2019 North Carolina Landings and Harvest Trends

DEPARTMENT OF ENVIRONMENTAL QUALITY

Marine Fisheries

Marine Fisheries Commission | Brandi Salmon | November 2020
Commercial Landings

Department of Environmental Quality

TRIP

TICKET

PROGRAM
Commercial Landings

Paper Tickets

Electronic Tickets

42,048

58,559

100,607

Total Trip Tickets Processed in 2019

Department of Environmental Quality
Recreational Harvest

COASTAL ANGLING PROGRAM

23,000 interviews/year
24,000 mail surveys/year

Department of Environmental Quality
Recreational Harvest

Marine Recreational Information Program (NOAA 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

Specialty Surveys (e.g., socioeconomic, Catch-U-Later App)

Central Southern Management Area Creel Survey

Mail Surveys (i.e., gigging, castnet/seine, crab/shellfish)

Department of Environmental Quality
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
- Number of Fishermen
Fishing Trips

Year

- Commercial (finfish only)
- Recreational (harvest only)
Fishing Trips by Month - Commercial

- Month: 1 to 12
- Number of Trips: 0 to 16,000
- 5-Year Average (2014-2018) vs. 2019
Fishing Trips by Month - Recreational
North Carolina Commercial Landings (pounds and value)

Year

Landings in Pounds  Ex-vessel Value in Dollars

North Carolina Commercial Landings by Gear
NORTH CAROLINA COMMERCIAL FISHERIES

2019 Total Commercial Fisheries Landings: 53.0 million lb

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**TOP 5 (by weight)**

- **Blue Crabs (hard)**: 22.3 million lb, -3%
- **Striped Mullet**: 1.4 million lb, +1%
- **Shrimp (heads on)**: 9.5 million lb, -6%
- **Summer Flounder**: 2.0 million lb, -9%
- **Tunas**: 1.5 million lb, -8%

*All percentage changes shown for 2019 from 5-year average (2014 to 2018)*
NORTH CAROLINA COMMERCIAL FISHERIES

2019 Total Commercial Fisheries Landings: $86.6 million

Top 5 (by value):
- **Blue Crabs (hard)**: $22.2 million (4% decrease)
- **Tunas**: $3.4 million (10% decrease)
- **Shrimp (heads on)**: $21.9 million (1% increase)
- **Summer Flounder**: $7.3 million (6% decrease)
- **Eastern Oyster**: $4.9 million (11% increase)

*All percentage changes shown for 2019 from 5-year average (2014 to 2018)*
Top Five Species – Commercial Hard Blue Crab

Year

Landings in Pounds

Number of Trips


0 0 10,000,000 20,000,000 30,000,000 40,000,000 50,000,000

60,000 35,000,000 30,000,000 25,000,000 20,000,000 15,000,000 10,000,000 5,000,000 0

0 5,000,000 10,000,000 15,000,000 20,000,000 25,000,000 30,000,000 35,000,000 40,000,000 45,000,000 50,000,000

Pounds

Trips

NORTH CAROLINA MARINE FISHERIES
Top Five Species – Commercial Penaeid Shrimp

![Graph showing the number of trips and landings in pounds for Penaeid Shrimp from 2010 to 2019. The graph includes data points for each year and shows fluctuations in both trip numbers and pounds landed. The graph indicates a trend of increasing landings followed by a decline in recent years.]
Top Five Species – Commercial Summer Flounder
Top Five Species – Commercial Tunas

- **Landings in Pounds**
- **Number of Trips**

<table>
<thead>
<tr>
<th>Year</th>
<th>Pounds</th>
<th>Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>500,000</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1,000,000</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>1,500,000</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>2,000,000</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>2,500,000</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>3,000,000</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>3,500,000</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>4,000,000</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>3,500,000</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>3,000,000</td>
<td></td>
</tr>
</tbody>
</table>
Top Five Species – Commercial Striped Mullet

[Graph showing the number of trips and landings in pounds from 2010 to 2019. The graph indicates a decrease in landings and trips over the years.]
Top Five Species – Commercial Eastern Oyster

Number of Trips

Landings in Pounds

Year

Pounds

Trips

North Carolina Recreational Harvest (pounds and numbers)

![Graph showing the pounds and numbers harvested from 2010 to 2019. The graph indicates a general decrease in both pounds and numbers harvested over the years, with a peak in 2013.](image-url)
North Carolina Recreational Catch (harvest & releases)
North Carolina Recreational Harvest (by mode; numbers)
North Carolina Recreational Harvest
(by mode; pounds)

Percent of Harvest (Pounds)
2019 Total Marine Recreational Fisheries Harvest

**2019 TOP 5 HARVESTED SPECIES**

- **HARVEST**
  - 23.8 million pounds
- **# of FISH**
  - 23.0 million

- **Spotted Seatrout**
  - 3.3 million
  - *141% increase*
- **King Mackerel**
  - 1.4 million
  - *27% increase*
- **Dolphin**
  - 3.1 million lb
  - *24% decrease*
- **Bluefish**
  - 3.0 million lb
  - *11% decrease*
- **Spanish Mackerel**
  - 1.7 million
  - *53% increase*

*Based on FES; All percentage changes shown for 2019 from 5-year average (2014 to 2018)*
NORTH CAROLINA RECREATIONAL FISHERIES

2019 Total Marine Recreational Fisheries Harvest

<table>
<thead>
<tr>
<th>Species</th>
<th>Harvest</th>
<th># of Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puffers</td>
<td>23.8</td>
<td>23.0</td>
</tr>
<tr>
<td>Spotted Seatrout</td>
<td>168%</td>
<td>168%</td>
</tr>
<tr>
<td>Bluefish</td>
<td>110%</td>
<td>110%</td>
</tr>
<tr>
<td>Kingfishes</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Spotted Seatrout</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>Spot</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Kingfishes</td>
<td>27%</td>
<td>27%</td>
</tr>
</tbody>
</table>

*Based on FES; All percentage changes shown for 2019 from 5-year average (2014 to 2018).
NORTH CAROLINA RECREATIONAL FISHERIES

2019 Total Marine Recreational Fisheries Harvest

# RELEASED
58.8 million

# HARVESTED
23.0 million

2019 TOP 5 RELEASED SPECIES

# RELEASED
# HARVESTED

Pinfish 9.1 million
Pinfish 6% decrease

Spotted Seatrout 7.2 million
Spotted Seatrout 53% decrease

Bluefish 7.2 million
Bluefish 9% decrease

Atlantic Croaker 3.6 million
Atlantic Croaker 16% increase

Red Drum 2.1 million
Red Drum 72% increase

*Based on FES; All percentage changes shown for 2019 from 5-year average (2014 to 2018)
Top Five Species – Recreational Spotted Seatrout

Harvest in Pounds

Year

Harvest (lb) vs. Trips

Number of Targeted Trips


500,000 1,000,000 1,500,000 2,000,000 2,500,000 3,000,000 3,500,000 4,000,000

0 500,000 1,000,000 1,500,000 2,000,000 2,500,000 3,000,000 3,500,000 4,000,000
Top Five Species – Recreational Dolphin

Year | Harvest (lb) | Number of Targeted Trips
--- | --- | ---
2010 | 33,000 | 200,000
2011 | 50,000 | 250,000
2012 | 100,000 | 400,000
2013 | 150,000 | 600,000
2014 | 200,000 | 800,000
2015 | 250,000 | 1,000,000
2016 | 100,000 | 500,000
2017 | 50,000 | 200,000
2018 | 100,000 | 250,000
2019 | 150,000 | 300,000
Top Five Species – Recreational Bluefish

![Graph showing the number of targeted trips and harvest in pounds for Bluefish from 2010 to 2019.]
Top Five Species – Recreational Spanish Mackerel

Number of Targeted Trips

Year

Harvest in Pounds

Harvest (lb)  Trips


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

0  200,000  400,000  600,000  800,000  1,000,000  1,200,000  1,400,000  1,600,000  1,800,000
Top Five Species – Recreational
King Mackerel

Year


Harvest in Pounds

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

Number of Targeted Trips

400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0

Harvest (lb)  Trips

0
## 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:Steve.Poland@ncdenr.gov">Steve.Poland@ncdenr.gov</a></td>
</tr>
<tr>
<td>Blue Crab</td>
<td><a href="mailto:Daniel.Zapf@ncdenr.gov">Daniel.Zapf@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>Southern Flounder</td>
<td><a href="mailto:Michael.Loeffler@ncdenr.gov">Michael.Loeffler@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>Striped Mullet</td>
<td><a href="mailto:Daniel.Zapf@ncdenr.gov">Daniel.Zapf@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>King Mackerel</td>
<td><a href="mailto:Mclean.Seward@ncdenr.gov">Mclean.Seward@ncdenr.gov</a></td>
</tr>
</tbody>
</table>
**Data Needs?**

**Commercial data:**

Amanda.L.Tong@ncdenr.gov  
Alan.Bianchi@ncdenr.gov

**Recreational data:**

Andrew.Cathey@ncdenr.gov

**Socioeconomic:**

David.Dietz@ncdenr.gov
Questions?