INTERSTATE FISHERIES MANAGEMENT PROGRAM OVERVIEW

Spiny Dogfish

Species Range
Labrador, Canada to Florida

Management Unit
Coastwide (Maine through Florida)

Stock Status
The 2018 Stock Assessment Update indicates that spiny dogfish are not overfished and overfishing is not occurring. The spawning stock biomass estimate of 235 million pounds is slightly above the SSB threshold of 175 million pounds, while the fishing mortality estimate (0.202) is just below the fishing mortality threshold (0.2439). Despite remaining above the threshold, biomass has declined in recent years, requiring a significant reduction in 2019-2020 to ensure that overfishing does not occur.

The stock was originally declared rebuilt in 2008 when the Northeast Fisheries Science Center (NEFSC) assessment update estimated that SSB exceeded the target by 22%. Prior to 2008, annual quotas were set based on the rebuilding fishing mortality rate = 0.11.

The most recent benchmark assessment is the 43rd Northeast Regional Stock Assessment Workshop, Stock Assessment Review Committee consensus summary of assessments (43 SAW/SARC). The 43 SAW/SARC uses a stochastic estimate of fishing mortality that minimizes sampling variations in the footprint of the trawl and uncertainty in the commercial and recreational discard estimates. This approach was deemed more accurate by the SAW/SARC committee than the index-based three-year moving average used to calculate SSB in previous stock assessments.

NEFSC released a peer reviewed update of biological reference points for spiny dogfish in October 2013. This report updated the target and threshold SSB reference points as well as the fishing mortality target and threshold values. Updating the fishing mortality rate target and threshold is particularly significant because the life history model used to derive these rates is heavily dependent on the selectivity pattern of the fishery. Beverton and Holt demonstrated that when other factors of the fishery are held constant, the effects on mortality decline as the size or age-at-entry into the fishery increases. Therefore, setting an F rate based on 2005 selectivity patterns could lead to overfishing.

The next benchmark stock assessment is currently scheduled for completion in 2022.
Involved States and Jurisdictions
ME, NH, MA, RI, CT, NY, NJ, DE, MD, VA, NC, NMFS, USFWS

Active Boards/Committees
Spiny Dogfish & Coastal Sharks Management Board, Plan Review Team/Plan Development Team, Technical Committee, Stock Assessment Subcommittee, Advisory Panel

Chairs
Board, Chair – Chris Batsavage (8/2019); Vice-Chair – Vacant
Technical Committee, Chair – Scott Newlin (06/2013), Vice-Chair – Vacant
Advisory Panel, Chair – Vacant

Staff Lead
Kirby Rootes-Murdy, krootes-murdy@asmfc.org

Management Plan History
Interstate Fishery Management Plan for Spiny Dogfish (November 2002)
The Interstate FMP established an annual quota system that is divided into and allocated across two periods; Period 1 is May to October (57.9%) and Period 2 is November to April (42.1%). The annual quota is set at a level that does not exceed the fishing mortality (F) goal. The FMP also established possession limits to control the rate of catch for each period. Possession limits are set annually and may differ between Period 1 and 2. If a quota is over or under harvested, payback and rollover (up to 5% when the stock has rebuilt) provisions require adjustment of the following year’s quota. This plan also allows for a state to issue exemptions from the quota for up to 1,000 fish for biomedical supply.

Addendum I (November 2005)
Addendum I to the Interstate FMP for Spiny Dogfish allows the Board to set the quota and trip limit for up to 5 years. This addendum was developed to provide fishermen with the ability to set long term business plans and goals for their fishery operations. The Board may adjust specifications during a fishing season with a 2/3-majority vote.

Addendum II (October 2008)
Addendum II replaces the seasonal allocation with a regional distribution of the quota. The regional allocation distributes quota with 58% to Maine – Connecticut, 26% to New York – Virginia, and 16% to North Carolina. Paybacks and rollovers are paid back by and rolled over to regions rather than seasons.
Addendum III (April 2011)
Addendum III divides the southern region’s annual quota of 42% into state-specific shares (see table below). It also allows for quota transfer between states, rollovers of up to five percent and state-specified possession limits, and includes a three-year reevaluation of the measures. The Addendum’s provisions apply only to states in the southern region (New York through North Carolina) and do not modify the northern region allocation. The states of Maine to Connecticut will continue to share 58% of the annual quota as specified in Addendum II.

Southern Region State Shares. Quota allocation differs slightly from specific options presented in the draft addendum and are based on needs of states in the southern region with a consideration of historic landings.

<table>
<thead>
<tr>
<th>Percent of Annual Coastwide Quota</th>
<th>NY</th>
<th>NJ</th>
<th>DE</th>
<th>MD</th>
<th>VA</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.707%</td>
<td>7.644%</td>
<td>0.896%</td>
<td>5.920%</td>
<td>10.795%</td>
<td>14.036%</td>
<td></td>
</tr>
</tbody>
</table>

Addendum IV (August 2012)
The Addendum updates the definition of overfishing to be consistent with that of the Mid-Atlantic Fishery Management Council and provides the Board the flexibility to update or modify the management program’s overfishing definition through Board action based on the recommendations of its Technical Committee. The prior overfishing definition, adopted in 2002, was based on the number of pups per female that recruit to the stock. The updated definition will now be based on maximum sustainable yield or a reasonable proxy, consistent with the best available science. Although there are no immediate impacts to regulations, the change allows the Commission and Council to work from the same starting point when determining annual specifications. The Board considered modifying the management program’s 5% rollover provision to either preclude rollovers entirely without specific Board approval or to allow rollovers beyond the current 5% maximum with Board approval. The Board voted to maintain the 5% maximum rollover. Any rollover is predicated on a rebuilt stock.

Addendum V (October 2014)
Addendum V ensures consistency in spiny dogfish management with the Shark Conservation Act of 2010 by prohibiting processing at-sea, including the removal of fins. Prior to approval, states could process spiny dogfish at-sea, so long as the ratio of fins aboard the vessel did not exceed 5% of the ratio of carcasses aboard the vessel. The Board set an implementation date of May 1, 2015 for states to promulgate this measure.
Current Specifications
In October 2018, the Spiny Dogfish Management Board approved the following commercial quotas for the 2019-2021 fishing seasons:

- 2019/2020 – 20,522,832 pounds
- 2020/2021 – 23,194,835 pounds
- 2021/2022 – 27,421,096 pounds

The quotas are based on the 2018 Stock Assessment Update, which indicates that while the population is not overfished and overfishing is not occurring, biomass has declined, requiring an approximate 46% reduction in the 2019-2020 quota to ensure that overfishing does not occur.

Table 1. Spiny Dogfish State Allocations (in pounds) for the 2019-2021 Fishing Seasons

<table>
<thead>
<tr>
<th>Possession Limit</th>
<th>Northern Region (ME-CT)</th>
<th>NY</th>
<th>NJ</th>
<th>DE</th>
<th>MD</th>
<th>VA</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocation</td>
<td>58%</td>
<td>2.707%</td>
<td>7.644%</td>
<td>0.896%</td>
<td>5.92%</td>
<td>10.795%</td>
<td>14.036%</td>
</tr>
<tr>
<td>2019/20</td>
<td>11,903,243</td>
<td>555,716</td>
<td>1,568,900</td>
<td>183,893</td>
<td>1,214,957</td>
<td>2,215,484</td>
<td>2,880,640</td>
</tr>
<tr>
<td>2020/21</td>
<td>13,453,004</td>
<td>628,069</td>
<td>1,773,165</td>
<td>207,835</td>
<td>1,373,141</td>
<td>2,503,932</td>
<td>3,255,689</td>
</tr>
<tr>
<td>2021/22</td>
<td>15,904,236</td>
<td>742,507</td>
<td>2,096,248</td>
<td>245,704</td>
<td>1,623,336</td>
<td>2,960,166</td>
<td>3,848,898</td>
</tr>
</tbody>
</table>

Pending Action
Draft Addendum VI will be released for public comment in August 2019. The Draft Addendum proposes allowing commercial quota to be transferred between all regions and states and will also scope public comment on the concept of eliminating the current federal commercial trip limit. The Board will consider final action on the Addendum at the Annual Meeting in October 2019.

Annual Events
- Compliance Reports due July 1st
- Specification Setting (may include multiple years): November of each year