Suitability Indices for Wading Birds

- Suitability as a function of depth $SI_{\text{depth}}$

- Suitability as a function of recession rate $SI_{\text{recession}}$

- Wading Bird suitability $SI_{\text{WB}} = \min(SI_{\text{depth}}, SI_{\text{recession}})$
  - for, Remnant Everglades, Coastal Zone, Interior Zone

- Suitability for Wood Storks, White Ibis and other Small Herons are functions of $SI_{\text{land}}$
Wading Bird Suitability as a function of depth

(SI_{depth})

Weekly Average Water Depth from November to April ~ ft

Suitability Index

(0, 1.0)

(0.5 ft, 1.0)

(25 cm, 0.0)

(-0.3 ft, 0.0)

(-10 cm, 0.0)

(15 cm, 1.0)
Wading Birds Suitability as a function of Recession Rate
For Short and Long Legged Wading Birds ($S_{\text{recession}}$)
Wading Bird Suitability

For each cell, each week, Wading Bird Suitability,

\[ S_{WB} = \min(S_{depth}, S_{recession}) \]

For each week, landscape level habitat suitability,

\[ S_{\text{land}} = \text{average } S_{WB} \text{ of highest 23 percent of cells} \]

For Remnant Everglades with 666 cells use average \( S_{WB} \) of highest 150 cells

For Coastal Zone with 217 cells, use average \( S_{WB} \) of highest 50 cells

For Interior Zone with 449 cells, use average \( S_{WB} \) of highest 100 cells

Plot of Area Suitability
Wading Birds
Landscape Level Habitat Suitability

- Wood Storks

$$SI_{wost} = \text{mean } SI_{\text{land}} \text{ (Jan- Mar)}$$

- White Ibis and other Small Herons

$$SI_{\text{wish}} = 1 - \frac{\text{[# weeks } SI_{\text{land}} \text{ (Mar-Apr)} \leq 0.5]}{6}$$

If $$\text{[# weeks } SI_{\text{land}} \text{ (Mar-Apr)} \leq 0.5] > 6$$, $$SI_{\text{wish}} = 0$$
SFWMM grid cells Applicable for Wading Birds