Atlantic States Marine Fisheries Commission (ASMFC) Herring Spawning Area Closures
Northeast United States
November, 2014

Prepared for*:*
Northeast Regional Ocean Council (NROC)
Northeast Ocean Data
www.northeastoceandata.org

Prepared by:
Rachel Shmookler
55 Village Sq. Dr.
South Kingstown, RI 02879

1. INTRODUCTION

This dataset depicts the boundaries of Atlantic Herring spawning area closures which were designated by the Atlantic States Marine Fisheries Commission (ASMFC). The ASMFC was formed in the 1940s by the Atlantic coastal states to better manage migratory fish species populations. There are three inshore management Atlantic herring spawning areas in the northeast which are closed to herring fishing in the fall to protect spawning females. While actual closure dates depend on the detection of ripe females, the default closure dates may be in place on August 15th, September 1st, and September 21st for the Eastern Maine, Western Maine, and New Hampshire/Massachusetts spawning areas, respectively.

2. PURPOSE

To support coastal and ocean planning.

3. SOURCES AND AUTHORITIES

- Atlantic States Marine Fisheries Commission
- Maine Department of Marine Resources (DMR)
  http://www.maine.gov/dmr/rm/herring/management.htm
- MarineJurisdictions2012 (NOAA Coastal Services Center)
- NOAAmediumResolutionShoreline (NOAA Coastal Services Center)

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – polygon feature class

Feature Types:
     Herring spawning areas

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Uniquely identifies a feature	OBJECTID	*
2	Shape	Geometric representation of the feature	geometry	*
3	name	Name of management area	text	50
4	Shape_Length	Feature length	Double	*
5	Shape_Area	Feature area	Double	*

Feature Class Name: ASMFCHerringManagementAreas

Total Number of Unique Features: 3

Dataset Status: Complete

5. SPATIAL REPRESENTATION

Geometry Type: vector polygon
Reference System: GCS North American 1983
Horizontal Datum: North American Datum 1983
Ellipsoid: Geodetic Reference System 1980

XY Resolution: XY Scale is 1000000000.0000001
Tolerance: 0.000000008983152841195211 7

Geographic extent: -71.1 to -66.9, 41.7 to 44.8

IS0 19115 Topic Category: environment, oceans

Place Names:
     Atlantic Ocean, Cape Cod Bay, Gulf of Maine, Massachusetts Bay

Recommended Cartographic Properties:
     (Using ArcGIS ArcMap nomenclature)

     Simple Fill Symbol: null fill, outline width: 0.4, outline color: 0-0-41 color model: HSV

     Scale range for optimal visualization: 3,000,000

6. DATA PROCESSING

Processing environment: ArcGIS 10.2, Windows 7 Professional, Intel Core i5 CPU

	Process Steps
1	Import points delineating management area boundaries into ArcMap in decimal degrees
2	PROJECT points to NAD 1983 UTM Zone 19
3	PROJECT both NOAAmediumResolutionShoreline and MarineJurisdictions2012 from GCS NAD 1983 to NAD 1983 UTM Zone 19.
4	DIGITIZED polygon boundaries based on point locations in an EDIT session using snapping. Closed the polygons over land to ensure all ocean areas would be included. MarineJurisdictions2012 was used to delineate the border with Canada for the Eastern Maine Spawning Area.
5	ERASED landward areas using NOAAmediumResolutionShoreline as the erase feature.
6	Removed some offshore island artifacts in the management areas
7	PROJECT dataset to GCS NAD 1983

7. QUALITY PROCESS

Attribute Accuracy: Attribute names were obtained from Maine DMR material.

Logical Consistency: Snapping was used to ensure that polygon features are topologically consistent.

Completeness: Complete

Positional Accuracy: Polygon boundaries are based on the coordinates provided by Maine DMR in decimal degrees, which were converted to UTM Zone 19 coordinates to preserve area.

Timeliness: Current as of November 2014.

Use restrictions: None.

Distribution Liability: Data are provided as is. NROC and RPS Applied Science Associates are not liable for any interpretations, assumptions, or conclusions based on these data.