

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Linking Wading Bird Foraging and Nesting to Hydrology: Implications for CEPP

Mark Cook, Ph.D.

Everglades Systems Assessment
South Florida Water Management District



Hydrologic Parameters Influencing White Ibis & Great Egret Foraging Site Selection

From Beerens, Gawlik, Herring & Cook, 2011

Hydrologic Parameter

Relevance to CEPP

Water depth

Water quantity

Recession rate

Water quantity & timing

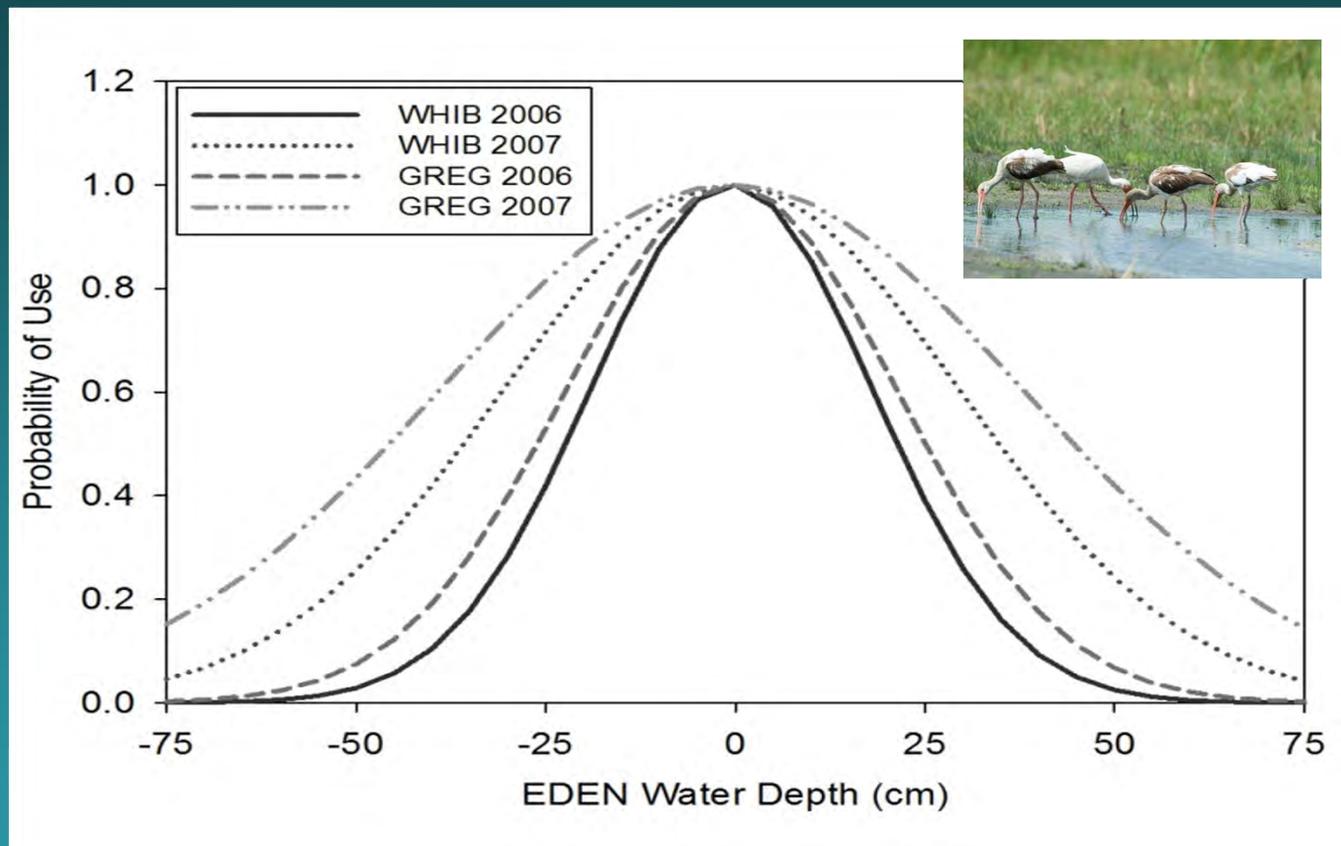
Days since drydown

Water quantity, timing, distribution

Dry-to-wet reversal

Water quantity, timing, distribution

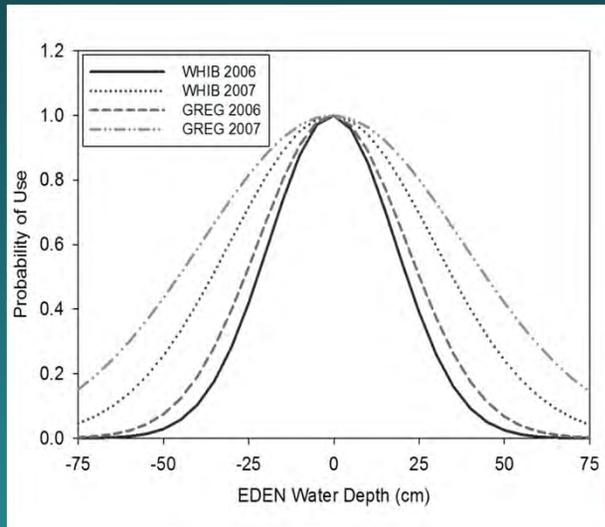
White Ibis & Great Egret Foraging Responses to Water Depth



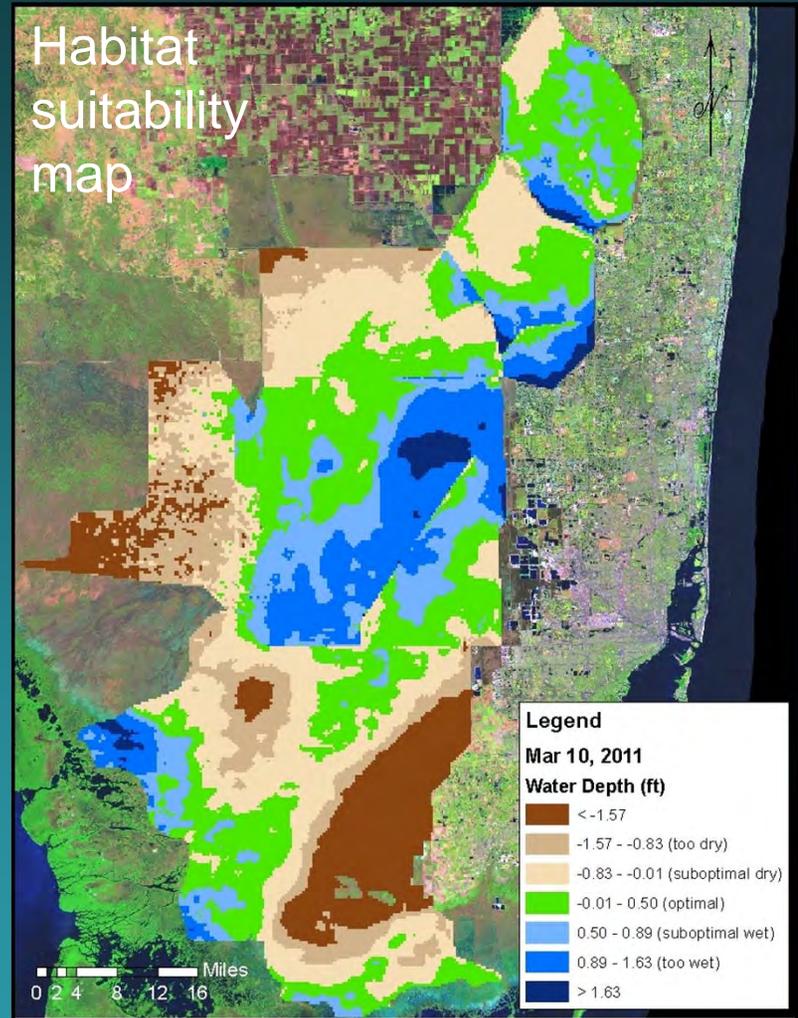
From Beerens, Gawlik, Herring & Cook, 2011

Applied Tools for Restoration

Wading bird response to depth



GIS
EDEN



2. Linking Hydrology to Prey Availability: New Insights for CEPP

A typical prey concentration event



- Occur during very dry conditions
- Dominated by fish/shrimp
- Few crayfish are usually evident

An Investigation of White Ibis Diet

- Collected boluses (vomit) from nestlings during 2006-2009
- Examined prey composition in relation to hydrologic conditions



fish

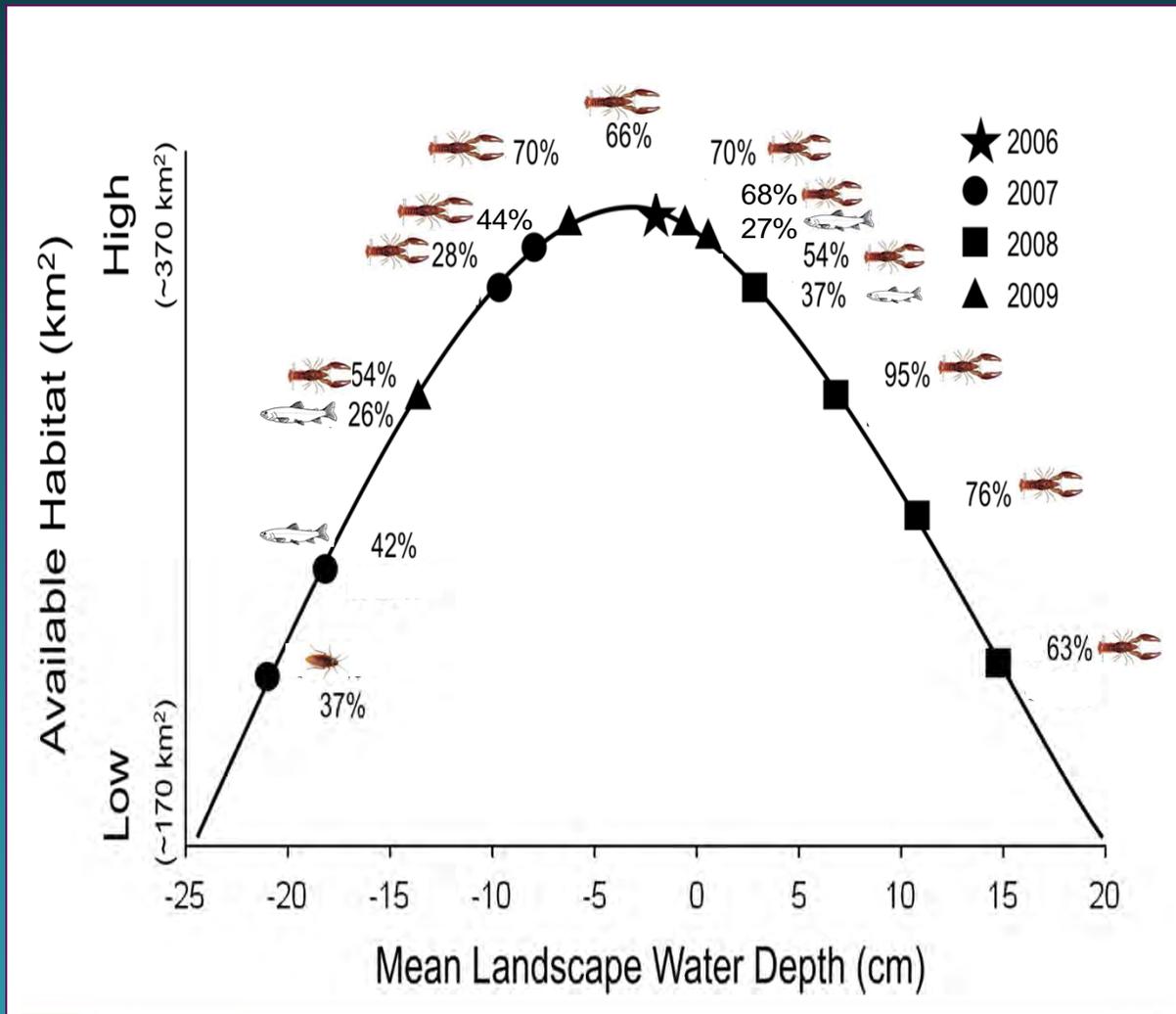


crayfish



terrestrial insects

Percentage by Mass of Crayfish & Fish in the Diet of White Ibises

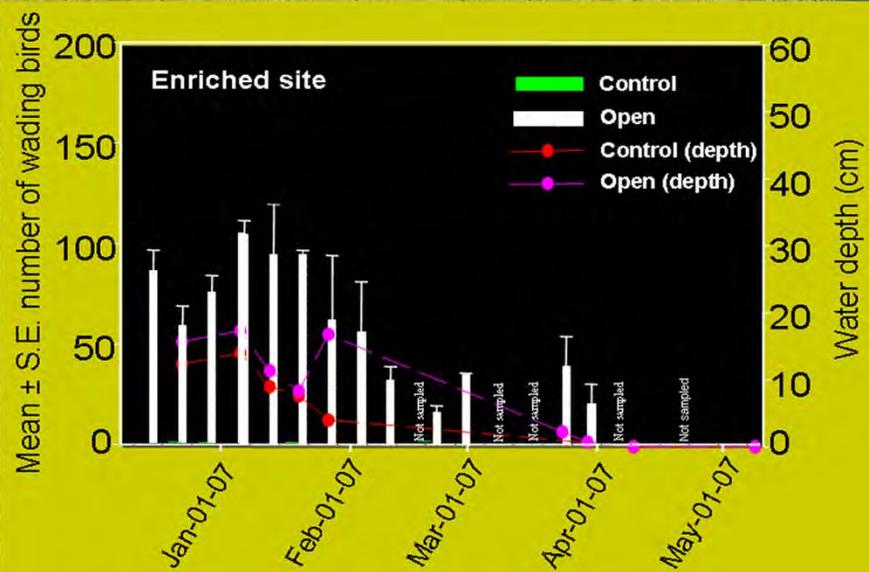


1. White Ibis primarily eat crayfish
2. Fish are important only during very dry conditions
3. Crayfish can fuel super-colony events
4. White ibis may not need extensive dry-down events

3. Improving Degraded Habitats for Wildlife

Cook, Newman, Hagerthey, 2010

← 250 m →



Acknowledgements

<u>Name</u>	<u>Affiliation</u>
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