

Science, Service, Stewardship



A Comparison of Tilefish Longline Behavior in the South Atlantic and Gulf of Mexico

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**NOAA
FISHERIES
SERVICE**

Under final review at Marine Resource Economics

- “A Comparison of Fishing Behavior under Individual Transferable Quotas and Regulated Limited Access Regimes: Golden Tilefish in the US Gulf of Mexico and US South Atlantic” Scott Crosson and Tracy Yandle

Natural experiment

Reviewed changes in tilefish longline fisheries in GOM and SA 2009-2016 (introduction of ITQs in the GOM and longline endorsement in the SA)

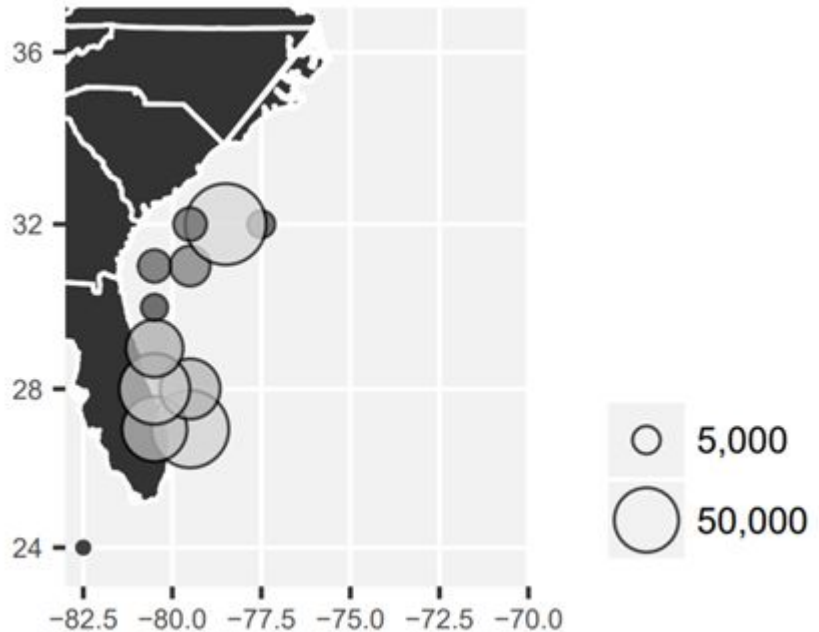
Simple differences in differences (DID) analysis

Similar landings, gear, latitude, markets

South Atlantic

~22 endorsements

Seasonal closures
and trip limits

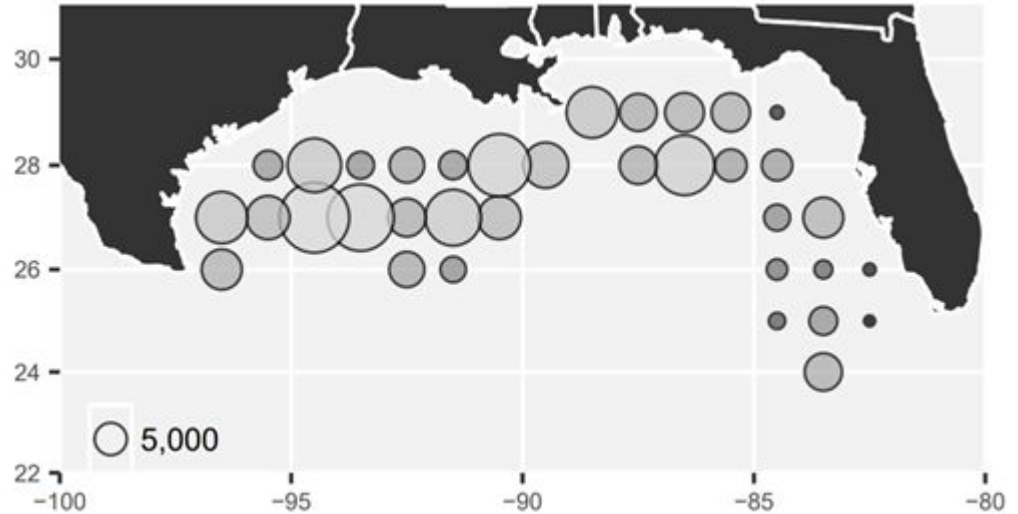


Gulf of Mexico

Tilefish ITQ

Gear restrictions

12% share cap



	2009 GFMC	2016 GFMC	2009 SAFMC	2016 SAFMC	GFMC change	SAFMC change
Sustainability						
Annual Catch Limit / Quota	440,000	606,000	295,000	405,971	38%	38%
Aggregate Landings	430,021	353,879	298,837	400,418	-18%	34%
% Utilization	98%	58%	101%	99%	-40%	-2%
ACL exceeded	N	N	Y	N	No	Yes
Fishing Effort						
Active vessels	63	39	13	23	-38%	77%
Days at sea	2125	2,137	480	663	1%	38%
Trips	206	166	260	212	-19%	-18%
Average trip length (days)	10.3	12.9	1.8	3.1	25%	72%
Crew/trip	3.6	3.8	2.3	2.5	6%	9%
Season length	135	365	196	75	170%	-62%
Economic value						
Aggregate revenue (golden tilefish)	\$725,998	\$1,136,735	\$729,927	\$1,713,317	57%	135%
Aggregate revenue (co-caught species)	\$2,060,577	\$3,779,437	\$70,091	\$147,142	83%	110%
Average price / <u>lb</u> (golden tilefish)	\$1.69	\$3.21	\$2.44	\$4.28	90%	75%
Average price / <u>lb</u> (co-caught species)	\$3.14	\$4.49	\$2.01	\$3.59	43%	79%
Golden Tilefish revenue per vessel	\$11,524	\$29,147	\$56,148	\$74,492	153%	33%
Co-caught species revenue per vessel	\$32,708	\$96,909	\$5,392	\$6,397	196%	19%
Gini Coefficient	0.7	0.71	0.43	0.32	No	Yes

Economic performance

	Gulf of Mexico	South Atlantic
Trip net/gross revenue	42%	30%
Revenue to ITQ lease (%)	18%	---
Landing revenue to crew (%)	28%	35%
Average Crew earning per day	\$137	\$206

Conclusions

Gulf has eliminated derby, SA has not

Gulf trips are longer and fewer, and days at sea increased in SA

Gini decreased in SA, but not in Gulf

Conclusion

South Atlantic appears to prioritize a shorter season with greater short-term pay (then presumably moving on to other fisheries) while in the Gulf, golden tilefish is a year-round fishery integrated into the larger reef fish complex contributing to a more predictable year-round income.