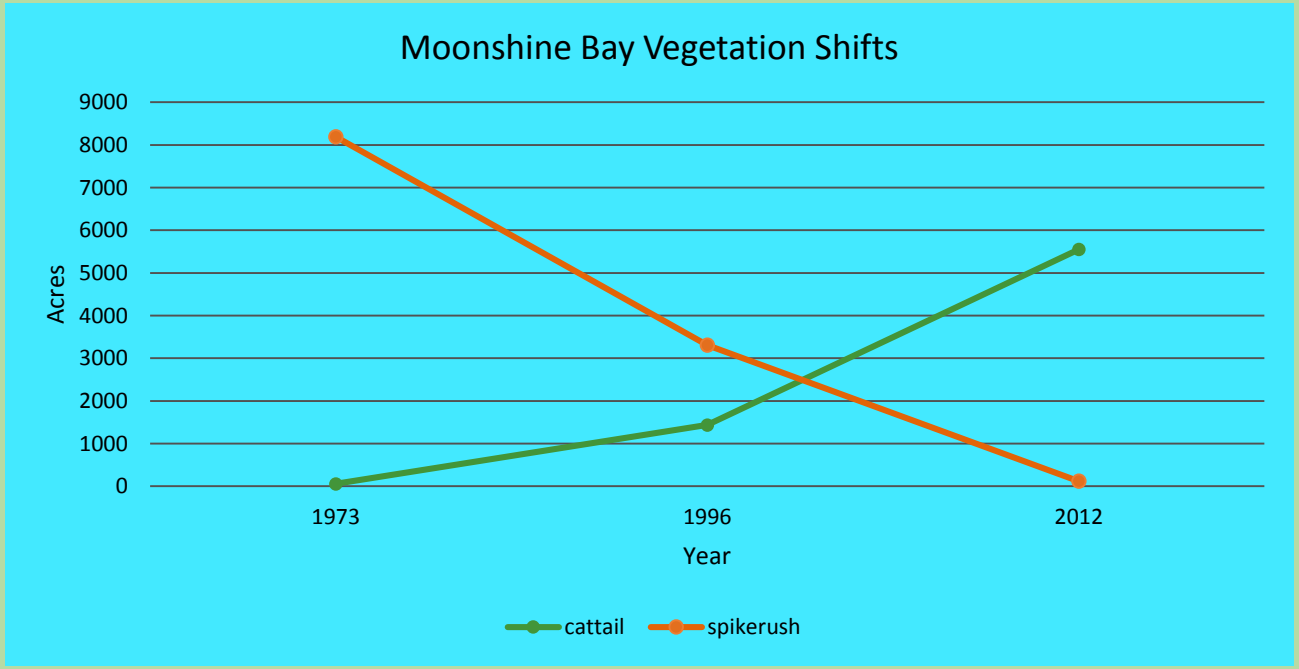
Moonshine Bay

- Historically significant fish & wildlife assemblages





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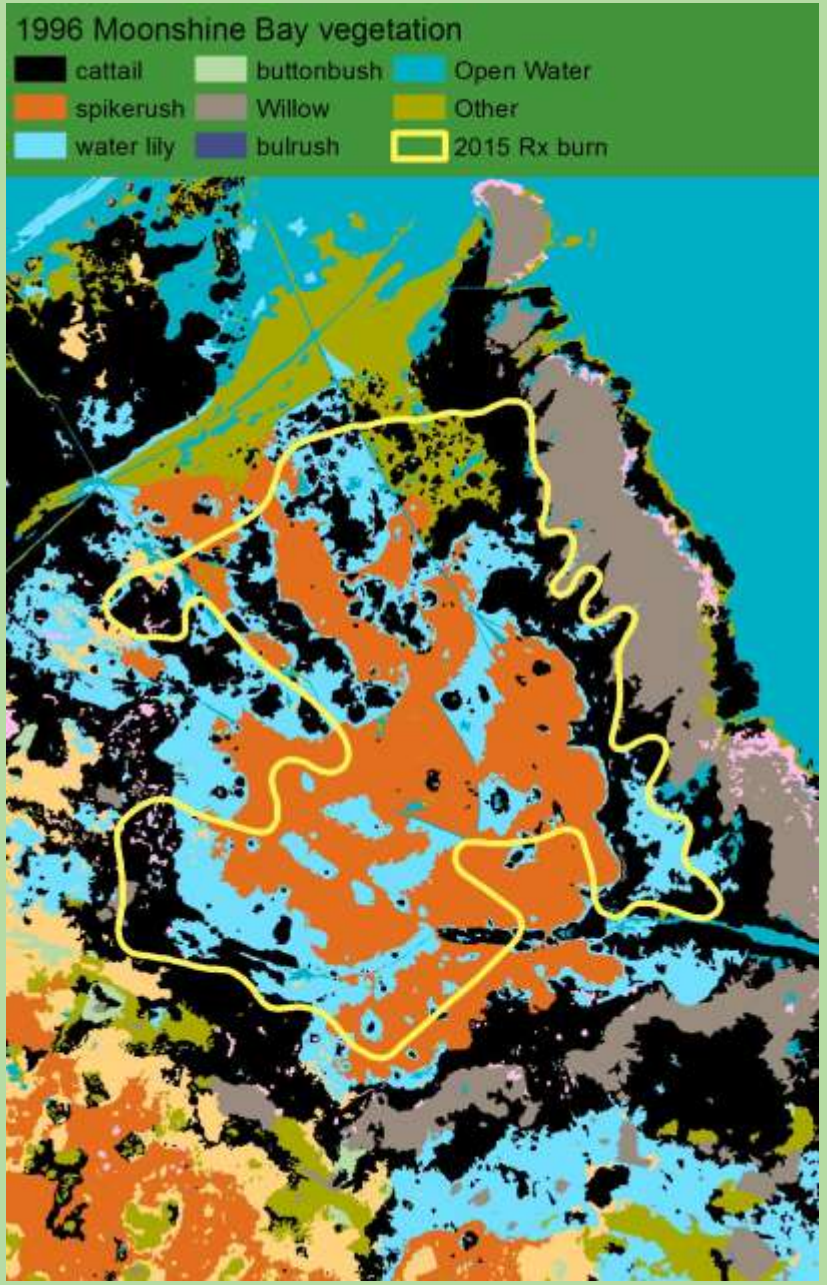

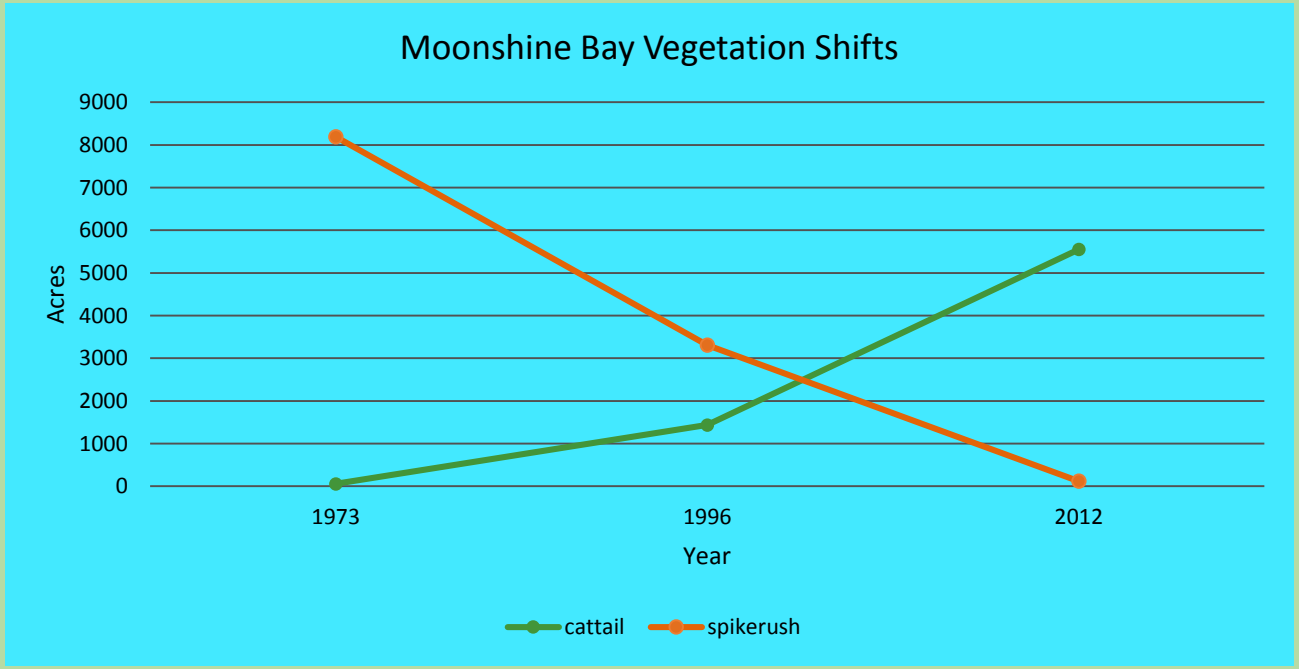

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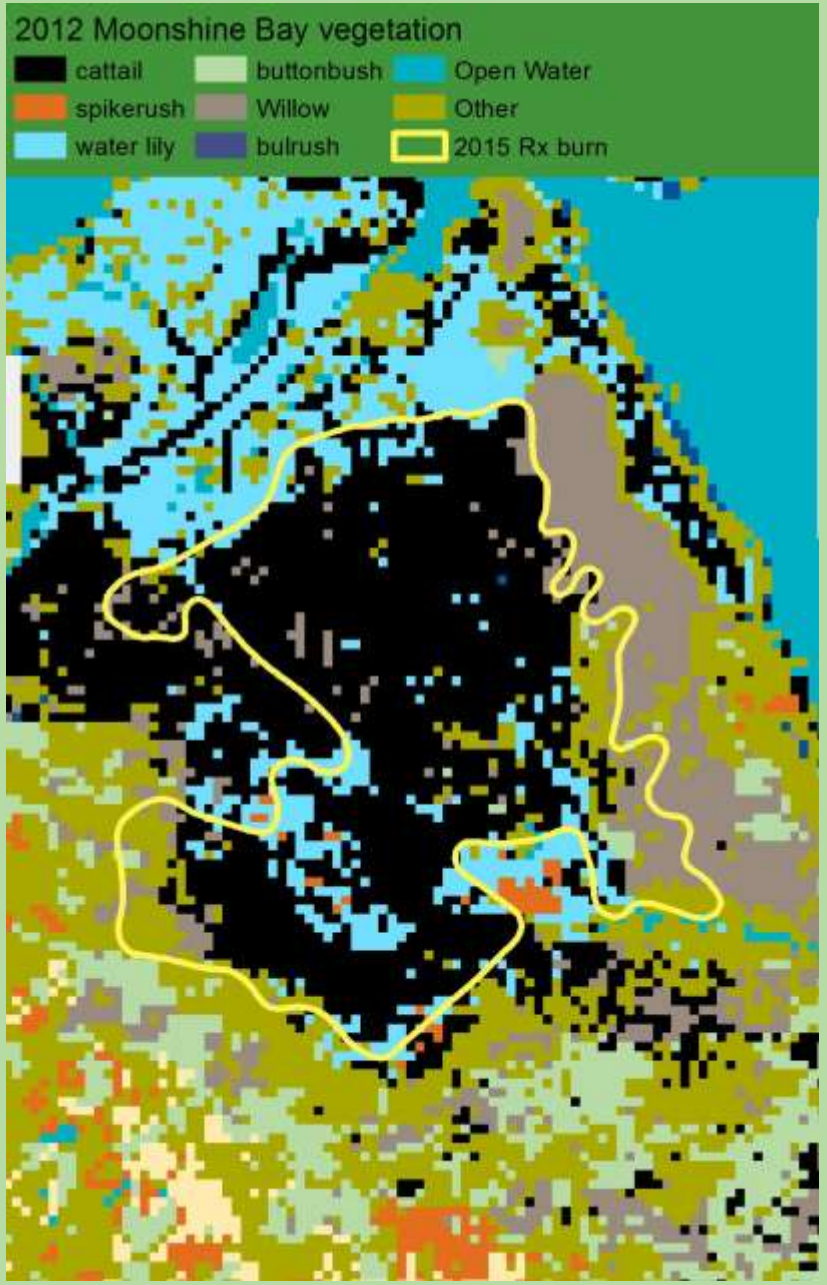
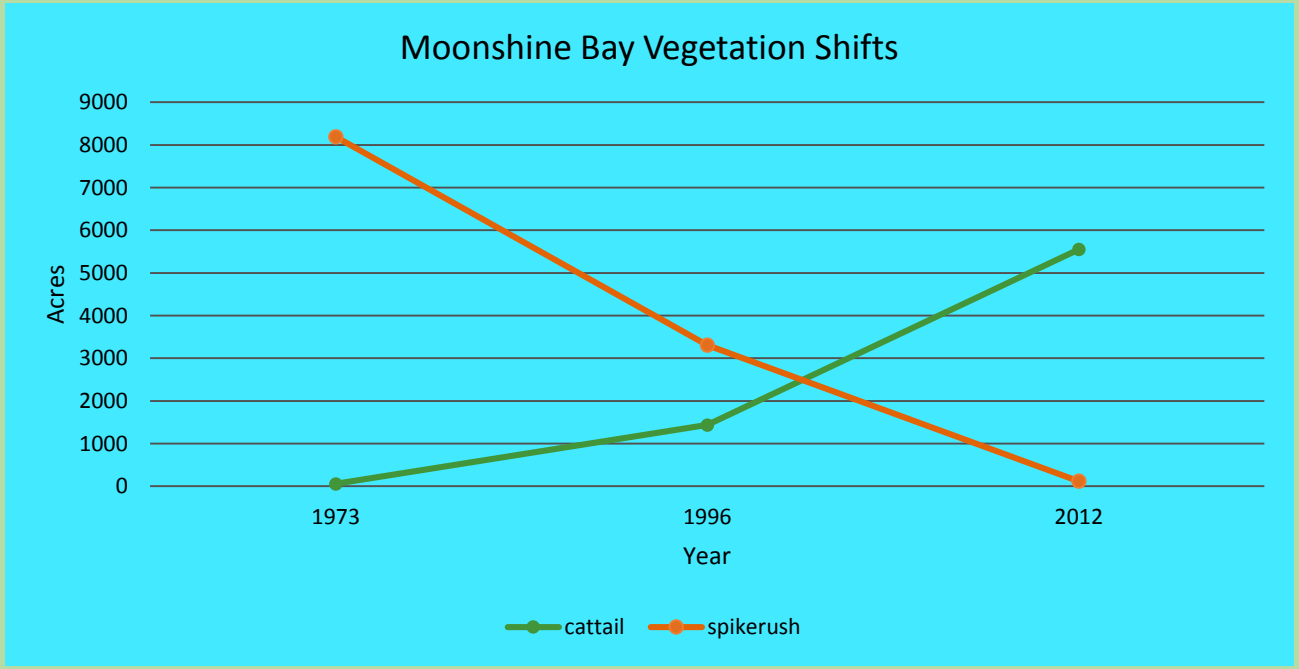
Moonshine Bay

- 1973-2012
  - 8,100 acres spikerush lost
  - 5,500 acres cattail expansion
- Loss of kite nesting





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Moonshine Bay habitat management

- Objective: ↑ spikerush, ↓ cattail
- Projects:
  - 3,200 acres cattail herbicide treatment – spring/summer 2015
  - 6,500 acre prescribed burn – November 2015
- Results: ↑ open water, ↓ cattail

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Moonshine Bay Snail Kite nesting

- Rapid response to habitat management
- Nesting follows vegetation response

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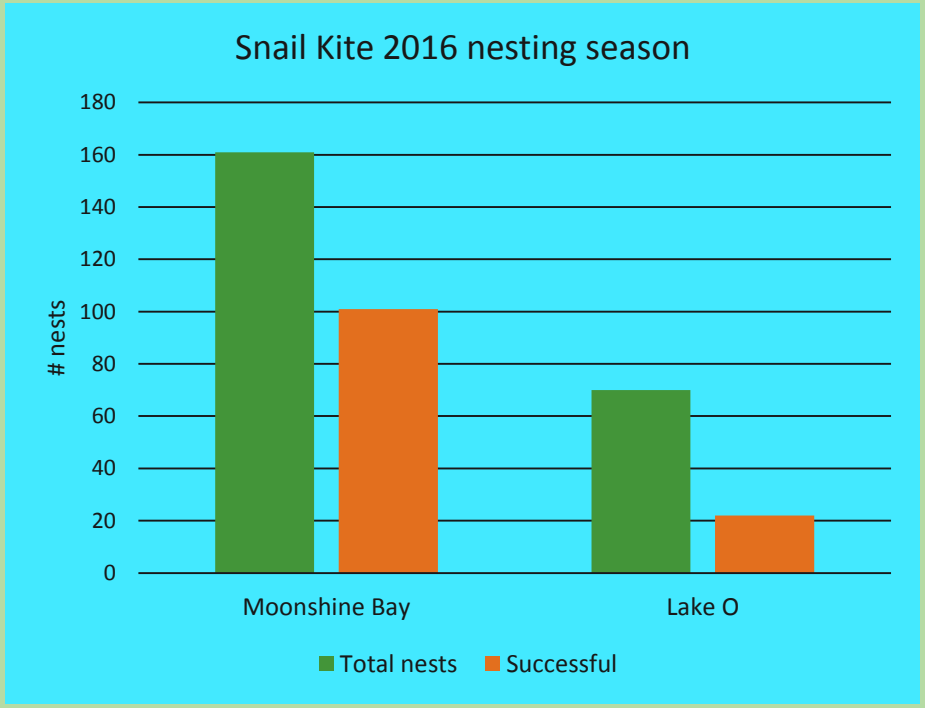
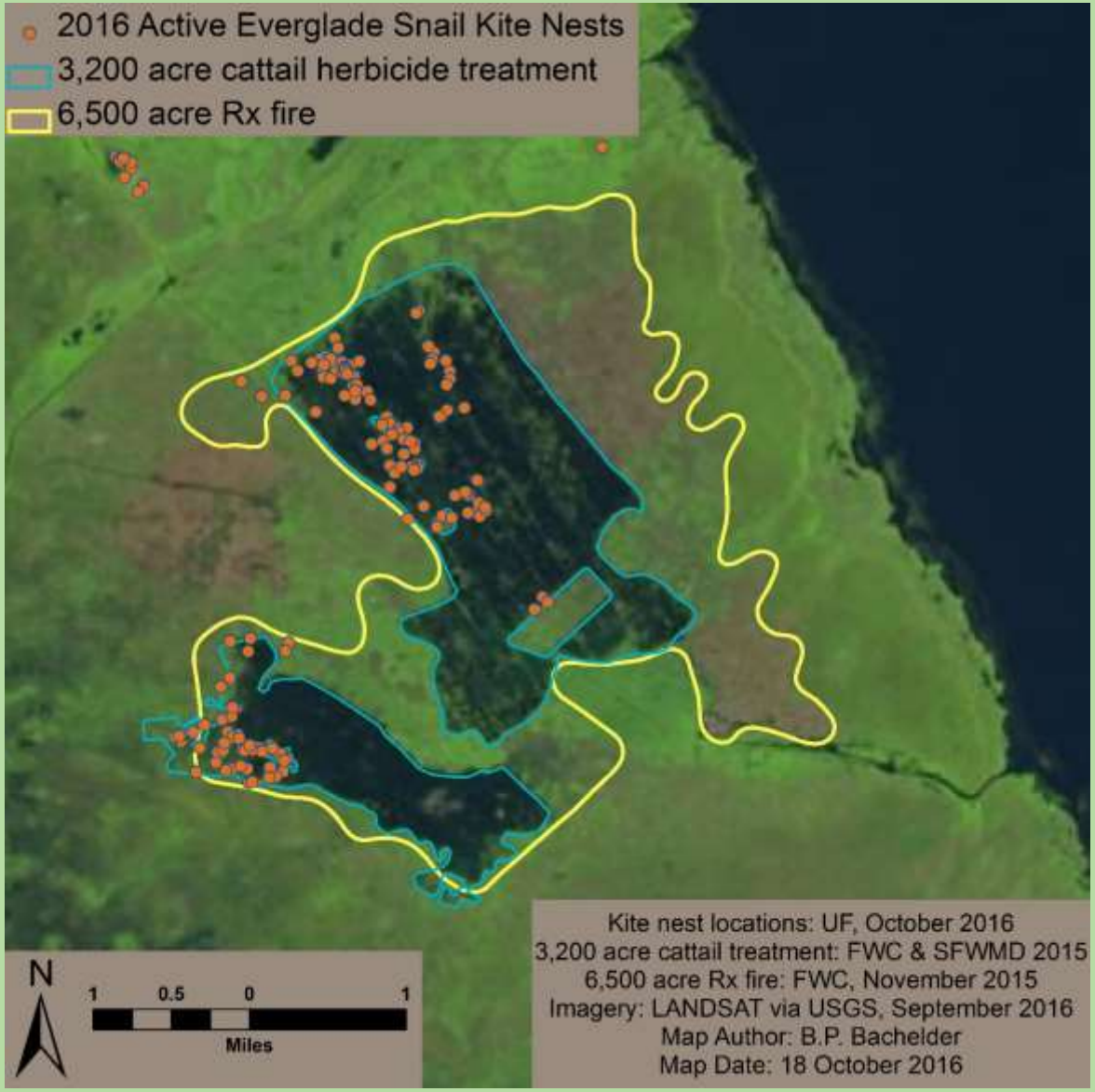
Moonshine Bay Snail Kite nesting

- Record breaking
  - Total nests: M. Bay – 161, Lake O. – 70
  - Successful nests: M. Bay – 101 (63%), Lake O. – 22 (31%)
- Concentrated near untreated veg





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Conclusion

- Habitat management can benefit kite nesting
- Increased moderate lake level foraging habitat
- Historic conditions to identify management areas
- Basic snail information needed

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Acknowledgements

- Avian Research and Conservation Institute
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- USFWS
- Snail Kite Coordinating Committee

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