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**Subject:** MRIP's Coming Disaster

MRIP's Coming Disaster 2/1/22

Greetings All!

Been a while since I wrote one of these. Am particularly troubled with management's willingness to fall headfirst down a rabbit hole where dang near no one believes the data holding it open..

We go to the marina. Jill and Jim still have their slip. They'll take their neighbors out next week.

Bob and Byron are still fishing 3 days a week and getting it done.

Point is, It's NORMAL. This business with skyrocketing and crashing effort/success is baloney. It all train-tracks. I sure couldn't do it, but I bet if you took a graph of For Hire VTRs & Trap VTRs from the same patch of sea floor you'd see lines in unison - rising and falling across the years as variations in spawning production play out. Add Private Boat to that graph and you'd see chaos.

But in real life Private Boat train-tracks too.

Well, it's a long one. Hope you'll heed its guidance.

I believe gears are already set in motion to crash fluke - and it ain't gonna be Boston Whalers and Grady Whites that did it.

Cheers,

Monty

In this Fish Report I will show how NOAA's insistence on using grossly overvalued recreational catch estimates has been allowed to jeopardize creation of fair recreational regulation, and is being allowed to recreate true overfishing such as we saw from foreign factory trawlers in the commercial summer flounder (fluke) fishery before regulation began.

By overweighting Marine Recreational Information Program (MRIP) recreational catch estimates while developing commercial quotas, other fisheries too will become overfished in truest fashion.

Hidden behind recreational catch that did not occur, MRIP will lay blame for any stock decline squarely on recreational anglers in the Private Boat sector.

Make no mistake, if left unrepaired—if MRIP's monumental errors are allowed to further erode stock health as manifested through inclusion of recreational catch data while developing commercial quotas—decades of successful restoration efforts will soon become unraveled.

It's use begun in 2012, MRIP is now a decade old. It was brought about by a 2007 Congressional mandate to remedy complaints from recreational fishers about inaccuracies in the MRFSS system of calculating recreational catch. In that regard it failed in fantastic measure.

MRIP has already been brought before the National Academy of Sciences, the NAS (twice I believe). It is indescribably worse than the preceding MRFSS method of calculating marine recreational catch.

Confidence in MRIP estimates among scientists, regulators & the regulated is lower today than since marine regulation began - except among those at the top for whom a computer is the only window to our nation's fisheries.

I will show a simple method of using daily landings reports, Vessel Trip Reports (VTRs)—daily catch reports from professional recreational fishers; a way to test MRIP's assertions of catch. I call it the "Percentage of Catch" test.

Overall, I believe accusations of recreational overfishing are nonsense, absolute rubbish. I was there. I saw it, lived it - I know what 'overfishing' looked like. When my recreational clients caught over 7,000 sea bass in a day, in a Single Day in May 1991 - that was recreational overfishing.

Prior to regulation, high man having close to 200 sea bass in late October or November wouldn't have been newsworthy - just normal. 85 clients x an average of 80 cbass = 6,800.. I guarantee there were many days in the pre-regulatory era when an individual partyboat took over 10,000 sea bass.

Shoot, I had clients complaining—angry—in May 1991 because anglers on the bow only caught 50 or 60 large sea bass while those toward the stern were nearing/over a hundred each. Certainly had over 7,000 that day..

Thing is, in the pre-regulatory & early regulatory era, those fish were there to catch. Even during fishing's darkest days—late 1980s/early 1990s—before any sea bass regulation existed, we could still muster amazing catches sometimes. We had spawning production even when no sea bass was spared..

If we're able to clear this estimate nonsense out, spawning production and habitat increase would spring to the fore as methods of increasing fish populations.

In 1992, five years before regulation began, I was the first skipper to have a 9 inch limit on sea bass. I witnessed that simple regulation have fantastic beneficial effect on local sea bass stocks. By 1996 my tagging efforts had clearly shown remarkable habitat fidelity in sea bass. When fishers employ effective regulation in a species with habitat fidelity, both fish & fisher benefit.

But regulation is not a stand alone cure. Spawning production and habitat repair/creation can be made vastly more powerful with the right & light regulation.

Consider: seventeen years into regulation we had the worst sea bass fishing in DelMarVa's history.

Seriously, following the MD Wind Energy Area Surveying Disaster; May of 2015 was rock bottom - the worst spring run of sea bass ever.

And, with absolutely no change in recreational regulation, in 2020/21 we've had the best sea bassing since 2003.

Fishing was excellent & exactly as I'd predicted it would become in 2016/17 owing all age one sea bass rejoining the spawning stock biomass (SSB) when the MD Wind Area and surrounding reefs out to four miles were recolonized.

The very worst sea bass fishing, & very best, with no change in recreational regulation in the period. The only change in commercial effort was an increase in quota in 2019 fallaciously based on MRIP's inflated stock guidance.

We've recently witnessed exponential population growth for the second time under regulation. Once from 1997 to 2001 & again from 2016 to 2020. It's management's undiscovered ability to force almost all sea bass into the "spawning stock biomass" (SSB) that's key.

But managers, even were they keenly aware of this power, will never capture nuances of spawning production in regulation while guided solely by MRIP's nonsense estimates.

MRIP must either be corrected ..or run out of town.

My correction method creates "stops" high and low - a place catch cannot exceed because participants deem it impossible - and eliminates when MRIP misses all catch (a zero). The stops are based on daily catch submissions by professional recreational "For-Hire" captains called VTRs - Vessel Trip Reports. These are already required. No heavy lifting there.

Currently MRIP's guesses can be zero—even in high season with lots of effort & catching; or as astronomical as if fish were laid tail to tail stretching to Venus. No matter how unbelievably low or high an estimate reaches, the Regional level of NOAA will insist: "It's the best scientific information available. Use it."

But isn't science predicated on testing?

So far the only means of testing MRIP has been further high-science statistical analysis with no fishers' input.

Statistically pure perhaps and oh so mathematically scientific, but MRIP's biological data is rubbish.

Fishermen use the science of observation. When observations are recorded they become data - scientific data. We are management's eyes on the fisheries; experienced observers that have been working the water for decades. Believe this - in our business MRIP estimates wouldn't do. When reef fish such as sea bass are targeted, professional recreational For-Hire fishermen have to know where fishing pressure is & where it has been—where and how big the fleet is on larger reefs — Who is fishing there; how long has an area rested since any effort at all on smaller reefs: We need accurate info combined with honed intuition or we'll not produce consistently for clients.

According to MRIP, there's an immensely powerful force that erupts on calm Saturdays in summer— NOAA's MRIP estimates have even shown Private Boat anglers from one state as a more potent extractive force than Commercial trawl & trap - sometimes even all Party/Charter too — Private Boats from one state, in two months, can outfish all professional effort, from all states in the management area, all combined.

It's Crazy.

In the very heart of the regulatory era, private boats are now shown to be a more powerful extractive force than foreign factory ships of yore..

That's just nuts.

Private Boat ownership is always more expensive than hiring a charter or purchasing partyboat tickets. MRIP claims that because wealthy anglers own more boats, they own the sea bass fishery almost exclusively with their fantastically higher catch estimates.

Yet sea bass, fluke & scup have long been mainstays of the partyboat industry with fares for a day's outing affordable to nearly all who enjoy fishing. Charters are typically a step up, but still much less expensive than ownership.

I've tied up near busy marinas for all of my 40 years. Many a day, especially in spring and fall, my rig and a few charters will be the only boats out.

What I've tried to do for over a decade now is create a test - a statistical Bayesian stop really - that prevents MRIP estimates from shooting far too high or low. I call it the 'Percentage of the Catch' test.

Let's look at Maryland sea bass first, a fishery I've participated in for over 40 years.

MD has one ocean port with access to legal sized sea bass. There are a couple weeks in May when sharks, tunas, summer flounder on reefs, & billfish have yet to show save for yachts capable of hundred-plus mile runs. Some Private Boats will target sea bass in this multi-species lull.

Aside one Fourth of July Saturday that was incredibly flat calm, I have never seen a number of Private Boat anglers approaching the number of anglers on Party/Charter boats.

My simple formula for Maryland is Private Boats land (catch and keep) 25% of Party/Charter VTR submissions.

Although I seriously doubt Private Boaters in MD take even 20% of MD's sea bass, I've used 25% in these calculations as a buffer.

In May/June 2021 MRIP has MD Private Boat landing 103,000 sea bass and For-Hire landing 8,900. That's 11.6 sea bass for every 1 (one) landed by Professional recreational skippers.

If we use VTRs instead, where MD For-Hire operators told NOAA they actually landed 12,700 sea bass — that we “Observed” almost 13K sea bass landed from our trips and told NOAA about those landings — then Private Boat landed 8.1 sea bass to every one For-Hire clients landed.

I guarantee that’s never happened. We do not have anywhere near that level of Private Boat effort. If this level of Private Boat catch were even remotely true, the way I fish & intel I need to provide clients the best possible angling experience would be vastly different.

By “percentage of the catch” calculations however—and I mean by VTR submissions, not MRIP’s For Hire estimates—then MD Private Boat sea bass landings would be an order of magnitude lower at 3,200 sea bass. That’s 100K lower (and, trust me, this is nowhere near a ‘bad’ MRIP estimate.) Its simple math. We think Private Boats catch less than 25% of our landings - and MD For-Hire captains told NOAA our clients boxed 12,700 sea bass, then Private Boats landed 3,200 fish.

Conversely, in 2018 MRIP reports MD Private Boats landed Zero sea bass in May/June (wave 3) and Zero sea bass again in July/August (wave 4.) Wasn’t closed. Boats were fishing. While they sure didn’t catch astronomically, if we use VTR submissions at 25% then we have Private Boats landing 2,425 sea bass in wave 3 and 808 in wave 4..

Information such as that would have to be more useful to mid-level management.

I believe much of MRIP could be done away with altogether; that it would be incredibly more accurate and fantastically less expensive to estimate Private Boat catch in this Percentage of the Catch fashion.

I’ve shown a glimpse of MD’s sea bass percentages. Every state & every fishery is different of course. Professionals I’ve spoken to in Rhode Island & Massachusetts, for instance, think they only catch 15% of their state’s sea bass. Because MRIP has Massachusetts Party/Charter catching just under 3% in May/June (wave3) 2021 however, there will still be a dramatic lessening of the Private Boat estimate by using 15% - here it shaves about 870,000 sea bass off MA’s 1,038,500 estimate. (Private boats had 40 days at 5 fish per person to catch over a million fish. Without allowing Saturday’s surge in effort, that would require 1,384 boat trips Every Day with 3.5 anglers all catching their 5 fish limit ..pretty neat trick. And, at 2.2lbs apiece the estimate amounts nearly half the entire recreational quota. Also of note, this private boat estimate is double the previous highest and triple or quadruple other May/June estimates.

To make Percentage of the Catch truly functional NOAA would have to conduct numerous interviews - presumably handed off to the states where managers should know many operators. It would also be advisable to seek input from summer commercial trap fishers. I’m quite certain this simple test could be made more accurate than MRIP or MRFSS estimates have ever been. I don’t make that statement lightly. I’ve been looking at NOAA’s catch data since 1998.

After several attempts at repair and two trips to the National Academy of Sciences (NAS) for review (with zero fishermen involved) - NOAA’s recreational catch data is nothing but a worsening mess.

To demonstrate MRIP’s capability for jaw-droppingly incorrect sea bass catch estimates—estimates anyone vaguely familiar with the fishery would instantly call False—one need only examine a few “Shore” sea bass landings.

For instance, in Sept/Oct 2018 Delaware’s Shore sea bass landings were estimated greater than all boat catches combined—More Than Double Party/Charter & Private Boat Together — and all DE’s exceptional boat anglers didn’t outfish jetty fishermen on sea bass? (4,864 Shore caught sea bass vs. 2117 by everyone who would actually likely catch one from a boat..)

Who in blazes could ever buy such nonsense?

Our top NOAA officials do. They FORCE bad data’s use on Managers at Commission/Council level.

Oh, I should mention those DE ‘shore caught’ sea bass were ‘larger’ too at 1.3lbs than Private Boaters caught, claims MRIP.

That's almost (but not quite!) as ridiculous as when MRIP estimated in Sept/Oct 2016 that Maryland shore 'landed' 178,000lbs of 1.4lb sea bass. That's every bit of 3 years of all MD Party/Charter landings with bigger fish and in just two months. We looked high and low. Finally found an angler who had caught a barely legal sea bass from MD Shore. It was not 1.4 lbs.

Other notable Shore catches:

In 2017 NJ shows over 50K lbs of Shore-caught sea bass that average 1.3 lbs apiece. VA had about 50K lbs too, but theirs averaged 1.8lbs.

Come 2019 VA's Shore numbers were up to 80K lbs, but their average size was down to 1.6lbs. NY's were also that big.

In 2020 RI took 36K lbs from shore that were darn near 3lbs apiece — average.

In 2021 there were almost 100K lbs caught from shore averaging 1.7 lbs..

If any of this sounds remotely plausible, you're not familiar with the sea bass fishery.

At all.

NY's Sept/Oct 2020 is the most likely shore estimate I've seen since the early 1990s — 15,800 NY Shore sea bass become 2,600lbs of catch at 0.2lbs apiece. (Black Will Fishing..) That might be the truest estimate in all of modern MRIP.

Still, it's funny how just the summer before NY's Shore caught sea bass averaged 1.6lbs apiece.

While these shore estimates have no bearing on NOAA's accusations of recreational overfishing—the numbers are just not large enough, this selection of Shore estimate errors should confirm MRIP is indeed capable of immense errors.

Promise- these seemingly huge shore errors will become minuscule when compared to what I'll demonstrate from Private Boat landings.

Although problems occasionally occur in Shore estimates, Private Boat is where big troubles lie.

Please consider NY's Private Boat estimates. As bad as the history of rec catch estimates has been, no state has gotten worse private boat estimates than NY has. Here MRIP's fabricated Private Boat catch has no bottom.

In wave 4 (July/Aug) 2020, with anglers allowed just three sea bass at 15inches, MRIP shows landings of 1.2 million lbs!

Run that through my Percentage of the Catch..

Instead of 637,000 sea bass at 2.4lbs apiece, take the Federal VTR submissions of 53,000 sea bass and the MRIP State Waters For Hire estimate of 34,000 (although NY based fishers in Long Island Sound are required to fill out NY state water VTRs, I don't have access to them and so am using MRIP's state water estimate.) Because the sample of NY's For-Hire skippers I spoke with believe they (Party/Charter) catch approximately 60% of NY's recreational sea bass, the Private Boat estimate would fall an order of magnitude to 58,200 sea bass.

I keep showing declines of an order of magnitude. Only after such a decline does an MRIP estimate appear to make sense.

Well, despite trust extended a warm rattlesnake, MRIP's been used to 'prove' there are many more fish out there. In 2019 managers raised commercial summer flounder quota 49% - a vast increase based on catch estimates I believe need to be lowered an order of magnitude to reflect actual catch.

Sea bass & scup too we're raised.

When we are accused of overfishing it's ghost catch - fish still swimming that have never seen a hook. By my considered estimation sea bass catch has been over-estimated an average of 7.25 million pounds over the last four years. That ghost quota results in tighter restrictions for recreational fishers.

Much tighter.

The worst over-estimate in recent years was in 2021 at 8.5M lbs. It may yet result in another 24% reduction in recreational sea bass quota this season.

It's catch that never occurred - but we're to be punished.

But when that ghost quota is converted to live fish -new quota- given to trawlers, those fish are going to get caught and sold ..if there's enough out there to land.

MRIP will, I believe, be the downfall of modern fisheries management. Unless action is taken soon to erase extra quota given to commercial fishers - quota that will become real landings & real overfishing - progress to date will be erased.

What a shame.

Regards,

Monty

Capt Monty Hawkins

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Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			Total Harvest All Modes Invented by MRIP (c - i)
											135,120	9,148	126,972	152,366	
2018	MD	SEP/OCT	6,319	128,801	135,120	7,318	0	7,318	25%	1,830	637,375	122,150	515,225	520,017	1,248,041
											319,947	4,779	315,168	315,923	726,622
											70,296	10,553	59,744	59,436	71,323
											1,065,287	55,239	1,010,048	1,013,117	2,228,857
											1,020,514	178,620	841,894	861,617	1,206,263
											352,369	22,017	330,352	337,334	809,602
											239,426	6,543	232,883	236,457	496,560

Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			Total Harvest All Modes Invented by MRIP (c - i)
											2018	ALL	ALL	477,748	
2019	ALL	ALL	781,438	3,443,982	4,225,420	425,160	271,756	696,916	N/A	412,989	4,225,420	1,109,905	3,115,515	3,030,993	6,356,607
2020	ALL	ALL	466,972	3,648,159	4,115,131	424,600	166,359	590,959	N/A	352,595	4,115,131	943,554	3,171,577	3,295,564	7,568,982
2021	ALL	ALL	507,712	4,802,226	5,309,938	440,349	250,567	690,916	N/A	402,388	5,309,938	1,093,304	4,216,634	4,399,838	8,556,057



Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
2018	MD	MAY/JUN	3,489	0	3,489	9,700	0	9,700	25%	2,425	3,489		-2,425	0
											12,125			
											-8,636			
2018	MD	JUL/AUG	13,038	0	13,038	3,231	0	3,231	25%	808	13,038		-808	0
											4,039			
											8,999			
2018	MD	SEP/OCT	6,319	128,801	135,120	7,318	0	7,318	25%	1,830	135,120		126,972	152,366
											9,148			
											125,973			
2018	MD	NOV/DEC	1,369	1,181	2,550	4,508	0	4,508	25%	1,127	2,550		54	59
											5,635			
											-3,085			
2019	MD	MAY/JUN	11,755	48,119	59,874	10,136	0	10,136	25%	2,534	59,874		45,585	50,144
											12,670			
											47,204			
2019	MD	JUL/AUG	9,388	16,238	25,626	3,897	0	3,897	25%	974	25,626		15,264	18,317
											4,871			
											20,755			
2019	MD	SEP/OCT	19,201	3,900	23,101	12,337	0	12,337	25%	3,084	23,101		816	1,142
											15,421			
											7,680			
2019	MD	NOV/DEC	4,089	16,741	20,830	8,280	0	8,280	25%	2,070	20,830		14,671	19,072
											10,350			
											10,480			
2020	MD	MAY/JUN	1,560	20,621	22,181	5,394	0	5,394	25%	1,349	22,181		19,273	21,200
											6,743			
											15,439			
2020	MD	JUL/AUG	3,221	11,289	14,510	5,868	493	6,361	25%	1,590	14,510		9,699	12,608
											7,951			
											6,559			
2020	MD	SEP/OCT	24,563	1,401	25,964	15,833	413	16,246	25%	4,062	25,964		-2,661	-2,394
											20,308			
											5,657			

Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			Total Harvest All Modes Invented by MRIP (c - i)
											2020	MD	NOV/DEC	14,401	
2021	MD	MAY/JUN	8,889	103,265	112,154	12,666	0	12,666	25%	3,167	112,154	15,833	96,322	100,099	130,128
2021	MD	JUL/AUG	8,219	22,505	30,724	6,376	91	6,467	25%	1,617	30,724	8,084	22,640	20,888	22,977
2021	MD	SEP/OCT	8,222	40,178	48,400	3,358	20	3,378	25%	845	48,400	4,223	44,178	39,334	51,134

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)		Positive/Negative Value = MRIP Over/Under Estimate	
2018	NY	MAY/JUN	2,978	14,680	17,658	10,135	2,921	13,056	40%	5,222	17,658	9,458	17,024	
											18,278			
											-620			
2018	NY	JUL/AUG	30,718	401,128	431,846	58,498	13,845	72,343	40%	28,937	431,846	372,191	707,163	
											101,280			
											330,566			
2018	NY	SEP/OCT	39,717	339,496	379,213	37,172	19,789	56,961	40%	22,784	379,213	316,712	696,766	
											79,745			
											299,468			
2018	NY	NOV/DEC	20,630	3,961	24,591	16,250	0	16,250	40%	6,500	24,591	-2,539	-5,586	
											22,750			
											1,841			
2019	NY	MAY/JUN	2,580	77,621	80,201	9,222	2,580	11,802	40%	4,721	80,201	72,900	116,640	
											16,523			
											63,678			
2019	NY	JUL/AUG	105,505	513,223	618,728	59,427	48,432	107,859	40%	43,144	618,728	470,079	940,159	
											151,003			
											467,725			
2019	NY	SEP/OCT	57,203	352,618	409,821	45,549	32,301	77,850	40%	31,140	409,821	321,478	578,660	
											108,990			
											300,831			
2019	NY	NOV/DEC	27,178	435,873	463,051	22,584	124	22,708	40%	9,083	463,051	426,790	938,938	
											31,791			
											431,260			
2020	NY	MAY/JUN	5,417	67,981	73,398	5,607	5,417	11,024	40%	4,410	73,398	63,571	127,143	
											15,434			
											57,964			
2020	NY	JUL/AUG	82,458	554,917	637,375	52,894	34,356	87,250	40%	34,900	637,375	520,017	1,248,041	
											122,150			
											515,225			
2020	NY	SEP/OCT	81,782	267,022	348,804	49,306	44,332	93,638	40%	37,455	348,804	229,567	482,090	
											131,093			
											217,711			

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)	Positive/Negative Value = MRIP Over/Under Estimate		
2020	NY	NOV/DEC	38,989	159,646	198,635	23,295	4,036	27,331	40%	10,932	198,635	38,263	148,714	371,784
											160,372			
											101,396			
2021	NY	MAY/JUN	32,599	68,797	101,396	10,957	12,451	23,408	40%	9,363	32,771	68,625	59,434	118,868
											246,215			
											183,247			
2021	NY	JUL/AUG	74,639	171,576	246,215	69,723	61,168	130,891	40%	52,356	62,968	306,354	119,220	250,361
											172,771			
											133,583			
2021	NY	SEP/OCT	79,569	226,785	306,354	49,324	74,084	123,408	40%	49,363	0	39,227	177,422	354,844
											-39,227			
											0			
2021	NY	NOV/DEC	0	0	0	28,019	0	28,019	40%	11,208	0	39,227	-11,208	0
											-39,227			
											0			

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)			
2018	CT	MAY/JUN	14,696	55,294	69,990	1,977	14,696	16,673	60%	10,004	69,990		45,290	90,580
											26,677			
											43,313			
2018	CT	JUL/AUG	9,072	204,475	213,547	11,534	9,072	20,606	60%	12,364	213,547		192,111	461,067
											32,970			
											180,577			
2018	CT	SEP/OCT	3,492	89,705	93,197	6,594	1,447	8,041	60%	4,825	93,197		84,880	186,737
											12,866			
											80,331			
2019	CT	MAY/JUN	8,301	52,380	60,681	2,146	8,301	10,447	60%	6,268	60,681		46,112	119,891
											16,715			
											43,966			
2019	CT	JUL/AUG	39,226	179,594	218,820	13,962	37,827	51,789	60%	31,073	218,820		148,521	341,597
											82,862			
											135,958			
2019	CT	SEP/OCT	11,118	89,571	100,689	8,871	10,038	18,909	60%	11,345	100,689		78,226	148,629
											30,254			
											70,435			
2019	CT	NOV/DEC	225	135,186	135,411	4,115	125	4,240	60%	2,544	135,411		132,642	318,341
											6,784			
											128,627			
2020	CT	MAY/JUN	3,207	51,716	54,923	809	3,207	4,016	60%	2,410	54,923		49,306	113,405
											6,426			
											48,497			
2020	CT	JUL/AUG	6,262	173,823	180,085	8,055	5,474	13,529	60%	8,117	180,085		165,706	381,123
											21,646			
											158,439			
2020	CT	SEP/OCT	13,004	143,647	156,651	8,599	9,726	18,325	60%	10,995	156,651		132,652	265,304
											29,320			
											127,331			
2020	CT	NOV/DEC	1,083	14,559	15,642	4,053	17	4,070	60%	2,442	15,642		12,117	29,081
											6,512			
											9,130			

Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			
											Total Harvest All Modes Invented by MRIP (c - i)		Positive/Negative Value = MRIP Over/Under Estimate		
2021	CT	MAY/JUN	2,232	317,715	319,947	755	2,232	2,987	60%	1,792	319,947	4,779	315,168	315,923	726,622
											4,779				
											315,168				
2021	CT	JUL/AUG	9,454	120,486	129,940	5,208	7,968	13,176	60%	7,906	129,940	21,082	108,858	112,580	247,677
											21,082				
											108,858				
2021	CT	SEP/OCT	11,881	290,611	302,492	5,371	11,597	16,968	60%	10,181	302,492	27,149	275,343	280,430	785,205
											27,149				
											275,343				

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)			
2018	DE	MAY/JUN	2,097	20,816	22,913	4,382	0	4,382	50%	2,191	22,913		18,625	26,075
											6,573			
											16,340			
2018	DE	JUL/AUG	115	4,948	5,063	958	1	959	50%	480	5,063		4,469	7,150
											1,439			
											3,625			
2018	DE	SEP/OCT	505	1,612	2,117	3,032	6	3,038	50%	1,519	2,117		93	102
											4,557			
											-2,440			
2018	DE	NOV/DEC	80	52,957	53,037	2,283	0	2,283	50%	1,142	53,037		51,816	56,997
											3,425			
											49,613			
2019	DE	MAY/JUN	5,895	4,526	10,421	3,744	15	3,759	50%	1,880	10,421		2,647	3,970
											5,639			
											4,783			
2019	DE	JUL/AUG	1,254	5,793	7,047	2,044	386	2,430	50%	1,215	7,047		4,578	5,494
											3,645			
											3,402			
2019	DE	SEP/OCT	4,597	15,695	20,292	3,962	2,359	6,321	50%	3,161	20,292		12,535	20,055
											9,482			
											10,811			
2019	DE	NOV/DEC	171	1,776	1,947	1,588	0	1,588	50%	794	1,947		982	1,571
											2,382			
											-435			
2020	DE	MAY/JUN	1,801	36,272	38,073	1,194	0	1,194	50%	597	38,073		35,675	49,945
											1,791			
											36,282			
2020	DE	JUL/AUG	661	51,742	52,403	3,237	53	3,290	50%	1,645	52,403		50,097	75,146
											4,935			
											47,468			
2020	DE	SEP/OCT	1,459	38,229	39,688	2,287	117	2,404	50%	1,202	39,688		37,027	40,730
											3,606			
											36,082			

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)		Positive/Negative Value = MRIP Over/Under Estimate	
2020	DE	NOV/DEC	152	10,579	10,731	684	0	684	50%	342	10,731	10,237	12,284	
											1,026			
											9,705			
2021	DE	MAY/JUN	9,672	56,356	66,028	6,427	0	6,427	50%	3,214	66,028	53,143	74,400	
											9,641			
											56,388			
2021	DE	JUL/AUG	7,343	62,953	70,296	7,024	11	7,035	50%	3,518	70,296	59,436	71,323	
											10,553			
											59,744			
2021	DE	SEP/OCT	4,227	29,408	33,635	3,809	29	3,838	50%	1,919	33,635	27,489	43,982	
											5,757			
											27,878			



Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)	Positive/Negative Value = MRIP Over/Under Estimate		
2018	MA	MAY/JUN	36,083	508,103	544,186	6,594	35,329	41,923	85%	35,635	544,186	77,558		
											466,628	472,468	1,322,912	
											92,565			
2018	MA	JUL/AUG	13,659	78,906	92,565	1,110	6,884	7,994	85%	6,795	14,789	77,776		
											36,977	72,111	165,856	
											211			
2018	MA	SEP/OCT	455	36,522	36,977	69	45	114	85%	97	36,977	211		
											36,766	36,425	87,420	
											294,982			
2019	MA	MAY/JUN	30,685	264,297	294,982	6,172	30,162	36,334	85%	30,884	67,218	227,764		
											146,788	233,413	630,215	
											63,623			
2019	MA	JUL/AUG	34,040	112,748	146,788	2,017	32,374	34,391	85%	29,232	83,165	73,749		
											83,516	200,438		
											1,941			
2019	MA	SEP/OCT	1,001	72,748	73,749	48	1,001	1,049	85%	892	71,808	1,941		
											71,856	165,270		
											374,861			
2020	MA	MAY/JUN	6,550	368,311	374,861	4,954	6,550	11,504	85%	9,778	21,282	353,579		
											358,533	1,003,891		
											144,210			
2020	MA	JUL/AUG	8,034	136,176	144,210	2,331	7,572	9,903	85%	8,418	18,321	125,889		
											127,758	319,396		
											51,555			
2020	MA	SEP/OCT	4,683	46,872	51,555	672	3,522	4,194	85%	3,565	7,759	43,307		
											43,307	99,606		
											43,796			

Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			Total Harvest All Modes Invented by MRIP (c - i)
											2021	MA	MAY/JUN	26,790	
2021	MA	JUL/AUG	10,107	85,402	95,509	1,122	9,393	10,515	85%	8,938	95,509	19,453	76,056	76,464	160,575
2021	MA	SEP/OCT	57	7,536	7,593	136	57	193	85%	164	7,593	357	7,236	7,372	16,218

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)			
2018	NJ	MAY/JUN	130,156	406,773	536,929	42,476	505	42,981	40%	17,192	536,929		389,581	545,413
											60,173			
											476,756			
2018	NJ	JUL/AUG	65,715	158,253	223,968	29,546	6,863	36,409	40%	14,564	223,968		143,689	186,796
											50,973			
											172,995			
2018	NJ	SEP/OCT	33,402	186,395	219,797	19,434	8,958	28,392	40%	11,357	219,797		175,038	262,557
											39,749			
											180,048			
2018	NJ	NOV/DEC	19,367	22,093	41,460	27,770	0	27,770	40%	11,108	41,460		10,985	12,084
											38,878			
											2,582			
2019	NJ	MAY/JUN	213,996	265,785	479,781	74,726	33,913	108,639	40%	43,456	479,781		222,329	355,727
											152,095			
											327,686			
2019	NJ	JUL/AUG	62,258	123,908	186,166	30,010	8,446	38,456	40%	15,382	186,166		108,526	119,378
											53,838			
											132,328			
2019	NJ	SEP/OCT	104,867	22,210	127,077	16,923	11,610	28,533	40%	11,413	127,077		10,797	11,876
											39,946			
											87,131			
2019	NJ	NOV/DEC	8,403	29,814	38,217	36,639	4,158	40,797	40%	16,319	38,217		13,495	24,291
											57,116			
											-18,899			
2020	NJ	MAY/JUN	45,419	399,790	445,209	86,200	2,859	89,059	40%	35,624	445,209		364,166	546,250
											124,683			
											320,526			
2020	NJ	JUL/AUG	24,978	164,322	189,300	21,824	5,609	27,433	40%	10,973	189,300		153,349	230,023
											38,406			
											150,894			
2020	NJ	SEP/OCT	29,195	133,036	162,231	26,113	3,941	30,054	40%	12,022	162,231		121,014	266,232
											42,076			
											120,155			

Black Sea Bass (Number of Fish)														
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Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)		Positive/Negative Value = MRIP Over/Under Estimate	
2020	NJ	NOV/DEC	12,869	2,471	15,340	25,226	0	25,226	40%	10,090	15,340	-7,619	-11,429	
											35,316			
											-19,976			
2021	NJ	MAY/JUN	107,863	912,651	1,020,514	103,148	24,438	127,586	40%	51,034	1,020,514	861,617	1,206,263	
											178,620			
											841,894			
2021	NJ	JUL/AUG	12,921	224,851	237,772	21,423	4,907	26,330	40%	10,532	237,772	214,319	278,615	
											36,862			
											200,910			
2021	NJ	SEP/OCT	38,299	258,993	297,292	17,477	3,377	20,854	40%	8,342	297,292	250,651	325,847	
											29,196			
											268,096			

Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			Total Harvest All Modes Invented by MRIP (c - i)
											0	54,849	-54,849	4,446	
2021	NJ	NOV/DEC	0	0	0	39,178	0	39,178	40%	15,671	0	54,849	-54,849	-15,671	0
2018	RI	MAY/JUN	2,500	1,946	4,446	767	2,458	3,225	85%	2,741	4,446	5,966	-1,520	-795	-1,670
2018	RI	JUL/AUG	20,703	323,280	343,983	17,927	16,760	34,687	85%	29,484	343,983	64,171	279,812	293,796	675,731
2018	RI	SEP/OCT	4,919	347,450	352,369	9,746	2,155	11,901	85%	10,116	352,369	22,017	330,352	337,334	809,602
2018	RI	NOV/DEC	160	0	160	1,474	8	1,482	85%	1,260	160	2,742	-2,582	-1,260	0
2019	RI	MAY/JUN	175	6,992	7,167	1,222	175	1,397	85%	1,187	7,167	2,584	4,583	5,805	12,770
2019	RI	JUL/AUG	7,299	306,724	314,023	16,205	5,263	21,468	85%	18,248	314,023	39,716	274,307	288,476	692,343
2019	RI	SEP/OCT	3,197	120,245	123,442	8,723	1,836	10,559	85%	8,975	123,442	19,534	103,908	111,270	267,048
2019	RI	NOV/DEC	220	0	220	2,376	119	2,495	85%	2,121	220	4,616	-4,396	-2,121	0
2020	RI	MAY/JUN	1,304	12,802	14,106	1,624	1,260	2,884	85%	2,451	14,106	5,335	8,771	10,351	27,947
2020	RI	JUL/AUG	23,027	217,931	240,958	17,256	15,042	32,298	85%	27,453	240,958	59,751	181,207	190,478	457,146

Black Sea Bass (Number of Fish)															
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Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			Total Harvest All Modes Invented by MRIP (c - i)
											260,461	42,419	218,042		
2020	RI	SEP/OCT	19,364	241,097	260,461	11,520	11,409	22,929	85%	19,490	86,063	4,344	81,719	221,607	531,858
2020	RI	NOV/DEC	1,017	85,046	86,063	1,507	841	2,348	85%	1,996	11,257	1,378	9,879	83,050	199,320
2021	RI	MAY/JUN	518	10,739	11,257	448	297	745	85%	633	231,120	38,674	192,446	10,106	24,254
2021	RI	JUL/AUG	21,385	209,735	231,120	10,739	10,166	20,905	85%	17,769	202,701	21,808	180,893	191,966	422,325
2021	RI	SEP/OCT	9,573	193,128	202,701	9,967	1,821	11,788	85%	10,020	4	2,756	-2,752	183,108	402,838
2018	VA	MAR/APR	4	0	4	1,531	0	1,531	80%	1,225				-1,225	0

Black Sea Bass (Number of Fish)														
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)		
											Total Harvest All Modes Invented by MRIP (c - i)			
2018	VA	MAY/JUN	641	23,773	24,414	2,373	9	2,382	80%	1,906	24,414		21,867	43,735
											4,288			
											20,126			
2018	VA	JUL/AUG	1,449	34,013	35,462	611	17	628	80%	502	35,462		33,511	26,808
											1,130			
											34,332			
2018	VA	SEP/OCT	220	2,475	2,695	4,114	0	4,114	80%	3,291	2,695		-816	-735
											7,405			
											-4,710			
2018	VA	NOV/DEC	0	0	0	3,162	0	3,162	80%	2,530	0		-2,530	0
											5,692			
											-5,692			
2019	VA	MAR/APR	12	0	12	2,435	0	2,435	80%	1,948	12		-1,948	0
											4,383			
											-4,371			
2019	VA	MAY/JUN	91	13,392	13,483	2,811	0	2,811	80%	2,249	13,483		11,143	21,172
											5,060			
											8,423			
2019	VA	JUL/AUG	211	15,915	16,126	607	0	607	80%	486	16,126		15,429	27,773
											1,093			
											15,033			
2019	VA	SEP/OCT	4,716	18,402	23,118	6,739	211	6,950	80%	5,560	23,118		12,842	29,537
											12,510			
											10,608			
2019	VA	NOV/DEC	2,581	121,948	124,529	5,643	0	5,643	80%	4,514	124,529		117,434	176,150
											10,157			
											114,372			
2020	VA	MAR/APR	0	0	0	3,178	0	3,178	80%	2,542	0		-2,542	0
											5,720			
											-5,720			
2020	VA	MAY/JUN	216	18,918	19,134	2,228	2	2,230	80%	1,784	19,134		17,134	34,268
											4,014			
											15,120			

Black Sea Bass (Number of Fish)															
			MRIP HARVEST ALL AREAS COMBINED			HARVEST BASED ON FOR-HIRE CAPTAINS' OBSERVATIONS OF PRIVATE BOAT FISHING ACTIVITY					COMPARISON OF MRIP AND BY % ESTIMATES		Private Boat Harvest Invented by MRIP (b-h)	Private Boat Weight (lbs) Invented by MRIP	
Year	State	Wave	All For-hire Modes (a)	Private and Rental Boats (b)	Private, Rental Boat and For-hire c=(a+b)	VTR's For-hire Federal Waters (d)	MRIP For-hire State Waters (e)	All For-hire Modes All Waters f=(d+e)	Percentage of For-hire Harvest as Estimated by Party/Charter Captains (g)	Private Harvest As % Observed by For-hire Captains h=f*g	MRIP Harvest Estimate (c)	By % Harvest Estimate i = (f+h)			
											Total Harvest All Modes Invented by MRIP (c - i)		Positive/Negative Value = MRIP Over/Under Estimate		
2020	VA	JUL/AUG	275	72,132	72,407	1,585	111	1,696	80%	1,357	72,407	3,053	69,354	70,775	304,333
											3,053				
											69,354				
2020	VA	SEP/OCT	3,099	4,151	7,250	7,361	0	7,361	80%	5,889	7,250	13,250	-6,000	-1,738	-6,951
											13,250				
											-6,000				
2020	VA	NOV/DEC	6,922	137,729	144,651	9,022	0	9,022	80%	7,218	144,651	16,240	128,411	130,511	339,330
											16,240				
											128,411				
2021	VA	MAR/APR	6	0	6	3,320	0	3,320	80%	2,656	6	5,976	-5,970	-2,656	0
											5,976				
											-5,970				
2021	VA	MAY/JUN	61	239,365	239,426	3,630	5	3,635	80%	2,908	239,426	6,543	232,883	236,457	496,560
											6,543				
											232,883				
2021	VA	JUL/AUG	6,905	70,131	77,036	3,466	94	3,560	80%	2,848	77,036	6,408	70,628	67,283	80,740
											6,408				
											70,628				
2021	VA	SEP/OCT	16,281	40,563	56,844	13,780	0	13,780	80%	11,024	56,844	24,804	32,040	29,539	35,447
											24,804				
											32,040				