



Summer Flounder, Scup, & Black Sea Bass Commercial/Recreational Allocation Amendment

Joint Council and Board Meeting
April 6, 2021



Meeting Objectives

- Brief recap of alternatives
- Review public comments
- Review advisory panel recommendations
- Review FMAT discussion and recommendations
- Consider final action

Amendment Timeline Considerations

If final action is taken today...

Apr – Dec 2021	Document submission and rulemaking
2022/2023	Implementation year depends on several factors: 1) Is this action the highest priority? 2) Is delay acceptable in black sea bass commercial allocation amendment and/or the rec reform initiative?

If action is delayed to Dec 2021...

Dec 2021– Dec 2022	Document submission and rulemaking
2023	Target implementation Date

Amendment Purposes & Alternatives

1. Consider potential modifications to the allocations of catch or landings between the commercial and recreational sectors for summer flounder, scup, and black sea bass: **Alternative set 1**
2. Consider the option to transfer a portion of the allowable landings each year between the commercial and recreational sectors: **Alternative set 2**
3. Consider whether future modifications to the com/rec allocation and/or transfer provisions can be achieved through an FMP addendum/framework action: **Alternative set 3**

Catch vs. Landings-Based Allocations

Catch-based allocations

- Allocation **applied to entire ABC** (landings + dead discards)
- Changes in landings and dead discards in one sector do not influence the other sector's Annual Catch Limit (ACL).
- Dead discards projected for each sector; subtracted from sector ACLs to determine landings limits.

Landings-based allocations

- Allocation **applied only to landings portion of ABC**. Requires first splitting ABC into expected landings & dead discards.
- Dead discards are split by sector usually based on recent trends.
- Changes in landings and dead discards in one sector influence the catch and landings limits of the other sector.

Under Both Approaches:

- Com. and rec. ACLs, ACTs, commercial quota and RHL are required. Does not change the way the fisheries are managed under these limits.
- Dead discards must be projected and accounted for by sector.
- Separate Accountability Measures (AMs) still required for each sector

Main difference: the step in the calculations at which the com/rec allocation percentages are applied.

Catch vs. Landings-Based Allocations

- **Resulting allocation percentages not directly comparable** as allocations are applied to landings in one method and catch in another

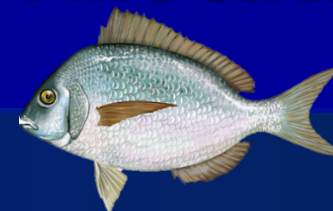
Summer Flounder Commercial/Recreational Allocation



Summer Flounder: Alternative Set 1a

Catch based alternatives	Basis
1a-1: 44% com., 56% rec.	2004-2018 base years
1a-2: 43% com., 57% rec.	Multiple approaches: 2009-2018 base years, approximate status quo harvest per sector compared to 2017/2018
1a-3: 40% com., 60% rec.	2014-2018 base years
Landings based alternatives	Basis
1a-4: 60% com., 40% rec.	No action/status quo (1980-1989)
1a-5: 55% com., 45% rec.	Same base years, new data (1981-1989; 1980 data unavailable)
1a-6: 45% com., 55% rec.	Multiple approaches: 2009-2018 and 2004-2018 base years
1a-7: 41% com., 59% rec.	2014-2018 base years

Scup Commercial/Recreational Allocation



Scup: Alternative Set 1b

Catch based alternatives	Basis
1b-1: 78% com., 22% rec.	No action/status quo (1988-1992)
1b-2: 65% com., 35% rec.	Same base years, new data (1988-1992)
1b-3: 61% com., 39% rec.	Multiple approaches: 2009-2018 base years and average of other approaches approved by Council/Board in June 2020
1b-4: 59% com., 41% rec.	Approximate status quo harvest per sector compared to 2018/2019
Landings based alternatives	Basis
1b-5: 57% com., 43% rec.	Multiple approaches: Same base years, new data; 2014-2018 base years; 2009-2018 base years
1b-6: 56% com., 44% rec.	2004-2018 base years
1b-7: 50% com., 50% rec.	Approximate status quo harvest per sector compared to 2018/2019

Black Sea Bass Commercial/Recreational Allocation



Black sea bass: Alternative Set 1c

Catch based alternatives

Basis

1c-1: 32% com., 68% rec.

Approximate status quo harvest per sector compared to 2018/2019

1c-2: 28% com., 72% rec.

2004-2018 base years

1c-3: 24% com., 76% rec.

2009-2018 base years

Landings based alternatives

Basis

1c-4: 49% com., 51% rec.

No action/status quo (1983-1992)

1c-5: 45% com., 55% rec.

Same base years, new data (1983-1992)

1c-6: 29% com., 71% rec.

Approximate status quo harvest per sector compared to 2018/2019

1c-7: 22% com., 78% rec.

2009-2018 and 2014-2018 base years

Allocation Revision Impacts

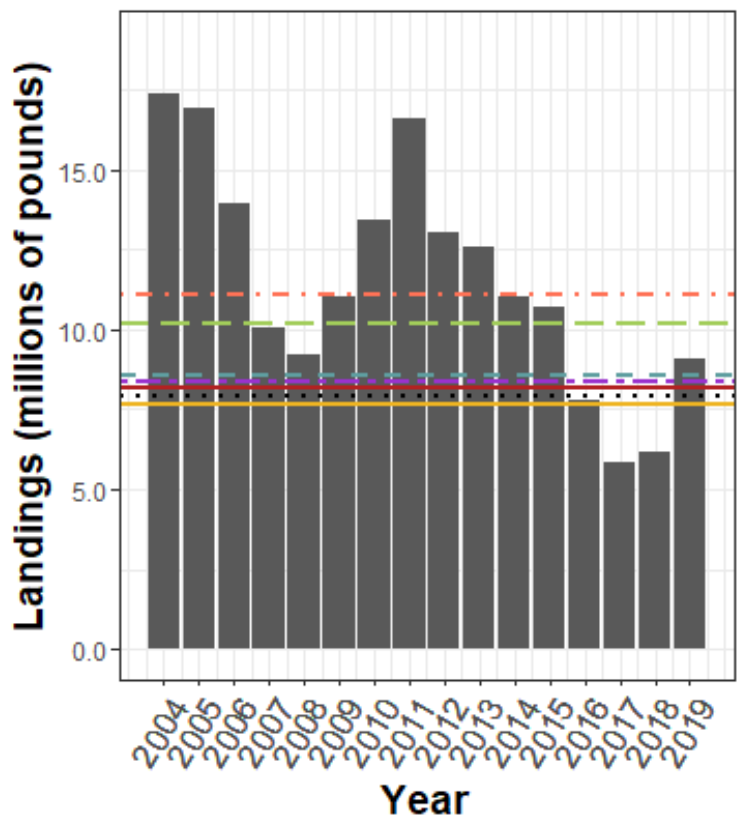
- **We cannot precisely predict future quotas and RHLs under current or revised allocations**
 - Depend on future biomass projections and resulting ABCs (unknown beyond 2021)
 - Also depend on annual projections of sector-specific dead discards (Monitoring Committee recommends, usually based on recent trends)
 - Discarding patterns may change with revised allocations – example quotas and RHLs attempt to account for this

Allocation Revision Impacts

- Example quotas and RHLs developed using 2020 ABCs and regression method to predict future discards (see Appendix C for details)
 - Discards are positively correlated with landings
- **Example quotas and RHLs should be taken with a grain of salt; actual limits will vary under different ABCs and changes to discard patterns**

Allocation Revision Impacts: Summer Flounder

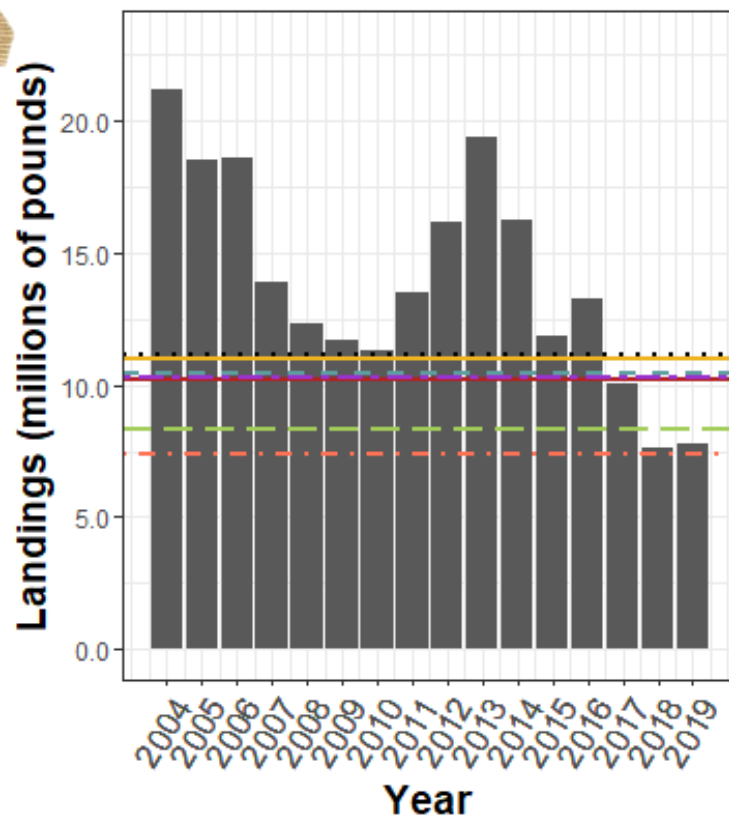
Commercial



- Alternatives
- Alternative 1a-1
 - - - Alternative 1a-2
 - · · Alternative 1a-3
 - · - Alternative 1a-4*
 - - - Alternative 1a-5
 - - - Alternative 1a-6
 - - - Alternative 1a-7

*Status quo

Recreational

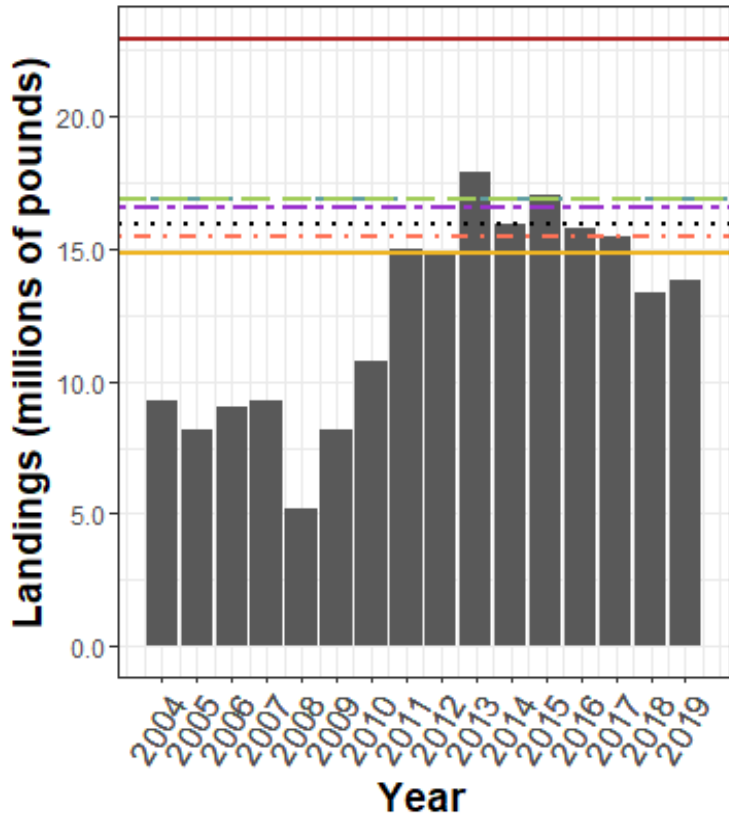


2004-2019 commercial and recreational summer flounder landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC

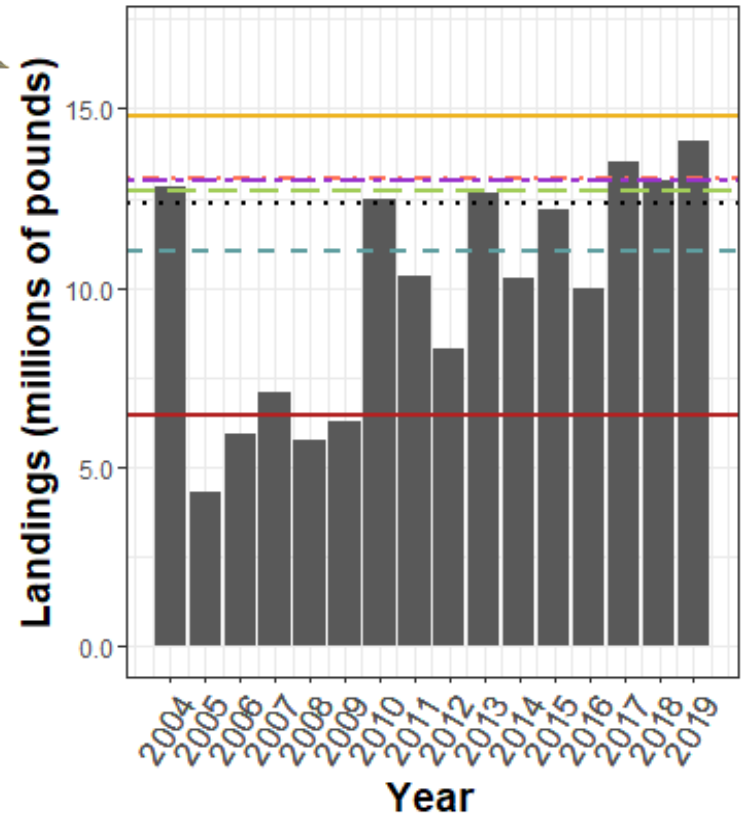
Allocation Revision Impacts: Scup



Commercial



Recreational



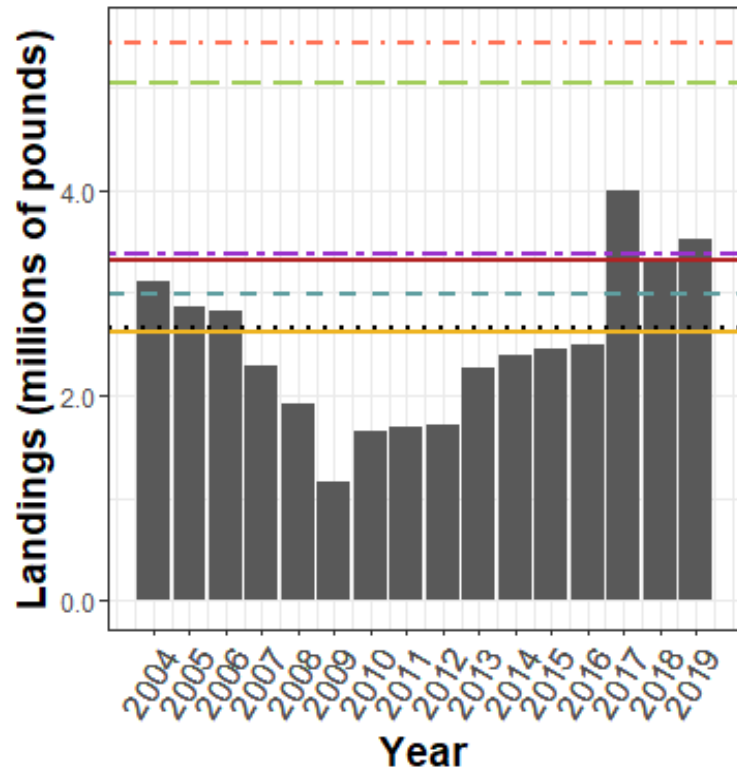
- Alternatives
- Alternative 1b-1*
 - - - Alternative 1b-2
 - ... Alternative 1b-3
 - . - Alternative 1b-4
 - - - Alternative 1b-5
 - - - Alternative 1b-6
 - - - Alternative 1b-7
- *Status quo

2004-2019 commercial and recreational scup landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC

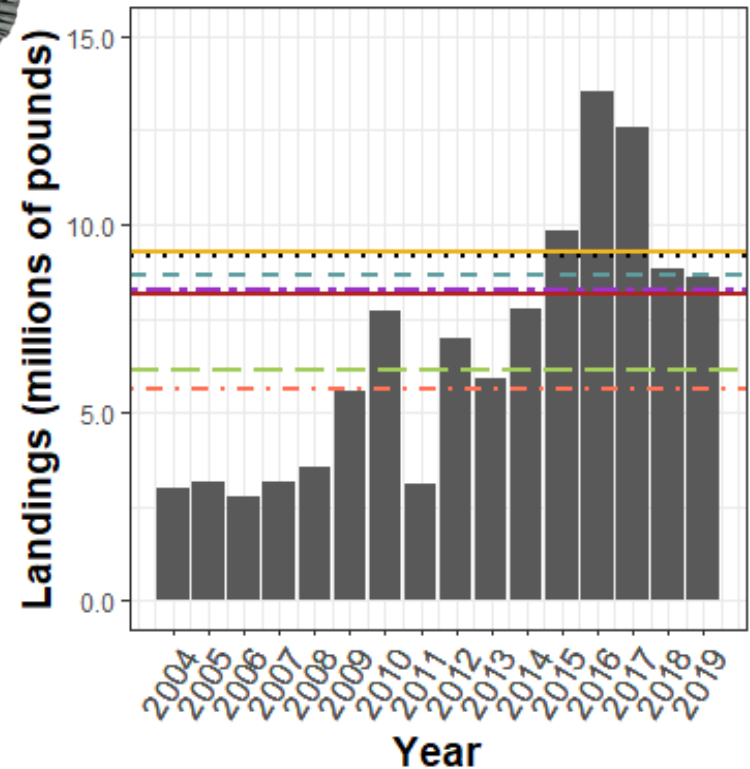
Allocation Revision Impacts: Black Sea Bass



Commercial



Recreational



- Alternatives
- Alternative 1c-1
 - - - Alternative 1c-2
 - ... Alternative 1c-3
 - · - Alternative 1c-4 *
 - - - Alternative 1c-5
 - - - Alternative 1c-6
 - Alternative 1c-7
- *Status quo

2004-2019 commercial and recreational black sea bass landings with comparison to example commercial quotas and RHLs developed using the 2020 ABC

Allocation change phase-in alternatives

- Options for phase-in of allocation changes (alternative set 1d; section 4.3)

Alternative

1d-1: No phase-in

1d-2: Allocation % shift evenly divided over **2 yrs**

1d-3: Allocation % shift evenly divided over **3 yrs**

1d-4: Allocation % shift evenly divided over **5 yrs**

- Specific phase-in percent shifts under each alternative shown in Tables 11-13 in hearing document

Transfers Between Sectors

Transfer Alternatives

2a: No action (transfers between sectors not allowed).

2b: Allow optional bi-directional transfers through the specifications process.

- Need for transfer evaluated by Monitoring Committee in July based on prior year's data (current year projections not possible)
- Council/Board decision in August; implemented with specifications rulemaking in December

Transfer Cap Alternatives

2c-1: No transfer cap; any amount of the ABC be transferred.

2c-2: Max transfer of 5% of the ABC.

2c-3: Max transfer of 10% of the ABC.

2c-4: Max transfer of 15% of the ABC.

Transfers Between Sectors

Pros

- Added flexibility
- Could prevent overages in one sector
- Optional; tool in the toolbox

Cons

- Can't accurately project current year harvest; older data needed
- Difficult to evaluate need for transfer
- Likely desire to liberalize rec. measures instead of transferring projected rec. underage to commercial sector

Transfer Cap Impacts

- **Higher caps** = more management flexibility, but potentially more complex decision-making and potential fluctuation in limits
- **Lower caps** = less flexibility, but reduces complexity and potential annual fluctuation in limits

Changes Through Frameworks/Addenda

Framework/addendum provision alternatives

3a: No action

3b: Allow future changes to com/rec allocations, transfers, and other measures included in this amendment to be made through framework actions/addenda

- Frameworks/addenda: more efficient, but fewer comment opportunities
- Amendment may be used if appropriate or necessary--tool in the toolbox

Public Comments

- 5 virtual hearings (MA & RI, CT & NY, NJ, DE & MD, VA & NC)
- Written comment period Jan 15 – March 16

Primary sector	# individuals/ organizations	Percent of total
Commercial sector	229	69%
Recreational sector	77	23%
Unknown/not specified	13	4%
Multiple	11	3%
Other	4	1%
Total	334	100%

Comment Summary Totals

Change the allocations or not?

Comment Topic/Theme	#individuals/ organizations	% of commenters
General Positions on Allocation Changes		
Status quo allocation for all 3 species	230	69%
Support allocation change for at least one species	50	15%
Support summer flounder allocation change	45	14%
Support scup allocation change	40	12%
Support black sea bass allocation change	43	13%

Comments on summer flounder allocation percentage alternatives

Summer Flounder		
1a-1: 44% com, 56% rec (catch based)	4	1%
1a-2: 43% com, 57% rec (catch based)	12	4%
1a-3: 40% com., 60% rec. (catch based)	16	5%
1a-4: 60% com, 40% rec (status quo; landings based)	230	69%
1a-5: 55% com, 45% rec (landings based)	0	0%
1a-6: 45% com, 55% rec (landings based)	8	2%
1a-7: 41% com 59% rec. (landings based)	5	1%

Comments on scup allocation percentage alternatives

Scup		
1b-1: 78% com, 22% rec (status quo; catch based)	231	69%
1b-2: 65% com, 35% rec (catch based)	1	0%
1b-3: 61% com, 39% rec (catch based)	18	5%
1b-4: 59% com, 41% rec (catch based)	8	2%
1b-5: 57% com, 43% rec (landings based)	9	3%
1b-6: 56% com, 44% rec (landings based)	0	0%
1b-7: 50% com, 50% rec (landings based)	4	1%

Comments on black sea bass allocation percentage alternatives

Black Sea Bass		
1c-1: 32% com, 68% rec (catch based)	10	3%
1c-2: 28% com, 72% rec (catch based)	8	2%
1c-3: 24% com, 76% rec (catch based)	10	3%
1c-4: 49% com, 51% rec (status quo; landings based)	234	70%
1c-5: 45% com, 55% rec (landings based)	0	0%
1c-6: 29% com, 71% rec (landings based)	10	3%
1c-7: 22% com, 78% rec (landings based)	5	1%

Common Themes or Justifications Related to Allocation Comments

Com sector cannot afford to lose quota/livelihoods are at stake	167	50%
Negative impacts to general public if lower com allocation	134	40%
Com fishery is much more controlled/constrained than rec	25	7%
Com catch is much better quantified than rec	25	7%
More rec accountability is needed (e.g., overage paybacks)	16	5%
Reallocation will turn com landings into rec dead discards	23	7%
Concerns about validity of data (mostly referring to MRIP, but a few concerns about commercial data also expressed)	15	4%
Alts don't have strong scientific basis or basis is not well justified	7	2%
Impacts analysis is not sufficient or complete	3	1%
Recreational Reform first or instead of allocation changes	35	10%
Support Rec Reform, but not instead of or before this action	11	3%
Allocations should use new MRIP (best available science)/ allocations should account for recent fishery conditions	15	4%

Catch vs Landings Based Allocations

Catch vs. Landings Based Approaches		
Supported at least one catch-based alternative (and no landings-based alternatives)	18	5%
Supported catch-based as a concept	16	5%
Supported at least one landings-based alternative (and no catch-based alternatives)	3	1%
Supported landings-based as a concept	2	1%

Comments on Phase In

Phase-In Alternatives		
1d-1: No phase-in (status quo)	21	6%
1d-2: Allocation % shift evenly divided over 2 yrs	10	3%
1d-3: Allocation % shift evenly divided over 3 yrs	1	0%
1d-4: Allocation % shift evenly divided over 5 yrs	1	0%

Transfer Provisions

Transfer Provisions		
2a: No transfers (status quo)	184	55%
2b: Allow optional bi-directional transfers	18	5%
2c-1: No transfer cap; any amount of ABC	3	1%
2c-2: Max transfer of 5% of the ABC	5	2%
2c-3: Max transfer of 10% of the ABC	6	2%
2c-4: Max transfer of 15% of the ABC	1	0%

Frameworks/Addenda

Framework/Addendum Provisions		
3a: No action (status quo)	178	53%
3b: Allow future changes to com/rec allocations, transfers, and other measures included in this amendment to be made through framework actions/addenda	21	6%

Other Comments Not Directly Related to Amendment Alternatives

Comments on rec bag/size/season limits (e.g., should be liberalized)	36	11%
Discards are a problem	19	6%
General concerns about stock status and impacts of fisheries generally	11	3%
Com fishing is detrimental/should be reduced (e.g., privatization of a public resource, fishing mortality during spawning season, bycatch)	13	4%
Better rec enforcement is needed (too much non-compliance or restrictive measures lead to non-compliance)	8	2%
Com access should be expanded (e.g., increase permit availability) and/or com measures should be liberalized	8	2%
Catch limits should be higher for both sectors	7	2%
Concerns about habitat issues (e.g., pollution, beach replenishment)	6	2%

March 23 Advisory Panel Meeting

- 7 supported status quo allocations
 - E.g., MRIP uncertainty, commercial fishery cannot afford to lose quota, concerns about remaining challenges for recreational management
- 3 supported updating the allocations
 - E.g., data changes, recent ABC increases due to MRIP, can help address rec. discards
- 3 supported catch-based approach or a catch-based alternative
 - Less complexity, discards, ecosystem considerations
- 3 spoke against transfers
 - Data lags, underages can help the stock

Advisory Panel Meeting

- Rec Reform should be pursued first
 - E.g., concerns about discards, limited constraints on rec. fishery
- Comment tallies don't accurately represent interest from recreational sector
 - Organizations represent many individuals; hard for rec. anglers to get involved and understand the issues
- Adversarial attitude between stakeholders distracts from goal of maintaining a sustainable fishery
- Allocation approach doesn't recognize changes in technology and management – fundamentally different fisheries today

March 24 FMAT Meeting

- Implementation for 2022 very unlikely unless all other actions for these species de-prioritized.
- GARFO representative reiterated support for pausing in favor of Rec Reform Initiative.
- No FMAT consensus on postponing final action or not.
- If postponed, should be to time certain. Recommend Oct or Dec 2021 to allow for Jan 2023 implementation.

FMAT Meeting

- FMAT not comfortable recommending specific allocation percentages.
- Favored catch-based allocations from a process perspective.
 - More logical, less complex way of deriving ACLs, catch accounting.
 - Greater incentive to reduce discards.

FMAT Meeting

■ Phase-in

- FMAT did not recommend a specific approach.
- Benefits highly dependent upon allocation alternative selected and future ABCs.
- Almost no input from commercial sector on phase in (supported status quo allocations).

FMAT Meeting

- Transfer provision concerns
 - Timing lag between data used and implementation year
 - Overage concerns
 - High utilization for both sectors
- FMAT recommends alt 2a: No action on transfers.

FMAT Meeting

- FMAT supported alternative 3b (allow future changes through FW/addendum)
- Could be beneficial to make small adjustments in allocation percentages
- Can still use an amendment for any changes if needed/desired
- Supported keeping transfers on the FW/addendum list, even if no transfers allowed through this amendment

Council Staff Memo

- 3 realistic paths forward
 - **A) Postpone final action to a time certain**
 - **B) Take final action today selecting status quo allocation alternatives**
 - **C) Take final action today selecting alternatives to change the allocations**
- Not recommending a specific path
- Recommendations/considerations for each path

Council Staff Memo

A) Postpone final action to a time certain

- Stakeholders and GARFO have recommended developing Rec. Reform Initiative first.
- If action postponed, staff recommend postponing until a date certain (December 2021).
- Indefinite delay means additional years of status quo allocations and uncertainty for managers and stakeholders.
- If information changes or alts outside the range are added, additional public comment period may be required.

Council Staff Memo

B) Take final action today selecting status quo allocation alternatives

- Allocations will remain unchanged until revised through a future action.
- Council policy: review allocations at least every 10 years.
- Recreational restrictions likely needed to prevent scup and BSB RHL overages.
 - Example: 2019 scup harvest 117% higher than 2020 RHL; 2019 BSB harvest 48% higher than 2020 RHL.
 - Actual future restrictions will depend on future RHLs, expected rec. harvest, etc.

Council Staff Memo

C) Take final action today selecting alternatives to change the allocations

- If final action taken today, must do so based on information currently available.
- Considerable additional work needed to determine exactly how Rec. Reform Initiative could change fisheries mgmt. for 2022 and beyond.
- Different considerations for all 3 species.

Council Staff Memo

C) Summer Flounder

- Recommend changing to catch-based allocation.
- Updating current 1980-1989 base years with new data would be well-justified approach to align with best available data.
- However, 80-89 cannot be updated with catch due to lack of discard data.
- 1980 recreational landings not available from MRIP.

Council Staff Memo

C) Summer Flounder, Continued

- Staff recommend consideration of alternative **1a-5** (55% commercial, 45% recreational based on 1981-1989 revised data), but **applied to catch instead of landings.**
- In practice, small shift from current conditions: in recent years (2012-2021) ABC has averaged 56% commercial ACL/44% recreational ACL.
- Depending on future discard trends and projection methods, outcomes likely close to status quo landings limits.

Council Staff Memo

C) Scup

- Allocation currently catch based. Staff do not recommend further consideration of landings-based alts.
- Biomass estimate did not increase after incorporation of revised MRIP data into stock assessment.
- Current base years are all prior to Council/Commission mgmt.
- Staff recommend consideration of **alt 1b-2, same base years with the updated data**
 - Considers fisheries prior to influence of allocations/harvest constraints
 - Uses what is currently the best scientific information in those base years

Council Staff Memo

C) Scup, Continued

- 1b-3 and 1b-4 would likely allow for less restrictive measures for the rec sector.
- However, reallocate based on time periods when the rec fishery was effectively less constrained to their limits than the com fishery.
- If biomass continues to decline, or market expands/landings increase, revised allocations have the potential to limit the commercial sector.

Council Staff Memo

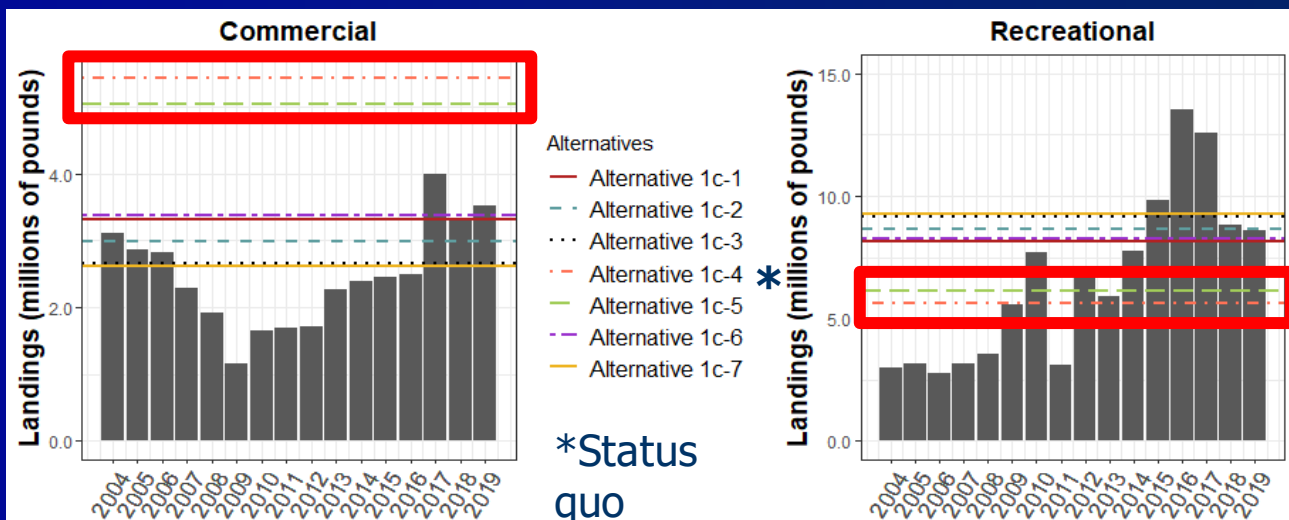
C) Black Sea Bass

- 59% increase in quota and RHL from 2019 to 2020.
 - Mostly due to incorporation of revised MRIP data into assessment.
 - Also impacted by above avg 2015 year class.
- Quota and RHL increased again by 9% from 2020 to 2021 due to risk policy change.
- Reasonable for both sectors to see benefits from the non-MRIP factors that resulted in increases.
- Only 2 alts expected to allow the com. landings beyond 2004-2019 levels (status quo and same base years new data)

Council Staff Memo

C) Black Sea Bass, Continued

- Alts that allow any increase in com. landings compared to 2004-2019 also require biggest recreational restrictions.
- Fairness considerations: should not constrain com. landings to below 2019 levels with the sole purpose of preventing need for rec. restrictions.
- Therefore, staff recommend considering percentages from within the range in document to balance tradeoffs in both sectors.



Council Staff Memo

C) Black Sea Bass, Continued

- Staff recommend consideration of **catch-based 42% com, 58% rec.**
 - Example quota: 4.12 mil lb.
 - Example RHL: 6.95 mil lb.
 - Within range of example quotas and RHLs for other alternatives.
 - Would allow slight increase in com. landings compared to 2018-2019, but decrease in quota from 2020-2021.
 - Would still require rec. restrictions to prevent RHL overage.
 - No possible allocation approach to allow com. landings at or above recent levels without also requiring rec. restrictions.
 - 42% com, 58% rec catch-based attempts to balance these tradeoffs.

Council Staff Memo

C) Phase-In Provisions

- Benefits will vary depending on magnitude of allocation change and species
- If Council and Board wish to use phase-in, staff recommend 2 years (alternative 1d-2)
- Balances need to efficiently transition to new allocation with allowing for industry adjustment to allocation change

Council Staff Memo

■ Transfers

- Council staff recommend **2a (no action on transfers)**.
- Process-related complexities previously described.

■ Frameworks/Addenda

- Council staff recommend **3b (allow future FWs/addenda for changes in allocation percentages, transfers, etc)**.
- Tool in toolbox for future allocation changes.
- Major changes should still be done through an amendment.
- FWs/addenda vs amendment should be a case-by-case decision – not constrained to pre-determined conditions.
- Transfers: future fishery needs, data considerations, and potential transfer process could change – allow FW/addendum for transfers.

Discussion

- Decision point: Final action
- Council staff memo:
 - a) Postpone final action to a time certain
 - b) Take final action today selecting status quo allocation alternatives
 - c) Take final action today selecting alternatives to change the allocations

Backup Slides

Recreational Reform Initiative

Goals:

- **Stability** in rec. mgmt. measures (bag/size/season)
- **Flexibility** in the mgmt. process
- **Accessibility** aligned with availability/stock status*

Technical Guidance Document	Framework/Addendum	Amendment
<ul style="list-style-type: none">• Process for identifying and smoothing outlier MRIP estimates• Use of preliminary current year MRIP data• Guidelines for maintaining status quo measures	<ul style="list-style-type: none">• Harvest Control Rule proposal put forward by 6 recreational organizations• Envelope of uncertainty approach for determining if changes to rec. management measures are needed• Multi-year recreational management measures• Changes to the timing of recommending federal waters measures <p>53</p>	<ul style="list-style-type: none">• Rec. sector separation• Rec. catch accounting

Summary: Amendment Issues

1. Commercial/recreational allocation
 - Summer flounder (set 1a)
 - Scup (set 1b)
 - Black Sea Bass (set 1c)
 - Phase-in (set 1d)
2. Transfers
 - Ability to transfer (2a or 2b)
 - Transfer caps (set 2c)
3. Framework/addendum provisions (3a or 3b)

Appendices in the Hearing Document

- Appendix A: Catch vs. landings-based allocations
- Appendix B: Basis for allocation alts.
- Appendix C: Example commercial quotas and RHLs
- Appendix D: Acronyms and abbreviations

Need for Action

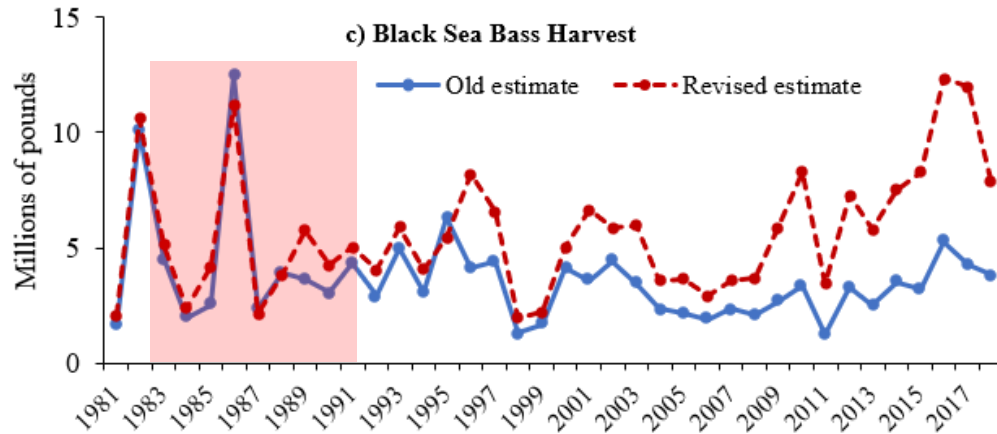
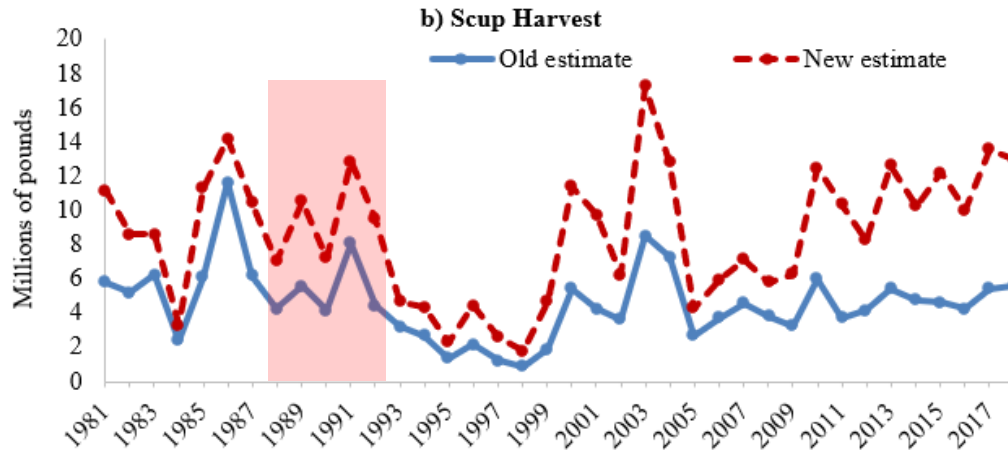
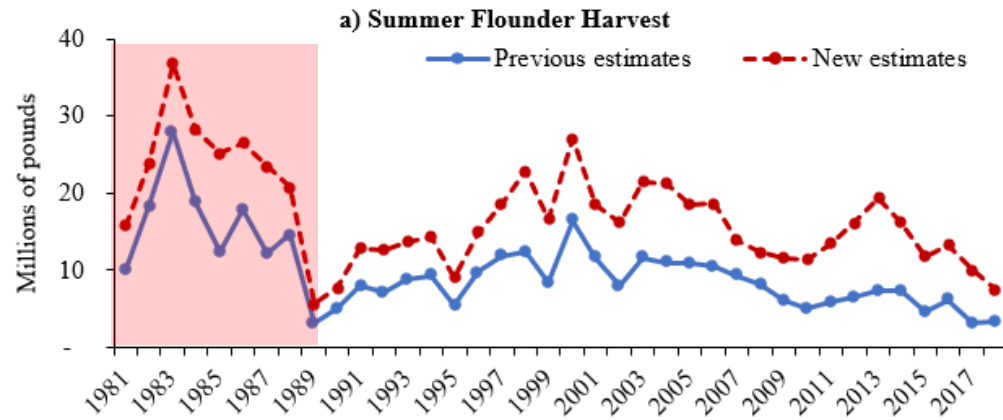
- Revised MRIP estimates were incorporated into stock assessments in 2018-2019, impacting biomass estimates and catch limits
- **Due to fixed allocations in the FMP, Recreational Harvest Limits resulting from new assessments generally did not increase to the same degree as the revised MRIP harvest estimates**
- Management implications due to discrepancy between the current levels of estimated rec. harvest and the sector allocations (based on old data)

Management Implications of MRIP Transition

- **Summer flounder** harvest limits increased by ~49% in 2019, but new MRIP harvest estimate close to new RHL. Rec. liberalizations not possible for 2019-2021.
- **Scup** harvest limits *decreased* in 2020 due to declining stock biomass. 2019 MRIP estimates 54% higher than 2020 RHL.
- **Black sea bass** limits increased by 59% in 2020. However, even with this increase, 2019 MRIP estimates 48% higher than 2020 RHL.
- Status quo rec measures for BSB and scup justified as a temporary solution while allocation is evaluated.
 - **If allocations not modified, near-term restrictions in rec. measures (possibly severe) for scup and BSB are likely.**

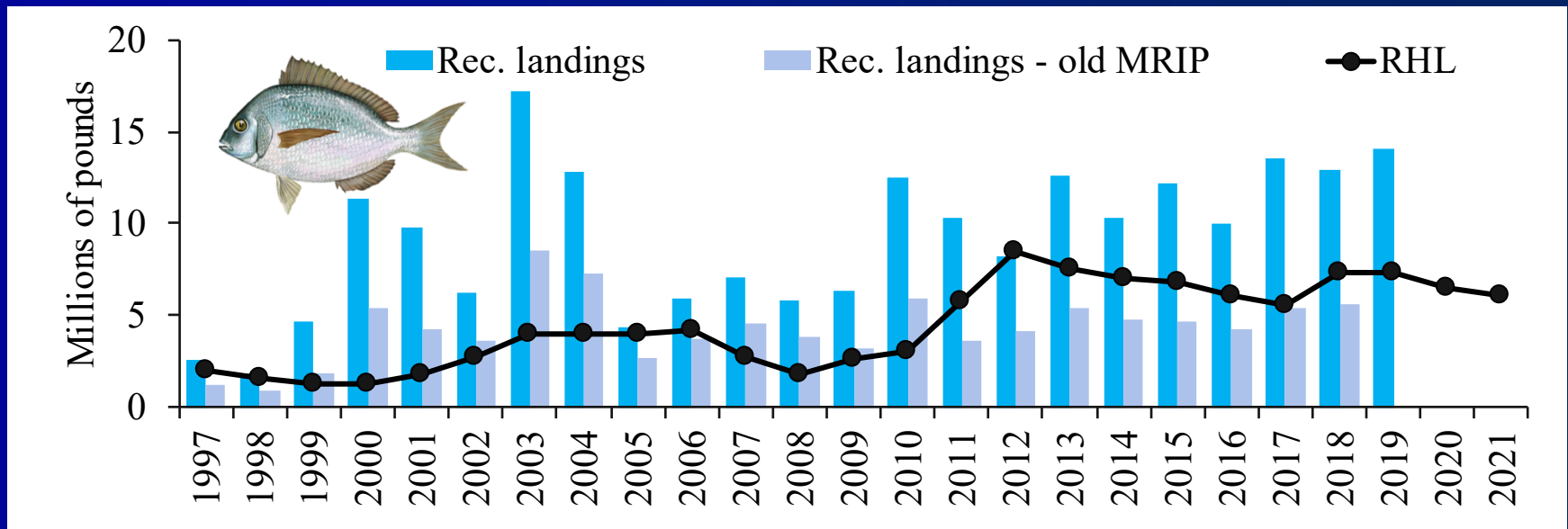
Why are changes being considered?

- Allocations currently based on historic (1980s/1990s) proportions of harvest or catch from each sector; have not been revised since set in early/mid 1990s
- Our understanding of historic & recent harvest proportions has changed due to major revisions to MRIP data
 - New effort estimation and angler intercept methods resulted in higher recreational estimates going back to 1981
- Some changes also made to commercial data since allocations set



No Action

- Transition to revised MRIP data → difficulty constraining to rec limits without substantial restrictions
 - Near term issue for scup and BSB in particular
 - Final 2019 scup harvest 54% higher than 2020 RHL
 - Final 2019 BSB harvest 48% higher than 2020-21 RHL



Keep existing base years but update with the most recent recreational and commercial data

Species	Sector	Catch-based		Landings-based	
		Current	Revised	Current	Revised
Summer flounder: 1981-1989	Com	N/A	N/A	60%	55%
	Rec	N/A	N/A	40%	45%
Scup: 1988-1992	Com	78%	65%	N/A	57%
	Rec	22%	35%	N/A	43%
Black sea bass: 1983-1992	Com	N/A	N/A	49%	45%
	Rec	N/A	N/A	51%	55%

Current allocations for summer flounder, scup, and black sea bass

	Allocation	
Summer flounder: 1980-1989 (landings-based allocation)	Com	60%
	Rec	40%
Scup: 1988-1992 (catch-based allocation)	Com	78%
	Rec	22%
Black sea bass: 1983-1992 (landings-based allocation)	Com	49%
	Rec	51%

Allocation Revision Impacts: Summer Flounder

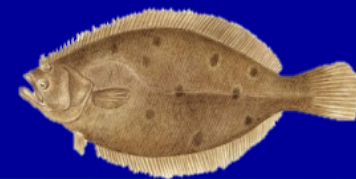


Table 5: Example commercial quotas and RHLs for each allocation alternative under the 2020 ABC (25.03 million pounds) and the assumptions outlined in Appendix C, with comparison to the 2020 implemented limits. Actual future limits will vary based on future ABCs and discard assumptions.

Alternative	1a-1	1a-2	1a-3	1a-4 *	1a-5	1a-6	1a-7
	Catch-Based			Landings-Based			
Com. allocation	44%	43%	40%	60%	55%	45%	41%
Rec. allocation	56%	57%	60%	40%	45%	55%	59%
Example commercial quota	8.79	8.57	7.92	11.53	10.20	8.38	7.65
% Difference from 2020 commercial quota	-24%	-26%	-31%	0%	-12%	-27%	-34%
Example RHL	10.24	10.47	11.15	7.69	8.34	10.25	11.02
% Difference from 2020 RHL	33%	36%	45%	0%	8%	33%	43%

* Alt. 1a-4 is the no action/status quo and shows the actual implemented comm. quota and RHL for 2020.

Allocation Revision Impacts: Scup

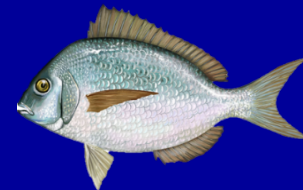


Table 6: Example commercial quotas and RHLs for each allocation alternative under the 2020 ABC (35.77 million pounds) and the assumptions outlined in Appendix C, with comparison to the 2020 implemented limits. Actual future limits will vary based on future ABCs and discard assumptions.

Alternative	1b-1*	1b-2	1b-3	1b-4	1b-5	1b-6	1b-7
	Catch-Based				Landings-Based		
Com. allocation	78%	65%	61%	59%	57%	56%	50%
Rec. allocation	22%	35%	39%	41%	43%	44%	50%
Example commercial quota	22.23	16.90	15.92	15.44	16.85	16.56	14.81
% Difference from 2020 commercial quota	0%	-24%	-28%	-31%	-24%	-26%	-33%
Example RHL	6.51	11.04	12.37	13.04	12.71	13.01	14.81
% Difference from 2020 RHL	0%	70%	90%	100%	95%	100%	127%

* Alt 1b-1 is the no action/status quo alternative and shows the actual implemented commercial quota and RHL for 2020.

Allocation Revision Impacts: Black Sea Bass



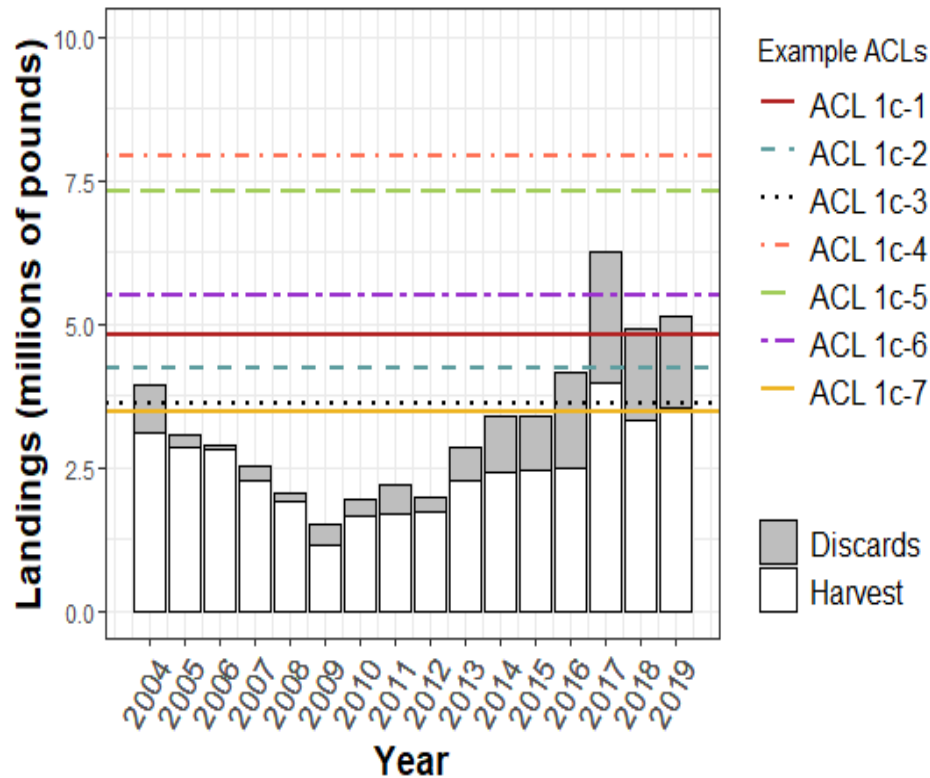
Table 7: Example commercial quotas and RHLs under each allocation alternative using the 2020 ABC (15.07 million pounds) and the assumptions outlined in Appendix C, with comparison to the 2020 limits. Actual future limits will vary based on future ABCs and discard assumptions.

Alternative	1c-1	1c-2	1c-3	1c-4 *	1c-5	1c-6	1c-7
	Catch-Based			Landings-Based			
Com. allocation	32%	28%	24%	49%	45%	29%	22%
Rec. allocation	68%	72%	76%	51%	55%	71%	78%
Example commercial quota	3.31	2.99	2.66	5.58	5.04	3.38	2.61
% Difference from 2020 commercial quota	-41%	-46%	-52%	0%	-10%	-39%	-53%
Example RHL	8.16	8.65	9.14	5.81	6.15	8.28	9.27
% Difference from 2020 RHL	40%	49%	57%	0%	6%	43%	60%

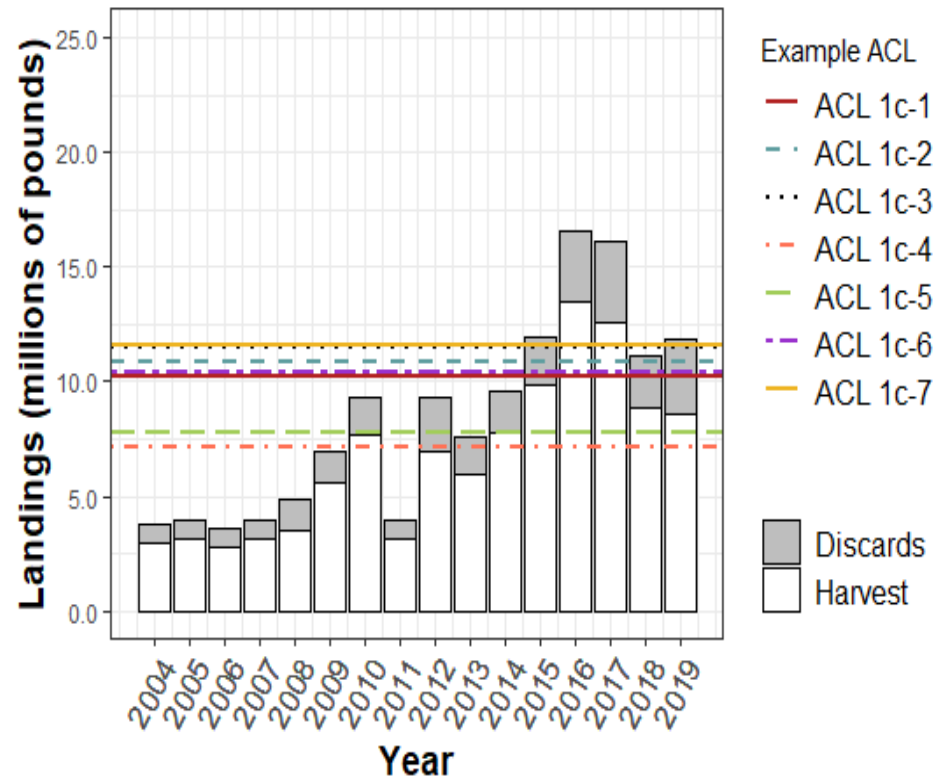
*Alt. 1c-4 is the no action/status quo and shows the actual implemented comm. quota and RHL for 2020.

Black Sea Bass: Example ACLs

Commercial

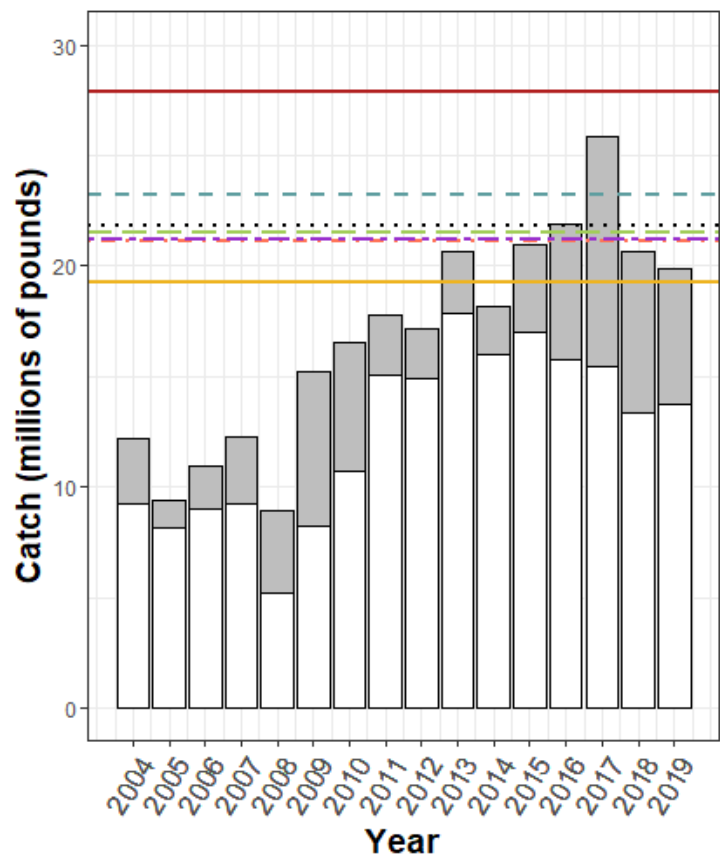


Recreational

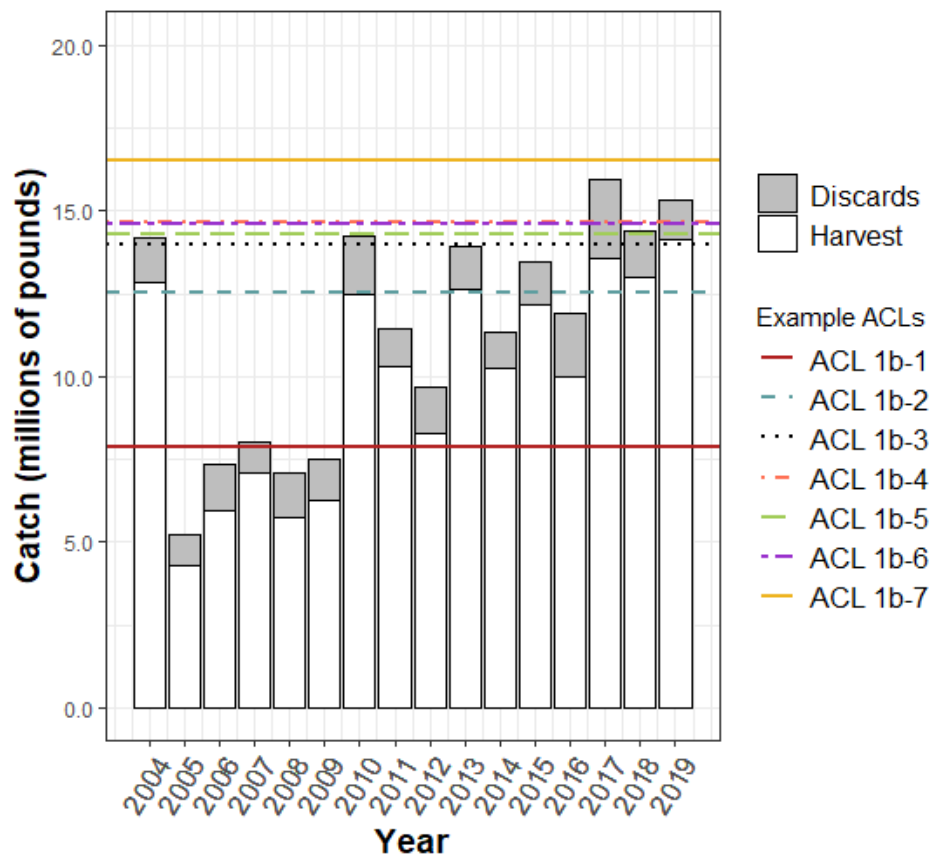


Scup: Example ACLs

Commercial

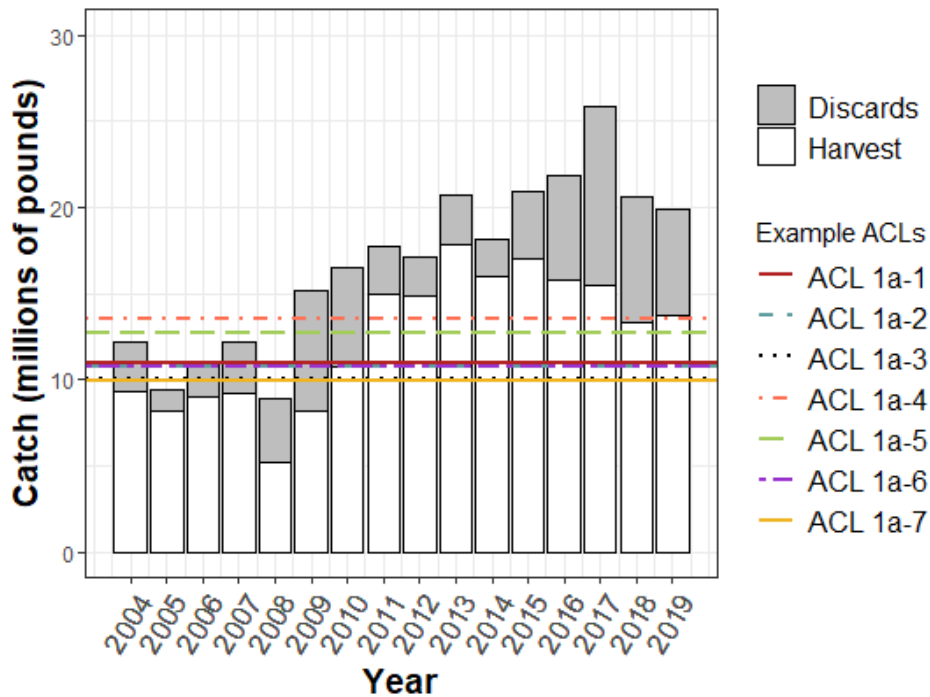


Recreational

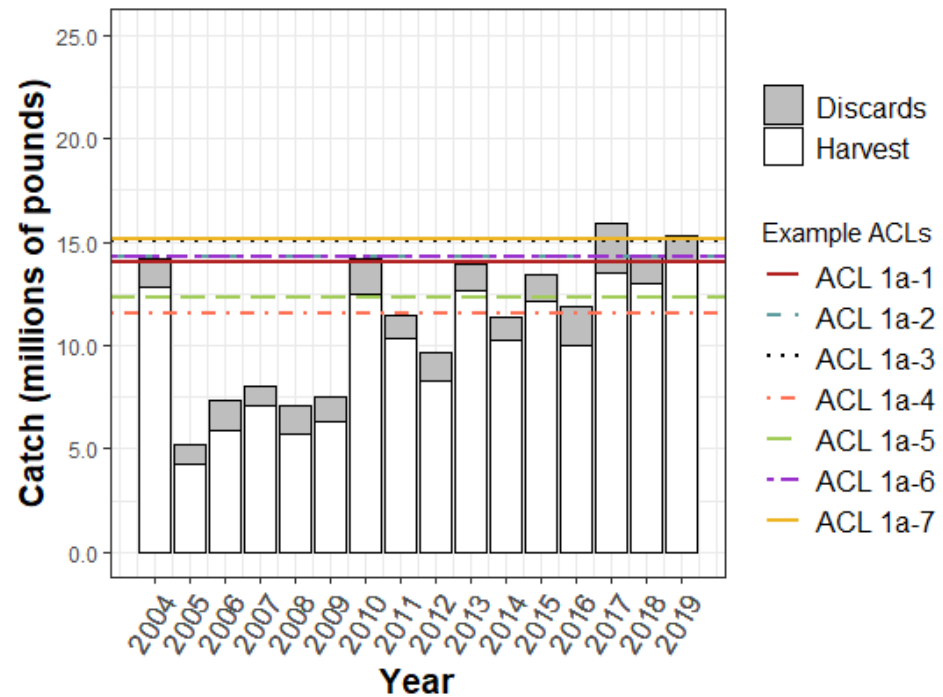


Summer Flounder: Example ACLs

Commercial



Recreational



Allocation Revision Impacts

Impacts to commercial sector:

- Aside from status quo, all alternatives would reduce the commercial allocation (=lower commercial quotas)
 - Likely losses in revenue, though the price/volume relationship varies across species
 - For scup, lower quota may not result in lower landings depending on scale of decrease/other factors such as stock biomass and market demand
 - Impacts will not be felt equally across all commercial industry participants

Allocation Revision Impacts

Impacts to recreational sector:

- Depending on the alternative/species, an increased rec allocation may or may not allow for liberalized rec measures compared to recent years.
 - In some cases, restrictions may still be needed depending on alternative and the magnitude of recent MRIP estimates
- Changes in measures (liberalizations or restrictions) impact fishing opportunities/demand, angler satisfaction, retention ability, revenues for for-hire and supporting businesses

Sector Variability Analysis

- A preliminary analysis considering the different levels of precision of the estimates of landings and dead discards in each sector for all three species suggests that the risk of exceeding the ABC does not vary greatly under a wide range of different proportions of total dead catch from each sector.
- This suggests that changes in the commercial/recreational allocation, especially changes within the range currently under consideration, may not have notably different impacts on the risk of exceeding the ABC.

Sector Variability Analysis

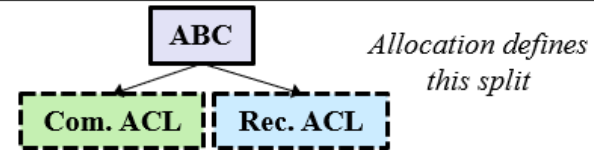
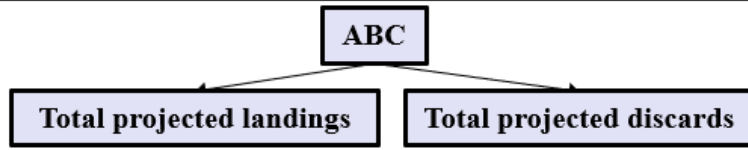
- Summary of average CVs for commercial and recreational landings and dead discards, 2010-2019.

	Commercial CVs		Recreational CVs	
Species	Landings	Discards	Landings	Discards
Summer flounder	0.01	0.127	0.089	0.078
Scup	0.01	0.104	0.134	0.127
Black Sea Bass	0.01	0.31	0.126	0.102

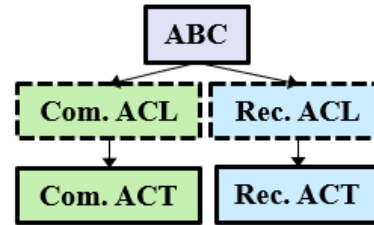
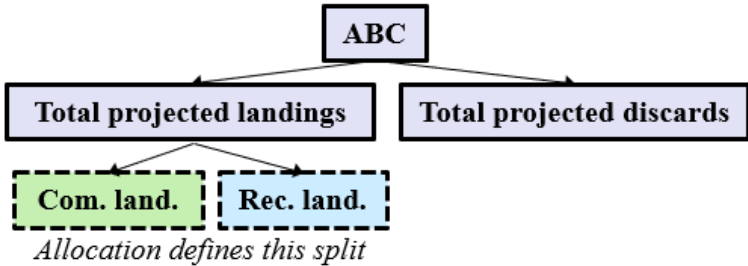
Landings-Based Allocation

Catch-Based Allocation

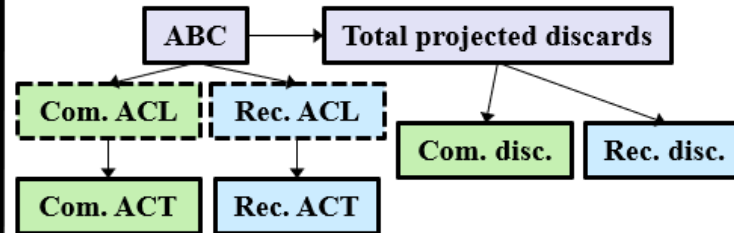
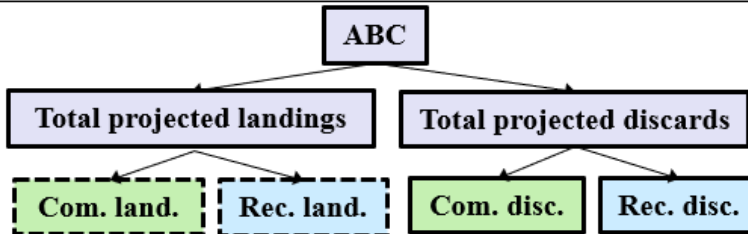
Step 1



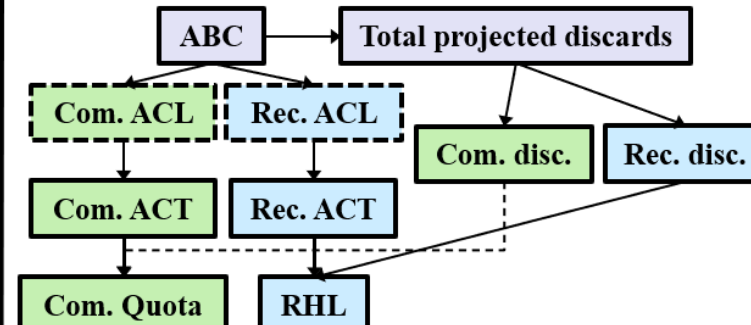
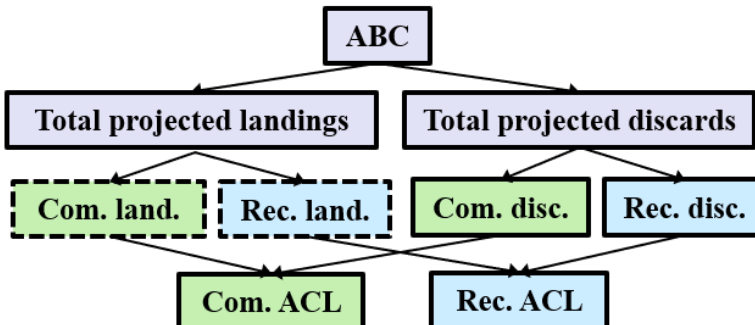
Step 2



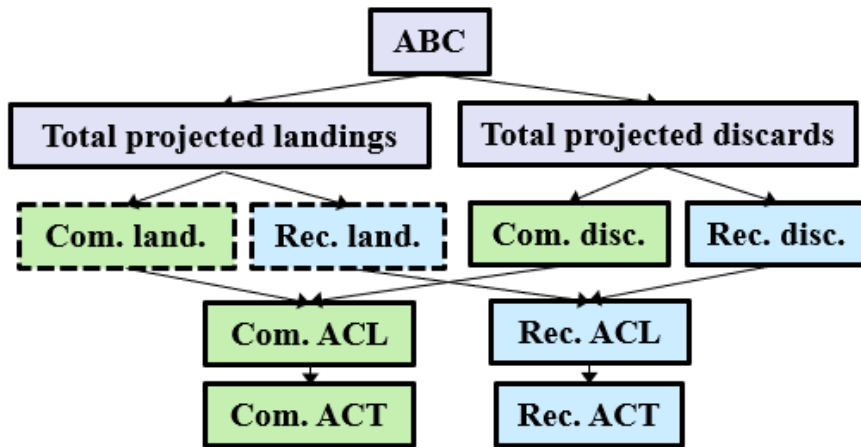
Step 3



Step 4

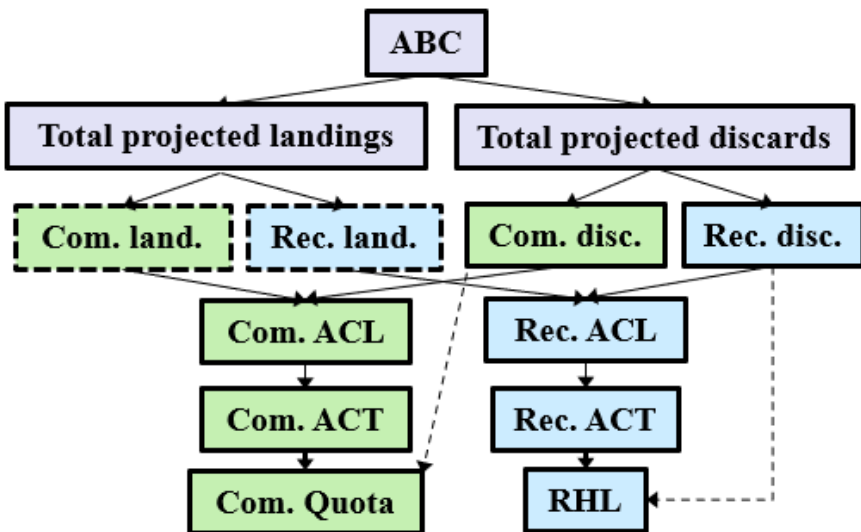


Step 5



N/A

Step 6



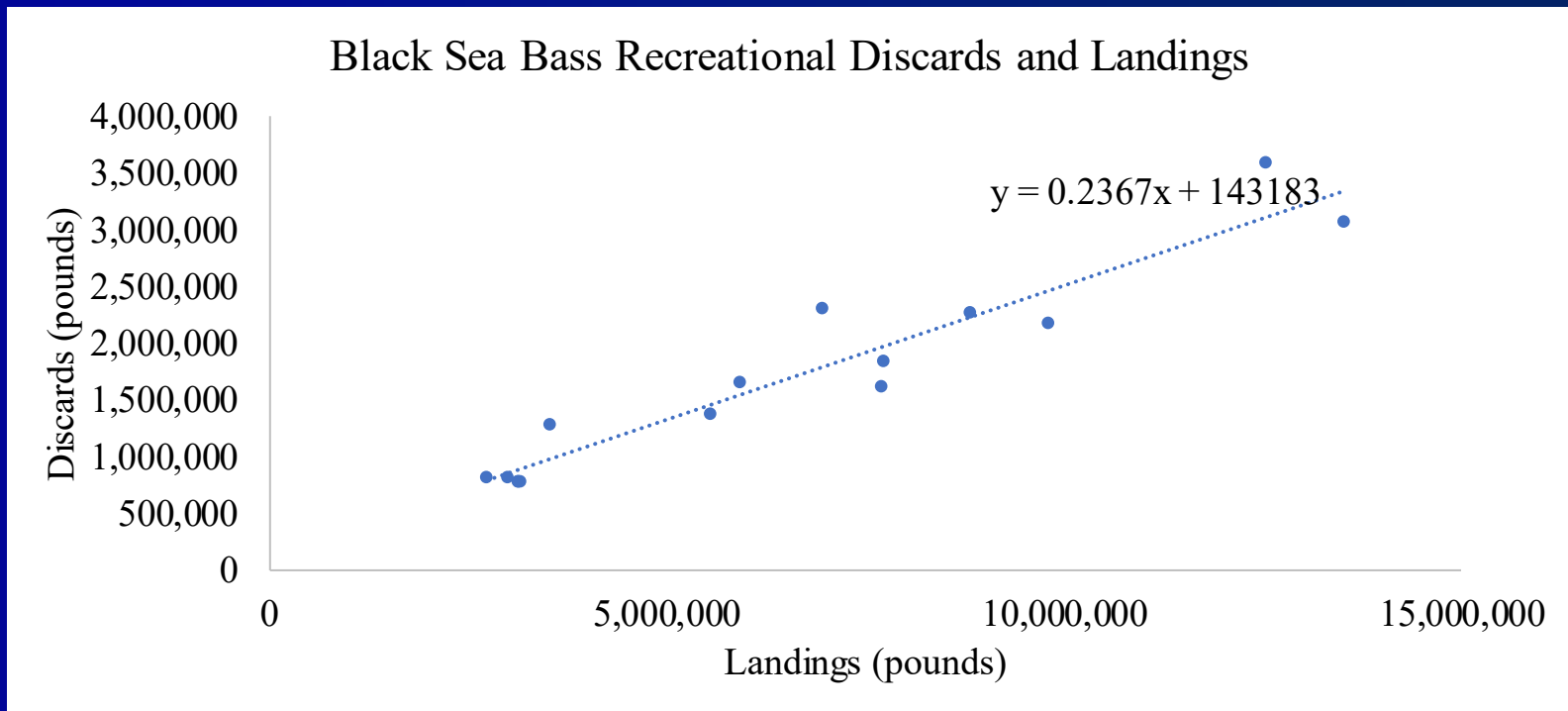
N/A

Notes:

- The ABC, ACLs and ACTs include catch and dead discards in all cases. The commercial quota and RHL include only landings.
- A dashed border indicates the step defined by the commercial/recreational allocation.

Appendix C: Example Quotas and RHLs

- Regression analysis used to project sector-specific discards based on relationship between discards and landings or catch 2004-2018



4.3.2 Phase-in Impacts

Table 9: The currently implemented recreational/commercial split for total landings, dead discards, and total dead catch for 2021 specifications. The current FMP-specified allocations for each species are highlighted in yellow.

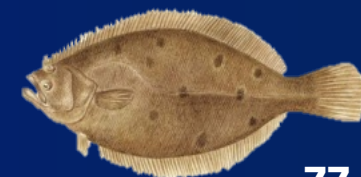
Currently Landings-Based Allocations						
	Comm. % of TAL (allocation)	Rec. % of TAL (allocation)	Expected comm. % of discards in 2021	Expected rec. % of discards in 2021	Comm. ACL % of ABC in 2021	Rec. ACL % of ABC in 2021
Summer flounder	60	40	34	66	54	46
Black sea bass	49	51	68	32	55	45
Currently Catch-Based Allocation						
	Comm. % of TAL in 2021	Rec. % of TAL in 2021	Expected comm. % of discards in 2021	Expected rec. % of discards in 2021	Comm. ACL % of ABC (allocation)	Rec. ACL % of ABC (allocation)
Scup	77 ^a	23	81	19	78	22

^a Minor correction to this value was made on 3/8/21.

Phase-in Impacts: Summer Flounder

Table 11

Alternatives		Total % shift needed	% shift per year		
			1d-2: 2 yr phase-in	1d-3: 3 yr phase-in	1d-4: 5 yr phase -in
Catch-Based	1a-1: 44% com, 56% rec	10%	5%	3.3%	2%
	1a-2: 43% com, 57% rec	11%	5.5%	3.7%	2.2%
	1a-3: 40% com, 60% rec	14%	7%	4.7%	2.8%
Landings-Based	1a-4 (status quo): 60% com, 40% rec	0%	N/A	N/A	N/A
	1a-5: 55% com, 45% rec	5%	2.5%	1.7%	1%
	1a-6: 45% com, 55% rec	15%	7.5%	5%	3%
	1a-7: 41% com, 59% rec	19%	9.5%	6.3%	3.8%



Phase-in Impacts: Scup

Table 12

Alternatives		Total % shift needed	% shift per year		
			1d-2: 2 yr phase-in	1d-3: 3 yr phase-in	1d-4: 5 yr phase -in
Catch-Based	1-b1 (status quo): 78% com, 22% rec	0%	N/A	N/A	N/A
	1b-2: 65% com, 35% rec	13%	6.5%	4.3%	2.6%
	1b-3: 61% com, 39% rec	17%	8.5%	5.7%	3.4%
	1b-4: 59% com, 41% rec	19%	9.5%	6.3%	3.8%
Landings-Based	1b-5: 57% com, 43% rec	20%	10%	6.7%	3.4%
	1b-6: 56% com, 44% rec	21%	10.5%	7%	4 %
	1b-7: 50% com, 50% rec	27%	13.5%	9%	5.4%



Phase-in Impacts: Black Sea Bass

Table 13

Alternatives		Total % shift needed	% shift per year		
			1d-2: 2 yr phase-in	1d-3: 3 yr phase-in	1d-4: 5 yr phase -in
Catch-Based	1c-1: 32% com, 68% rec	23%	11.5%	7.7%	4.6%
	1c-2: 28% com, 72% rec	27%	13.5%	9.0%	5.4%
	1c-3: 24% com, 76% rec	31%	15.5%	10.3%	6.2%
Landings-Based	1-c4 (status quo): 49% com, 51% rec	0%	N/A	N/A	N/A
	1c-5: 45% com, 55% rec	4%	2%	1.3%	0.8%
	1c-6: 29% com, 71% rec	20%	10%	6.7%	4%
	1c-7: 22% com, 78% rec	27%	13.5%	9%	5.4%



Transfers Between Sectors

Proposed transfer process:

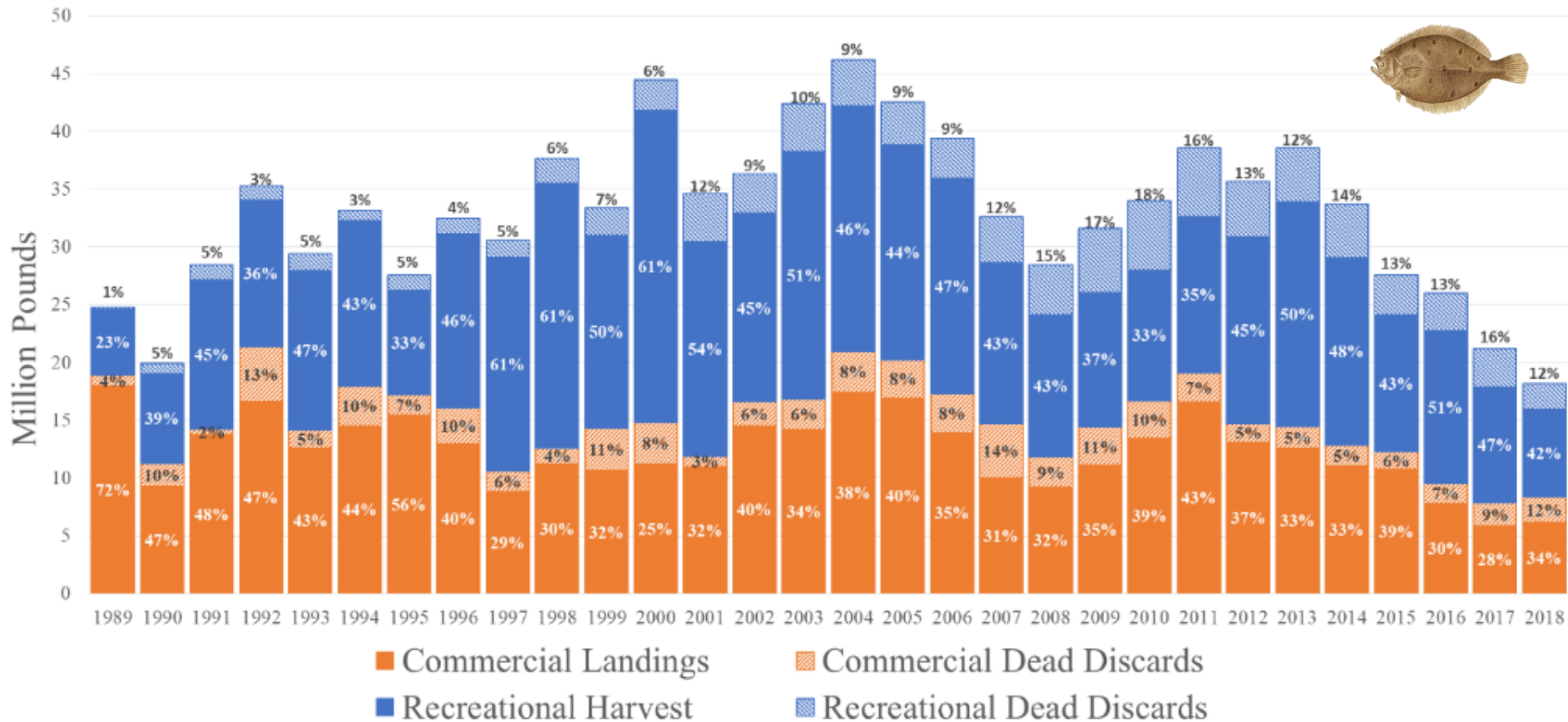
July	Assess need for transfer based on prior year(s) data and next year's expected landings limits - Current year projections of com. and rec. landings will not be available
August	Council and Board recommend transfer and amount (if desired)
Nov/Dec	Recreational measures developed using likely post-transfer RHL (may not yet be implemented)
Dec	Final rule with landings limits published, including any transfers

Transfer Cap Impacts

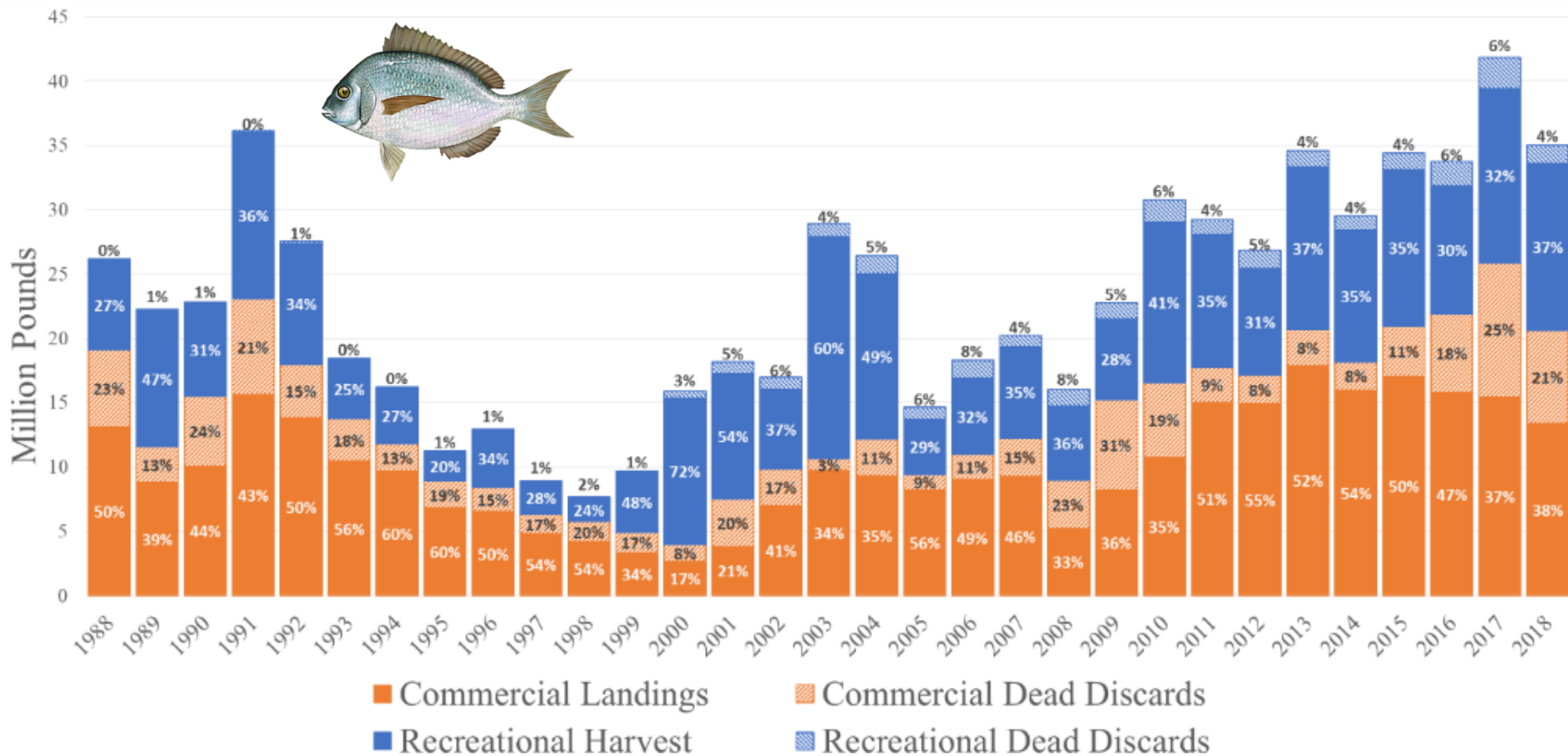
- Example transfer cap amounts under recent high and low ABCs, 2017-2021 (all values in millions of pounds)
- Examples only; not theoretical max. or min. transfer amount

		Summer Flounder	Scup	Black Sea Bass
ABC for comparison	2017-2021 Low ABC	11.30	28.40	8.94
	2017-2021 High ABC	27.11	39.14	17.45
2c-2: 5% of ABC	Low ABC example cap	0.57	1.42	0.45
	High ABC example cap	1.36	1.96	0.87
2c-3: 10% of ABC	Low ABC example cap	1.13	2.84	0.89
	High ABC example cap	2.71	3.91	1.75
2c-4: 15% of ABC	Low ABC example cap	1.70	4.26	1.34
	High ABC example cap	4.07	5.87	2.62

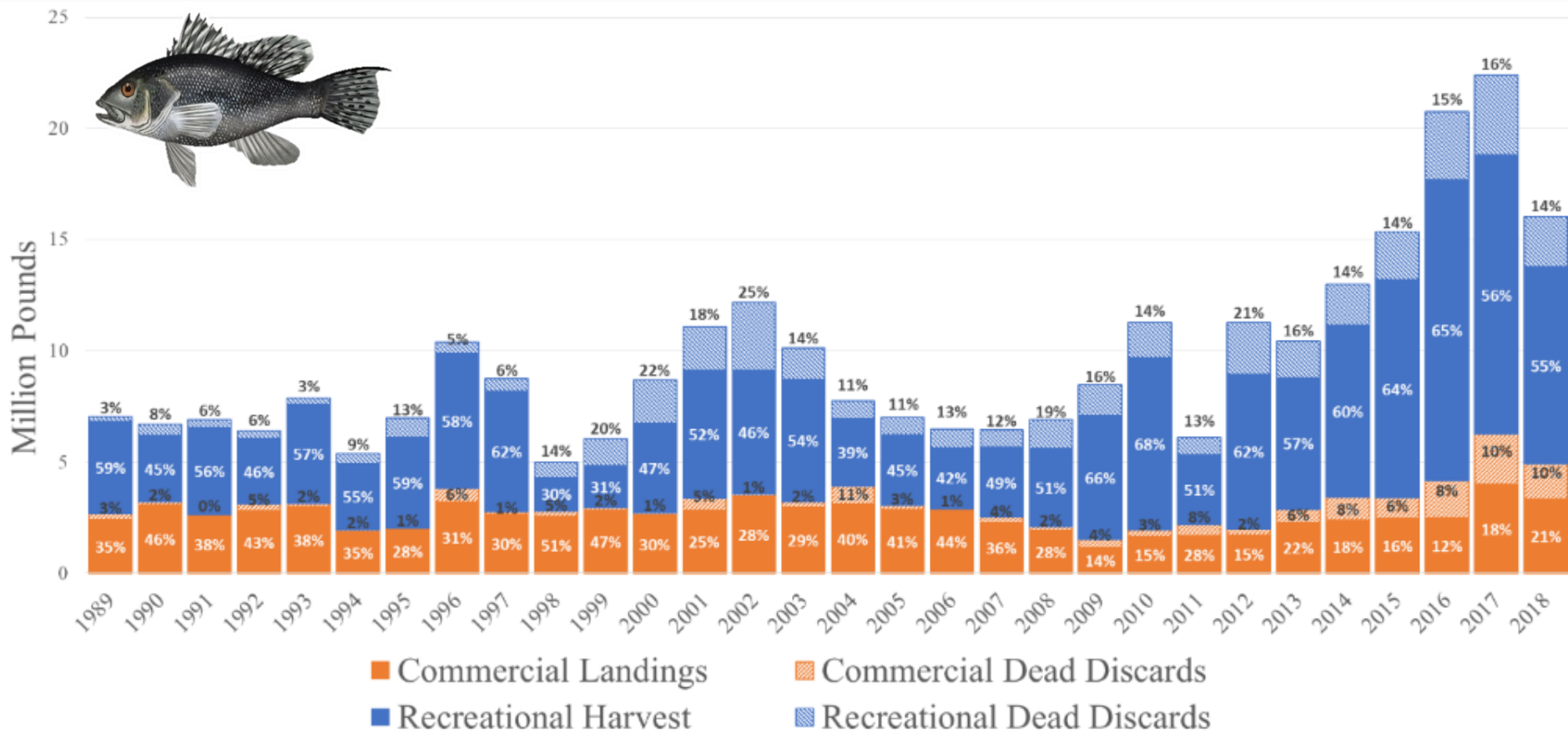
Commercial and recreational summer flounder landings and dead discards, 1982-2018

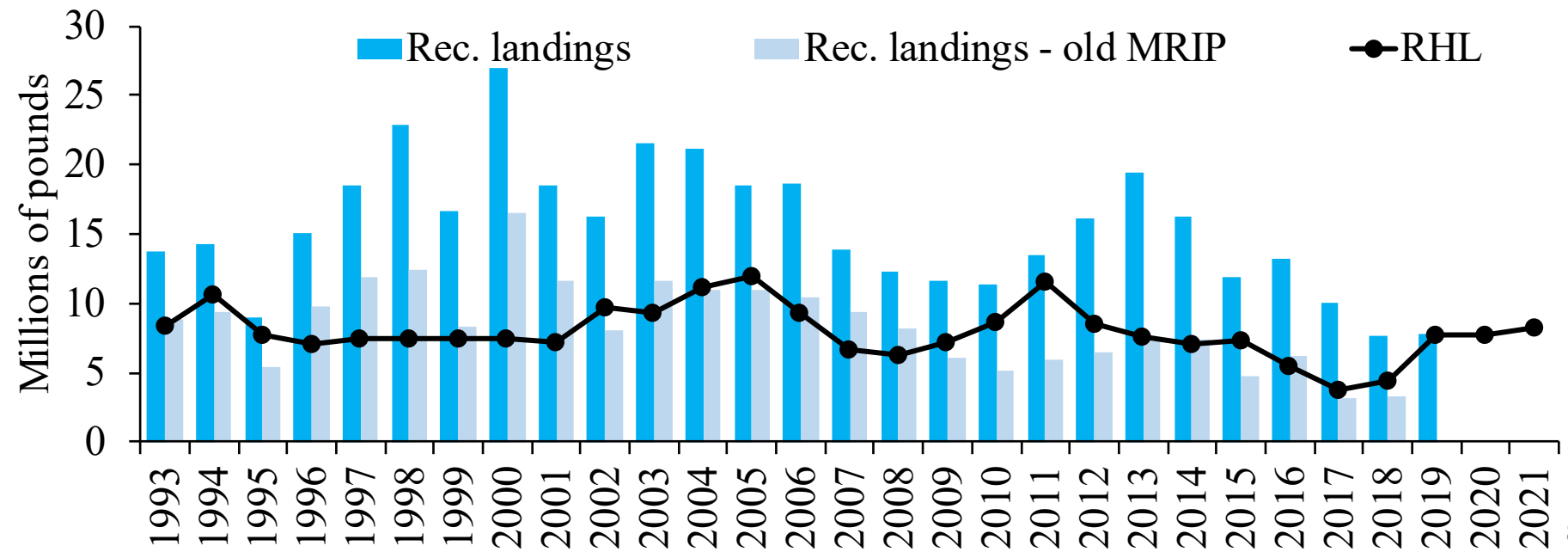
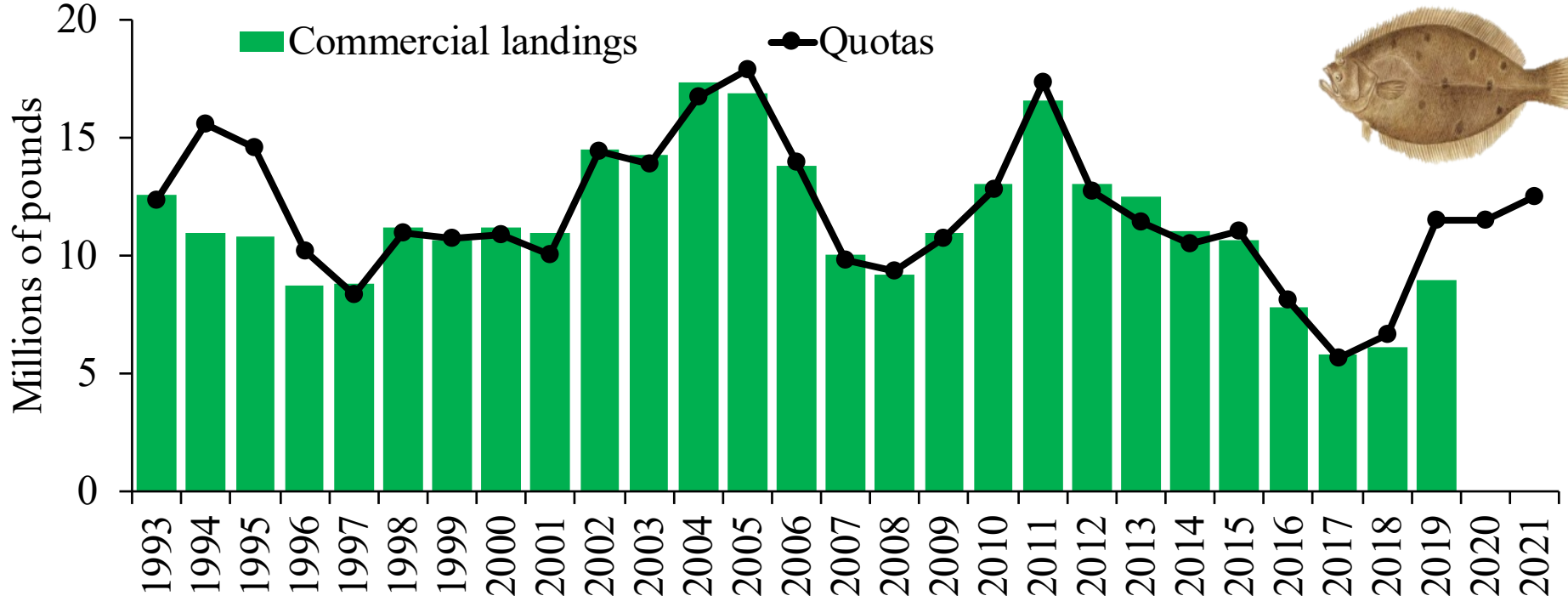


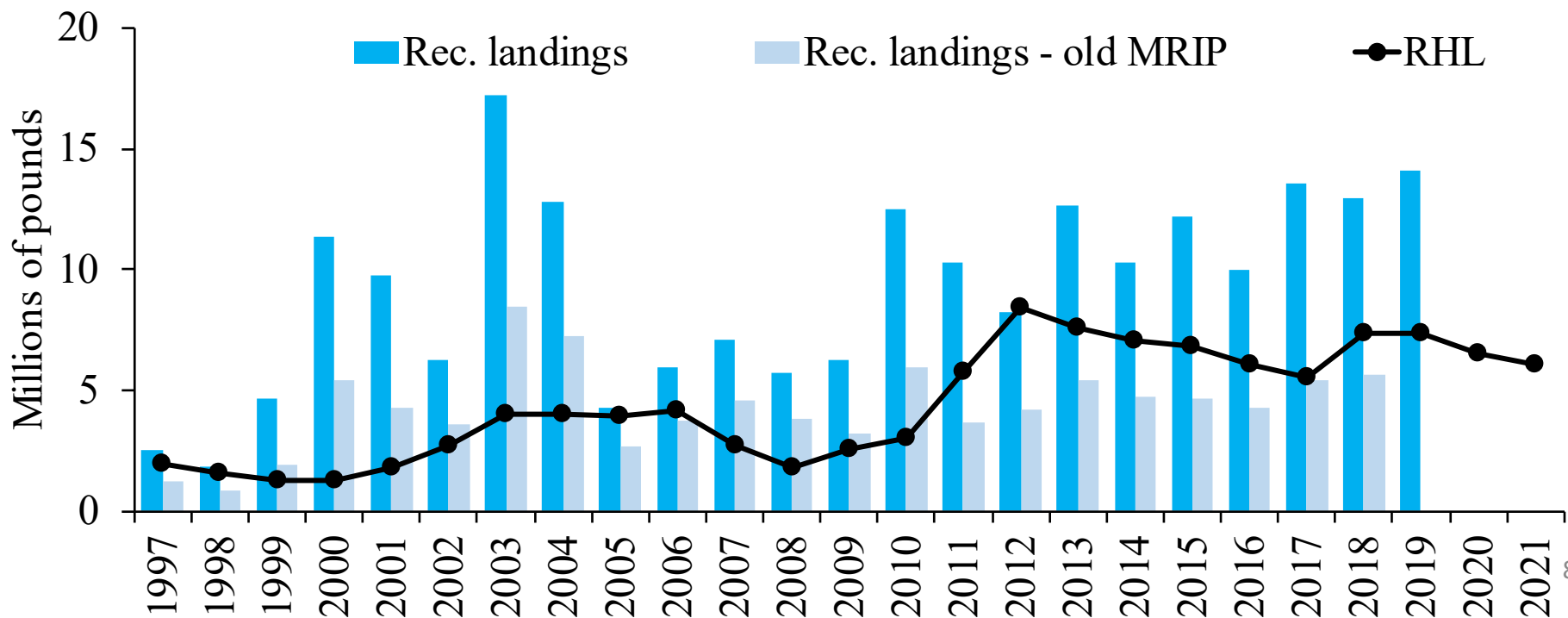
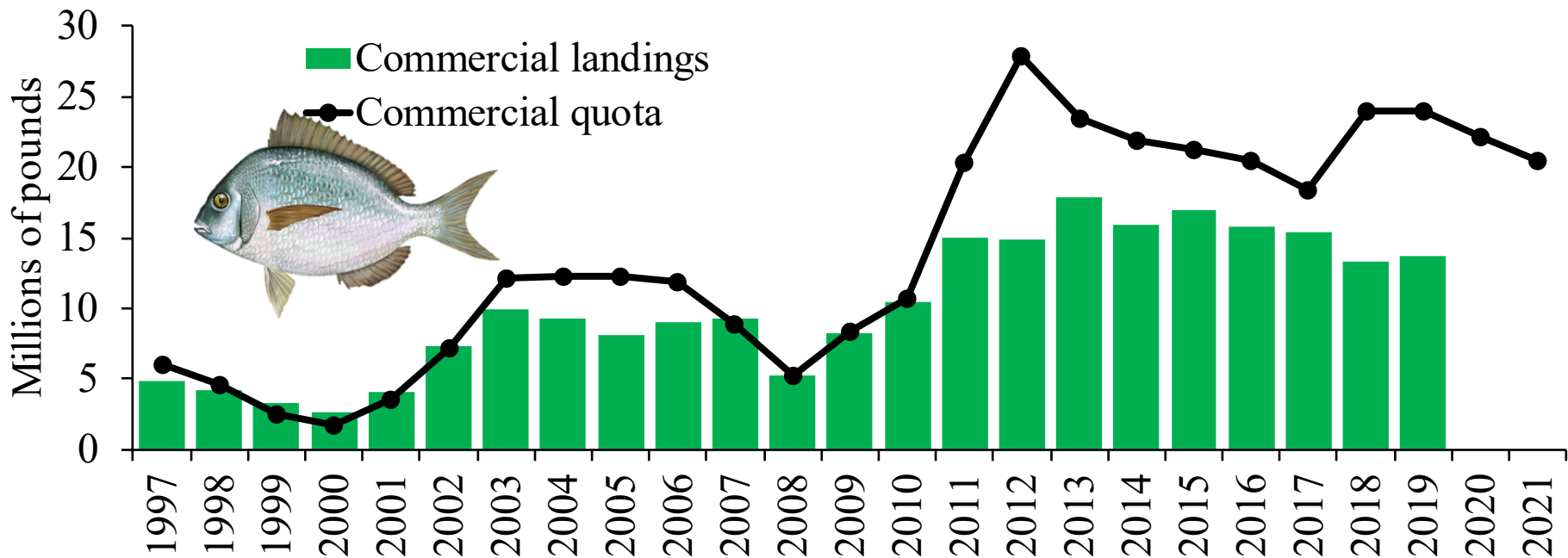
Commercial and recreational scup landings and dead discards, 1981-2018

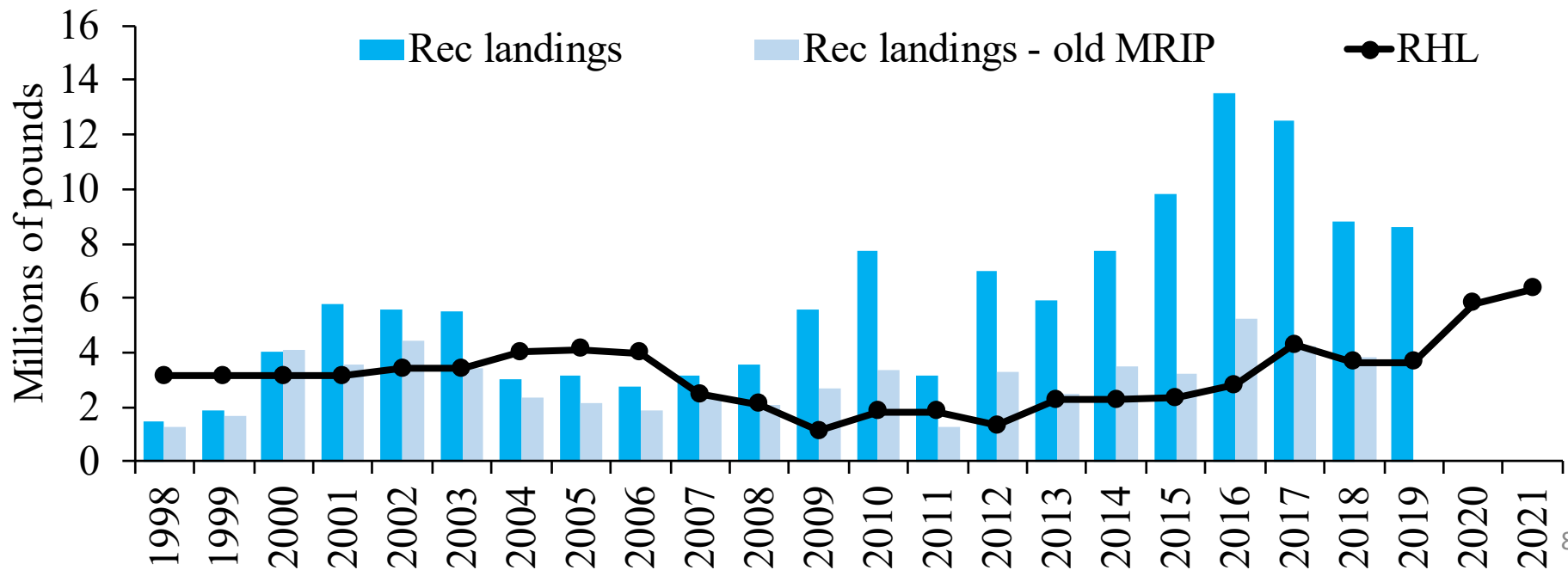
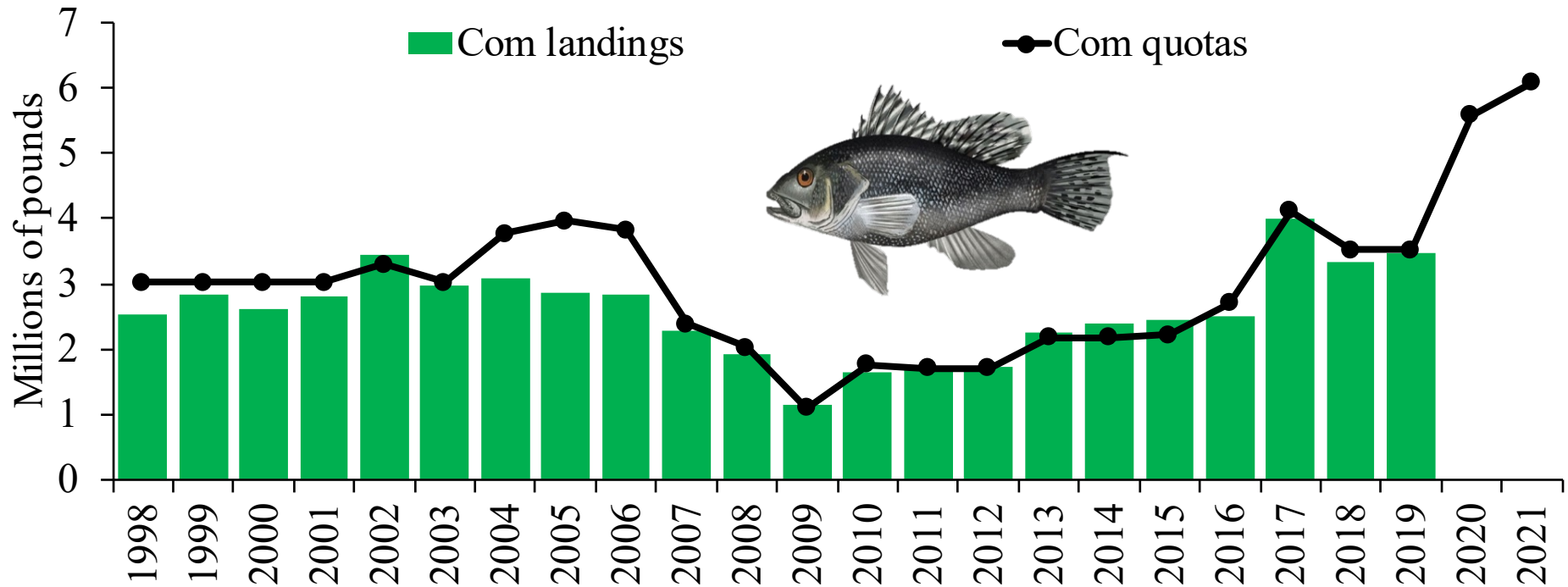


Commercial and recreational black sea bass landings and discards, 1989-2018









Commercial Discard Estimation Methodology (NEFSC)

- Exact methods vary by species
 - Different stratification by area, gear, etc.
 - See assessment reports (<https://www.fisheries.noaa.gov/resource/publication-database/northeast-stock-assessment-documents-search-tool>)
- All use Standardized Bycatch Reporting Methodology (SBRM)
- NEFOP (observer) data used in combination with dealer data to scale discard estimates

Commercial Estimate CVs

- Summary of average CVs for commercial landings and dead discards, 2010-2019.

	Commercial CVs	
Species	Landings	Discards
Summer flounder	0.01	0.127
Scup	0.01	0.104
Black Sea Bass	0.01	0.31

Recreational Discard Estimation Methodology

- MRIP provides estimates of:
 - Harvest ($A + B1$: kept or released dead) in numbers and weight
 - Live discards ($B2s$: released alive) in numbers of fish
- Dead discards in numbers: apply assumed discard mortality rate to live discard ($B2$) estimates
 - Summer flounder: 10%
 - Scup and black sea bass: 15%

Recreational Discard Estimation Methodology

- Dead discards in weight:
 - Length-weight equation applied to expanded discard length frequencies
 - Discard lengths from multiple sources (party/charter sampling, ALS database, special sampling programs, volunteer angler surveys)
 - Same discard mortality rates applied to convert live discard estimates to dead discards (10% summer flounder, 15% scup and BSB)

Recreational Estimate CVs

- Summary of average CVs for recreational landings and dead discards, 2010-2019.

	Recreational CVs	
Species	Landings	Discards
Summer flounder	0.089	0.078
Scup	0.134	0.127
Black Sea Bass	0.126	0.102

Typical Recreational Measures Process

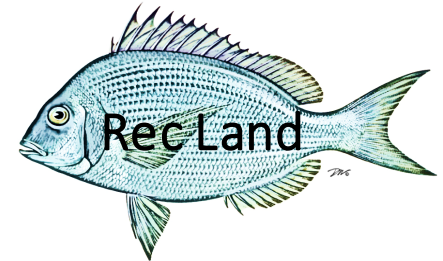
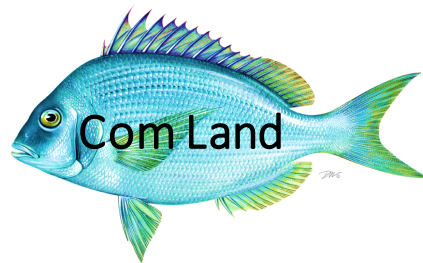
1. Project recreational harvest for current year using data through wave 4 (August) or 5 (October)
 2. Compare to following year's RHL to determine % liberalization or reduction
 3. Adjust state and/or federal measures accordingly
- Adjustments are driven by recent performance & harvest as well as changes in limits. Increases in limits do not always = liberalized measures!



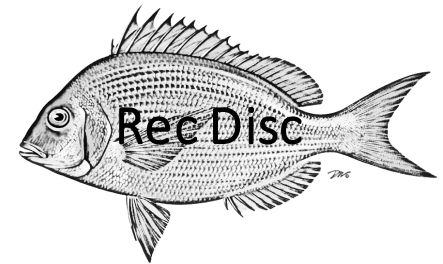
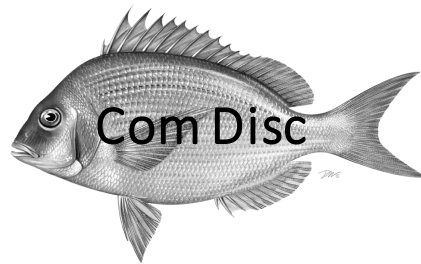
Catch vs. Landings Based Allocations Explained

Commercial
Recreational

Landings =



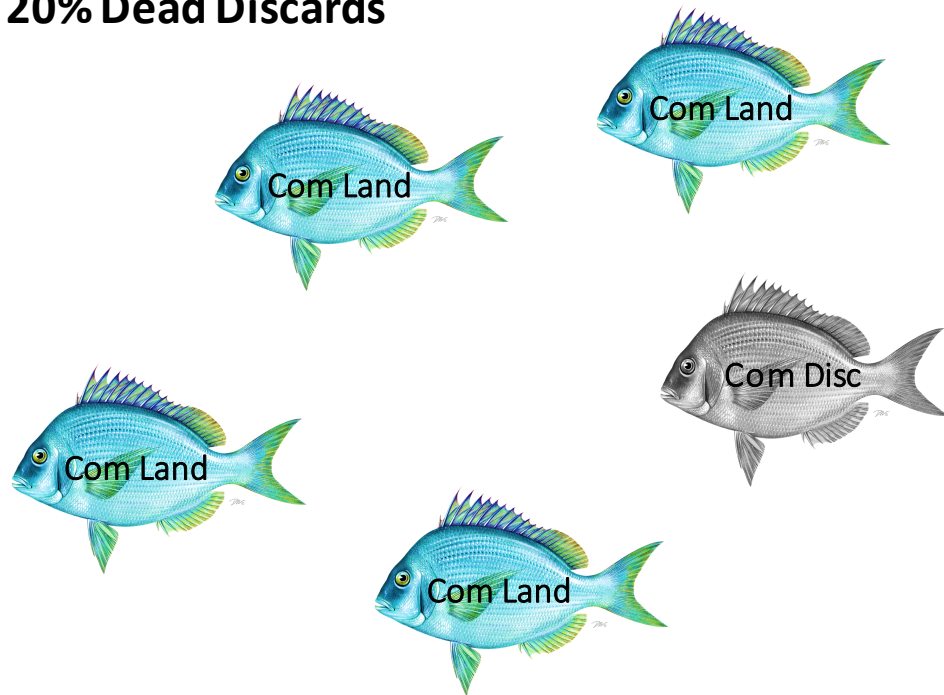
Dead
Discards =



Hypothetical Recent Catch

Commercial

80% Landings
20% Dead Discards

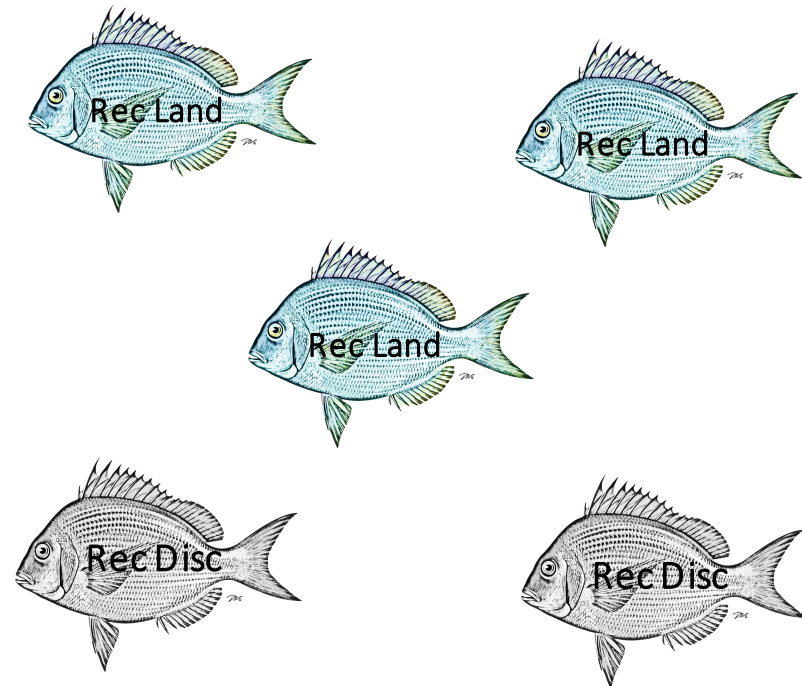


Remember:

Catch = Landings + Dead Discards

Recreational

40% Landings
60% Dead Discards





Specifications for the new year

Start with:

Acceptable Biological Catch (ABC)



Specifications for the new year

Start with:

Acceptable Biological Catch (ABC)

Remember:

Catch = Landings + Dead Discards



Specifications for the new year

Start with:

Acceptable Biological Catch (ABC)

Remember:

Catch = Landings + Dead Discards

To determine:

Commercial Annual
Catch Limit (ACL)

Recreational Annual
Catch Limit (ACL)



Specifications for the new year

Start with:

Acceptable Biological Catch (ABC)

Remember:

Catch = Landings + Dead Discards

To determine:

Commercial Annual
Catch Limit (ACL)

Recreational Annual
Catch Limit (ACL)

At some point we must subtract

Projected Dead Discards

Largely informed by
proportions of recent
dead discards vs. catch





Specifications for the new year

Start with:

Acceptable Biological Catch (ABC)

Remember:

Catch = Landings + Dead Discards

To determine:

Commercial Annual
Catch Limit (ACL)

Recreational Annual
Catch Limit (ACL)

At some point we must subtract

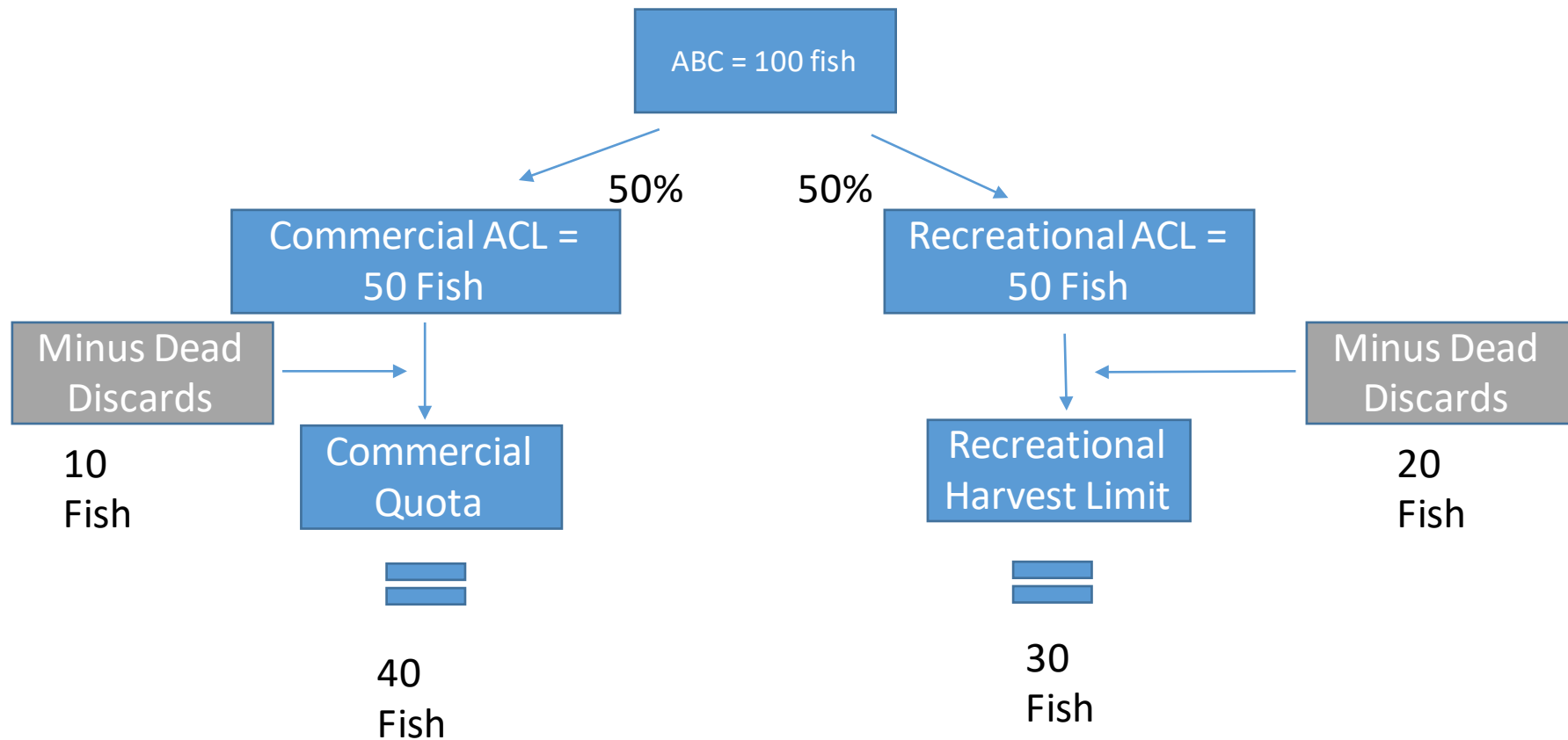
Dead Discards

To calculate

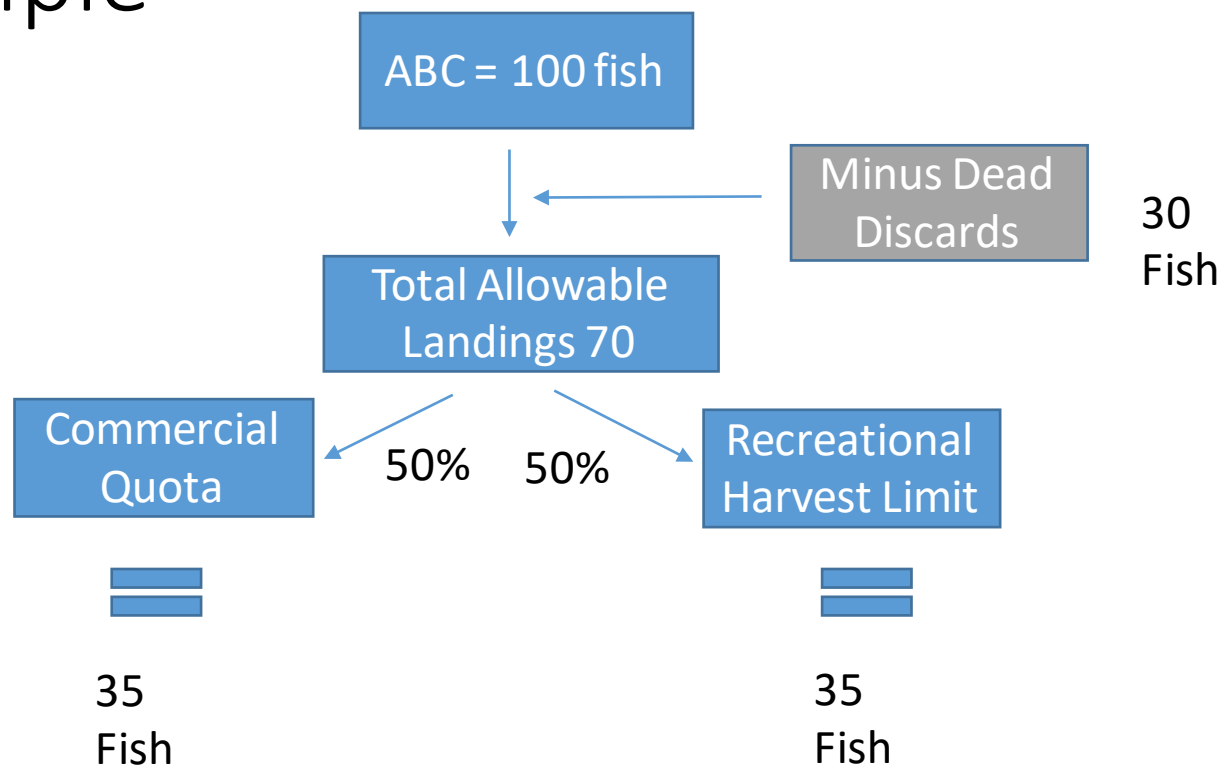
Commercial Quota

Recreational Harvest
Limit (RHL)

50%/50% Catch-Based Allocation Example



50%/50% Landings-Based Allocations Example

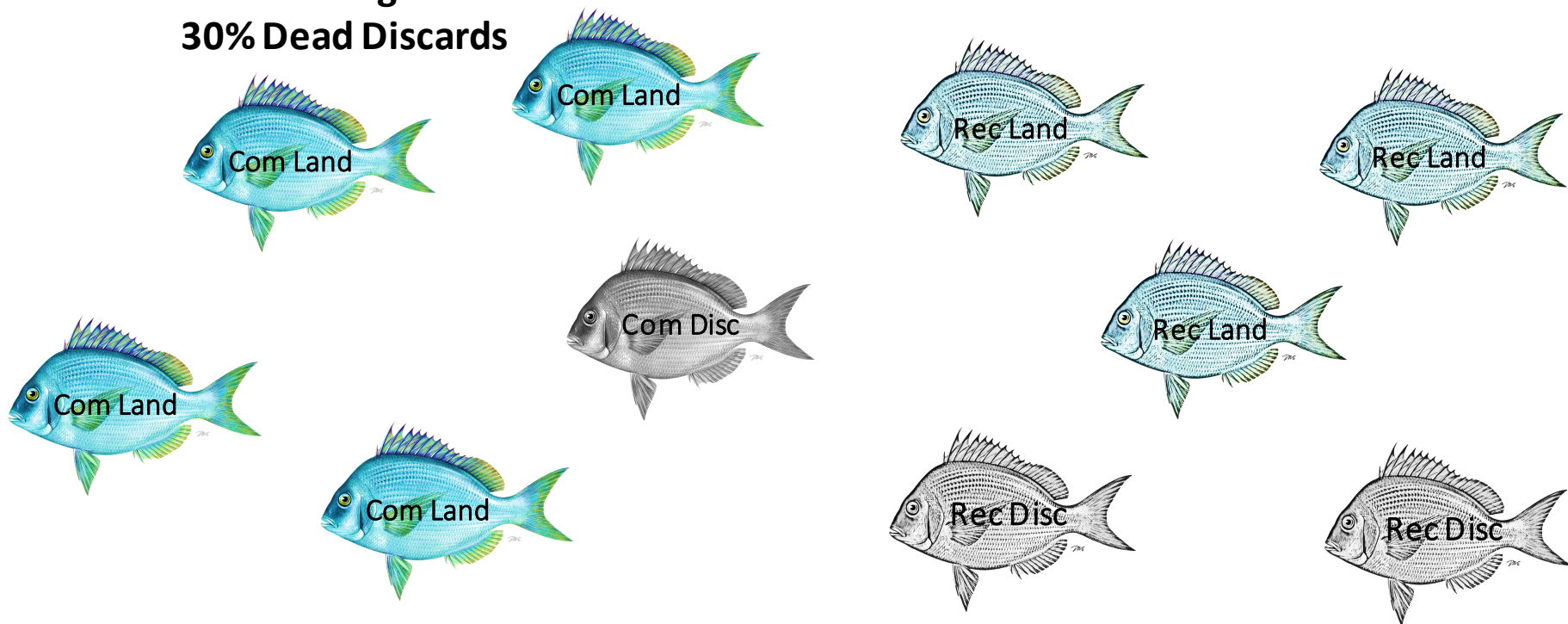


Hypothetical Recent Catch

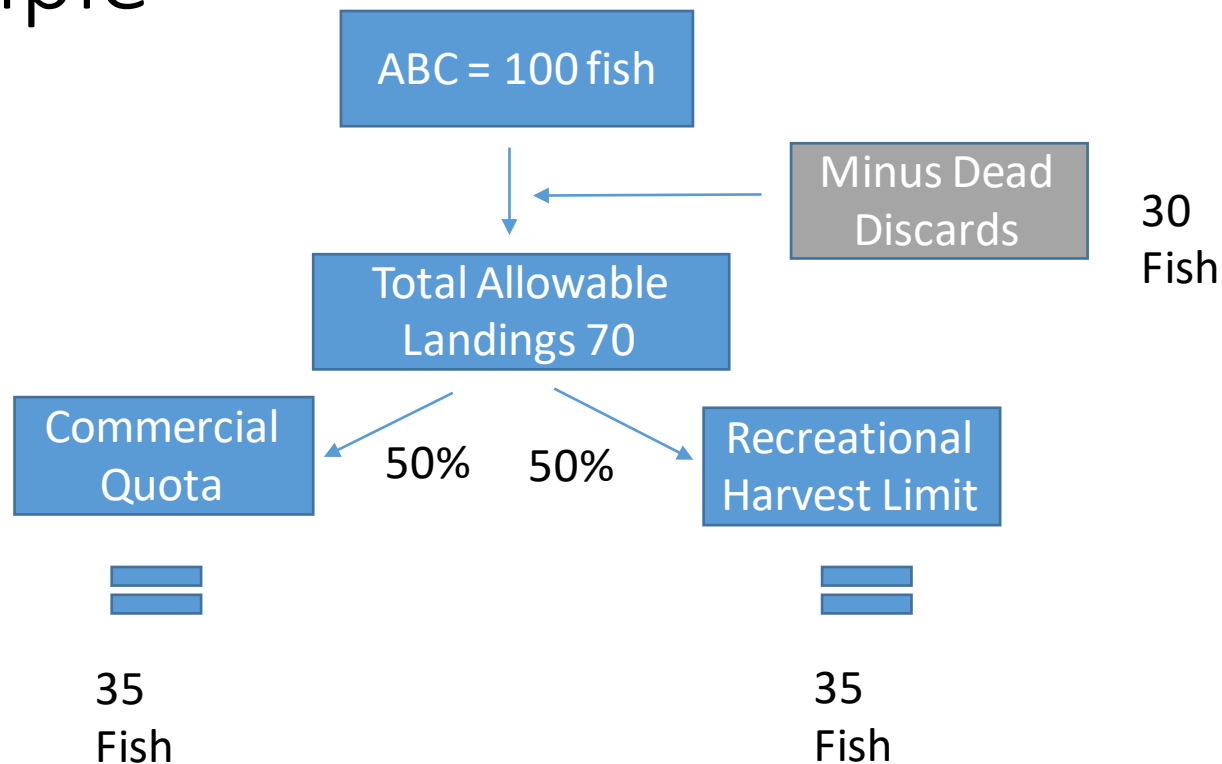
Remember:
Catch = Landings + Dead Discards

Entire Fishery Landings vs. Dead Discards Trends

70% Landings
30% Dead Discards



50%/50% Landings-Based Allocations Example





Same Allocation Percentages

Catch-Based
Allocations

Commercial
50%

Recreational
50%

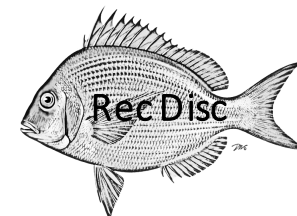
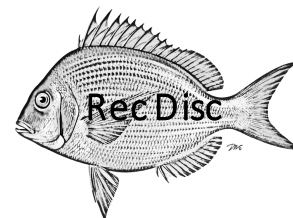
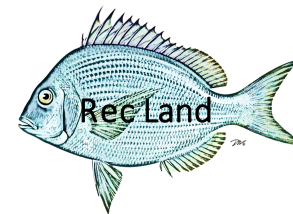
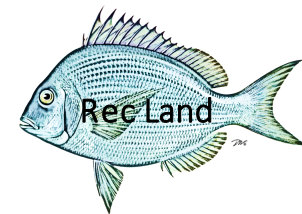
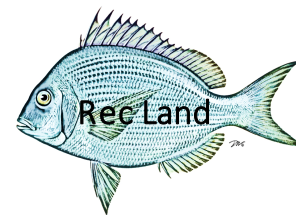
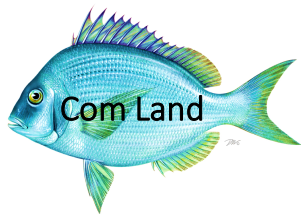
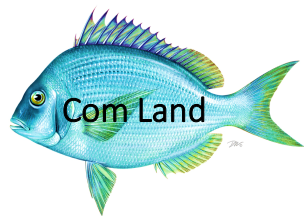
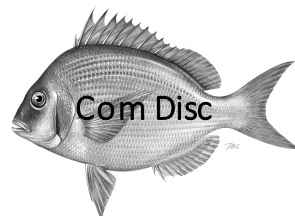
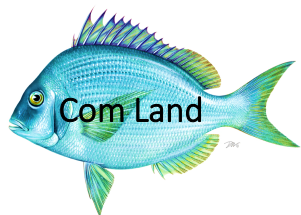
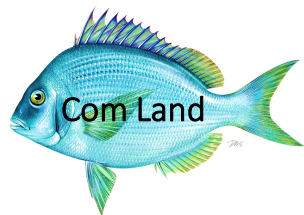
Landings-Based
Allocations

Commercial
50%

Recreational
50%

Same landings and dead discards data

Commercial
Recreational





Same Allocation Percentages

Catch-Based
Allocations

50%

50%

Landings-Based
Allocations

50%

50%

But different outcomes!!!

Commercial
Quota = 40 Fish

Recreational Harvest
Limit = 30 Fish

Commercial
Quota = 35 Fish

Recreational Harvest
Limit = 35 Fish



Same Allocation Percentages

Catch-Based
Allocations

50% 50%

Landings-Based
Allocations

50% 50%

But different outcomes!!!

Commercial
Quota = 40 Fish

Recreational Harvest
Limit = 20 Fish

Commercial
Quota = 30 Fish

Recreational Harvest
Limit = 30 Fish

Catch-based allocations will reward a sector that reduces dead discards in proportion to their total catch!



Catch-based allocations will reward a sector that reduces dead discards in proportion to their total catch!

Over time....

Less Dead Discards = Higher Landings limits

Summer flounder example limits: staff rec.

- Summer flounder example limits under staff-recommended new alt (55% comm/45% rec, catch based)
- Actual future limits depend on future discard projections & assumptions, as well as future ABCs

	Commercial quota	RHL
2020 actual	11.53	7.69
Example limits under new alt (using 2020 ABC)	11.21	7.76
% diff	-3%	1%