

Recreational Fishing Indicator for the Inland Bays.



Why recreational fishing?

- A major recreational use of the Inland Bays for both residents and tourists: 25% of Delaware's saltwater recreational fishing effort occurs there.
- Large economic impact.
- We have very good data on recreational fishing effort.

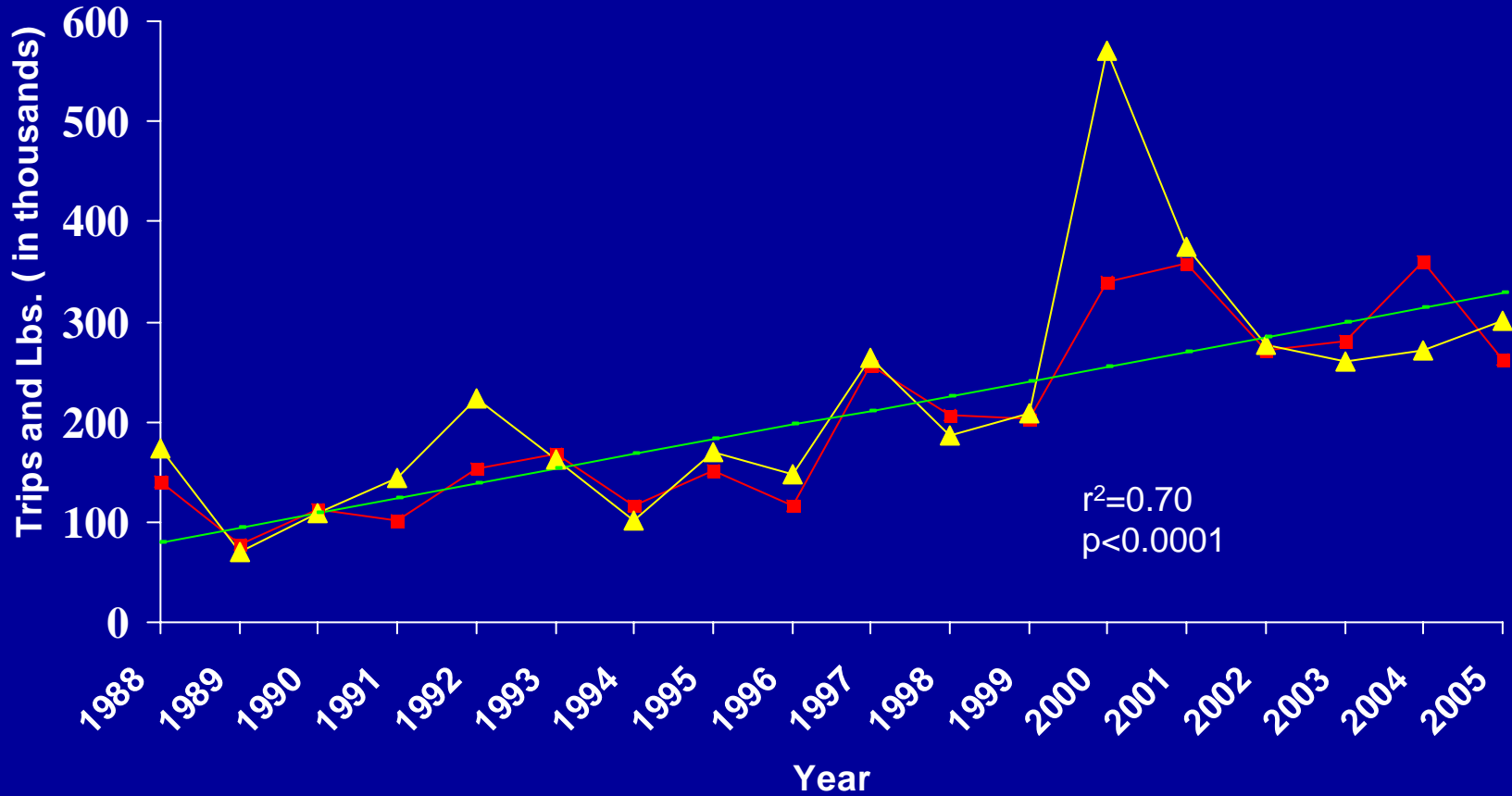
What can recreational fishing tell us about conditions in the Inland Bays?

- Indirect measure of conditions in the Inland Bays.
- A very simplified formula: Healthy Inland Bays=Abundant fish population=Successful fishing trips=Constant or increasing fishing effort.

Recreational Fishing Data

- Data from the Marine Recreational Fisheries Statistics Survey (MRFSS).
- Data based on aerial surveys, and dockside and telephone interviews.
- Overall PSE for 2005 Inland Bays effort estimate is 6.2%.

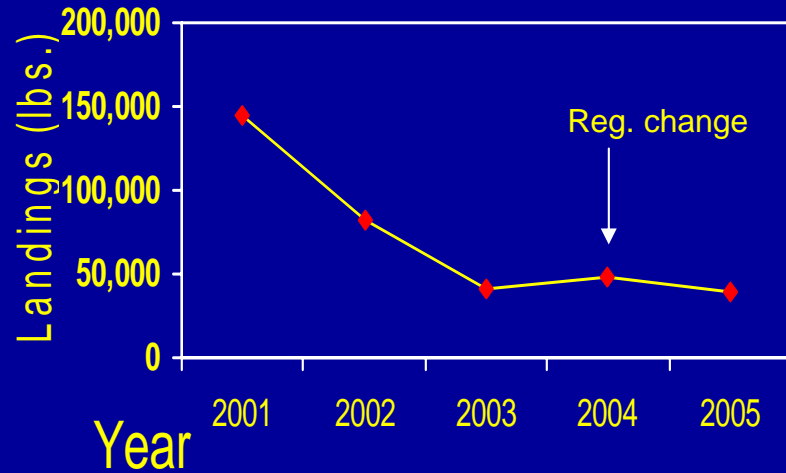
Recreational fishing effort and fish landings in the Inland Bays during 1988 through 2005



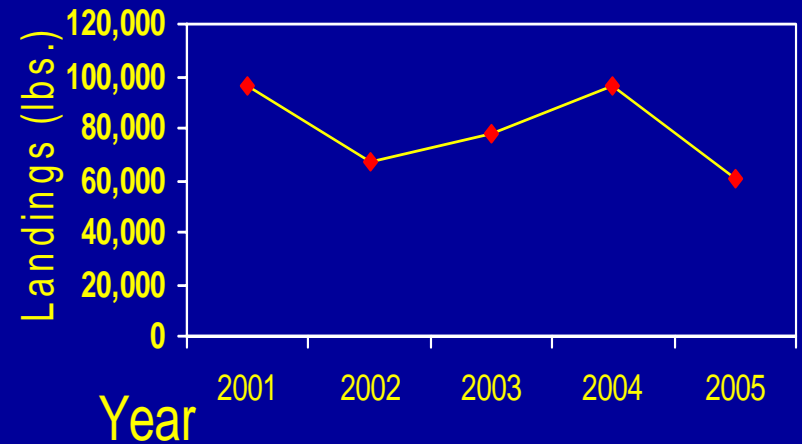
■ Effort (Trips) ▲ Landings (Lbs.) — Effort Trend

Landings trends of important recreational species, 2001 – 2005

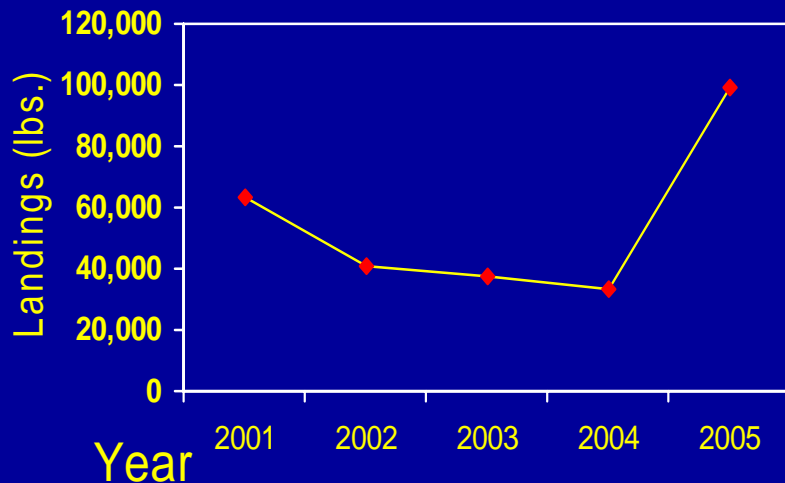
Striped Bass



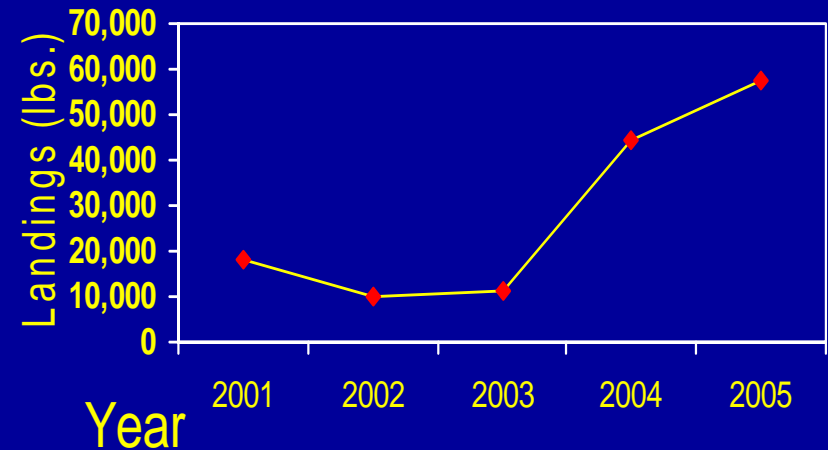
Summer Flounder



Bluefish



Atlantic Croaker



Using the indicator

- Effort, catch or catch per unit effort can be used but effort had the lowest PSE.
- Constant or increasing trend in effort is indicative of healthy fish stocks BUT must look at many factors if sudden change:
 - Changes in regulations (e.g. summer flounder)
 - Factors outside Inland Bays affecting fish stocks (e.g. coast wide drop in weakfish population)
 - Costs to fish (e.g. gasoline, boats, etc.)
 - Weather, boat ramp repairs, etc.

Recreational Fishing Indicator Usefulness

Indicator type	1)Condition Assessment, 2) Evaluation, 4) Communication, 6) Progress
Spatial Scale	Indian River and Rehoboth Bays
Temporal Scale	Annual
Validity	High for effort (PSE usually < 10%)
Defensibility	High
Communicability	High
Public Involvement	High
Amount of Existing Data	High
Funding Reliability	High
Reference Value	Unknown
Merit	Medium – Descriptive not predictive, reinforces other available information

Pounds of fish caught per recreational fishing trip in the Inland Bays during 1988 through 2005

