2020 North Carolina Landings and Harvest Trends

DEPARTMENT OF ENVIRONMENTAL QUALITY

Marine Fisheries

Marine Fisheries Commission | Brandi Salmon | November 2021
Commercial Landings

Trip Ticket Program

Data Sources
Department of Environmental Quality
Commercial Landings

Paper Tickets

37,705

Electronic Tickets

54,654

92,359

Total Trip Tickets Processed in 2020

Department of Environmental Quality
Recreational Harvest

**COASTAL ANGLING PROGRAM**

- 23,746 interviews
- 19,095 mail surveys

Department of Environmental Quality
Recreational Harvest

Marine Recreational Information Program (NOAA Fisheries partnership)

- Access Point Angler Intercept Survey (APAIS)
- For-Hire Effort Survey
- Highly Migratory Species Catch Card
- Large Pelagic Biological Sampling

Department of Environmental Quality
Recreational Harvest

- Central Southern Management Area (CSMA) Creel Survey
- Mail Surveys (i.e., gigging, cast net/seine, crab/shellfish)
- Specialty Surveys (e.g., socioeconomic, Catch-U-Later App)
Commercial and Recreational Data

Commercial data collection:

• Designed to be a census
• Data are provided by dealers
• Results are the summed total of reported landings

Recreational data collection:

• Data are collected through surveys
  • Due to high level of participation (millions of anglers and trips)
• Results are presented as estimates
• Percent Standard Error (PSE) for each estimate
Effort Drives Landings and Harvest

Several factors impact effort including:

Weather  Price  Market Demand
Effort Drives Landings and Harvest

Several factors impact effort including:

Stock Abundance

Regulations

Economic Factors
Fishing Trips with only Finfish

Number of Trips

Year

Commercial Trips

Recreational Trips
Fishing Trips with only Finfish

Graph showing the number of Commercial and Recreational Finfish Trips from 2011 to 2020. The x-axis represents the years, and the y-axis represents the number of trips. The graph indicates a decrease in both commercial and recreational trips over the years.
All Fishing Trips by Month - Commercial

- Number of Trips
- Month
- 5-Year Average (2015-2019)
- 2020
All Fishing Trips by Month - Recreational

- Number of Trips
- Month
- 5-Year Average (2015-2019) vs. 2020

Month: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Number of Trips: 0, 500,000, 1,000,000, 1,500,000, 2,000,000, 2,500,000, 3,000,000
Commercial
North Carolina Commercial Landings (pounds and value)
North Carolina Commercial Landings by Gear
NORTH CAROLINA COMMERCIAL FISHERIES

2020 Total Commercial Fisheries Landings: 42.9 million lb

Top 5 Landings (by weight):

- Blue Crabs (hard): 13.1 million lb, down 42%
- Dogfishes: 1.6 million lb, down 23%
- Shrimp (heads on): 9.7 million lb, down 13%
- Tunas: 1.8 million lb, up 16%
- Summer Flounder: 1.7 million lb, down 13%

*All percentage changes shown for 2020 from 5-year average (2015 to 2019)
NORTH CAROLINA COMMERCIAL FISHERIES

2020 Total Commercial Fisheries Landings

$77.4 million

2020 EX-VEssel VALUE

Blue Crabs (hard) $19.1 million
Shrimp (heads on) $22.3 million
Summer Flounder $3.8 million
Eastern Oyster $4.6 million
Tunas $4.1 million

*All percentage changes shown for 2020 from 5-year average (2015 to 2019)
Top Five Species – Commercial
Hard Blue Crab

![Graph showing landings in pounds and number of trips for Hard Blue Crab from 2011 to 2020. The graph indicates a decline in landings and number of trips over the years.]
Top Five Species – Commercial Penaeid Shrimp

![Graph showing the number of trips and pounds for Penaeid Shrimp from 2011 to 2020. The graph indicates a general trend of increasing pounds followed by a decrease. The number of trips remains relatively stable.](image-url)
Top Five Species – Commercial Tunas

![Graph showing landings in pounds and number of trips for commercial tunas from 2011 to 2020. The graph illustrates fluctuations in landings and trips across the years, with notable peaks and troughs.](image-url)
Top Five Species – Commercial Summer Flounder

![Graph showing landings in pounds, quotas, and number of trips for Summer Flounder from 2011 to 2020. The graph includes data on pounds and quotas, with landings in pounds varying from 0 to 6,000,000 and number of trips from 0 to 1,000.]}
Top Five Species – Commercial Eastern Oyster

![Graph showing the number of trips and landings in bushels for the Eastern Oyster from 2011 to 2020. The graph indicates fluctuations in both metrics with a peak in 2014 and a dip in 2016 and 2017.]
Top Five Species – Commercial Dogfishes

![Chart showing landings in pounds and number of trips for commercial dogfishes from 2011 to 2020. The landings peak in 2014, while the number of trips peaks in 2014 and 2015.](Photo/Image Credit: ASMFC)
Recreational
North Carolina Recreational Harvest
(pounds and numbers)
North Carolina Recreational Catch (harvest & releases)

Number of Fish

Year

- Number Harvested
- Number Released
North Carolina Recreational Harvest (by mode; numbers)
North Carolina Recreational Harvest (by mode; pounds)
NORTH CAROLINA RECREATIONAL FISHERIES

2020 Total Marine Recreational Fisheries Harvest

- Bluefish: 2.1 million
- Yellowfin Tuna: 2.4 million
- Spotted Seatrout: 3.6 million
- Spanish Mackerel: 1.8 million
- Dolphin: 2.1 million

2020 TOP 5 HARVESTED SPECIES

- HARVEST: 24.9 million pounds
- # of FISH: 19.0 million

- *Based on FES; All percentage changes shown for 2020 from 5-year average (2015 to 2019)*
NORTH CAROLINA RECREATIONAL FISHERIES

2020 Total Marine Recreational Fisheries Harvest

HARVEST
24.9 million pounds

# of FISH
19.0 million

2020 TOP 5 HARVESTED SPECIES

<table>
<thead>
<tr>
<th>Species</th>
<th>Harvest</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluefish</td>
<td>2.1 million</td>
<td>41%</td>
</tr>
<tr>
<td>Spot</td>
<td>0.9 million</td>
<td>61%</td>
</tr>
<tr>
<td>Spotted Seatrout</td>
<td>2.1 million</td>
<td>112%</td>
</tr>
<tr>
<td>Spanish Mackerel</td>
<td>1.3 million</td>
<td>23%</td>
</tr>
<tr>
<td>Puffers</td>
<td>1.2 million</td>
<td>24%</td>
</tr>
</tbody>
</table>

*Based on FES; All percentage changes shown for 2020 from 5-year average (2015 to 2019)
**NORTH CAROLINA RECREATIONAL FISHERIES**

**2020 Total Marine Recreational Fisheries Harvest**

- **# RELEASED**: 53.5 million
- **# HARVESTED**: 19.0 million

**2020 TOP 5 RELEASED SPECIES**

- **Pinfish**: 6.9 million (46% decrease)
- **Red Drum**: 2.7 million (18% increase)
- **Bluefish**: 6.6 million (10% decrease)
- **Spotted Seatrout**: 6.2 million (21% decrease)
- **Atlantic Croaker**: 5.6 million (6% decrease)

*Based on FES; All percentage changes shown for 2020 from 5-year average (2015 to 2019)*
Top Five Species – Recreational Spotted Seatrout

![Graph showing the harvest in pounds and number of targeted trips for spotted seatrout from 2011 to 2020. The harvest data is presented as a line graph with two series: one for pounds and one for trips. The graph indicates fluctuations in both metrics over the years.]
Top Five Species – Recreational Yellowfin Tuna

Year | Number of Targeted Trips | Harvest in Pounds

2011 | 0 | 500,000
2012 | 0 | 0
2013 | 0 | 0
2014 | 0 | 0
2015 | 0 | 0
2016 | 0 | 0
2017 | 0 | 0
2018 | 0 | 0
2019 | 0 | 0
2020 | 0 | 0

Number of Targeted Trips

0 500,000 1,000,000 1,500,000 2,000,000 2,500,000 3,000,000 3,500,000 4,000,000 4,500,000 5,000,000 5,500,000 6,000,000

Harvest in Pounds

0 500,000 1,000,000 1,500,000 2,000,000 2,500,000 3,000,000 3,500,000 4,000,000 4,500,000 5,000,000 5,500,000 6,000,000

Year


Pounds

Trips

North Carolina Marine Fisheries
Top Five Species – Recreational Bluefish

![Graph showing the annual number of targeted trips and pounds harvested for Bluefish from 2011 to 2020. The graph indicates a decline in both metrics over the years, with a peak in 2013 and a significant drop in 2020.]
Top Five Species – Recreational Spanish Mackerel

Harvest in Pounds

Number of Targeted Trips

Year


0 200,000 400,000 600,000 800,000 1,000,000 1,200,000

0 200,000 400,000 600,000 800,000 1,000,000 1,200,000

Pounds

Trips

NORTH CAROLINA MARINE FISHERIES

37
Top Five Species – Recreational Puffers

![Graph showing the number of targeted trips and harvest in number of puffers from 2011 to 2020.](image)

- **Number of Targeted Trips**
  - 2011: 50,000
  - 2012: 100,000
  - 2013: 150,000
  - 2014: 200,000
  - 2015: 250,000
  - 2016: 300,000
  - 2017: 350,000

- **Harvest in Number**
  - 2011: 50,000
  - 2012: 100,000
  - 2013: 150,000
  - 2014: 200,000
  - 2015: 250,000
  - 2016: 300,000
  - 2017: 350,000

**Graph Key:**
- Blue line: Number
- Green dotted line: Trips
Top Five Species – Recreational Spot

The graph shows the number of targeted trips and the harvest in numbers for the top five species over the years from 2011 to 2020. The data indicates a fluctuation in both numbers and trips, with a peak around 2014 and a significant drop in 2015. The number of targeted trips and harvest in numbers are presented on the y-axis, and the years are plotted on the x-axis.
## Species Leads

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>LEAD BIOLOGIST</th>
<th>SPECIES</th>
<th>LEAD BIOLOGIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shrimp</td>
<td><a href="mailto:Chris.Stewart@ncdenr.gov">Chris.Stewart@ncdenr.gov</a></td>
<td>Tunas</td>
<td><a href="mailto:Trish.Murphey@ncdenr.gov">Trish.Murphey@ncdenr.gov</a></td>
</tr>
<tr>
<td>Blue Crab</td>
<td><a href="mailto:Janelle.Johnson@ncdenr.gov">Janelle.Johnson@ncdenr.gov</a></td>
<td>Dolphin</td>
<td><a href="mailto:Tracey.Bauer@ncdenr.gov">Tracey.Bauer@ncdenr.gov</a></td>
</tr>
<tr>
<td>Summer Flounder</td>
<td><a href="mailto:Lorena.delaGarza@ncdenr.gov">Lorena.delaGarza@ncdenr.gov</a></td>
<td>Red Drum</td>
<td><a href="mailto:Lee.Paramore@ncdenr.gov">Lee.Paramore@ncdenr.gov</a></td>
</tr>
<tr>
<td>Bluefish</td>
<td><a href="mailto:David.Behringer@ncdenr.gov">David.Behringer@ncdenr.gov</a></td>
<td>Kingfishes</td>
<td><a href="mailto:Kevin.H.Brown@ncdenr.gov">Kevin.H.Brown@ncdenr.gov</a></td>
</tr>
<tr>
<td>Spotted Seatrout</td>
<td><a href="mailto:Tracey.Bauer@ncdenr.gov">Tracey.Bauer@ncdenr.gov</a></td>
<td>Spot</td>
<td><a href="mailto:Morgan.Paris@ncdenr.gov">Morgan.Paris@ncdenr.gov</a></td>
</tr>
<tr>
<td>Eastern Oyster</td>
<td><a href="mailto:Joe.Facendola@ncdenr.gov">Joe.Facendola@ncdenr.gov</a></td>
<td>Spanish Mackerel</td>
<td><a href="mailto:Mclean.Seward@ncdenr.gov">Mclean.Seward@ncdenr.gov</a></td>
</tr>
<tr>
<td>Atlantic Croaker</td>
<td><a href="mailto:Morgan.Paris@ncdenr.gov">Morgan.Paris@ncdenr.gov</a></td>
<td>Spiny Dogfish</td>
<td><a href="mailto:David.Behringer@ncdenr.gov">David.Behringer@ncdenr.gov</a></td>
</tr>
</tbody>
</table>
Data Needs?

Commercial data:
Meredith.Whitten@ncdenr.gov
Alan.Bianchi@ncdenr.gov

Recreational data:
Andrew.Cathey@ncdenr.gov

License data:
Brandi.Salmon@ncdenr.gov