MID-ATLANTIC
FISHERY MANAGEMENT COUNCIL

# Golden Tilefish

Council Meeting

*April 12, 2017*

# Outline

1. Regulatory Review
2. Stock Status
3. Recent Fishery Performance
4. SSC recommendations
5. MC recommendations

# Regulatory Review

- In April 2014, the Council reviewed SSC, MC, and AP input and adopted catch and landings limits for 2015-2017
- Last year of the 3-year specifications cycle

# Framework 2 – working on implementation

- modifying the golden tilefish catch and landings limits flow chart
- eliminating the interactive voice response (IVR) requirements
- adding gear requirements in the recreational fishery
- adding landings ratios/qualifiers in the incidental fishery
- prohibiting vessels from fishing more than one IFQ allocation at a time
- require golden tilefish to be landed with the head attached

# Stock Status

- SAW/SARC 58 last benchmark stock assessment (2014)
- Statistical catch-at-age model (ASAP)
- Incorporated newly available length and age data to better characterize the population dynamics of the stock

# Assessment update

- Assessment update in 2017
- Model was updated with landings, size/age distributions, and CPUE data from 2013-2016
- Newly updated biological reference points

# Assessment update

- The Golden tilefish stock was not overfished and overfishing was not occurring in 2016
  - Fishing mortality in 2016 was estimated at F=0.249; 20% below the fishing mortality threshold of F=0.310 ($F_{MSY\ proxy} = F_{38\%}$)
  - SSB in 2016 was estimated at 18.693 million pounds (8,479 mt), and was at 89% of the biomass target (≈21 m lb; $SSB_{MSY\ proxy} = SSB_{38\%}$)

# Assessment update

- New recent large year class estimated at 2.85 million fish in 2013
  - 1971-2016 avg. 1.4 million fish
  - 2.93 mf (1998); 3.02 mf (1999); and 2.05 mf (2005)
- A broad size distribution (market categories) of fish landed

# Assessment update

- Decrease in the CPUE since 2011 is consistent with the ageing of the last strong year class in 2005
- CPUE is expected to increase from 10 yr. low as the strong 2013 class further recruits into the fishery

# Fishery Performance

| Management measures | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|
| ABC (m lb) | NA | NA | NA | 2.013 | 2.013 | 1.766 | 1.898 | 1.898 |
| TAL (m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 |
| Com. quota-initial (m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 |
| Com. quota-adjusted (m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 |
| Com. landings | 1.997 | 1.946 | 1.874 | 1.841 | 1.830 | 1.354 | 1.043 | - |
| Com. overage/underage (m lb) | +0.002 | -0.049 | -0.121 | -0.154 | -0.165 | -0.401 | -0.844 | - |
| Incidental trip limit (lb) | 300 | 300 | 500 | 500 | 500 | 500 | 500 | 500 |
| Rec. possession limit | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] |

# Fishery Performance

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|---|---|---|---|---|---|---|---|---|
| ABC (m lb) | NA | NA | NA | 2.013 | 2.013 | 1.766 | 1.898 | 1.898 |
| TAL (m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 |
| Com. quota-initial (m lb) | 1.995 | 1.995 | 1.995 | 1.995 | 1.995 | 1.755 | 1.887 | 1.887 |
| **Com. quota-adjusted (m lb)** | **1.995** | **1.995** | **1.995** | **1.995** | **1.995** | **1.755** | **1.887** | **1.887** |
| **Com. landings** | **1.997** | **1.946** | **1.874** | **1.841** | **1.830** | **1.354** | **1.043** | - |
| **Com. overage/underage (m lb)** | **+0.002** | **-0.049** | **-0.121** | **-0.154** | **-0.165** | **-0.401** | **-0.844** | - |
| Incidental trip limit (lb) | 300 | 300 | 500 | 500 | 500 | 500 | 500 | 500 |
| Rec. possession limit | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] | 8[c] |

# Commercial Landings

- Landings relatively stable since IFQ system became effective; exception last two years
- Ex-vessel value and price ($ per pound) w/ upward trend since IFQ was implemented
- Average price $3.64 per pound (2012-2016); 2016 = $4.24 per pound
- Stable IFQ vessel participation by top ports

# Commercial Landings

- In 2015 - 49 dealers - $5.1 million - 97 vessels
- In 2016 - 53 dealers - $4.2 million - 104 vessels
- Dealers are located in 7 states, most in NY followed by NJ, RI, MA, and CT

# Recreational Landings

- Recreational landings and catches are low (MRIP and VTR data)
  - According to VTR data, 5,778 fish were landed by party/charter boats in 2016
  - Lowest value since 2012

# Commercial Discards

- No commercial discards of tilefish in directed tilefish trips (according to VTR data)
- Commercial discards are low in non-directed trips

# Commercial Discards

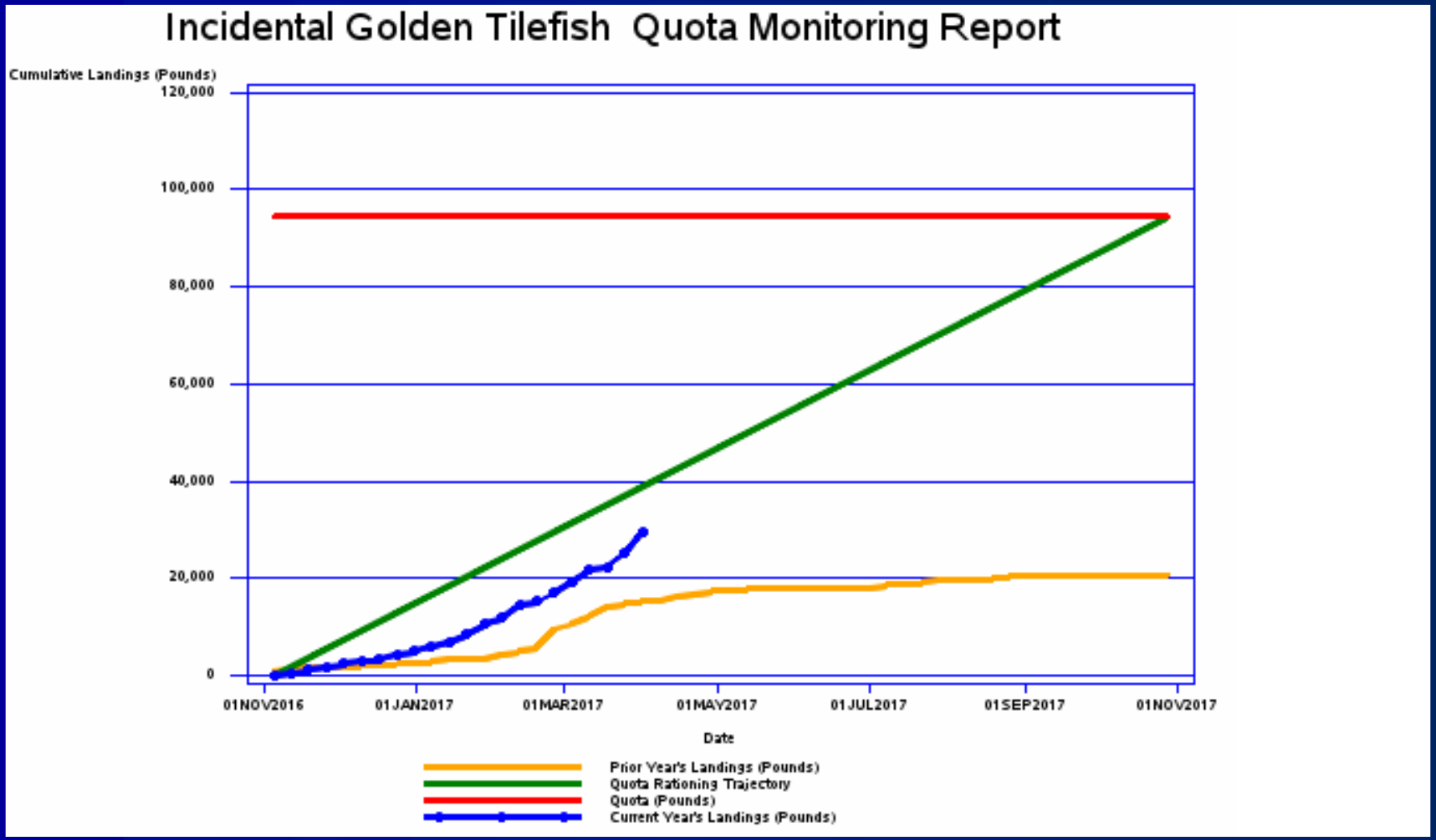
- According to the "Discard Estimation, Precision, and Sample Size Analysis" conducted by the NEFSC, discard estimations for commercial fisheries are low (mostly large/small mesh trawls and gillnets)

- NEFSC – avg. 9,393 pounds (~4 mt); 2012-2016

# Incidental Landings

| Fishing Year | Landings (pounds) | Incidental Quota (pounds) | Percent of Quota Landed (%) |
|---|---|---|---|
| 2012 | 36,330 | 99,750 | 36 |
| 2013 | 36,442 | 99,750 | 37 |
| 2014 | 44,594 | 99,750 | 45 |
| 2015 | 18,839 | 87,744 | 21 |
| 2016 | 20,929 | 94,357 | 22 |

# Incidental Landings



# Fishery Performance Report
# Market Factors

- Prices continue to increase and have been strong in recent years
- Marketing efforts
- Having a steady year-round supply of tilefish has influenced the positive market development for this product
- Due to the high cost of operations, tilefish vessels fish as close to home port as possible

# FPR - Environmental

- Industry has observed no tilefish aggregation changes due to changes in water temperature
- Dogfish interactions reduces tilefish catches and strongly affect where people fish

# FPR - Mgmt. Issues

- IFQ system benefits - can plan fishing through the year. Working closely with each other and dealers to avoid market gluts

# FPR - Fishing Trends

- Current landings overall > same time last year & Kitten category continues to be a large % of overall catch composition
- Fishermen are not moving around much as they are finding a healthy mix of animals in traditional fishing grounds
- Two rec advisors - large aggregations of fish in some southern mid-Atlantic canyons have decreased and that a higher percentage of their catch is comprised of smaller fish

# FPR - Recreational Trends

- Five or six headboats directly fish for GTF & BLT but not 100% of the time
- Limited # trips throughout the season (summer time)
- For example, the boat w/ the largest # of scheduled trips (24 trips) do not take all of those trips

# FPR - Other

- Severe winter conditions in the northeast in 2013-2016 affected fishing operations/practices, resulting in longer fishing trips
- Constant harvest strategy working well in rebuilding fishery. Do not want to see different ACL every year

# FPR - Other

- Tilefish landings are aligned with the TAL specified for the fishery; 2016 underage due to several reasons; including:
  - Inactive vessels
  - 3 vessels with large allocations out of the water due to repairs and maintenance
  - Winter conditions and storms
  - Lower catch rates

# FPRs - Other

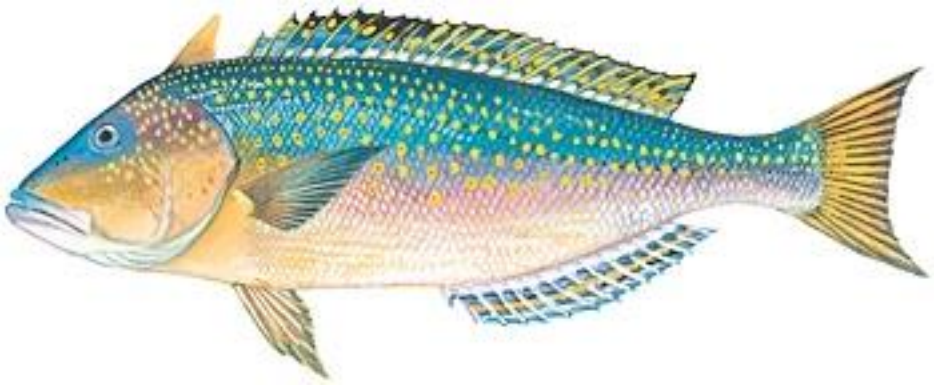
- Concerns about directed trips in the incidental category by non-trawl vessels
  - FW2 addressing this issue
- Concerns about vessels targeting GTF under the incidental rules. Some of these vessels do not have permitting requirements to sell fish or meet CG safety requirements

# FPRs - Other

- Consider differential trip limits (for hire vs private) and longer recreational trips (structured after the Gulf of Mexico regulations)
- Consider recreational allocation

# FPRs - Other

- Concerns about relaxing recreational regulations = higher recreational landings; while commercial quota could remain at status quo levels or decrease in the future
- Concerns about increasing any effort, bag limit, while maintaining status quo for the commercial fishery



# ABC Recommendations for Golden Tilefish

Fishing Years 2018-2020

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*The level of uncertainty that the SSC deems most appropriate for the information content of the most recent stock assessment, based on criteria listed in the Omnibus Amendment.*

- The SSC accepts the overfishing limit (OFL) estimate provided in the assessment.
- The level of uncertainty of OFL in the assessment requires an SSC-specified coefficient of variation (CV).

*The level of uncertainty that the SSC deems most appropriate for the information content of the most recent stock assessment, based on criteria listed in the Omnibus Amendment (cont'd).*

- The SSC maintains its 2014 determination based on:
  - Consistency between input data and model dynamics,
  - Available model diagnostics, and
  - Lack of a pathological retrospective pattern.

*If possible, the level of catch (in weight) and the probability of overfishing associated with the overfishing limit (OFL).*

- SSC accepts the recommendation from the stock assessment update that the $F_{MSY}$ proxy for 2018 is $F_{MSY}$ =0.31.
- OFL for 2018 is **1,058 mt**
- Specifying the OFL for subsequent years depends upon the ABC determination.

*The level of catch (in weight) and the probability of overfishing associated with the acceptable biological catch (ABC) for the stock.*

The SSC used the Council's revised approach to its risk policy, which seeks to maintain consistency in catch advice.

| Fishing Year | $F_{msy}$ | OFL (mt) | P* | ABC (mt) |
|---|---|---|---|---|
| 2018 | 0.31 | 1,058 | 0.34 | 742 |
| 2019 | | 1,098 | 0.32 | 742 |
| 2020 | | 1,039 | 0.34 | 742 |

*The level of catch (in weight) and the probability of overfishing associated with the acceptable biological catch (ABC) for the stock (cont'd).*

- The SSC accepts the revised approach for Golden Tilefish because there has been no strong trend in stock biomass in recent years.
- The SSC notes that this approach may not be applicable for all species.
- ABCs should be re-examined annually in light of substantial changes in the size distribution in the catch or in the spatial distribution of the fishery.

*The level of catch (in weight) and the probability of overfishing associated with the acceptable biological catch (ABC) for the stock (cont'd).*

- The poorly described level of recreational catch for Golden Tilefish is currently unaccounted for within the stock assessment.
- If the recreational harvest is substantially larger than currently believed, efforts should be made to directly account for this source of removals in the assessment.

*The most significant sources of scientific uncertainty associated with determination of OFL and ABC.*

- Reliance on fishery-dependent data in the assessment.
- Reliability of the $F_{MSY}$ proxy and its relationship to potential SPR-based reference points.
- The dome-shape selectivity curve that makes a strong assumption about the presence of older fish in the population.
- The extent of site fidelity of individuals, uncertainty in the stock range and distribution, and the consequences of the newly closed areas on stock dynamics.

*The most significant sources of scientific uncertainty associated with determination of OFL and ABC (cont'd).*

- Lack of reliable recreational catch information.
- Use of a pooled age-length key that may lead to misspecification of age structure and reduced ability to both follow and estimate the size of year classes.
- Lack of a recruitment index that places a heavy burden on the estimation of past recruitments from size composition in the landings.

*Research Recommendations.*

- Develop a fishery independent survey to estimate abundance and distribution.
- Perform exploratory analyses of fish distributions to assess whether the dome-shaped selectivity curve used in the assessment reflects fishery selectivity or availability, or both.

*Research Recommendations (cont'd).*

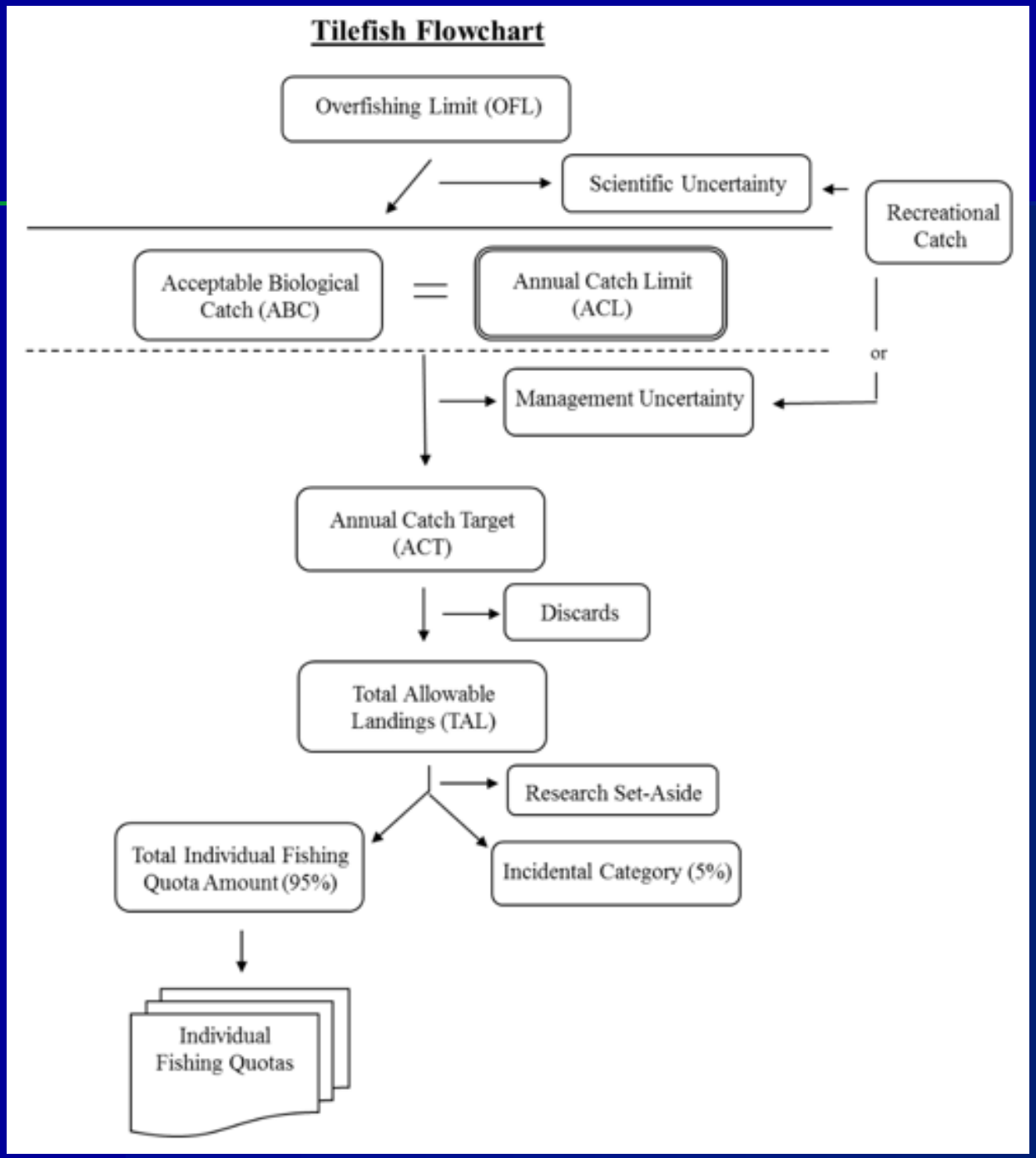
- Expand observer coverage to improve index standardization of fishery-dependent data.
- Leverage existing fishing activity to provide samples to improve life history and distribution information.
- Assess the accuracy and reliability of aging techniques.
- Evaluate the role of sanctuaries on the Golden Tilefish stock and its fisheries.

# MC Recommendations

- 3-year recommendations (2018-2020)
- No reduction from the ACL to the ACT
  - Commercial fisheries landings performance align for the most part with expectations. Close monitoring due to IFQ system
- Following process created by the ACL/AM Omnibus Amendment, TAL was adjusted from ACT to account for discards (using average discards from 2012-2016)

# MC Recommendations

- Discussed that commercial discards are not generated by the IFQ fishery
- Under the current catch and landings limits flow chart discards are deducted from the overall fishery ACT to derive overall fishery TAL
- Under FW2 – discards are deducted from specific sector generating them




# Current Tilefish Flow Chart for Catch and Landings Limits

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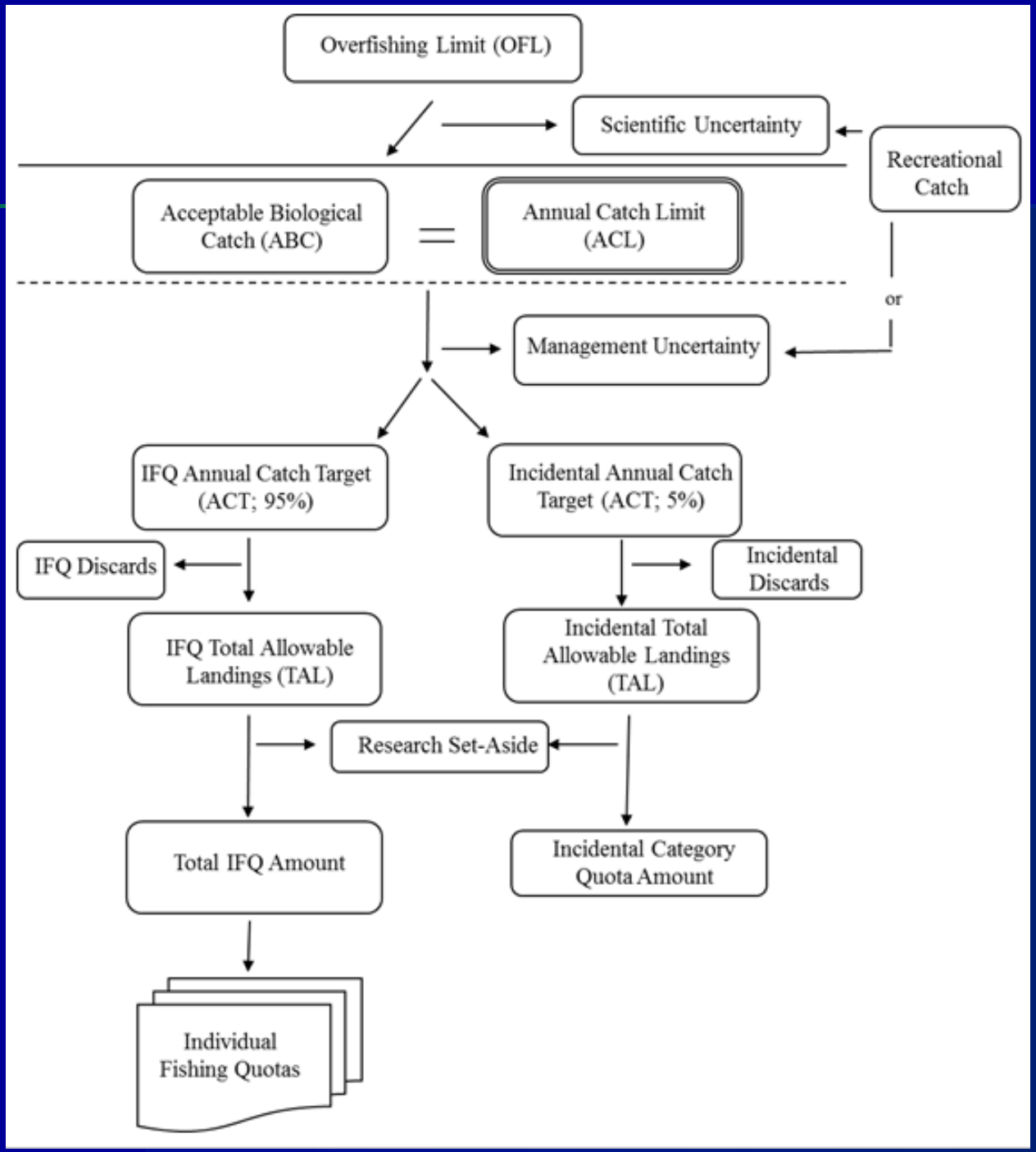


# Proposed Tilefish Flow Chart for Catch and Landings Limits under FW2

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# MC Recommendations

- Recommended that in the specifications package it is noted
  - Resulting TAL under the current catch and landings limit process
  - Resulting TALs under the process described under FW2 (where discards are directly subtracted from the specific fishery sector generating them to derive sector specific TALs)

# MC Recommendations

- Discussed
  - The poorly described level of recreational catch and effort
  - Hopeful that rec data collection requirements under Amd6 (blueline and golden tilefish) will help
  - Industry concerns about reductions in the TAL since Amd1 was implemented but no change in bag-limit
  - Effort and landings have increase in recent years

# MC Recommendations

- No change to the 8-fish per person per trip bag limit
  - MC will continue to monitor
- No change to the 500-lb whole weight (458-lb gutted)
  - Discussed FW2; landings ratios that are expected to address industry concerns about directed trips in the incidental category by non-trawl vessels

# MC Recommendations (Table 1 MC Document)

| | 2017 (Current) | 2018 | 2019 | 2020 | Basis (2018-2020) |
|---|---|---|---|---|---|
| **OFL** | 2.405 m lb (1,063 mt) | 2.332 m lb (1,058 mt) | 2.421 m lb (1,098 mt) | 2.291 m lb (1,039 mt) | Projections |
| **ABC** | 1.898 m lb (861 mt) | 1.636 m lb (742 mt) | 1.636 m lb (742 mt) | 1.636 m lb (742 mt) | Projections/ Council Risk Policy (recommendation, based on overfishing probability averaging) |
| **ABC % of OFL** | 79% | 70% | 68% | 71% | |
| **ACL** | 1.898 m lb (861 mt) | 1.636 m lb (742 mt) | 1.636 m lb (742 mt) | 1.636 m lb (742 mt) | ABC = ACL |
| **ACT** | 1.898 m lb (861 mt) | 1.636 m lb (742 mt) | 1.636 m lb (742 mt) | 1.636 m lb (742 mt) | Deduction for management uncertainty = 0 |
| **Discards** | 0.011 m lb (5 mt) | 0.009 (4 mt) | 0.009 m lb (4 mt) | 0.009 m lb (4 mt) | Avg. discard (2012-2016) mostly sm/lg mesh OT and Gillnet gear |
| **TAL** | 1.887 m lb (856 mt) | 1.626 m lb (738 mt) | 1.626 m lb (738 mt) | 1.626 m lb (738 mt) | ACT - discards |
| **IFQ Quota** | 1,792,799 lb (813.2 mt) | 1,545,115 (700.85 mt) | 1,545,115 (700.85 mt) | 1,545,115 (700.85 mt) | 95% of the TAL |
| **Incidental Quota** | 94,357 lb (42.8 mt) | 81,322 (36.89 mt) | 81,322 (36.89 mt) | 81,322 (36.89 mt) | 5% of the TAL |

# MC Recommendations (Table 1 MC Document)

*Resulting IFQ and incidental landings limits under the process described under Framework 2 (where discards are directly subtracted from the specific fishery sector generating them to derive sector specific TALs).*

| | 2017 (Current) | 2018 | 2019 | 2020 | Basis (2018-2020) |
|---|---|---|---|---|---|
| **IFQ ACT** | NA | 1.554 m lb (705 mt) | 1.554 m lb (705 mt) | 1.554 m lb (705 mt) | IFQ 95% of ACL Incidental 5% of ACL. Deduction for management uncertainty = 0 |
| **Incidental ACT** | NA | 0.08 m lb (37 mt) | 0.08 m lb (37 mt) | 0.08 m lb (37 mt) | |
| **IFQ Discards** | NA | 0 | 0 | 0 | |
| **Incidental Discards** | NA | 0.009 (4 mt) | 0.009 m lb (4 mt) | 0.009 m lb (4 mt) | Avg. discard (2012-2016) mostly sm/lg mesh OT and Gillnet gear |
| **IFQ TAL** | NA | 1.554 m lb (705 mt) | 1.554 m lb (705 mt) | 1.554 m lb (705 mt) | IFQ ACT – IFQ discards |
| **Incidental TAL** | NA | 0.07 m lb (33 mt) | 0.07 m lb (33 mt) | 0.07 m lb (33 mt) | Incidental ACT – Incidental discards |
| **IFQ Quota** | 1,792,799 lb (813.2 mt) | 1,554,038 (704.90 mt) | 1,554,038 (704.90 mt) | 1,554,038 (704.90 mt) | |
| **Incidental Quota** | 94,357 lb (42.8 mt) | 72,398 lb (32.84 mt) | 72,398 lb (32.84 mt) | 72,398 lb (32.84 mt) | |

# Questions?