

NOAA's Estuarine Living Marine Resources (ELMR) Data Base

<http://ccma.nos.noaa.gov/ecosystems/estuaries/elmr.aspx>

In 1985, NOAA launched the Estuarine Living Marine Resources (ELMR) Program to develop a consistent data base on the distribution, relative abundance, and life history characteristics of ecologically and economically important fishes and invertebrates in the Nation's estuaries. The Nationwide ELMR data base includes information for 153 species found in 122 estuaries and coastal embayments. The data base is divided into five study regions - West Coast, Gulf of Mexico, Southeast, Mid-Atlantic, and North Atlantic. For each species, five life stages are considered - adults, juveniles, larvae, spawning, and eggs - with some exceptions. Each estuary is subdivided into one to five salinity zones. Relative abundance is ranked by month for each life stage of each species, in each salinity zone of each estuary.

A series of reports have been published which summarize the methods and results of the ELMR Program. These include a National report (2000), regional data summary reports for the North Atlantic (1994), Mid-Atlantic (1994), Southeast (1991), Gulf of Mexico (1992), and West Coast (1990), and regional life history summary reports for the West Coast (1991) and Gulf of Mexico (1997). Copies of all reports are available free upon request.

ELMR relative abundance data can be downloaded from this website, by using the search keys for Region, Estuary, Species, Life Stage, and Salinity Zone as follows:

1. Select Region (GULF OF MEXICO, MIDATLANTIC, NORTH ATLANTIC, SOUTHEAST, OR WEST COAST). A list of estuaries within the selected region will appear.
2. Select Estuary or estuaries within the region.
3. Select Species, but remember that not all species occur in all regions.
4. Select Life Stage (ADULTS, EGGS, JUVENILES, LARVAE, SPAWNING, or ALL)
5. Select Salinity Zone. Each estuary contains one to five salinity zones.
6. Click the "Preview Query" button. Data will appear on your screen, along with a record of the search parameters.
7. Click the "Save as text" button to download a file of the displayed data.

The downloaded data file will contain sixteen fields - Estuary, Common Name, LifeStage, Salzone, and twelve months (J F M A M J J A S O N D). Data on monthly relative abundance rankings are interpreted as:

. = no data available 0 = not present 2 = rare 3 = common 4 = abundant 5 = highly abundant

For more information on the ELMR data base, or to request publications, please contact Moe Nelson, phone (301) 713-3028 x154, email david.moe.nelson@noaa.gov

Estuarine Living Marine Resources (ELMR) Data Guiding Questions

- Where does this species spawn?
- In what salinity does this species spawn?
- In what salinity do you find eggs?
- In what salinity do you find juveniles?
- Describe the difference in ranges.
- Make a color-coded map illustrating the distribution of different species.
- Place the species on the Chesapeake Bay salinity diagram in the appropriate salinity range.
- Can you find evidence for migrating species from the data?
- Compare the results for different species.
- What are some questions that students could answer using this data?

