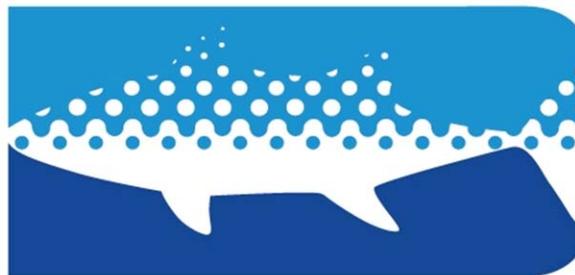




# Improving Recreational Fisheries Information

MARINE  
RECREATIONAL  
INFORMATION  
PROGRAM

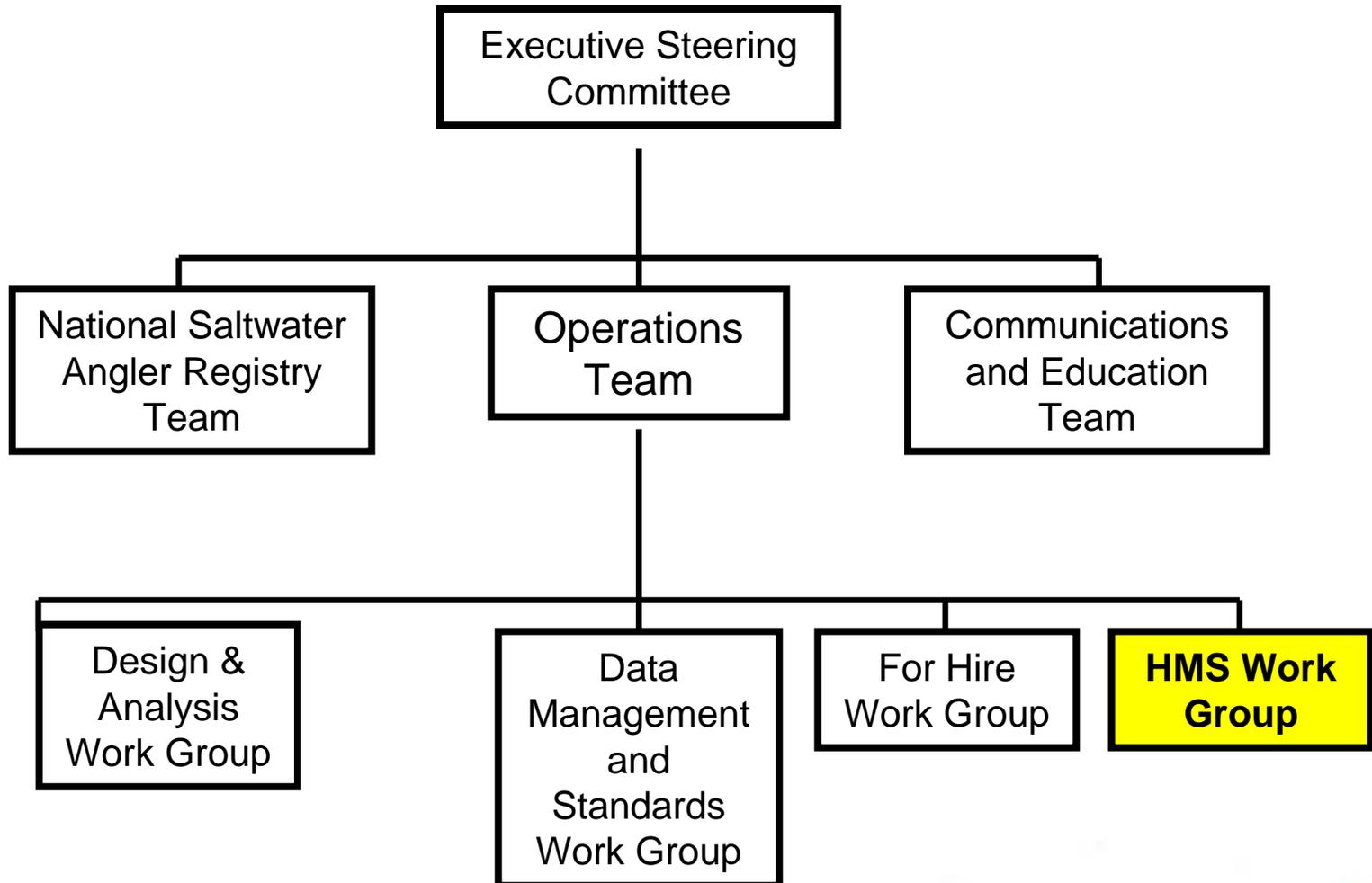


YOUR TRUSTED SOURCE FOR FISHING DATA

Dr. Ronald Salz, NOAA Fisheries  
Presented at the HMS AP Meeting  
September 11, 2009 Silver Spring, MD



# MRIP Initiative Structure





# HMS Work Group Charge

- Evaluate current HMS data collection programs.
- Expand HMS data collection programs to meet management and stock assessment needs.





# HMS Work Group 2008-2009 Projects

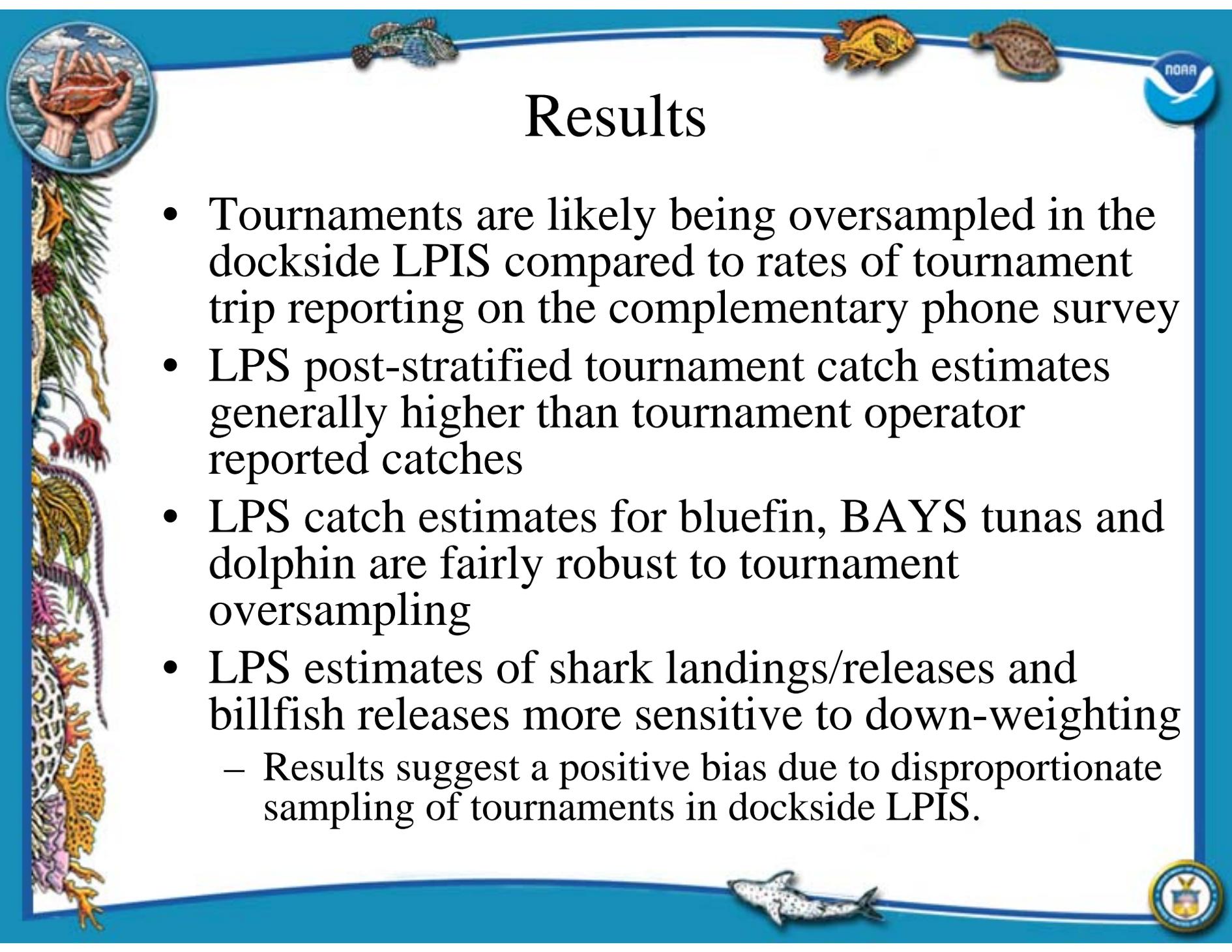
1. HMS tournament sampling
2. Characterize HMS recreational fisheries in South Atlantic and Gulf of Mexico.
3. Improve Puerto Rico Non-Tournament HMS Landings Reporting
4. Florida Private Angler HMS Phone Survey
5. Florida For-Hire HMS Pilot Survey



# HMS Tournament Sampling

- Compare tournament sampling rates between LPS dockside and telephone surveys
- Attempt census of all HMS tournaments ME-VA from operators reporting forms
- Compare LPS tournament domain catch estimates with attempted census catch totals
- Conduct dockside interviews with captains at select tournaments
  - determine proportion of catch reported to tournament operators
- Conduct sensitivity analysis of LPS estimates to down-weighting of LPIIS tournament interviews





# Results

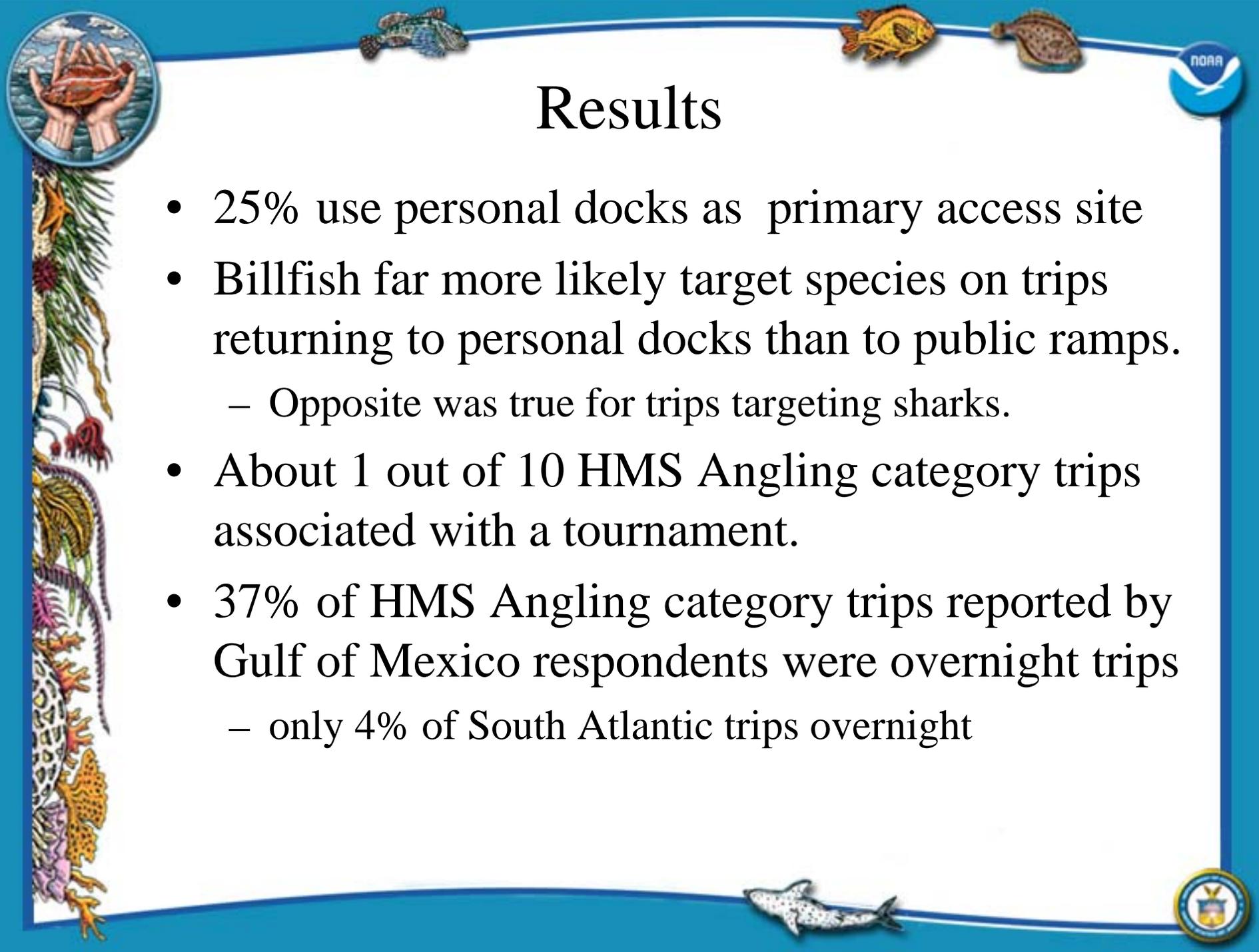
- Tournaments are likely being oversampled in the dockside LPIS compared to rates of tournament trip reporting on the complementary phone survey
- LPS post-stratified tournament catch estimates generally higher than tournament operator reported catches
- LPS catch estimates for bluefin, BAYS tunas and dolphin are fairly robust to tournament oversampling
- LPS estimates of shark landings/releases and billfish releases more sensitive to down-weighting
  - Results suggest a positive bias due to disproportionate sampling of tournaments in dockside LPIS.



# HMS Characterization Survey S. Atlantic & Gulf of Mexico

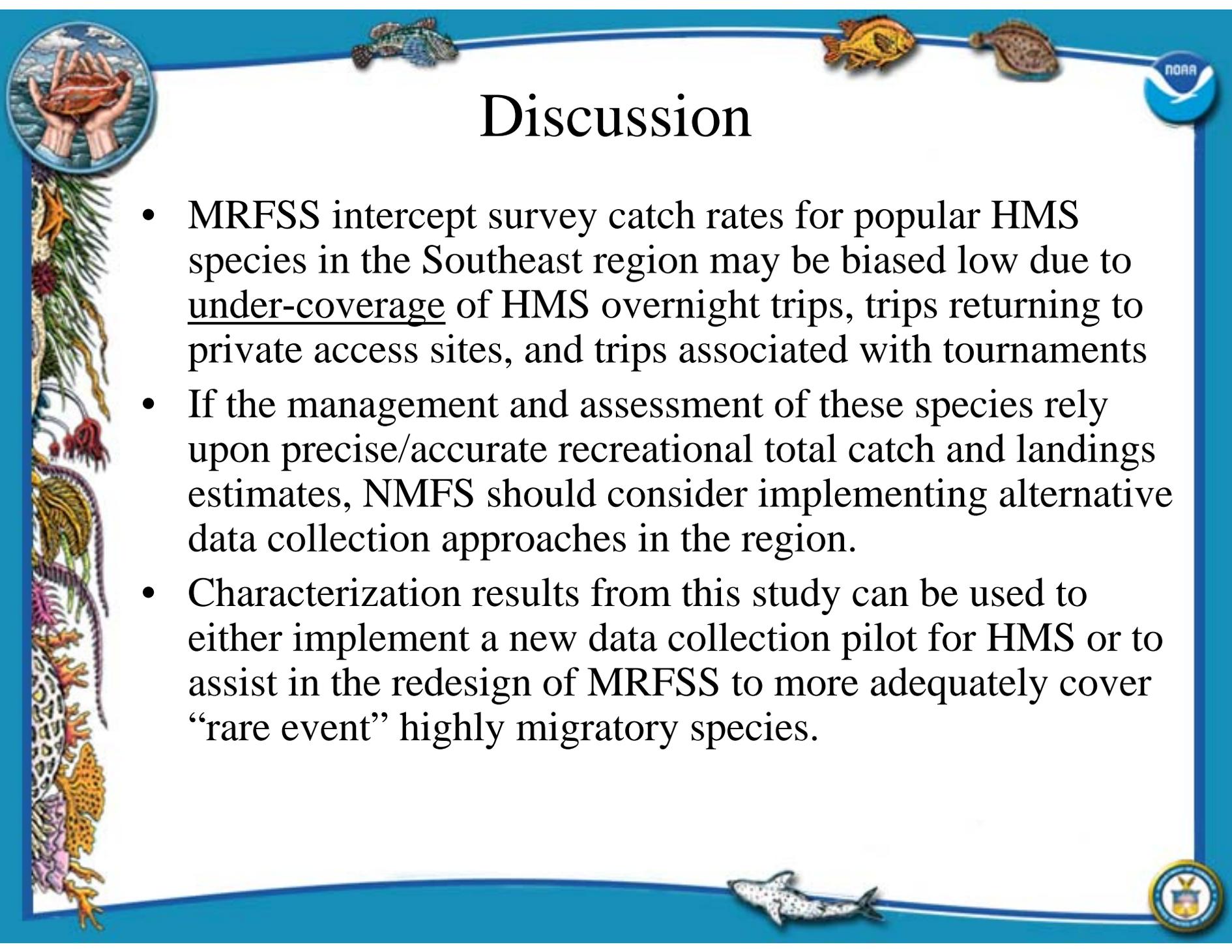
- Phone survey of Angling & General Category permit holders (NC-TX, excluding FL)
  - Texas also Charter/headboat permit holders
- Attempted to contact over 7,000 permit holders in September 2008;
- Over 5,000 interviewed (70%)
- 12-month recall Sept. 1 2008 through Aug. 31 2009





# Results

- 25% use personal docks as primary access site
- Billfish far more likely target species on trips returning to personal docks than to public ramps.
  - Opposite was true for trips targeting sharks.
- About 1 out of 10 HMS Angling category trips associated with a tournament.
- 37% of HMS Angling category trips reported by Gulf of Mexico respondents were overnight trips
  - only 4% of South Atlantic trips overnight



# Discussion

- MRFSS intercept survey catch rates for popular HMS species in the Southeast region may be biased low due to under-coverage of HMS overnight trips, trips returning to private access sites, and trips associated with tournaments
- If the management and assessment of these species rely upon precise/accurate recreational total catch and landings estimates, NMFS should consider implementing alternative data collection approaches in the region.
- Characterization results from this study can be used to either implement a new data collection pilot for HMS or to assist in the redesign of MRFSS to more adequately cover “rare event” highly migratory species.



# Puerto Rico HMS Fishery

- Phase 1: Characterize the recreational non-tournament HMS fishery
- Phase 2: Improve accuracy of landings data for marlin and other HMS
- Attempted telephone survey of all HMS Angling category permit holders
- 405 interviews conducted out of 1,011 permitted captains (40%)
- 2/3rds of interviewed permit holders indicated fishing for HMS in 2008





# Results

- 49% of permit holders self-identified as “recreational fishermen”; 21% as “sport fishermen”; 28% as both
  - Respondents averaged 7.1 HMS trips per year
  - 67% of Angling category vessels kept at private marinas; 23% used boats ramps; 10% private docks
  - 15% of permit holders fished for HMS in other jurisdictional waters in 2008 (preferred USVI and DR)
  - Billfish fishing in PR waters has two peak seasons: May/June and September/October.
  - More billfish landed in PR than NMFS online/phone system data would suggest
- 



## Reported 2008 Puerto Rico billfish catches (405 out of 1011 Angling cat. permit holders)

Species	Number harvested	Number Released
Blue marlin ( <i>M. nigricans</i> )	20	<b>909</b>
White marlin ( <i>T. albidus</i> )	3	167
Sailfish ( <i>I. platypterus</i> )	4	373
Sworfish ( <i>X. gladius</i> )	3	9
Total	30	<b>1458</b>





# Next Steps

- 
- Explore feasibility of catch card program for billfish landings in Puerto Rico
    - Establishment of voluntary reporting stations
    - Enforcement capacity
    - Buy-in from Sportfishing Association and recreational anglers
    - PR DNER role
  - Consider options for improving precision of MRFSS estimates for billfish releases
    - Increase MRFSS sample sizes
    - Specialized phone survey with randomly selected permit holders during billfish season.
  - Conduct educational outreach to promote and increase awareness of any proposed new data collection approach.
- 

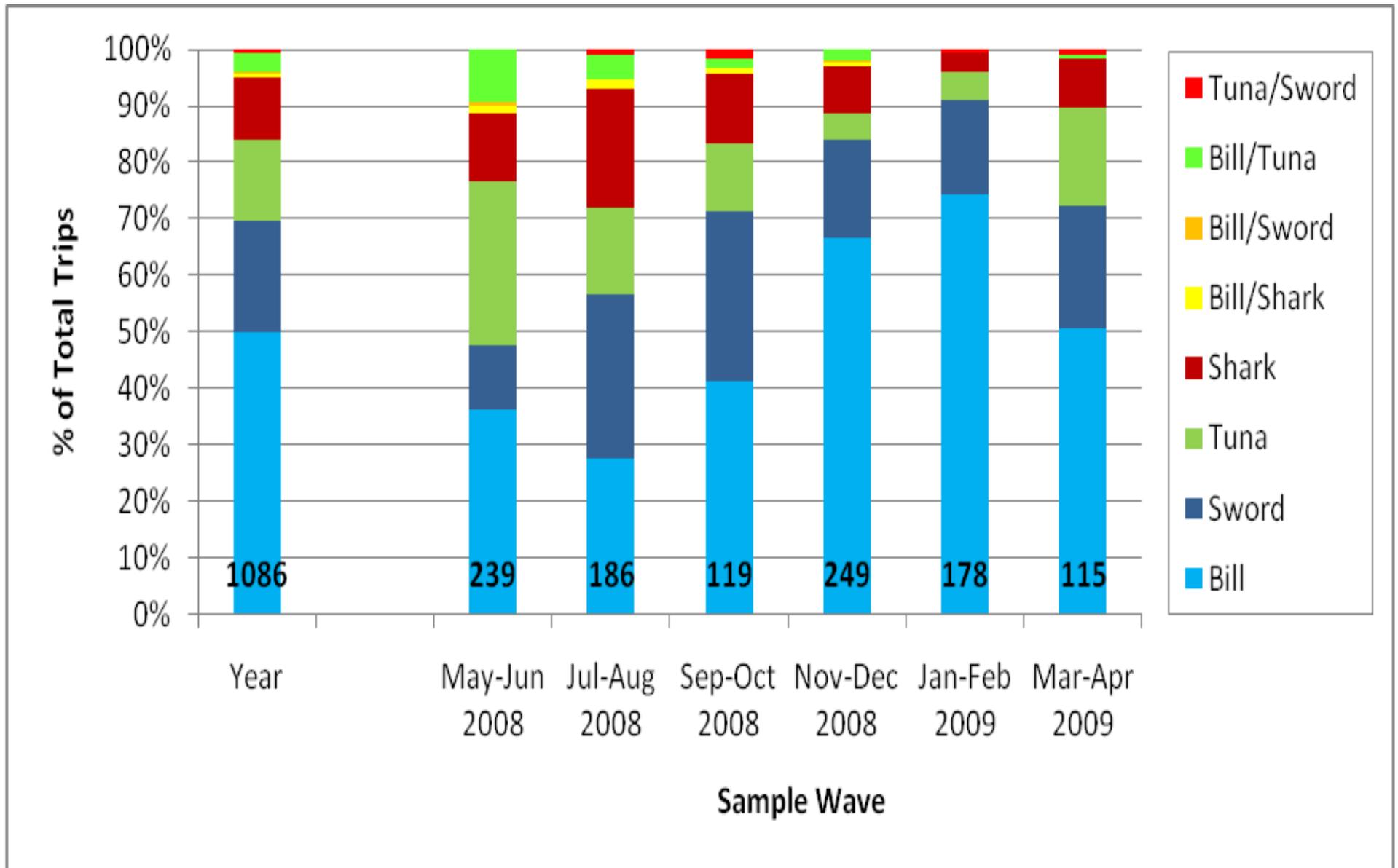


# Florida Private Angler HMS Phone Survey

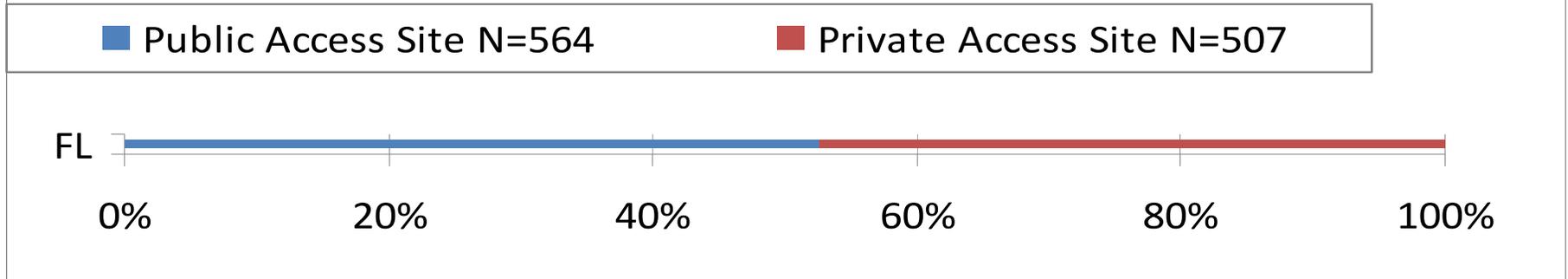
- Conducted survey with randomly selected HMS Angling category permit holders
- 10% (about 400 vessels) selected every two-weeks from May 1 2008- April 30 2009
- Collected data on fishing access types, trip times, tournament fishing, catch rates, target species, fishing methods and gears used
- Produced annual estimates of catch and effort



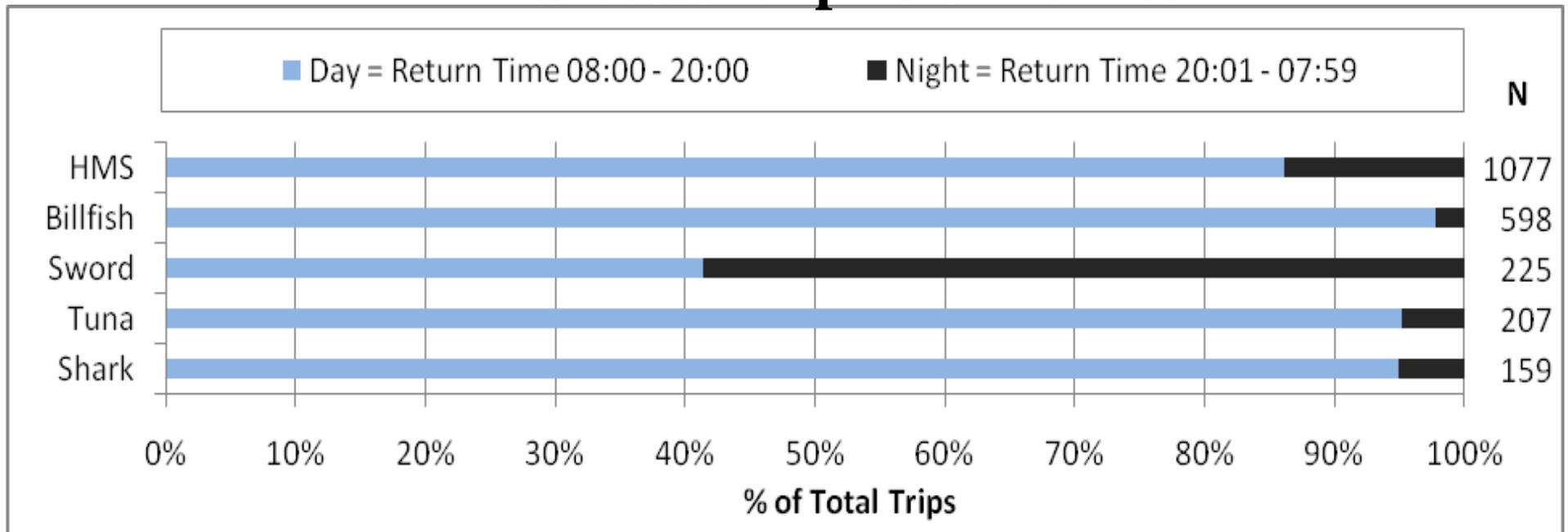
# HMS Trip Classification by Species Group Targeted or Caught Species

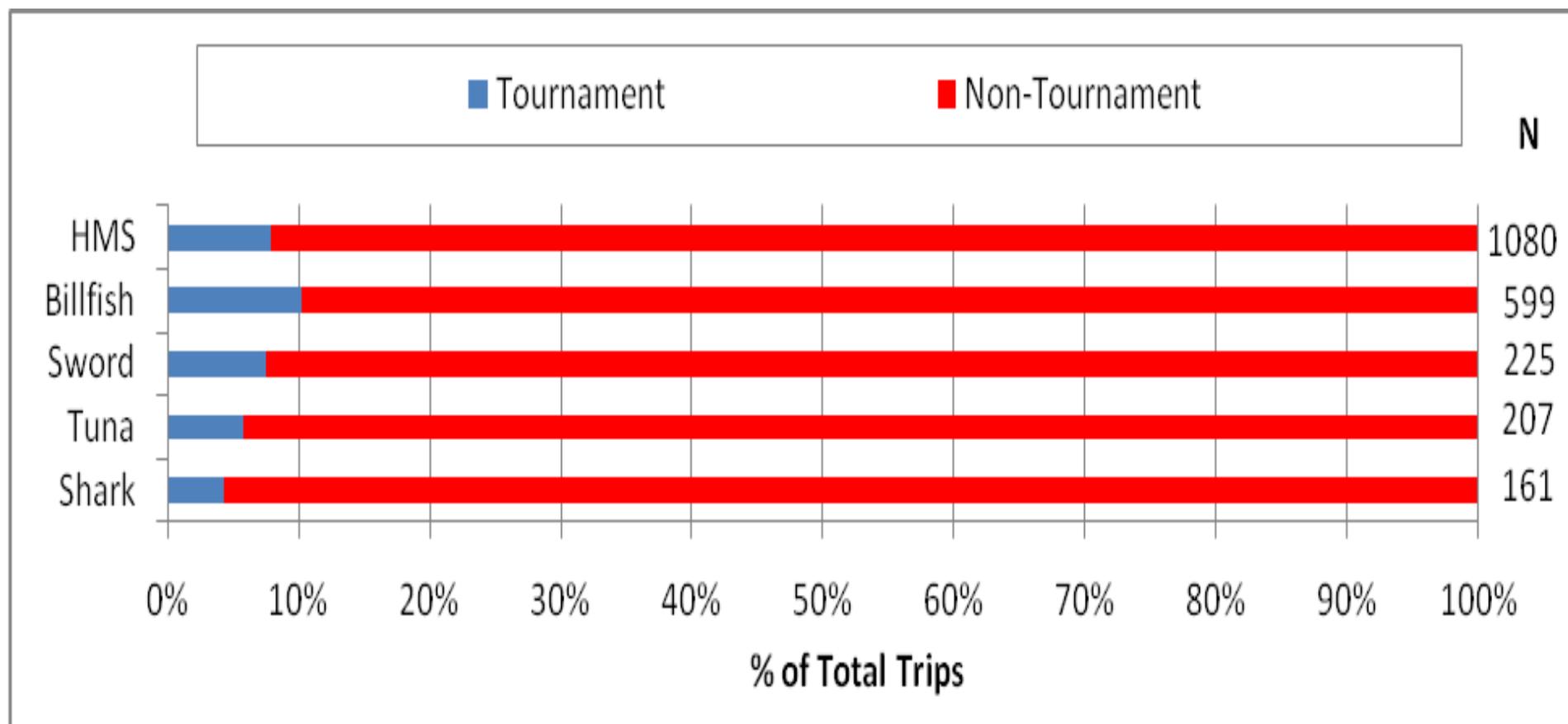


# Public vs. Private Access Sites for all HMS Trips

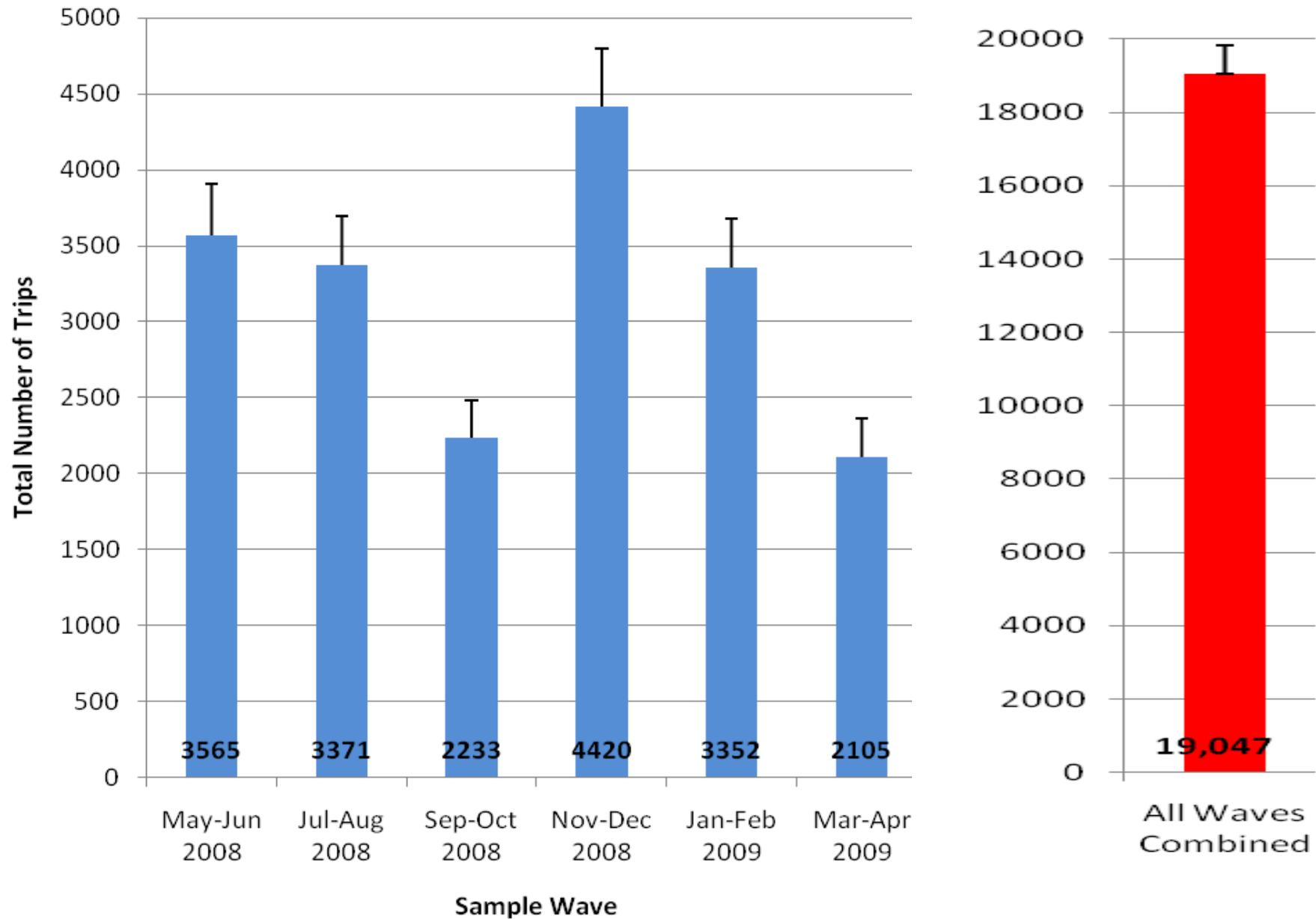


## HMS vessel trip return times





# PATS HMS Trip Estimates



# Comparison between FL PATS Harvest Estimates, MRFSS, and ALRS

HARVEST ESTIMATES						
	PATS		MRFSS 5-yr Avg (2004-2008)		ALRS (May'08-Apr-'09)	
	# Fish	PSE	# Fish	PSE	# Fish	
Skipjack Tuna	1069	21.9%	5029	51.4%	N/A	-
Yellowfin Tuna	906	31.0%	2262	83.9%	N/A	-
Swordfish	561	21.1%	706	100.0%	297	-

TOTAL CATCH ESTIMATES						
	PATS		MRFSS 5-yr Avg (2004-2008)		MRFSS (May'08-Apr-'09)	
	# Fish	PSE	# Fish	PSE	# Fish	PSE
Sailfish	16,936	9.5%	62,870	13.5%	42,243	14.5%



# Florida For-Hire HMS Pilot Survey

- HMS Dockside Sampling
  - Southeast FL & Keys
  - 10 assignments drawn per week
  - May 1 2008 – June 30 2009
- Add-on to For-hire Telephone Survey
  - One week reporting period
  - 10% drawn every week
- Data analysis not completed yet
  - Characterize fishery
  - Catch and effort estimates





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<http://www.st.nmfs.noaa.gov/mrip/index.html>

