Informing the Development of an Online California Fisheries Portal

Hosted by:
California Department of Fish and Wildlife & Ocean Protection Council

Tuesday, May 8, 2018 | 9:30am–12:30pm PST
Agenda

• Welcome, Webinar Overview & Purpose

• Learning How You Access Fisheries Information

• Re(Introduction) to the Draft California Fisheries Portal, including Enhanced Status Reports and Their Relationship to the MLMA & Master Plan Amendment Process

• Discussion on Design, Form, and Function of the Draft California Fisheries Portal

• Next Steps & Adjourn
Introductions

• Joining us today:
  • CDFW: Craig Shuman, Paul Reilly, Tom Mason
  • OPC: Paige Berube
  • Strategic Earth Consulting: Rachelle Fisher, Sara Shen, Kelly Sayce
  • Our California ocean community
• Welcome!
Goal

To engage in a constructive discussion to help inform the California Department of Fish and Wildlife’s (CDFW) development of an online, publicly-accessible, and user-friendly “living” library for California’s fisheries information.
Opening Discussion

- How do you currently access fisheries information and what is your user experience?
- Why are you looking for fisheries information?
- How do you use fisheries information?
(Re)Introduction to the Draft California Fisheries Portal, including Enhanced Status Reports and Their Relationship to the MLMA & Master Plan Amendment Process
MLMA Master Plan & Amendment Process

• Master Plan acts as a roadmap and toolbox for MLMA implementation

• Amended in 2018 to better meet the specific management objectives of the MLMA and reflect advancements in fisheries management strategies and tools, changing ocean conditions, and evolving stakeholder priorities

• Currently under review by Fish and Game Commission, with potential adoption in June 2018

• More information available at wildlife.ca.gov/Conservation/Marine/MLMA/Master-Plan
Strategies to Achieve MLMA Objectives

• Principal strategies to achieve objectives include:
  • Master Plan (§7073)
  • Status of the Fisheries Reports (§7056 and §7066)
  • Best-available science (§7050(b)(6))
  • Constituent involvement (§7050(b)(7))
Tribal and Stakeholder Input

• “Stakeholder discussions”: webinars, workshops, presentations at Marine Resource Committee meetings

• Explored the idea of an online fisheries resource during February 2017 webinar “Draft Approach to Scaled Management and a Fisheries Web-based Data Portal”

• Review and public comment on initial and revised draft

• Feedback on ESR content

• Portal concept positively received
Enhanced Status Reports (ESRs)

• New approach to and format for Status of the Fisheries Reports
  • More structured, comprehensive, and better demonstrates management’s consistency with the goals of the MLMA
• Overview of the target species, fishery, and current management and monitoring efforts
• Easily updated by taking advantage of web-based technology (Portal)
ESR Table of Contents

Fishery-at-a-Glance

The Species
- Natural History
- Population Status and Dynamics
- Habitat
- Ecosystem Role
- Effects of Changing Oceanic Conditions

The Fishery
- Location of the Fishery
- Fishing Effort
- Landings in the Recreational and Commercial Sectors
- Social and Economic Factors Related to the Fishery

Management
- Past and Current Management Measures
- Overview and Rationale for the Current Management Framework
- Target Species
- Bycatch
- Habitat
- Requirements for Person or Vessel Permits and Reasonable Fees

Monitoring and Essential Fishery Information
- Description of Relevant Essential Fishery Information
- Past and Ongoing Monitoring of the Fishery

Future Management Needs and Directions
- Identification of Information Gaps
- Research and Monitoring
- Recommendations for Any Management Changes
- Climate Readiness
Discussion on Design, Form, and Function of the Draft California Fisheries Portal
California Fisheries Portal

• Online, publicly-accessible, user-friendly “living” library for California’s state-managed fisheries information

• Make more effective use of ESRs by organizing and sharing current information in an accessible form

• Encourage Collaborative Fisheries Research and focus research efforts of undergraduate and graduate students to fill information gaps

• Implement new strategies described in revised draft 2018 Master Plan
Overview of Draft Portal Layout and Content

- “Splash page” or homepage with quick access to fisheries’ pages
- Sorting and search functions
- “Quick Links” resource tool
- Individual fishery pages
  - Content from ESRs in the form of tabs
  - Images, figures, tables, maps, etc.
Welcome to the California Fisheries Portal
Information on state-managed fisheries under the Marine Life Management Act

Sort by: Name  Gear type  Value  Commercial/recreational/both  Finfish/invertebrates  Search

Quick Links:
- Marine Life Management Act
- Free Guide to the MLMA
- The Master Plan for Fisheries
- The “Who Manages What?” management matrix
- Prioritizing management efforts
- Research opportunities
- Partnerships
- Climate change and fisheries
- Marine Protected Areas and fisheries
Navigating by Tabs

- ESR chapters are translated into tabs

“Fishery-at-a-Glance”

Pacific Pink Shrimp — Fishery-at-a-Glance

<table>
<thead>
<tr>
<th>2016 Participation</th>
<th>Active vessels</th>
<th>6,761 million dollars (4)</th>
<th>2016 Landings</th>
<th>8.5 million pounds (4)</th>
</tr>
</thead>
</table>

The pink shrimp is a small shrimp in comparison to many shrimp and prawns seen in supermarkets and restaurants. Pink shrimp are often referred to as "cobalt shrimp," "valiant shrimp" or simply "coldwater shrimp," because the major species that are harvested at these small sizes come from cold marine waters.

**Species**

Scientific name: Pandalus azorenus

**Range:** Southeast Asia to San Diego, California, but only exist in the presence necessary to support a commercial fishery from Hong Kong to British Columbia.

**Size (length and weight):** One-year-old shrimp ranges from 0.5-3.7 cm (14-27 mm), in mean carapace length. Two year old shrimp ranges from 0.5-7.2 cm (14-27 mm). Shrimp and three-year-old shrimp range from 1.3 cm (2016). (CWS 2006)

**Life span:** Up to 5 years

**Habitat:** Pink shrimp generally reside deep waters, aggregating near the bottom during the day in well-defined areas of muddy habitat (called beds) and ascending into the upper layers of light to feed.

**Prey:** Crustaceans and krill.

**Predators:** Shrimp are prey for a number of species of commercial value, including Pacific halibut (Merluccius productus), arrowtooth flounder (Artemisichthys stenosoma), and salmon (Oncorhynchus sp. females)

**Reproduction:** Pink shrimp are short-lived, fast-growing species.Individual growth rates vary by sea, location, year class, and age, and shrimps grow faster in the summer than in the winter. Shrimps generally spend their first year and a half as males, then transition to females. Mating occurs during September and October. Females carry between 400 and 6,000 eggs each, dependent on their size. Eggs hatch in March, after which there is a two to three-month pelagic phase. Juveniles occupy successively deeper depths as they grow, and

---

**The Species**

Natural History of the Species (Pink Shrimp)

**Distribution:** Pink shrimp are found along the west coast of North America, from the Alaskan Islands to San Diego. They are thought to be a single species stock throughout their entire range (DOC 1999). Tagging studies in Puget Sound indicate that pink shrimp tend to associate with other benthic invertebrates including eels and clams. Pink shrimp are consumed on both wild-caught benthic and hatchery-reared shrimp, and the majority of the catch with commercial conservation are found during the fall

- Fishery-at-a-Glance
- The Species
- The Fishery
- Management

Monitoring and Essential Fishery Information

Future Management Needs and Directions

Quick Links:
- Research and partnership opportunities
- Pink MSC certification info
- Full 2016 Status Report
- Shrimp travel ed
- Interactive maps
- Landings and permit data
- Information for fishermen
- News
- Marine Region Home
- Contact

**Fishery Overview**

Location of species and fishery (Table):

Pink shrimp range from Southeast Alaska to San Diego, California, but only exist in the presence necessary to support a commercial fishery from Hong Kong to British Columbia. Pink shrimp are most abundant off the coast of Oregon, and since 2001, the majority of landings have been concentrated in the northernmost counties of California. Pink shrimp generally inhabit deep waters, aggregating near the bottom during the fall. Pink shrimp are consumed on both wild-caught benthic and hatchery-reared shrimp, and the majority of the catch with commercial conservation are found during the fall.

- Fishery-at-a-Glance
- The Species
- The Fishery
- Management

Monitoring and Essential Fishery Information

Future Management Needs and Directions

Quick Links:
- Research and partnership opportunities
- Pink MSC certification info
- Full 2016 Status Report
- Shrimp travel ed
- Interactive maps
- Landings and permit data
- Information for fishermen
- News
- Marine Region Home
- Contact

**Trends in fishing effort:**

- 2006 participation: 6 active vessels
- 2016 participation: 20 active vessels
- 2006 Commercial Value: 3.7 million dollars (4)
- 2016 Commercial Value: 5.1 million dollars (4)
- 2006 Landings: 8.5 million pounds (4)
- 2016 Landings: 5.5 million pounds (4)

**Population dynamics, status, and trends (Table):**

| Population Dynamics, Status, and Trends (Table) |
|------------------|------------------|------------------|------------------|
| Herring |
| Active males |
| Active females |
| 2006 |
| 2016 |
| 2006 |
| 2016 |
| 2006 |
| 2016 |
| 2006 |
| 2016 |
| 2006 |
| 2016 |

**Data on how many, if any permit holders have been actively fishing is not available through 2005, but suggests that there may be a great deal of latent capacity in the fishery.**
Pacific Pink Shrimp – The Species

Natural history of the species (7080b)

Distribution
Pink shrimp are found all along the west coast of North America, from the Aleutian Islands to San Diego. They are thought to be a single genetic stock throughout their entire range (OST, 2014). Pink shrimp are found at depths of 150 to 1200 feet, but tend to be caught between 250 and 750 feet in California. They are concentrated in well-defined muddy benthic habitats called beds, and the majority of beds with commercial concentrations are found off the Oregon Coast.
Discussion

• **What fisheries information are stakeholders interested in gaining access to and/or learning about, and how might this be expected to change over time?**

• **Does the draft Portal web page layout provide sufficient (more/less) information based on these needs?**

• **Could the visual layout and navigability of the draft Portal web page layout be improved?**
Discussion

• What are some successful examples of agencies, organizations, or others sharing fisheries information with the public?
Example Websites Informing Draft Portal Outline

- NOAA Fisheries: https://www.fisheries.noaa.gov/find-species
- Oceanspaces: http://oceanspaces.org/fisheries-data-explorer
Australian Fisheries Management Authority

Target species
The species targeted by commercial fishers in the Small Pelagic Fishery area:
- Australian sardinia (Sardinops sagax)
- Blue mackerel (Scomber australasicus)
- Jack mackerel (Trachurus declivis, T. murphyi)
- Redbaits (Emblemaria rutilans)

About the fishery

Fishery facts

<table>
<thead>
<tr>
<th>Species</th>
<th>2015-16 total allowable catch (tonnes)</th>
<th>2016-17 total allowable catch (tonnes)</th>
<th>2017-18 total allowable catch (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian sardinia</td>
<td>1800</td>
<td>1800</td>
<td>9500</td>
</tr>
<tr>
<td>Blue mackerel - eastern sub-areas</td>
<td>1630</td>
<td>1600</td>
<td>12000</td>
</tr>
<tr>
<td>Blue mackerel - western sub-areas</td>
<td>6200</td>
<td>6200</td>
<td>1330</td>
</tr>
<tr>
<td>Jack mackerel (eastern sub-areas)</td>
<td>18670</td>
<td>18670</td>
<td>18310</td>
</tr>
<tr>
<td>Jack mackerel (western sub-areas)</td>
<td>3600</td>
<td>3600</td>
<td>920</td>
</tr>
<tr>
<td>Redbaits - eastern sub-areas</td>
<td>3310</td>
<td>3310</td>
<td>1410</td>
</tr>
<tr>
<td>Redbaits - western sub-areas</td>
<td>2800</td>
<td>2800</td>
<td>820</td>
</tr>
</tbody>
</table>

Download raw data on annual catches from AFMA catch disposal records and AFMA daily fishing logbooks.
Additional Functionality

- Data querying and mapping
- Additional information
- Relevant law and policies
- Chapters/sections of the revised draft 2018 Master Plan
- Other?

MLMA?

2018 Master Plan?
Discussion

• What functions would stakeholders like to see the Portal have (e.g., data visualization and analysis tools to query data and create graphs and maps, relevant marine policy information, etc.)?
Next Steps, Capturing Today’s Discussion

• Key Themes Summary- *Coming in June/July 2018!*
  • Overview of discussion topics: feedback received and next steps
  • Resources and Department contacts
• Department and web development team to consider feedback
Anticipated Next Steps, ESR & Portal Development

- Continue developing ESRs for interim list of priority fisheries
- Continue to receive feedback to inform Portal functionality and design
Thank You!

Questions or comments?
Email us at MLMA@wildlife.ca.gov or contact Tom Mason at Tom.Mason@wildlife.ca.gov