Habitat-based Fishery Assessment

BONEFISH & TARPON TRUST

STEWARDSHIP THROUGH SCIENCE

For: FKNMS Sanctuary Advisory Council Meeting
October 16, 2012

Brooke Denkert, Bonefish & Tarpon Trust

Outline

I. Introduction to BTT

II. How we conduct science and conservation

III. Project justification

IV. Methods

V. Continuing efforts

I. BTT's Foundation and Purpose

- Founded in 1997 to support research, education, and conservation of bonefish and tarpon
- Proactive conservation organization
- Science-based conservation organization

I. What Is BTT?

- Member-driven
  - Member donations and participation are essential
- Sponsor Collaboration
- Resources are allocated toward the organization's mission
  - Understanding and conservation of bonefish, tarpon, and permit populations and the fisheries they support
  - Sustain healthy fisheries
  - Restore fisheries that have declined

II. Science-based Conservation

- Three-step process:

  1. Define research and funding priorities based on scientific and conservation need

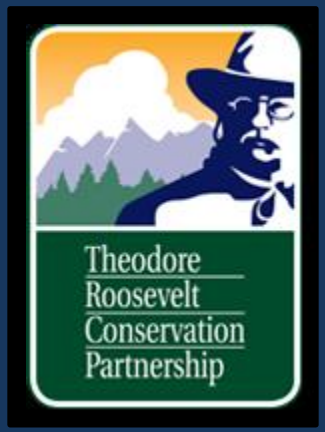
  2. Fund and conduct scientific research based on priority ranking

  3. Information applied to conservation, education, and management

III. Habitat-based Assessment

- BTT, TNC, Keys Keeper collaboration
  - Innovative methods for sustainable resources
- Habitat Mapping
  - Need for management revisions
  - Link *habitat* and *resource use*
  - It's worked before:
    - Teddy Roosevelt Conservation Partnership

III. TRCP



Mapping strategy in American West

Hunters and anglers identified sporting areas

Areas used to prioritize conservation areas and not infringe on low-impact, conservation-minded activities

III. Why map for Catch and Release?

Cultural Backbone

Keys Flats Fishing

Economic Asset

ex. Bahamas

$141 M annually

Politically invested

NATIONAL PARK SERVICE

NATIONAL MARINE SANCTUARIES

III. The Challenge

- How do we conserve without information?

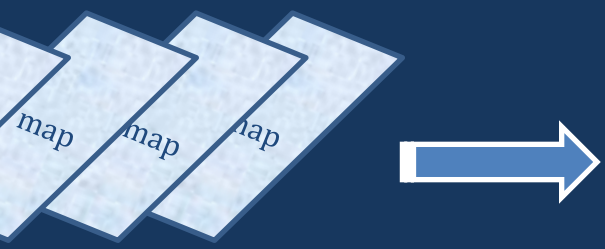
spatial fishery data
&
habitat data

Proactive
Conservation
Plan

IV. Method- Fishing Zones

Group meetings

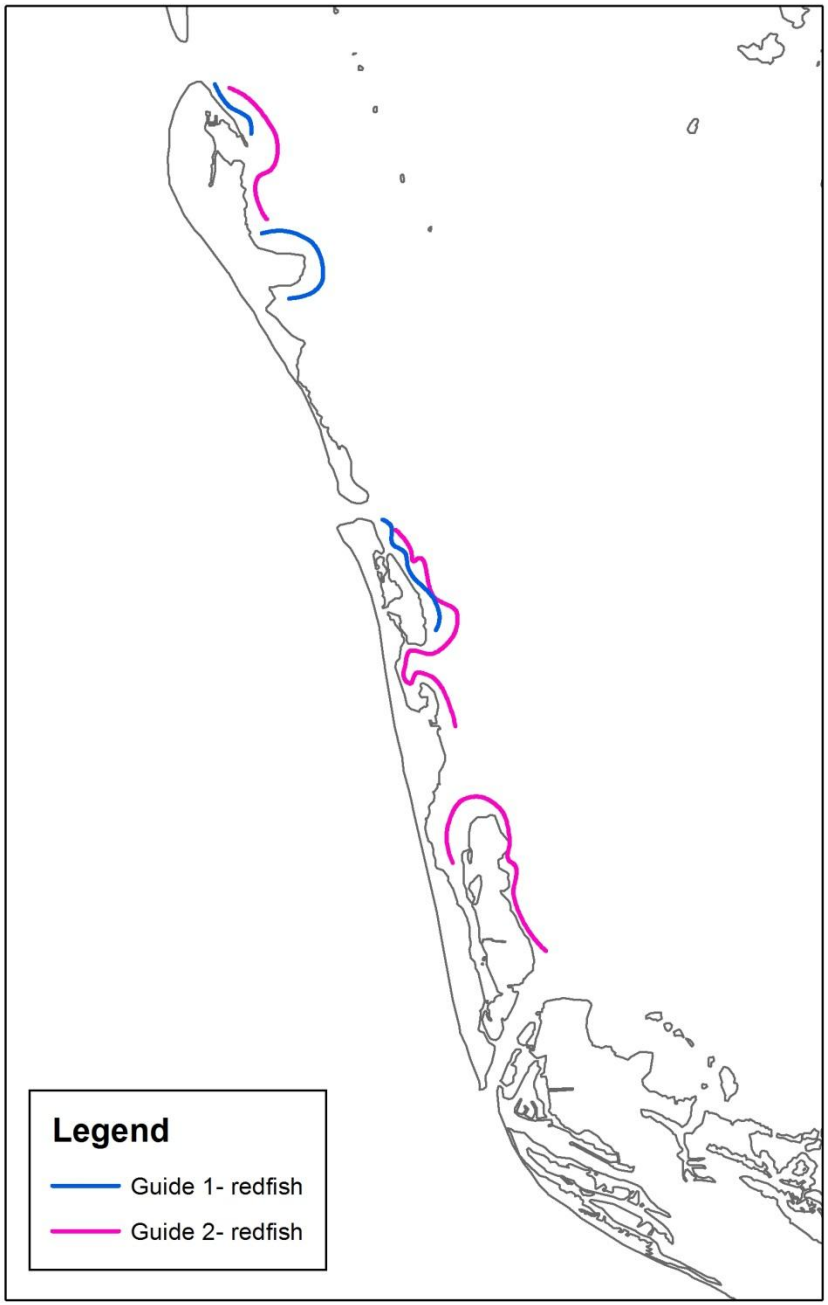
Individual meetings

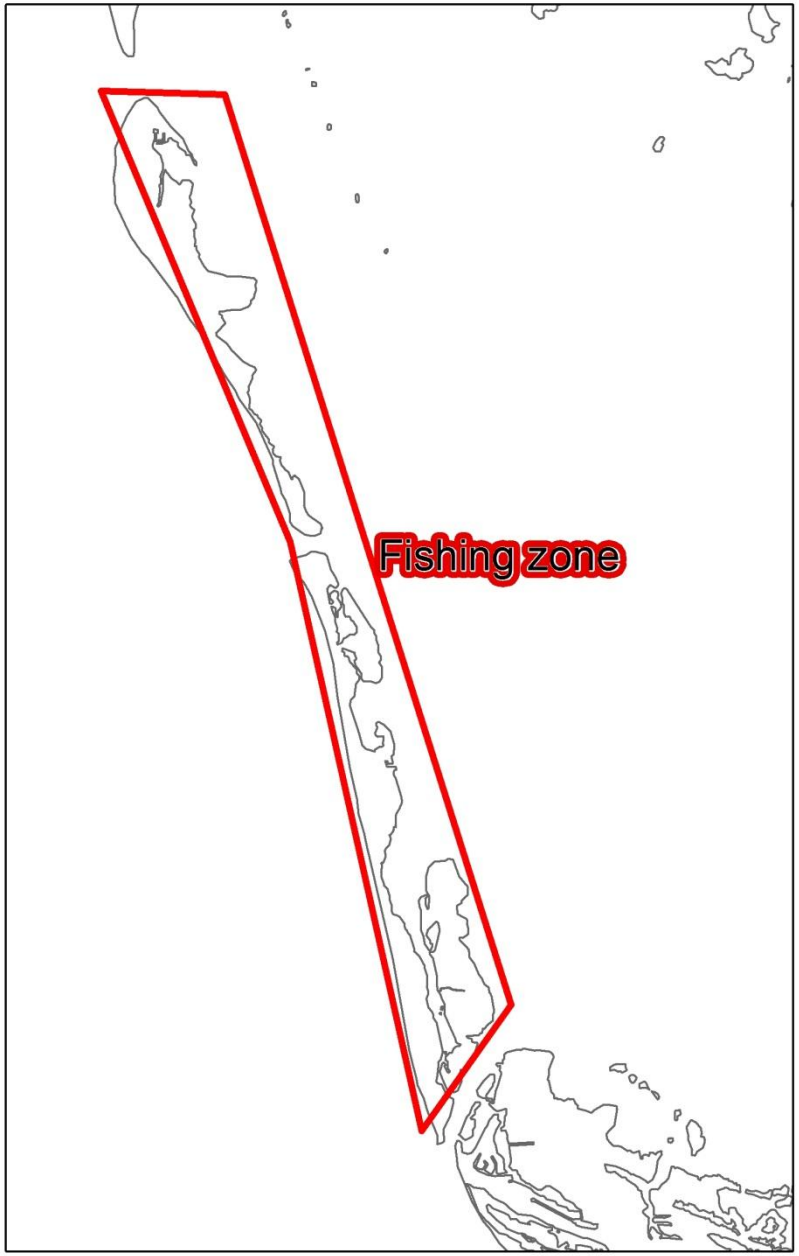


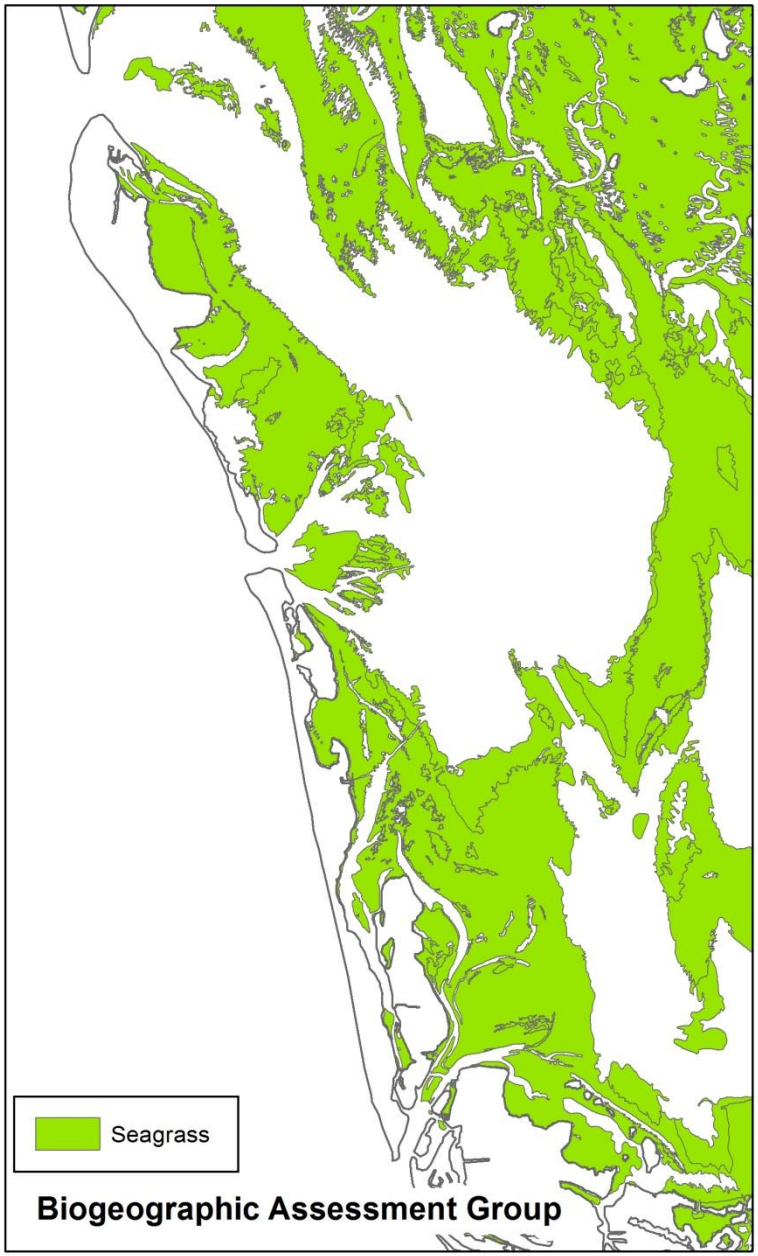
Cumulative Resource Use

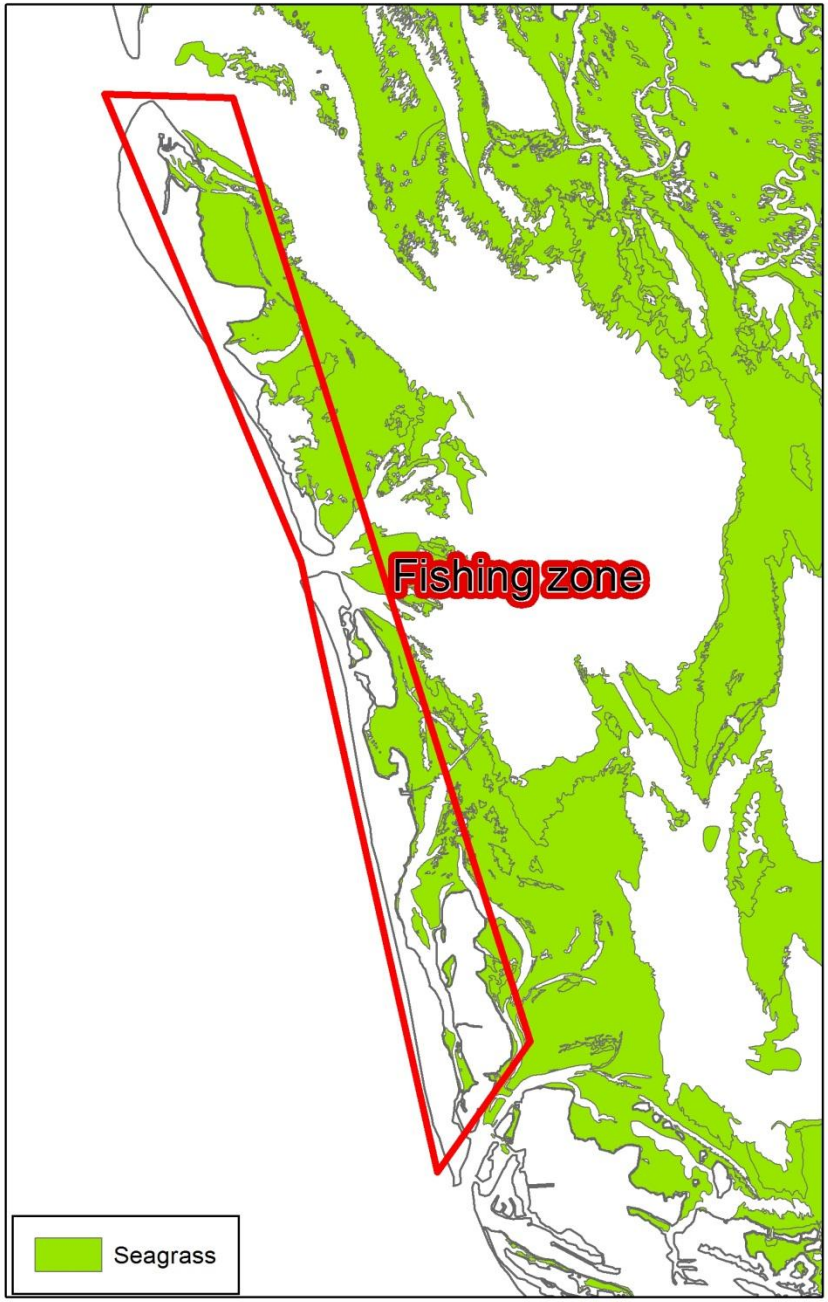
IV. Methods- Habitat Assessment

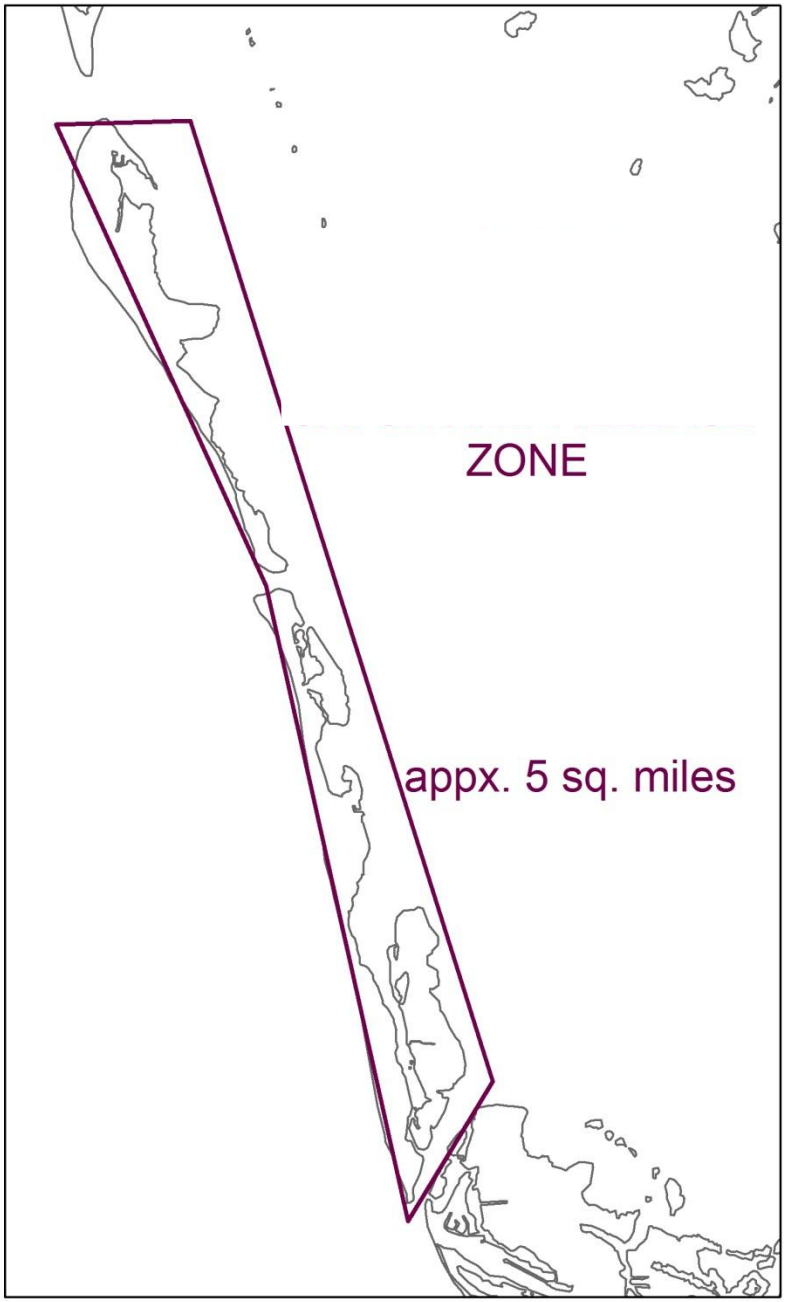
NOAA/FWC


Legend
Guide 1- redfish
Guide 2- redfish


Fishing zone


Seagrass
Biogeographic Assessment Group


Fishing zone
Seagrass


ZONE
appx. 5 sq. miles

V. Continuing effort…

- Reception = positive

- More map collecting

MAIN GOAL:

More information = better informed process