

# Sea Urchin Market

## IS IT FINALLY AT THE BOTTOM?

The market may be showing signs of recovery, despite the continuing supply of low-priced legal and illegally caught roe from other countries.

BY DAVID McRAE, BSc., Director PUHA

Not long ago there was a year-round market for West Coast sea urchins, but in recent years there has been a reduced demand, and the season was revised to run from September to April. The decline started with the economic downturn in Japan in the '90s. Then, just as the market began to show signs of recovery, a supply of low-priced legal and illegally caught roe from other countries depressed the market price and kept it from increasing. This trend continues today.

However, there are signs that the market may be changing direction. Last season the number of sea urchin buyers increased from seven to nine. There was a quota shortfall of 1.12 million pounds in 2004-2005 compared to a deficit of 650,000 pounds the previous year. Weather was a large influence in the shortfall as the fleet experienced more difficult weather than in the past few seasons.

The most notable success for the 2004-2005 season is the addition of a second fleet operating in the North Coast. A portion of the North Coast, including Smith's Inlet, was open for fishing all season or until the area quota was reached. Late in the season the North Coast fleet production was seriously slowed by weather. The DFO, Pacific Urchin Harvesters Association, and D & D Pacific developed a protocol for a second fleet. The new fleet would be monitored by volunteer "on grounds monitors," one of

the dive boats, and there would be daily catch report to D & D Pacific. In March 2005, the estimated quota shortfall for the season was 2.5 million pounds. The second fleet in the north began harvesting in March. A mini-management plan was put into effect. This plan involved both fleets: one near Prince Rupert and the other near Smith's inlet. The fleets would work towards each other and eventually form one fleet. This two-fleet fishing effort was a huge success and is quite likely responsible for reducing the quota deficit by over 1.0 million pounds. There was cooperation from everyone involved and the result was an increase in production and a steadier flow to the market.

The 2005-2006 season is approaching quickly. Fishing will begin in early September and will more than likely continue until April. The opportunity for a second fleet in the north will continue due to the success last season. The approaching season will offer more challenges. For the 2005-2006 season the spotlight will be on:

- the sea trials of a vessel monitoring program;
- lease prices;
- the illegal Russian harvest;
- sea otter population;
- fuel prices; and
- logistics studies.

**Sea trials of a vessel monitoring system**

The monitoring of fishing fleets on the coast is an important part of creating a sustainable, well-managed resource. Currently the sea urchin fleet is monitored by D & D Pacific, and a “on-grounds monitor”. D & D organizes validation of landings by dockside observers for the unloading of sea urchin dive vessels, and sea urchin packers. In the North Coast, the Pacific Urchin Harvester’s Association (PUHA) is responsible for hiring an on-grounds monitor for a portion of the season who must be onsite for fishing to commence. Funding for this position is limited and is becoming more of an issue in the face of lower sea urchin prices. In an effort to control cost and perhaps even improve the monitoring of vessels, a new unit, the “Metrocean Tab-2500 “will be tested on various sea urchin vessels. The tab-2500 is a two-way satellite communication device, which can be remotely programmed to transmit vessel speed, location, heading and time at programmed intervals. The unit is GPS-equipped, and data is sent via email. The Tab-2500 may also be used for email if an onboard computer is available. In the event of an emergency at sea the Tab-2500 comes equipped with an emergency vessel position trigger. If tests are successful and DFO supports use of the system, the whole industry stands to gain from lower monitoring costs and from improved monitoring.

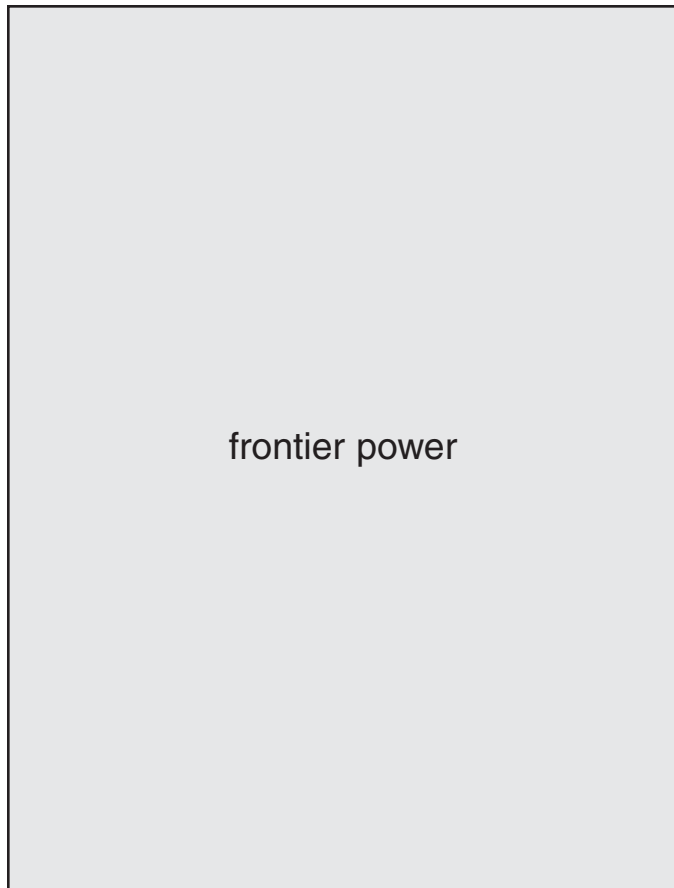
**Lease Prices**

Sea urchin licenses have an individual quota attached to them of

approximately 98,000 lbs. Most fishermen are not licence holders (owners) and must lease their quota. The cost of a lease has been falling as quotas are reduced and roe prices fall. However, this reduction has lagged behind the true market conditions. Last season fishermen saw some relief from high lease prices. The going rate for the lease of a red sea urchin quota was \$20,000 for the 2004-2005 season. The previous season the going rate was \$25,000. The \$5,000 reduction was soon absorbed by reduction in price, leaving the average fisherman in a net-loss position over all. Next season there is talk of lease prices being in the \$8,000 to \$10,000 range. This is quite possible as there will be a reluctance for processors to bid the price up since the demand for the past two seasons has not been strong enough to consume the coast-wide quota.

**Illegal Russian Harvest**

The illegal Russian sea urchin fishery in the Kuril Islands just off the coast of Japan is currently the greatest cause for loss of market share for Canadian sea urchins. The Russian fishery does have a legal and regulated fishery and even Russian urchin divers have been put out of business from illegal fishing by their own countrymen. In 2004, the allowable catch for Russian sea urchins was 1,000 tonnes. Reported landings of Russian sea urchins in Japan for 2004 were 9,000 tonnes. It would appear that the illegal fishery is nine times larger than the legal fishery during the 2004-2005 season. Because the illegal fishery is active just off the



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Japanese coast, this allows for huge loads of up to 350 tonnes at a time to be delivered to Japan at little cost. The Russian fishermen time their loads to take advantage of peak markets. The market is quite often flooded for days after one of these deliveries, and the results are usually a shutdown of our local fleet, or a substantial reduction in demand from local Canadian processors. Efforts are being made to close the illegal Russian fishery. Recently the Russian government has been expressing a desire to tightly regulate its fisheries since they estimate tax revenue losses from illegal and unreported catches might be as much as 80% of fishing revenues. That is a huge revenue loss for the Russian government, not to mention the total lack of resource management. PUHA has been taking steps to raise our government's awareness of the situation, and has requested formal action to be taken to stop the illegal fishery. Mike Featherstone, President of PUHA, has been working all angles trying to resolve the situation, which has been presented to the Canadian, Russian and Japanese governments. Progress is being made, thanks to Mike Featherstone's persistent effort on behalf of PUHA. During past PUHA trade missions to Japan, the delegation was fortunate to meet Mr. Masao Hashimoto, Kokusai Boueki Co. Ltd. located in Sapporo, Japan. Much of the detailed information regarding the illegal harvest from Russia came from Mr. Hashimoto. He has met with Russian and Japanese diplomats to present the problem of illegal harvesting of sea urchins. And his efforts to resolve the illegal harvest is greatly appreciated by Canadian urchin harvesters.

### Sea Otters

Sea otters have been taking their toll on the sea urchin fishery. They have now removed all harvestable urchin beds from Cape Scott on the north end of Vancouver Island to Sidney Inlet just north of Ahousat. At this year's quota planning session, fishermen reported that there are no harvestable beds of sea urchins remaining in Sidney Inlet. Subsequently the Sidney Inlet quota was dropped from the management plan. It will join the many other areas that are no longer harvestable due to sea otters. The Ahousat band is very concerned about the looming threat of the sea otter. The Band has a regular attendance at PUHA meetings since it has two sea urchin licenses. However, at the last meeting they expressed their concern with the devastation of

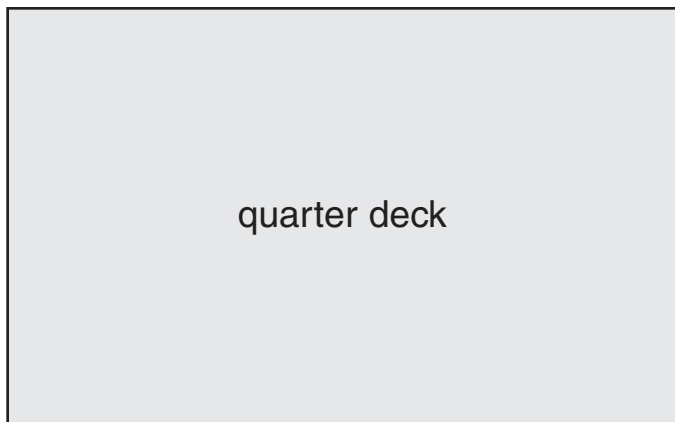


Mr. Hashimoto and PUHA

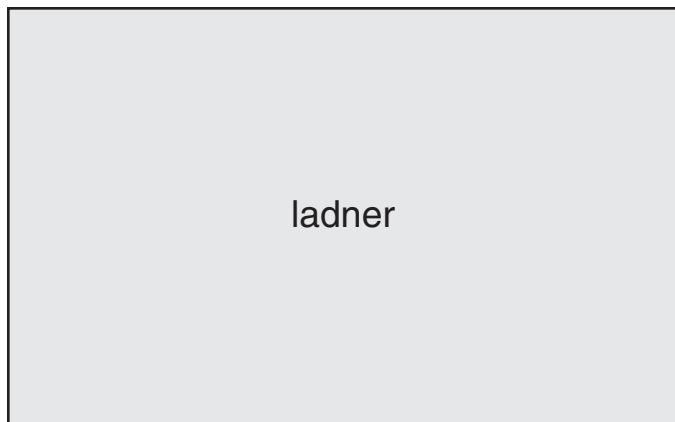
their traditional fishing grounds by sea otters. The band representatives are aware sea urchin divers are perhaps the only witnesses to direct sea otter devastation. The Ahousat band requested PUHA support for a traditional sea otter harvest by the band. The purpose of the hunt is to protect their native food fish. PUHA responded positively to this request, submitting a letter in support of the traditional harvest. The sea otter rebuilding program appears to be having great success, but at a cost to the fishery. There is little information on the predicted social and economic cost of an increasing sea otter population, let alone the detrimental effect by sea otters on other species such as abalone, which has been identified as a species at risk.

### Fuel Prices

Fuel prices are going up and there is nothing anyone can do to control it – that's up to world demand. One option is use less. The new generation of computer-controlled diesel engines is already in production by most manufactures. The *Kuroshio*, this writer's vessel, underwent a refit this summer to upgrade the engine from a traditional diesel to a computer-controlled model. Before refit, the *Kuroshio* was powered by a Volvo 63P 370-hp engine, and



quarter deck



ladner



Kuroshio 2005



David with new engine

Arneson drive ASD10. Fuel economy was reasonably good with this package, but there was room for improvement. For the refit, a new computer controlled Volvo D9-500 500 hp engine, and new

Arneson ASD10 were installed. Initial sea trials have shown positive results. The goal of the refit was for better fuel economy. Sea trials with a demo prop have shown a reduction in fuel consumption of five to 10 liters per hour at a cruising speed of 25 knots. With an Arneson drive all the performance characteristics such as top speed, speed with a load, and low-speed maneuverability are manipulated by prop size. As fine-tuning of the propeller continues, the savings can only increase. Test with a load are still in the works, but it is expected that while traveling with a load of 6,000 lbs., fuel consumption will be cut in half. Emissions from the D9-500 are smoke-free, another added bonus. I am very encouraged at the potential.

### Logistics Studies

In 2005, the sea urchin fishery participated in a logistics study conducted by Geoff Krause of Exploration Unlimited, concerning the “general” handling of sea urchins. This study was funded 100% by the provincial government. The goal of the study was to determine ways of improving the quality of the sea urchin delivery from the fishing grounds to the fish plant. Geoff’s study began onboard the dive vessel *Westport*. Geoff began by monitoring the temperature and condition of the sea urchins when they came out of the water until they reached the plant. Geoff monitored the sea urchins as they were stored on the dive boat; how they were loaded onto a sea urchin packer; and how unloading and hauling were conducted as the sea urchins were trucked to the fish plant. He discovered that the sea urchins grew continually warmer from the time they came out of the water onto the dive vessel until placed in the refer trucks headed for the plant. Once refrigeration began, the temperature increase was halted, but no real cooling of the product took place. Geoff also observed unloading in Prince Rupert. There he reported many of the urchins where “bashed up.” The reason was due to the unloaders attempting to stuff too many sea urchins into too few container totes. The result of the overloaded totes was crushed urchins. Clearly there is room for improvement in this area of the fishery.

A tractability study on the sea urchin fishery was also conducted this past year by Brian Emmitt from Archipelago Marine. The title of the report is *An Analysis of the Requirements, Current Conditions and Opportunities for Tractability in the British Columbia*

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Urchins ready for packer



Processing urchin

*Seafood Sector.* The study examined the information available from the harvesters, the transporters and the offloaders, and finished up with the processors. The same study was conducted on various other fisheries as well, and the sea urchin fishery scored an A- for product tractability when custom-handling and care was taken.

Members of the PUHA are cautiously optimistic going into the 2005-2006 harvesting season. 

*For more information on sea urchins, Arneson drives, and the Kuroshio refit visit website: [www.kuroshio.com](http://www.kuroshio.com)  
PUHA website: [www.puha.org](http://www.puha.org)*

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