

NEW JERSEY SPINY DOGFISH MANAGEMENT AND RESOURCE MONITORING

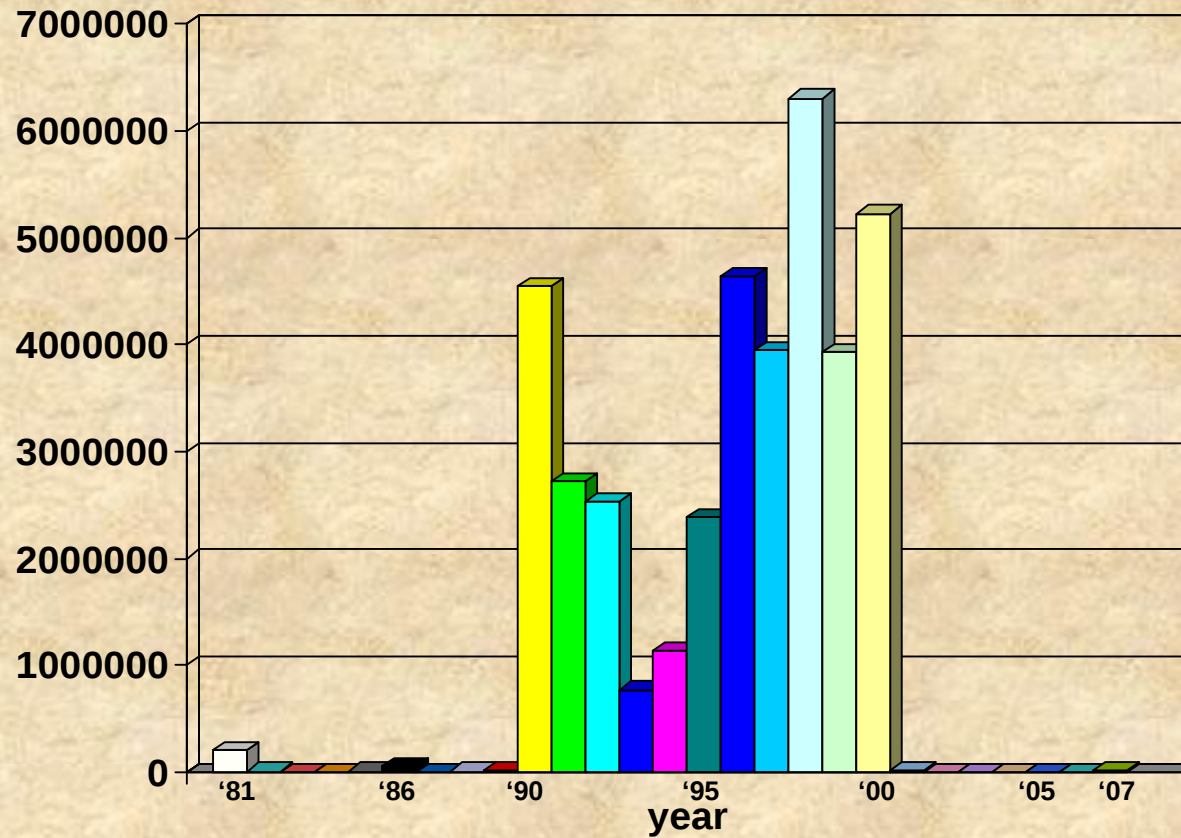


Spiny Dogfish, *Squalus acantias*

**Peter J. Himchak, Supervising Biologist
New Jersey Division of Fish and Wildlife
Marine Fisheries Administration
Nacote Creek Research Station
PO Box 418, Port Republic, NJ 08241
609-748-2020**

Peter.himchak@dep.state.nj.us

NEW JERSEY SPINY DOGFISH COMMERCIAL LANDINGS (POUNDS), 1981-2007



Existing New Jersey Regulations at N.J.A.C. 7:25-18.12(g), Applicable to the Commercial Harvest of Spiny Dogfish

The following provisions are applicable to the commercial harvest of spiny dogfish:

- 1. A person or vessel shall not possess for sale any spiny dogfish nor shall a person sell or attempt to sell spiny dogfish without a valid annual vessel permit for spiny dogfish issued by the NMFS.**
- 2. A dealer shall not purchase or receive spiny dogfish without a valid annual dealer permit for spiny dogfish issued by the NMFS.**
- 3. No person or vessel shall have in possession and no dealer shall accept from any vessel more than the daily trip limit set by the NMFS or the ASMFC.**
- 4. Any closure of the spiny dogfish fishery by the NMFS in adjacent Federal waters or recommended closure by the ASMFC for areas including New Jersey automatically closes New Jersey waters to the harvest of spiny dogfish and to the landings of spiny dogfish.**

**Developing Spiny Dogfish Regulations in New Jersey
under the
Atlantic States Marine Fisheries Commission's
Interstate Fishery Management Plan for Spiny Dogfish**

A series of meetings held over the past two years, including Department of Environmental Protection staff, commercial fishing industry representatives, and the Marine Fisheries Council's Spiny Dogfish Committee, have led to the development of the following Draft amendments to spiny dogfish regulations:

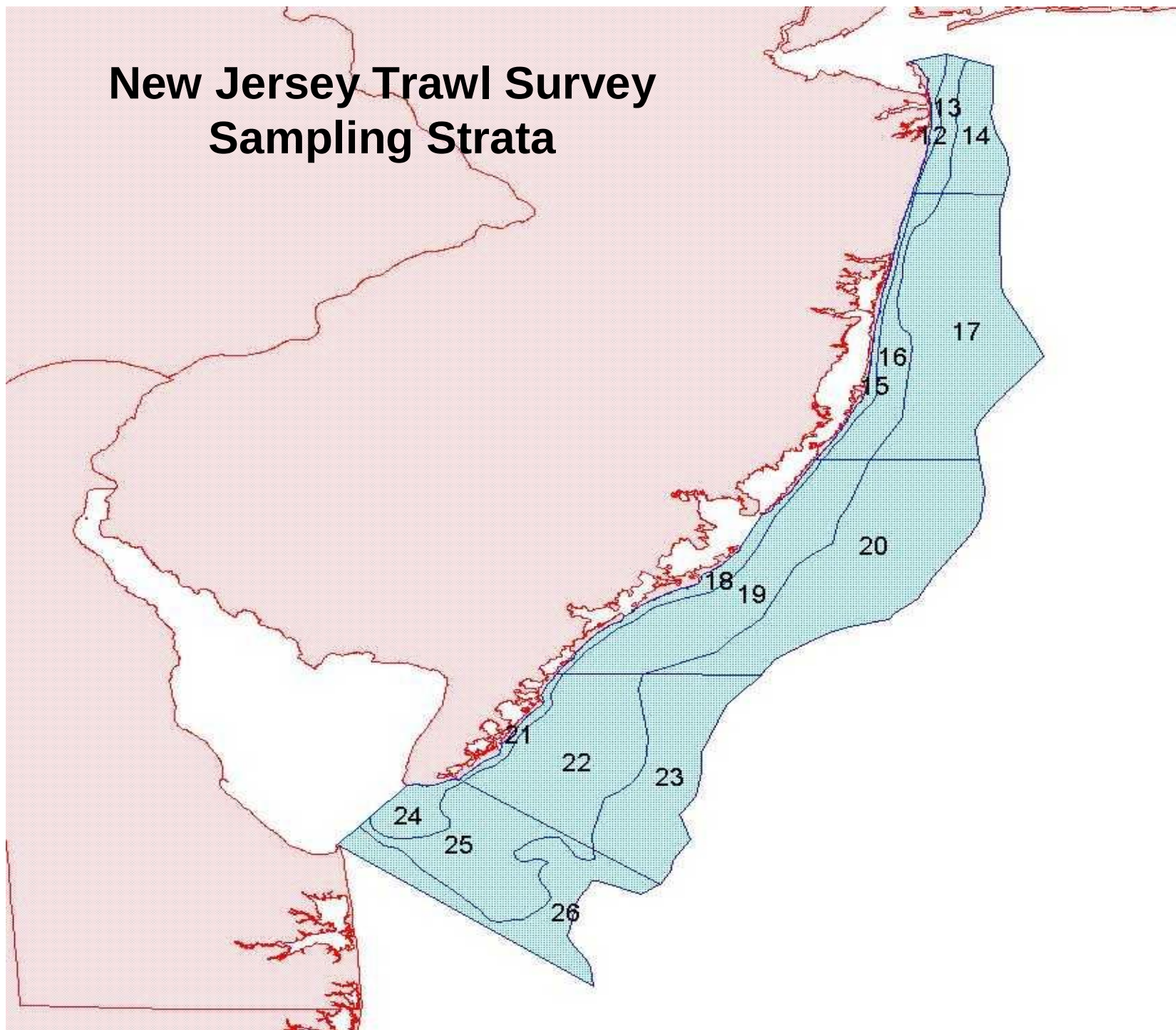
- 1. The establishment of both a spiny dogfish license and dealer permit**
- 2. Gill net fishery in State waters using a maximum stretch mesh of 5.5 inches**
- 3. Springtime/summer fishing season**
- 4. Annual quota to be established by the ASMFC**
- 5. 3,000 pound trip limit**
- 6. One fishing trip per day, net must be tended**
- 7. Weekly electronic dealer reporting for quota monitoring**

**New Jersey Spiny Dogfish Resource Monitoring
through the
Nearshore Trawl Survey, 1988 - 2007**

The Bureau of Marine Fisheries has been conducting a nearshore trawl survey since 1988 utilizing the following methods and materials:

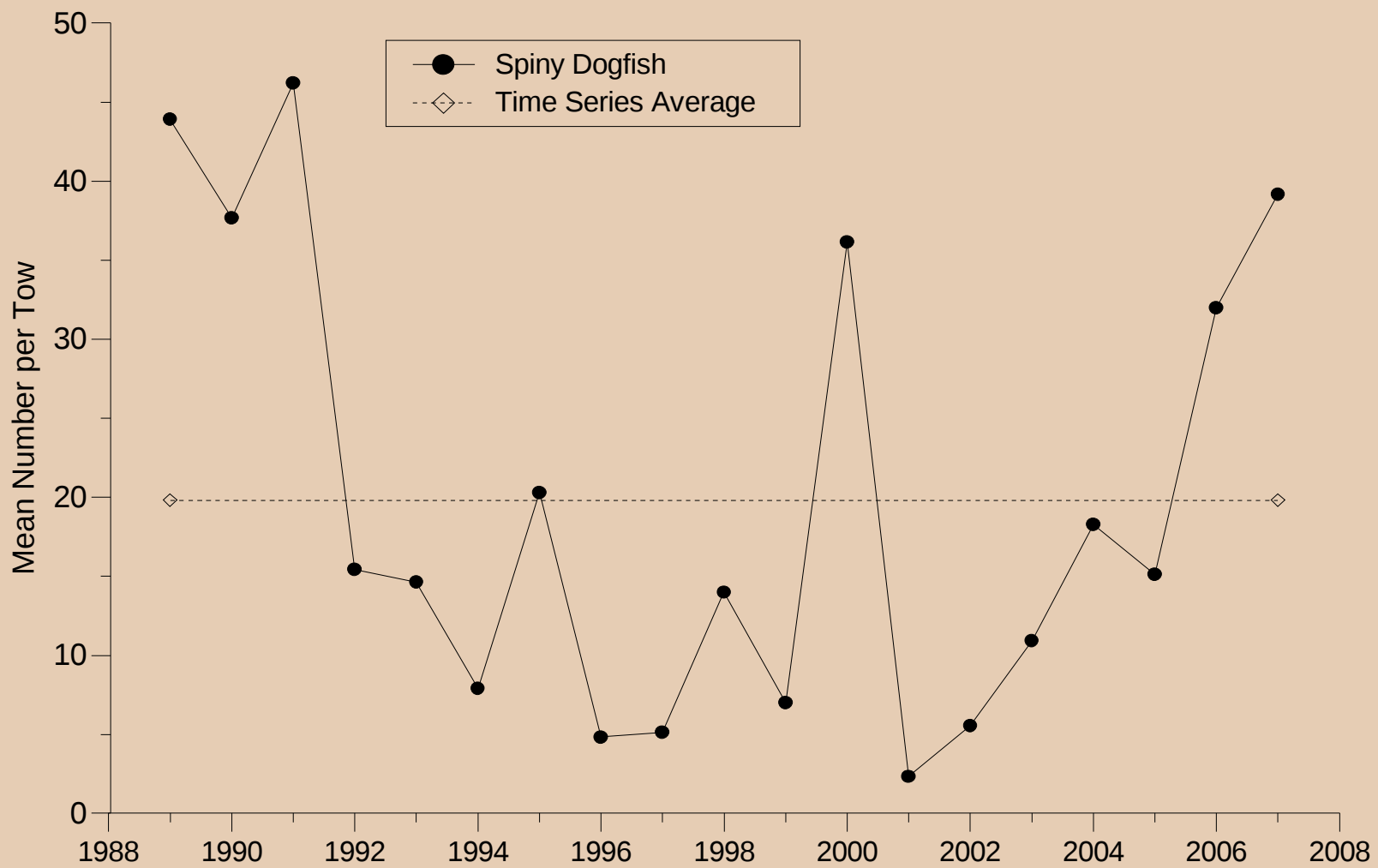
- 1. Random, stratified sampling design**
- 2. Five (5) sampling cruises each year, Jan/Feb, April, June, August, and October**
- 3. Three-in-one trawl, with forward netting of 12 cm (4.7 inches) stretch mesh and rear netting of 8 cm (3.0 inches) and is lined with a 6.4 mm (0.25 inch) bar mesh liner.**
- 4. The headrope is 25 meters (82 feet) and the footrope is 30.5 meters (100 feet) long.**
- 5. Twenty minute tow duration**
- 6. Released tow wire provides for a wire length to depth ratio of at least 3:1, unless in shallow (<10 meters) water**

New Jersey Trawl Survey Sampling Strata







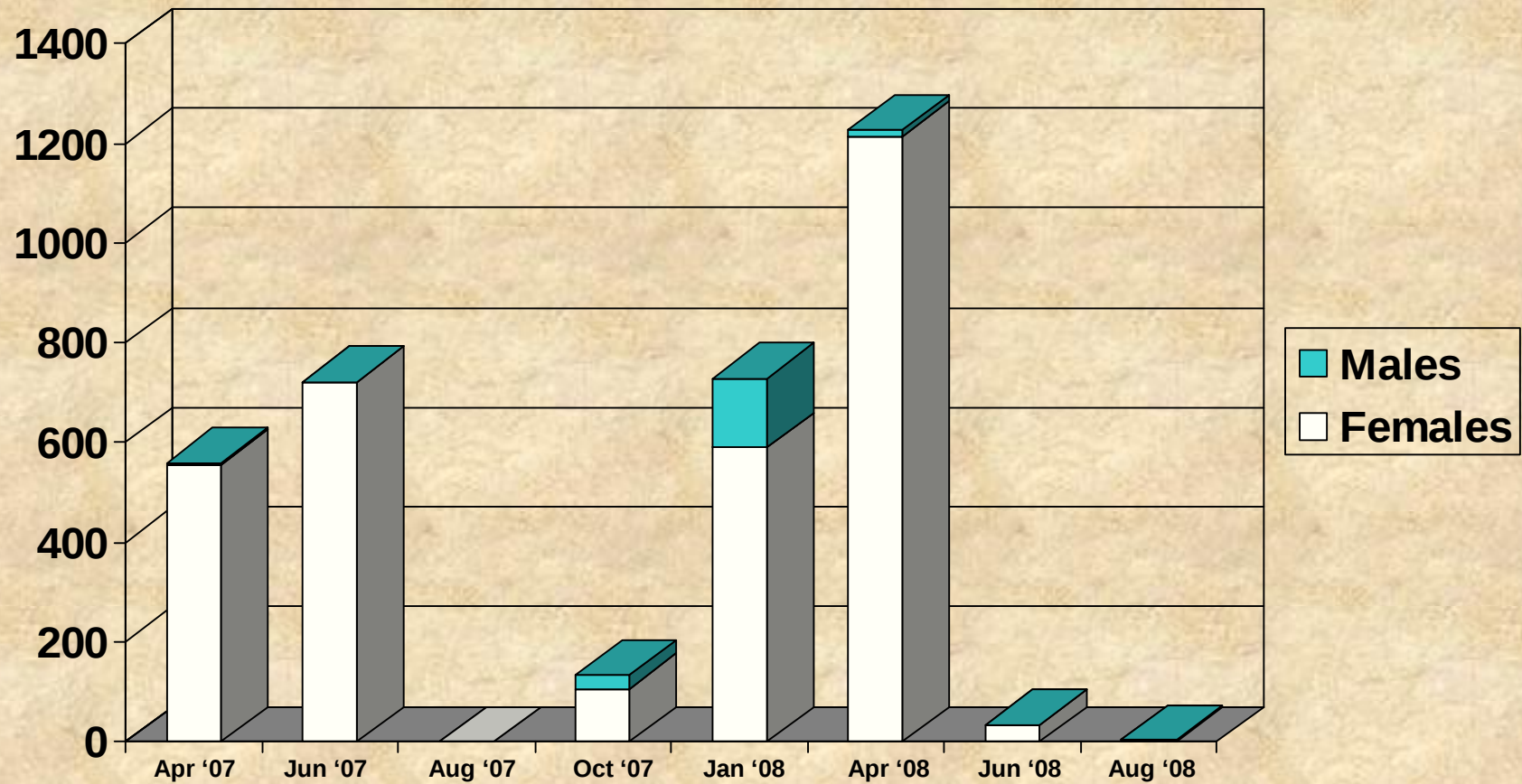


Annual mean stratified number per tow and time series average of spiny dogfish taken in bottom trawl surveys of New Jersey coastal waters, 1989 - 2007.

**Spiny Dogfish Sex Ratio,
New Jersey Nearshore Trawl Survey,
April 2007 through August 2008**

Survey	Freq. of Occurrence	Males	Females	No. Sexed	No. Caught	% Females
Apr-07	31/40	2	556	558	558	99.6
Jun-07	17/40	0	721	721	721	100
Aug-07	0/39	0	0	0	0	0.0
Oct-07	10/39	28	106	134	134	79.1
Jan-08	27/30	138	590	728	729	81.0
Apr-08	36/39	13	1214	1227	1247	98.9
Jun-08	7/39	0	33	33	71	100
Aug-08	1/39	0	3	3	5	100

Spiny Dogfish Sex Ratio, NJ Nearshore Trawl Survey, April 2007 through August 2008



MANAGEMENT DILEMMA

- Assuming New Jersey proceeds with a nearshore gill net fishery during the spring and early summer seasons, and
- Assuming New Jersey receives an annual state allocation under Addendum III of 560,000 to 880,000 pounds, then:
- How will the increased fishing mortality on female spiny dogfish affect the re-building of the spiny dogfish stock?
- Is it likely that New Jersey can implement a spiny dogfish fishery targeting predominately male spiny dogfish?
- Does the coastal spiny dogfish stock assessment capture seasonal nearshore sex ratio data?