Pacific Urchin Harvesters Association
2015 Annual General Meeting
Oliver Woods, Nanaimo
August 19, 2015

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Attendance:

Bob Hegedus, Chris Grant, Scott Castle, Gary Grant, Ken Ridgway, Tim Joys, Graham Condly, George Dennis, Al Shanks, Cory Jackson, John Parkin, Michael Steinmann, Janet Lochead, Pauline Ridings, Dan Leus, Ross Morris, Darin Macey, Jen Burt, Jim Dyck, John Lindsay, Mike Callow, Alfa Wong, Mike Featherstone, Geoff Krause, David McRae, Sung Kim, Goono Sung

There were 32 voting licences in attendance plus 24 proxies for a total of 56 licences at the A.G.M., out of a potential of 110 allowable licences, 100 licences were activated this season (2014-2015). A quorum was declared and the meeting called to order at 9:30 a.m.

1.0 President's Report

General trend of increased landings and activity continued through the 2014/2015 season. There has been continued market interest in Canadian sea urchin and demand continues to grow. We took about 80% of our quota this year which is definitely on the right track. Continued positive interest has developed through international marketing activities in Hong Kong and China. As Geoff will detail later the overall sea urchin price in Japan has increased some 50% over the last 4 years which is a very positive sign. Financially PUHA continues to maintain a positive balance sheet with a small $5,500 surplus this past financial year. We are sticking to our budget while meeting commitments for surveys marketing and validation.

Sustainable fishing is turning into a bit of joke right now. Fisheries management and cooperation with D&D and DFO continues to be positive and well managed but there are growing challenges related to sea otter predation and PUHA needs to increase efforts to manage the fishing activity around the sea otter impacts. These are hitting us harder and faster than anyone thought it would and areas around Port Hardy, Bella Bella, West Coast of Vancouver Island and this past season in Harvey Islands and other areas have put pressure on Industry, Coastal community stakeholders and Government to work together to develop strategies to mitigate lost economic opportunities. Otters have even now shown up on Bonilla Island while Smith Inlet is now filled with only broken shells. Area quotas need to be adjusted around science-based biomass estimates as the fishing activity and market sales continue to increase.

The West Coast Green Urchin Association (WCGUA) is amalgamating with PUHA to develop and increase industry activities and opportunities. Amalgamation will provide financial savings, new marketing opportunities and allow strengthening of communication and coordination and foster industry development using the existing PUHA structure.

PUHA is working with processors, Federal Government trade representatives and CFIA to remove potential negative impacts from PSP bio-toxin testing requirements in the EU market. CFIA found PSP in urchins this year and with the sensitivity of the Asian market to these sorts of scares we need to make sure it is handled carefully.
We are pursuing continued international collaboration with California Sea Urchin fishermen under our existing MOU. We share many of the same perspectives, challenges and problems so it would be a good thing. This has recently involved discussions and information sharing on sea otters, live fresh market activities, handling practices and market information.

Fisheries management activities coordinated with conference call meetings for active fishermen to provide stock and harvest recommendations to DFO managers.

PUHA and harvesters are working closely with processors to continue to improve transportation logistics and product handling. Refrigerated packers, full trucks and fishing planning and coordination are all part of the package are subjects of ongoing improvement.

An overall continued trend of positive industry development. The biggest challenge for PUHA is to bring economic benefits from the improved market and industry efficiencies to the fishermen and licence holders bottom line while continuing to manage quotas to meet increasing demand in a sustainable fishing environment.

Motion to Accept the Presidents Report. 1°: B. Hegedus; 2°: G. Grant. AIF. Motion Carried.

2.0 Approval of minutes for 2014 AGM.

Motion to Adopt Minutes. 1°: Dave McRae; 2°: Tim Joys. AIF. Motion Carried

3.0 Financial Report- presented by Ross Morris on behalf of Dave van Gruen

This past year we opened up 100 (93 full, 7 half) out of 110 licences. This was the best showing since 2005 and as a result revenues from memberships and validation fees from July 1, 2014 to June 30, 2015 increased by about $27 K to $432,874. We also received AgriMarketing funding of $49,819 which was up by about $7.5 K over 2013. $326 K representing 67% of the funds were spent on catch monitoring and validation while $86 K (18%) and $22.9 K (5%) were spent on marketing programs and research respectively. The balance of expenditures were on administrative costs and we ended up with a surplus of $5,500.

Motion to Adopt Financial Report. 1°: Dave McRae; 2°: Bob Hegedus. AIF. Motion Carried

4.0 Science Report - Dan Leus

Last year Haida Gwaii was the main target- Skidegate Channel - got a bunch of work done and while still waiting on some data, they got good coverage and saw lots of nice size urchins along virtually every transect. First data out of HG for quite a few years. Hoping to get data processed in time for next round of quota setting. Still have about 8 boat days left in the budget but probably makes sense to wait until data is analysed to see where we are at and what more we need. Dan is also interested in hearing from PUHA members on where they feel extra effort or information is needed.

Dan also contacted CFIA on the red tide thing as there was a bit of concern on that. He managed to chat with the people involved directly and they stated categorically they have no interest in testing urchins for the toxins involved however they have to do it because the EU requires it. For whatever reason they categorize urchins and other echinoderms along with other shellfish, like bivalves, which are of concern. It is therefore a concern of the International folks and they have expressed interest in pursuing some resolution. We had a good meeting with Grand Hale about this and Geoff prepared a report including a review of the biology of the matter so we all seem to be on about the same page. Another part of the problem is that the EU has changed its protocols and is requiring every load out of an area to be tested, as opposed to having an area tested once and cleared. The problem here is that the results take 2-4 days to come back, by which time the fresh product has almost always been shipped so as to assure a top quality product. BC is not alone on wanting to change this situation and Norway, Greenland, Ireland and Iceland are also banding together to get that regulation changed so it may be possible to join forces. Janet Lochhead has a number of contacts in that regard that she will share with Mike.

Japan is wanting to buy every grade, including and/or especially A grade, but they only want to pay B grade prices.

George asked whether quality was a parameter checked on the surveys- no it isn't. There is no video of the transects available either even though it sounds like a number of the divers are now wearing GoPros. If this were equipped with a laser for ranging, the urchins could be easily sized.

With respect to otters: Dan is working with Hanna Stuart from the Vancouver Aquarium who is working with kelp forest dynamics and is interested in writing up the Tofino site results (drop of RSU from 10,000 to 5). Dan and Hanna will be writing that report up shortly. Janet is interested in hearing more details about sightings on Banks Island and North Rock on Bonilla Island. These are little groups of big males from what guys can see. Interestingly guys noticed that the urchins glom right onto the rocks and are very hard to remove after the otters have been around . They also saw lots of abalone shells scattered on the bottom- suggesting that if abs are ever to recover the area around Banks must be somehow protected. DFO needs official reports with dates, times lat/long along with quantitative observations - harvest logs have a section which can be used for this. That data will be taken into a dedicated database and used to develop appropriate plans.

$1,300 a day for survey day rates is kind of hard on a lot of guys. There is also no allowance for weather days. Al figures the rate(s) need revisiting. Dan suggested $1500 as the full day rate and using a half day rate for weather days. There are rumours that boats will bail if the weather is setting in for more than a few days. Other associations that have increased the rates have seen nice increases in prices, which has not been the case for urchins, and the association is constrained from paying much more. Weather days are a particular problem- at $750/day per boat that could add up pretty quick. Fact is if guys feel they have to run, that is probably best all around. Problem in the Charlottes is the most interesting areas, West Coast) are a half day run from fuel which of course adds to the boat costs and risks. If boats are harvesting in the area opportunities using boats in sequence taking a day off for surveying might be a good idea.

Motion: Raise survey rate to $1,500/day with 2 days travel time for the Charlottes, 1 day for the North Coast and the South Coast (incl. WCVI). PUHA will also consider and look at compensation if someone gets stuck for an extended period during a survey on a case by case basis. 1°: M. Featherstone. 2°: J. Lindsay. AIF. Carried.

Segue into HG proposals: CHN has reversed its position and no longer wants any further fishing in their area as they want to reserve any increases for themselves. They are pulling the same with Sea Cucumber and doing their best to keep commercial fishing away from HG. The Harbo Protocol was established years ago and has always revolved around a declared ability to move quota around as otters and other changes increasingly impact urchin abundance in various areas. There are also some questions about the 2% level as the harvest limit for sustainable fishing in the urchin fishery. The natural abundance of the urchins in the natural state of the environment when sea otters are present as the keystone species is much lower than the current situation in their absence so the 2 % limit is in some ways completely arbitrary. Dan replied that it is in a historical paper that did not consider otters as part of the equation. Dan would like to use some or all of the 5 set-aside experimental areas which are held outside the TAC to further examine the impacts on urchin populations of heavy harvests. Some work has shown that total harvest has no impact on size of population structures within a year or so (subsequent surveys) while there is at least one area which does show reduced abundance although there was no explicit indication of for how long that impact lasts. Otters are expanding their territory faster now than anyone has predicted- on the South Coast Deserters Islands, Allison Harbour and Port Hardy are wiped out, they are now showing up in Blackfish Sound and Johnstone Strait and will soon be in the Strait of Georgia. It is now like a tidal wave coming over the fishing grounds outside of the Central Coast - which is of course where they got started.

The guys in California are still fighting to retain the sea otter retention areas so that they can protect some areas as fishing grounds but it appears they are losing that battle. It is now political and legal, mainly because of intervention by other groups which apparently/purportedly want to reduce the costs involved to the state. They do not care if the otters spread over the whole coast again and have managed to get the program cancelled. This may actually be an effective feint by environmental groups but the effect is the same. The otters are being somewhat controlled by predators (sharks) in the north and probably pollution along the main coast in the bight south of Point Conception.

Pauline mentioned that extra quota has been proposed for HG - it has been submitted twice but the one of the main constraints so far has been that we are in the midst of a 3-year management plan. Both increases have been politically knocked down by either the CHN or DFO but this coming year is the last year of a 3-year management plan so it may be a very good opportunity to move over a bunch of quota. The issue is that we don't know if the industry can fish the entire 10 million quota given the declines in abundance over the past 10 years or so even market constraints have kept it from becoming an issue. Nobody is going to do anything about the otters, because they are iconic and cute, and Haida Gwaii is still the best option. It is important for the industry to engage and let various parties in CHN and DFO know how important it is to the industry. It is also important to the crews involved which during the good chunk of the fishery comprise upwards to 60-70% of the guys working on the boats and unloading etc. Part of the problem is that the CHN wants jurisdiction over management of fishery resources in HG waters.

There was some question about whether to change the 3 year plan to a 2 or even a 1 year period. The extension was initially intended to provide a longer and more stable planning horizon for the fishery but with the changes in markets, otters and other events, the 3 year period is too long and even 2 years is kind of pushing it. There are lots of changes coming, mainly because of otters, and there seemed to be a bit of a consensus that maybe we should go back to a 1 year.

Motion: move back to 1 year management plan. 1°: John Lindsay. 2 °: Alfa Wong. AIF Carried.

Janet Lochead suggested that it might be possible to reduce survey costs by amalgamating the surveys for GSU and RSU. This would probably be OK for exploratory efforts but in established areas it is usually obvious that one or the other is completely dominant. Current protocols has all urchins (Red, Green and Purple) encountered being measured. DFO is also moving toward getting cukes into the mix as well. There are lots of GSU in Smith and Rivers Inlet but because these areas are in the North Coast they are not available to the fishery. There is still some confusion about how this might change. The 1999 -2000 WCGUA AGM included:

"The current protocol involves preliminary surveys followed by harvest which is limited to 10% of the legal-sized animals found in an area. No one is yet taking up the baton on this and the Association must look at some means to get on with further exploratory work in these areas. One suggestion is to identify and survey areas where harvests can start with the revenues generated returning to the Association to pay for on-going survey work. The Association will discuss the issue(s) with Ian Perry at PBS to get the issues clarified so the work can start."

There are still questions about how the areas might be opened up to allow some fishing and Janet suggested that the more likely option will be along the lines of what the cucumber fishery is doing- surveys followed by assessment and calculation of an area quota. Mike will explore this further with DFO and start working up some options. Sea otters are not as interested in GSU as RSU so it seems that their abundance is increasing in otter areas and also in some heavily fished areas. Dan feels there may be sufficient data obtained opportunistically from RSU surveys over the past 20 years for at least some GSU stocks that preliminary biomass estimates could be developed from the existing database(s) to help things along. DFO is at least as constrained as PUHA is financially, but there might be something the two can do together to get some funding for taking a look at the data and see what may or may not be there.

Another nice thing about GSU is that they are shipped live which means they do not necessarily need to go through an established exporting licensed plant. Developing a local market in Vancouver, along the same lines of the Fresh on Friday live program for RSU at Steveston, is another option that can expand the size of the pie. GSU have a lighter and sweeter taste than RSU and are preferred by many. GSU and RSU are now both part of PUHA. The GSU fishery has not operated under a collaborative agreement for some years and the surveys costing under $10 K do not need one. The Management Plan for the GSU is also a 3 year plan that is up for renewal August 2016. Erin Wylie is the manager for the GSU. PUHA will probably look to changing this to a 1 year plan as well.

Motion to accept Science Report. 1°: M. Featherstone. 2°: T. Joys. AIF. Carried.

Note: Mike mentioned the name of Brian Takeda as a fellow associated with a feed company from Norway. Further background here is:

Brian Takeda from Kaston (http://www.kaston.no/) Not a lot on them- and their website is pretty much brand new- so we are not sure how far along they really are or what the results have been to date. Still- if his claims about a feeding regime based on an artificial feed raising recoveries in ponded urchins to 20 % in 12 weeks or 30% in 16 with the great taste, colour and texture (I remember years ago hearing that 2 out of 3 was not too hard but it has always been a bugger getting all 3 right) – it could spell a sea change in the market and supply economics. Particularly if he is indeed getting big Japanese companies (distribution and feed production) in as partners as he claims. On a visit to Hokkaido 10 years ago – the oceanographic institute up there had a graphic depicting their urchins being ready for market 2 years after hatching in a hatchery - artificial feed in warmer water and controlled conditions could take that down further and result in enormous volumes coming into the market.

(As a bit of an aside- it sounds like the California guys have some Purple Sea Urchin barrens. The PSU are pretty much empty and they are going to try the feed regime experimentally.)

5.0 D&D Report- RSU

We are coming up on the third year of the Integrated Fishery Management Plan which ends in July 31 2016. Until then the IVQ's are: North Coast: 133,539 lbs. & South Coast: 34,106 lbs. The coastwide TAC remains a little over 10 M lbs.

North Coast Review:

- The season opened as scheduled on August 1st, 2014.
- 6,739,871 lbs. harvested = approximately 80% of the north coast TAC.
- Of the 67 NC quota areas, 57(47- 2013-14) have been fished with 26(32-2013-14) achieved over 98%.
- The North Coast started on August 2nd, and focussed on fishing exposed quota areas (RU30-Lower Banks Island) instead of quota areas close to port.
- Minimal landings in August (380k) due to market – only 1 buyer was active in August.
- September landings occurred out of Area 4, 5 and 6.
- Minimal landings in October due to the Sea Cucumber fishery opening.
- January & February received a lot of weather days prior to the Haida Gwaii QMAs opening in March. Active fishing vessels moved to the central coast to harvest prior to crossing Hecate Strait.
- February saw a lot of weather days prior to the Haida Gwaii QMAs opening in March. Active fishing vessels moved to the central coast to harvest prior to crossing.
- Vessels harvested urchins from QMAs on Haida Gwaii between March 5 - May 3.
- Over the course of 60 days dive vessels were on the grounds, weather days accounted for approximately 25 days of no harvest (primarily on the West Coast).
- May saw the fleet move back to the mainland and harvest their way to Area 7.
- June was the only month with no landings in the North Coast.
- July harvest was minimal due to break downs within the fleet. Minimal landings occurred out of Area 9 & 10, and final landings out of Area 4.
- The bulk of the areas fished have been north of Milbanke Sound. This season, vessels

moved further south into the central coast to Area 10.

- ✧ In total, there have been up to 29 vessels active in the north (including re-designations), commonly divided into two groups. At the end of the season, re-designations reduced the fleet to 24.
- ✧ In the 2011/12 season, DFO mandated a Vessel Monitoring System (VMS) be incorporated with a North Coast fishing protocol requiring industry to have at least one vessel (PUHA and DFO approved) within each fleet equipped with a VMS at all times. The pilot has since continued into the 2014/15 season with no major issues, although:
  - ✯ Some VMS units change vessels, but Vessel Masters fail to notify DFO which causes an issue.
  - ✯ As vessels acquire VMS units, more Vessel Masters are asking to be a Coordinator of their respective fleets, or to go out on their own to harvest, with minimal or no understanding of the North Coast Protocol.
  - ✯ Adhering to the protocol is an issue with certain VMS unit holders, especially communication in a timely manner.

2.2 South Coast Review:

- ✧ The South Coast harvest started August 1st, exclusive for Public sales every Friday.
- ✧ South Coast public dock sales continued throughout every month of the year as did the regular commercial fishery which started fishing on the 23rd of September.
- ✧ 1,201,829 lbs. harvested = 75% of the south coast TAC.
- ✧ Of the 24 quota areas available for harvest, 22 were fished with 11 achieved up to 98%.
- ✧ Landings occurred in every month last season from the south coast.
- ✧ October and November picked up in landings out of Area 12 and 13.
- ✧ December - January were the primary harvest months for east coast Vancouver Island.
- ✧ January and February had landings out of Area 23 and 123.
- ✧ March and April landings were out of Area 12.
- ✧ Difficult QMAs in area 12 due to sea otters. Area 12C Port Hardy (fallback quota) was requested in-season and 26k was landed out of a 35k limit.
- ✧ May, June and July were all public sales
- ✧ The majority of remaining quota is on the West Coast and in areas that are difficult to fish.
- ✧ 16 vessels have been active in the south coast (including re-designations). In the end, 15 vessels.
- ✧ To facilitate PUHA's live market program, two new validation methods were initiated: Volume-based validation for submersed urchins and Water-loss based validation for wet-weight urchins. Both methods were utilized.
- ✧ PUHA set aside (gentlemen's agreement) to hold quota area 17-Nanaimo for "Public Sales" in efforts to guarantee the public sale program a continuous supply of urchins on a weekly basis. Some fishing occurred for public sales in an adjacent quota area agreed upon by PUHA for commercial sales. PUHA resolved the issue in-season.
- ✧ The Red Sea urchin licence conditions state "Nanaimo" as a landing port. However, the city of Nanaimo has no dock to accommodate RSU offloads. As docks switch from Government to Municipal, they are sometimes lost. Also, Coal Harbour is listed, but DFO closed the quota area over 15 years ago so it should be removed from the C of L.
- ✧ The fallback QMAs were opened this season for harvest to offset the Otter predation in Area 11 & 12F Deserters, and starting in 12G – Wells Passage.
- ✧ Harvest deeper, but 26,000 lbs. was harvested from 12C - Port Hardy fallback QMA.

✧ Quota areas east of Campbell River noticed poor roe quality, and were hard to complete.

✧ The west coast [Ucluelet] quota areas reported lots of Urchins offshore and in Bamfield, but quality at the time of harvest was questionable, and the vessel was eventually shutdown. Lack of Urchins is not an issue.

✧ Discussions within fleet participants of reducing the number of south coast licenses are more frequent. 33,000 lbs. per licence is too low (industry comments), and recommended to be around 45,000 per tab.

Figure 2 *Landing by Month – 3 Season Trend*

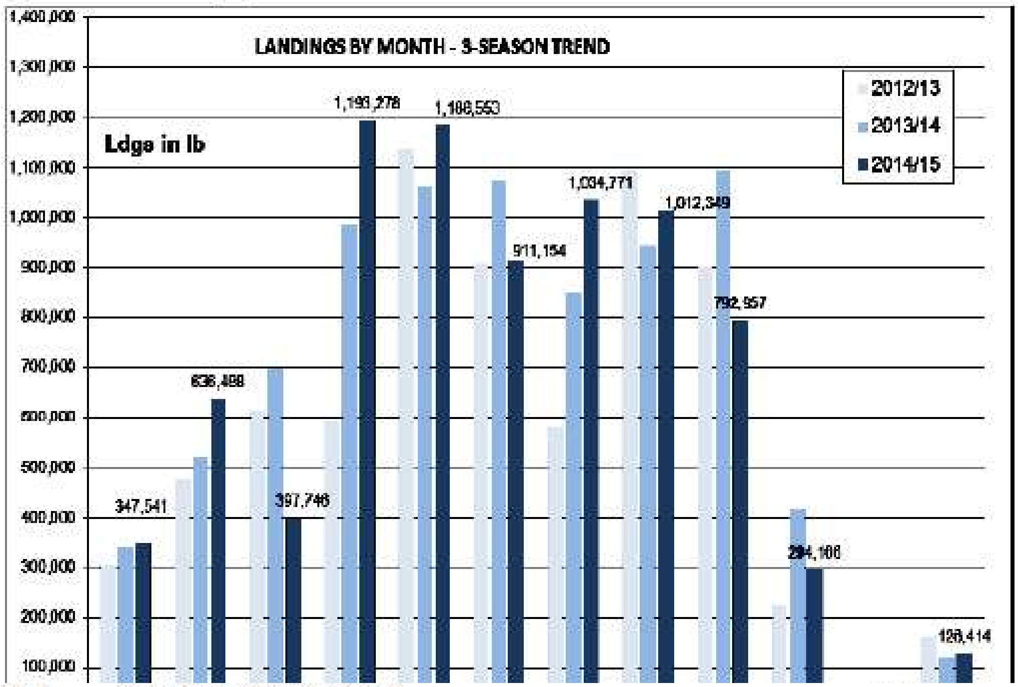
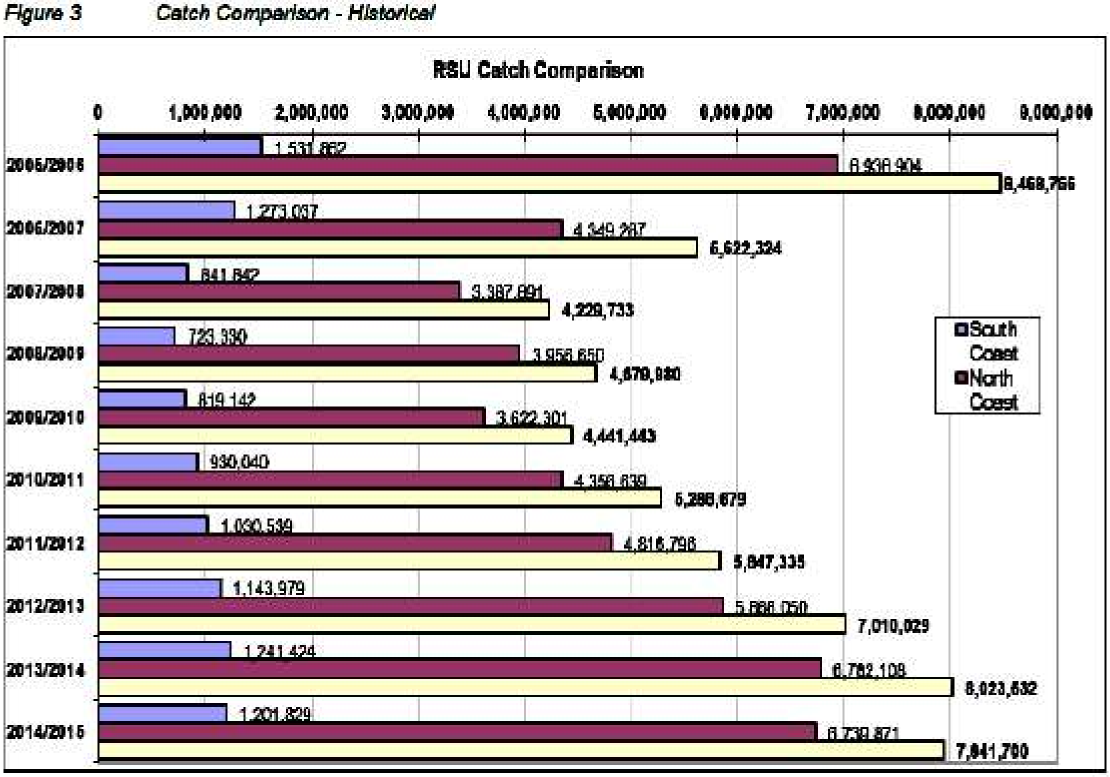


Figure 3 *Catch Comparison - Historical*



Comments - Industry:

- ✧ Interest in the influx of new participants in the fishery. New vessels, divers, buyers etc.
- ✧ Expand the option for live market validation to include the following ports: Campbell River, Victoria, Vancouver.
- ✧ IFMP and area selection for three seasons is too long,
- ✧ Tighten up fishing schedule to reduce "running around" and not completing QMAs.
- ✧ Rotate through blocks – fish to completion before moving to next block.
- ✧ Stop one fleet from "high-grading" QMAs and leaving the clean-up for the other fleets.
- ✧ Comments by industry throughout the season related to concerns of certain vessels fishing for other vessels' and their tabs. Nothing proven, but industry is concerned.
- ✧ Industry concerns about certain boats poaching- were reported to DFO when warranted.
- ✧ Add North Coast - lower Central QMA's into the South Coast Region of QMAs.
- ✧ North Coast protocol should allow three groups.
- ✧ Large biomass of Urchins in many areas of Haida Gwaii – Surveys required.
- ✧ Sea otter predation in area 12 active.
- ✧ Two groups in the north coast keeps fleets together when vessel(s) sell to more than one buyer a day.
- ✧ Bamfield area needs survey, large biomass noticed.
- ✧ Add Ladysmith as a landing port if Nanaimo is to be harvested for commercial buyers.
- ✧ Change fiscal RSU year-end to August 31and new season start on September 1- same as Green Sea Urchins.
- ✧ Have the fishery year-end changed to the month where no fishing occurs. – June or July.
- ✧ Sea Otters noticed on Bonilla Island.
- ✧ Haida Gwaii should be fished in September and then in March.

One comment during the meeting asked whether it might be possible to keep part of the mainland open when the QCI are open. The reason the mainland is closed when the QCI are open is to get more to all of the boats over there. There might be an opportunity to work with the Haida in one of their plants but that would only be a couple of boats and not be a fleet. Opening things up for a third fleet is not likely to be on because of the extra work for DFO and D&D. Masset and Queen Charlotte City are designated landing ports.

New Season Update – 2015-16 Season

- ✧ Season opened August 1st, 2015.
- ✧ PUHA had a discussion with directors relating to the zone around Prince Rupert to limit harvest to the time of year with poor weather. QMAs were identified, and the fleet was directed to fish in exposed areas.
- ✧ North Coast opened in Oval Bay August 2nd.
- ✧ South Coast started public sales August 14th.
- ✧ One buyer active, another starting.
- ✧ Fleet active on Bonilla – West Banks.
- ✧ Over 200k harvested coast-wide including 1600 lbs. For south coast public sales.
- ✧ Otters noticed on Bonilla.
- ✧ Licence Area Designation will occur for next season.
- ✧ Changes to moving Quota to Haida Gwaii from Central Coast is delayed, but DFO reserves the right to change in-season if the option presents itself during the season.
- ✧ North coast Protocol will remain the same as the previous season. DFO has declined on moving the fleet to 100% VMS coverage until further notice.

There has been a mistaken understanding that as long as a boat has VMS, that boat and a fleet accompanying it can go fishing when and wherever it wants - this is not the case. The OGC has to be one that is recognized and authorized by DFO, PUHA and the guys out fishing. That person has to follow the rules and protocols- one of the other main things needed is a sat phone so timely communications are possible. Some of the new sat phones are not very dependable. Every boat on the South Coast is its own coordinator and there have been no problems in that part of the fishery.

Some RSU have been reported in sub-areas that are not included in the harvest plan. It is premature to include these in the management plan as some preliminary consultatins will be required.

Motion to accept D&D report: 1°- M. Steinmann. 2° John Parkin. AIF Carried.

6.0 South Coast Report

Good information was provided by D&D but this section includes inside observations. There is good agreement that reserving areas for high price periods around Christmas each year makes a lot of sense and that more needs to be done to get prices heading up.

Unloading seems to be getting more efficient with some more concentrated effort showing up. The costs are however still kind of high compared to North Coast. It is nice to have a portable unloading but it sounds like the second smaller dock in Sayward might be getting alienated (going private?) from the community and therefore no longer available to unload fish or urchins etc. So far this is just a rumour.

There was a suggestion that maybe Bamfield should be designated as a landing port. The run to Ucluelet is sometimes a bit long and lumpy from the other side and it might open some additional fishing days. It would be a bit costly for D&D to get set up and it is still a logging road so the product might take a bit of a beating. Buyers were not jumping up to support the extra trucking costs and they did not express a lot of interest in it. Still it seems this idea warrants further exploration and discussion. Harriot Bay is another potential landing port worth looking at as it could/would save a couple hours running time to Campbell River to unload for some areas.

Motion: Accept South Coast Report. 1°: M. Steinmann. 2°: S. Castle. AIF. Carried.

7.0 North Coast Report

Again a lot of things were well covered by the D&D report. There were some cases of guys not spending sufficient time to do it justice before moving along and also some questions about quality. Some boats might be trying to run to the better areas so they can get first crack at it but there is no point fighting each other to get the good stuff as it eventually comes out in the wash. There was some discussion about moving over to the Charlottes in early September and then again in March and this is the best time to try and catch a break with the weather (especially Nor-westerlies) on the west coast and the quality is usually pretty good at these times. The guys seem to be on side as long as the processors are willing to work together on it. The problem with getting over there arose from a case where a packer decided not to run for a few days even though he had a load on. The quality was basically destroyed by the time he arrived in Rupert.

Motion to accept North Coast Report. 1°: J. Parkin. 2°: Tim Joys. AIF Carried.

8.0 Budget

Mike presented the budget for the year.

PACIFIC URCHIN HARVESTERS BUDGET 2015/2016		
REVENUE		
	58 NC LICENCES @ $5600/LICENCE	$324,800.00
	40 SC LICENCES @ $3400/LICENCE	$136,000.00
	5 half @$3400	$17,000.00
	CAFI refund 15/16	$40,000.00
	INTEREST	$2,500.00
	TOTAL	$520,300.00
EXPENSE		
	D&D PACIFIC FISHERIES	$340,000.00
	GENERAL and OPERATING	$35,000.00
	PRESIDENT HONORARIUM	$25,000.00
	DIRECTORS TRAVEL HONORARIUM	$10,000.00
	CAFI MARKETING PROGRAM (MARKETING SUPPORT)	*$40,000.00*
	consulting	*$10,000.00*
	SEAFOOD ALLIANCE MEMBERSHIP	$3,000.00
	VMS $100/validation for participants	$3,000.00
	RESEARCH SURVEYS	$50,000.00
	TOTAL	$516,000.00
	SURPLUS	$4,300.00

These numbers have not changed much from previous years and the plan is to have a separate budget for the GSU fishery. The two fisheries will be classed separately but all the totals will be reconciled in the books and use the same bank account. This is the simplest, and therefore the least expensive, option. Further details on this will be discussed after lunch.

Motion to Adopt the budget as presented. 1°: D. McRae. 2°: A. Shanks. AIF Carried.

9.0 Election of Officers

Alfa Wong is willing to stand as a Director on the Board. John Lindsay, Al Shanks, Jim Dyck will represent GSU interests while Dave McRae, Bob Hegedus, Gary Grant, John Parkin will represent the RSU. Ross Morris and Mike Featherstone will continue on as Secretary- Treasurer and President respectively.

Motion to accept the Slate as presented. 1°: B. Hegedus. 2°: M. Steinmann. AIF Carried.

Break for Lunch

10.0 D&D Report for GSU Fishery

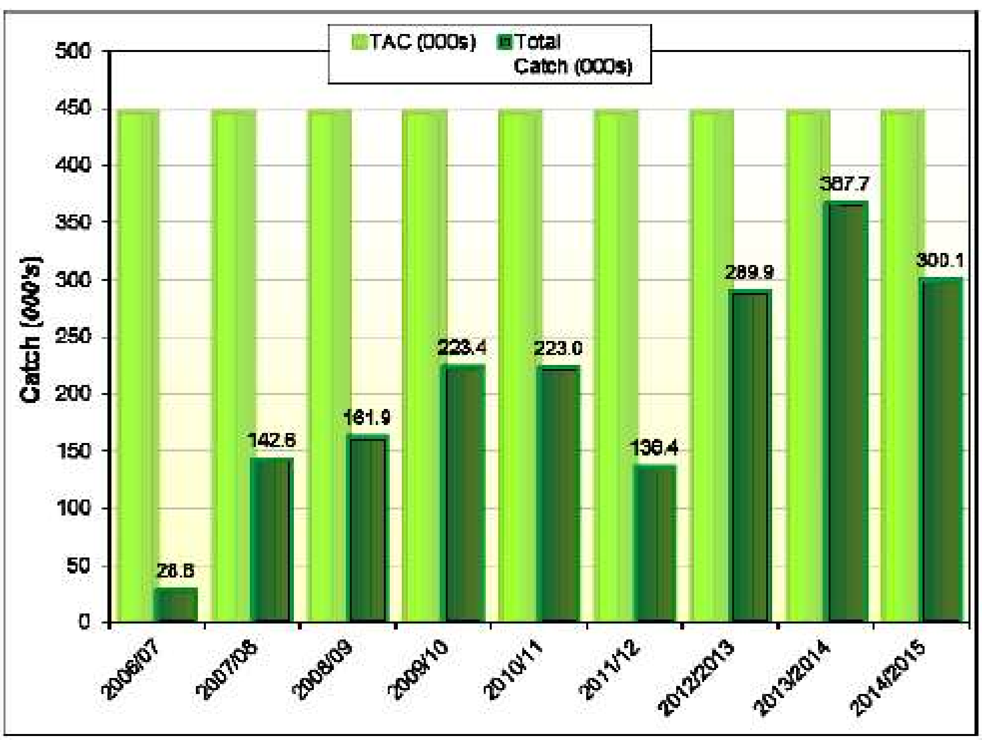
Season Summary

- ✧ The fishery opened on September 1, 2014 in all Quota Management Areas (QMA).
- ✧ The first landings occurred September 5th in Campbell River and the Lower Mainland.
- ✧ The last landing on February 3rd 2015.
- ✧ The 2014-15 GSU season harvested less than the previous 2013-14 season.
- ✧ The first QMA to close (Sept.19-2014) was Area 13A – Campbell River.
- ✧ Of the six QMAs in the GSU fishery, three achieved their quota.
- ✧ The remaining three achieved an average of 66%.
- ✧ The overall fishing trend was similar to previous two seasons- early surge in September slowing through October and November and the traditional peak in December.
- ✧ January recorded zero landings.
- ✧ 36 (of 49) ZA tabs active in the fishery
- ✧ 13 vessels participated.
- ✧ Minimal harvest activity in February with no landings since.
- ✧ Public Sales would continue if quota were available locally to the lower mainland.
- ✧ Only two high incidents occurred during the season

Quota Management Area Activity

- ✧ All six QMAs were active.
- ✧ Bio-mass reports were healthy.
- ✧ Large bio-mass reported in area 12 although there were also quality issues
- ✧ Area 17 was harvested (1 cage) despite being closed
- ✧ Less product was harvested out of area 12 compared to the previous year. Market demand and quality an issue.

Figure 1 Catch Comparison



There was a suggestion that Russia started fishing a bit early this past year and that affected the market and subsequent fishing in Canada. The data from Japan Customs does not bear this out. Total landings from Russia in August through October remained about the same as they have in previous years while those from Hanasaki in particular came in at 0 in September, as per about par, and under by about 80 MT in October than has been the case for the last 4 years or so.

Motion: Green Urchin Association should provide Michael Callow with a $6,000 top-up to his honorarium for the superlative efforts he has shown over the past 20 years. 1°: G. Dennis. 2°: T. Joys. AIF. Carried.

The catch records from Prince Rupert are on the Shellfish Data unit database but a survey is still required to re-open the area(s). The survey requires full accounting of both the legal and the sublegal components even though only the legal-sized component is used in estimated the area quota.

Mike will work with the GSU representatives on the board to develop an work plan for the GSU fishery with an eye to expanding the area available to harvest and working out the exploratory protocols etc. This will start with a conference call (within the next 2 weeks?), looking at increasing quotas and identifying opportunities in some southern areas and then work with Janet to see what is workable. Getting someone to start working with a chef in Vancouver to promote the product locally might also be an idea. It might even be possible to develop something along the lines of the prawn festival. Once the short term stuff is taken care of a longer term plan can be worked on.

Administratively, D&D will take care of collecting the fees etc and then pass along the funds to PUHA. The RSU guys are also going to move over to the same system. There are a lot of potential opportunities to save costs by having both Red and Green urchins working together- surveys, marketing, science, etc.

Motion to accept D&D Report and Action Plan outline for the GSU fishery. 1°: M. Featherstone. 2°: J. Lindsey. AIF Carried.

11.0 International Marketing Report

First off we played through the new video presentation put together by Ron Ross at the 2014 China Show and our program through last year.

As a real quick summary, we exhibited at the Seafood Asia Expo in Hong Kong in September 2014 and at the China Fisheries and Seafood Expo in Qingdao in November 2014. We were accompanied by 2 processors/exporters at each and qualified some 113 (26 good - v. good) and 41 (11 gd-v.gd) contacts at each show respectively. Following the China show, we met with an established customer in Shenzhen and took a tour of Macau to get a feel for its market potential. We also co-hosted a dinner for a Shanghai trade delegation in Vancouver in March 2015. Reports for the two shows can be found on the PUHA website.

We provided samples and etc. for the Consul General (Hong Kong) reception (Sept. 2014) and for the Shanghai delegation (incoming - Mar 2015) and to the Executive Chef at the Shenzhen 4

Seasons (Nov. 2014). More than 60 potential buyers etc. attended the Consul General reception; the Shanghai delegation comprised 14 representatives, and a good proportion of the visitors to our booths at the two shows rated this category.

Our website has basically doubled the number of users and page views over the past year. Most are from the US (CA and NY), Canada and Australia but the Philippines, Hong Kong and China are #4, #5 and #10 respectively. Mobile devices account for about 75% of sessions. We confirmed that the website is accessible via PC from Beijing and Qingdao China but have not yet checked for mobile devices. We expect to optimize further for mobile devices and ease of access/speed for translated pages will be important. China, Canada and Hong Kong comprise the top 3 for session duration.

Looking at how things unfolded this past year, sales were not as robust as had been hoped but China, Taiwan and Hong Kong continue to build in importance to us and are helping reduce our dependence on the Japanese market. On a volume basis, sales to Japan declined from an 80% share in 2013 to 72% this year which is encouraging even though the decline on a value basis was less substantial from 73% to 72%. Keep in mind though that the exports to Japan are apparently often re-exported to other Asian markets, including Hong Kong where the retail price is comparable to those for Japanese uni and in the neighbourhood of CAD$ 350 - 750 per kg., depending on format. Given what we have seen in Hong Kong and China, it would be interesting to see how the retail price of Canadian (and US) RSU uni compares to especially the Japanese red uni in Japan.

Currently our four biggest markets are Japan, Hong Kong, Taiwan and China. The value of sales to all international markets was down by $C1.5 M to $C 14.7 M and volume declined by 28 MT to 450.4 MT this past year according to Stats Canada but this is likely more a supply as opposed to a demand issue. Production was limited by external factors, particularly in January, March, October and December, causing/accounting for the fall. Stats Canada had our prices decline to either $C 45.51/kg or $C 34.12/kg depending on the source (website or CATSNET). In contrast to the Canadian estimates, the average price from Japan Customs increased from the 2013 baseline of ¥6,896 per kg to ¥7,434/kg., an increase of ¥538 (7.8%) which probably reflects the 7% depreciation of the Japanese yen vis a vis the CAD. Anecdotal reports suggest landed prices are increasing which suggests that the wholesale prices are probably also heading north.

We are, as implied above, maintaining data collections from Japan Customs as well as the Tsukiji auction as coherent long term time series on imports for uni from Canada, US, Russia and China and prices on those and uni from Japan. The data from these various sources are difficult to reconcile but that is just part of the game of international trade. As an example, volume of exports from BC to Japan declined by 44 MT to 323 MT and value declined by CAD 1.3 M to CAD 10.5 M, based on Stats Canada website data (data for urchins other than live/fresh/chilled (therefore including frozen)) was not considered (2014 total~ $8K) despite anecdotal reports of substantial production). Data from Japan Customs on the other hand reported increased volume/value of processed uni (+26 MT/$C1.9 M to 306 MT/$C20.6 M (HS 030821-200)) and live urchin from Canada (+22 MT/$C0.36 M to 97 MT/$C1.21 M (HS:030821-100). I/we cannot explain the discrepancies between Stats Canada and Japan Customs other than to say that the prices used by Statistics Canada are based on declared estimates by the shipper on leaving Canada and do not necessarily reflect the final prices obtained. It is noteworthy that trends according to the two sets of data are going in opposite directions.

The data from Tsukiji is also kind of interesting. Canadian uni is not listed directly on the sales data but the US sells its RSU imports on Tsukiji and this provides good surrogate data on the wholesale price, or at least the trends underlying the price, of processed Canadian uni. Using the time series that extends from 2007, prices of Japanese white, Japanese red and US RSU uni have all increased by about 50% since 2007 in Canadian Dollar (CAD) terms.

Looking at other markets, we are still restricted to using StatsCanada data. Based on these, exports to Mainland China increased by only 0.6 MT (600 kg) to 18.6 MT and value increased $37 K to $598 K according to Stats Canada. The shortfall is attributed to ongoing effects of the anti-corruption campaign in China which is reportedly stifling sales as luxury spending is curtailed. Export volumes and values to Hong Kong also fell, by 10 MT to 36 MT and by CAD 0.7 M to CAD 1.66 M respectively. The reasons for this are again in-country events as it is likely the Occupy Central democracy protests that shook Hong Kong from September through December in 2014 which disrupted sales in many outlets. Sales to Hong Kong are recovering but remain below the growth trend seen prior to the protests. April 2014 was the last month that saw higher monthly volume sales in comparison with a year earlier (April 2013). Taiwan has tightened the gap with Hong Kong as a result. Export volumes from BC to Taiwan increased by 21 MT to 52 MT and values increased by $C 0.3 M to $C 1.63 M. In Taiwan we have exceeded our two-year goal on the volume side but fell just short of our 2 year goal on value ($C1.65 M vs 1.8 M) because of lower prices.

We also follow California production trends (= fairly stable at between 11 - 14 M. Lbs/year) and stay in touch on their market requirements/preferences so we can more seamlessly step up if and/or when demand there and throughout the US presents more opportunities for us. Production ranges from guys picking a few hundred pounds within a couple of hours of their home port to 2-3 day trips out to the Channel Islands which sees packers running every day with the catch from a bunch of boats. Exports to Japan from California are declining each year and this is apparently largely because of a growing domestic market. They are also shipping more B and C grade material and reserving more of the A grade for their home market. We are sharing information/experience with US harvesters but inspection barriers to live air transport into CA and Canada have prevented any live shipments and sidelined more intensive collaborations for now. We are conducting tests and developing handling/packing guidelines ourselves based on the work that Tim has been doing for the Fresh on Friday sales in Steveston.

At any rate, we hope to build on the momentum we are seeing on the volume side and get more information on the “apparent” prices in Hong Kong and Taiwan as reflected in the StatsCan data. We are again planning on exhibiting at the Hong Kong and China shows and keeping abreast of market developments and, in this regard, also continue to monitor the situation in the US and EU where we hope to see increasing opportunities in the medium term as their domestic markets for uni continue to grow. This project is sort of predicated on the realization that we are all on the same team and not only provides advice on harvest to market issues but also works on all the relationships that must be cultivated and nurtured (eg. harvesters-processors-buyers-distributors-chefs-consumers) to more fully realize the potential we see.

Motion to Accept the International Marketing Report. 1°: T. Joys. 2°: G. Grant. AIF. Carried.

12.0 Processors Report

Alfa Wong (Paladin) reports that volumes into Japan are up but that the prices have not risen. He feels the same holds for Seagate but that it seems they have a good case to present to Japan about the prices. He feels Hong Kong is well supplied and that we have to be careful to make sure we do not saturate. They are all working on building their relationships and hoping to avoid further losses when buyers do not actually get around to paying for products they have taken possession of. Alfa believes that any gains realized by the processors should be shared with the fishermen. Japan generally prefers to buy lower cost material so a lot of the really good material (A grade) is diverted to Hong Kong and Taiwan.

Sung no longer sells through Tsukiji and thereby saves on the 5% cut taken by the market, but he also claims they are not getting any higher prices. Sung says the trucking, unloading and processing costs have risen by ~ 50% but the fact is that the fishermen have not seen any price increase and they are really wondering why everyone else is seeing more money and they aren't.

This turned into a quite contentious discussion and a Motion to accept the processors Report so the meeting could move on was made. 1°: Ken Ridgway. 2°: M. Featherstone. AIF. Carried.

Alfa presented a proposal to change year end to August 31 (from June 30) - based on: 1) most processors get started for season on September 1; 2) quality comes up; and 3) the Chilean production generally ends at the August. There was not a lot of buy in on this because the benefits are kind of vague and the problems ignored. It is actually a pretty big deal to change a year end and the effort would distract us from other more important stuff. There was some suggestion that this move could serve restrict access to areas in close when small amounts of product are needed (like in August) and knock out, or at least handicap, anyone trying to extend the season (Seagate). Reducing opportunities to fish makes no sense from a fisherman's perspective.

The discussion moved around to seasonality of various areas for quality, weather and market conditions and how some guys just cannot seem to get their head around the need to fish exposed areas when the weather allows it instead of cleaning up the nice protected waters when the weather is calm and then complaining that there is nowhere to fish when the weather is lousy. One of the goals of PUHA is to get a steady supply of good quality product to the market all year round.

Instead of a year end change it probably makes more sense to set out more restrictive fishing conditions to save spots for when they are needed. It is possible to find quality as long as someone is willing to look around for it and fish more carefully.

Motion: table the Year end change issue and hold over for further discussion once the 3 year management term is over next year. 1°: M. Featherstone. 2°: M. Steinmann. AIF Carried

13.0 Hakai Institute Presentation (Changing Seascapes: Kelp Forests and Sea Otters)

Jenn Burt is doing a PhD on Kelp Forests through the Hakai Institute (www.hakai.org) , a science institute established in 2010 at the site of the old fishing lodge. Eric Peterson is the founder and owner and is bringing his own money into the game. They have one fellow- Dan Okamoto- who is doing sea urchin larval brushes studies in the area. Something about lots of GSU larvae recently. All the fishermen have an open invitation to visit the site- it is now expanding and they are really ramping up their efforts, perhaps even expanding into Rivers Inlet, to reverse the trend of basic science diminishment that we have seen over the past 15 years or so. They are looking at biological, chemical and physical oceangraphic studies to develop time series on all sorts of variables and taking over a lot of the sea otter studies on the Central Coast . They are also doing a lot of habitat mapping in the area as well, in part so they can better monitor the effects (shellfish, fish, habitat) of otters moving into an area and infer the changes that can be expected over time once they have arrived. These folks are not advocates for conserving sea otters but are more interested in documenting the trends and developing a realistic knowledge of impacts and mitigation/control options, including First Nation experience in pre-contact times.

They have noted dramatic changes in sea urchin densities within 3 years of otters moving in. As one example- otters arrived on the West Coast of Calvert Island in 2013 at which point the area had the highest densities of Red Sea Urchins they had found (average TD of 11 cm.) and the next year there was nothing. Fishermen observations suggest devastation of urchin populations within 6 months of the otters moving in. While the program is interested, actually really interested, in hearing about any anecdotal information fishermen can offer and including them in their report(s), there are a number of other steps that must be taken (ethics, confidentiality, etc) before the information can be included in scientific papers etc. Sort of standardizing the exchange of information might be helpful to both sides- there is lots of money available for industry- science partnerships so it could easily be mutually beneficial.

Their survey sites are not that big and since they're not going to be moving the researchers are hoping harvesters will avoid the areas. They have a lot of data on various invertebrates including sea urchin, sea cucumber, rock scallop, rockfish, etc. and this data is available to anyone who wants to use it. There was agreement that some location markers (or GPS points/boundaries) should be forwarded to D&D who could then post the information for boats heading into the area so they can avoid fishing the research sites. They do transects at 15 m and 5 m so the upper one at least is well within the fishing depths.

How is an otter presence affecting the size of the SU- studies tend to find more smaller (40-50 mm) and more cryptic urchins in areas where otters are present but it seems they are still there, and sometimes in fairly large numbers. The same seems to happen with abalone. In the Gosling Islands where otters have been present for some time (30+ years), otters have been observed eating very small urchins, rolling off their spines and then just chowing down.

They are looking at how fast urchins feed on kelp. It seems they reach a certain density and then start running into each other which slows them down. So at low densities they can either eat fast or slow but at higher densities their maximum individual rates slow even though their collective rate may be much higher. Urchins also show an alarm response when their shells are discarded on the bottom although some of the experimental work has not confirmed this. This response is much greater in sea cucumbers.

Comparing areas where the otters have been present for different periods, the feed off first is mostly urchins, then more diversified with clams mixed in and then moving more to smaller stuff because the bigger stuff has been wiped out. It also seems the males show up first and then the females/juvenile rafts show up and are left with the scraps. The kelp structure really changes with otters as the urchins get wiped out. With lots of urchins it will be mainly nereocystis but once they are removed there is a succession pattern where the macrocystis becomes dominant over a few years.

First Nations in Alaska are allowed to harvest sea otters and there are a number of FN in BC that are hoping for the same. Otters will eventually show up on Haida Gwaii, rafts are already being reported if only intermittently, and when they do the Haida are going to want to deal with it. The BC sea urchin fishery has so far been able to survive the onslaught of the otters but this may not be the case for much longer. An ideal solution for the industry would be to have something like the Pew Foundation buy up quota, at say $1/lb., so the fishermen could walk away without taking too big a hit for getting more on board, but only the future will tell.

1545: meeting adjourns