



American Eel Draft Addendum VI

Commercial Glass/Elver Eel Management



American Eel Management Board
January 2024

Outline



1. Addendum Development Timeline
2. Problem Statement
3. Background
4. Management Options
5. Next Steps

Timeline



Timeline	Action
August 2023	Board initiated Draft Addendum VI
Fall 2023	PDT developed Draft Addendum
January 2024	Board considers Draft Addendum VI for public comment
February 2024	Public hearings & comment period
Spring 2024	Review public comment, consider draft addendum for final approval
January 1, 2025	Implementation of selected management measures

Problem Statement



- Maine's commercial glass eel quota for 2015-2017 was set at 9,688 pounds by Addendum VI (2014)
- Addendum V maintained the same quota, which was extended through Board action through 2024
- Fishing beyond 2024 requires an Addendum
- Draft Addendum VI addresses this issue by considering implementation of a Maine glass eel commercial quota for 2025 and beyond.

Background

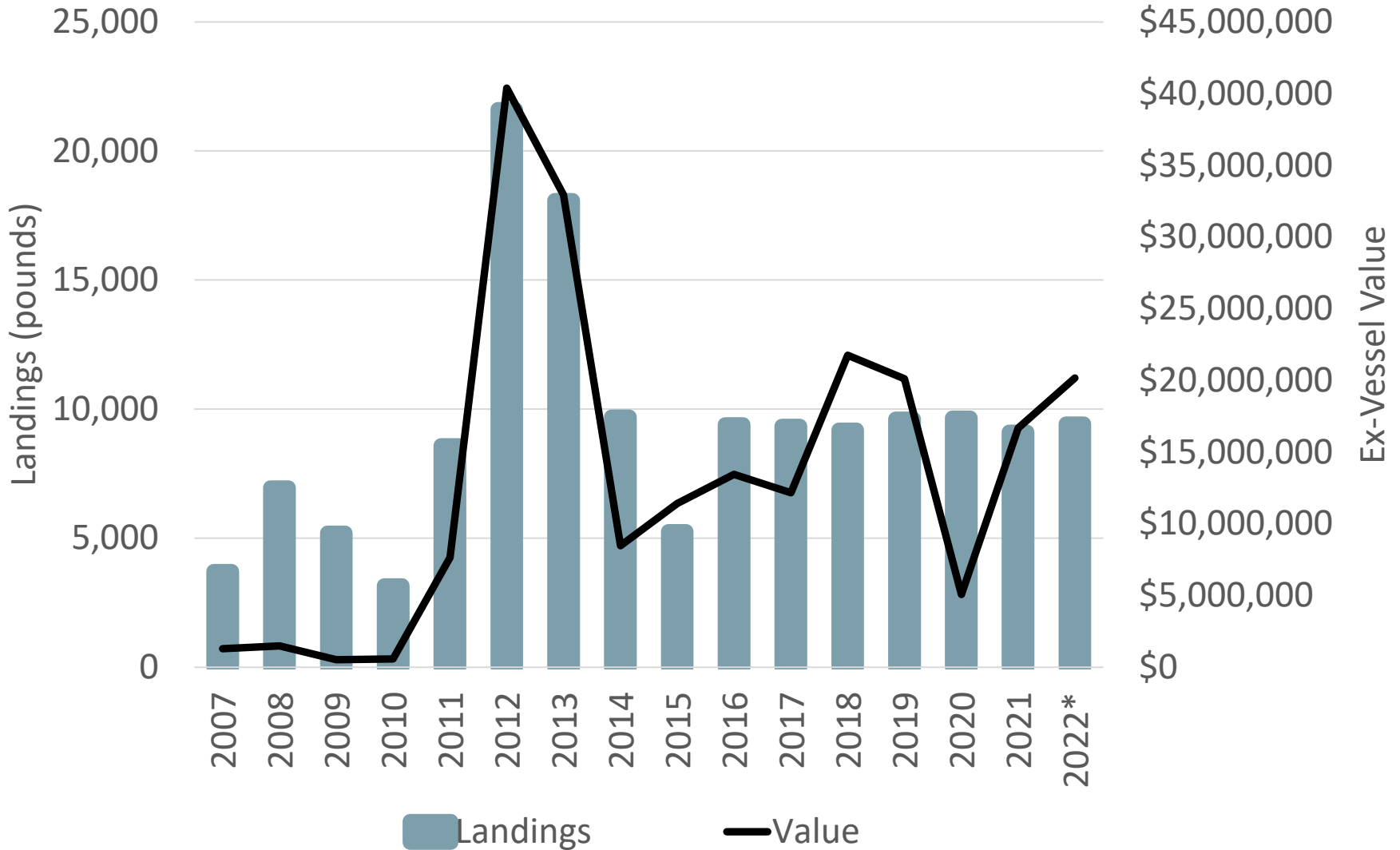


- Since 2015 Maine's annual glass eel landings have remained below the quota
- Maine uses a swipe card program to monitor individual fishing quotas daily, and track glass eels from dealer purchase to export
- Maine lifecycle monitoring has surveyed YOY eel since 2001, and yellow/silver eel since 2018
 - YOY catch shows linear increasing trend
- Glass/Elver CPUE has been calculated since 2016

Commercial Landings



Maine Glass Eel Commercial Landings and Value



Maine YOY Survey

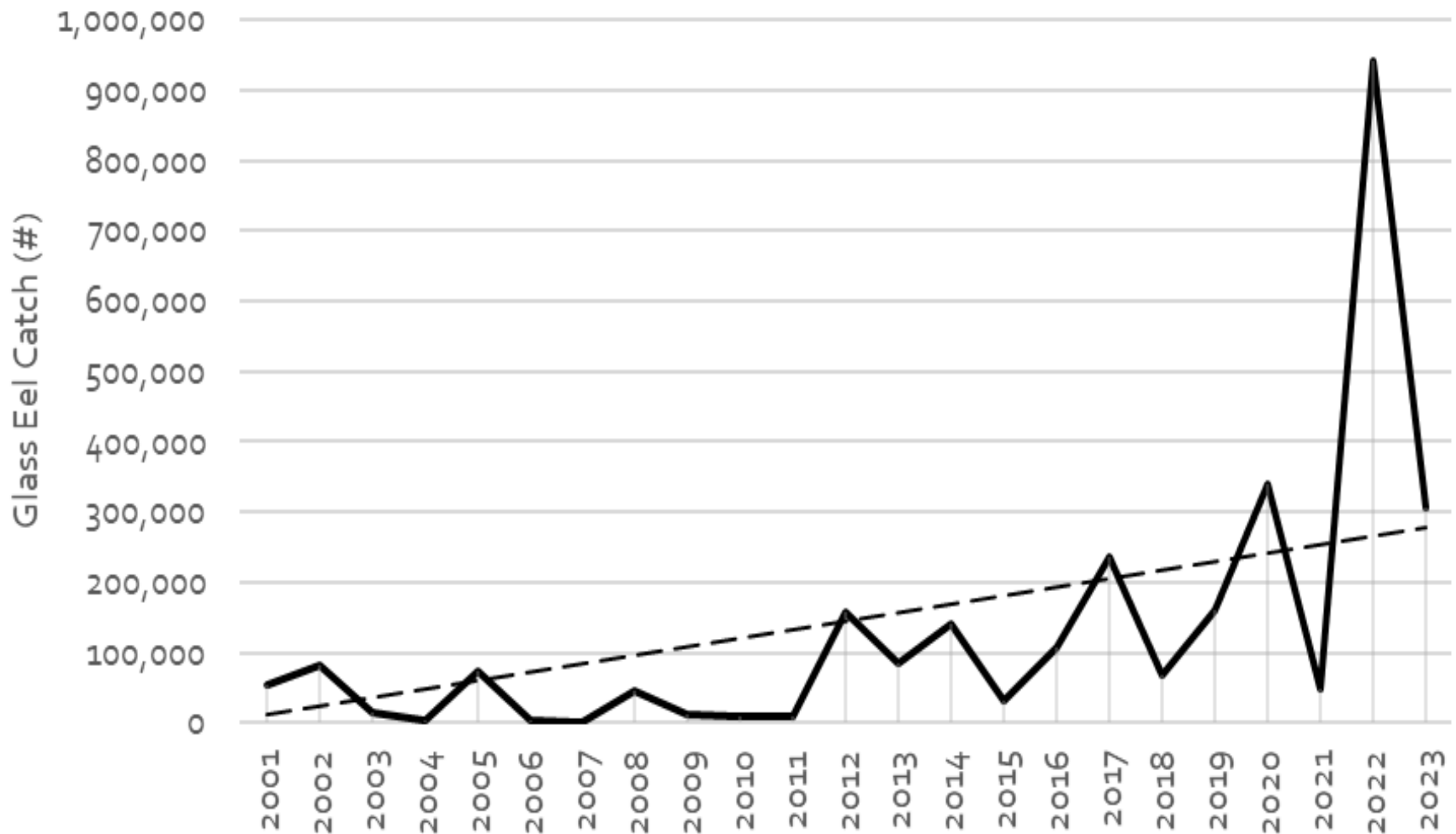


Figure 1. Glass eel capture at West Harbor Pond Maine as part of the ME DMR Eel Lifecycle study (solid line). The linear trendline, with the intercept set to zero and an R^2 value of 0.5009, shows an increase over time (dashed line).

Glass Eel CPUE

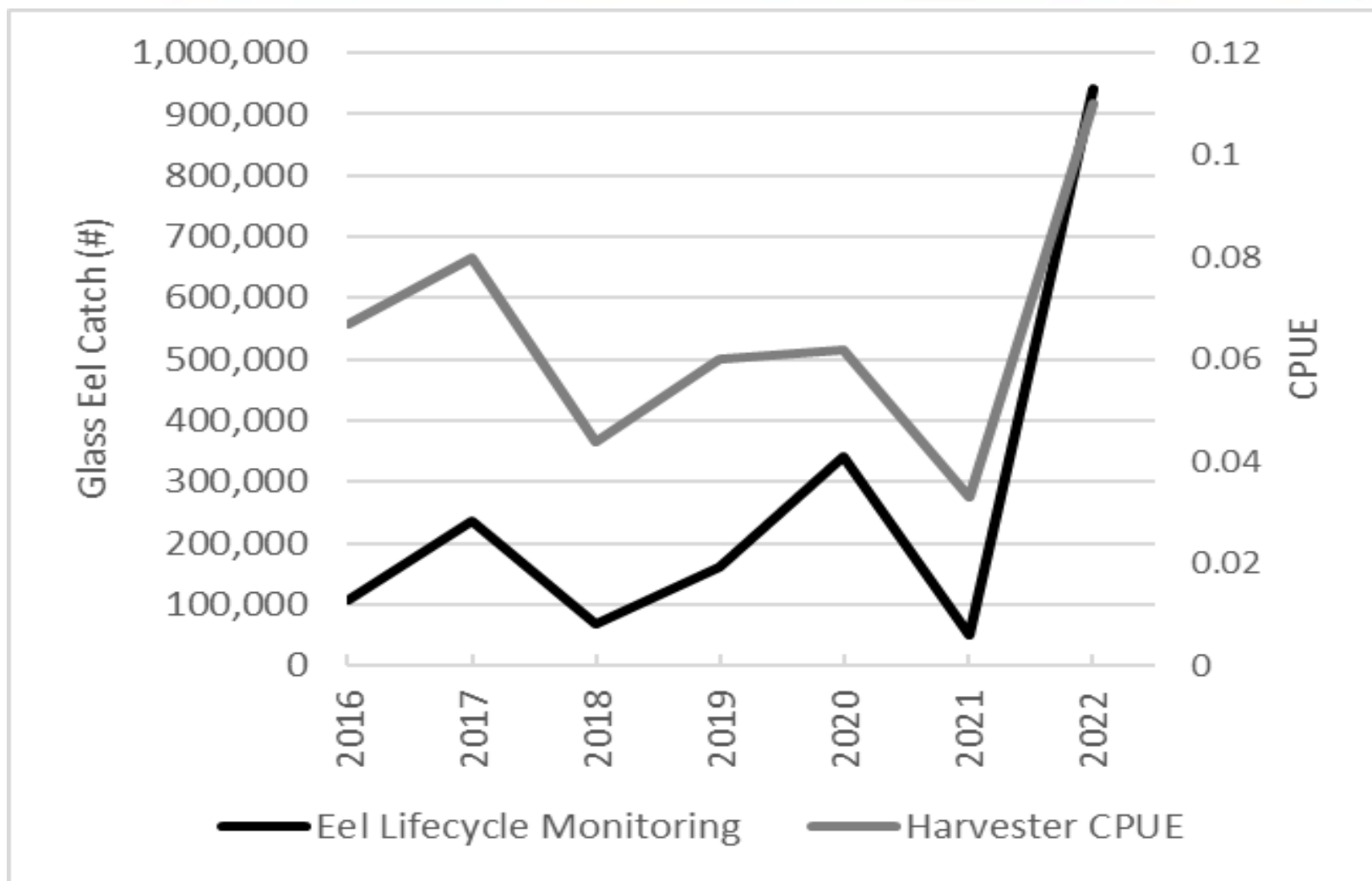


Figure 2. Glass eel capture at West Harbor Pond Maine as part of the ME DMR Eel Lifecycle study (black line) and CPUE of Harvesters from 2016-2022 (gray line).



Proposed Management Options

3.1 Maine Glass Eel Quota



- **Option 1: Status quo, 9,688 pounds**
- **Option 2: Reduce quota by 21.8%**
 - Annual quota of 7,576 pounds
 - Reduction equivalent to the smallest reduction considered for yellow eel in Draft Addendum VII
 - Responds to stock assessment results
 - Glass eel experience higher natural mortality than yellow eel

3.2 Quota Timeframe



- **Option 1: No Sunset**
 - Quota established under Addendum VI will remain in place unless changed through addendum/amendment
- **Option 2: Three Years**
 - The Board must initiate an action to establish Maine glass eel commercial quota for 2028 and beyond
- **Option 3: Three Years, can extend via Board action**
 - Board can extend the same quota indefinitely

Next Steps



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January 2024	Board considers Draft Addendum VI for public comment
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January 1, 2025	Implementation of selected management measures

Board Action



- Consider any modifications to management options
- Consider approval of Draft Addendum VI for public comment



Photo Credit: Jen Pyle

Questions?



American Eel Draft Addendum VII

Commercial Yellow Eel Management and Monitoring Requirements



American Eel Management Board
January 2024

Outline



1. Addendum Development Timeline
2. Background
 - Problem Statement
 - Landings and abundance
 - Monitoring requirements
3. Management Options
 - Yellow Eel Coastwide Cap & Management Response
 - YOY survey requirements
 - Catch and effort reporting requirements
4. Next Steps

Timeline



Timeline	Action
August 2023	Board initiated Draft Addendum VII
Fall 2023	PDT developed Draft Addendum
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TBD	Implementation of selected management measures

Background



- Board approved Benchmark Stock Assessment for management use in August 2023
 - American eel stock remains depleted, further decline since last assessment
 - Recommended reduction in yellow eel fishing mortality
- Board initiated Draft Addendum VII
 - ***Move to form a Plan Development Team to draft an addendum to consider using I_{TARGET} to recommend various catch caps, but not use I_{TARGET} to set biological reference points or stock status, using the supplemental report as presented today as a starting point.***

Problem Statement



- 2023 Assessment maintains depleted stock status and recommends reducing yellow eel catch
- Assessment is unable to provide biological reference points to inform management
- Current coastwide cap is based on historical landings
- 2023 Assessment recommends I_{TARGET} tool to provide catch advice based on landings and abundance index

Landings and Abundance Index



Monitoring Requirements



- 2023 Assessment commented on young of year (YOY) abundance surveys and catch and effort monitoring
 - Recommends biological sampling requirement in YOY surveys be made optional (lengths, pigment stage)
 - State CPUE data have not been used in assessments; not indicative of trends in stock as a whole
- PDT included options regarding monitoring requirements to address these issues

Proposed Management Options



3.1 Commercial Yellow Eel Management

- Issue 1: Coastwide Cap
- Issue 2: Management Response to Exceeding Cap

3.2 Timeframe for Yellow Eel Provisions

3.3 Annual YOY Abundance Survey

3.4 Catch and Effort Monitoring Program

3.1 Yellow Eel Management



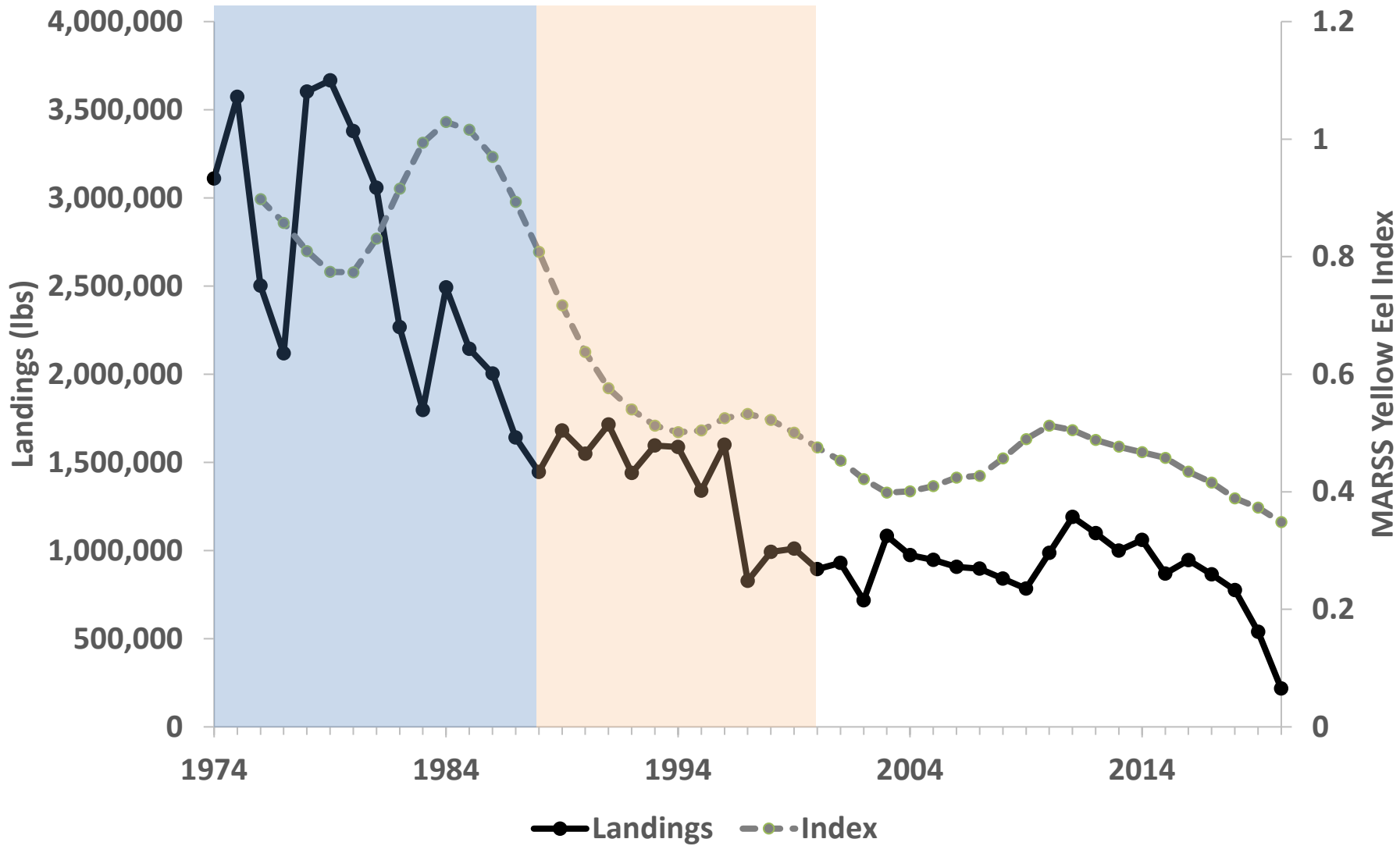
Issue 1: Coastwide Cap

- Current cap is 916,473 pounds, based on average landings from 1998-2010
 - **Option 1: Status Quo**
- Addendum proposes alternative caps using I_{TARGET} tool
 - Different configurations of I_{TARGET} produce a range of catch recommendations based on management goals

I_{TARGET} Configuration



- Three “knobs” to adjust configuration:
 - 1. Reference period:** a time period where the population is stable or at a desirable abundance level
 - 2. Multiplier:** determines the level of abundance that management is aiming to achieve.
 - 3. Threshold:** This value reflects goals of the fishery. A threshold of 0.5 is less conservative, whereas a threshold of 0.8 was recommended by the NEFSC.



Coastwide Cap Options



Option	Reference Period	Multiplier Value	Threshold Value	Recommended 2020 Catch (lbs)
2	1974-1987	1.25	0.8	202,453
3	1974-1987	1.25	0.5	518,281
4	1988-1999	1.5	0.5	509,780
5	1988-1999	1.25	0.5	716,497

Coastwide Cap Options



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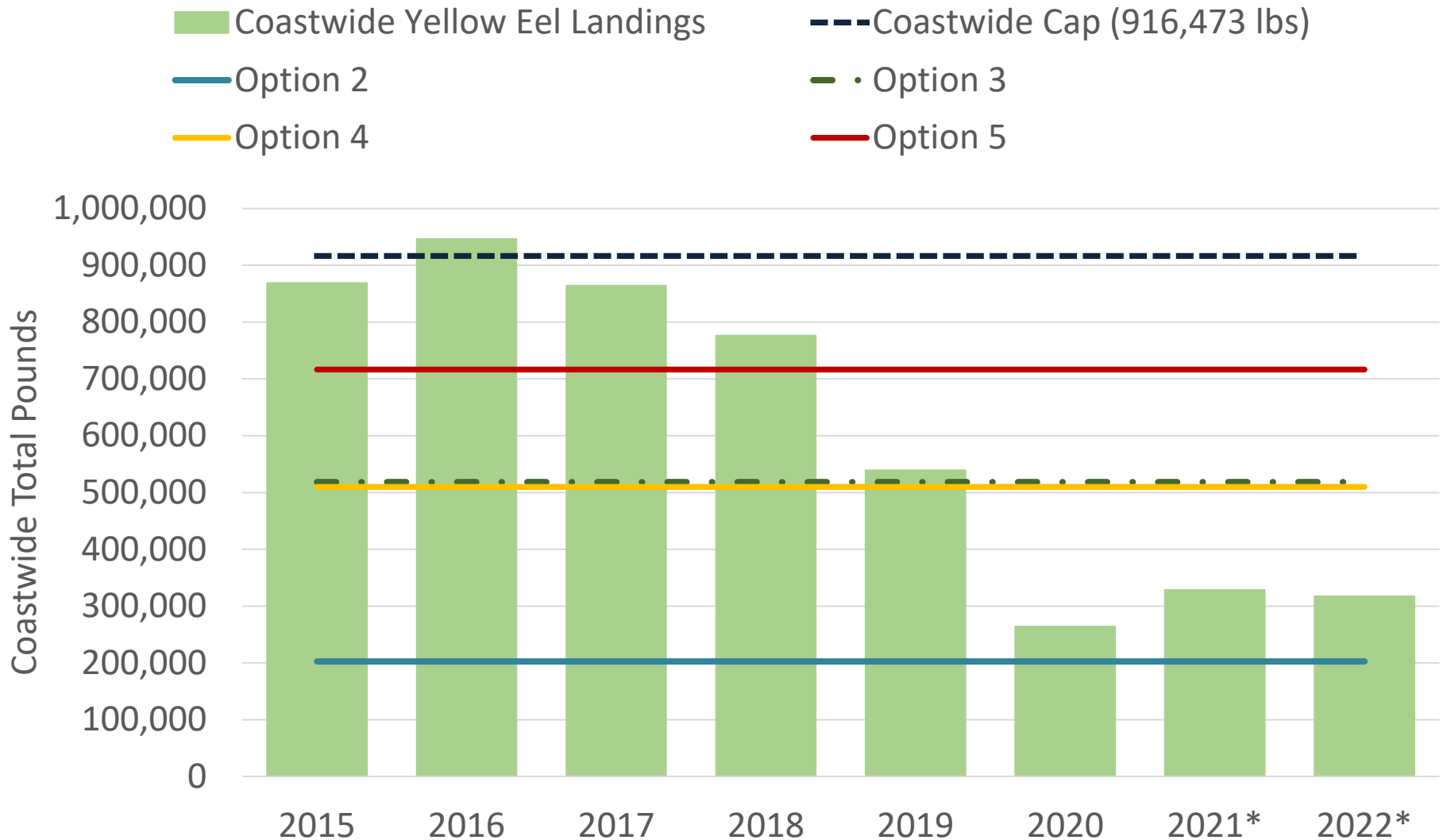
Target Abundance



3.1 Yellow Eel Management



Coastwide Yellow Eel Landings & Caps



3.1 Yellow Eel Management



Issue 2: Management Response to Exceeding Cap

- Option 1: Status Quo
 - If landings exceed cap by 10% for two consecutive years, states with landings $> 1\%$ of the coastwide landings in the year(s) when the cap is exceeded will be responsible for reducing landings to achieve the coastwide cap in the subsequent year
- Option 2: States with $>5\%$ of Landings
 - Instead of states with $>1\%$ of landings, states with landings $> 5\%$ of the coastwide landings will be responsible for reducing landings to achieve the coastwide cap in the subsequent year

3.1 Yellow Eel Management



Issue 2: Management Response to Exceeding Cap

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	PRFC	VA	NC	SC	GA	FL
2014	0.7%	Time series average < 0.1%	0.4%	0.2%	0.1%	3.6%	8.6%	5.9%	58.4%	4.6%	10.3%	5.7%	Time series average < 0.1%	Time series average < 0.1%	1.3%
2015	0.5%		0.3%	0.2%	0.3%	5.8%	10.2%	5.1%	56.8%	3.6%	10.0%	6.7%			0.6%
2016	0.7%		0.2%	0.3%	0.3%	3.8%	7.1%	4.7%	61.7%	6.2%	10.2%	4.2%			0.6%
2017	0.7%		0.1%	0.3%	0.1%	4.8%	9.0%	3.5%	62.6%	3.9%	11.3%	2.9%			0.9%
2018	0.4%		0.0%	0.5%	0.4%	5.1%	9.0%	4.0%	66.3%	4.0%	7.4%	2.3%			0.6%
2019	0.5%		0.3%	0.8%	1.0%	6.1%	14.1%	2.5%	61.5%	5.0%	6.4%	1.5%			0.3%
2020	2.7%		0.0%	0.5%	1.1%	6.2%	9.0%	0.7%	60.6%	9.5%	8.3%	1.2%			0.2%
2021*	0.1%		C	0.6%	1.0%	4.9%	8.0%	1.3%	62.3%	3.2%	14.1%	1.7%			2.8%
2022*	0.3%		C	0.2%	1.1%	8.1%	15.7%	0.9%	56.4%	3.8%	10.6%	1.1%			1.8%

3.2 Timeframe for Yellow Eel Provisions



- Option 1: No sunset date; can update cap after 3 years
 - PDT recommends cap stay in place for a minimum of 3 years; fewer years of data insufficient to evaluate cap performance
- Option 2: No sunset date; can update cap after 5 years
 - 5 years of data more robust for updating cap performance

**Updating the catch cap would be done using the same configuration of I_{TARGET} selected by the Board

3.3 YOY Survey



- Option 1: Status Quo
 - No change in YOY monitoring requirements; states must continue to collect individual length and pigment stage
- Option 2: Voluntary biological sampling of YOY
 - States would not be required to collect individual lengths and pigment stage of YOY catch
 - States may continue to do so voluntarily
 - Recommended by Technical Committee and SAS

3.4 Catch and Effort Monitoring



- Option 1: Status Quo
 - Maintain Addendum I requirement for harvester reporting of trip-level CPUE data (i.e., soak time, number of units of gear fished, and pounds landed)
- Option 2: Voluntary collection of CPUE data for yellow eel
 - States no longer required to collect trip-level CPUE data for yellow eel catch
 - States may continue to collect CPUE data voluntarily
 - Does not apply to glass eel catch
 - TC has no concerns with this option

De Minimis



- Commission *de minimis* policy modified November 2022
 - A state can be considered *de minimis* if the average landings for the **last three years** is less than 1% of the coastwide landings
- Eel FMP uses average landings of last **two years**
- Changing the *de minimis* rules for eel is not required
 - Rationale must be provided to deviate from Commission policy

Draft *De Minimis* Options



- Option 1: Status Quo
 - Continue to use average landings for preceding two years to evaluate *de minimis* status
 - Rationale must be provided
- Option 2: Modify *de minimis* policy for eel to apply the Commission policy
 - A state can be considered *de minimis* if the average landings for the **last three years** is less than 1% of the coastwide landings

Next Steps



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TBD	Implementation of selected management measures

Board Action



- Consider any modifications to management options
 - Does the Board want to add *De minimis* policy options to this Draft Addendum?
- Consider approval of Draft Addendum VI for public comment



Photo Credit: Jen Pyle, NJFW

Questions?



AMERICAN EEL FMP REVIEW

2022 FISHING YEAR



American Eel Management Board
January 2024

Outline



- Status of the FMP
- Status of the Fishery
- PRT Review of State Compliance
- PRT Recommendations

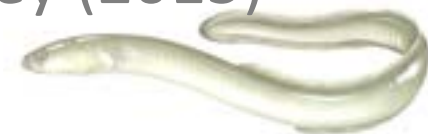


Fishery Management Plan



Glass Eel Fishery Regulations

- All states must implement YOY survey (2000)
- All states must maintain regulations (2000)
- Max of 25 pigmented eels per pound of glass eels (2014)
- Maine glass eel quota of 9,688 lbs with payback (2015)
- Maine implements swipe card monitoring program for daily reporting (2014/2015):
 - Harvester to dealer
 - Dealer to dealer
 - Export from state
- Maine is required to implement life cycle survey (2015)
- No change in regulations



Fishery Management Plan



Yellow Eel Fishery Regulations

- Minimum size of 9" (2014)
- ½" x ½" min mesh size for yellow eel pots
- Recreational 25 fish bag limit per day per angler
- Crew and captain allowed 50 fish bag limit per day
- Coastwide harvest cap of 916,473 lbs (2019)
- Management trigger of 10% overage for 2 years(2019)
- No change in regulations



Fishery Management Plan



Silver Eel Fishery Regulations

- Seasonal closure from Sept 1 – Dec 31, no eel take except from baited pots/traps and spears (2015)
- One year exemption for weir fishery in Delaware River and its tributaries in NY (2014)
 - Exemption continued, but restricted to 9 permits that may be transferred (2015)
- No change in regulations



Fishery Management Plan



Other Management Measures

- Trip level catch and effort reporting by harvesters and dealers at least monthly (Addendum I)
- Sustainable fishery management plans:
 - Fishing Mortality Plan
 - Transfer Plan quota from yellow to glass
 - Aquaculture Plan: 200 pounds of glass eels if can demonstrate watershed contributes minimally to spawning stock (requested information changed in 2019)
- All plans must scientifically demonstrate that they will not increase overall fishing mortality
- No change in regulations



Fishery Management Plan



Other Management Measures

Aquaculture Plans:

- Maine submitted a continuation of Aquaculture Plan for 2023
 - Approved by the Board in August 2022
 - 200 lbs were harvested by American Unagi in 2022



Status of the Fishery



Commercial Landings

- State-reported landings of yellow/silver eels were around 334,653 lbs in 2022
 - 2% increase from 2021
 - Maryland, Virginia, New Jersey, and New York account for 91% of coastwide harvest
- Maine Glass Eels: 9,459 lbs in 2022 (Maine only)
 - SC landings are confidential

*No recreational estimates



PRT Review



Glass Eel Fishery Regulations

PRT Review:

- No noted issues on glass eel regulations from state compliance reports



PRT Review



Yellow Eel Fishery Regulations

PRT Review:

- New York minimum mesh regulations not consistent with Addendum III
 - Allowance for an escape panel of ½” by ½” mesh instead of adopting minimum mesh size for eel pots not permitted as of January 1, 2017



PRT Review



Silver Eel Fishery Regulations

PRT Review:

- Delaware has not implemented regulations preventing harvest of eels from pound nets from September 1 through December 31.
 - No pound net landings have been reported in the state in over 50 years
 - Delaware will address this issue as part of any future changes to the eel regulations
- Florida does not have a regulation preventing harvest of eels from pound nets from September 1 through December 31
 - The state is unaware of any active pound net fishery in the past 10-15 years



De minimis



- Standard: for each life stage, for preceding 2 years, average commercial landings constitute less than 1% of the coastwide commercial landings for that life stage.
- New Hampshire, Massachusetts, Pennsylvania, D.C., Georgia, and Florida requested *de minimis* status for their yellow eel fisheries.
 - Florida average yellow eel landings for 2021-2022 are >1% of coastwide landings (2.25%)



PRT Recommendations



- Consider state compliance notes
- Request NY separate yellow and silver eel landings
- States quantify upstream and downstream passage, and provide information to the TC for evaluation.
 - Add a section to the compliance report for this information
- Engage Committee on Economic and Social Sciences (CESS) to conduct analysis of market demand, specific to food vs bait markets, international market demand
- Work with USFWS to compare landings and exports



Questions?



Photo Credit: Jen Pyle, NJFW