

Commercial Fishery Landings
Northeast United States
March 2, 2016

Prepared for:
Northeast Regional Ocean Council (NROC)

Prepared by:
Brooke Wikgren
New England Aquarium
Central Wharf
Boston, MA 02110

1. INTRODUCTION

This data represents commercial fishery landings (million lbs) by port in the northeast United States and was created for the Northeast Ocean Planning Baseline Assessment. Commercial fishery landings data was acquired from the National Marine Fisheries Service (NMFS) federal dealer purchase records, 2012, for the New England and Mid-Atlantic regions. The data was compiled in 2014 for the project entitled ‘An empirical Analysis of Portfolio Management as a Tool for Implementing Ecosystem Based Fishery Management,’ under award numbers NA09OAR430129 (Cooperative Institute for the North Atlantic Region) from the National Oceanic and Atmospheric Administration, US Department of Commerce. Port location data was acquired from National Geospatial-Intelligence Agency (NGA) World Port Index and USHarbors.com.

Landings category groupings are:

- Sea scallops – NOAA category ‘BFS’
- Lobster – NOAA category ‘BML’
- Other bivalves – NOAA category ‘BFF1’
- Other shellfish – NOAA category ‘BMS’, ‘PWN2’, and 50% of ‘others’*
*For the port Jonesport, 90% of ‘others’ is included in this category
- Finfish – all NOAA categories not captured above

2. PURPOSE

This data was prepared for the Northeast Ocean Planning Baseline Assessment.

3. SOURCES AND AUTHORITIES

- National Marine Fisheries Service (NMFS) federal dealer purchase records for the New England and Mid-Atlantic regions.
- National Geospatial-Intelligence Agency (NGA) World Port Index

http://msi.nga.mil/NGAPortal/MSI.portal? nfpb=true& pageLabel=msi_portal_page_62&pubCode=0015

- USHarbors.com

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – simple feature class

Data Dictionary:

| Line | Name | Definition | Type | Size |
|------|-----------------|--|-----------|------|
| 1 | OBJECTID | Uniquely identifies a feature | Object ID | * |
| 2 | PORT_NAME | Name of port | string | 255 |
| 3 | COUNTRY | Country the feature is found within | string | 255 |
| 4 | sea_scallops | Million lbs of landings, per port, of NOAA category 'BFS' | double | * |
| 5 | other_bivalves | Million lbs of landings, per port, of NOAA category 'BFF1' | double | * |
| 6 | lobster | Million lbs of landings, per port, of NOAA category 'BML' | double | * |
| | other_shellfish | Million lbs of landings, per port, of NOAA category 'BMS', 'PWN2', and 50% of 'others'* *For the port Jonesport, 90% of 'others' is used. | double | * |
| | finfish | Million lbs of landings, per port, of all NOAA categories not captured in sea scallops, other bivalves, lobster, and other shellfish | double | * |
| | SUM_ | Total (sum) of landings (million lbs) across all categories | double | * |
| | Shape | Geometric representation of the feature | geometry | * |
| | STATE | State the feature is found within | string | 50 |

Feature Class Name: CommercialFisheryLandings

Total Number of Unique Features: 16

5. SPATIAL REPRESENTATION

Geometry Type: Simple Point

Reference System: Geographic Coordinate System

Horizontal Datum: World Geodetic System 1984

Ellipsoid: World Geodetic System 1984

XY Tolerance: 8.983152841195215e-009

Geographic extent: -75.133333 dd to -67.614993 dd, 39.9 dd to 44.533333 dd

6. DATA PROCESSING

Processing environment: ArcGIS 10.3.1, Windows 7 Professional, Intel Core i5-4590 CPU

| | Process Step Description |
|---|---|
| 1 | <p>US ports service layer <i>US_ports</i> was added to ArcMap from ArcGIS Online. This layer represents the National Geospatial-Intelligence Agency (NGA) World Port Index.</p> <p>Description: http://msi.nga.mil/NGAPortal/MSI.portal?_nfpb=true&_pageLabel=msi_portal_page_62&pubCode=0015</p> <p>Feature service url: http://services3.arcgis.com/N2cjIoVJvUn451AH/arcgis/rest/services/US_ports/FeatureServer</p> |
| 2 | <p>Ports of interest were selected out using:</p> <pre>A SELECT * FROM US_ports WHERE: PORT_NAME = 'GLOUCESTER' OR PORT_NAME = 'BOSTON' OR PORT_NAME = 'NEW BEDFORD' OR PORT_NAME = 'NEWPORT' OR PORT_NAME = 'STONINGTON' OR PORT_NAME = 'VINALHAVEN' OR PORT_NAME = 'ROCKLAND' OR PORT_NAME = 'PORT CLYDE' OR PORT_NAME = 'FRIENDSHIP' OR PORT_NAME = 'PORTLAND' OR PORT_NAME = 'JONESPORT' OR PORT_NAME = 'BEALS ISLAND'</pre> |
| 3 | <p>The selected features from the <i>US_ports</i> service layer was exported to a feature class within a file geodatabase</p> |
| 4 | <p>Ports not included in the <i>US_ports</i> feature class include: North Kingstown Chatham Fairhaven Point Judith</p> <p>These ports locations were retrieved from USHarbors.com and were added to the feature class.</p> |
| 5 | <p>Unnecessary fields were deleted. See below for a list of deleted fields.</p> |
| 6 | <p>Fields were added. See below for a list of added fields.</p> |
| 7 | <p>In the attribute table, port landings (million lbs) data, per category, were added their corresponding field and port.</p> |
| 8 | <p>Field Calculator was run to populate the SUM_ field with the equation SUM_ = [sea_scallops] + [other_bivalves] + [lobster] + [other_shellfish] + [finfish]</p> |
| 9 | <p>State abbreviations were manually entered in the STATE field.</p> |

List of deleted fields (process step 5):

| | | |
|------------|------------|------------|
| INDEX_NO | MAX_VESSEL | MED_FACIL |
| REGION_NO | HOLDGROUND | GARBAGE |
| LATITUDE | TURN_BASIN | DEGAUSS |
| LONGITUDE | PORTOFENTR | DRTYBALLST |
| LAT_DEG | US_REP | CRANEFIXED |
| LAT_MIN | ETAMESSAGE | CRANEMOBIL |
| LAT_HEMI | PILOT_REQD | CRANEFLOAT |
| LONG_DEG | PILOTAVAIL | LIFT_100_ |
| LONG_MIN | LOC_ASSIST | LIFT50_100 |
| LONG_HEMI | PILOTADVSD | LIFT_25_49 |
| PUB | TUGSALVAGE | LIFT_0_24 |
| CHART | TUG_ASSIST | LONGSHORE |
| HARBORSIZE | PRATIQUE | ELECTRICAL |
| HARBORTYPE | SSCC_CERT | SERV_STEAM |
| SHELTER | QUAR_OTHER | NAV_EQUIP |
| ENTRY_TIDE | COMM_PHONE | ELECREPAIR |
| ENTRYSWELL | COMM_FAX | PROVISIONS |
| ENTRY_ICE | COMM_RADIO | WATER |
| ENTRYOTHER | COMM_VHF | FUEL_OIL |
| OVERHD_LIM | COMM_AIR | DIESEL |
| CHAN_DEPTH | COMM_RAIL | DECKSUPPLY |
| ANCH_DEPTH | CARGOWHARF | ENG_SUPPLY |
| CARGODEPTH | CARGO_ANCH | REPAIRCODE |
| OIL_DEPTH | CARMDMOO | DRYDOCK |
| TIDE_RANGE | CARBCHMOOR | RAILWAY |

List of added fields (process step 6):

| | | |
|----------------|-----------------|-------|
| sea_scallops | other_shellfish | STATE |
| other_bivalves | finfish | |
| lobster | SUM_ | |

7. QUALITY PROCESS

Attribute Accuracy: Attribute values were checked though sources and authorities.

Logical Consistency: Tested through visual inspection of geometry.

Completeness: This data does not serve as an exhaustive list of port and commercial landings in the northeast United States. This data represents commercial landings of ports in the northeast region, from 2012, that was compiled in 2014 for the project

entitled ‘An empirical Analysis of Portfolio Management as a Tool for Implementing Ecosystem Based Fishery Management,’ under award numbers NA09OAR430129 (Cooperative Institute for the North Atlantic Region) from the National Oceanic and Atmospheric Administration, US Department of Commerce.

Positional Accuracy: Intended to serve as general locations of ports at a regional scale.

Timeliness: Commercial fishery landings data from the National Marine Fisheries Service (NMFS) federal dealer purchase records represent 2012. Port locations based on best available data as of February 12, 2016.

Use restrictions: Not for navigation.