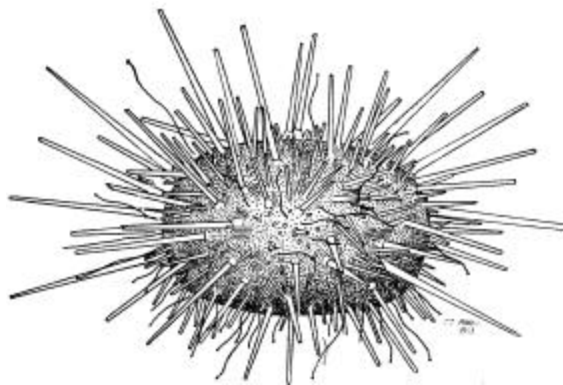


# PACIFIC REGION

## INTEGRATED FISHERIES MANAGEMENT PLAN

# RED SEA URCHIN BY DIVE

**AUGUST 1, 2002 TO JUNE 30, 2003**



**Red Sea Urchin: *Strongylocentrotus franciscanus***



**Fisheries and Oceans  
Canada**

**Pêches et Océans  
Canada**

**Canada**

*This Integrated Fisheries Management Plan is intended for general purposes only. Where there is a discrepancy between the Plan and the Fisheries Act and Regulations, the Act and Regulations are the final authority. A description of Areas and Subareas referenced in this Plan can be found in the Pacific Fishery Management Area Regulations.*



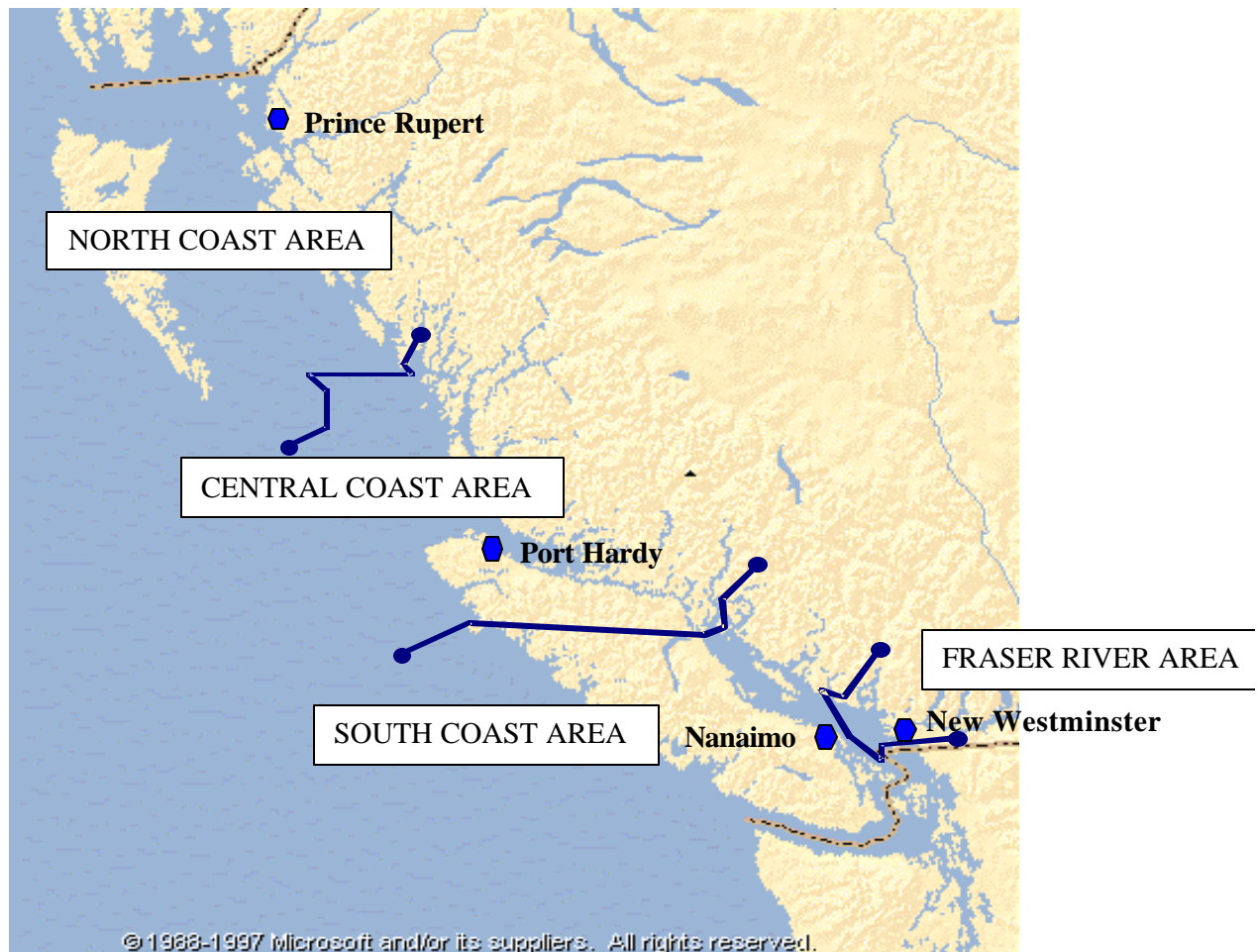
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## 1. FISHERIES AND OCEANS CANADA PACIFIC REGION AREAS

Fisheries and Oceans Canada, Pacific Region restructured its operations in April 2001 to provide a stronger focus toward area-based program delivery. As of April 1, 2001, there are four coastal management areas. The North Coast Area is based in Prince Rupert. The Central Coast Area is based in Port Hardy. The South Coast Area is based in Nanaimo. The Fraser River Area and Howe Sound is based on Annacis Island in Delta. These offices may be contacted for local matters pertaining to the commercial and recreational red sea urchin fishery, and for First Nations' fisheries for food, social and ceremonial purposes.

### Pacific Region Administrative Areas as of April 1, 2001 See Section 2 for contact information.



## 2. FISHERIES AND OCEANS CANADA CONTACTS

Observe, Record and Report (Enforcement Line) (800) 465-4336  
Commercial Shellfish Information (604) 666-2828  
Shellfish Toxin Update (24 Hrs.) (604) 666-2828  
Invertebrate Web Page [www.pac.dfo-mpo.gc.ca/ops/fm/shellfish/index.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/shellfish/index.htm)

### Resource Management

A/Regional Shellfish Co-ordinator	Russell Mylchreest	(604) 666-3869
North Coast Area, Areas 1 through 6 (North) 417 2nd Avenue West, Prince Rupert, B.C. V8J 1G8 Resource Management Biologist Resource Manager - First Nations Fisheries Resource Manager - Recreational Fisheries	General inquiries Fax Juanita Rogers John Inkpen Mark Reagan	(250) 627-3499 (250) 627-3427 (250) 627-3007 (250) 627-3436 (250) 627-3409
Central Coast Area, Areas 6 (south) through 13, 27 P.O. Box 10, 8585 Wollasson Rd, Port Hardy, B.C. Resource Management Biologist, Campbell River Resource Manager - First Nations Fisheries, Campbell R. Resource Manager - Port Hardy Resource Manager - First Nations Fisheries, Port Hardy	General inquiries Fax Guy Parker Kent Spencer Todd Johansson Kristen Smith	(250) 949-6422 (250) 902-0674 (250) 286-5886 (250) 850-5705 (250) 902-2683 (250) 902-0482
South Coast Area, Areas 14 through 26 3225 Stephenson Point Road, Nanaimo, B.C. V9T 1K3 Resource Management Biologist, Nanaimo Resource Manager - Parksville Resource Manager - Comox Resource Manager - First Nations Fisheries Resource Manager - Recreational Fisheries	General inquiries Fax Erin Wylie Randy Webb Byron Koke Jonathon Joe Terry Gjernes	(250) 756-7270 (250) 756-7162 (250) 756-7158 (250) 954-2675 (250) 339-2809 (250) 756-7243 (250) 756-7192
Lower Fraser Area, Areas 28 and 29 Unit 3, 100 Annacis Parkway, Delta, B.C. V3M 6A2 Resource Management Biologist Resource Manager - First Nations Fisheries Resource Manager - Recreational Fisheries	General inquiries Fax Kim West Debbie Sneddon Devona Adams	(604) 666-8266 (604) 666-7112 (604) 666-6390 (604) 666-8426 (604) 666-6512

## **Conservation and Protection**

Red Sea Urchin Enforcement Plan Andy Lewis (250) 615-5357

## **Science Branch**

Pacific Biological Station Dr. Alan Campbell (250) 756-7124  
Hammond Bay Road Dimitri Tzotzos (250) 756-7354  
Nanaimo, B.C. V9T 6N7

## **Commercial Licensing**

Pacific Fishery Licence Unit (604) 666-0566  
480-555 West Hastings Street  
Vancouver, B.C. V6B 5G3

Pacific Fishery Licence Unit (250) 627-3413  
417 2nd Avenue West  
Prince Rupert, B.C. V8J 1G8

Pacific Fishery Licence Unit (250) 754-0400  
60 Front Street  
Nanaimo, B.C. V9R 5H7

**Oceans' Directorate** Dale Gueret (250) 627-3408

**Aquaculture** Allison Webb (604) 250-9727

## **Environment Canada**

Growing Water Quality Classification and Surveys Hal Nelson (604) 666-2947

## **B.C. Ministry of Agriculture, Food and Fisheries**

Seafood Planning and Development Al Castledine (250) 387-9574

## **Canadian Food Inspection Agency**

Fish Inspection Directorate  
2250 Boundary Road  
Burnaby, B.C. V5M 4L9  
Molluscan Shellfish Program Specialist (ex: 260) Gordon Greig (604) 666-4427

## **Workers' Compensation Board**

Focus Sector Manager/Fishing, Nanaimo	Peter Newman	(250) 751-8050
Occupational Safety Officer, Terrace	Shane Neifer	(250) 615-6605
Occupational Safety Officer, Campbell River	David Clarabut	(250) 286-3754
Occupational Safety Officer, Victoria	Greg Soroka	(250) 881-3415

### **3. RED SEA URCHIN SECTORAL COMMITTEE AND RESEARCH SUBCOMMITTEE**

#### **Fisheries and Oceans Canada Chair and Alternates**

Juanita Rogers, Resource Management Biologist - Invertebrates, Prince Rupert  
Erin Wylie, Resource Management Biologist - Invertebrates, Nanaimo  
Guy Parker, Resource Management Biologist - Invertebrates, Campbell River

#### **Pacific Urchin Harvesters' Association (PUHA)**

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Fx. (604) 932-4556

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Ph. (250) 758-2756  
Fx. (250) 758-3194

Jim Hume, Director  
RR#3, 5987 Oldfield Road  
Victoria, B.C. V8X 3X1  
Ph. (250) 652-9544  
Fx. (250) 652-9520

Gary Grant, Director  
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Campbell River, B.C. V9W 1A9  
Ph. (250) 923-4565  
Fx. (250) 923-1813

Tim Joys, Director  
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North Vancouver, B.C. V7N 4M4  
Ph. (604) 241-7815  
Fx. (604) 241-7805

Dave Lansdowne, Director  
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Ph. (250) 727-9162  
Fx. (250) 727-9162

Mike Ulanowski, Director  
1694 Bisley Place  
Victoria, B.C. V8N 4M7  
Ph. (250) 477-4752  
Fx. (250) 477-4752

Paul Robinson, Director  
772 Center Street  
Nanaimo, B.C. V9R 4Z6  
Ph. (250) 741-8389  
Fx. (250) 753-2524

## **Red Sea Urchin Service Bureau**

D&D Pacific Fisheries Ltd.  
Don Christian and Darin Macey  
Box 1445  
Gibsons, B.C. V0N 1V0  
Ph. (604) 886-4819  
Fx. (604) 886-8288

## **Red Sea Urchin Processors**

Grand Hale Marine Products  
Spencer Cheung  
11551 Twigg Place  
Richmond, B.C. V6V 2Y2  
Ph. (604) 325-9393  
Fx. (604) 325-9310

Kiku Fisheries  
Peter Choi  
1355 Parker Street  
Vancouver, B.C. V5L 2J9  
Ph. (604) 253-5458  
Fx. (604) 253-5400

Hi-To Fisheries  
Lawrence Chan  
1575 Vernon Drive  
Vancouver, B.C. V6A 3P8  
Ph. (604) 253-5111  
Fx. (604) 251-6526

Territory Seafoods  
Mike Crawford  
203-12411 Vulcan Way  
Richmond, B.C. V6V 1J7  
Ph. (604) 244-7072  
Fx. (604) 244-7098

Paladin International  
Paddy Wong  
#9-12671 Bathgate Way  
Richmond, B.C. V6V 1Y5  
Ph. (604) 821-0133  
Fx. (604) 821-0155

Sung Fish  
1795 Pandora Street  
Vancouver, B.C. V5L 1L8  
Ph. (604) 255-4718  
Fx. (604) 255-4781

Y&L Washington Inc.  
401 East 25th Street  
Tacoma, Washington, USA, 98407  
Ph. (253) 572-2557  
Fx. (253) 572-2262

## **First Nations representatives**

Seats remain open to all groups interested in assessment and management of the resource.



## Recreational fishing and non-consumptive user representatives

Seats available for interested parties.

### B.C. Ministry of Agriculture, Food and Fisheries

Al Castledine  
808 Douglas Street  
Victoria, B.C. V8W 3X1  
Ph. (250) 387-9574  
Fx. (250) 356-0358

## 4. GLOSSARY

Area	Defined in Section 2 of the <i>Pacific Fishery Management Area Regulations</i> , available through the Internet at:  <a href="http://www.pac.dfo-mpo.gc.ca/ops/fm/toppages/act_reg.htm">www.pac.dfo-mpo.gc.ca/ops/fm/toppages/act_reg.htm</a>
aquaculture	The process of spawning animals and rearing the progeny to marketable size, usually involving some level of intervention (e.g. feeder, predator protection) by the aquaculturist.
catch verification program	A program designed to monitor, record and verify catches, also called the Validation Program.
communal licence	Issued to First Nations organizations pursuant to the <i>Aboriginal Communal Fishing Licences Regulations</i> , to carry on fishing and related activities.
Communal Commercial Licence	Issued to First Nations organizations pursuant to the <i>Aboriginal Communal Fishing Licences Regulations</i> for participation in the general commercial fishery. Licences issued are equivalent to the capacity of licences that have been retired under the Aboriginal Fisheries Strategy (AFS) Licence Retirement/Allocation Transfer Program.
enhancement	Adding to (“enhancing”) the biomass of a species in the wild by spawning and growing juvenile animals and subsequently releasing them to their natural habitat for further growth. Usually requires little or no further intervention after release.
IQ	Individual quota. A portion of the total allowable catch (TAC) is allocated annually to individual licences. In the red sea urchin fishery, each IQ is equivalent to 1/110th of the commercial TAC.
invertebrate	An animal without a backbone.
landed or off-loaded	The transfer of red sea urchins from the vessel licensed to harvest to either land or a vessel (“packer”) transporting product to land.

observer	An individual who has been designated as an observer by the Regional Director General for Pacific Region pursuant to Section 39 of the <i>Fishery (General) Regulations</i> .
PUHA	Pacific Urchin Harvesters' Association
PSARC	Pacific Scientific Advice Review Committee (previously Pacific Stock Assessment Review Committee).
Quota Area	A defined portion of Pacific fisheries waters. Areas and Subareas, as described in the <i>Pacific Fishery Management Area Regulations</i> , are referenced in describing Quota Areas. Each Quota Area has a name, e.g. RU01 Upper West Queen Charlotte Islands (QCI), and is assigned a maximum allowable catch in pounds (lb.).
sectoral committee	Forum for the exchange of information and views, between the clients and Fisheries and Oceans Canada, on issues important to the management of all fisheries for red sea urchin.
service bureau	An agency contracted by fishers or their harvesters association to co-ordinate notification, catch validation, fishery monitoring, biological sampling and data submission requirements. The service bureau may train and recommend candidates for certification by Fisheries and Oceans Canada as observers.
stakeholder	All users of and people with an interest in the fisheries resources, such as recreational and commercial harvesters, other parties that provide support to the fishery, and non-consumptive users.
stock assessment	Results of analyses of fisheries and research data used to evaluate the effects of fishing on a stock or population and to predict the reaction of populations to alternative management choices.
Subarea	Defined in Section 2 of the <i>Pacific Fishery Management Area Regulations</i> , available through the Internet at: <a href="http://www.pac.dfo-mpo.gc.ca/ops/fm/toppages/act_reg.htm">www.pac.dfo-mpo.gc.ca/ops/fm/toppages/act_reg.htm</a>
TAC	Total allowable catch. The amount of catch that may be taken from a stock, determined by analytical procedures to achieve management objectives.
tranship	The transfer of red sea urchins from one vessel to another.
validated	Red sea urchins that have been weighed by an observer and the weight entered into the Red Sea Urchin Validation & Harvest Logbook, or an approved alternative log.

## 5. INTRODUCTION

The 2002/2003 Pacific Region Red Sea Urchin Integrated Fisheries Management Plan (IFMP) encompasses the period of August 1, 2002 to June 30, 2003. Normally, the annual IFMP is in effect from July 1 to June 30 of the following year, but consultation on licence area selection options resulted in a delay in the publication of the 2002/2003 IFMP.

The 2002/2003 Red Sea Urchin Commercial Harvest Plan is attached as Appendix 1 to this IFMP. Commercial harvesters are advised to review Appendices 1 through 9 for harvest information.

Additional information on red sea urchins may be accessed through the Department's shellfish Internet Site at:

[www.pac.dfo-mpo.gc.ca/ops/fm/shellfish/index.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/shellfish/index.htm)

This information is also available in hard copy in the Pacific Scientific Advice Review Committee (PSARC) Fishery Update - Red Sea Urchin. Fishery updates are available from the PSARC Secretariat ([250] 756-7208), by e-mail at: [psarc@pac.dfo-mpo.gc.ca](mailto:psarc@pac.dfo-mpo.gc.ca), or from staff listed in Section 2 of this plan. Beginning in 2002, this information will be available on the red sea urchin website in a document entitled Invertebrate Post-season Review - Red Sea Urchin.

Research Documents and Stock Status Reports for red sea urchins are available at the PSARC website:

[www.pac.dfo-mpo.gc.ca/sci/psarc/Default.htm](http://www.pac.dfo-mpo.gc.ca/sci/psarc/Default.htm)

## 6. OVERVIEW OF THE FISHERY

The red sea urchin is one of three sea urchin species that have been fished in B.C. waters. Red and green sea urchins are fished commercially under authority of a limited category "Z" licence, category "ZC" for reds and category "ZA" for greens. Purple sea urchins were fished under scientific permit from 1990 to 1992. Fisheries and Oceans Canada is currently reviewing the potential for a purple sea urchin fishery.

Red sea urchins are harvested for their roe (gonad) which is extracted for commercial purposes at processing plants for shipment to fresh markets. Commercially harvested red sea urchins are removed from the ocean floor by divers using short aluminium rakes. Packer vessels and trucks deliver the product fresh to plants for processing. The gonad is extracted and processed in B.C., and marketed almost exclusively in Japan, where it is sold as "uni". A smaller market for red sea urchins is developing in other Asian countries and in North America. The yield of roe from a whole animal ranges from five to 15 percent of total body weight. Red sea urchins are of continuing importance to coastal First Nations,

who harvest them for food, social and ceremonial purposes; harvesting is mainly opportunistic associated with extreme tides. The extent of recreational harvest of red sea urchins is undocumented, but is considered minimal.

The commercial red sea urchin dive fishery began in the 1970s and has grown rapidly since 1982. While stock assessments are undertaken in many areas, the fishery continues to be managed under a precautionary regime that includes limited entry licensing, a minimum size limit, conservative harvest quotas, area licensing and an individual quota (IQ) program. There are 110 licence eligibilities for this fishery. Red sea urchin individual licence quotas are set at 1/110 of the annual coast wide TAC and fishers are required to select one of two licence areas in which to fish. These management tools are described in more detail in the commercial harvest plan (Appendix 1).

A consultative process was initiated for the red sea urchin fishery in 1989 and is a major part of the planning for the commercial fishery. The primary consultative body for red sea urchins in B.C. is the Red Sea Urchin Sectoral Committee. This committee includes representatives from Fisheries and Oceans Canada, commercial licence holders, processors, First Nations, B.C. Ministry of Agriculture, Food and Fisheries and the Sport Fishing Advisory Board. Members of the Pacific Urchin Harvesters' Association (PUHA) represent commercial fishers on this committee. The Sectoral Committee meets annually in the spring to review and provide advice to the Department regarding management issues pertaining to the fishery and on the proposed management plan.

## **7. ANNUAL (POST-SEASON) REVIEW RESULTS FOR FISHING SEASON 2001/2002**

Overall, the 2001/2002 fishing season was successful. One hundred and nine licences were fished on 52 vessels. One Communal Commercial Licence was not designated for the 2001/2002 season. Although weather and poor roe quality hampered harvesting in some areas, the TAC was closer to being achieved than in any other year. No major issues were documented and in general, compliance with the catch validation program was good. Comments on the reduced minimum size limit were generally positive.

The complete 2001/2002 Performance Review is available in the document entitled Invertebrate Post-season Review - Red Sea Urchin, 2001/2002. Contact resource managers or see the Internet at:

[www.pac.dfo-mpo.gc.ca/ops/fm/shellfish/Sea\\_Urchin/default.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/shellfish/Sea_Urchin/default.htm)

## **8. STOCK STATUS**

The Stock Status Report for red sea urchins is updated and published by PSARC with each red sea urchin assessment paper. Contact the Science Branch, or see the Internet at:

[www.pac.dfo-mpo.gc.ca/sci/psarc/SSRs/ssrs.htm](http://www.pac.dfo-mpo.gc.ca/sci/psarc/SSRs/ssrs.htm)

## **8.1. Prospects for the Fishery**

There is no indication of concern for red sea urchin stocks at this time. It is anticipated that the majority of commercial licence holders will harvest their IQ allocation and that the coast wide TAC will be achieved. Poor weather and inclement sea conditions are generally the main limiting factors to achieving the TAC.

The red sea urchin fishery is managed conservatively, and apart from a few areas that have been closed or quotas reduced because populations have declined, stocks generally appear healthy. A precautionary approach to management, which ensures the Department is meeting its conservation goals, will continue for the near future. This, in turn, will ensure sustainable harvests by all sectors. The long-term goal of the Department is to develop a biologically based management regime through a better understanding of the resource. This will be accomplished through a collaborative process involving the commercial industry, First Nations and others with an interest in the resource.

## **8.2. Research**

Fisheries and Oceans Canada, PUHA and First Nations joint stock assessment activities continue coast wide through biomass transect surveys, experimental harvest sites and selected study sites. PUHA established a research fund in 1995 and co-ordinates vessel and diver participation in surveys with First Nations communities. Fisheries and Oceans Canada develops the survey protocol and conducts the data analysis. The main survey goals are to better understand the growth and recruitment parameters of red sea urchins and to prove and/or adjust quotas accordingly.

Scientific research and joint Industry, First Nations, and Fisheries and Oceans Canada stock assessment surveys are of vital importance to this fishery as it moves from a precautionary management regime towards a biologically based fishery.

PUHA continues to support and participate in growth and mortality studies. Biomass information from co-operative surveys in the north and south coasts, and bed areas provided by commercial fishers are being examined and will be presented in PSARC working papers.

A joint PUHA, sea urchin processor, and Fisheries and Oceans Canada plant sampling program was instituted during the 2000/2001 fishing season, to accompany the change in commercial legal size limit from 100 mm to 90 mm. The sampling program will provide valuable data about the size of red sea urchins being harvested, and will help in determining appropriate area quotas.

See Section 10.1 for a list of surveys planned for 2002.

## **9. MANAGEMENT ISSUES**

The following sections highlight the on going, or longer-term, management issues that are being addressed in this fishery. There are few immediate, or annual, management issues that need addressing; however, when short-term issues arise they will be detailed in this section. Specific management objectives designed to mitigate these issues are detailed in Section 10.

### **9.1. General Issues and those Related to the Collection of Biological Information**

Basic biological information is limited (i.e. age, growth, recruitment and migration) and is needed in support of the management of this species. Fisheries and Oceans Canada continues to conduct collaborative research projects with PUHA, First Nations and others interested in the resource.

A better understanding of the influence of varying exploitation rates on the resilience of local populations is needed. Research sites have been established in Cumshewa Inlet (Subarea 2-3) and along West Price Island (Subarea 7-31) in order to maintain a time series of data on unfished, moderately fished and potentially overfished populations and experimental areas.

A long-term strategy for the collection of basic biological information, assessment techniques and management regimes is required. A PSARC working paper was written in 1999 (CSAS Research Document 99/094 Discussion on a Precautionary Approach for Management of the Red Sea Urchin Fishery in British Columbia). PSARC working papers may be found on the Internet at:

[www.pac.dfo-mpo.gc.ca/sci/psarc/Default.htm](http://www.pac.dfo-mpo.gc.ca/sci/psarc/Default.htm).

Sea otter populations are expanding in B.C., and because they are major predators on red sea urchins, they are expected to have an impact on all red sea urchin fisheries in the future. Currently the Department does not consider sea otters in the management of the red sea urchin resource.

### **9.2. Issues Related to the Commercial Fishery**

Increased monitoring of the commercially harvested populations is an ongoing requirement, through both surveys and product monitoring in order to provide appropriate focus for assessment papers. A processing plant based monitoring of size frequency of the commercial catch was initiated during the 2000/2001 fishing season. An analysis of this information was presented in the December 2001 PSARC session. The program was expanded for the 2001/2002 fishing season and will continue indefinitely.

The commercial industry felt that the 100 mm minimum size limit was too restrictive as the 90 to 100 mm size category is the most desirable to the market. An analysis of quota options at lower size limits was requested in 1999. This request and the plant-sampling program resulted

in a reduction in size limit for the 2000/2001 fishing season. This was continued for the 2001/2002 fishing season. Two quota options papers based on a reduced size limit have been published: CSAS 1999/201 Quota options for the Red Sea Urchin fishery in British Columbia for Fishing Season 2000/2001, and CSAS 2001/141 Quota options for the Red Sea Urchin fishery in British Columbia for Fishing Season 2002/2003.

The IQ program does not fully address the distribution of fishing effort, quality-oriented harvest, continuous market supply, and maintaining competitive access to the Japanese market. Fisheries and Oceans Canada works collaboratively with the commercial industry association to make annual improvements to the IQ program. Quota Area boundaries are reassessed every year, and changes are made where necessary to redistribute effort.

Quantification of commercial fishery-induced mortalities is needed to aid assessment (e.g. loss through testing of quality prior to harvest, breakage during harvest and through sorting on deck, dumping of undersize product, breakage during transport). There is still a need to develop some method to assess and quantify this.

### **9.3. Issues Related to the First Nations Fishery**

An understanding of the impacts of commercial red sea urchin fisheries on the ability of First Nations to harvest for food, social and ceremonial purposes is required. Collaborative studies have been initiated with the Haida Fisheries Program. Data is unavailable at this time.

Catch reporting structures for First Nation fisheries are limited. The Department is consulting with First Nations throughout coastal B.C. on a more comprehensive approach to gathering catch data by negotiating agreed-upon protocols outlined in the Fisheries Agreement and/or communal licences.

### **9.4. Issues Related to the Recreational Fishery**

Catch reporting structures for recreational fisheries are limited. The Department is consulting with Sport Fisheries Advisory Boards (SFAB) throughout B.C. on a more comprehensive approach to gathering catch data.

## **10. SPECIFIC MANAGEMENT OBJECTIVES**

### **10.1. Conservation/Sustainability**

10.1.1. A more comprehensive understanding of the biology of red sea urchins and the impacts of commercial harvest on red sea urchin populations is planned to ensure continued conservation and sustainable harvests in this fishery. The goal of the Research Subcommittee of the Sectoral Committee (consisting of PUHA, First Nations organizations and the Department) is to undertake biological investigations. These include biomass estimates through transect surveys in various locations of the B.C. coast, and experimental harvest and study areas where populations are manipulated to

examine urchin growth, migration and recruitment. For 2002/2003, PUHA plans to conduct the following collaborative studies:

- a) Broadbrush surveys: Beaver Pass (Area 5) and one South Coast area, TBA;
- b) Study sites: Tofino (Area 24), Louise Island (Area 2), Price Island (Area 7);
- c) Yaculta, Campbell River out planting site: re-survey, lab analysis of jaw samples.

10.1.2. A method to accurately determine the age of red sea urchins has yet to be discovered, although recent work by Thomas Ebert of San Diego State University shows that some red sea urchins may attain ages as much as 100 years. Fisheries and Oceans Canada and the Research Subcommittee will continue to work toward a better understanding of the age of red sea urchins in B.C. Red sea urchin ageing in B.C. is on going in terms of data collection, verification and analysis. No report is available at this time.

10.1.3. To improve on the knowledge of red sea urchin ages, the Research Subcommittee will consider prioritizing the assessment of spatial and seasonal juvenile growth, survival and recruitment. This information could assist managers in determining the appropriate level of fishing pressure by time and area. Appropriate techniques for the assessment of juvenile recruitment are imperative for fisheries, such as sea urchins, where recruitment is inconsistent throughout the fishing areas. An area devoid of juvenile red sea urchins could indicate that the area is vulnerable to over-fishing. Some limited work is being done through hatchery reared seed releases at Yaculta and laboratory experiments, and on-going surveys at the three long term study sites which may reveal some interesting time series recruitment information. Surveys and data analyses are pending.

## **10.2. Domestic Considerations**

### **10.2.1. Commercial Fishery**

Fisheries and Oceans Canada will continue to work collaboratively with Industry, First Nations' organizations and other stakeholders to ensure conservation and sustainability of the red sea urchin resource and fishery. Management of the red sea urchin resource will progress from a precautionary regime to one based on biological information, through assessment and application of data collected from harvest logs, population surveys and research areas.

The Department will continue to work collaboratively with PUHA and the Red Sea Urchin Sectoral Committee ensure sustainable fisheries through partnership and co-management arrangements to share in decision making, responsibilities, costs and benefits.

### **10.2.2. First Nations Fishery**

Fisheries and Oceans Canada provides opportunities for First Nation access to the fishery for food, social and ceremonial purposes. The Department will continue to provide opportunities for First Nations to harvest fish for food, social and ceremonial



purposes, in a manner consistent with the decision of the Supreme Court of Canada in *Sparrow*, and other decisions. See the Internet for more information at:

[www.pac.dfo-mpo.gc.ca/ops/fm/AFS/Default.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/AFS/Default.htm)

The IQ program for the red sea urchin fishery, implemented in 1996, will continue for the 2002/2003 fishery. Under this program, two percent of the coast wide TAC for red sea urchins is reserved, for planning purposes, for First Nations' fisheries for food, social and ceremonial purposes. Additional allocations of red sea urchins will be provided to First Nations who demonstrate that their food, social and ceremonial needs are not being met. Fisheries and Oceans Canada is confident that with the precautionary approach to this fishery, the reserved allocation of TAC, and the provision of additional allocations, where necessary, First Nations in all areas will have sufficient opportunities to harvest red sea urchins for food, social and ceremonial purposes.

#### 10.2.3. Recreational Fishery

The Department will continue to provide opportunities for a recreational fishery for red sea urchins.

#### 10.2.4. Aquaculture and Enhancement

The Department recognizes the aquaculture industry as a legitimate user of Canada's aquatic resources and will provide access to brood stock and seed stock for industry development purposes (growth and diversification), by scientific licence, on an as-needed basis, subject to conservation requirements. Requests to access the wild red sea urchin resource for development purposes must be supported by detailed project proposals, approved by the Department.

For information on aquaculture or access to brood stock, contact the A/Director, Sustainable Aquaculture (see Aquaculture in Section 2).

## 11. ENFORCEMENT MEASURES

### 11.1. Overview

In general, compliance with the regulations and licence conditions in the red sea urchin commercial fishery is good, largely due to dockside validation, mandatory Validation & Harvest Logs and at-sea monitoring in the north coast. Previous concerns regarding compliance with the minimum size limit as fishers desired access to smaller and better quality product, has been addressed by the size limit reduction in 2000 from 100 mm to 90 mm test diameter (after reviewing quota options at lower size limits and implementing a sampling program at processors).

Enforcement staff will pursue opportunities to enforce the regulations and conditions of licence applicable to this fishery while engaged in enforcement activities directed to other fisheries in the Pacific Region.

Fishery managers and shellfish assessment biologists have prepared impact statements for use in court cases. These have been useful in allowing the courts to clearly understand the implications of the offence and for increasing the resultant fines.

## **11.2. Main Program Activities**

### **11.2.1. Priorities for 2002/2003**

The priorities for this season are to work with resource managers, to monitor the harvest under the reduced size limit, and to address incident reports received from dockside validators.

Fishery officers and marine enforcement officers will conduct monitoring and compliance patrols at-sea using program vessels, Canadian Coast Guard (CCG) vessels and air surveillance from charter aircraft. Vessel boarding will be conducted to ensure compliance to both vessel and individual licence requirements. Checks will be made to ensure non-retention of prohibited species and compliance with size restrictions. Both open and closed area patrols will be conducted.

Transportation vehicles will be checked en route from off-loading sites to processors. Fishery officers will also conduct checks at processing facilities.

Fishery officers will conduct dockside monitoring checks for size limit, container tags and prompt completion of Validation & Harvest Logs as per the Conditions of Licence (*Fisheries [General] Regulations* Section 22).

Fishery officers will respond in support of the On-Grounds Monitor (OGM), the dockside validators and any at-sea observers that may be used. Fishery officers will also co-ordinate patrols with First Nations guardians and fishery managers when available.

## **11.3. Enforcement Issues and Strategies**

In the following table:

PFR: *Pacific Fisheries Regulations, 1993*

F(G)R: *Fisheries (General) Regulations*

S: Section

<b>Issue</b>	<b>Section</b>	<b>Strategy</b>
Licensing Verification - vessel licensed - experimental licence - no FRC - fail to produce FRC	PFR S.22 F(G)R S.52 F(G)R S.68(1) PFR S.25 F(G)R S.11	At-sea and dockside inspections will occur when opportunities exist. These inspections may include checks of all licensing documents on board the vessel to ensure compliance with the regulations.
Fish during closed time/area.	PFR S.63	Patrols utilizing patrol vessels will be pursued when opportunities exist. Possibilities may exist to use the regional enforcement charter aircraft in co-ordination with other patrols scheduled for Priority fisheries.
Size limit.	PFR S.70(1)	At sea and dockside inspections will be pursued when opportunities exist.
Fail to provide proper landing and hail information, lack of notification for change of area, cancellation of trip, or incorrect reporting of area fished.	F(G)R S.22(7)	At sea and dockside inspections will occur when opportunities exist. Investigations will occur on an opportunistic basis after C&P has been notified by fisheries management that a violation has occurred. The investigation will be pursued when larger priorities permit. Possibilities may exist to use the regional enforcement charter aircraft in co-ordination with other patrols scheduled for priority fisheries, to track vessels in the fishery.
Fail to maintain "Validation & Harvest Logbook".	F(G)R S.22(7)	At sea and dockside inspections will occur when opportunities exist. Investigations may also occur on an opportunistic basis after C&P has been notified by Fisheries Management that a violation has occurred. The investigation will be pursued when larger priorities permit.

<b>Issue</b>	<b>Section</b>	<b>Strategy</b>
Marking and tagging of pick bags, and any other type of enclosures containing harvested red sea urchins.	F(G)R S.22(7)	At sea and dockside inspections will occur when opportunities exist.
Landings validated at time of offloading.	F(G)R S.22(7)	Dockside inspections and monitoring will be pursued when opportunities exist.

## **12. FINANCIAL RESPONSIBILITIES**

### **12.1. Commercial Industry and/or other Harvesters**

A joint project agreement between the Department and PUHA ensures delivery of in-season catch monitoring and biological sampling programs. PUHA funds the catch validation program, stock assessment surveys, biological research surveys and a biologist hired to co-ordinate research activities with the Department. PUHA also hires a contract patrol for eight months a year to monitor and guide the harvest in the north coast. Association fees for the 2001/2002 fishing season were \$5,500 per licence and total PUHA contributions toward the management and assessment programs were approximately \$605,000.

Several coastal First Nations contribute time and expertise through collaborative research surveys with PUHA and the Department by providing biologists, vessels and divers.

### **12.2. Fisheries and Oceans Canada**

One Stock Assessment and four Resource Management personnel are directly involved in this fishery. Contributions to the IFMP are provided by the Fisheries Management Directorate, the Science Branch, the Shellfish Data Unit, the Conservation and Protection Directorate, the Pacific Fishery Licence Unit, the AFS, the Recreational Fisheries Division, the Oceans Directorate and numerous administrative personnel. Generally, all personnel are multi-tasked, e.g. red sea urchin fishery managers work on all dive fisheries. Therefore, costs incurred by the Department to manage this fishery are difficult to assess.

## **13. PERFORMANCE REVIEW FOR FISHING SEASON 2002/2003**

### **13.1. Management Plan Evaluation Criteria**

13.1.1. What progress was made in the collection of biological information? Were all scheduled surveys completed?

- 13.1.2. What are the results of the 2002/2003 plant sampling program?
- 13.1.3. Were any concerns voiced about First Nations' access to red sea urchins for food, social and ceremonial purposes? What actions were taken?
- 13.1.4. Are results of the collaborative program with the Haida Fisheries Program on food, social and ceremonial access to red sea urchins available?
- 13.1.5. Was the TAC achieved? How closely were area quotas met? Was distribution of effort properly addressed by the redesign of some quota areas?
- 13.1.6. Does the commercial industry continue to support the lower size limit?
- 13.1.7. What progress was made toward establishing catch reporting programs for First Nation and recreational fisheries?

## **13.2. Enforcement Plan Evaluation Criteria**

- 13.2.1. What are the results of enforcement activities directed toward this fishery? Provide annual report of enforcement effort and problems. For example:
  - a) Annual and on-going interactions with stakeholders, First Nations and the public.
  - b) Ongoing review of the information submitted by fishery officers on complaints from fishers and the public.
  - c) Compliance with size limit.
  - d) Compliance with IQs.
  - e) In-season and annual review of dockside validation incidence reports.
  - f) Annual audits of Validation & Harvest Log Entries.
  - g) Annual review of both the FEAT and DVS systems is used to measure compliance and complaints.
  - h) Successful apprehension and prosecution of individual(s) involved in breaches of the Fisheries Act and associated regulations.
  - i) Demonstrate success (changes in compliance rates) as a result of "targeted" enforcement effort related to illegal activity.
- 13.2.2. Summarize in-season and post-season review between Conservation and Protection, Fisheries Management and contract staff to assess whether the IFMP objectives were met.
- 13.2.3. Summarize in season meetings with First Nations to review enforcement concerns and impact of fisheries near local villages.

## 14. REFERENCES

*Campbell, A., J. Boutillier and J. Rogers.* 1999. Discussion paper on a precautionary approach for management of the red sea urchin fishery in British Columbia. Can. Stock Assessment Secretariat Res. Doc. 99/094.

*Campbell, A., W. Hajas and D. Bureau.* 1999. Quota options for the red sea urchin fishery in British Columbia for fishing season 2000/2001. Can. Stock Assessment Secretariat Res. Doc. 99/201.

*Campbell, A., D. Bureau and D. Brouwer.* 2000. Quota Estimates for the 1998 Red Sea Urchin Fishery in British Columbia. Can. Manusc. Rep. Fish. Aquat. Sci. 2516: 31 p.

*Campbell, A., D. Tzotzos, W.C. Hajas and L.L. Barton.* 2001. Quota Options for the Red Sea Urchin Fishery in British Columbia for Fishing Season 2002/2003. Can. Stock Assessment Secretariat Res. Doc. 2001/141.

*Rogers, J. and L. Convey.* 2000. PSARC Fishery Update – Red Sea Urchin.

Front cover drawing by Tim Morris, Biologist.

## 15. ATTACHMENTS

Appendix 1	2002/2003 Red Sea Urchin Commercial Fishery Harvest Plan
Appendix 2	2002/2003 Red Sea Urchin First Nations Harvest Plan
Appendix 3	2002/2003 Red Sea Urchin Recreational Harvest Plan
Appendix 4	Size Limits for Sea Urchins (Echinoderms)
Appendix 5	2002/2003 Red Sea Urchin Quota Area Descriptions
Appendix 6	Red Sea Urchin Validation & Harvest Log
Appendix 7	Red Sea Urchin Quota Transfer Form
Appendix 8	Red Sea Urchin Relinquishment of Claim Form
Appendix 9	Pacific Fishery Management Area Maps and Quota Area Maps
Appendix 10	2002/2003 Red Sea Urchin Conditions of Licence

## Appendix 1: Red Sea Urchin by Dive 2002/2003 Commercial Fishery Harvest Plan

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## 1. MANAGEMENT SUMMARY FOR 2002/2003

- 1.1. **Minimum Size Limit:** The minimum size limit for commercially harvested red sea urchins was reduced from 100 mm to 90 mm in July 2000 (see Section 4.1). The following assessment paper, which makes quota recommendations based on the new size limit, has been used to draft this management plan: CSAS 2001/141 Quota Options for the Red Sea Urchin fishery in British Columbia for Fishing Season 2002/2003.
- 1.2. **Total Allowable Catch:** The coast wide commercial total allowable catch (TAC) for 2002/2003 will be 4,885.9 tonnes (10,771,530 lb.); 4,130.8 tonnes (9,106,839 lb.) for north coast areas and 755.1 tonnes (1,664,691 lb.) for south coast areas. See Sections 4, 5 and 6.
- 1.3. **In-season changes:** Discussions are ongoing with the Ahousaht First Nation on a harvest plan for red sea urchins for food purposes in Area 24. In addition, discussions are ongoing with PUHA and the Haida Fisheries Program regarding a request for closure in Area 2 for abalone research purposes. If appropriate, this plan will be modified in-season to accommodate resolution of these two issues.
- 1.4. **Consultation on Unequal Individual Quotas:** The Pacific Urchins Harvesters' Association (PUHA) and the Red Sea Urchin Sectoral Committee consulted with members on implementation of unequal individual quotas, in order to keep licence distribution across the north and south coast at a preferred ratio. Licence holders were balloted on this option in May; the level of support required to implement the change was not achieved. Equal allocation of individual quotas will remain for the 2002/2003 fishing season.
- 1.5. **Individual Quota:** Under the TAC as described above, individual quotas (IQ) will equal 1/110 of the coast wide commercial TAC or 44.4 tonnes (97,923 lb.) per licence. To ensure equal quotas, the coast wide distribution of commercial licences will be 93 in the north coast and 17 in the south coast. See Sections 8.5 and 8.6.
- 1.6. **Licence Stacking:** In 2001, the limit on the number of licences authorized per vessel was raised from three to five in the sea cucumber, red sea urchin and green sea urchin fisheries (see Section 8.4).
- 1.7. **Opening Schedules:** Due to the need for increased consultation on licence area selection, the commercial fishery will not open before August 1. In addition, there are some changes in the Quota Area schedules for both north and south coasts (see Sections 5 and 6).
- 1.8. **Quota Area Boundaries:** There are several changes to Quota Area boundaries in both north and south coasts. All Quota Area descriptions are shown in Appendix 5, and those with changes are marked with an asterisk (\*).
- 1.9. **Quota Area Maps:** Maps of north and south coast Quota Areas are provided in Appendix 9. Harvesters are reminded to use these maps for reference purposes

only. The final authority for these descriptions/renditions of Areas and Subareas are as set out in the *Pacific Fishery Management Area Regulations*.

- 1.10. **Conditions of Licence:** A copy of the Conditions of 2002/2003 Red Sea Urchin Licence is attached to this management plan. Any details of conditions that were previously duplicated in the commercial harvest plan have been removed; the commercial harvest plan now contains only brief information related to the Condition of Licence.
- 1.11. **Consultation on Long Term Area Licensing:** The Pacific Urchins Harvesters' Association and the Red Sea Urchin Sectoral Committee are consulting with members on options for longer term area licensing, in order to better manage fishing protocols and area quotas. Discussions are ongoing; no changes to area licensing will be implemented for the 2002/2003 fishing season.
- 1.12. **Workers' Compensation Board (WCB) Regulations:** Section 13.2 on the WCB regulations governing commercial diving has been expanded.

## 2. LOCATION OF THE FISHERY

The commercial red sea urchin fishery is licensed over two geographic areas (north coast and south coast of B.C.) and occurs in four geographic locations within those areas: west coast Vancouver Island (Areas 20 to 27, 111, 121 and 123 to 127), east coast Vancouver Island (Areas 11 to 19, 28 and 29), north coast (Areas 3 to 10, 103 to 110) and Queen Charlotte Islands (Areas 1 and 2, 101, 102 and 142). Descriptions of Areas and Subareas can be found on the Internet at:

[www.pac.dfo-mpo.gc.ca/ops/fm/Areas/areamap.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/Areas/areamap.htm)

Research and permanent area closures are listed in Section 7 of the commercial harvest plan. These closures restrict commercial fishing activity only and have no impact on the location of First Nations or recreational harvest.

## 3. TIME FRAME OF THE FISHERY

The 2002/2003 commercial fishery is open from August 1, 2002 to June 30, 2003, or as shown in Sections 5 and 6. Markets generally guide production, however the majority of the harvesting effort occurs in the winter months.

Fishery timing, through scheduled openings, is critical in order to maintain optimal value for sea urchin roe and to maintain Canada's position in the Japanese market. Commercial harvest schedules are determined in consultation with the Pacific Urchin Harvesters' Association (PUHA) and sea urchin processors. The south coast fishery takes place primarily during winter, the period of traditional peak market demand, avoiding summer months. The north coast fishery is scheduled to provide a continuous year-round supply of high quality product.

## **4. MANAGEMENT MEASURES FOR THE COMMERCIAL FISHERY**

The management tools of the red sea urchin fishery include: a minimum size limit to allow several spawning years prior to harvest, a precautionary fixed exploitation rate of two to three percent of estimated biomass, limited entry licensing, an IQ program in which total quota is divided equally amongst licences, area licensing and area quotas.

### **4.1. Minimum Size Limit**

A minimum size limit of 100 mm test diameter has been in effect coast-wide in the red sea urchin fishery since 1987. The use of a size limit in this fishery is considered precautionary and allows red sea urchins several years of spawning before becoming available for the commercial fishery.

Based on advice provided in CSAS Research Document 99/201 Quota Options for the Red Sea Urchin Fishery in B.C. for Fishing Season 2000/2001 and following consultation with the Red Sea Urchin Sectoral Committee, the Department reduced the size limit for red sea urchins effective July 1, 2000 from 100 mm to 90 mm test diameter. To compensate for this and to maintain the precautionary approach to this fishery, a 12 percent reduction in TAC accompanied the reduction in size limit. This reduction in TAC was based on an egg-per-recruit analysis that suggested that the egg-per-recruit at 90 mm test diameter is 12 percent lower than that of urchins at 100 mm test diameter. Red sea urchins mature at approximately 60 mm test diameter. The 90 mm size restriction will still meet conservation goals of allowing several years of spawning prior to becoming available for commercial harvest.

Information from a plant sampling program conducted through 2000 and 2001 resulted in the presentation of quota options based on a 90 mm size limit: CSAS Research Document 2001/141 Quota options for the Red Sea Urchin Fishery in British Columbia for Fishing Season 2002/2003.

For the 2002/2003 fishing season, the minimum size limit for red sea urchins is 90 mm test diameter, between the spines, measured through the greatest diameter of the red sea urchin test (shell). See Appendix 4.

### **4.2. Precautionary Fixed Exploitation Rate**

A modified surplus production model is used to estimate maximum sustainable yield (MSY) for red sea urchins. Total current biomass of red sea urchins is calculated biannually, based on new survey results and changes to commercial bed area estimated from digitized harvest log charts provided by fishers. A natural mortality rate of 0.10 is assumed, and a correction factor of 0.20 provides for a conservative harvest rate of approximately two percent (Campbell et al 1999).

The following table shows the most recent stock assessment figures used to calculate the commercial TAC for 2002/2003. See the document entitled Quota

Options for the Red Sea Urchin Fishery in British Columbia for Fishing Season 2002/2003 (CSAS Research Document 2001/141) for more detail.

The coast-wide TAC is calculated by using density estimates for red sea urchins in the 90 to 140 mm test diameter range, an assumed natural rate of mortality rate (M) of ten percent and a conservative harvest rate of two to three percent. For planning purposes, the First Nations food, social and ceremonial harvest allocation is calculated at two percent of the estimated TAC. The commercial quota is then calculated by subtracting the First Nations allocation from the estimated TAC. The following table shows the range of quota options for each area, the allocation for First Nations and the TAC available for the commercial fishery under the reduced size limit.

<b>Range of Quota Options for 2002/2003 Red Sea Urchin Total Allowable Catch (tonnes), at a natural mortality rate M=0.10 and test diameter of 90 to 140 mm.</b>			
	Lower 90% CI, M=0.10	Mean, M=0.10	Upper 90% CI, M=0.10
<b>North Coast Areas 1 to 10</b>			
TAC based on 90 to 140 mm test diameter.	2,631.5	4,098.9	5,566.4
Two percent of TAC for First Nations.	52.6	82.0	111.3
Range available for 2002/2003.	2,578.8	4,016.9	5,455.0
<b>South Coast Areas 11 to 29</b>			
TAC based on 90 to 140 mm test diameter.	245.0	580.5	916.0
Two percent of TAC for First Nations.	4.9	11.6	18.3
Range available for 2002/2003.	240.1	568.9	897.7
<b>Coast Wide</b>			
TAC based on 90 to 140 mm test diameter.	2,876.5	4,679.4	6,482.4
Two percent of TAC for First Nations.	57.5	93.6	129.6
Range available for 2002/2003.	2,818.9	4,585.8	6,352.7

The commercial fishery quota for 2002/2003 was determined through consultation with the commercial industry association. Resource managers and PUHA reviewed the range of options available under the new assessment paper and proposed quotas for each red sea urchin quota management area that resulted in the overall licence area totals shown in Sections 5 and 6.

#### **4.3. Limited Entry Licensing**

A limited entry licensing scheme was implemented in January 1991. Red sea urchins are commercially harvested under the authority of a commercial licence (“ZC”) or a communal commercial licence (“FZC”). Currently six of the 110 commercial licences are designated as “FZC” licences, and are issued to coastal First Nations for participation in the commercial fishery. These Communal Commercial Licences are monitored with the commercial fishery and have the same management constraints and licence conditions as other commercial licences. For more information on the Aboriginal Fishery Strategy (AFS) Licence Retirement/Allocation Transfer Program, see Appendix 2, Section 1 and the Internet at:

[www.pac.dfo-mpo.gc.ca/ops/fm/afs/retire.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/afs/retire.htm)

#### **4.4. Individual Quota Program**

Following several years in a management regime that the commercial industry perceived to be causing processing and market gluts, poor quality landings and unsafe diving conditions, PUHA voluntarily implemented an IQ program in 1994 and 1995. The coast-wide TAC was divided equally among licences and a third party service bureau was hired to monitor catch. In late 1995, the Minister of Fisheries and Oceans Canada sanctioned an IQ management regime for the red sea urchin, green sea urchin and sea cucumber fisheries. Individual quotas were formally implemented for the 1996 red sea urchin fishery. Changes from the previously voluntary IQ system were minor and dealt with such things as quota transfer, area licensing and licence stacking.

Under the Individual Quota (IQ) program for the red sea urchin fishery, two percent of the coast wide total allowable catch (TAC) for red sea urchins is reserved, for planning purposes, for First Nations’ fisheries for food, social and ceremonial purposes. Additional allocations of red sea urchins will be provided to First Nations who demonstrate that their food, social and ceremonial needs are not being met. Fisheries and Oceans Canada is confident that with the precautionary approach to this fishery, the reserved allocation of TAC, and the provision of additional allocations, where necessary, First Nations in all areas will have sufficient opportunities to harvest red sea urchins for food, social and ceremonial purposes.

#### **4.5. Area Licensing**

The number of licences assigned to either the north coast or the south coast area is based on biomass estimates for the area and the annual IQ. Once a coast-wide and commercial licence area TAC is established, the number of licences in each licence area is adjusted to ensure equal individual quotas coast-wide. Based on the most recent stock assessment information, 93 licences are assigned to the north coast, and 17 to the south coast.

Pacific Urchin Harvesters Association (PUHA) provides Fisheries and Oceans Canada with advice regarding licence area selections. If PUHA is unable to provide the licence area selections, the Department will determine area designation through a process of voluntary placement and lottery out of the over-subscribed area.

#### **4.6. Area Quotas**

In conjunction with area licensing, the coast-wide commercial TAC is divided into Quota Areas. For management purposes, “Quota Areas” are comprised of Areas, Subareas, or a combination of portions of Subareas as described in the *Pacific Fishery Management Area Regulations*. The TAC for each Quota Area is calculated from the density estimates and range of quotas provided by the Department’s Stock Assessment Unit. Where surveys and density estimates are not complete for an area, they are extrapolated from survey information from adjacent or nearby areas.

### **5. NORTH COAST OPEN TIMES, FISHING PROTOCOL AND QUOTA AREAS**

It is the intent of Fisheries and Oceans Canada and PUHA to spread the commercial fishery over the period August 1, 2002 to June 30, 2003 in order to meet market demands and to prevent local stock depletion. PUHA has advised that harvesting on the north coast mainland will likely begin on Banks Island (Area 5); harvesting on the west coast of the Queen Charlotte Islands will begin in September.

#### **5.1. North Coast Fishing Protocol**

The north coast commercial red sea urchin TAC for 2002/2003 will be 4,130.8 tonnes (9,106,839 lb.), apportioned between the Quota Areas shown in the table below. Under the terms of the commercial industry catch validation agreement, a charter patrolman, under contract to PUHA, will be on the grounds to monitor the fishery and assist in its management. All weights referred to in the tables below are the weights that are determined during validation at the **first point of landing** (in pounds).

5.1.1. PUHA, on behalf of licence holders, will co-ordinate area openings with Fisheries and Oceans Canada. The Department requires a minimum of 48 hours notice from PUHA (exclusive of weekends and holidays) to open a new Quota Area.

5.1.2. A “Quota Area” is a defined portion of Pacific fisheries waters. Areas and Subareas, as described in the Pacific Fishery Management Area Regulations, are referenced in describing Quota Areas. Each Quota Area has a name (i.e. RU01 Upper West QCI), and is assigned a total allowable catch.

5.1.3. Quota Areas will be opened and fished in sequences. Each Quota Area within a sequence will be harvested to completion before the next sequence is opened.

- 5.1.4. Fishers are required to offload their catch at a designated landing port or to a packer prior to fishing in a new Quota Area.
- 5.1.5. If weather or roe quality halts all fishing in a Quota Area, Fisheries and Oceans Canada may consider a change to the opening schedule. Alterations to the opening schedule must be based on recommendation from PUHA.

<b>Note: Most quota areas are comprised of portions of areas and Subareas. See appendix 5 for complete details.</b>				
<b>Quota Area</b>		<b>Areas/Subareas within Quota Area</b>	<b>Quota</b>	
			<b>(t)</b>	<b>(lb.)</b>
RU01	Upper West QCI	Subarea 1-1	68.0	150,000
RU02	North QCI	Subareas 1-2, 1-3, 1-7, 101-2, 101-3, 101-6, 101-7 except closures	199.6	440,000
RU03	Laskeek Bay	Subareas 2-2, 2-8, 2-10 except closures	45.4	100,000
RU04a	Juan Perez Sound	Subarea 2-11 except closures	79.4	175,000
RU04b	Section Cove	Subareas 2-12, 2-13 except closures	27.2	60,000
RU05	Skincuttle Inlet	Subareas 2-14, 2-15, 2-17	90.7	200,000
RU06	Lower 2E	Subareas 2-18, 2-19	59.9	132,000
RU07	Lower 2W *	Subareas 2-31 to 2-34 except closures, ptn. Subarea 142-1	45.4	100,000
RU08	Flamingo/Englefield *	Subareas 2-35 to 2-62, ptn. Subarea 142-1, Subarea 142-2	59.9	132,000
RU09	Van Inlet	Subarea 2-68	34.0	75,000
RU10	Rennel Sound	Subareas 2-69 to 2-84 except closures	34.0	75,000
RU11	Hippa Island	Subareas 2-85 to 2-87, ptn. Subarea 2-88	27.2	60,000
RU12	Port Louis	Ptn. Subarea 2-88, Subareas 2-89 to 2-100	27.2	60,000
<b>Total Queen Charlotte Islands Quota Areas</b>			<b>797.9</b>	<b>1,759,000</b>
RU13a	Dundas Island North	Subareas 3-1, 3-2, 3-3, 3-7, 3-11	136.1	300,000
RU13b	Dundas Island	Ptn. Subareas 4-1, 4-5	45.4	100,000

<b>Note: Most quota areas are comprised of portions of areas and Subareas. See appendix 5 for complete details.</b>				
<b>Quota Area</b>		<b>Areas/Subareas within Quota Area</b>	<b>Quota</b>	
			<b>(t)</b>	<b>(lb.)</b>
	South *			
RU13c	Melville Island *	Ptn. Subareas 4-1, 4-5	45.4	100,000
RU13d	Nares Islets *	Ptn. Subarea 4-1	9.1	20,000
RU14	Tree Knobs *	Ptn. Subareas 4-1, 4-2, 4-13	172.4	380,000
RU15	Outside Stephens Island *	Ptn. Subarea 4-2	45.4	100,000
RU16	Inside Stephens Island *	Subarea 4-9, ptn. Subarea 4-13	27.2	60,000
RU17	Kelp Pass	Subarea 4-12	18.1	40,000
RU18	Oval Bay	Ptn. Subarea 4-2, Subarea 4-3	68.0	150,000
RU19	Porcher Inlet	Subarea 5-9	22.7	50,000
RU20	Outside Freemans Pass	Ptn. Subareas 5-11, 5-12	37.2	82,000
RU21	Willis Bay	Ptn. Subareas 5-10, 5-11	68.0	150,000
RU22a	Hankin Rock	Ptn. Subarea 5-10	22.7	50,000
RU22b	Beaver Pass *	Ptn. Subarea 5-10	Pending survey	
RU23	Upper Principe Channel	Subarea 5-13	45.4	100,000
RU24	Lower Principe Channel	Subareas 5-17, 5-18, 5-19	45.4	100,000
RU25	Petrel Channel	Subareas 5-14, 5-15, 5-16	6.8	15,000
RU26	Larsen Harbour	Ptn. Subareas 5-11, 5-20	54.4	120,000
RU27a	Upper Banks Island *	Ptn. Subarea 5-20	45.4	100,000
RU27b	Mid Banks Island *	Ptn. Subarea 5-20	27.2	60,000
RU28	Bonilla Island	Ptn. Subarea 5-20, Subarea 105-1, ptn. Subarea 105-2	119.7	264,000
RU29	Kingkown Inlet *	Ptn. Subarea 5-20, Subarea 5-21	27.2	60,000
RU30	Lower Banks Island	Subareas 5-22, ptn. Subarea 105-2, Subarea 106-1	181.4	400,000
RU31a	Moore Islands	Ptn. Subarea 106-2	113.4	250,000
RU31b	Harvey Islands	Ptn. Subarea 106-2	113.4	250,000



<b>Note: Most quota areas are comprised of portions of areas and Subareas. See appendix 5 for complete details.</b>				
<b>Quota Area</b>		<b>Areas/Subareas within Quota Area</b>	<b>Quota</b>	
			<b>(t)</b>	<b>(lb.)</b>
RU32	Calamity Bay *	Ptn. Subarea 6-9	45.4	100,000
RU33	Otter Pass *	Ptn. Subarea 6-9	119.7	264,000
RU34	Langley Pass	Ptn. Subarea 6-9	10.0	22,000
RU35	Oswald Bay	Ptn. Subarea 6-9	34.0	75,000
RU36a	Estevan Group East *	Ptn. Subareas 6-9 and 6-10	90.7	200,000
RU36b	Estevan Group South *	Ptn. Subarea 6-9	29.5	65,000
RU37	Rennison Island	Ptn. Subareas 6-9, 6-10, 6-11, 6-13	45.4	100,000
RU38	Campania Island/Surf Inlet *	Subareas 6-5 to 6-8, 6-12, 6-26 to 6-28, ptn. Subarea 6-10	226.8	500,000
RU39	Upper West Aristazabal	Ptn. Subareas 6-13, 106-2	136.1	300,000
RU40	Woodcock Islands	Ptn. Subareas 6-13, 106-2	59.9	132,000
RU41	Normansell Islands	Ptn. Subareas 6-13, 106-2	44.8	98,839
RU42	Lower West Aristazabal	Ptn. Subareas 6-13, 106-2	113.4	250,000
RU43	Upper Laredo	Subarea 6-14	0.0	0
RU44	Lower Laredo	Subarea 6-15, ptn. Subarea 6-16	68.0	150,000
RU45	Laredo Inlet	Ptn. Subarea 6-16, Subarea 6-19	36.3	80,000
RU46a	Laredo Sound *	Ptn. Subareas 6-16 and 6-17	81.6	180,000
RU46b	Prior Pass *	Ptn. Subarea 6-17	27.2	60,000
RU47a	Thompson Bay *	Ptn. Subareas 7-1, 7-2, Subareas 7-19, 7-20, ptn. Subarea 7-21, Subarea 7-32	15.9	35,000
RU47b	Day Point *	Ptn. Subareas 7-1, 7-2, 7-31	22.7	50,000
RU48	Milbanke Sound	Subarea 7-3	68.0	150,000
RU49	Finlayson Channel	Subareas 7-4, 7-5, 7-6, ptn. Subarea 7-9	39.9	88,000
RU50	Mathieson Channel	Ptn. Subarea 7-9	59.9	132,000

<b>Note: Most quota areas are comprised of portions of areas and Subareas. See appendix 5 for complete details.</b>				
<b>Quota Area</b>		<b>Areas/Subareas within Quota Area</b>	<b>Quota</b>	
			<b>(t)</b>	<b>(lb.)</b>
RU51	Seaforth Channel	Subarea 7-8, ptn. Subareas 7-9, Subareas 7-12, 7-15, ptn. Subarea 7-21	39.9	88,000
RU52	Tribal Group	Ptn. Subareas 7-18, 7-23, 7-24	27.2	60,000
RU53	Spider/Kildidt	Subareas 7-26, 7-27, 7-28	68.0	150,000
RU54	McNaughton Group	Ptn. Subarea 7-17, Subarea 7-25	38.6	85,000
RU55	Hakai Pass	Subareas 8-1, 8-2	22.7	50,000
RU56a	Nalau Pass	Ptn. Subarea 8-4	27.2	60,000
RU56b	Fitz Hugh Sound	Subarea 8-3, ptn. Subarea 8-4, Subarea 8-16	32.7	72,000
RU57a	Rivers Inlet *	Subareas 9-1 to 9-4, 9-10 to 9-12	45.4	100,000
RU57b	West Calvert Island - Grief Bay *	Area 109, Subarea 10-1, ptn. Subarea 10-2	22.7	50,000
RU58	Smiths Inlet	Ptn. Subarea 10-2, Subareas 10-3, 10-4, 10-5, 10-7, 10-8, 10-12	136.1	300,000
<b>Total Mainland Quota Areas</b>			<b>3,333.0</b>	<b>7,347,839</b>
<b>TOTAL NORTH COAST QUOTA AREAS</b>			<b>4,130.8</b>	<b>9,106,839</b>
<b>INDIVIDUAL QUOTA AT 93 LICENCES</b>			<b>44.4</b>	<b>97,923</b>

Notes:

- Descriptions of the north coast red sea urchin Quota Areas are provided in Appendix 5. Quota Areas with new boundaries are marked with an asterisk (\*).
- Please note permanent area closures listed in this plan (Section 7).
- North Coast Quota Area Maps are provided in Appendix 9.

## 6. SOUTH COAST OPEN TIMES AND QUOTA AREAS

The south coast TAC will be 755.1 tonnes (1,664,691 lb.), apportioned between the Quota Areas shown in the table below. All weights referred to in the tables below are the weights that are determined during validation at the **first point of landing** (in pounds). Openings in the south coast will proceed upon request.

Discussions are ongoing with the Ahousaht First Nation regarding access to red sea urchins for food purposes in Area 24. Changes to the area open to the commercial fishery and the area quotas may be implemented in-season.

<b>Note: most quota areas are comprised of portions of Areas and Subareas. See appendix 5 for complete details.</b>				
<b>Quota Area</b>		<b>Areas/Subareas within Quota Area</b>	<b>Quota</b>	
			<b>(t)</b>	<b>(lb.)</b>
11	Allison Harbour	Area 11	31.8	70,000
12A	Bates Pass	Subarea 12-12	27.2	60,000
12B	Christie/Browning Pass	Subareas 12-10, 12-11	36.3	80,000
12C	Port Hardy	Subareas 12-15, 12-16	31.8	70,000
12D	Port McNeill	Subareas 12-4, 12-8, 12-17, 12-18, 12-19	51.7	114,000
12E	Blackfish Sound	Subareas 12-5, 12-6, 12-20, 12-26	20.0	44,000
12F	Deserter Island	Subarea 12-13	22.7	50,000
12G	Wells Pass	Subareas 12-7, 12-38 to 12-42	11.3	25,000
12H	Northern Johnstone Strait*	Subareas 12-1 to 12-3, 12-21, 12-22, 12-24	36.8	81,158
13A	Kelsey Bay - Proper *	Subareas 13-32 to 13-34	27.2	60,000
13B	Campbell River South	Subareas 13-1, 13-2, ptn. Subarea 14-13 to Oyster River	45.4	100,000
13C	Campbell River North *	Subareas 13-6 to 13-9, 13-11, 13-27, 13-28	36.3	80,000
13D	Campbell River East *	Subareas 13-10, 13-12	13.6	30,000
13E	Cordero Channel *	Subareas 13-25, 13-41, 13-42	13.2	29,000
13F	Kelsey Bay - East *	Subareas 13-29 to 13-31, 13-35 to 13-40	18.1	40,000
13G	Stuart Island *	Subareas 13-13 to 13-24, 13-26	13.2	29,000
14	Comox	Subareas 14-5, 14-7 to 14-12	15.9	35,000
17	Nanaimo	Area 17 and Subarea 29-5	6.8	15,000
18	Gulf Islands *	Area 18 and Subarea 29-4	26.8	59,000
19	Victoria *	Subareas 19-1, 19-2, ptn. Subarea 19-3, Subareas 19-4 to 19-12	26.8	59,000
<b>Total Inside Waters Quota Areas</b>			<b>512.6</b>	<b>1,130,158</b>
20	Sooke *	Ptn. Subarea 19-3, Subareas 20-4 to 20-6	18.1	40,000
23A	Bamfield	Subareas 23-5 to 23-7	20.0	44,000
23B	Ucluelet	Subareas 23-11, 123-3, 123-5	20.0	44,000
24A	Sydney Inlet	Subarea 24-2	13.6	30,000
24B	Wickaninnish	Subarea 24-8	29.3	64,533
24C	Tofino	Subareas 24-6, 124-3	55.8	123,000
27A	Quatsino	Subareas 27-1 to 27-3	10.0	22,000

<b>Note: most quota areas are comprised of portions of Areas and Subareas. See appendix 5 for complete details.</b>				
<b>Quota Area</b>		<b>Areas/Subareas within Quota Area</b>	<b>Quota</b>	
			<b>(t)</b>	<b>(lb.)</b>
	Outside			
27B	Quatsino Inside	Subareas 27-7 to 27-11	10.0	22,000
111	Cape Scott	Area 111, Subarea 12-14	65.8	145,000
<b>Total WCVI Quota Areas</b>			<b>242.5</b>	<b>534,533</b>
<b>TOTAL SOUTH COAST QUOTA AREAS</b>			<b>755.1</b>	<b>1,664,691</b>
<b>INDIVIDUAL QUOTA AT 17 LICENCES</b>			<b>44.4</b>	<b>97,923</b>

Notes:

- Complete descriptions of red sea urchin Quota Areas are provided in Appendix 5. Quota Areas with new boundaries are marked with an asterisk (\*).
- Opening dates to be determined in-season based on advice from PUHA.
- Please note permanent area closures listed in this plan (Section 7).
- South Coast Quota Area Maps are provided in Appendix 9.
- Moser Point research site is assigned a quota of 44,000 lb. (Quota Area 24B).

## 7. RESEARCH AND PERMANENT AREA CLOSURES

Some areas have been designated as research or study areas and are closed to commercial fishing. Fishing is permitted in these areas only under a scientific licence. Studies undertaken in these areas are a co-operative effort between Fisheries and Oceans Canada, PUHA and local First Nations and include investigations into size limits and the effects of various harvest strategies on resident stocks. For further information on the research areas, please contact Dr. Alan Campbell at (250) 756-7124.

Commercial fishery closures are detailed below. Additional closures may be announced in-season by Fishery Notice. Prior to fishing in an area, fishers are advised to consult the local Fisheries and Oceans Canada office or to contact a fishery manager listed in Section 2 of the IFMP.

### 7.1. Area 1

- 7.1.1. Kiusta I.R.: That portion of Subarea 1-2 west of a line commencing at 54°10.55' north latitude and 133°00.95' west longitude, thence running true north to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and east of a line commencing at 54°11.1' north latitude and 133°01.75' west longitude, thence running true north to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and south of the 20 fathom contour between these two lines. (First Nations access for food, social and ceremonial purposes.)

- 7.1.2. Dadens I.R.: That portion of Subarea 1-2 west of a line commencing at 54°11.2' north latitude and 132°58.9' west longitude, thence running true south to the north shore of Lucy Island; and south and east of lines commencing at 54°11.3' north latitude and 132°59.2' west longitude, thence running true west to the intersection of the 20 fathom contour (as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department), thence to the westernmost tip of Lucy Island. (First Nations access for food, social and ceremonial purposes.)
- 7.1.3. Egeria Bay I.R.: That portion of Subarea 1-2 north of a line commencing at 54°12.95' north latitude and 132°59.1' west longitude, thence running true east to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and south of a line commencing at 54°13.2' north latitude and 132°59.15' west longitude, thence running true east to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and west of the 20 fathom contour between these two lines. (First Nations access for food, social and ceremonial purposes.)
- 7.1.4. Dibrell Bay I.R.: That portion of Subarea 1-2 north of a line commencing at 54°13.81' north latitude and 132°58.3' west longitude, thence running true east to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and south of a line commencing at 54°14.05' north latitude and 132°58.25' west longitude, thence running true east to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and west of the 20 fathom contour between these two lines. (First Nations access for food, social and ceremonial purposes.)
- 7.1.5. Rhodes Point I.R.: A portion of Subarea 1-2 west of a line commencing at 54°12.95' north latitude and 133°01.75' west longitude, running true south to the 10 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and south of a line commencing at 54°13.2' north latitude and 133°02.2' west longitude, thence running true west to the 10 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and north and east of the 10 fathom contour between these two lines, excluding Harvey Rock. (First Nations access for food, social and ceremonial purposes.)
- 7.1.6. Langara Point I.R.: That portion of Subarea 101-2 north of a line commencing at 54°15.05' north latitude and 133°03.65' west longitude, thence running true west to the 20 fathom contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and south of a line commencing at 54°15.3' north latitude, 133°03.55' west longitude, thence running true west to the 20 fathom

contour as shown on Chart #3868 (published by the Canadian Hydrographic Service of the Department); and east of the 20 fathom contour between these two lines. (First Nations access for food, social and ceremonial purposes.)

- 7.1.7. Shag Rock: That portion of Subarea 1-3 inside a 0.25 nautical mile ribbon boundary off Indian Reserve #13 located due south of Shag Rock. The boundary begins 0.25 nautical miles north of Indian Reserve #13 and ends 0.25 nautical miles south of Indian Reserve #13. (First Nations access for food, social and ceremonial purposes.)
- 7.1.8. Nankivell Point: That portion of Subarea 1-7 inside a 0.25 nautical mile ribbon boundary beginning at Nankivell Point and heading westerly along the shore for one nautical mile. (First Nations access for food, social and ceremonial purposes.)

## **7.2. Area 2**

- 7.2.1. Subareas 2-3 to 2-7 (Cumshewa Inlet/Skedans): This area is closed to undertake recruitment and mortality studies.
- 7.2.2. McCoy Cove (in Cumshewa Inlet): That portion of Subarea 2-3 lying inside a line from a boundary sign located true north of Haans Islet, thence easterly to the sector light located at the southeasterly entrance to McCoy Cove. (First Nations access for food, social and ceremonial purposes.)
- 7.2.3. Skedans Bay: That portion of Subarea 2-7 shoreward of a line from Skedans Point to Vertical Point. (First Nations access for food, social and ceremonial purposes.)
- 7.2.4. Tanu Island: That portion of Subarea 2-8 which is the easterly shore of Tanu Island north of Klue Point to the most northeasterly tip of Tanu Island. (First Nations access for food, social and ceremonial purposes.)
- 7.2.5. Richardson Pass: That portion of Subarea 2-8 including the southerly shore of Richardson Island within Richardson Passage. (First Nations access for food, social and ceremonial purposes)
- 7.2.6. Windy Bay: That portion of Subarea 2-11 shoreward of a line between Fuller Point and Gogit Point on Lyell Island. (First Nations access for food, social and ceremonial purposes.)
- 7.2.7. Hotsprings and House Islands: That portion of Subarea 2-11 lying inside the ten fathom edge surrounding Hot Springs Island and House Island. (First Nations access for food, social and ceremonial purposes)

- 7.2.8. Burnaby Narrows: Subarea 2-16 and a portion of Subarea 2-13 west of a line running 328° true through the northwest tip of Section Island (Section Cove). (Park)
- 7.2.9. Anthony Island: A portion of Subarea 2-31 shoreward of a 1 nautical mile ribbon boundary surrounding Anthony Island. (Heritage Site)
- 7.2.10. West Skidegate Channel and Buck Channel: Subareas 2-63, 2-64, 2-66 and 2-67. (First Nations access for food, social and ceremonial purposes.)
- 7.2.11. Shields Bay: That portion of Subarea 2-77 south of a line from Dawson Head true north to the opposite shore. (First Nations access for food, social and ceremonial purposes.)

### **7.3. Area 5**

- 7.3.1. Kitkatla Inlet/Schooner Pass: Subarea 5-3 and a portion of Subarea 5-10 north of a line running from the northwestern tip of McCauley Island to a boundary sign on the northwest tip of Spicer Island and north of a line running from Boys Point on Dolphin Island to a boundary sign located on the southwesternmost tip of Spicer Island. (First Nations access for food, social and ceremonial purposes.)
- 7.3.2. Kitkatla Village: That portion of Subarea 5-10 north and east of a line running from the northern tip of the entrance to Dolphin Lagoon on Dolphin Island west to a point on the Prager Islands located at 53°46.85' north latitude, 130°29.8' west longitude, thence northerly to a point on the Shakes Islands located at 53°47.5' north latitude, 130°29.0' west longitude; thence true north to the boundary line. (First Nations access for food, social and ceremonial purposes.)

### **7.4. Area 7**

Subarea 7-31 (West Price Island). This area is closed to undertake recruitment and mortality studies.

### **7.5. Area 12**

- 7.5.1. That portion of Subareas 12-5 and 12-18 within 0.25 nautical miles of Stubbs Island and Pearse Reefs. (Study Area)
- 7.5.2. That portion of Subareas 12-18 and 12-5 lying inside of a line commencing at Lewis Point on Vancouver Island, thence in a straight line to the southernmost point of the most easterly of the Pearse Islands, thence westerly along the shore of said island to the westernmost point, thence in a straight line to Stubbs Island, thence due east for 1.4 nautical miles, thence due south to the easternmost island of the Plumper Islands, thence along the eastern shore of said island to the southernmost point, thence in a straight line to Lewis Point on Vancouver Island. (Study Area)

7.5.3. That portion of Subareas 12-18 and 12-19 including all waters within 0.25 nautical miles of the shore of Cormorant Island. (Study Area)

7.5.4. Subarea 12-25 (Port Neville). (Marine Reserve/Research Area)

**7.6. Area 13**

Area 13 Study Area: Discovery Passage: Subareas 13-3, 13-4, 13-5 and a portion of 13-6. Those waters of Discovery Passage bounded on the north by a straight line drawn true west from North Bluff on Quadra Island, across Seymour Narrows to a fishing boundary sign on Vancouver Island, and on the south by a line from the Cape Mudge light true west to Vancouver Island. (Marine Reserve and Research Closure)

**7.7. Area 14**

Hornby Island: Portions of Subareas 14-5,-6,-7,-9 and -12 described as those waters of Lambert Channel and the Strait of Georgia, inside a line commencing at Shingle Spit on Hornby Island, thence 239° true for 0.5 nautical miles, thence 126° true for 3.5 nautical miles, thence 64° true for 4.9 nautical miles, thence 304° true for 2.9 nautical miles, thence 213° true for 0.5 nautical miles to Cape Gurney on Hornby Island. (Marine Reserve)

**7.8. Area 15**

7.8.1. All waters within 0.5 nautical miles of Vivian Island located approximately 5.0 nautical miles west of Powell River in Subarea 15-2. (Marine Reserve)

7.8.2. All waters within 0.25 nautical miles of Rebecca Rock located 2.5 nautical miles west of Powell River in Subarea 15-2. (Marine Reserve)

7.8.3. All waters within 0.25 nautical miles of Dinner Rock located 2.5 nautical miles south of Lund in Subarea 15-2. (Marine Reserve)

7.8.4. All waters within 0.5 nautical miles of the unnamed reef off Emmonds Beach located approximately 4.0 nautical miles south of Lund in Subarea 15-2. (Marine Reserve)

7.8.5. All waters within 1.0 nautical mile of Mitlenatch Island, located in the upper Strait of Georgia intersected by the Subareas 15-2, 13-1, 13-3 and 14-13. (Marine Reserve)

7.8.6. All waters within a 0.25 nautical mile radius of the southerly end of the Beach Gardens breakwater in Subarea 15-2. (Marine Reserve)

**7.9. Area 16**

Skookumchuck Narrows Provincial Park: Those waters of Skookumchuck Narrows and Sechelt Rapids in Subarea 16-9 bounded on the west by a line



commencing at a point on the foreshore at the westerly limit of Secret Bay on Sechelt Peninsula thence 50° true to a point on the foreshore on the mainland; on the east by a line from Raland Point on Sechelt Peninsula, thence 50° true to a point on the foreshore on the mainland. (Park)

**7.10. Area 17**

Subareas 17-4 to 17-9 (Stewart Channel). (First Nations access for food, social and ceremonial purposes.)

**7.11. Area 18**

Subareas 18-7 (Sansum Narrows, Burgoyne Bay and Maple Bay), 18-8 (Cowichan Bay) and 18-10 (Fulford Harbour). (Navigational Closure)

**7.12. Area 19**

7.12.1. Ogden Point: Those waters of Subarea 19-3 inside a line commencing at the navigation light at the western end of the Ogden Point Causeway thence to Brotchie Ledge Light, thence to Holland Point on Vancouver Island. (Marine Reserve)

7.12.2. 10 Mile Point: Those waters of Subareas 19-4 and 19-5 within 0.4 nautical miles of Cadboro Point navigation light. (Marine Reserve)

7.12.3. Race Rocks: Those waters of Subareas 19-3 and 20-5 within 0.5 nautical miles of Great Race Rock. (Marine Reserve)

**7.13. Area 20**

7.13.1. Race Rocks: Those waters of Subareas 19-3 and 20-5 within 0.5 nautical miles of Great Race Rock. (Marine Reserve)

7.13.2. Botanical Beach Provincial Park: That portion of Subarea 20-3 between the lowest low water on record and the highest high water on record from San Juan Point thence following the Vancouver Island shoreline easterly to the mouth of Tom Baird Creek. (Marine Reserve)

7.13.3. Pacific Rim National Park, Juan de Fuca: That portion of Subarea 20-1 between the lowest low water on record and the highest high water on record from Bonilla Light thence following the shoreline of Vancouver Island easterly to Owen Point. (Park)

**7.14. Area 23**

7.14.1. Pacific Rim National Park, Broken Group Islands: Those waters of the Broken Group Islands in Barkley Sound within Park boundaries as shown, since 1989, on Canadian Hydrographic Service Chart #3671. (Park)

7.14.2. Bamfield Marine Station Research Area Closure: Those waters of Subareas 23-4, 23-6 and 23-7 bounded by a line commencing at the light at Whittlestone Point and running directly to the southern tip of Haines Island; from the northwestern tip of Haines Island to the southern tip of Seppings Island; from the northwestern tip of Seppings Island to Kirby Point on Diana Island; from Kirby Point directly to the northwest tip of Fry Island; from the northwestern tip of Fry Island to the nearest adjacent point on Tzartus Island; from Foucault Bluff on Tzartus Island to the northwest tip of Nanat Island; from the eastern tip of Nanat Island to the nearest adjacent point on Vancouver Island and thence along the coastline of Vancouver Island to the point of commencement. (Research Area)

## **7.15. Area 24**

7.15.1. Area 24: Moser Point Study Area: That portion of Subarea 24-8 in the vicinity of Moser Point on Vargas Is. described as: “inside of, or northerly of, a line from the most southwesterly point of Echachis Is., thence northwesterly to Wilf Rock; thence northwesterly 312° true east for 0.45 nautical miles to an unnamed island in the La Croix Group designated on Chart 3649 (as published by the Canadian Hydrographic Service of the Department) as having a height of land of 20 feet, thence due north to the shore of Vargas Is.; thence following along the shore of Vargas Is. in a northeasterly direction to the unnamed point immediately south of the Yarksis Indian Reserve; thence southeasterly across Father Charles Channel to the northernmost point on Wickaninnish Is.; thence along the western shoreline of Wickaninnish Is. to the southernmost point; thence in a straight line to the northwestern point of Echachis Is.; thence southerly along the western shoreline of Echachis Is. to the point of commencement.” (Research Area)

7.15.2. Pacific Rim National Park, Grice Bay & McBey Islets: The waters of Tofino Inlet within Pacific Rim National Park including McBey Islets and Dinner Island in Tsapee Narrows, Browning Passage in Subarea 24-9 and Grice Bay west and south of Indian Island in Subarea 24-11. (Park)

7.15.3. Hotsprings Cove: Those waters of Subarea 24-2 and 124-3 enclosed by a line commencing at a point on the Vancouver Island shoreline 2.5 km northwest of Barney Rocks, thence to a point 500 m true south (offshore), thence to Barney Rocks, thence to Sharp Point and returning along the shoreline to the point of commencement. This closure includes Hot Springs Cove, Mate Islands, Barney Rocks and the bays west of Mate Islands. (First Nations access for food, social and ceremonial purposes.)

## **7.16. Area 25**

Friendly Cove and Santa Gertrudis Cove: That portion of Subareas 25-6 and 25-7 inside a line from a white triangular fishing boundary sign on Nootka Island near the northerly entrance to Santa Gertrudis Cove, thence true east 0.25 nautical

miles, thence true south one nautical mile, thence westerly to Yuquot Point on Nootka Island, thence to the point of commencement. (First Nations access for food, social and ceremonial purposes.)

#### **7.17. Area 26**

7.17.1. Kyuquot Bay: A portion of Subarea 26-6 inside or northerly of a line from White Cliff Head to Racoon Point and identified on the Kyuquot map attached to this plan. (Kyuquot Sound Marine Communities Study Area)

7.17.2. Entrance to Crowther Channel: A portion of Subarea 26-6 on the west side of Union Island commencing at position 50° 0.4' north latitude, 127° 19.3' west longitude and identified on the map attached to this plan. (Kyuquot Sound Marine Communities Study Area)

7.17.3. Checleset Bay Fishery Closure Area: Those portions of Areas 26 and 126 enclosed by a line drawn from a point on the Brooks Peninsula (50°05.18' north latitude, 127°49.58' west longitude), thence due south to the 50° parallel, thence due east to Alert Point on Lookout Island, thence northeasterly to a point on Vancouver Island near McLean Island (50°02.1' north latitude, 127°25.03' west longitude), thence northwesterly along the shore of Vancouver Island to Malksope Point (50°05.53' north latitude, 127°28.95' west longitude), thence due west to a point midchannel on the southeast end of Gay Passage (50°05.53' north latitude, 127°30.1' west longitude), thence midchannel through Gay Passage to a point midchannel on the northwest end of Gay Passage (50°06.7' north latitude, 127°31.8' west longitude), thence northwesterly to the shore of Vancouver Island, just west of Theodore Point (at 127°32.8' W long., 50°07.7' N lat.), thence westerly along the Vancouver Island shore to an unnamed point on the east side of Nasparti Inlet (50°08.75' north latitude, 127°38.6' west longitude), thence westerly across Nasparti Inlet to an unnamed point on Vancouver Island (50°08.7' north latitude, 127°37.8' west longitude), thence along the Vancouver Island shore to the point of commencement (Sea Otter Reserve).

#### **7.18. Area 28**

7.18.1. Porteau Cove: That portion of Subarea 28-4, east of a line drawn from a white fishing boundary sign located on the south shore of Porteau Cove to a white fishing boundary sign located on the north shore of Porteau Cove. (Marine Reserve)

7.18.2. Whytecliff Park: That portion of Subarea 28-2 bounded by a line commencing from the most southerly point of Whytecliff Park; thence in a straight line to a point located 100 m east of the most southeasterly point of Whyte It.; thence following the southern shoreline of Whyte It. at a distance of 100 m to a point lying 100 m from the most southwesterly point of Whyte It.; thence in a straight line to a point lying 100 m west of

White Cliff Point; thence following the shoreline at a distance of 100 m in a northerly direction to a point 100 m north of Lookout Point; thence following the shoreline at a distance of 100 m in an easterly direction to a point 100 m perpendicular to the most northerly point of Whytecliff Park; thence to the most northerly point of Whytecliff Park on the mainland. (Marine Reserve)

## **8. LICENSING**

### **8.1. Licence Category**

Red sea urchins are harvested commercially under the authority of a commercial licence (“ZC”) or a communal commercial licence (“FZC”). All licences are held by an individual party who must designate a harvest vessel each year. The designated vessel must be eligible for a commercial vessel-based licence of any of the following categories: “A”, “C”, “F”, “G”, “K”, “L”, “N”, “R”, “S”, “T” and “W”.

The commercial red sea urchin licence fees for the 2002/2003 season are \$530.

### **8.2. Licence Eligibility**

Commercial (“ZC”) licences are “transferable” in that a licence holder may nominate a new party as the holder of the licence eligibility. Communal Commercial (“FZC”) Licences are allocated annually to First Nations groups, who may designate the licence to a vessel which meets the same criteria as the commercial licences.

The Pacific Fishery Licence Unit will allow nominations for transfer of licence eligibility from one person to another person, prior to licence issue or when the IQ for the licence has been reached. “FZC” licences held by First Nations’ groups may not apply to nominate and transfer the noted licence eligibilities.

### **8.3. Licence Length Restriction**

Vessel length restrictions for vessels used to harvest red sea urchins under the IQ program have been waived by Fisheries and Oceans Canada such that “ZC” licences may be designated to a vessel of any length permitted to harvest Schedule II species. Fisheries and Oceans Canada reserves the right to reinstate vessel length restrictions at the lengths associated with each licence tab.

### **8.4. Licence Stacking**

A maximum of five active licences (i.e. those with quota remaining) may be designated to any one vessel at a time. Licence holders may apply to re-designate their licence to another vessel at one of the Pacific Fishery Licence Unit offices. Licence holders are reminded that the original licence documents must be returned and log approval obtained, from the Shellfish Data Unit, prior to completion of any re-designation request.

## **8.5. Area Licensing**

Licence tab numbers will be assigned to either the south coast area or the north coast area. To ensure equal quotas, the coast wide distribution of licences will be as follows:

- a) North coast, Areas 1 to 10 and adjacent offshore areas: 93 licences.
- b) South coast, Areas 11 to 29 and adjacent offshore areas: 17 licences.

PUHA will provide Fisheries and Oceans Canada with advice regarding licence area selections. If PUHA is unable to provide the licence area selections, the Department will determine area designation through a process of voluntary placement and lottery out of the over-subscribed area.

## **8.6. Individual Quotas**

The holder of a licence for commercial harvest of red sea urchin is provided the opportunity to harvest up to 97,923 lb. of red sea urchins. Where the area set out in the licence is “south”, a maximum of 66,480 lb. of the 97,923 lb. may be harvested from Inside Waters Quota Areas (Areas 11 to 19, 28, and 29). A maximum of 31,443 lb. of the 97,923 lb. may be harvested from WCVI Quota Areas (Areas 20 to 27, 111, 121 and 123 to 127). All diving and fishing operations must take place from the licensed vessel. All product must be brought directly onto the licensed vessel following harvest. Vessels used to hold or transport red sea urchins must conform to Canadian Food Inspection Agency inspection regulations for holding or transporting fish and have appropriate licences (see Section 8.7 and 9.4).

## **8.7. Licence to Transport Red Sea Urchins**

Any registered vessel with a vessel-based licence (Categories “A”, “C”, “F”, “G”, “K”, “L”, “N”, “R”, “S”, “T” and “W”), a category “D” (packing) or a herring seine licence (“HS”) may transport red sea urchins under special Conditions of Licence which are included with all vessel-based licences issued for 2002. For further information contact the Pacific Fishery Licence Unit.

## **8.8. Processing**

“P” licences are issued under the *Pacific Fishery (General) Regulations*, and must comply with the *Fish Inspection Regulations*. As a result, effective June 1998, any processing beyond that permitted in Section 14 (FIR) must be done in a registered fish processing facility and in full compliance with a Quality Management Program (QMP). If product processed at sea is to be eligible for export (leaving B.C.), the vessel must be a registered fish processing facility, i.e. registered with the Canadian Food Inspection Agency and have an approved QMP. If the processed product is intended for sale within B.C., the vessel must meet B.C. Ministry of Fisheries and B.C. Health requirements, prior to the issuance of a “P” licence.

## **9. CONTROL AND MONITORING OF COMMERCIAL FISHING ACTIVITIES**

To accompany the IQ program, an industry-funded monitoring and validation program was developed collaboratively between PUHA, Fisheries and Oceans Canada and D&D Pacific Fisheries Ltd. Overall, the IQ program has resulted in a more orderly, safer fishery and has afforded the industry more flexibility in opening times and locations.

A joint project agreement between the Department and PUHA to provide for in-season catch validation is consistent with the Department's approach to co-management in the Region. This agreement provides for catch validation at designated landing ports, in-season collection and compilation of harvest log data, collection of biological samples, on-grounds monitoring of the north coast fishery, and a year-end summary report of the fishery.

Fishers are required to report harvest time and location information to a service bureau prior to fishing, following fishing, and prior to landing red sea urchins. In order to track daily harvests and ensure that area quotas are not exceeded, all catch must be weighed and validated at the first point of landing by a Fisheries and Oceans Canada certified observer.

PUHA funds a charter patrolman (On-Grounds Monitor, OGM) to attend the remote north coast fishery for eight months a year. The OGM duties include: providing a communication link between the north coast fishery manager, the service bureau and the red sea urchin fishing fleet, monitoring fishing effort, checking dive harvest information, observing product transfer to packers, and providing summaries of fishing activity and fishing ground observations, i.e. location, bed dimensions, product quality and harvester comments.

The agency (service bureau) contracted by the Pacific Urchin Harvesters Association to provide notification, validation, biological sampling and data services for the 2002/2003 red sea urchin fishery is:

D&D Pacific Fisheries Ltd.  
Box 1445, Gibsons, BC V0N 1V0  
Tel: (604) 886-4819  
Fax: (604) 886-8288  
Hail-in Line: (800) 775-5055

### **9.1. Fishing Multiple Quota Areas**

Fishers are required to offload their catch at a designated landing port or to a packer prior to fishing in a new Quota Area.

### **9.2. Red Sea Urchin Containers**

There are several requirements for the marking of pick bags and containers for management purposes, and the condition of containers for food inspection purposes. See Appendix 10, Section 7.

Any containers used in the transport of “fish” (including urchins) for export must meet the requirements of Schedule V of the *Fish Inspection Regulations*. This states that the contact surfaces of fish storage areas in vehicles and of containers used for transporting fish shall be smooth, free from cracks and crevices and made of non-corrodable metal. There is also a requirement for containers to be covered. Acceptable materials include plastic, aluminium and fibreglass; however, an exemption has been granted for the use of well-painted wooden totes to transport fish to processing plants (contact Gordon Greig [604] 666-4427, ext.277) for further information).

### **9.3. Designated Landing Ports**

Red sea urchins must be landed at one of the designated landing ports listed in the Conditions of 2002/2003 Red Sea Urchin Licence. See Appendix 10, Section 9.

### **9.4. Notification Procedure Before, During and After Fishing Red Sea Urchins**

Fishing notification requirements that are described in the Conditions of Licence must be followed by each licensed vessel in order for the service bureau and the Department to track effort and harvest on a daily basis. See Appendix 10, Section 11.

When vessels do not hail into a harvest area, there is a risk of exceeding the quota. In order to maintain a sustainable fishery, it is extremely important that effort and landings in a particular harvest area be reported and recorded accurately.

Observer phone numbers are available from D&D Pacific Fisheries Ltd. If weather results in a change in arrival time the vessel master must immediately advise the observer via radio telephone of these changes.

### **9.5. Lost Product**

During the 2000/2001 fishing season, incidents of product lost or wasted at sea necessitated implementation of the following protocol:

- a) The weight of product lost from the deck of the catcher vessel and/or packer vessel during transport will be applied to both the catcher vessel’s individual quota and the applicable area quota.
- b) The weight of product spoiled or wasted because of weather-related delays will also be applied to both the catcher vessel’s individual quota and the applicable area quota.
- c) The Department, in consultation with the service bureau, will use the estimated packer or ground weight and appropriate water loss calculation for the harvest site to determine an estimated dock weight.

### **9.6. Validation**

All red sea urchin harvested or removed from the sea bed floor must be validated at the point and time the fish are landed. See Appendix 10, Section 10.

The vessel master must be in possession of a Fisheries and Oceans Canada approved catch Validation & Harvest Logbook assigned to the red sea urchin licence. The Validation & Harvest Logbook must be on board the licensed vessel while fishing for red sea urchins or while red sea urchins are on board. Validation & Harvest Logbooks that meet the Department's approval are available from the service bureau or from the Pacific Urchin Harvesters Association.

#### 9.6.1. Validation & Harvest Log Entries

At the first point of off-loading, all red sea urchins will be weighed with a government-certified scale and the weight entered on the Validation & Harvest Log. The vessel master is responsible for completing sections A and C of the Validation & Harvest Log. The vessel master shall also ensure that chart entries are completed showing all locations fished for that validation. All harvest information must be fully entered and complete before validation takes place. The Validation & Harvest Log will remain with the licensed vessel, with one copy accompanying the product to its destination and one copy handed over to the observer at the time of validation, along with the harvest charts. The observer shall compare harvest charts to Validation & Harvest Logs to ensure that harvest information is consistent between both. The original white copy of the Validation & Harvest Log handed to the observer, along with the harvest charts, must be received by the Fisheries and Oceans Shellfish Data Unit within 28 days following the end of the month in which harvesting took place.

#### 9.6.2. Quota Confirmation

Prior to fishing, the vessel master must confirm the remaining vessel quota from the Validation & Harvest Logbook.

#### 9.6.3. Quota Overage and Relinquishment of Claim

Observers may witness Relinquishment of Claim forms at landing ports. Vessel owners are requested to contact the Shellfish Data Manager ([250] 756-7158) at Fisheries and Oceans Canada, Nanaimo to arrange for submission of monies in payment for the overage.

**Any area quota overruns may be deducted from the next year's area quota.**

##### 9.6.3.1. Conditions and Procedures for Red Sea Urchin Quota Overage Transfer

Small quantities of red sea urchins which exceed the licence's annual quota (up to 500 lb.) can be transferred to another red sea urchin licence provided certain conditions are fulfilled. If all of these conditions are not met, observers will not transfer the overage to another licence. In the following explanation, the red sea urchin licence which has exceeded its



quota is called Licence “A”, and the licence to which quota is transferred is called Licence “B”.

#### 9.6.3.2. Transfer of Quota to a Second Licence on the Same Vessel

If two or more licences are assigned to the same vessel then a quota overage from one licence may be transferred to the red sea urchin licence which has quota remaining. Overage of the last red sea urchin licence quota on the same vessel may be transferred to another vessel’s red sea urchin licence in accordance with policy described below.

#### 9.6.3.3. Maximum Allowable Transfer of Quotas Between Licences on Different Vessels

In the event of a quota overage on red sea urchin Licence “A”, a maximum of 500 lb. of red sea urchins may be transferred to another vessel’s red sea urchin licence (Licence “B”). If the overage is more than 500 lb., the option to transfer quota will be lost and the entire overage will be relinquished. Only one transfer of quota overage is allowed. The quota overage cannot be divided between a number of licences.

#### 9.6.3.4. Remaining Quota on Second Licence

The amount transferred cannot exceed the remaining quota of red sea urchin Licence “B”. Any quantity not transferred to Licence “B” must be relinquished by Licence “A”.

#### 9.6.3.5. Red Sea Urchin Licence Area

Both vessels involved in the transfer must be licensed to fish in the same licence area and have active licences for that licence year (the provision for landing at the same port has been removed).

#### 9.6.3.6. Documentation

The red sea urchin Validation & Harvest Log for each of the licences involved in the transfer must be present at the time of the validation. Both vessel masters must make their intention to transfer or receive quota overage clear to the observer prior to unloading. In the event of a packer landing, a note signed by both vessel masters should accompany the product to advise the observer that there is a mutual agreement to transfer.

### **9.7. Harvest and Chart Data**

It is a Condition of Licence and the responsibility of the licence holder to ensure that harvest and chart information is received by Fisheries and Oceans Canada Shellfish Data Unit and meets the conditions outlined below. Fishers who have validation services completed by D&D Pacific Fisheries Ltd. will receive these

services as part of that contract. For fishers who wish to have validation completed by an observer other than the service bureau under contract to the Pacific Urchin Harvesters Association, it will remain the licence holder's responsibility to ensure the requirements outlined below are fully completed. Those interested in obtaining validation services other than those contracted by the association should contact the Shellfish Data Unit at (250) 756-7306 to receive a copy of the Fisheries and Oceans Canada requirements for third party validation.

#### 9.7.1. Harvest Data

**The licence holder of record reported with the Pacific Fishery Licence Unit is responsible to ensure that the vessel master has completed and submitted a copy of the harvest data. Fisheries and Oceans Canada can only release harvest data to the reported licence holder and only upon written request.**

The vessel master is responsible for the provision and maintenance of an accurate record, a "log", of daily harvest operations. This log must be completed and a copy submitted in both hard (paper) copy and electronic form in an approved format as defined by Fisheries and Oceans Canada, Stock Assessment Division's Shellfish Data Unit. The vessel master is also responsible for the provision of a daily harvest chart record for each location fished by each diver. See Appendix 10, Section 12.

Validation & Harvest Logs meeting Fisheries and Oceans Canada requirements are available from outside service bureaus. The service bureau will, for a fee, provide the Validation & Harvest Log coding and keypunch service, including the electronic capture of harvest chart information into GIS, thus complying with the requirements for submission of a hard (paper) copy and electronic copy including fishing location information, for harvest data.

The original white page copy of the log, the accompanying chart record and the electronic copies must be forwarded within 28 days following the end of the month in which fishing occurred.

**Fisheries and Oceans Canada wishes to remind fishers that harvest logs must be completed accurately during fishing operations and submitted to Fisheries and Oceans Canada in accordance with the timing set out in conditions of licence. Failure to complete or submit logs in a timely manner is a violation of Condition of Licence.**

#### 9.7.2. Confidentiality of Harvest Data

Harvest data, including fishing location data supplied through lat./long. co-ordinates, loran or chart records, collected under the Validation & Harvest Logbooks for Shellfish Fisheries programs, are collected for use by Fisheries and Oceans Canada in the proper assessment, management

and control of the fisheries. Upon receipt by Fisheries and Oceans Canada of harvest data and/or fishing location information supplied by the fisher in accordance with conditions of licence, Section 20(1)(b) of the *Access to Information Act* prevents the Department from disclosing to a third party, records containing financial, commercial, scientific or technical information that is confidential information. Further, Section 20(1)(c) of the *Act* prevents the Department from giving out information, the disclosure of which could reasonably be expected to result in material financial loss or could reasonably be expected to prejudice the competitive position of the fisher.

#### **9.8. Fish Slip Data**

It is a condition of this licence that an accurate written report shall be furnished on a fish slip of all fish and shellfish caught under the authority of this licence. A report must be made even if the fish and shellfish landed are used for bait, personal consumption, or otherwise disposed. See Appendix 10, Section 13.

#### **9.9. Export of Red Sea Urchins**

Licence conditions regarding Validation & Harvest Logs and fish slips must be complied with, even for red sea urchins exported from B.C. that have not gone through a federally registered processing plant.

### **10. THE WORKERS' COMPENSATION BOARD OF B.C. AND THE RED SEA URCHIN FISHERY**

#### **10.1. General**

Jurisdiction over health and safety on commercial fishing vessels in Canada falls to the mandate of the provinces. In British Columbia jurisdiction over health and safety issues on commercial fishing vessels falls to the mandate of the Workers' Compensation Board of B.C. (WCB). Health and safety issues on fishing vessels include the health and safety of the crew and design, construction and use of fishing equipment on the vessel. Matters of transportation and shipping fall to the federal government and are administered by Transport Canada, Marine Safety (TCMS). WCB and TCMS have entered into a Memorandum of Understanding on fishing vessel safety that addresses, as much as possible, jurisdiction. The document also contemplates that each party will work co-operatively to ensure that vessels and their crew remain healthy and safe.

The red sea urchin fishery, and other dive fisheries, are legislated by the requirements as occupational divers, found in Part 24 of the Occupational Health and Safety Regulation (OHSR) and as commercial fishing ventures, also found in Part 24 of the OHSR. Many of the general sections of the Regulation also apply, for example: Part 8 – Personal Protective Equipment, addresses issues related to safety head gear, safety foot ware and personal floatation devices. Part 17 addresses issues on rigging and Part 5 addresses issues of exposure to chemical

and biological substances. The entire regulation can be acquired at any WCB office or by visiting the WCB web site at [www.worksafebc.com](http://www.worksafebc.com).

## 10.2. Specific

Although the entire OHSR applies to the fishing industry in general, there are a few sections that are particularly important to the red sea urchin fishery. These are:

- **OHSR S.24.13** requires that all divers be certified to CSA Z275.4-97 and have proof of certification available at all times while diving.
- **OHSR S.24.10** requires that all divers have a valid medical, from a WCB approved Doctor, at all times while diving and have this document available at all times while diving.
- **OHSR S.24.36** requires that all dive sites be crewed by, at a minimum, three persons, being two commercially certified divers and a divers tender.
- **OHSR S.24.33** requires a standby diver to present at all dive sites.
- **OHSR S.24.35** requires that in-water standby divers be in constant physical or visual contact with each other.
- **OHSR S.24.15 and 24.79** require that a crewmember has received certification in occupational first aid and oxygen administration, that an appropriate first aid kit is on the vessel and that the vessels is equipped with oxygen.
- **OHSR S.24.17** requires that the vessel master develops and implements safe diving and emergency procedures.
- **OHSR S.24.74** requires the vessel master to develop procedures and conduct drills for emergency situations including crewmember overboard, fire on board, flooding of the vessel, abandoning ship and calling for help.
- **OHSR S.24.97** requires that all crewmembers are supplied with immersion suits and procedures are developed to recover a crewmember overboard, including re-boarding procedures.
- **OHSR S.8.26** requires that all workers who are exposed to the risk of drowning be supplied with and wear a life jacket or PFD with sufficient buoyancy to keep the workers head above water.
- **OHSR S.24.26** requires that all air supplied by compressors and used as respirable air be tested annually and that the air meet the requirements of CSA Z275.2-92.
- **OHSR S.24.27** requires that all injuries be recorded in the vessel's logbook and that these injuries be reported to the vessel's owner.
- **WCA Division 10** requires that accidents that resulted in the serious injury or death of a worker are immediately reported to the WCB and that the employer investigates these incidents and any other incident that had the potential to cause serious injury or death.

These are a few of the significant requirements for red sea urchin fishing vessels. The Workers Compensation Act also requires that a copy of the Act and the Regulation be available at the work site. There are numerous other requirements

for fishing and diving operations and all should be reviewed by vessel masters and crew.

### **10.3. Contacts**

Peter Newman – Focus Sector Manager/Fishing, Nanaimo	(250) 751-8050
Shane Neifer – Occupational Safety Officer, Terrace	(250) 615-6605
David Clarabut – Occupational Safety Officer, Campbell River	(250) 286-3754
Greg Soroka – Occupational Safety Officer, Victoria	(250) 881-3415

## **Appendix 2: 2002/2003 Red Sea Urchin by Dive First Nations Harvest Plan**

### **1. OVERVIEW OF THE FISHERY**

The Department seeks to provide for the effective management and regulation of the Aboriginal fishery through negotiation of mutually acceptable and time-limited Agreements which outline provisions pertaining to the fisheries and co-management activities. The agreements include provisions by which First Nations manage fishing by their members for food, social and ceremonial purposes, in addition to outlining First Nation involvement in a range of co-management activities and economic development opportunities which may include, but not be limited to, habitat enhancement, catch monitoring and enforcement, fish management and community research. The First Nations' harvest of red sea urchins for food, social and ceremonial purposes is regulated through the *Aboriginal Communal Fishing Licences Regulations* made under the *Fisheries Act*. Communal licences are issued annually to First Nations under the authority of these regulations and include a mechanism for designating individuals and vessels to fish under the authority of that licence, outline the harvest area, any harvest or gear limitations, as well as the harvest reporting requirements. Communal licences can be amended in-season for resource conservation purposes. Even where an agreement cannot be concluded, Fisheries and Oceans Canada issues communal fishing licences to First Nations organizations.

Aboriginal involvement in the fishery is a shared goal between the Department and Aboriginal people. It is a means to stimulate Aboriginal economic development opportunities and develop fisheries expertise in Aboriginal communities, while serving as the basis for more co-operation between Aboriginal communities and the commercial fishery sectors. Aboriginal participation in the commercial fisheries is being accommodated through the Licence Retirement/Allocation Transfer Program. The Fisheries and Oceans Canada Licence Retirement/Transfer Program (ATP) retires existing commercial licence eligibilities from fishers on a voluntary basis and re-issues these to eligible Aboriginal organizations as communal commercial licences (category "FZC" licences). The program has retired 6 commercial red sea urchin licences to date, which represents 5.5% of the commercial fleet.

For more information on the Aboriginal Fisheries Strategy (AFS) Licence Retirement/Allocation Transfer Program, see the Internet at:

[www.pac.dfo-mpo.gc.ca/ops/fm/afs/retire.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/afs/retire.htm)

### **2. LOCATION OF THE FISHERY**

Aboriginal communal licences specify the locations permitted for use by First Nations for food, social and ceremonial harvests. Harvesting generally takes place in areas fronting or adjacent to reserves.

### **3. TIME FRAME OF THE FISHERY**

First Nations' fisheries occur year-round in all areas.

### **4. MANAGEMENT MEASURES FOR THE FIRST NATIONS FISHERY**

Under the Individual Quota (IQ) program for the red sea urchin fishery, implemented in 1996, two percent of the coast wide total allowable catch (TAC) for red sea urchins is reserved, for planning purposes, for First Nations' fisheries for food, social and ceremonial purposes. Additional allocations of red sea urchins will be provided to First Nations who demonstrate that their food, social and ceremonial needs are not being met. Fisheries and Oceans Canada is confident that with the precautionary approach to this fishery, the reserved allocation of TAC, and the provision of additional allocations, where necessary, First Nations in all areas will have sufficient opportunities to harvest red sea urchins for food, social and ceremonial purposes.

Section 4.2 of the Commercial Harvest Plan (Appendix 1) shows the most recent stock assessment figures used to calculate the commercial TAC for 2002/2003. See the document entitled Quota options for the Red Sea Urchin fishery in British Columbia for Fishing Season 2002/2003 (CSAS Research Document 2001/141) for more detail.

There is no size limit for the First Nations red sea urchin fishery.

### **5. LICENSING**

First Nations access to fish for food, social and ceremonial purposes is managed through a communal licence which can permit the harvest of red sea urchins. For additional information on communal licences, see the Internet at:

[www.pac.dfo-mpo.gc.ca/ops/fm/afs/commlc.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/afs/commlc.htm)

### **6. CONTROL AND MONITORING OF FIRST NATIONS FISHING ACTIVITIES**

The Department's policy on the management of First Nations fishing identifies First Nations harvests for food, social and ceremonial purposes as the first priority after conservation. The Department negotiates approximately 74 agreements annually with 145 First Nations in B.C. and the Yukon. Several of these agreements include provisions for the harvest of red sea urchins for food, social and ceremonial purposes. The level of harvest is unknown at this time. Anecdotal information indicates that harvests are very small. First Nations access to fish for food, social and ceremonial purposes are managed through a communal licence. This fishery is regulated through the issuance of communal licences to First Nations and/or First Nations Organizations. These licences are issued under the authority of the *Aboriginal Communal Fishing Licences Regulations*.

Communal licences and Fisheries Agreements may contain provisions for the designation of individuals by the First Nation, or First Nations organizations, to access the allocation provided under the communal licence, as well as provisions for monitoring and reporting by the group of the First Nations fishery in co-operation with the Department.

For additional information on communal licences, see the Internet at:

[www.pac.dfo-mpo.gc.ca/ops/fm/afs/commlic.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/afs/commlic.htm)



## **Appendix 3: 2002/2003 Red Sea Urchin by Dive Recreational Harvest Plan**

### **1. LOCATION OF THE FISHERY**

Recreational harvest of red sea urchins occurs coast wide.

### **2. TIME FRAME OF THE FISHERY**

Recreational fisheries are open year-round in all areas, or as described in the British Columbia Tidal Waters Sport Fishing Guide for the recreational fishery.

### **3. MANAGEMENT MEASURES FOR THE RECREATIONAL FISHERY**

Harvest guidelines are provided in the British Columbia Tidal Waters Sport Fishing Guide. See the guide on the Internet at:

[www-comm.pac.dfo-mpo.gc.ca/english/recreation/default.htm](http://www-comm.pac.dfo-mpo.gc.ca/english/recreation/default.htm).

Sea urchins can be harvested by handpicking, with a daily limit of 12 sea urchins and a possession limit of 24 sea urchins. There is no size limit for the recreational red sea urchin fishery.

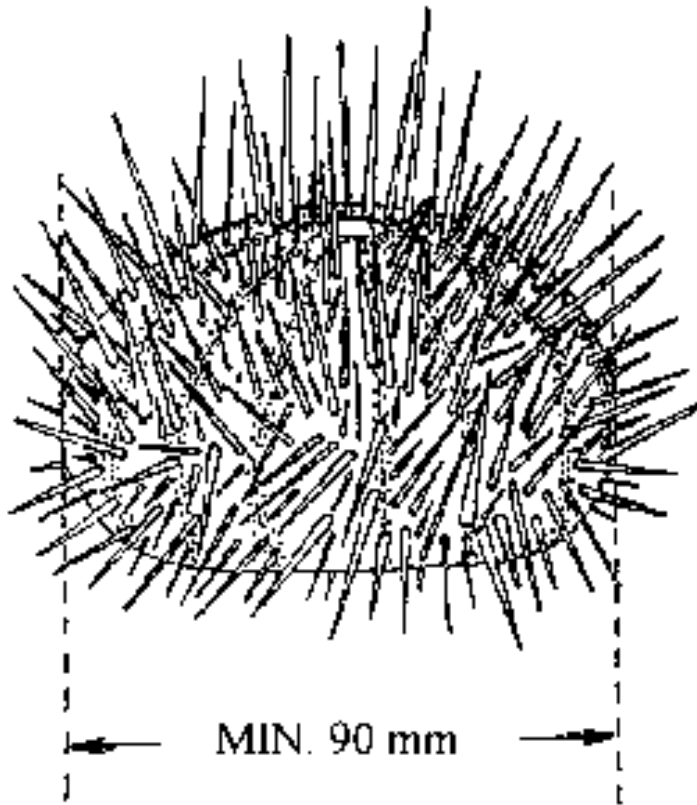
### **4. LICENSING**

A B.C. Tidal Waters Sport Fishing Licence is required for the recreational harvest of all species of fish.

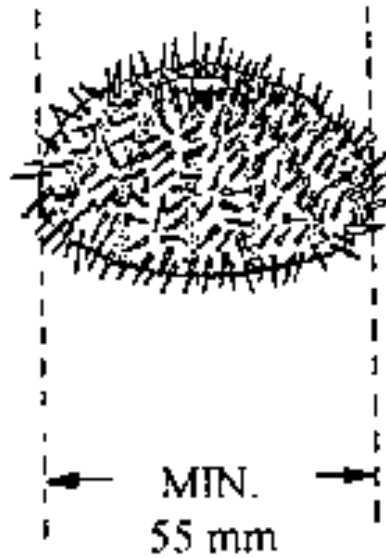
### **5. CONTROL AND MONITORING OF RECREATIONAL FISHING ACTIVITIES**

The recreational harvest of shellfish is regulated via the *British Columbia Sport Fishing Regulations, 1996* made under the *Fisheries Act*. The regulations are summarized annually in the British Columbia Tidal Waters Sport Fishing Guide which lists closed times, bag limits, size limits (where applicable) and closed areas. If necessary, public notices are posted to document closures or changes from the Guide. Closures may be implemented in order to conserve vulnerable stocks, or to protect the public from consumption of contaminated shellfish or to meet First Nations food, social and ceremonial needs. For some species, areas have been closed to commercial harvest or commercial harvest openings have been delayed to provide an opportunity for the recreational community.

**Appendix 4: Size Limits for Sea Urchins (Echinoderms)**



**RED SEA URCHIN**



**GREEN SEA URCHIN**

## **Appendix 5: 2002/2003 Red Sea Urchin Quota Area Descriptions**

An asterisk (\*) indicates a change in Quota Area boundaries for 2002/2003.

Harvesters are reminded that these area descriptions and the maps in Appendix 9 are to be used for reference only. The final authority of these descriptions of Areas, Subareas and portions thereof is as set out in the *Pacific Fishery Management Area Regulations*.

### **1. NORTH COAST**

#### **RU01 Upper West QCI**

Subarea 1-1.

#### **RU02 North QCI**

Subareas 1-2, 1-3, 1-7, 101-2, 101-3, 101-6, 101-7. Note closures listed in management plan.

#### **RU03 Laskeek Bay**

Subareas 2-2, 2-8, 2-10. Note closures listed in management plan.

#### **RU04a Juan Perez Sound**

Subarea 2-11. Note closures listed in management plan.

#### **RU04b Section Cove**

Subareas 2-12, 2-13. Note closures listed in management plan.

#### **RU05 Skincuttle Inlet**

Subareas 2-14, 2-15, 2-17.

#### **RU06 Lower 2E**

Subareas 2-18, 2-19.

#### **RU07 Lower 2W \***

1. Subareas 2-31, 2-32, 2-33, 2-34, note closures listed in management plan;
2. That portion of Subarea 142-1 south of a parallel passing through 52deg 09min north latitude.

#### **RU08 Flamingo/Englefield \***

1. Subareas 2-35 to 2-62;
2. That portion of Subarea 142-1 north of a parallel passing through 52deg 09min north latitude;
3. Subarea 142-2.

#### **RU09 Van Inlet**

Subarea 2-68.

**RU10 Rennel Sound**

Subareas 2-69 to 2-84. Note closures listed in management plan.

**RU11 Hippa Island**

1. Subareas 2-85 to 2-87;
2. That portion of Subarea 2-88 south of a line running true west from Selveston Point.

**RU12 Port Louis**

1. That portion of Subarea 2-88 north of a line running true west from Selveston Point;
2. Subareas 2-89 to 2-100.

**RU13a Dundas Island North**

Subareas 3-1, 3-2, 3-3, 3-7, 3-11.

**RU13b Dundas Island South \***

1. That portion of Subarea 4-1 north of a line running 222 degrees true from Farwest Point on Dunira Island, excluding the Nares Islets Quota Area described as: that portion of Subarea 4-1 northeast of a line running from Gore-Langton Point on Dundas Island to a point on Baron Island at 52deg 28.37min north latitude, 130deg 50.31min west longitude;
2. That portion of Subarea 4-5 west of the meridian passing through 130deg 37.0min west longitude and north of a line from the northernmost point of Dunira Island, thence true east to the meridian passing through 130deg 37.0min west longitude.

**RU13c Melville Island \***

1. That portion of Subarea 4-1 south of a line running 222 degrees true from Farwest Point on Dunira Island (using Canadian Hydrographic chart # 3959) and north of the parallel passing through 54deg 20.30min north latitude;
2. That portion of Subarea 4-5 south of a line from the northernmost point of Dunira Island, thence true east to the meridian passing through 130deg 37.0min west longitude, and west of the meridian passing through 130deg 37.0min west longitude;
3. Those portions of Subareas 4-9 and 4-13 north of the parallel passing through 54deg 20.30min north latitude.

**RU13d Nares Islets \***

That portion of Subarea 4-1 northeast of a line running from Gore-Langton Point on Dundas Island to a point on Baron Island at 52deg 28.37min north latitude, 130deg 50.31min west longitude.

**RU14 Tree Knobs \***

1. That portion of Subarea 4-1 south of a parallel passing 54deg 20.30min north latitude;
2. That portion of Subarea 4-2 north of the parallel passing through 54deg 13.5min north latitude;
3. That portion of Subarea 4-13 north of the parallel passing through 54deg 13.5min north latitude and south of the parallel passing through 54deg 20.30min north latitude.

**RU15 Outside Stephens Island \***

That portion of Subarea 4-2 south of the parallel passing through 54deg 13.5min north latitude and north of a line running true west from the southern tip of Stephens Island to the surf line.

**RU16 Inside Stephens Island \***

1. That portion of Subarea 4-9 south of the parallel passing through 54deg 20.30min north latitude;
2. That portion of Subarea 4-13 south of the parallel passing through 54deg 13.50min north latitude.

**RU17 Kelp Pass**

Subarea 4-12.

**RU18 Oval Bay**

1. That portion of Subarea 4-2 south of a line running true west from the southern tip of Stephens Island to the surf line;
2. Subarea 4-3.

**RU19 Porcher Inlet**

Subarea 5-9.

**RU20 Outside Freemans Pass**

Those portions of Subareas 5-11 and 5-12 west of a line running true north from a point located at 53deg 49.5min north latitude and 130deg 38.7min west longitude (the northern tip of Joachim Spit) to the Porcher Peninsula shoreline, and north of the parallel passing through 53deg 48.0min north latitude. (Refer to Chart #3761 published by the Canadian Hydrographic Service of the Department)

**RU21 Willis Bay**

1. Those portions of Subareas 5-10 and 5-11 north of the parallel passing through 53deg 44.7min north latitude, west of a meridian passing through Boys Point on Dolphin Island at 53deg 44.97min north latitude, 130deg 26.15min west longitude, and south and west of a line running from the northern tip of the entrance to Dolphin Lagoon located at 53deg 46.7min north latitude, 130deg 28.1min west longitude on Dolphin Island, thence west to a point on the Prager Islands located at 53deg 46.85min north latitude, 130deg 29.8min west longitude, thence northerly to a point on the Shakes Islands located at 53deg 47.5min north latitude, 130deg 29.0min west longitude, thence true north to the Subarea 5-10 boundary line (Refer to Chart #3947 published by the Canadian Hydrographic Service of the Department);
2. That portion of Subarea 5-11 south of the parallel passing through 53deg 48.0min north latitude.

**RU22a Hankin Rock**

That portion of Subarea 5-10 south of the parallel passing through 53deg 42.7min north latitude. (Refer to Chart #3927 published by the Canadian Hydrographic Service of the Department)

**RU22b Beaver Pass \***

A portion of Subarea 5-10, pending survey in 2002.

**RU23 Upper Principe Channel**

Subarea 5-13.

**RU24 Lower Principe Channel**

Subareas 5-17, 5-18, 5-19.

**RU25 Petrel Channel**

Subareas 5-14, 5-15, 5-16.

**RU26 Larsen Harbour**

1. That portion of Subarea 5-11 south of a line running true west from Baird Point on McCauley Island;
2. That portion of Subarea 5-20 north of the parallel passing through 53deg 35min north latitude. (Refer to Chart #3927 published by the Canadian Hydrographic Service of the Department.)

**RU27a Upper Banks Island \***

That portion of Subarea 5-20 south of the parallel passing through 53deg 35min north latitude, east of a line running 140deg true from 53deg 35min north latitude and 130deg 38.8min west longitude, north of a parallel running east and west through Cliff Point, except that portion of Subarea 5-20 adjacent to the western shore of the Antle Islands described as: east of a line running from the boundary marker at Laverock Point (53deg 30.97min north latitude, 130deg 29.13min west longitude), then to a point west of the Antle Islands at 53deg 28min north latitude, 130deg 28min west longitude, then to a point on Banks Island at 53deg 27.82min north latitude, 130deg 24.4min west longitude. (Refer to Chart #3927 published by the Canadian Hydrographic Service of the Department.)

**RU27b Mid Banks Island \***

That portion of Subarea 5-20 east of a line running 140deg true from 53deg 35min north latitude, 130deg 38.8min west longitude, south of a parallel running east and west through Cliff Point, except that portion of Subarea 5-20 adjacent to the western shore of the Antle Islands described as: east of a line running from the boundary marker at Laverock Point (53deg 30.97min north latitude, 130deg 29.13min west longitude), then to a point west of the Antle Islands at 53deg 28min north latitude, 130deg 28min west longitude, then to a point on Banks Island at 53deg 27.82min north latitude, 130deg 24.4min west longitude. (Refer to Chart #3927 published by the Canadian Hydrographic Service of the Department.)

### **RU28 Bonilla Island**

1. That portion of Subarea 5-20 south of the parallel passing through 53deg 35min north latitude, and west of line running 140deg true from 53deg 35min north latitude and 130deg 38.8min west longitude (Refer to Chart #3927 published by the Canadian Hydrographic Service of the Department.);
2. Subarea 105-1;
3. That portion of Subarea 105-2 north of a line running from Kelp Point on Banks Island true west to the surf line. (Refer to Chart #3741 published by the Canadian Hydrographic Service of the Department.)

### **RU29 Kingkown Inlet \***

1. That portion of Subarea 5-20 east of a line running from the boundary marker at Laverock Point (53deg 30.97min north latitude, 130deg 29.13min west longitude), then to a point west of the Antle Islands at 53deg 28min north latitude, 130deg 28min west longitude, then to a point on Banks Island at 53deg 27.82min north latitude, 130deg 24.4min west longitude (Refer to Chart #3927 published by the Canadian Hydrographic Service of the Department.);
2. Subarea 5-21.

### **RU30 Lower Banks Island**

1. Subareas 5-22;
2. That portion of Subarea 105-2 south of a line running from Kelp Point on Banks Island true west to the surf line (Refer to Chart #3741 published by the Canadian Hydrographic Service of the Department);
3. Subarea 106-1.

### **RU31a Moore Islands**

That portion of Subarea 106-2 west of a line running 144deg true from the northern boundary of Subarea 106-2 at 129deg 30.12min west longitude, and north of a parallel passing through 52deg 36.40min north latitude. (Refer to Chart #3726 published by the Canadian Hydrographic Service of the Department.)

### **RU31b Harvey Islands**

That portion of Subarea 106-2 west of a line running 144deg true from the northern boundary of Subarea 106-2 at 129deg 30.12min west longitude, and south of a parallel passing through 52deg 36.40min north latitude. (Refer to Chart #3726 published by the Canadian Hydrographic Service of the Department.)

### **RU32 Calamity Bay \***

That portion of Subarea 6-9 north of the parallel passing through 53deg 08.0min north latitude and west of the meridian passing through 129deg 49.78min west longitude. (Refer to Chart #3741 published by the Canadian Hydrographic Service of the Department.)

**RU33 Otter Pass \***

That portion of Subarea 6-9 north of a parallel passing through Flynn Point on Trutch Island, excluding the Calamity Bay Quota Area described as: that portion of Subarea 6-9 north of the parallel passing through 53deg 08.0min north latitude and west of the meridian passing through 129deg 49.78min west longitude. (Refer to Chart #3741 and 3724 published by the Canadian Hydrographic Service of the Department.)

**RU34 Langley Pass**

That portion of Subarea 6-9 south of a parallel passing through Flynn Point on Trutch Island, north of a parallel passing through Finnerty Point on Nichol Island, and north of a parallel passing through Humphreys Point on Lotbiniere Island.

**RU35 Oswald Bay**

That portion Subarea 6-9 south of a parallel passing through Finnerty Point on Nichol Island, and northwest of a line running from a point on Dewdney Island at 52deg 57.10min north latitude, 129deg 38.00min west longitude southwesterly to the subarea boundary. (Refer to Chart #3724 published by the Canadian Hydrographic Service of the Department.)

**RU36a Estevan Group East \***

Those portions of Subareas 6-9 and 6-10 west of a line running 132deg true from Humphreys Point on Lotbiniere Island southerly to the parallel running true west from McPhee Point on Princess Royal Island, north of the parallel running true west from McPhee Point on Princess Royal Island, and east of a line running 130deg true from Goodacre Point. (Refer to Chart #3724 published by the Canadian Hydrographic Service of the Department.)

**RU36b Estevan Group South \***

That portion of Subarea 6-9 west of a line running 130deg true from Goodacre Point, north of a parallel running true west from McPhee Point on Princess Royal Island, and east of a line running from a point on Dewdney Island at 52deg 57.10min north latitude, 129deg 38.00min west longitude southwesterly to the subarea boundary. (Refer to Chart #3724 published by the Canadian Hydrographic Service of the Department.)

**RU37 Rennison Island**

1. That portion of Subareas 6-9 and 6-10 south of a line running true west from McPhee Point on Princess Royal Island;
2. That portion of Subarea 6-11 north of a line running from McPhee Point on Princess Royal Island to Ulric Point on Aristazabal Island;
3. That portion of Subarea 6-13 north of line running from Ulric Point on Aristazabal Island to the southern tip of Rennison Island, thence true west to the surf line. (Refer to Chart #3724 published by the Canadian Hydrographic Service of the Department.)

**RU38 Campania Island/Surf Inlet \***

1. Subareas 6-5 to 6-8;
2. That portion of Subarea 6-10 east of a line running 132deg true from Humphreys Point



on Lotbiniere Island southerly to the parallel running true west from McPhee Point on Princess Royal Island, and north of the parallel running true west from McPhee Point on Princess Royal Island;

3. Subareas 6-12, 6-26 to 6-28.

#### **RU39 Upper West Aristazabal**

1. That portion of Subarea 6-13 south of a line running from Ulric Point on Aristazabal Island to the southern tip of Rennison Island, thence true west to the surf line and north of the parallel passing through 52deg 40.0min north latitude (Refer to Chart #3724 published by the Canadian Hydrographic Service of the Department);
2. That portion of Subarea 106-2 east of a line running 144deg true from the northern boundary of Subarea 106-2 at 129deg 30.12min west longitude, south of a line running from Ulric Point on Aristazabal Island to the southern tip of Rennison Island, thence true west, and north of the parallel passing through 52deg 40.0min north latitude.

#### **RU40 Woodcock Islands**

1. That portion of Subarea 6-13 south of the parallel passing through 52deg 40.0min north latitude, and north of the parallel passing through 52deg 35.6min north latitude (through Howse Island);
2. That portion of Subarea 106-2 east of a line running 144deg true from the northern boundary of Subarea 106-2 at 129deg 30.12min west longitude, south of the parallel passing through 52deg 40.0min north latitude, and north of the parallel passing through 52deg 35.6min north latitude (through Howse Island).

#### **RU41 Normansell Islands**

1. That portion of Subarea 6-13 south of the parallel passing through 52deg 35.6min north latitude (through Howse Island); and north of the parallel passing through 52deg 32.0min north latitude (Refer to Chart #3726 published by the Canadian Hydrographic Service of the Department);
2. That portion of Subarea 106-2 east of a line running 144deg true from the northern boundary of Subarea 106-2 at 129deg 30.12min west longitude; south of the parallel passing through 52deg 35.6min north latitude (through Howse Island), and north of the parallel passing through 52deg 32.0min north latitude.

#### **RU42 Lower West Aristazabal**

1. That portion of Subarea 6-13 south of the parallel passing through 52deg 32.0min north latitude (Refer to Chart #3726 published by the Canadian Hydrographic Service of the Department);
2. That portion of Subarea 106-2 east of a line running 144deg true from the northern boundary of Subarea 106-2 at 129deg 30.12min west longitude; and south of the parallel passing through 52deg 32.0min north latitude; and north of the parallel passing through 52deg 27.5min north latitude.

#### **RU43 Upper Laredo**

Subarea 6-14.

**RU44 Lower Laredo**

1. Subarea 6-15;
2. That portion of Subarea 6-16 north of a line running true west from Wilby Point on Swindle Island, and west of a line running from Wilby Point on Swindle Island to Dallain Point on Princess Royal Island. (Refer to Chart #3737 published by the Canadian Hydrographic Service of the Department.)

**RU45 Laredo Inlet**

1. That portion of Subarea 6-16 east of a line running from Wilby Point on Swindle Island to Dallain Point on Princess Royal Island (Refer to Chart #3737 published by the Canadian Hydrographic Service of the Department);
2. Subarea 6-19.

**RU46a Laredo Sound \***

1. That portion of Subarea 6-16 south of a line running true west from Wilby Point on Swindle Island;
2. That portion of Subarea 6-17 east of a meridian passing through 128deg 56.0min west longitude.

**RU46b Prior Pass \***

That portion of Subarea 6-17 west of a meridian passing through 128deg 56.0min west longitude.

**RU47a Thompson Bay \***

1. Those portions of Subareas 7-1 and 7-2 east of a meridian passing through 128deg 40.0min west longitude;
2. Subareas 7-19, 7-20;
3. That portion of Subarea 7-21 south of a line running through the tidal rapids in Gale Passage at 52deg 12.5min north latitude;
4. Subarea 7-32.

**RU47b Day Point \***

1. Those portions of Subareas 7-1 and 7-2 west of a meridian passing through 128deg 40.0min west longitude;
2. That portion of Subarea 7-31 south of a parallel passing through 52deg 18.8min north latitude.

**RU48 Milbanke Sound**

Subarea 7-3.

**RU49 Finlayson Channel**

1. Subareas 7-4, 7-5 and 7-6;
2. That portion of Subarea 7-9 north of a parallel passing through Jermaine Point on Dowager Island.

### **RU50 Mathieson Channel**

That portion of Subarea 7-9 north of a line from Cross Point on Lady Douglas Island to Rankin Point on Cecilia Island, north of a line from Rankin Point on Cecilia Island to Knarled Point on the Don Peninsula, and south of a parallel passing through Jermaine Point on Dowager Island.

### **RU51 Seaforth Channel**

1. Subareas 7-8;
2. That portion of Subarea 7-9 south of a line from Cross Point on Lady Douglas Island to Rankin Point on Cecilia Island, then to Knarled Point on the Don Peninsula;
3. Subareas 7-12, 7-15;
4. That portion of Subarea 7-21 north of a line running through the tidal rapids in Gale Passage at 52deg 12.5min north latitude.

### **RU52 Tribal Group**

1. That portion of Subarea 7-18 east of the meridian passing through 128deg 23.7min west longitude;
2. Those portions of Subareas 7-23 and 7-24 south of a parallel passing through 52deg 10.0min north latitude near Poole Islet in Raymond Channel and Quinoot Point in Joassa Channel. (Refer to Chart #3787 published by the Canadian Hydrographic Service of the Department.)

### **RU53 Spider/Kildidt**

Subareas 7-26, 7-27, 7-28.

### **RU54 McNaughton Group**

1. That portion of Subarea 7-17 southwest of a line running from Beak Point on Hunter Island to German Point on Campbell Island (Refer to Chart #3787 published by the Canadian Hydrographic Service of the Department);
2. Subarea 7-25.

### **RU55 Hakai Pass**

Subareas 8-1, 8-2.

### **RU56a Nalau Pass**

That portion of Subarea 8-4 west of a line running from Daedalus Point on Nalau Island to Hergest Point on Hunter Island.

### **RU56b Fitz Hugh Sound**

1. Subarea 8-3;
2. That portion of Subarea 8-4 east of a line running from Daedalus Point on Nalau Island to Hergest Point on Hunter Island;
3. Subarea 8-16.

### **RU57a Rivers Inlet \***

Subareas 9-1 to 9-4, 9-10 to 9-12.

**RU57b West Calvert Island - Grief Bay \***

1. Area 109;
2. Subarea 10-1;
3. That portion of Subarea 10-2 north of a line running true west from the Dugout Rocks light.

**RU58 Smiths Inlet**

1. That portion of Subarea 10-2 south of a line running true west from the Dugout Rocks light;
2. Subareas 10-3, 10-4, 10-5, 10-7, 10-8, 10-12.

**2. SOUTH COAST**

**11 Allison Harbour**

Area 11.

**111 Cape Scott**

Area 111, Subarea 12-14.

**12A Bates Pass**

Subarea 12-12.

**12B Christie/Browning Pass**

Subareas 12-10, 12-11.

**12C Port Hardy**

Subareas 12-15, 12-16.

**12D Port McNeill**

Subareas 12-4, 12-8, 12-17 to 12-19.

**12E Blackfish Sound**

Subareas 12-5, 12-6, 12-20, 12-26.

**12F Deserter Island**

Subarea 12-13.

**12G Wells Pass**

Subareas 12-7, 12-38 to 12-42.

**12H Northern Johnstone Strait \***

Subareas 12-1 to 12-3, 12-21, 12-22, 12-24.

**13A Kelsey Bay - Proper \***

Subareas 13-32 to 13-34.

**13B Campbell River South**

1. Subareas 13-1, 13-2;
2. That portion of Subarea 14-13 to Oyster River.

**13C Campbell River North \***

Subareas 13-6 to 13-9, 13-11, 13-27, 13-28.

**13D Campbell River East \***

Subareas 13-10, 13-12.

**13E Cordero Channel \***

Subareas 13-25, 13-41, 13-42.

**13F Kelsey Bay - East \***

Subareas 13-29 to 13-31, 13-35 to 13-40.

**13G Stuart Island \***

Subareas 13-13 to 13-24, 13-26.

**14 Comox**

Subareas 14-5, 14-7 to 14-12.

**17 Nanaimo**

Area 17, Subarea 29-5.

**18 Gulf Islands \***

Area 18, Subarea 29-4.

**19 Victoria \***

1. Subareas 19-1, 19-2, 19-4 to 19-12;
2. That portion of Subarea 19-3 east of a line extending from a point on Vancouver Island in Parry Bay at 48deg 21.9min north latitude and 123deg 32.0min west longitude, thence running at 153 degrees true to the point of intersection with the International Boundary between Canada and the U.S.

**20 Sooke \***

1. That portion of Subarea 19-3 west of a line extending from a point on Vancouver Island in Parry Bay at 48deg 21.9min north latitude and 123deg 32.0min west longitude, thence running at 153 degrees true to the point of intersection with the International Boundary between Canada and the U.S.;
2. Subareas 20-4 to 20-6.

**23A Bamfield**

Subareas 23-5 to 23-7.

**23B Ucluelet**

Subareas 23-11, 123-3, 123-5.

**24A Sydney Inlet**

Subarea 24-2.

**24B Wickaninnish**

Subarea 24-8.

**24C Tofino**

Subareas 24-6, 124-3.

**27A Quatsino Outside**

Subareas 27-1 to 27-3.

**27B Quatsino Inside**

Subareas 27-7 to 27-11.

# Appendix 6: Red Sea Urchin Validation & Harvest Log

HAIL VERIFICATION #	<b>RED SEA URCHIN VALIDATION &amp; HARVEST LOGBOOK</b>	VALIDATION ID # :
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**SECTION 'A' - TO BE COMPLETED BY VESSEL SKIPPER**

SECTION 'A'	SKIPPER NAME		VESSEL NAME			CFV #	ZC TAB #	SPLIT LOAD ?	# OF LOADS	VALIDATION ID #s OF OTHER LOADS
								YES		
								NO		
QUOTA AREA		DAYS FISHED		No. of TRANSPORT CONTAINERS		PACKER NAME (if applicable)		GROSS PACKER WT. (lb.)		BUYER NAME

**SECTION 'B' - TO BE COMPLETED BY PORT OBSERVER**

PLEASE PRINT - USE PEN

SECTION 'B'	OBSERVER NAME		No. of TRANSPORT CONTAINERS				GROSS WT. (lb.)	CONTAINER WT. (lb.)	PREVIOUS R.Q. ( lb. )		
	OVERAGE lb.		TRANSFER TO / FROM		OTHER VALIDATION ID #		RELINQUISHMENT lb.		NEW R.Q. ( lb. )		
LANDING PORT		START TIME		Ensure harvest information (Section 'C') is complete				SITUATION REPORT #		No. OF TRANSPORT CONTAINERS	
LANDING DATE <small>yyyy / mm / dd</small>		OFFLOAD SEQUENCE		MATH CHECK		FISH HOLD CHECK		BAG ID TAGS		TRANS. CONT. LABELS	
										SOUTH COAST R.Q. (lb.)	
										EAST VAN. ISL.	WEST VAN. ISL.

COMMENTS :

**SECTION 'C' - TO BE COMPLETED BY VESSEL SKIPPER**

PLEASE PRINT - USE PEN

SECTION 'C'	HARVEST INFORMATION				- COMPLETE A SEPARATE LINE FOR EACH DIVE -		USE ANOTHER PAGE IF MORE SPACE IS REQUIRED			
	DIVE No.	DIVE SITE	HARVEST DATE (yyyy / mm / dd)	STAT. AREA	SUB AREA	HARVEST LOCATION (NAME OF NEAREST LANDMARK)	DIVER NAME (FIRST & LAST NAME)	DIVE TIME (minutes)	DEPTH (ft) min. max.	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

ENSURE YOUR HARVEST CHART IS COMPLETED

[www.d-tpacificfisheries.com](http://www.d-tpacificfisheries.com)

WHITE COPY - Observer

YELLOW COPY - Buyer via trucking

PINK COPY - Vessel via packer

GOLD COPY - Remains in Logbook

## Appendix 7: Red Sea Urchin Quota Transfer Form

Landing Date (yyyy,mm,dd): \_\_\_\_\_

Landing Port: \_\_\_\_\_

**TRANSFER FROM LICENCE (A);** Vessel Masters Name: \_\_\_\_\_ Validation ID #: \_\_\_\_\_

Vessel: \_\_\_\_\_ CFV #: \_\_\_\_\_ ZC Tab # \_\_\_\_\_

Overage amount to be transferred to licence (B): \_\_\_\_\_ lbs.

**NOTE:** In Section 'B' (observers section) of licence 'A's Validation/Harvest log, enter the; overage amount; the ZC Tab # of licence 'B' and Validation ID # of licence 'B' (in comment section).

OVERAGE lb.	TRANSFER <b>TO</b> ZC #	RELINQUISHMENT lb.	SITUATION REPORT #

Small quantities of red sea urchins which exceed the licence's annual quota (up to 500 lb) can be transferred to another red sea urchin licence provided certain conditions are fulfilled. If all of these conditions are not met, DFO Certified observers will not transfer the overage to another licence. In the following explanation, the red sea urchin licence which has exceeded its quota is called Licence "A" and the licence to which quota is transferred is called Licence "B". The amount transferred cannot exceed the remaining quota of red sea urchin Licence "B". Any overage not transferred must be relinquished.

### **SAME VESSEL TRANSFER (SVT) transfer of quota to a second licence on the same vessel :**

If two or more licences are assigned to the same vessel then a quota overage of any amount from one licence may be transferred to the red sea urchin licence which has quota remaining more than the overage to be transferred. Overage of the last red sea urchin licence quota on the same vessel may be transferred to another vessel's red sea urchin licence in accordance with policy described below.

### **DIFFERENT VESSEL TRANSFER (DVT) maximum allowable transfer of quota between licences on different vessels :**

In the event of a quota overage on red sea urchin Licence "A", a maximum of 500 lb of red sea urchin may be transferred to another vessel's red sea urchin licence (Licence "B"). If the overage is more than 500 lb., the option to transfer quota will be lost and the entire overage will be relinquished. Only one transfer of quota overage is allowed. The quota overage cannot be divided between a number of licences.

### **Remaining quota on licence 'B' :**

The amount transferred cannot exceed the remaining quota of red sea urchin Licence "B".

**TO LICENCE (B);** Vessel Masters Name: \_\_\_\_\_ Validation ID #: \_\_\_\_\_

Vessel: \_\_\_\_\_ CFV #: \_\_\_\_\_ ZC Tab # \_\_\_\_\_

**NOTE:** In Section 'B' (observers section) of licence 'B's Validation/Harvest log, enter the; overage amount; the ZC Tab # of licence 'A' and Validation ID # of licence 'A' (in comment section).

OVERAGE lb.	TRANSFER <b>FROM</b> ZC #	RELINQUISHMENT lb.	SITUATION REPORT #

\_\_\_\_\_  
Observer signature

\_\_\_\_\_  
Captain (A) signature

\_\_\_\_\_  
Captain (B) signature (if different)



**Appendix 8: Red Sea Urchin Relinquishment of Claim Form**

VESSEL NAME	C.F.V. #	ZC TAB #	VALIDATION ID #
PORT OF LANDING	LANDING DATE	DIVE DATE	BUYER
VESSEL MASTER NAME	ADDRESS		PHONE #
LIC. HOLDER NAME	ADDRESS		PHONE #

BY THESE PRESENTS, ON MY BEHALF OR ON THE BEHALF OF MY HEIRS, EXECUTORS OR ADMINISTRATOR RELEASE FOREVER HER MAJESTY THE QUEEN RIGHT OF CANADA AND THE MINISTER OF FISHERIES AND OCEANS FROM ALL MANNER OF ACTIONS, CLAIMS, SUITS OR DEMANDS IN WAY AND DECLARE BEING FULLY SATISFIED WITH THE ACTION TAKEN AND THE SETTLEMENT OF THE FOLLOWING:

I, \_\_\_\_\_, responsible for the operation of the above named  
( NAME OF VESSEL MASTER )  
vessel, acknowledge that the total validated weight of Red Sea Urchins offloaded from the above named vessel in 20\_\_\_/20\_\_\_ as indicated on the Validation Log, Validation ID # \_\_\_\_\_ exceeded the ZC Tab # \_\_\_\_\_ quota by \_\_\_\_\_ pounds. I agree that the amount of this excess is \_\_\_\_\_ pounds and hereby forfeit all claim to the total value of these Red Sea Urchins to her Majesty Queen Right of Canada.

\_\_\_\_\_  
Licence holder/Vessel skipper

(print name)

\_\_\_\_\_  
Observer/Fishery Officer

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
Date (yyyy,mm,dd)

\_\_\_\_\_  
SIGNATURE

**Note:** The value to be applied to the excess relinquished will be the price paid to the fisher for the unrelinquished portion of that day's landings.

CONDITIONS OF 2002/2003 RED SEA URCHIN LICENCE  
Licence Period: August 1, 2002 to June 30, 2003

Authority

The Department of Fisheries and Oceans has authority to set licensing conditions under subsection 22(1) of the Fishery (General) Regulations for the proper management and control of fisheries and the conservation and protection of fish.

Persons fishing under authority of this licence may only do so in accordance with the Conditions stated below.

Also, it is the responsibility of individual fishers to be informed of, and comply with, the Fisheries Act and the Regulations made thereunder, in addition to these Conditions.

For information on management of the red sea urchin fishery obtain a copy of the 2002/2003 Red Sea Urchin - Integrated Fisheries Management Plan from a Pacific Fishery Licensing Unit Office. The Management Plan is intended for general information purposes only. Where there is a discrepancy between the Plan and the Regulations or Conditions, the Regulations and Conditions prevail.

PART 1

Application

This Part applies to fishing for red sea urchin.

Definitions

"Area" and "Subarea" have the same meaning as in the Pacific Fishery Management Area Regulations.

"container" means a mesh pick bag, a mesh transport bag, a plastic or wooden tote, or a cage used for the gathering, handling or transportation of red sea urchin.

"Department" means the Department of Fisheries and Oceans.

"discarded" means not placing the red sea urchin in a container or removing a red sea urchin from a container and not validating that red sea urchin.

"harvested" means removing, by any means, red sea urchin from the substrate of the ocean floor.

"landed" or "landing" means the transfer of red sea urchin from a vessel in water to land.

"observer" means an individual who has been designated as an observer by the Regional Director General for Pacific Region pursuant to section 39 of the Fishery (General) Regulations.

"Quota Area" means those areas enumerated and described in Appendix 5 of the 2002 Red Sea Urchin - Integrated Management Plan.

"tranship" means the transfer of red sea urchin from a vessel to another vessel.

"validated" means red sea urchin have been weighed by an observer and the weight entered into the Red Sea Urchin Validation & Harvest Log (see sections 7 and 11) or an alternative log approved by the Department.

"vessel registration number" or "VRN" means the number assigned to a vessel by the Department at the time the vessel is registered as a fishing vessel.

1. Species of fish permitted to be taken:

Red Sea Urchin (*Strongylocentrotus franciscanus*)

2. Licence Expiry Date:

This licence expires on June 30, 2003.

3. Quantities permitted to be taken:

(1) The maximum quantity of red sea urchin authorized to be taken under this licence shall not exceed 44 418.4 kg (97 923 lb.) of red sea urchin harvested from within the area set out in this licence subject to all applicable regulations, provided always that where the total poundage is exceeded, such overage shall not vest in the vessel owner or any person but shall be forfeited to her Majesty the Queen in Right of Canada.

(2) Where the area set out in the licence is "South", a maximum of 30 163 kg (66 480 lb.) of red sea urchin may be harvested from Areas 11 to 19, 28 and 29 and a maximum of 14 266 kg (31 443 lb.) of red sea urchin may be harvested from Areas 20 to 27, 111, 121 and 123 to 127.

4. Waters in which fishing is permitted:

Area of fishing is as set out in this licence.

5. Fishing gear permitted to be used:

Hand picking by divers only. Suction devices are not permitted to be used.

6. Fishing Multiple Quota Areas

All red sea urchin caught in a Quota Area must be landed or transhipped prior to the commencement of fishing in a new Quota Area.

7. The type, size and marking of containers to hold or transport red sea urchin and the marking of such containers:

(1) All red sea urchin delivered to designated landing ports or packers shall be placed in containers which are labelled. The label must be waterproof and provide the vessel name and vessel registration number.

(2) All harvested red sea urchin that are contained in "Pick Bags" or any other type of enclosure and left unattended in the water must have bag tags affixed identifying ownership of that product by vessel registration number and name of vessel used to harvest that product. All floats must also be labelled with the vessel registration number.

8. The vessel from which and to which fish is permitted to be transhipped:

Red sea urchin may be transhipped from the licensed vessel to a packer vessel provided the vessel master complies with the following conditions:

- (1) all red sea urchin are in containers and tagged as per section 7;
- (2) the number of containers are recorded in the log;
- (3) the "packer weight" determined by subtracting the weight of the containers from the weight of the product, is recorded in the log;
- (4) a copy of the log accompanies the product to the designated port; and
- (5) the product is landed at a designated port and validated by an observer.

9. Locations permitted for the landing of red sea urchin:

Red sea urchin must be landed at one of the following ports:

(1) North Coast: Queen Charlotte City, Masset, Prince Rupert, Port Edward, Klemtu, Bella Bella, or Port Hardy.

(2) South Coast: Port Hardy, Coal Harbour, Port McNeill, Kelsey Bay, Campbell River, Nanaimo, Sidney, Sooke, Victoria, Ucluelet or Tofino.

This condition applies to both the licensed vessel and, if the vessel master chooses to tranship his catch to another vessel, to the vessel receiving the red sea urchin.

10. Validation:

(See Explanatory Note after section 14)

(1) All red sea urchin harvested or removed from the sea bed floor under the authority of this licence must be validated at the point and time the fish are landed.

- (2) Prior to validation of red sea urchins no person shall:
  - (a) smash the shells or slit the membranes of the red sea urchin to drain the waters; or
  - (b) dump, throw overboard, or otherwise discard red sea urchin which have been harvested and retained in accordance with the Fisheries Act and the regulations made thereunder.
- (3) All weights must be determined using a scale approved by Industry Canada.
- (4) The vessel master of the licensed vessel or of the packer if one is used, shall provide the observer with a hard copy of the Validation & Harvest Logbook upon completion of each validation.
- (5) The vessel master of the licensed vessel or of the packer if one is used, shall provide to the observer at the point of landing, access to the vessel's fish holds, freezers and other fish storage areas at any time during the landing.

11. Oral Reports:

- (1) The vessel master shall, under the circumstances set out in subsections 11(2) to 11(6), report the information set out therein by notifying in person an observer or by telephoning (800) 775-5505.
- (2) At least 24 hours before a fishing trip:
  - (a) vessel name, vessel master's name and vessel registration number;
  - (b) species to be fished;
  - (c) Subarea(s) to be fished;
  - (d) anticipated time of arrival at the fishing location; and
  - (e) anticipated time that fishing will begin.
- (3) Upon failure to arrive at fishing location within 24 hours of time stated in subsection 11(2):
  - (a) vessel name and vessel registration number; and
  - (b) details of change in fishing plans.
- (4) At least 24 hours prior to moving to a new red sea urchin quota area:
  - (a) vessel name, vessel master's name and vessel registration number;
  - (b) species to be fished;
  - (c) Subarea(s) to be fished;
  - (d) anticipated time of arrival at the fishing location; and
  - (e) anticipated time that fishing will begin.
- (5) After a fishing trip:
  - (a) vessel name, vessel master's name and vessel registration number;
  - (b) species fished;
  - (c) Subarea(s) fished; and
  - (d) time that fishing stopped.

(6) 24 hours prior to landing red sea urchin:

- (a) vessel name, vessel master's name and vessel registration number;
- (b) species to be landed;
- (c) name of the designated port and location therein where the catch shall be landed;
- (d) anticipated time of landing;
- (e) name of fish processor or buyer that is buying or transporting the catch; and
- (f) if applicable, the method of transporting the catch to a fish processor.

12. Harvest Logs and Chart Data:

(See Explanatory Note after section 14)

It is a condition of this licence that the licence holder ensures that harvest log and chart information is received by Fisheries and Oceans Canada Shellfish Data Unit. Fishers who have validation services completed by the service bureau under contract to the Pacific Urchin Harvesters Association will receive services that meet the conditions outlined in subsection 12(1), (5), (6), and (7) as part of that contract.

(1) The vessel master must maintain a log of all harvest operations and provide this information in both hard (paper) copy and electronic copy to the Department. The content and format of this log (paper and electronic) must meet the requirements as defined by the Shellfish Data Unit for the 2002/2003 licence year.

(2) The information for each day's harvest operations shall be recorded in the log no later than midnight of that day.

(3) The log must be kept on board the licensed vessel.

(4) The log must be produced for examination on demand of a fishery officer, fishery guardian or an observer.

(5) The vessel master must provide a chart record of the locations fished to the Department.

- (a) The chart must be marked with:
- (i) the vessel registration number,
  - (ii) the licence tab number, and
  - (iii) the validation I.D. numbers.

The validation I.D. number is the unique page number assigned to each validation page of the Red Sea Urchin Validation & Harvest Log. If an alternative log is used, the validation I.D. number is the unique page number assigned by the Shellfish Data Unit when the licence holder contacts the Unit to obtain the information necessary to fulfil the log requirements.

(b) Each harvest site must be clearly marked on the chart with dive number, validation I.D. number and the dates that fishing activity occurred at each

site. The dive numbers on the chart record must correspond to the dive numbers in the log.

(c) The information for each day's harvest operations shall be recorded on the chart record no later than midnight of that day.

(6) The vessel master must make provisions to have chart information referred to in subsection 7(5) electronically captured into Geographic Information System (GIS) software and forwarded to the Pacific Biological Station, Nanaimo.

(7) The completed log pages (original copy), electronic copy of the log, and the chart record of locations fished, must be forwarded within 28 days following the end of each month in which fishing occurred to:

Fisheries and Oceans Canada  
Shellfish Data Unit  
Pacific Biological Station  
Hammond Bay Road  
Nanaimo BC V9T 6N7

Tel: (250) 756-7022 or (250) 756-7306

(8) In the event that a licence holder does not fish the 2002/2003 fishing season, the licence holder is responsible for submitting a nil report. One page from the harvest logbook identifying the vessel, licence tab number and the year with 'nil' entered in the body of the log and signed by the licence holder constitutes a nil report.

### 13. Fish Slips:

An accurate written report shall be furnished on a fish slip of all fish caught and retained under the authority of this licence. A report must be made even if the fish are used for bait, personal consumption or disposed of otherwise. The report shall be mailed not later than seven days after the offloading and sent to:

Fisheries and Oceans Canada  
Catch Statistics Unit  
420-555 West Hastings Street  
Vancouver BC V6B 5G3

Fish slip books may be purchased at the Catch Statistics Unit address or at most Departmental offices. Phone (604) 666-2716 for more information.

### 14. Workers' Compensation Board Requirements

(1) All red sea urchin divers must be in possession of documentation indicating that their training meets the minimum requirements of CSA Standard Z275.4-97 Competency Standard for Diving Operations or another standard acceptable to board or be in possession of Workers' Compensation Board Seafood Harvest Diving Certificate.

(b) All red sea urchin divers must have current medical certification, from a physician knowledgeable and competent in diving medicine, before commencing diving operations. This certification is required once every two years for divers up to age 39 and annually for divers age 40 and over.

Explanatory Note - Harvest Log, Chart Data and Validation: The Red Sea Urchin Validation & Harvest Log issued by the service bureau contracted by the Pacific Urchin Harvesters' Association is approved for both form and content by the Shellfish Data Unit. This service bureau will provide, for a fee, the logbook, and coding, keypunching, electronic chart data capture and validation services.

Fishers who do not use the logbook and coding, keypunching, electronic chart data capture and validation services provided by this service bureau must contact the Shellfish Data Unit at (250) 756 7306 or (250) 756-7022 in order to obtain the information necessary to fulfil these requirements.