In 2011, fishermen in the GOM landed 1.8 billion pounds of finfish and shellfish, earning $818 million in landings revenue. Landings revenue was dominated by shrimp and menhaden.

MMPA List of Fisheries Categories:
- 1 Category I (frequent incidental Mortality/Serious injury)
- 4 Category II (occasional incidental Mortality/Serious injury)
- 15 Category III (remote incidental Mortality/Serious injury)
<table>
<thead>
<tr>
<th>Fishery</th>
<th>Stocks Affected</th>
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<tbody>
<tr>
<td><strong>Category I</strong></td>
<td></td>
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<tr>
<td>Pelagic Longline</td>
<td>Bottlenose dolphin (oceanic), spotted dolphin spp, Gervais beaked whale, killer whale, Risso’s dolphin, short-finned pilot whale, sperm whale</td>
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<td><strong>Category II</strong></td>
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<tr>
<td>Menhaden purse seine</td>
<td>Bottlenose dolphin BSE and coastal</td>
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<tr>
<td>Shrimp Trawl</td>
<td>Bottlenose dolphin BSE, coastal, shelf, oceanic</td>
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<tr>
<td>Gillnet</td>
<td>Bottlenose dolphin BSE and coastal</td>
</tr>
<tr>
<td>Stone crab pot</td>
<td>Bottlenose dolphin BSE and coastal</td>
</tr>
</tbody>
</table>
Bottlenose dolphin stocks in the Gulf affected by commercial fisheries

Total of 36 stocks:
- 1 oceanic (>200m)
- 1 continental shelf (20m-200m)
- 3 coastal (shore to 20m)
- 31 inshore (bays, sounds, estuaries)
Target species: Swordfish, tunas, Mahi, sharks

Spatial distribution: Within EEZ and high seas from Florida to Texas. Prohibited in DeSoto Canyon

Effort: In GOM in 2013--3,369 sets; 2,312,000 hooks

Stocks affected: Bottlenose dolphin (oceanic), spotted dolphin spp, Gervais beaked whale, killer whale, Risso's dolphin, short-finned pilot whale, sperm whale

Observer coverage: 24.7% sets observed in 2013 - variable by quarter; 100% observed for experimental fishing

Interactions: Serious injury, mortality, and interactions do occur, and are across a broad range of species
Menhaden Fishery (Cat II)

Spatial distribution:
- Fishery effort limited to northern Gulf
- Most fishing off LA (89.9% based on 2008-2011 average) Concentrated in LA
- Lower fishing activity off MS (7.8%); TX (2.3%); and AL (< 1%)
Menhaden Fishery (Cat II)

**Effort:** ~ 37 to 40 vessels operating since 2007; avg. annual sets from 2007-2011-17,493

**Stocks affected:** Bottlenose dolphin coastal, bays, sounds, estuaries

**Observer coverage:** Pilot observer coverage May-September 2011; currently no observer program

**Interactions:**
- 3 observed takes in 2011
- 13 self-reported takes between 2000-2013
- Data collected from 1992-1995 suggest as many as 172 dolphins may have been taken with 57 mortalities
Target species: various finfish, including Spanish mackerel, spotted seatrout, mullet, FL pompano, flounder

Spatial distribution: Prohibited in FL and TX state waters, allowed in AL, MS, LA

Effort: ~ 200 licensed gillnetters

Stocks affected: Bottlenose dolphin BSE and coastal

Observer coverage: Nov. 2012 to present in LA, MS, AL state waters (~10% coverage of those selected)

Interactions: None observed to date but takes occur in fishery research gillnets
Shrimp Fishery (Cat II)

From 2007-2011, Gulf shrimp landings averaged $419.6 annually

**Spatial distribution:** estuarine, near coastal, and offshore continental shelf

**Effort:**
- Fleet includes >4,000 permitted vessels of which ~1,500 federally permitted
- From 2007-2011, mean of 2.9 million hours of actively fished per year

**Stocks affected:** Bottlenose dolphin BSE, coastal, shelf; Atlantic spotted dolphin

**Observer coverage:** Mean annual observed effort was 0.24 ±0.21 % of total fishery effort from 1997 to 2011

**Interactions:**
- Observed (1993-2013) = 14 (6 identified as bottlenose dolphins)
- Relocation and research trawls (2000-2013) = 10
Affected Stocks:
- Common bottlenose dolphins
  - 31 Bay Sound Estuary stocks
  - 3 Coastal stocks
  - 1 Shelf stock
- Atlantic spotted dolphins
Shrimp Fishery (Cat II)

Mean Annual Mortality Estimates from 2007-2011:

- Exceed 10% of PBR for Western and Northern coastal bottlenose dolphin stocks
- Possibly exceed PBR for LA and AL/MS bottlenose dolphin estuarine stocks; further data on both abundance and bycatch rates in inshore waters are needed to determine whether this has occurred
- Other stocks at risk from shrimp otter trawl fishery bycatch are TX and FL bottlenose dolphin estuarine and Atlantic spotted dolphin
**Blue, Stone, and lobster pots**  
*(Cat II & III)*

**Spatial distribution:** Broadly distributed throughout the Gulf in estuarine and nearshore waters.

**Effort:** ~ 6,800 permit holders (includes entire state of FL)

**Stocks affected:** Bottlenose dolphins BSE & coastal

**Observer coverage:** None

**Interactions:** From 2002-2013, 18 strandings associated or consistent with trap pot gear
Snapper-Grouper and Other Reef fish hook and line:

- **Spatial distribution:** Grouper fishing occurs along the NE Gulf coast primarily along the west coast of FL. Snapper fishing occurs along the northern and western Gulf coast, in federal waters generally less than 33 fathoms.
- **Effort:** 819 permitted vessels (subset of 100 use bottom longline) (2012)
- **Observer coverage:** Target level is 8% in (2012)
- **Stocks affected:** Bottlenose dolphin continental shelf
- **Interactions:** 2 observed takes (2010; 2012)
Commercial passenger fishing boats (e.g. charter and headboats):

- **Spatial distribution:** Gulfwide (inshore, nearshore, offshore)
- **Effort:** 802,625 charterboat trips in 2014 (headboat data not included)
- **Observer coverage:** none
- **Stocks affected:** Bottlenose dolphin coastal and BSE
- **Interactions:** 2002-2013, 81 strandings associated with hook/line gear but cannot determine if commercial or recreational

*Hook and Line Gear Interactions (2002 - 2013)*

*Data Source:*
NOAA National Marine Mammal Health and Stranding Response Database, 15 September 2014
NOAA Southeast Regional Office unpublished data
• 12 Category I, II and III fisheries, along with recreational fisheries, interacting with multiple stocks of bottlenose dolphins, many of them estuarine
• Only 5 of commercial fisheries have systematic observer coverage and this coverage may be limited; therefore documentation of commercial fishery interactions comes from various sources (e.g. strandings, fishermen self reports) and represent minimum counts
• There is not enough information to determine total annual fishery-related impacts to stocks
• Dolphins depredating on gear and scavenging discarded fish are a concern and frustrated fishermen are taking extreme action
  • Prosecuted cases for shooting at dolphins and throwing pipe bombs documented for shrimp fishery, longline, charterboat
Bottlenose Dolphin Strandings with Evidence of Gunshot Wounds

Gulf of Mexico Bottlenose Dolphin Strandings

Data Source:
NOAA National Marine Mammal Health and Stranding Response Database, 15 September 2014
NOAA Southeast Regional Office unpublished data
Informational Needs

• Abundance surveys for bottlenose dolphins stocks at highest risk of bycatch interactions in commercial fisheries
• Augmented observer coverage of the shrimp fishery and gillnet in inshore state waters
• Enhanced understanding of fishery distribution in inshore and nearshore waters
• Explore ways to observe and monitor fisheries where traditional observer coverage is challenging (e.g. menhaden and crab pot fisheries)