

Evaluation of Fish Tags as an Attenuated Rights-Based Management Approach for Recreational Fisheries in the US Gulf of Mexico

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Gulf of Mexico Recreational Fishery Management

- ◆ Trends in the GOM recreational reef fish fishery showed evidence that current command and control management is inadequate.
- ◆ Progressively more restrictive management measures (bag & size limits, seasonal closures), with little sign that effective harvest control has been achieved.
- ◆ Particular pressures evident for high-value target species such as red snapper and red grouper.
 - e.g., red snapper recreational TAC routinely violated, despite increasingly restrictive management.

Rights-Based Management for Recreational Fisheries

- ◆ Rights-based management promising, but challenges exist in application to recreational fishing.
 - Integration of (large numbers of) heterogeneous anglers
 - Monitoring, enforcement and voluntary compliance
 - Philosophical concerns with “selling” durable rights to recreational fishing
 - Ensuring opportunity to diverse angler groups
 - Traditions of spontaneous fishing activities

Harvest Tags as an Attenuated Rights-Based Management Approach

- ◆ Harvest tags assign a right to a specified quantity and type of harvest during a specified time period.
- ◆ Generally time-attenuated, non-renewable, of limited transferability, and may be limited to a specific geographic area.
- ◆ Capitalize on rights-based mechanisms, but rights conferred are weaker (or more attenuated) than those typically conferred in commercial fisheries.
- ◆ Hunting applications common; fisheries applications less common but multiple examples exist.

Some Examples from Recreational Fisheries

- ◆ Pink snapper in Freycinet Estuary, Western Australia*
- ◆ Paddlefish in Missouri River, South Dakota*
- ◆ Salmon and sea trout in Ireland
- ◆ Cod food-fish program in Newfoundland
- ◆ Tarpon in Florida*
- ◆ Billfish fishery in Maryland and North Carolina
- ◆ Multispecies Sportpac in Oregon
- ◆ Multispecies record card in Washington State.

* Impose hard harvest caps

Fish Harvest Tag Programs Reviewed

Program Location	Species	Tag Type (attached vs. catch card)	Allocation Method	Cost of Tags for Adult Residents	Tags Create Limit on Individual/Tot al Catch	Number of Tags / Tags Over- Subscribed (yes/no)	Mandatory Harvest Reporting
Shark Bay, Western Australia	pink snapper	attach	lottery	AUS\$10	yes/yes	1,400 (2006) / yes	no
Missouri River, South Dakota	paddlefish	attach	lottery	US\$5	yes/yes	275 archery, 1,400 snagging (2006) / yes	no
Ireland	salmon and sea trout	attach	with license	free with license	yes/no	Not limited, ~25,000 per yr. / no	yes
Newfoundland	cod	attach	with license	free with license	yes/no	Not limited, ~135,000 per yr. / no	yes
Florida	tarpon	attach	purchase	US\$51.50	no/yes(but not binding)	Cap of 2,500, 300- 400 sold per year / no	yes
North Carolina and Maryland	bluefin tuna, white and blue marlin, sailfish, swordfish	attach (acquired upon landing)	provided at designated landing spots	free	no/no	Not limited, ~2000 – 3000 per year / no	n.a., tag acquired only when used
Washington	salmon, steelhead, halibut, sturgeon, dungeness crab	record on card	purchase in addition to license	first card free with license, US\$10 plus dealer fee for additional cards	yes/no	Not limited, ~650,000 per year / no	yes
Oregon	salmon, steelhead, halibut, sturgeon,	record on card	purchase in addition to license	US\$21.50	yes/no	Not limited, 208,452 (2005) / no	no

Some Common Features of Harvest Tags for Hunting and Fishing

- ◆ Tags denominated in number of animals or fish and allocated to individuals and/or for-hire operators.
- ◆ Tags must often be obtained before harvest. On-site tags sometimes available but not often.
- ◆ Limited or no transferability, with a few notable exceptions.
- ◆ Multi-mode allocation/distribution mechanisms for scarce tags. Most available at nominal cost.
- ◆ Tags expire at the end of the season.
- ◆ Equity and stakeholder support critical elements.
- ◆ Many existing programs are oriented more at data collection than mortality control or revenue generation

Management Features of Harvest Tags

Hard Harvest Limits

- Denomination of tags in number of fish allows hard harvest limits to be imposed.
- Would require large number of tags, and perhaps complex administration.
- Number of tags issued should account for potential release mortality.

Season Length

- Can allow for longer seasons compared to non-rights based management, promoting angler satisfaction.

Management Features of Harvest Tags

Rights Allocation

- Requires establishment of mechanisms for allocation of harvest tags.
- Allocation can be complicated by large numbers of anglers; heterogeneous groups; resident vs. non-resident distinctions.
- Allocation can be controversial for scarce or high-value tags; allocation methods for scarce tags include lotteries (with preference and/or bonus points) and auctions.
- Examples of various successful allocation modes in existing programs.
- May involve money cost, effort, or waiting periods to obtain tags; might require pre-planning to target certain species.

Management Features of Harvest Tags

Monitoring, Enforcement and Compliance

- Monitoring and enforcement still a challenge, but ameliorated by attributes of harvest tags (ease of observability at check points, etc.)
- Requires mechanisms for monitoring tags and harvest.
- Can increase voluntary compliance and self-policing among anglers.
- Angler education and information materials often required.
- Lessons may be taken from existing programs.

Management Features of Harvest Tags

Data Collection

- Tags can provide data on some or all aspects of recreational fishing.
- Wide array of reporting and data gathering mechanisms in current tag programs provides lessons for developing methods for recreational fisheries.
- Reporting compliance varies with incentives provided by program.

Revenue Generation

- Revenues from the sale or auction of harvest tags can be used to support management, education, data collection, and other efforts.
- Tag revenues must be viewed within the context of the cost of implementing programs.

Management Features of Harvest Tags

Sector Integration

- Many models for integration of management for private and for-hire groups using harvest tag programs.
- Possibility of rights transfer between recreational and commercial sectors; practical mechanisms for integration are not well developed.

Conclusions

- ◆ Harvest tags offer a means to allocate scarce recreation fish resources to avoid shortening seasons and restrictive bag limits.
- ◆ They are likely to be more politically acceptable than a true rights based system, particularly for the non-charter sector.
- ◆ Harvest tags also offer a means to improve data collection and to recuperate some fishery management costs