

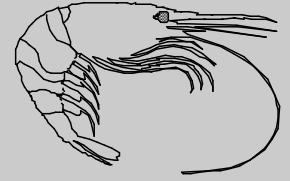


# Annual Pink Shrimp Review

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**TO: OREGON SHRIMP INDUSTRY**  
**FROM: Bob Hannah and Steve Jones**  
**Subject: Opening of 2012 Commercial Fishery**  
**Date: 10 February 2012**

## Attention!

- Rigid-grates, ¾” bar spacing **Now Required** (pg 9).
- Eulachon smelt/ESA updates; Stay Tuned! (pg 5).
- “Suspect” Groundgear Types; see Gear Survey & Tips, pg 5.

The 2012 pink shrimp (*Pandalus jordani*) season will begin on 1 April and will extend through 31 October. A summary of the 2011 season is provided for your review including catch, effort and market sample information. The outlook for shrimp harvest during 2012 is discussed; along with important issues concerning eulachon smelt bycatch and news on how management efforts to conserve this threatened species are proceeding.

## 2011 Season Summary

We heard a lot of “WOWs” from industry folks this past season and we said it too. It was a season to remember, with abundant good-grade shrimp, abnormally high catch rates and a sharply higher price than in 2010. After embracing Oregon’s new BRD regulations in an aggressive campaign to reduce eulachon smelt bycatch, shrimpers went out and achieved one of the highest landing totals on record. What a season!

The 2011 season began fairly quickly, after about a week of price-related delays. Pink shrimp landings into Oregon topped out at 48.3 million pounds, almost 17 million pounds more than in 2010 and the highest landing total since 1989, which totaled 49.1 million pounds (Figure 1). The 2011 total was the fourth highest season on record, surpassed only in 1989, 1978 and 1977.

Monthly landings were far above average throughout the season, with more than eight million pounds landed during May and again in August (Figure 2). We’ve experienced some pretty decent seasons during the last few years, but 2011 really stands out. The majority of the catch occurred south of about Heceta Head, continuing the pattern we’ve seen for the last few years. As in 2010, about 75% of the catch was taken from beds extending from the Mudhole into northern California, with the Bandon bed producing 10.8 million pounds alone (Figure 3). The Mudhole bed ranked third with about 8.9 million pounds landed, playing a much larger role than during 2010. The biggest harvest shift was into northern California though with 10.3 million pounds harvested, about 21% of Oregon’s total landings. Landings from beds north of Heceta Head were overshadowed by south coast production but produced widespread significant landings. The biggest producers on the north coast were the Cape Lookout bed at 3.9 million pounds and the Destruction Island bed at 3.7 million pounds. No recorded shrimp harvest occurred from the Destruction Island bed during 2010.

Shrimping effort took a jump this year by all measures. Total hours fished (gear on-bottom) during 2011 was 33,276 hours, up from 20,615 hours in 2010 (Figure 4). The hours fished may have been much higher if catch rates hadn’t been so high. Hours fished were fairly evenly and widely distributed along the coast, with about 42% of the total hours spent fishing in beds from Cape Foulweather to Destruction Island (Figure 5).

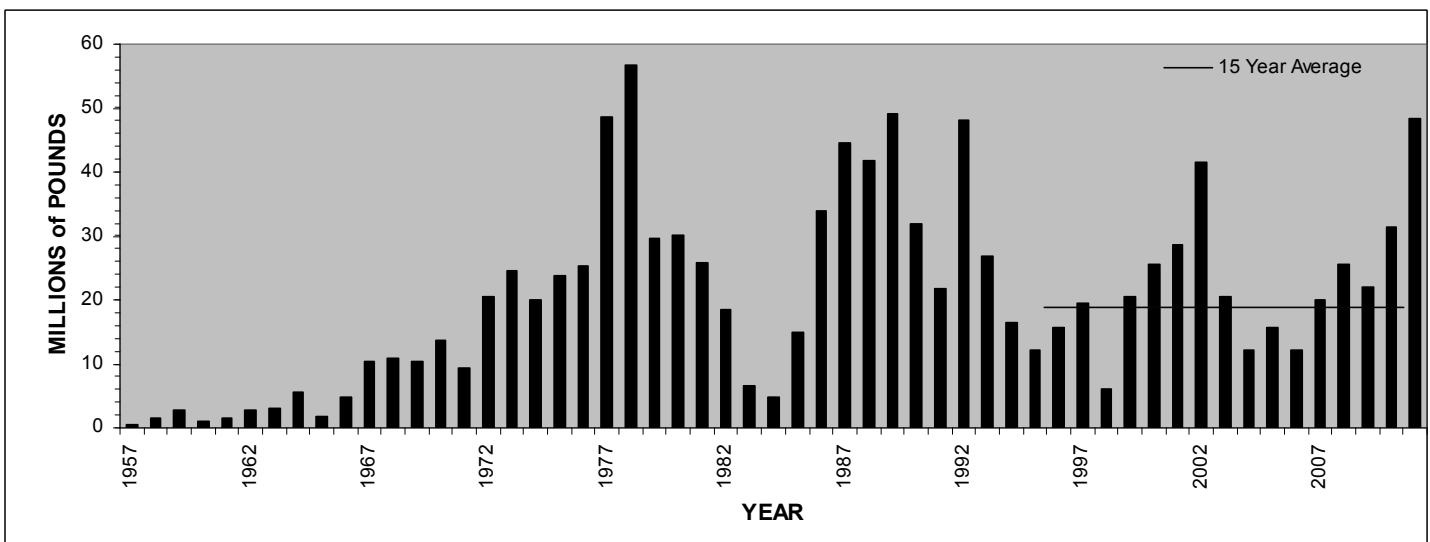
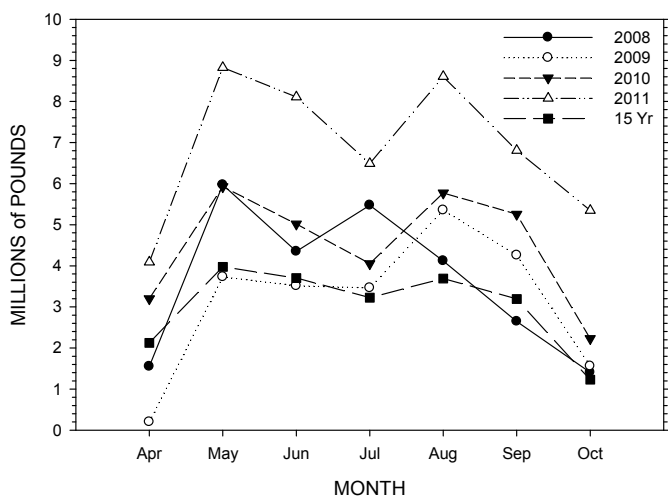
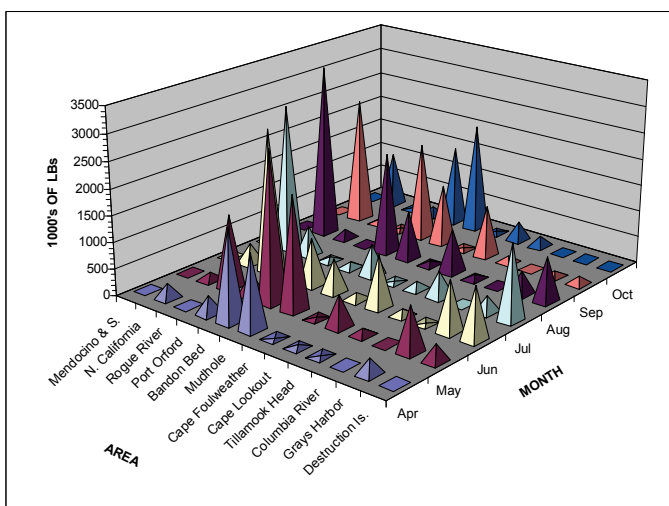


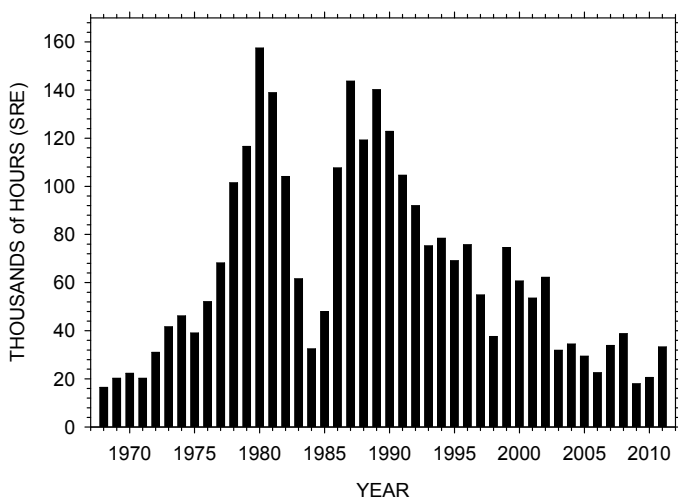
Figure 1. Oregon pink shrimp landings (millions of pounds) 1957-2011. Includes all pink shrimp landed into Oregon ports.



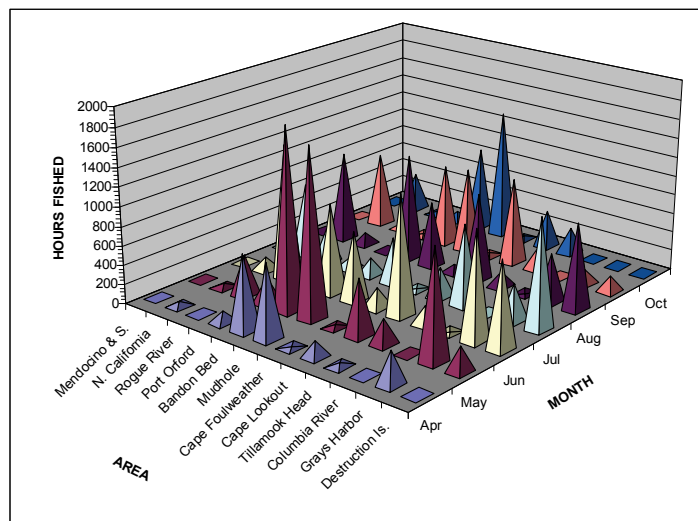
**Figure 2. Oregon pink shrimp landings by month during 2008, '09, '10, '11 and the 15 year average (1995-2010).**



**Figure 3. Total 2011 Oregon pink shrimp landings (1000's of pounds) by month and area.**

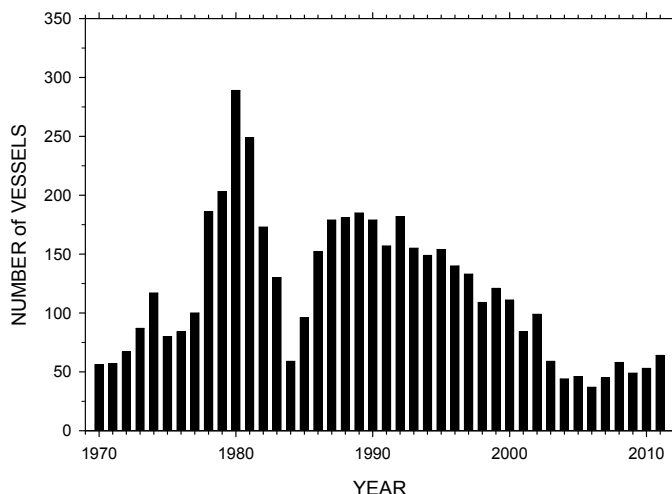


**Figure 4. Fishing effort for pink shrimp landed in Oregon, 1968-2011. Note: 1000's of single-rig equivalent hours: 1 SRE = (1 single-rig hour) = (1 double-rig hour X 1.6).**



**Figure 5. 2011 Fishing effort for pink shrimp landed in Oregon by month and area. Note: 1000's of single-rig equivalent hours: 1 SRE = (1 single-rig hour) = (1 double-rig hour X 1.6).**

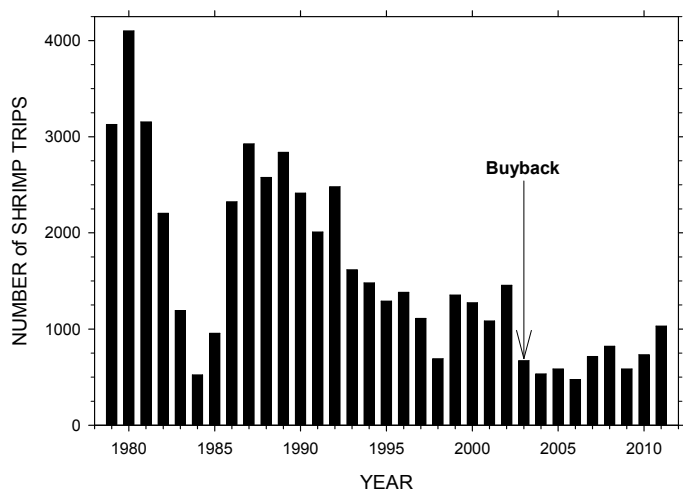
Sixty-four vessels participated in the Oregon fishery during 2011, up from fifty-three vessels in 2010 (Figure 6). Several vessels that hadn't participated for several years added to the increase, either participating due to the good shrimp price or opportunities created through groundfish limited entry ITQ rules.



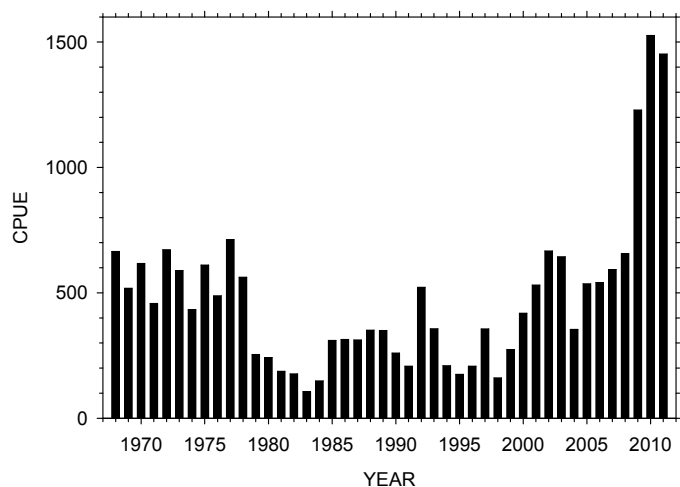
**Figure 6. Annual number of vessels landing pink shrimp into Oregon ports: 1970-2011.**

Oregon shrimpers made 1,030 trips in 2011, up sharply from 733 trips during 2010 (Figure 7). The increase resulted from more vessels participating, high catch rates and processor-imposed trip limits to some extent. It's worth noting that all the effort information considered together suggest that overall effort has surpassed the level seen in 2003, the year of the buyback, and seems likely to increase in the near future.

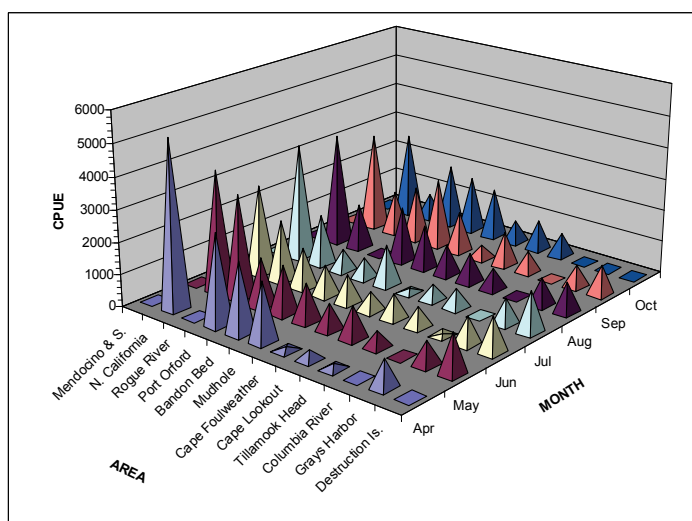
Catch rates (CPUE = lb/hour) were extremely high during 2011, maintaining the elite levels documented since 2009 (Figure 8). Overall CPUE during 2011 was 1,452 lb/hour, just shy of the record set during 2010. CPUE was highest on the south coast, with the most extreme rates seen below Cape Blanco (Figure 9). The highest monthly CPUE was off northern California during April, and high rates occurred there



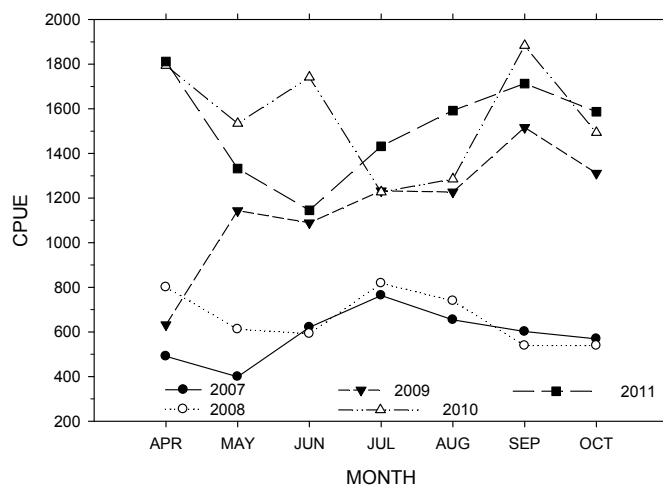
**Figure 7. Annual number of trips landing pink shrimp into Oregon ports: 1979-2011.**



**Figure 8. Catch-per-unit-of-effort (CPUE = lbs/SRE hour) for vessels landing pink shrimp into Oregon; 1968-2011.**



**Figure 9. CPUE (=lbs/SRE hour) of vessels harvesting pink shrimp by month and area during 2011.**



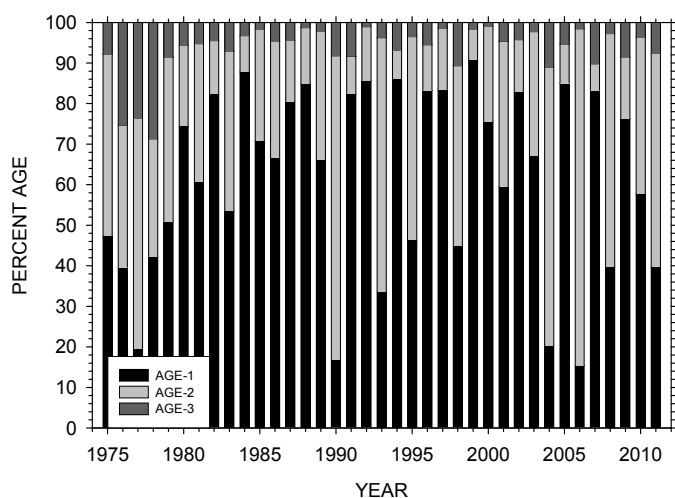
**Figure 10. Monthly CPUE (=lbs/SRE hour) for vessels landing pink shrimp into Oregon in 2007, 2008, 2009, 2010 and 2011.**

throughout the season. CPUE by area clearly showed a general decline from south to north this season up through the Mudhole bed. North of the Mudhole bed, CPUE was still high relative to many years documented before 2009, but was sharply lower than south coast levels. Monthly CPUE was highly variable, but with a similar range to that seen in 2010 (Figure 10).

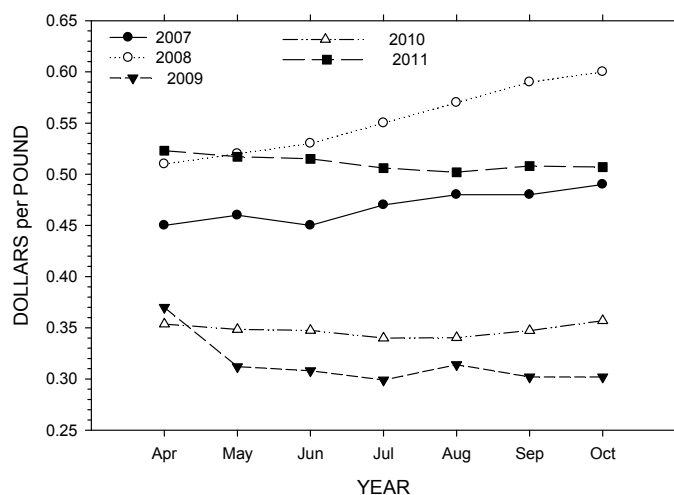
Two-year old shrimp dominated the Oregon shrimp landings in 2011 (Figure 11). The age-2 cohort (hatched in spring 2009) made up about 53% of the catch (by number of shrimp). The same cohort also supplied about 58% of the catch in 2010 as age-1 shrimp, and we suspect that it may have been one of the strongest recruitment events in the history of the fishery. The relative abundance of age-1 shrimp on the grounds was difficult to judge in 2011 due to the high abundance of age-2 shrimp. Shrimpers were able to target larger shrimp in volume, deliberately avoiding areas with highly mixed or small grade shrimp. Our recruitment model suggested an average to slightly below average recruitment of age-1 shrimp in 2011. This indicator, plus reports from shrimpers, leads us to believe that it was probably no better than average. Age-3 shrimp represented about 8% of the catch in 2011, which historically is usually a small component of the total catch.

The weighted average count-per-pound of shrimp landed in Oregon during 2011 was 116, down slightly from 2010 (Figure 12). Shrimp growth at-age was slow this year, with very small age-1's and generally smaller age-2, even in southern areas where growth is generally more rapid. The slower growth was probably the result of high densities of shrimp on the grounds. Faster growth and a lower average count-per-pound would be expected with more normal shrimp densities.

The average ex-vessel shrimp price during 2011 was \$0.51/lb, sharply higher than during the last two years (Figure 13). Prices generally ranged from \$0.47 to \$0.61/lb, based on shrimp count-per-pound. Total ex-vessel value of Oregon shrimp landed this year was a whopping \$24,610,852. The monthly average price was fairly stable throughout the season, varying up to about \$0.04/lb month to month (Figure 14).

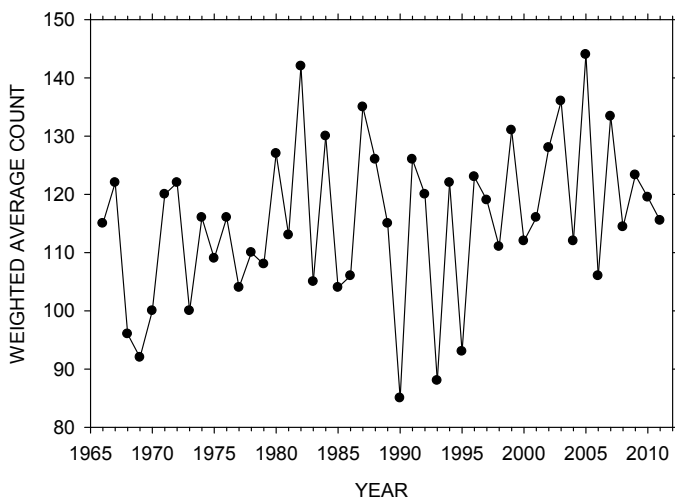


**Figure 11. Annual percent age composition of pink shrimp (#'s of shrimp) landed in Oregon, 1975-2011.**

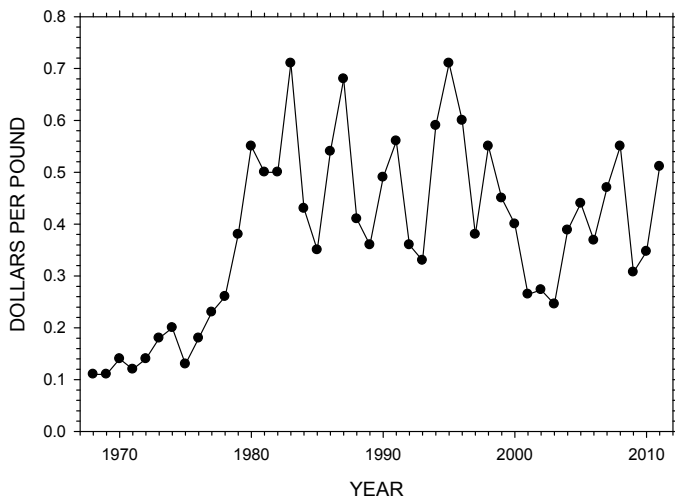


**Figure 14. Monthly average ex-vessel price-per-pound paid for pink shrimp landed in Oregon: 2007 through 2011.**

### Indicators for 2012



**Figure 12. Average (catch weighted) count-per-pound of pink shrimp landed into Oregon; 1966-2011.**



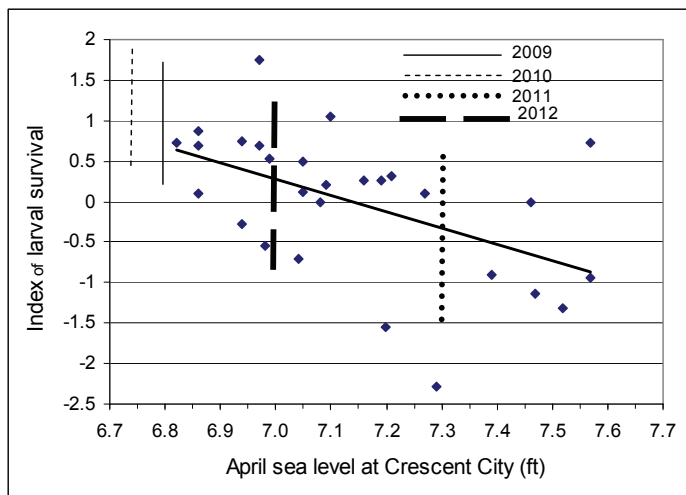
**Figure 13. Annual average ex-vessel price per pound paid for pink shrimp landed in Oregon; 1968-2011. Prices not adjusted for inflation.**

Will we have another big season in 2012? The jury's still out but the prognosis seems good for another above-average harvest. How far above average, we'll just have to see. Something about the ecology of these critters seems to have changed on the south coast since about 2008. We don't know what the factors involved are, or if conditions that led to the high shrimp population levels in southern areas for the last two years will persist. We have some ideas about what factors may be at play, but they remain largely unsupported at this time. One possibility is a shift in adult hake distribution away from southern shrimp beds to deeper waters or to the north. The relative absence of this major predator could have major implications for both shrimp and eulachon populations in affected areas. In the meantime, here's some shrimp sampling information to consider.

Our recruitment model of incoming age-1 shrimp in 2012 suggests that their abundance will be above average. The 2012 index value of 6.99 is well above the 2011 value, but far below that seen in 2009 or 2010 (Figure 15). If correct, the age-1 shrimp population should help support an above average harvest in 2012.

Perhaps conflicting with the recruitment model results, we did not see much in the way of age-0 shrimp in our fall market samples. Age-0 percentages that we saw in fall 2011 were generally lower than what we observed in fall 2010, suggesting that age-1 recruitment may be less in 2012. As in 2010, most age-0 shrimp occurred in samples from southern areas, but some were found in samples from central coast areas in 2011. Many shrimpers reported that age-0 shrimp didn't seem abundant during September and October, but there were some isolated reports of high numbers in some southern areas.

The most encouraging indicator of potential harvest in 2012 was the high catch rate (CPUE) documented at the end of last season. Season-end CPUE was about 1,450 lb/hour during October, even surpassing that seen in October 2010 (Figure 10). Age-1 shrimp dominated the harvest during September and October, but age-2 shrimp still comprised a substantial



**Figure 15. Index of larval survival vs. April sea level at Crescent City, CA. Points shown indicate year at age-1 catch. The bold dashed line shows the survival range that might be expected in 2012.**

percentage. By this measure, hold-over of age-2 shrimp (last year's age-1) could be high again next year, particularly in areas south of Heceta Head. Extreme hold-over is indicated south of Cape Blanco based on late-season CPUE. There's also the possibility that we'll see an up-tick in the age-3 component of the catch in 2012. Age-3 shrimp usually don't make up more than about 10% of the catch during a season, at least in recent years (Figure 11). There's a possibility that the age-3 component of the catch will be higher than normal in 2012, unless old age takes a heavy toll on this age-class.

So, another good harvest season seems probable in 2012. However, a harvest level like that seen during 2011 is questionable, given the mixed prognosis for age-1 shrimp in 2012.

### ESA/Eulachon Update

#### **NMFS Catch Estimates of Eulachon:**

The National Marine Fisheries Service (NMFS) periodically produces reports summarizing bycatch documented by the West Coast Groundfish Observer Program. The most recent report that covers observed catch and estimated total catch of eulachon in the Oregon pink shrimp fishery is titled "Observed and estimated total bycatch of green sturgeon and eulachon in the 2002-2010 U.S. west coast fisheries". It can be found on the web at "[http://www.nwfsc.noaa.gov/research/divisions/fram/observer/protected\\_species.cfm](http://www.nwfsc.noaa.gov/research/divisions/fram/observer/protected_species.cfm)". Shrimpers should give it a read. The data shows that even a small number of eulachon caught per tow can add up to some fairly large numbers (i.e. estimated Oregon catch of 845,081 in 2009 and 741,202 in 2010). One of the main results in the report (shrimpers take heed!) is that "the pink shrimp trawl fishery continues to constitute the largest source of eulachon bycatch coast-wide". Since 2009, NMFS has increased observer coverage of shrimp trips and has diligently identified smelt to species, which should improve future estimates. ODFW has suggested that observer data be made available to management agencies on a timely basis to make it more useful.

#### **Final Eulachon Critical Habitat Designation:**

The NMFS published its final "Designation of Critical Habitat for the Southern Distinct Population Segment of Eulachon" on 20 October 2011 in the Federal Register. The document can be viewed from "<http://www.gpo.gov/fdsys/>" with a search on "76 FR 45353". The current document lists many freshwater and estuarine areas as eulachon critical habitat, but does not designate any marine areas.

#### **Eulachon Recovery Plan News:**

ODFW staff have been notified that the NMFS Office of Protected Resources (OPR) will begin considering protective regulations and recovery planning for the southern distinct population (DPS) of eulachon during winter 2012. This is where the "rubber meets the road" for the pink shrimp industry and participants should pay close attention as the plan is developed. Depending on how it's constructed, the plan could have major implications for shrimp harvest and fishing practices. According to Section 4(f) of the Endangered Species Act, recovery plans must incorporate, at a minimum: 1) a description of site-specific management actions necessary to achieve recovery of the species, 2) objective, measurable criteria which, when met, would result in a determination that the species be removed from the list; and 3) estimates of the time and costs required to achieve the plan's goal.

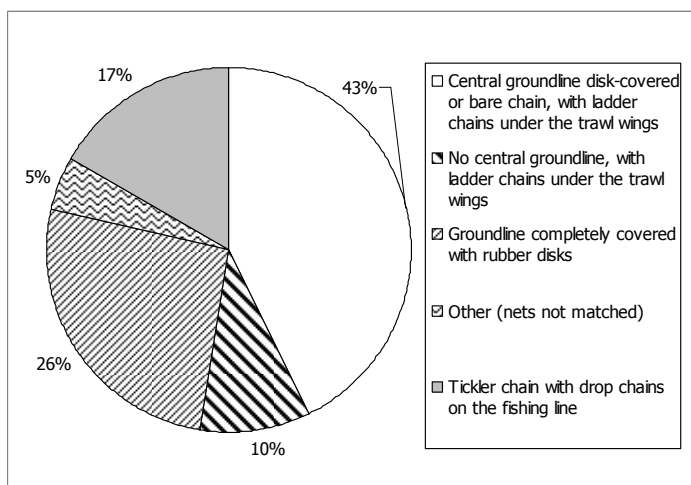
As you might imagine, the process is bound to be complicated. The OPR has wide latitude concerning how it determines and constructs protective regulations. They will determine the degree of involvement by state agencies and other groups that have a stake in the eulachon recovery plan development. Any marine protective regulations adopted by the OPR could significantly impact the Oregon shrimping industry. We'll do our best to supply information and keep the industry informed as the process goes ahead. Look for an in-season newsletter if major developments occur.

### 2011 Research Results

#### **Gear Survey & Gear Tips:**

We conducted a gear survey during the 2011 season, with ODFW biologists interviewing skippers of 42 shrimp vessels that had landed shrimp into Oregon during the 2010 season, representing 79.2% of vessels landing that year. The survey covered selected aspects of trawls, but focused on details of groundgear construction. The purpose of the survey was to gather current baseline information on the use of different groundgear styles with the goal of identifying configurations that consistently catch more eulachon than others. Of particular interest were groundgear arrangements that may provide escape routes for eulachon along the groundline, taking advantage of their apparent tendency to dive toward the bottom as an escape response. If providing these escape routes can be shown to significantly reduce eulachon catch, requiring such groundgear may be a relatively simple way to reduce the overall eulachon take by the fleet. By doing so, other restrictions on the fleet may be avoided.

Shrimpers interviewed were shown diagrams of stylized trawls with four different groundgear configurations and were asked which diagram approximated theirs best. They were then asked to describe or draw their groundgear in detail. The four groundgear categories are described in Figure 16, along with the percentage of vessels surveyed that used them. A small number of vessels used double-rigged nets with two different groundgear configurations.



**Figure 16.** The estimated percent composition of groundgear types used by shrimp vessels that participated in the 2010 Oregon pink shrimp fishery.

The most surprising result was the relatively high percentage (17%) of vessels that were still using trawls with tickle chains, a gear arrangement that can produce high bycatch levels of small fish like eulachon. The percentage of vessels using continuous rubber doughnut-covered mudgear (26%) was also higher than we expected.

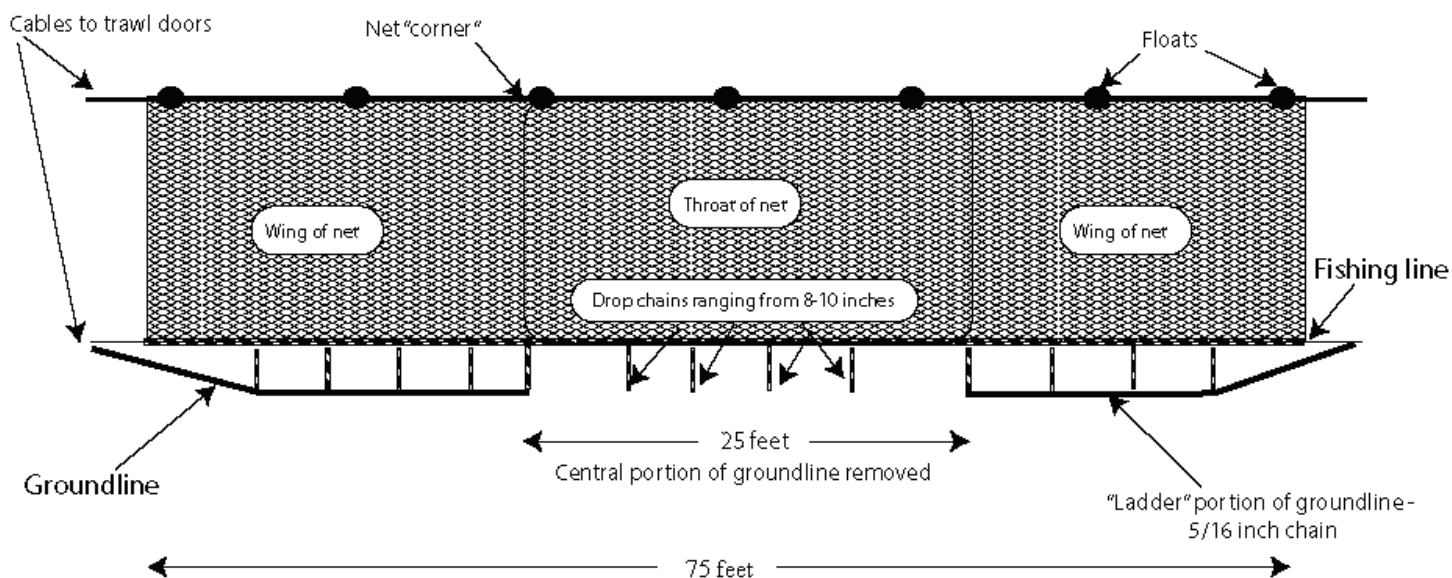
One possible means of evaluating the relative merits of the four different groundgear configurations in terms of eulachon catch is to compare 2010 NMFS observer data obtained on vessels that we surveyed. Did any of the four gear types used consistently catch more eulachon than others? To date, we've been unable to access 2010 NMFS observer data on a tow-by-tow basis, which is necessary for such an analysis. We believe that progress is being made for getting the data, but the timeline is unknown.

### Survey Implications & Gear Tips;

We suspect that the use of either tickle chains or groundlines completely covered with doughnuts may sharply reduce or eliminate eulachon escape routes under the fishing line of a trawl by creating a more continuous and larger mud cloud. Eulachon may be less willing to dive under the fishing line without a clear escape window.

We strongly encourage shrimpers to change their groundgear type if they currently use either of these gear types. The OPR will clearly be looking for reduced eulachon catch in the near future and shrimpers that use gears that differentially increase the catch of eulachon need to switch now. Proactive moves like this could make a major difference in how the OPR constructs protective regulations or the timeline for implementing them. Right now, we don't have definitive evidence showing that these groundgear styles increase eulachon bycatch, but our existing knowledge of eulachon behavior and past research findings makes us think that it does. We're working on it and will report our findings as they develop.

Individual shrimpers are the front-line in the uphill battle to reduce eulachon bycatch. Each shrimper needs to help reduce eulachon catch ASAP. For now, we suggest that shrimpers using the suspect gear types switch to the configuration shown in Figure 17, perhaps with a shorter section of groundline removed. Several successful shrimpers are currently using groundgear very similar to this design. If you're not willing to go that far, at least switch to a groundline with no more than the center third covered with small rubber doughnuts, and use bare chain or cable in the wings with reasonably long chain droppers (18-25" are common). The groundline should be no



**Figure 17.** Schematic of a pink shrimp trawl net with the center section of the groundline removed (viewed from front, not to scale). We tested this style against a trawl net with a complete groundline.

shorter than the fishing line. To reiterate, shrimpers need to make every effort to:

- 1) Stop using tickle chains.
- 2) Don't use groundlines completely covered with doughnuts.
- 3) Use only chain or bare cable in the wings.
- 4) Raise your fishing line by lengthening your drop chains.
- 5) Make your groundline no shorter than the fishing line.

Want to talk about it or get more information? Call us at 541-867-4741.

### **Groundline Experiment:**

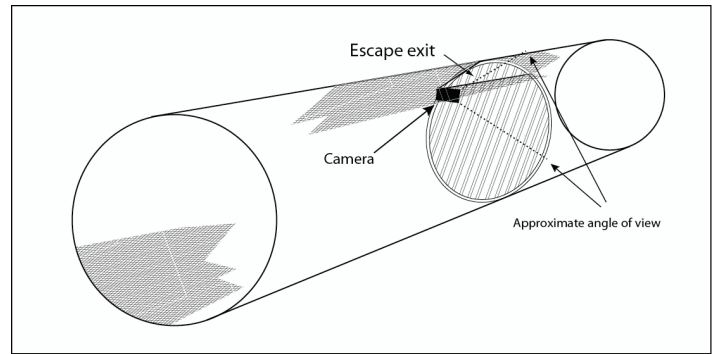
In June 2011 we chartered the double-rig shrimper F.V. Miss Yvonne, and tested the effectiveness of a shrimp trawl with a wide (25 feet) center section of groundline removed (Figure 17). Limited 2010 findings suggested that good eulachon escapement underneath the fishing line might be maintained even when the fishing line height was lowered on the experimental net, to reduce shrimp loss. We continued the test for four days, switching the groundline configurations (complete vs. no-center groundline) from side-to-side at the end of the first and third days.

As expected, shrimp catch increased as we lowered the fishing line, retaining more shrimp located on or very near the bottom. Unfortunately, eulachon escapement underneath the net decreased significantly as well. These findings suggest that a relatively high fishing line height needs to be maintained to promote eulachon escapement under the net, but that a groundline is desirable to maintain shrimp catch rates. The trade-off is a problem for shrimpers. A conscientious shrimper might fish gear that caught fewer eulachon per hour, but then need to tow more hours to make a trip. With these findings in mind, we'll be refining the experiment in 2012 incorporating a narrow (five feet?) center "window" with a relatively high fishing line and a nearly continuous groundline (see 2012 Research Plans, pg 8).

### **HD Video Assessment of Eulachon-Grate Interactions:**

We completed another study in early August aboard the F.V. Miss Yvonne designed to visually evaluate the condition of eulachon that had passed through a shrimp trawl without an accelerator panel and then encountered a  $\frac{3}{4}$ " rigid-grate. The basic questions were: 1) how do eulachon interact with the rigid-grate and 2) did eulachon that were excluded seem vigorous and likely to survive? It's not an easy question to answer, but could be an important factor when overall eulachon mortality rates are considered by NMFS or other entities.

We used a High Definition (HD) video camera system with lights mounted on a  $\frac{3}{4}$ " rigid-grate to obtain a lateral view of fish as they encountered the rigid-grate and exited the escape hole (Figures 18 and 19). The HD camera was necessary to positively identify eulachon and other small fish. Useable footage was obtained from 16 tows, including views of 239 eulachon.

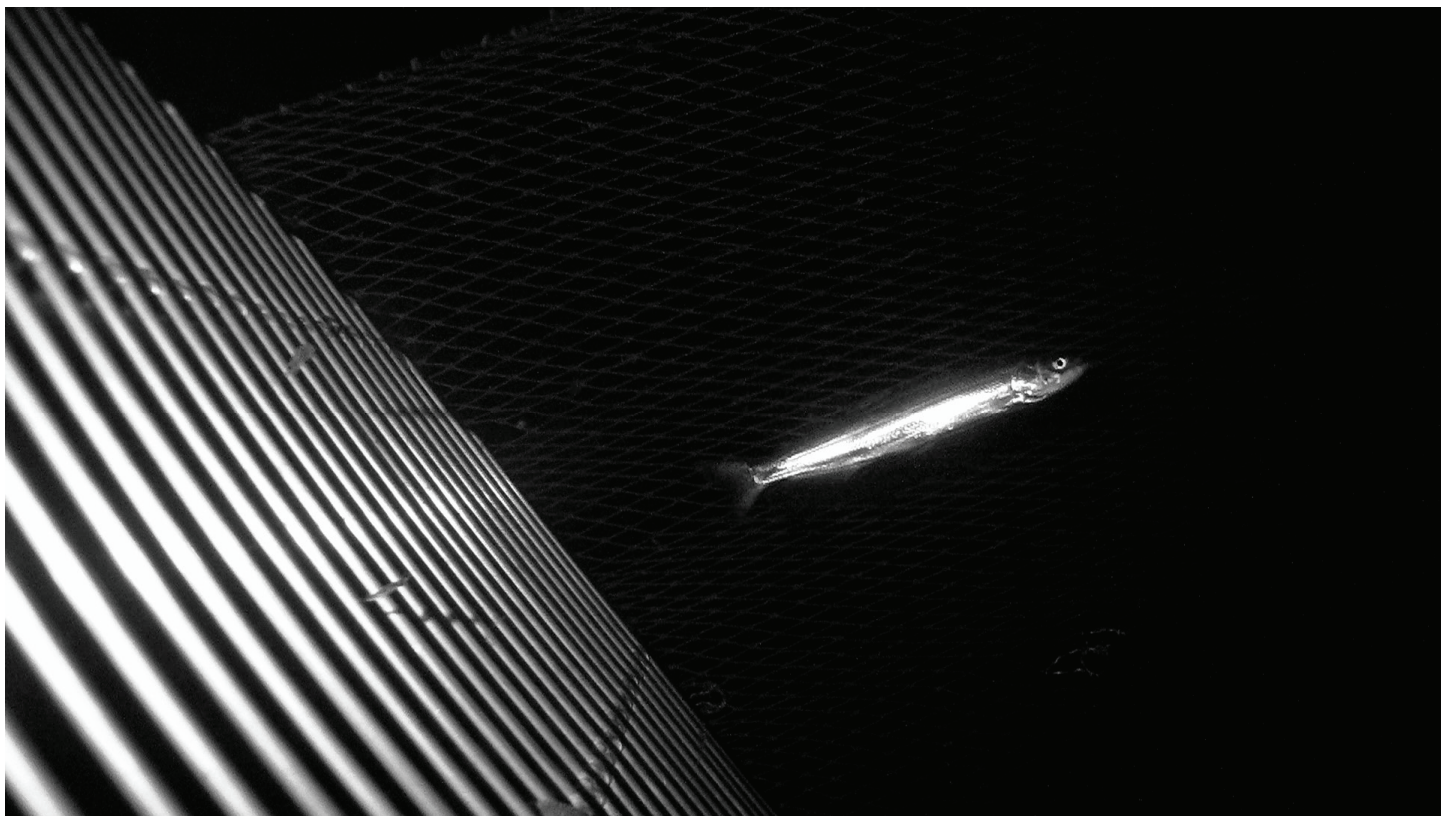


**Figure 18. A stylized drawing of our new High Definition (HD) video camera mounted on a rigid-grate. The lateral view allows viewing of fish interacting with the rigid-grate with clarity that allows fish identification.**



**Figure 19. One happy biologist (Bob Hannah, center) flanked by skipper Jeff Boardman (right) and crewman Chad Leiferman (left), after successful deployment of our new experimental HD video system on the F.V. Miss Yvonne... it worked! The camera housing is shown mounted to the left on the rigid-grate, just above center.**

To analyze the footage, we developed a rating system to quantify behavioral aspects of all identifiable roundfish as they encountered the grate. Roundfish that were abundant enough to be included in the analysis were large (170-240mm) eulachon, Pacific hake (adult & juvenile), juvenile rockfish and lingcod. Flatfish were not included because a lateral view was not sufficient for dependable identification.



**Figure 20.** A high definition digital photo of a eulachon just before exiting the shrimp trawl through the escape exit. The camera angle and approximate field of view is shown in figure 18. The rigid-grate is 48.5” O.D. and is constructed with 1/4” diameter aluminum bar stock

Probably the most important finding to shrimpers is that most of the eulachon we observed escaping appeared to be in good condition, escaping with no contact with the rigid-grate or with minimal tail contact (Figure 20). Our findings suggest that most eulachon that escaped didn’t show signs of behavioral impairment or physical damage. The study, entitled “Evaluating the behavioral impairment of escaping fish can help measure the effectiveness of bycatch reduction devices”, has been submitted for journal publication during 2012.

### 2012 Research Plans

#### **Accelerator Panel Testing:**

We plan to continue testing nets both with and without accelerator panels to further evaluate the panels’ affect on eulachon escapement (Figure 21). Some of our past work indicated that better exclusion might be achieved without a panel, with little if any shrimp loss. Our gear survey showed that a significant number of successful shrimpers don’t use them. If removal of the panels is shown to significantly reduce eulachon catch, removing the panels would be a simple and cheap way to make another positive impact.

It makes sense to us that removing the accelerator panels might help with eulachon exclusion. An accelerator panel is the only obstacle forward of a rigid-grate that fish encounter after they enter the net. Removal eliminates the obstacle and any disorienting or damaging effects caused by being forced under the panel and immediately encountering the rigid-grate.

Shrimpers interviewed in our survey reported strong opinions over the value of using accelerator panels. Some have used them but removed them saying they caught more fish while using a panel. They said they didn’t find detectable shrimp loss either way. Others claim that the panels are essential to reduce shrimp loss from their nets (one stated 10% loss). We suspect that those experiencing shrimp loss without a panel may be able to reduce any loss by increasing their rigid-grate diameter, increasing its angle, or lengthening the intermediate section of their net. In any case, we’ll report our findings to the fleet. Please keep in mind that simple gear-based methods to reduce eulachon catch may be easier to swallow than other regulatory methods that NMFS could mandate.

#### **Goundline Testing Continued:**

We plan to continue experimenting with shrimp trawl groundline configurations in 2012, focusing on ways to maintain eulachon escapement while still maintaining shrimp catch rates. Based on our findings in 2011, after testing the removal of a wide groundline center section (25 feet), we now think that a relatively narrow center section (5 feet?) may still allow good eulachon escapement if the fishing line is fairly high off bottom. Using this configuration, we hope to take advantage of eulachon herding toward the narrow center opening and encountering a mud-cloud-free escape window (Figure 22). If things go as planned, shrimp retention should be mostly maintained as this is similar to many current groundlines used.



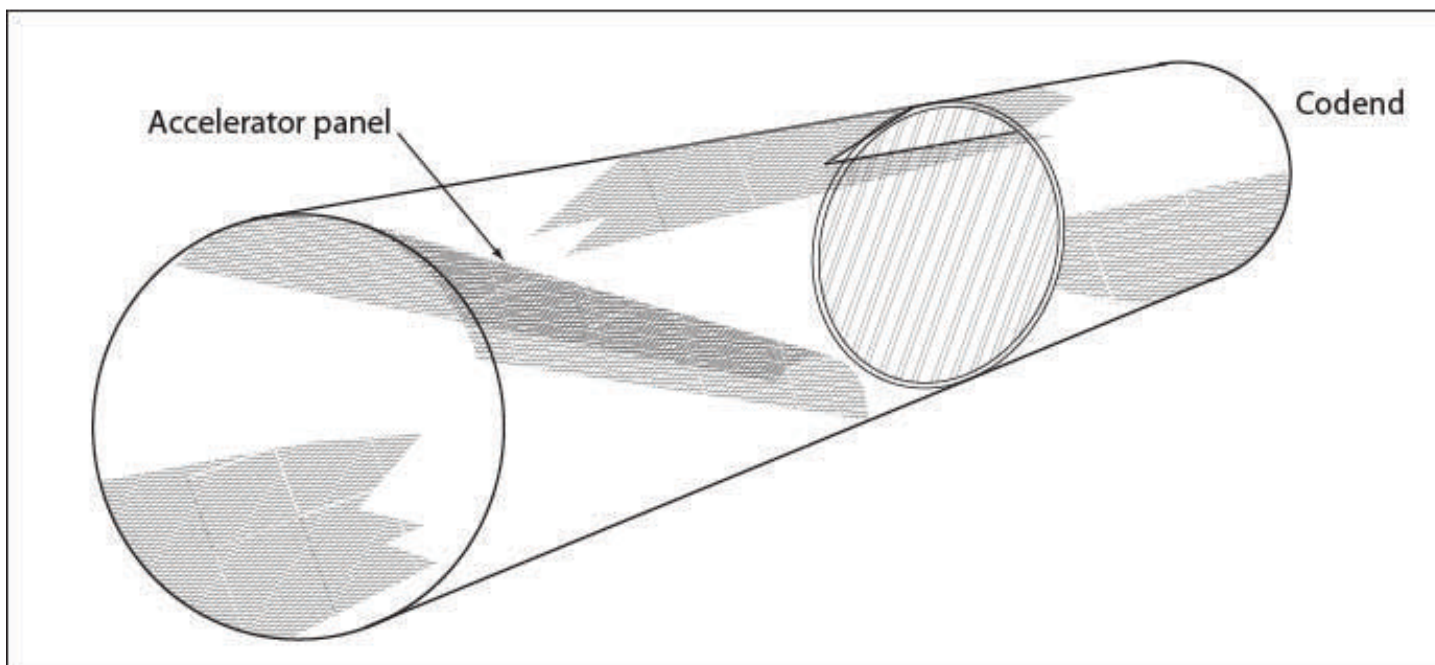


Figure 21. A schematic drawing of a rigid-grate BRD, showing typical placement of the accelerator panel.

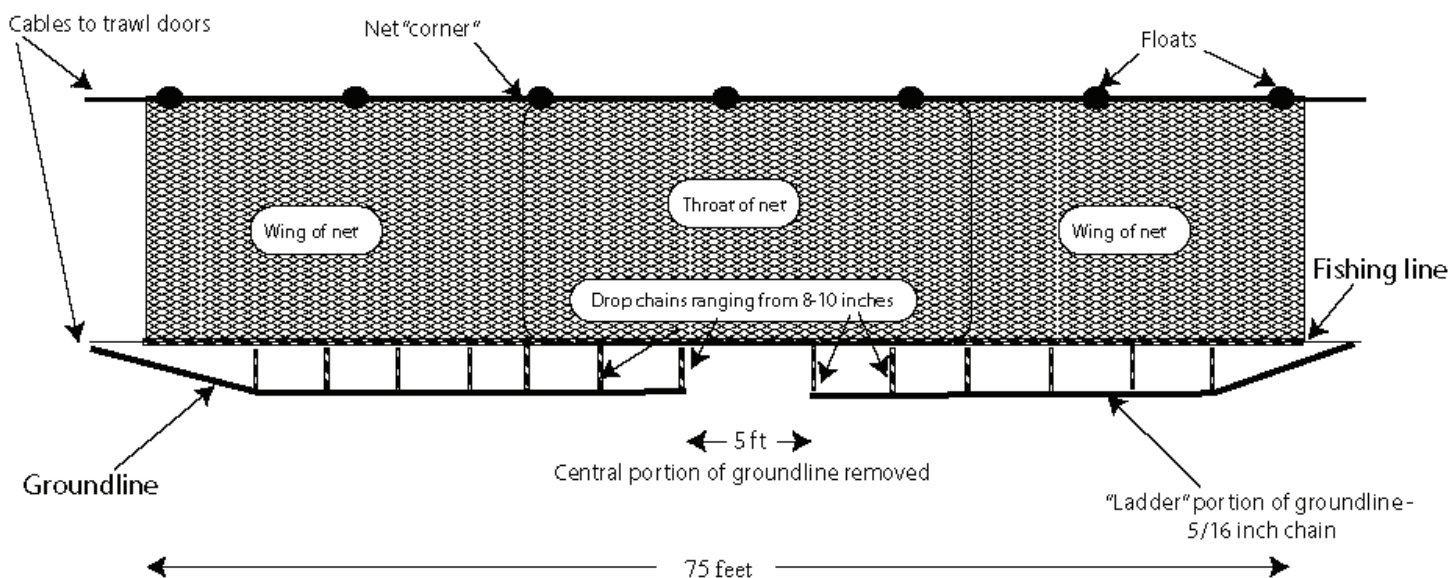


Figure 22. Schematic of a pink shrimp trawl net with a narrow center section of the groundline removed (viewed from front, not to scale). We plan to test this style against a trawl net with a complete groundline.

### Regulation Info

#### BRD Requirements:

Rigid-grate BRDs with a maximum bar spacing of  $\frac{3}{4}$ " are now required in order to participate in the Oregon pink shrimp fishery. No other BRD types are approved. In October 2011, Washington Department of Fish and Wildlife (WDFW) began the process of adopting new BRD regulations starting in 2012. It's anticipated that their new shrimping regulations will closely match Oregon regulations. No imminent regulation changes are anticipated from California. However, California and Washington shrimpers fishing off Oregon are subject to Oregon's shrimping regulations, even if they don't land into Oregon.

**Jurisdiction Issues:** After the Oregon Fish and Wildlife Commission established new BRD bar spacing requirements in December 2010, many Oregon shrimpers expressed concern over the lack of matching BRD requirements among Oregon, California and Washington. At issue, is the premise that out-of-state shrimpers fishing off Oregon stand to catch more eulachon due to less stringent BRD requirements. We want to remind out-of-state shrimpers that Oregon does have jurisdiction to enforce its fishing regulations (including gear used and fishing practices) within the Oregon Fisheries Conservation Zone. The Zone extends from shore out 50 miles. So, anyone shrimping off Oregon is legally required to abide by Oregon regulations regardless of the vessels permitting authority or port of landing.

**Rumors:**

Many shrimpers have inquired about rumors they've heard concerning new groundgear requirements in the Oregon pink shrimp fishery. For the record, no new groundgear regulations are currently planned for 2012. We will continue to do tests of modified gear in an attempt to develop tools for reducing eulachon catch. Any new regulations that may result from the research findings would need approval of the Fish and Wildlife Commission and would be well publicized in advance.

**Groundfish Limits:**

The NMFS proposed 2012 groundfish limits for shrimpers are listed below.

- The groundfish TRIP LIMIT for shrimpers is 1500 lb/trip, not to exceed 500 lb/day.
- The weight of groundfish landed may not exceed the weight of shrimp landed.
- Canary Rockfish, Thornyheads or Yelloweye Rockfish are prohibited.
- Lingcod, 300 lb/month with a 24" minimum size limit.
- Sablefish; 2000 lb/month.
- All other groundfish; landings of these species count toward the per-day and per-trip groundfish limits and do not have species-specific limits.
- Limited entry groundfish vessels possessing pink shrimp permits and harvesting pink shrimp must stay within the daily/monthly limits established for the shrimp fishery. They must also include any fish catch taken while shrimping toward their species limits for the limited entry groundfish fishery.

**Essential Fish Habitat Trawl Closures:**

The Pacific Fisheries Management Council (PFMC) has designated several Essential Fish Habitat (EFH) areas off the Oregon coast as no-trawl zones. The areas are set aside to protect hard-bottom habitats and associated species. Shrimpers are cautioned NOT to trawl within these areas. The NMFS will enforce the EFH no-trawl areas via the Vessel Monitoring System. The area-closure that may affect Oregon shrimpers most is the Nehalem Bank/Shalepile EFH. Other EFH no-trawl areas near commonly shrimped grounds are Daisy Bank, Stonewall Bank, Heceta Bank and Coquille Bank. The coordinates delineating the Nehalem Bank and other EFH areas are listed on the PFMC web page at <http://www.pcouncil.org/groundfish/fishery-management-plan/fmp-appendices/>, under Appendix C #3: Coordinates for EFH Conservation Areas.

**CA/OR Shrimp Trawl Mesh Regulations:**

Many Oregon shrimpers traveled below the Oregon/California border to harvest shrimp in 2011. We heard no reports of shrimping violations during 2011, but we want to remind Oregon shrimpers again of the need to be thoroughly aware of shrimp trawl regulations in both California and Oregon before they shrimp below the border.

California regulations require all California permitted pink shrimp trawlers fishing below the Oregon border to use trawls with a mesh size no smaller than 1-3/8" between the knots when shrimp trawling from 3-200 miles offshore. No trawling is allowed within California state waters (0-3 miles). Also, these vessels may not have any mesh smaller than 1-3/8" between the knots anywhere on-board (including extra codends). Oregon permitted pink shrimp trawlers fishing

below the Oregon border that don't have a California permit must also use nets (including codends) with mesh no smaller than 1-3/8" between knots. If there is any other mesh in their nets or on-board (i.e. stored codends), such a vessel may not legally transit within California state waters (0-3 miles) at any time during the trip. Details on pertinent regulations can be found at: <http://www.dfg.ca.gov/licensing/pdffiles/2009CommFishDigest.pdf>, pages 62-64.

Oregon regulations require that shrimp harvested below the California/Oregon border and landed into Oregon be caught with California-legal nets. The regulation reads; "It is unlawful to land shrimp taken south of the Oregon-California border with nets having a mesh size of less than 1-3/8 inches between the knots". Regulations pertaining to shrimp trawling can be found at: <http://www.dforw.state.us/OARs/05.pdf>, pages 15-17.

**VMS and Declarations required:**

The National Marine Fisheries Service (NMFS) permanently requires shrimp vessels to have an approved and operating Vessel Monitoring System (VMS) on-board. For VMS-related information, please consult the NMFS "Compliance Guide for the Pacific Coast Groundfish Fishery Vessel Monitoring Program" at the following website: <http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/Vessel-Monitoring-System/Index.cfm>, or call NMFS OLE at 206-526-6133.

Additionally, NMFS requires shrimpers to file a declaration report before the vessel is used to fish in any Rockfish Conservation Area (RCA). Shrimpers need to declare before leaving for their first shrimp trip of the season. Only one declaration is required for the season, providing that the vessel doesn't engage in another fishery during the season. For details about declaration procedures, please visit the NOAA Fisheries Office for Law Enforcement website ([http://www.nmfs.noaa.gov/ole/nw\\_declarationreqs.html](http://www.nmfs.noaa.gov/ole/nw_declarationreqs.html)). Declarations may be made via phone by calling 1-888-585-5518.

**Albacore Fishing Not Allowed on Shrimp Trips;**

Current federal trip declaration regulations state that vessels using trawl gear (including shrimp trawls) may only declare one gear type on any trip and may not declare non-trawl gear (i.e. troll gear) on the same trip in which trawl gear is declared. The exact language of the regulation can be found in the Federal Register, Vol 72, No. 235/Friday, December 7, 2007, pages 69168 and 16169. You can view these pages at: <http://www.gpoaccess.gov/fr/retrieve.html>.

**BRD use in 2011**

The Oregon shrimp fleet responded quickly and proactively to the new rigid-grate BRD requirements that came into effect during 2011. We estimate that approximately 48% of the fleet used 3/4" rigid-grate BRDs in 2011. About 27% of vessels continued to use rigid-grates with 7/8 inch spacing and the remaining 24% used 1.0 inch spacing. Roughly 50 % of the 2011 fleet will need to make the transition from 1.0" or 7/8" to 3/4" BRDs before the April 1 opener.

### MSC/BRC Update

ODFW shrimp staff met with Marine Stewardship Council (MSC) representatives in January 2012 to participate in the Oregon shrimp fishery annual surveillance audit and the fishery's upcoming five-year recertification process. We provided current information relating to progress toward satisfying performance measures established during the initial certification and discussed our research relating to eulachon.

The first British Retail Consortium (BRC) certified seafood processor in Oregon came on-line during the 2011 season. The Pacific Shrimp facility in Newport became formally certified on 17 July. The BRC is a trade association known for its high product quality control standards and represents a wide variety of British retailers. A representative of the Oregon Trawl Commission recently attended a meeting of the Coldwater Prawn Forum in London, England. After the forum, he told us that MSC certification was essential now for selling Oregon shrimp into the European retail markets and that BRC certification "opens even more doors" into these markets.

### Observer News

National Marine Fisheries Service (NMFS) observers will continue to observe shrimp trips during the 2012 season, covering Oregon, Washington and California based trips. Their target trip coverage rate will be 20% again this year and observers will be identifying all smelt caught to species. They'll also begin taking eulachon lengths in order to evaluate the size- and age-class composition of those fish. The data could be very important to the fleet. It's possible that the eulachon bycatch data collected by observers in the shrimp fishery could be used to create some sort of at-sea abundance index in the future. Right now, no such measure of relative abundance exists. A useful index would be a big step toward evaluating progress in eulachon recovery and eventual de-listing of the species. The shrimp industry needs those observers: welcome them! Having an observer on-board can be a good time to hone smelt identification skills too. The fish are fresh and all the characteristics are readily apparent. Try asking your observer to give you a lesson in eulachon identification. Then, try not to catch them!

Washington based shrimpers were also required to participate in Washington Department of Fish and Wildlife's (WDFW) own observer program during 2011, in addition to the NMFS program. The project was designed to supplement eulachon take data gathered by NMFS observers and was funded through the Office of Protected Resources with Section-6 federal ESA research dollars. A description of WDFW's program can be viewed at <http://wdfw.wa.gov/fishing/commercial/shrimp/>.

### Enforcement Issues

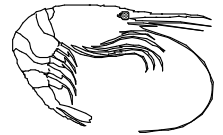
No count-per-pound violations were reported during 2011. The dominance of age-2 shrimp over much of the grounds allowed shrimpers to consistently avoid areas with small age-1 shrimp.

Just a reminder; the Oregon State Police (OSP) will be checking for rigid-grate bar spacing compliance during the 2012 season. Rigid-grate BRDs with maximum bar spacing of 3/4" are now required. Oregon shrimp project staff worked with OSP to develop a protocol that will be used to evaluate compliance. If you've got questions regarding the legality of your grate(s), please contact OSP for an evaluation.

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**Good Luck Shrimping in 2012!**



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