

History of Caribbean Data Collection

- Roughly 40 years of data collection
 - Since the mid 1960s in Puerto Rico
 - Since the early 1970s in the Virgin Islands
- Major contributions by Commonwealth and Territory in funding and/or man power
- Some funding by federal agencies including NOAA Fisheries
- No recreational survey until 2000 and then only in Puerto Rico

Other (Ideal) Programs – BC, AK

- Log Books – catch, discards, effort, area, time, gear, ETP
- Fish Ticket – Dealer receipt to fisher
- Dealer Report – Composite report of catch
- Port Sampling – Landing verification, biological data
- At sea observers/EM – Catch, discards, effort, habitat, biological data, ETP
- Fishery independent Surveys

What we have

- Fisherman landing reports
 - Combination logbook, fish ticket
 - Need additional information
- Port sampling
 - Currently biological data/species composition
 - Not used to validate landing weights

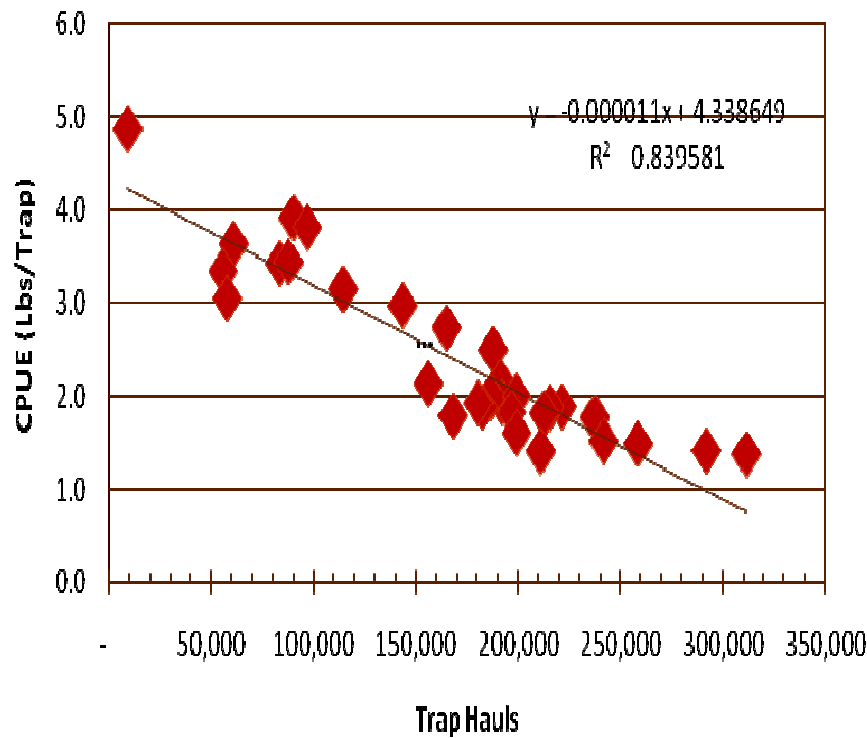
DFW Data Sources

- **TIP (Port Sampling)**
 - **10,936 Trips Sampled**
 - **313,802 Fish/Lobster measured**
 - **More from St. Croix than STT/STJ**
- **Landings Records**
 - **St. Croix-221,145 records**
 - **St. Thomas/St. John-191,675 records**
 - **Total-430,800 records**

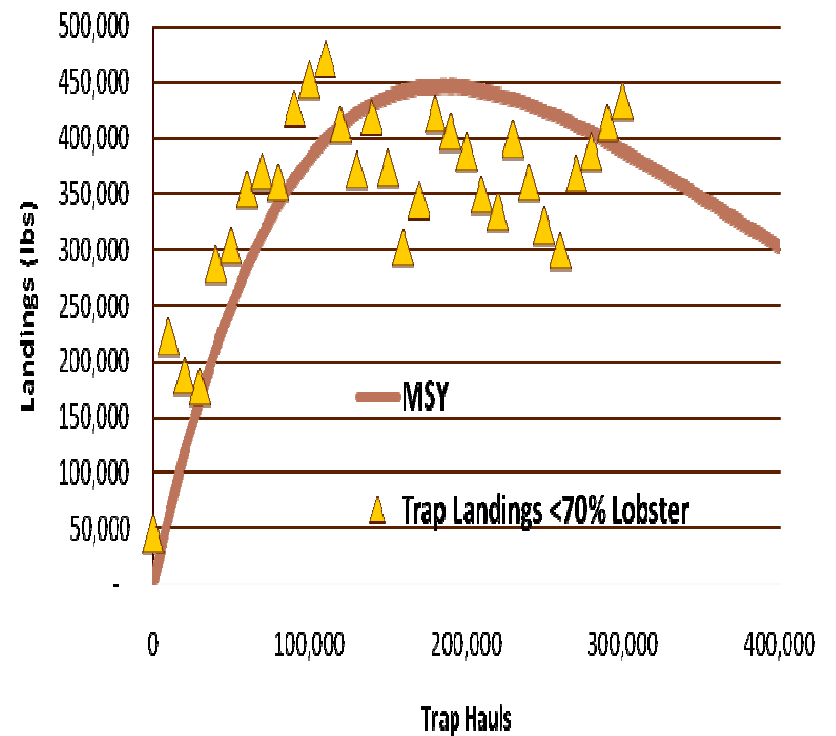
NMFS Just Refuses to Use Our Data

St. Thomas Trap Fisheries Catch Data Can Be Used.

St. Thomas Fish Traps Fish Landings



St. Thomas Trap Fish Landings



All St. Thomas trap landings, unsorted.

History of Oversight and Assessment

- 2003, 2005, 2007: 9 assessment attempts using conventional assessment methods
 - 2 with sufficient data (lobster and yellowtail), but no advice
 - 7 insufficient data
 - Standard assessment methods
- 2009: Data Evaluation Workshop
 - Only 2 stocks (deep water) and perhaps 2 species groups MIGHT have sufficient data for benchmark assessments (platform wide)
 - 2 stocks and 12 species groups MIGHT have sufficient data for defining Overfishing Limits
 - Unconventional assessment methods
- **More than \$1 Million and 1 man year of donated time by fishermen with no results.**

Need to Solve

- USVI
 - Species composition of catch
 - Validate landings
 - Sufficient bio-sampling
- PR
 - Unreported catch
 - Validate landings
 - Statistical design for bio-samples

What they recommend - USVI

- Redesign CCR form to report species
 - Dominant species
 - By gear
- Port monitoring re-design
 - Validation surveys
 - Biosampling surveys

Timeliness

- Currently one month reporting period
 - Lag of two to four weeks
- Want weekly reporting with one week lag in data entry
- May need to phase in
- How to collect forms - confirmation:
 - Mail
 - Drop off at agencies' offices
 - Electronic data reporting
- STFA says leave it as it is (monthly) until starting to approach the quota, then go weekly.

CPUE

- Species separated by gear
- Spatial scale – Depth, area of coast
 - Grid
 - Min-max depth by gear/day
- Specifics for each gear

Frustration

- Great frustration in Commonwealth and Territory among scientists and fishermen that 40 years of data collection and reporting had produced no results.
- 5 years after major data collection revisions, will we still be told the data are insufficient?
- What can be done now that will allow the Commonwealth and Territory to protect the resources and to ensure that fisheries will continue at sustainable levels in the future.
- STFA feels that there is advice available from existing data. Furthermore, any failure in the data arise from combined failures by DFW and the people who funded the data collection (NMFS). Fishermen should not be punished for those failures.

COMMERCIAL CATCH REPORT FORM JULY 2008

Name: _____ ID#: _____ Boat Reg. No.: VI- _____ Total Pots Fished: Fish pots: _____ Lobster pots: _____ No. of Helpers: _____

JULY 2008



RECEIVED AT DFW:

date fished	gear type 1	gear no. 1	gear type 2	gear no. 2	area fished	distance from land (miles)	hours fished	trap soak time (days)	total lobster lbs	total conch lbs	total whelk lbs	total finfish lbs	grouper lbs	snapper lbs	grunt lbs	jack lbs	surgeon lbs	parrot lbs	shellfish lbs	trigger lbs	porgy lbs	barra lbs	goat lbs	baitfish lbs	pelagic D/T/W/M	FAD #	released F or L D or A lbs.	other species lbs.
1/T																												
2/W																												
3/R																												
4/F																												
5/S																												
6/S																												
7/M																												
8/T																												
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26/S																												
27/S																												
28/M																												
29/T																												
30/W																												
31/R																												

Initial & date when report received: _____ I attest that the information recorded on this form is true and accurate (sign & date) _____

Common/Required Elements of Catch Reports

Fisher Information
Details of Gear/Effort
Species/Gear Specific Records

Fisher Information-USVI

- Basics
 - Name
 - Number of Helpers
 - Fisherman ID
 - Boat Registration Number
- Also:
 - Signature
 - Receipt (tear-off)
 - Initial of agent
- What else is needed (e.g. landing area)? What should not be included?

We need guidance to come up with a common list for both areas

- Basics
 - Name
 - Number of Helpers
 - Fisherman ID
 - Boat Registration Number
- Also:
 - Signature
 - Receipt (tear-off)
 - Initial of agent
- What else is needed? What should not be included?

Details Of Gear/Effort

- Basics
 - Fishing date
 - Gear specifics
 - Traps, Nets, Hook and Line

Effort/Gear Description/Reporting Needs

Traps –

- type of trap (lobster, fish, others?)
- type/details for each (dimensions, mesh size, funnel style/size?)
- # of traps
- soak time
- baited/unbaited (type of bait? This ? already got laughs).

Hook and Line –

- Type (hand line, buoy, rod-reel, trolling, others?)
- # of lines and/or # of hooks (for buoy/yo-yo – min/max depth of hooks?)
- Fishing/soak time (Need #/hook hours)—Clarification: Need ACTUAL FISHING TIME, not transit, searching, bait fishing etc...

Nets –

- Type (cast net, Seine)
- Dimensions (length, height, mesh size, or diameter for cast net)

Diving—

- Shift focus to gear used to harvest (spear, hand, net)
- Scuba – Was Scuba used Y/N?
- Effort is difficult - How can we get/report fishing time? (search vs. actual fishing)

Other primary gears and necessary specs??

Gear/Species - Specific Records

- Gear type
- Number of gear
- Was SCUBA used?
- Area fished
- FAD #
- Start/End Fishing Time
- Soak/Fishing Time
- Min/Max/Avg. Depth
- Species Type
- Species specific lbs

If we are splitting up catch by gear, what else should be included?

Should anything on this list be taken off?

Short term management advice

Feasibility

- Statistically designed sampling
 - Funding needed to contract for design
- Sufficient samplers to execute the design
 - Funding

Long Term Data Collection Plan

- Improve data collection for future moderately detailed stock assessments in 10 years and detailed assessments in 20 years
- Prepare for ACLs in 2010 and 2011
 - Reduce chances of quota based closures

Proposed Changes

- Weekly data submission
- 5 by 5 mile catch areas
- Increased TIP sampling
- “Validation” surveys
- NOAA staff permanently in VI

Gear-Specific Landings

- Different gears catch different size fish.
Eg: St. Croix Parrot fish show increasing size (good sign) although increase is due to introduction of net fishery.

Finer Geographic Scale

- Need to make sure that multiple populations are not being considered.

Virgin Islands Fishing Zones

BBB

TNW

TNE

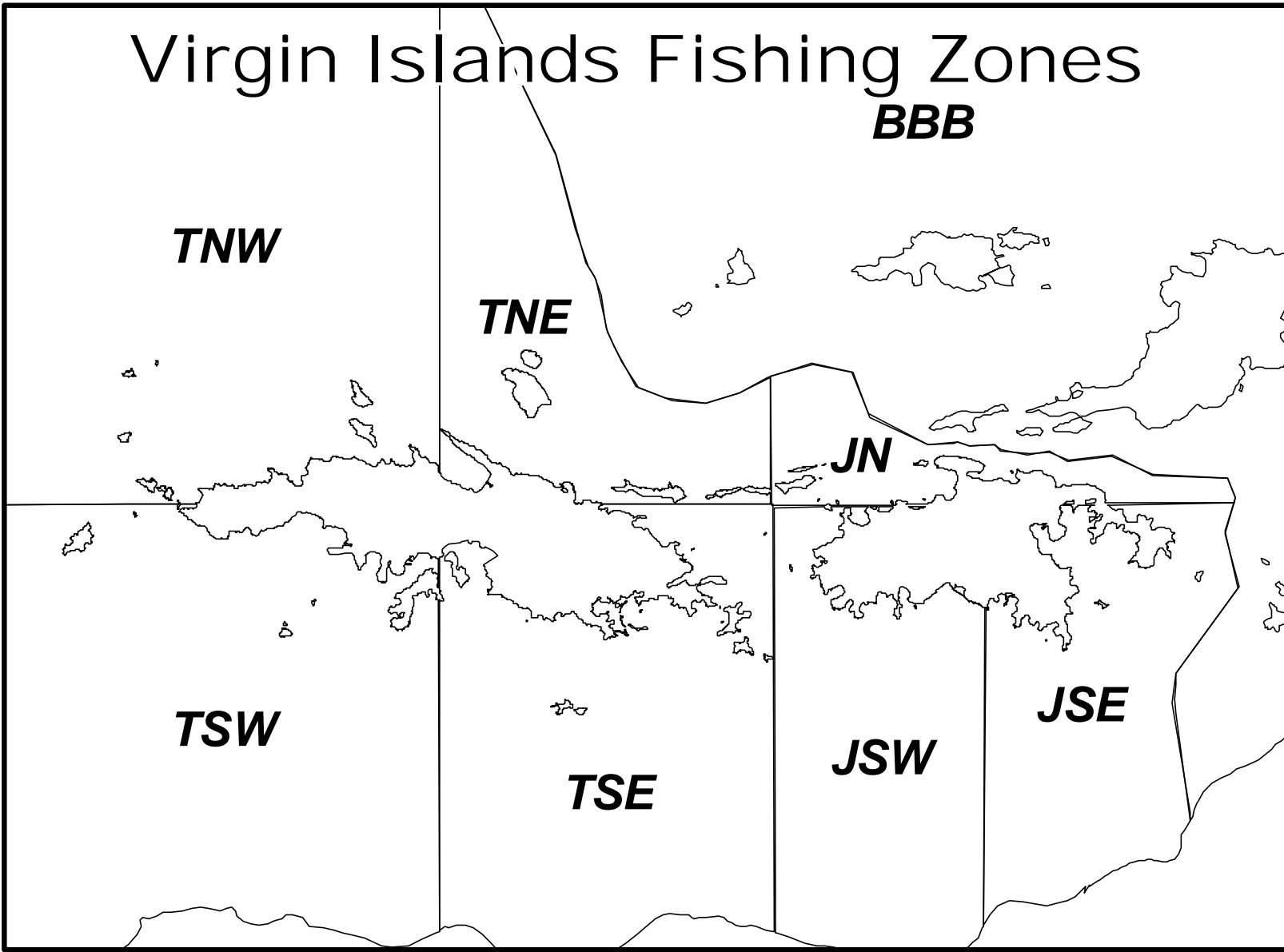
JN

TSW

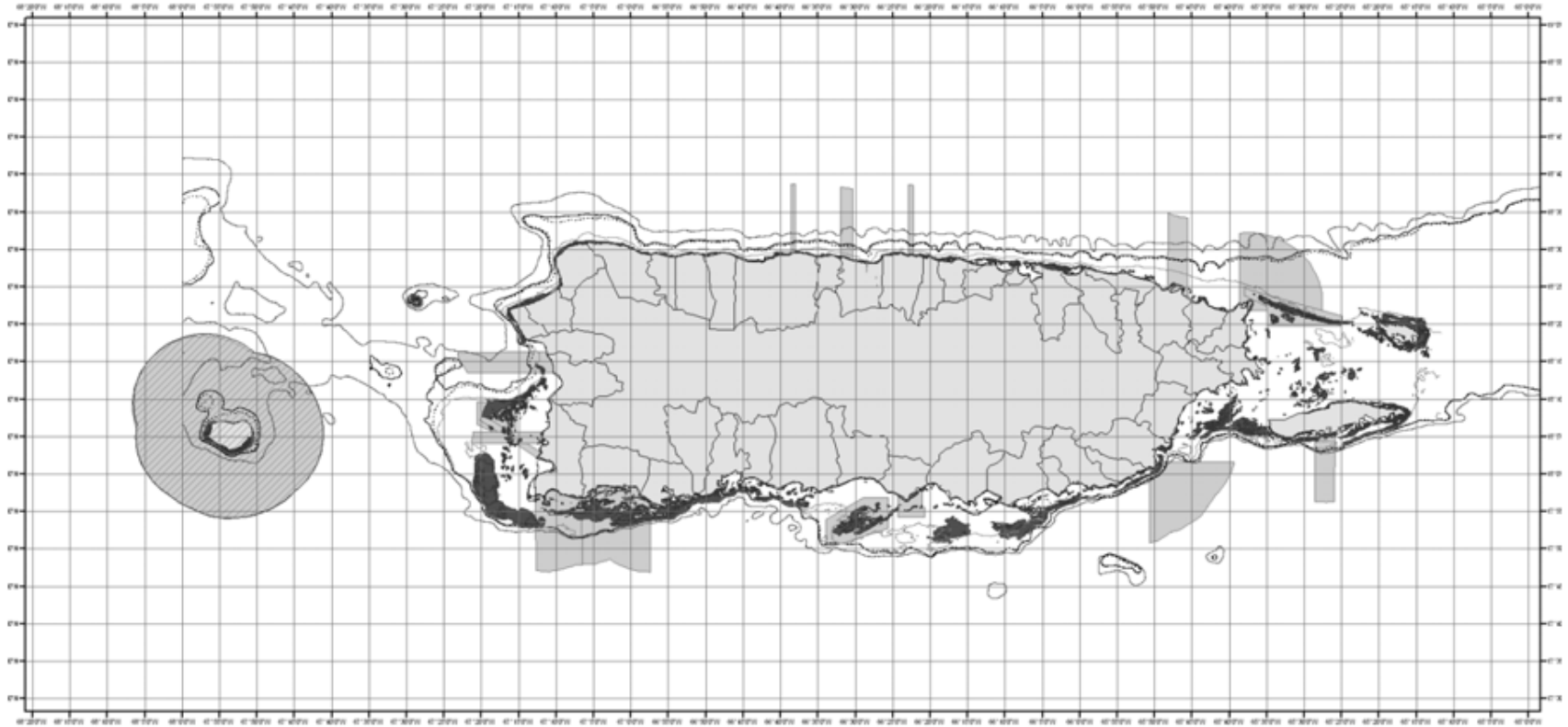
TSE

JSW

JSE



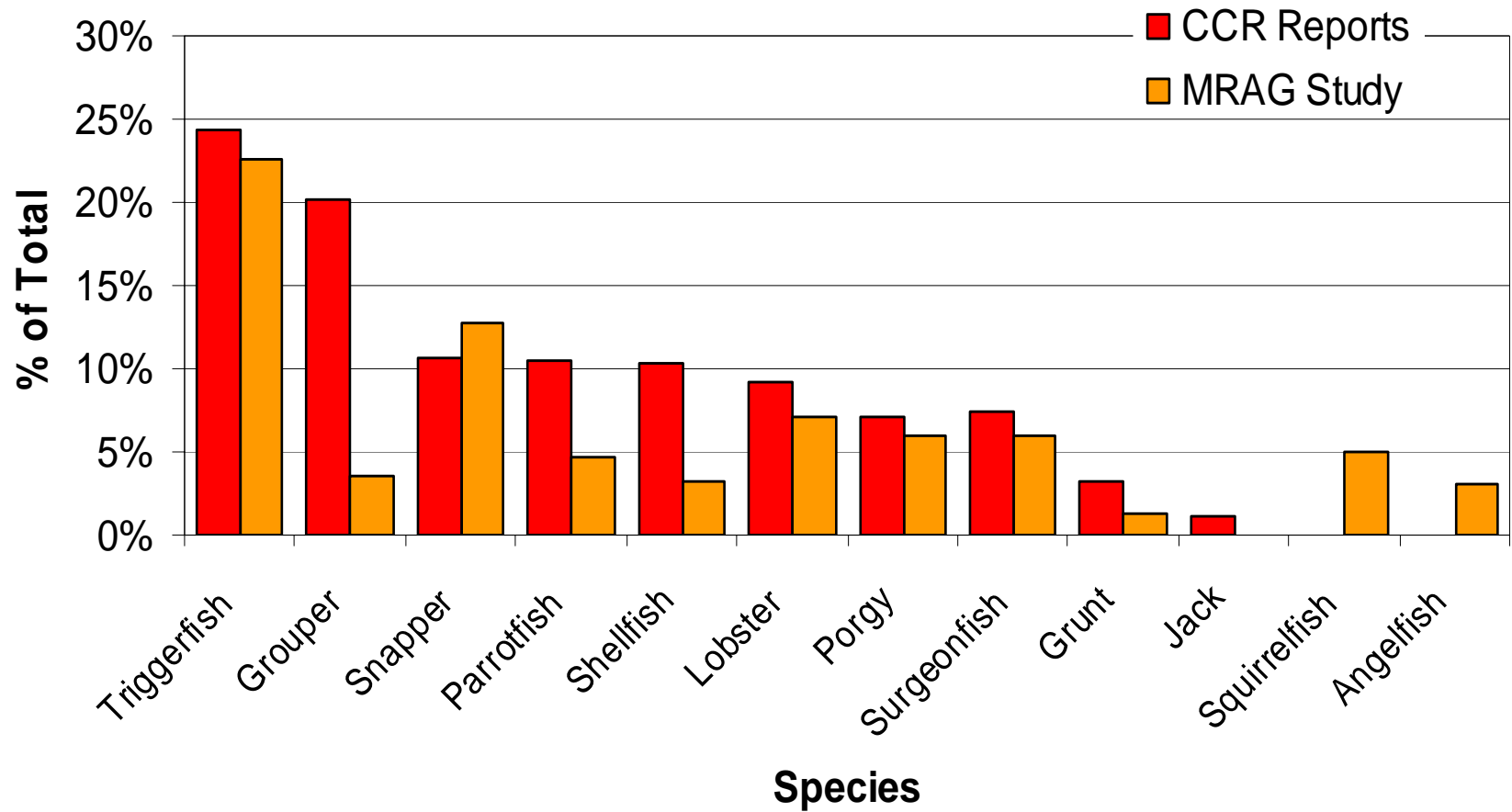
What they want



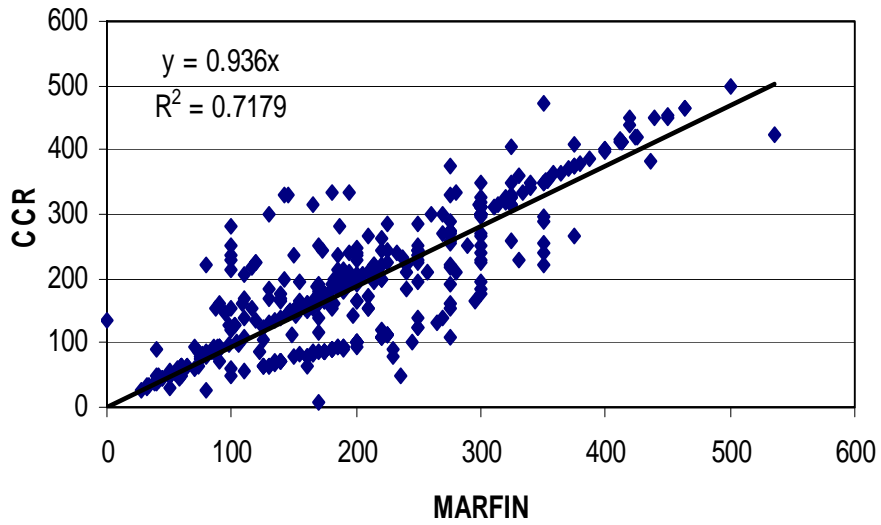
Validation of Fisherman Reports

- Most areas have scale weights at the time of sale.
- No dealer sector in VI
- Fishermen estimate poundages

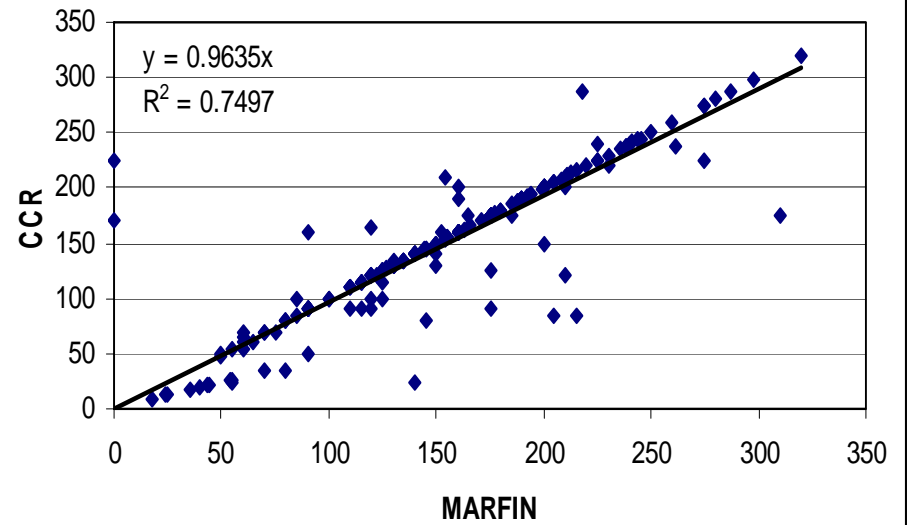
CCR vs MRAG Results Fish Traps (pounds)



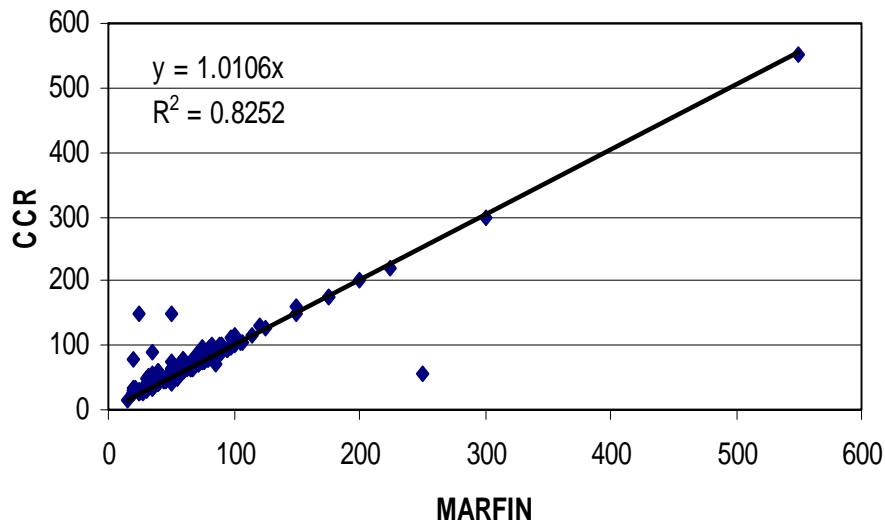
MARFIN/CCRTotal Landings Fish Traps



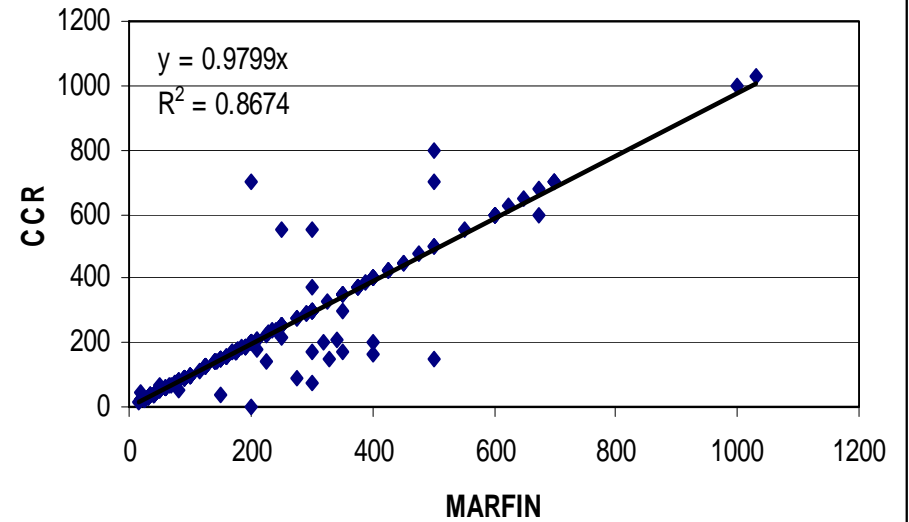
MARFIN/CCR Lobster Landings Lobster Traps



MARFIN/CCRTotal Landings Hand line



MARFIN/CCRTotal Landings Seine Net



Improved Species Data

- Fishermen-Detailed data on fewer species.
- Port Sampling-increased about 10 times frequency.
- Occasional detailed studies of aging and reproduction.

Initial List of **Overfished** and Predominant Species by Gear

Species	PR	STT/STJ	STX
Silk Snapper (OF)	Trap / H&L	Trap / H&L	
Parrotfish (OF)	Trammel Net	They just Don't Listen	Trap / (Spear)
Queen Snapper	H&L	They just Don't Listen	H&L
Yellowtail Snapper	H&L / (Trap)	? They just Don't Listen	Trap / H&L / (Seine)
Lane Snapper	Trap / H&L / (Gillnet)	Trap	
White Grunt	Trap / Trammel Net	Trap	Trap / H&L
Hogfish	Spear-SCUBA	Trap	
Red Hind	H&L / Trap / (Spear)	H&L / Trap	Trap / H&L / Spear
Coney Grouper	Further investigation needed- They just Don't Listen		
Queen Triggerfish	Further investigation needed- They just Don't Listen		

Dominant Species (90% of Landings)

Fishery	# Species (90% of Landings)	# Species (70% of Landings)
Fish Traps	20	10
Lobster Traps	13	2
Hand Line	3	1
Seine Net	5	4

First Draft of Data Form- Page 1

DRAFT - JUST FOR THOUGHTS - LOTS CAN CHANGE - PLEASE PROVIDE INPUT

Name: _____ Boat Registration #: _____ Fish ID: _____
 # of helpers: _____ Landing Area: _____

Traps	Nets	Hook and Line
Baited?: <input type="checkbox"/> Yes <input type="checkbox"/> No Type: <input type="checkbox"/> Lobster <input type="checkbox"/> Fish Mesh Size: _____ Mesh Shape: _____ Funnel Shape: _____	Height: _____ Length: _____ Mesh Size: _____	<input type="checkbox"/> Girdle <input type="checkbox"/> Hook <input type="checkbox"/> Misc. Other

Gear Type 1	Gear Type 2	Gear Type 3/All Others
<i>Gear Type</i>	<i>Gear Type</i>	<i>Gear Type</i>
<i>Gear Number</i>	<i>Gear Number</i>	<i>Gear Number</i>
<i>SCUBA?</i>	<i>SCUBA?</i>	<i>SCUBA?</i>
<i>Start time</i>	<i>Start time</i>	<i>Start time</i>
<i>End Time</i>	<i>End Time</i>	<i>End Time</i>
<i>Soak Time</i>	<i>Soak Time</i>	<i>Soak Time</i>
<i>Areas Fished</i>	<i>Areas Fished</i>	<i>Areas Fished</i>
<i>FAD #</i>	<i>FAD #</i>	<i>FAD #</i>
<i>Min Depth</i>	<i>Min Depth</i>	<i>Min Depth</i>
<i>Max Depth</i>	<i>Max Depth</i>	<i>Max Depth</i>
<i>Reef Fish</i>	<i>Reef Fish</i>	<i>Reef Fish</i>
<i>Species Type</i> <i>Pounds</i>	<i>Species Type</i> <i>Pounds</i>	<i>Species Type</i> <i>Pounds</i>
Species A	Species A	Species A
Species B	Species B	Species B
Species C	Species C	Species C
Species D	Species D	Species D
Species E	Species E	Species E
Species F	Species F	Species F
Species G	Species G	Species G
Species H	Species H	Species H
Species I	Species I	Species I
Species J	Species J	Species J
Species K	Species K	Species K
Species L	Species L	Species L
Species M	Species M	Species M
Species N	Species N	Species N
Species O	Species O	Species O
Species P	Species P	Species P
Species Q	Species Q	Species Q
Species R	Species R	Species R
Species S	Species S	Species S
Species T	Species T	Species T
Species U	Species U	Species U

First Draft-Page 2

Non-finish		Non-finish		Non-finish	
Species Type	Pounds	Species Type	Pounds	Species Type	Pounds
Queen Conch SpinyLobster Whelk		Queen Conch SpinyLobster Whelk		Queen Conch SpinyLobster Whelk	
HMS Fish		HMS Fish		HMS Fish	
Species Type	Pounds	Species Type	Pounds	Species Type	Pounds
Species A		Species A		Species A	
Species B		Species B		Species B	
Species C		Species C		Species C	
Species D		Species D		Species D	
Species E		Species E		Species E	
Species F		Species F		Species F	
Species G		Species G		Species G	
Species H		Species H		Species H	
Species I		Species I		Species I	
Species J		Species J		Species J	
Species K		Species K		Species K	
Species L		Species L		Species L	
Species M		Species M		Species M	
Species N		Species N		Species N	
Species O		Species O		Species O	
Species P		Species P		Species P	
Species Q		Species Q		Species Q	
Species R		Species R		Species R	
Species S		Species S		Species S	
Species T		Species T		Species T	
Species U		Species U		Species U	