



2011

Pacific Commercial Fishing Fleets Financial Profiles Series

2011-4

**Pacific Commercial Fishing Fleet: Financial Profiles for
2009**

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Commercial Fishing Fleet Financial Profile Series

Series Preface

In order to analyze the economic impacts of management alternatives, Fisheries and Oceans Canada (DFO) requires information on the costs and returns to current commercial fishing operations. DFO has in the past administered the “Costs and Earnings Survey” to collect such information but low response rates have made recent efforts unsuccessful. This series was developed in order to address the resulting data gap. In 2008, with DFO’s Pacific Region Economic Analysis Unit guidance, and industry participation, a contractor was retained to develop a methodology to assess the financial situation of several commercial fleets for the 2007 calendar year (Nelson, 2009). That report is considered the initial volume in this series; additional profiles added to the series in 2011 are listed below.

While all profiles are part of the series, there are important methodological differences between the studies in terms of the data used, the quantity of data used in generating estimates, and the presentation of results. While *results within a single study are comparable, users should use caution when making comparisons between studies*, including between years.

Readers should consider the information within the publications as a representation of the costs and earnings within a given fleet. The values within the studies are not based on a census or even a statistically validated sample. Even values that might be considered a census, such as landings from a dockside-monitoring program for a quota species, may not be comparable due to the reporting of the data on a calendar rather than a fishing year or due to other factors. Consequently, it is best to view the reports as providing a range of estimates validated by the informed judgement of the authors. Users should not use these numbers without thoughtful consideration and specifically, they should consider some of the following factors:

1. Landings – Data sources can include verified landings from Dockside Monitoring Programs (DMPs) at the trip or vessel level, unverified data from fishers logbooks, unverified data from sales slip submissions (aka Fish Slips), and expert opinion from the contractor and/or his sources.
2. Prices – Data sources include calculated values from DFO, the BC Ministry of Agriculture Seafood Year in Review report, a sample of settlement statements reviewed by the authors, and expert opinion of the author and/or his sources.
3. Licences Held – The primary source for this data is the Licencing Division of DFO (Pacific) based on a data pull as of December 31, 2009. Report authors may or may not adjust the data based on informed judgement.
4. Active Vessels – The primary source for this determination is landings from all sources; however, authors may or may not adjust this value based on informed judgement.

5. Cost information – Data sources were individual to each study. Authors used a variety of sources, contacts and professional judgement to develop costs estimates.
6. Treatment of Fixed Costs – Many vessels are part of more than one fleet. Authors may or may not allocate fixed costs between fisheries.
7. Treatment of Owner/Operator – The prevalence of owner/operators of vessels varies by fishery. Authors choose two different ways to represent returns to these individuals. One method excludes an expense calculation for this group (i.e. no captain share) and implicitly assumed net earnings or operating income was available for owners. Alternatively, a crew share was allocated to the skipper as well as a skipper bonus, regardless of ownership.
8. Degree of Cost Aggregation – Within each report the cost categories are consistent; however, authors determined the level of aggregation appropriate to the fisheries examined and the level of information available.

List of Reports within the Series as of June 2011:

Nelson, Stuart. 2009. **Pacific Commercial Fishing Fleet: Financial Profiles for 2007**. Prepared for Fisheries and Oceans Canada, Pacific Region. December, 2008 (Revised April 29, 2009). Pacific Commercial Fishing Fleets Financial Profiles Series, 2009-1. 133 pp.

Lau, David. 2011. **Economic Profile of the Spawn-on-Kelp Fishery**. Policy Branch, Pacific Region, Fisheries and Oceans Canada, Vancouver, BC. Pacific Commercial Fishing Fleets Financial Profiles Series, 2011-1. 11 pp.

GSGislason and Associates Ltd. 2011. **British Columbia Salmon Fleet Financial Profile 2009**. Prepared for Canada Department of Fisheries and Oceans. Vancouver, BC. April 15. Pacific Commercial Fishing Fleets Financial Profiles Series, 2011-2. v + 43 pp.

GSGislason and Associates Ltd. 2011. **The British Columbia Sardine Fleet Financial Profile 2009**. Prepared for Canada Department of Fisheries and Oceans. Vancouver, BC. April 15. Pacific Commercial Fishing Fleets Financial Profiles Series, 2011-3. ii + 9 pp.

Nelson, Stuart. 2011. **Pacific Commercial Fishing Fleet: Financial Profiles for 2009**. Prepared for Fisheries and Oceans Canada, Pacific Region. June. Pacific Commercial Fishing Fleets Financial Profiles Series, 2011-4. 160 pp.

2009

Pacific Commercial Fishing Fleet:
FINANCIAL PROFILES FOR 2009

Estimated revenues, expenses, and earnings using a financial modeling approach

Prepared for Fisheries and Oceans Canada, Pacific Region

Prepared by Stuart Nelson, Nelson Bros Fisheries Ltd



April, 2011

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Executive Summary

Approach

This report, prepared for Fisheries and Oceans Canada, Pacific Region by Stuart Nelson of Nelson Bros Fisheries Ltd, provides estimates of commercial fishing fleet financial performance for vessels operating in the major West Coast commercial fisheries for the year 2009.

This report is substantially an update of a similar report prepared for the 2007 year, though there are some key differences in methodology:

- Three fisheries have been added: ZN (inside and outside), lingcod, and dogfish.
- Weights and prices are in kilograms.
- The presentation of diversification for each fishery category has been amended to better reflect revenues derived from other fisheries.
- Other changes are highlighted in the body of the report.

For each fishery, the following information is presented: fishery overview, licensing profile, landings profile, key assumptions, financial profiles, capital considerations, and comparison to 2007 results.

The key measure of financial performance used in the schedules is EBITDA (earnings before interest, taxes, depreciation, and amortization). This is a measure of cash flow to the vessel owner that reflects operating performance but does not include capital or non-cash charges.

While each BC commercial fishing fleet category features certain common elements, there are still a wide variety of revenue/cost structures and settlement arrangements within fisheries. The financial schedules provided attempt to encapsulate representative results for each fleet, but readers should recognize that a host of alternative treatments could also apply.

Results

Fishery	# Active Vessels	Landings (kg)	Subject Fishery Gross Revenue (\$)	Fishery Contribution (\$)	EBITDA (\$)	EBITDA % of Landed Value
Salmon Seine	105	13,364,811	8,941,119	2,424,292	(463,208)	-5%
Roe Herring Seine	43	6,303,524	8,446,722	n/a	n/a	n/a
Salmon Gillnet	450	1,587,589	3,258,387	1,287,911	(1,640,089)	-50%
Salmon Troll	245	1,637,989	8,418,165	5,268,205	2,399,455	29%
Tuna	96	3,931,422	12,394,113	6,795,182	4,679,982	38%
Halibut	150	4,265,217	37,477,729	15,985,922	13,310,922	36%
Sablefish	35	1,837,667	21,081,106	6,652,677	4,614,877	22%
Trawl	64	85,966,190	46,704,106	15,934,196	7,101,196	15%
ZN Inside	12	27,426	355,801	145,757	82,757	23%
ZN Outside	41	652,103	2,080,841	577,534	277,534	13%

Fishery	# Active Vessels	Landings (kg)	Subject Fishery Gross Revenue (\$)	Fishery Contribution (\$)	EBITDA (\$)	EBITDA % of Landed Value
Lingcod	29	417,017	1,526,450	835,815	604,065	40%
Dogfish	18	3,198,714	2,720,363	682,542	408,342	15%
Prawn	181	3,126,763	41,359,572	25,566,854	21,844,654	53%
Crab	191	4,822,702	28,774,701	12,864,241	9,518,541	33%
Shrimp	57	568,920	1,818,651	716,192	288,692	16%
Geoduck	39	1,562,044	31,062,021	15,557,858	13,919,858	45%
Red Sea Urchins	27	2,039,827	2,923,051	1,046,751	560,751	19%
Sea Cucumber	28	1,542,399	4,012,439	1,152,180	718,180	18%

Overall, the findings are deemed to provide a useful snapshot of by-fishery financial performance for BC commercial fishing vessels for the 2009 year.

Report Overview

Introduction

This report, prepared for Fisheries and Oceans Canada, Pacific Region by Stuart Nelson of Nelson Bros Fisheries Ltd, provides estimates of commercial fishing fleet financial performance for vessels operating in the major West Coast commercial fisheries for the year 2009.

The financial information presented in this report may be useful to DFO on a variety of fronts, including:

- Assessing potential socio-economic impacts of SARA listings on the commercial fishing industry.
- Serving as an information resource for the PICFI initiative.
- Comprising a partial replacement for the Cost & Earnings Surveys performed in the past.
- Comparing results for the 2007 and 2009 seasons.

Results are included for most of the West Coast fisheries (a few small or data limited fisheries are excluded, or will be covered in analysis by another contractor), with sub-profiles for each fishery provided to allow a deeper understanding of fleet structure, behaviour, and performance than is revealed through use of simple fleet averages.

Profiles are based on the best information available, combining DFO catch statistics and landed value data with revenue and expense intelligence gained through consultations with participants in each fishery.

Overall, the report seeks to strike a balance between excessive detail and complexity (describing individual vessel performance) and undue generalization (presenting simple fleet averages). The intent is to present meaningful insights on the financial performance and viability of the Pacific fleet.

Methodology

The general methodology used in developing this report is summarized under this heading. An important consideration underlying the methodology was preserving the comparability of results with those provided in the 2007 analysis.

The study period is calendar 2009. This period was chosen because it represented the most recent full season at the time this report was commissioned for which DFO data was available. Because some fisheries straddle two calendar years, landings may not correspond to season summaries (eg groundfish fishery seasons commence in February).

A data request was made to DFO for licensing and landings information for each vessel in the BC commercial fleet for 2009. The resulting data is cited as “DFO Data” throughout this report.

“DFO Data” refers to data from Fisheries and Oceans Canada's Licensing, Fisheries Management and Regional Data Services Units. Landings data is from the best available source for the specific species, and includes data from sales slips, logbooks, and dockside monitoring programs. Licensing data is all records as of December 31, 2009

Two data sets were utilized. The first provided vessel-level data identifying licenses and landings by-species for each vessel. The second data set provided trip-level data for vessels involved in the groundfish fisheries; this database (derived from Dockside Monitoring Program, or DMP) contained more detailed data on hail-outs and trip parameters, necessary for assigning groundfish catch to particular licence categories. There were a few small differences in values between the two databases; no attempt was made to reconcile these differences.

Licences counts were drawn from commercial licensing year-end 2009 data. Each vessel was assigned an anonymous identifier.

Landings shown for each fishery category include the species caught under that category of licence; for example, salmon fleet landings include all species of salmon (but no other species); landings for the halibut fleet include halibut and other groundfish species (but no non-groundfish species); landings for fleets other than salmon and groundfish include only the catch of the target species (eg. Tuna, prawn, crab, geoduck, urchin, etc).

The data for certain fisheries contained some “unattributed catch,” which could not be assigned to vessels licensed in that fishery¹. Only “attributed catch” is dealt with in this report.

Halibut is assumed throughout the report to be in dressed head-off form. Sablefish is in j-cut form. Other species weights are in round form.

Fish prices used in the report are drawn from three sources:

- British Columbia Seafood Industry Year in Review 2009 (Ministry of Agriculture, Policy and Industry Competitiveness Branch, Victoria BC, 2011. pp 16); abbreviated and cited in the report as “YIR 2009.”
- Salmon Prices by Gear Type 2009 (DFO, Regional Data Service Unit); abbreviated and cited in the report as “DFO Salmon Prices”.
- The research conducted by the contractor in developing this report; cited in the report as “research.”

A table is provided in the Summary at the end of the report providing the fish price assumptions used, along with the source of the assumptions.

The consultant collected revenue (fish price, landings) and expense (variable, fixed) information through a mixture of settlements and interviews/correspondence with fishermen and other experts in each of the subject fisheries. The premise of consultations was that individual confidentiality

¹ Unattributed catch can arise because of timing differences between fishing seasons and the cut-off date (December 31, 2009) for licensing data; or, in some cases, landings and vessel data cannot be matched.

would be preserved. The number of persons/businesses consulted by fishery, and the quality of the data offered, varied.

The data was mined and licence and production profiles for each fishery were defined.

A financial model was developed, and calculations of revenue, expenses, and profitability were performed. For some fisheries, sensitivity analysis was performed.

The general measure of profitability used is “Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA); this equates to cash flow from operations. EBITDA includes revenues and expenses directly related to fishing, but excludes non-cash items such as depreciation, and capital charges such as interest and principal payments. The reasons for excluding capital items from financial schedules are two-fold:

- Participants were more apt to divulge income statement (operating revenue and expense) information than balance sheet information, which is viewed as more sensitive.
- Given the diversity of capitalization arrangements, inclusion of financing profiles would add another layer of complexity to the analysis; capturing and reflecting the diversity of operating arrangements provides enough challenge for this project.

While capital charges are not explicitly included in the financial schedules, a table is included for each fishery estimating replacement cost for assets, and debt load and annual financing obligations if assets were purchased in 2009.

The data collection and reporting methodology is summarized in the following table:

Revenue/Expense Category	Information Source(s)
Landings (kg)	DFO Data; individual vessel production sorted into production tiers. Landings are in round kilograms unless stated otherwise.
Vessel Price (per kg)	YIR 2009; DFO Salmon Prices; contractor's research
Gross Revenue (Gross Stock)	Calculation: landings x price
Less: Fishery Specific Expenses	Industry research - interviews, settlements, etc.
Fuel	
At sea monitoring	
Offload Monitor	
Licence / Co-management Fees (includes DFO fees and industry association dues; different treatment than 2007 report)	
Quota or Stacked licence lease	
Bait	
Ice	
Gear maintenance/replacement	
Total Fishery Specific Expenses	Calculation: Sum of fishery specific expenses
Net Revenue (Net Stock)	Calculation: Gross Revenue less fishery specific expenses
Less:	
Crew, Captain, Gear Shares	A percentage of gross stock or net stock; percentage and basis varies by fishery (and within fishery).
Fishery Contribution	Calculation: Net stock less crew, captain, gear shares
Vessel Fixed Expenses	Industry research - interviews, settlements, etc. <i>Note: fixed costs for each vessel are fully attributed to the subject fishery (although in practice they may be amortized over other fisheries).</i>
Insurance	
Repairs & Maintenance	
Moorage	
Miscellaneous	
Total Vessel Expenses	Calculation: Sum of vessel fixed expenses
Earnings (EBITDA)	Calculation: Fishery contribution less total vessel expenses

In collecting, analyzing, and presenting by-fishery information, greater effort was expended for the larger fisheries (those having the highest landed values) than for fisheries with a lesser financial stature. This prioritization reflects the budget and timetable for this project, and does not minimize the importance of smaller fisheries.

While many fisheries include an “F” class of licence (commercial communal licenses held by First Nations), these licences are excluded from findings in this report to preserve comparability with the 2007 report.

Effort was also made to utilize a similar methodology for each fishery analyzed, though data limitations or unique fleet organization sometimes precluded parallel treatment of all fisheries.

Methodology Changes vs. 2007 Report

The following material changes were made to the methodology for the 2009 report:

- New fisheries added: ZN Inside, ZN outside, Lingcod, and Dogfish.
- The trawl fishery was further segmented to include three categories: bottomfish only, hake only, and bottomfish and hake combination vessels.
- Financial schedules are not provided for the Roe Herring Seine fishery as the link between licensing & landings data, and actual settlement arrangements, is very weak.
- Landings volumes and fish prices are based on kilograms, not pounds.
- Captains are separated from deckhands/crewmen.
- The presentation of diversification for each fishery has changed, reflecting the imprecision of the methodology used in the 2007 report². The diversification tables provided allow assessment of the level of activity, in both the subject fishery and other fisheries, for each fleet.
- The length of vessels (OAL) was a data parameter for this years study. Where distinct size differences were found between vessels in the production terciles, differing cost structures were applied where appropriate. For example, the data confirmed that the top production tier for Area A crab were substantially larger vessels than the other tiers; the costs attributed to each terciles reflect this distinction.
- The focus of this report, based on DFO guidance, is on the tables and financial schedules. Less prose is offered.

Presentation of Results

Application of the above-described methodology resulted in production of a host of tables and financial schedules for each fishery (licence category). The following information is included for each fishery covered in the report:

- **Fishery Overview** – a brief encapsulation of the fishery (management-type, gear-type, general description of prevailing resource and business conditions).
- **Licensing Profile** – tables showing key metrics for the fishery category.
- **Landings Profile** – tables showing the stratification of landings in the fishery. In most cases, landings are stratified, first into active vs. inactive vessels, then, for active vessels, into “thirds” – that is, landings for the top 1/3 of vessels, the middle 1/3, and the bottom

² The 2007 methodology assumed an average landings-level for non-subject fisheries. This approach may have over-stated diversification income.

1/3. For virtually every fishery, landings are highly skewed; top-tier vessels garner far more than 1/3 of landings, while bottom tier vessels harvest significantly less than their pro-rata share.

- **Key Assumptions** – a listing of the key financial assumptions underlying the financial schedules for each fishery (for example, crew sharing arrangements).
- **Financial Profiles** – schedules and summary tables showing operating profitability for individual vessels by production tier, as well as aggregate (fleet) results. Results for the subject fishery are shown in detail. Each fishery also includes tables revealing the extent to which vessels participate in other fishery categories.
- **Capital Considerations** – a table is shown for each fishery estimating replacement cost, amortization, and principal & interest payments assuming a given percentage of debt-load. Licence and quota values are drawn from the report “An Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 - West Coast Fishing Fleet” (Stuart Nelson, 2010). Vessel replacements costs are estimates assuming used vessels of reasonable quality.
- **Comparison to 2007 Results** – where results differ significantly from those reported in 2007, brief explanations will be provided.

The information included in this report, and the format in which it is presented, is intended to provide a representative snapshot of activity for the Pacific commercial fishing fleet for 2009, while remaining consistent with approaches used in the 2007 report.

About the Results

The following general provisos are offered about the results offered in this report.

- Readers closely examining landings quantities for some fisheries may find small differences in totals between certain tables. The cause for this may be two-fold:
 1. Some fisheries had “unattributed” catch, where catch volumes could not be assigned to vessels licensed for a particular fishery. Only the attributed catch was used to assemble tables and schedules in this report.
 2. There were some minor differences in catch volumes between the Catch Stats and DMP databases.

Where totals do not precisely balance, the quality of the findings is not deemed to be diminished by these small discrepancies.

- While each BC commercial fishing fleet category features certain common elements, there are still a wide variety of revenue/cost structures and settlement arrangements in each fishery. The financial schedules provided attempt to encapsulate representative results for each fleet, but readers should recognize that a host of alternative treatments could also apply.

- The contractor offers his view of the robustness of the various categories that comprise financial schedules as follows:
 - The landings profiles are deemed to be very accurate, as this information is drawn from solid source data (DFO Data and YIR 2009).
 - The fish price information is reasonably sound, though for some fisheries there was significant variance between published values (Province of BC fish price stats) and those found by the contractor. In such cases, the contractor used fish price information provided by his industry information sources.
 - Fishery specific expense estimates (variable expenses such as fuel, catch monitoring, fees, ice, and bait) are deemed to be reasonable, considering the wide range of operating results that were uncovered through research.
 - For each fishery, a particular captain & crew configuration and settlement arrangement was chosen. For some fisheries, this configuration varied by production terciles. Alternative scenarios could have been applied. The line items “Captain’s Bonus and Deckhand Shares” should therefore be viewed as ballpark estimates because of the high variability of crewing and settlement arrangements.
 - Vessel fixed expenses (including insurance and repairs & maintenance) are extremely difficult to peg. In general, the values shown provide an estimate of the cost to support a vessel’s operations for a fishing season. The values shown in the financial schedules should be viewed with caution, as an order-of-magnitude estimate only.
- While EBITDA is the bottom line for the purposes of this analysis, a vessel owner may bear additional costs related to the fishery, such as accounting services, vessel management, and vehicle expense. EBITDA is a relative, not absolute, measure of profitability.
- The financial schedules provided are a measure of vessel profitability from the vessel owner’s perspective. Where the owner of the vessel is also deemed to be the operator, no captain’s bonus or crew/deckhand share is payable. The schedules do not attempt to infer total returns to labour, but rather focus on cash flow from vessel operations. In practice, some vessel owners opt to draw crew shares or Captain’s Bonuses (thus reducing vessel earnings) as a component of their income tax planning. Crew shares and Captain’s Bonuses are deemed personal earnings, while vessels are often held within corporations.
- Throughout the report, food and groceries (grub) are assumed to be payable by the crew, meaning that Deckhand Shares are a gross income estimation (crew members also pay into the EI program). For those vessels that treat grub as a shared or vessel expense, vessel earnings are overstated by the amount of this expense item.

The following table describes the data collection process for the subject fisheries:

Quality/Extent of Information Collected	Highest	Mid	Least
Fishery Categories	Salmon Seine Tuna Groundfish Trawl Halibut Prawn	Salmon Gillnet Salmon Troll Sablefish Crab Lingcod Geoduck	ZN Dogfish Shrimp Red Sea Urchin Sea Cucumber
About the information collected	High quality source documentation. Good number of data points.	Mix of high quality source documents and anecdotal information. Moderate number of data sources.	Higher weight of anecdotal information and/or few data sources.
Confidence in financial assessments	The variation in cost structure for the fishing fleet is substantial. All assessments are deemed to provide a reasonable estimation of results, though variation from levels shown may be substantial. For fisheries where less information was collected, the judgment of the contractor was increasingly applied. Fishery specific expense estimations are more robust than those for fixed costs.		

Overall, the findings of this study are deemed to provide a useful snapshot of by-fishery financial performance for BC commercial fishing vessels for the 2009 year.

Salmon Seine (AS)

Fishery Overview

The salmon seine fishery is a competitive fishery operating under an area licensing program, with the coast divided into two areas, A (north coast) and B (south coast), for management purposes. Licence stacking is allowed; licences are vessel-based, meaning stringent vessel replacement rules apply.

Within the salmon fishery, seines are the “big boat” fleet, with vessels in the 50-80’ range and generally crewed by four persons. Fortunes in the seine fishery have declined dramatically over the years, as both access to stocks and fish prices have eroded from levels seen in the 1980s and early 1990s. Fleet restructuring initiatives (“Mifflin Plan,” PFAR) have been insufficient to restore viability. While a single year glimpse is not the ideal timeframe for describing financial results in the salmon fishery (since runs are highly cyclical), the 2009 results shown in this snapshot are reasonably typical of recent poor performance.

Licensing Profile

Count of AS Licences per Vessel	Count of Vessels	Sum of AS Licences	Sum on Non-AS Licences	Sum of Licences
1	88	88	135	223
2	70	140	158	298
Total	158	228	293	521

Count of All Licences on AS Vessels	Count of Vessels	Count of Vessels with One AS Lic	Sum of AS Licences	Sum of Non-AS Licences	Sum of Licences
1	32	32	32	0	32
2	26	11	41	11	52
3	29	26	32	55	87
4	33	9	57	75	132
5	25	8	42	83	125
6	8	1	15	33	48
7 or more	5	1	9	36	45
Total	158	88	228	293	521

Mix of Licences on AS Vessels	Sum of Licences
AS	228
Roe Herring	175
Groundfish Trawl	23
Sardine	21
Halibut	20
Sablefish	5
Others	49
Total	521

Landings Profile³

Count of AS Licences	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
1	47	2,993,217	2,350,119	22%	26%	63,685	50,003
2	58	10,371,594	6,590,991	78%	74%	178,821	113,638
Total	105	13,364,811	8,941,110	100%	100%	127,284	85,153

Single Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	15	2,427,873	1,584,998	81%	67%	161,858	105,667
Middle 1/3	16	421,305	559,377	14%	24%	26,332	34,961
Bottom 1/3	16	144,038	205,745	5%	9%	9,002	12,859
Total	47	2,993,217	2,350,119	100%	100%	63,685	50,003

Double Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	19	5,859,206	3,623,120	56%	55%	308,379	190,691
Middle 1/3	19	3,642,479	2,294,067	35%	35%	191,709	120,740
Bottom 1/3	20	869,909	673,803	8%	10%	43,495	33,690
Total	58	10,371,594	6,590,991	100%	100%	178,821	113,638

³ The analysis in this section relates to single or double licensing... not specific areas (A or B). This is because the data utilized did not specifically link licence-area to area of capture.

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices (from DFO Salmon Prices):

Species	Price/Kg
Pink	0.51
Chum	1.72
Sockeye	3.70
Coho	1.98
Chinook	5.42

- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Hired (non-owner)
# Deckhands	3
Crew share	55% of net stock
Captain's Bonus	30% of one crew share
Seine net	Owned by vessel owner (no distinct share)

- A variety of settlement arrangements are used in the industry. Many captains are owner operators. Some hired captains own the seine net used on the vessel they are operating; in these cases, the seine net receives a share of the net revenue.
- Repairs and maintenance includes both vessel and fishing gear. The levels assumed are very low – less than the long term average levels to properly maintain equipment in the long term – but reflective of 2009's economic realities.

Single Licensed Vessels

Individual Vessel Profiles

Salmon Seine (1 lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	161,858	26,331	9,003	63,685
Vessel Price (per kg)	\$0.65	\$1.33	\$1.43	\$0.79
Gross Revenue (Gross Stock)	\$105,667	\$34,961	\$12,859	\$50,003
Less: Fishery Specific Expenses				
Fuel	13,500	6,750	4,500	8,138
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	3,900	3,900	3,900	3,900
Licence/Quota lease	-	-	-	-
Ice	1,500	900	600	1,023
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	18,900	11,550	9,000	13,062
Net Revenue (Net Stock)	86,767	23,411	3,859	36,941
<i>Less:</i>				
Captain's Bonus	4,987	1,502	427	2,248
Deckhand Shares	49,867	15,021	4,268	22,481
Fishery Contribution (Boat Share)	31,914	6,888	(835)	12,212
Vessel Fixed Expenses				
Insurance	9,000	9,000	9,000	9,000
Repairs & Maintenance	15,000	15,000	15,000	15,000
Moorage	2,000	2,000	2,000	2,000
Miscellaneous	1,500	1,500	1,500	1,500
Total Vessel Expenses	27,500	27,500	27,500	27,500
Earnings (EBITDA)	\$4,414	-\$20,612	-\$28,335	-\$15,288

Double Licensed Vessels

Individual Vessel Profiles

Salmon Seine Fleet (2 Lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	308,379	191,709	43,495	181,016
Vessel Price (per kg)	\$0.62	\$0.63	\$0.77	\$0.63
Gross Revenue (Gross Stock)	\$190,691	\$120,740	\$33,690	\$114,944
Less: Fishery Specific Expenses				
Fuel	22,500	15,300	7,200	14,995
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	7,600	7,600	7,600	7,600
Licence/Quota lease	-	-	-	-
Ice	2,000	1,200	800	1,220
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	32,100	24,100	15,600	23,815
Net Revenue (Net Stock)	158,591	96,640	18,090	91,128
<i>Less:</i>				
Captain's Bonus	5,713	3,583	883	3,390
Deckhand Shares	91,405	57,332	14,130	54,237
Fishery Contribution (Boat Share)	61,473	35,725	3,077	33,501
Vessel Fixed Expenses				
Insurance	9,000	9,000	9,000	9,000
Repairs & Maintenance	15,000	15,000	15,000	15,000
Moorage	2,000	2,000	2,000	2,000
Miscellaneous	1,500	1,500	1,500	1,500
<i>Total Vessel Expenses</i>	27,500	27,500	27,500	27,500
Earnings (EBITDA)	\$33,973	\$8,225	-\$24,423	\$6,001

Single Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	47			
Salmon Seine (1 lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	2,427,876	421,301	144,041	2,993,217
Vessel Price (per kg)	\$0.65	\$1.33	\$1.43	\$0.79
Gross Revenue (Gross Stock)	\$1,585,008	\$559,371	\$205,750	\$2,350,129
Less: Fishery Specific Expenses				
Fuel	202,500	108,000	72,000	382,500
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	58,500	62,400	62,400	183,300
Licence/Quota lease	-	-	-	-
Ice	22,500	16,000	9,600	48,100
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	283,500	186,400	144,000	613,900
Net Revenue (Net Stock)	1,301,508	372,971	61,750	1,736,229
<i>Less:</i>				
Captain's Bonus	74,800	24,033	6,828	105,662
Deckhand Shares	748,004	240,334	68,282	1,056,621
Fishery Contribution (Boat Share)	478,703	108,604	(13,361)	573,946
Vessel Fixed Expenses				
Insurance	135,000	144,000	144,000	423,000
Repairs & Maintenance	225,000	240,000	240,000	705,000
Moorage	30,000	32,000	32,000	94,000
Miscellaneous	22,500	24,000	24,000	70,500
Total Vessel Expenses	412,500	440,000	440,000	1,292,500
Earnings (EBITDA)	\$66,203	-\$331,396	-\$453,361	-\$718,554

Double Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	58			
Salmon Seine Fleet (2 Lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	5,859,206	3,642,479	869,909	10,371,594
Vessel Price (per kg)	\$0.62	\$0.63	\$0.77	\$0.64
Gross Revenue (Gross Stock)	\$3,623,120	\$2,294,067	\$673,803	\$6,590,991
Less: Fishery Specific Expenses				
Fuel	427,500	290,700	144,000	862,200
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	144,400	144,400	152,000	440,800
Licence/Quota lease	-	-	-	-
Ice	38,000	16,000	16,000	70,000
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	609,900	451,100	312,000	1,373,000
Net Revenue (Net Stock)	3,013,220	1,842,967	361,803	5,217,991
<i>Less:</i>				
Captain's Bonus	144,724	90,776	23,549	259,050
Deckhand Shares	1,736,691	1,089,312	282,592	3,108,595
Fishery Contribution (Boat Share)	1,131,805	662,879	55,662	1,850,346
Vessel Fixed Expenses				
Insurance	171,000	171,000	180,000	522,000
Repairs & Maintenance	285,000	285,000	300,000	870,000
Moorage	38,000	38,000	40,000	116,000
Miscellaneous	28,500	28,500	30,000	87,000
Total Vessel Expenses	522,500	522,500	550,000	1,595,000
Earnings (EBITDA)	\$609,305	\$140,379	-\$494,338	\$255,346

All Seine Vessels

Individual Vessel Profiles

Number of Vessels	47	58	105
Salmon Seine Fleet Average Vessel Profiles	Single	Double	Fleet Average
Landings (kg) – All Species	63,685	178,821	127,284
Vessel Price (per kg)	\$0.79	\$0.64	\$0.67
Gross Revenue (Gross Stock)	\$50,003	\$113,638	\$85,153
Less: Fishery Specific Expenses			
Fuel	8,138	14,866	11,854
At sea monitoring	-	-	-
Offload Monitor	-	-	-
Licence / Co-management Fees	3,900	7,600	5,944
Licence/Quota lease	-	-	-
Ice	1,023	1,207	1,125
Bait	-	-	-
Gear Maintenance/replace	-	-	-
Total Fishery Specific Expenses	13,062	23,672	18,923
Net Revenue (Net Stock)	36,941	89,965	66,231
<i>Less:</i>			
Captain's Bonus	2,248	4,466	3,473
Deckhand Shares	22,481	53,596	39,669
Fishery Contribution (Boat Share)	12,212	31,903	23,088
Vessel Fixed Expenses			
Insurance	9,000	9,000	9,000
Repairs & Maintenance	15,000	15,000	15,000
Moorage	2,000	2,000	2,000
Miscellaneous	1,500	1,500	1,500
Total Vessel Expenses	27,500	27,500	27,500
Earnings (EBITDA)	-\$15,288	\$4,403	-\$4,412

Aggregate Vessel Profiles

Number of Vessels	47	58	105
Salmon Seine Fleet Aggregate Vessel Profiles	Single	Double	Fleet Total
Landings (kg) – All Species	2,993,217	10,371,594	13,364,811
Vessel Price (per kg)	\$0.79	\$0.64	\$0.67
Gross Revenue (Gross Stock)	\$2,350,119	\$6,590,991	\$8,941,110
Less: Fishery Specific Expenses			
Fuel	382,500	862,200	1,244,700
At sea monitoring	-	-	-
Offload Monitor	-	-	-
Licence / Co-management Fees	183,300	440,800	624,100
Licence/Quota lease	-	-	-
Ice	48,100	70,000	118,100
Bait	-	-	-
Gear Maintenance/replace	-	-	-
Total Fishery Specific Expenses	613,900	1,373,000	1,986,900
Net Revenue (Net Stock)	1,736,219	5,217,991	6,954,210
<i>Less:</i>			
Captain's Bonus	105,662	259,050	364,711
Deckhand Shares	1,056,616	3,108,595	4,165,210
Fishery Contribution (Boat Share)	573,942	1,850,346	2,424,288
Vessel Fixed Expenses			
Insurance	423,000	522,000	945,000
Repairs & Maintenance	705,000	870,000	1,575,000
Moorage	94,000	116,000	210,000
Miscellaneous	70,500	87,000	157,500
Total Vessel Expenses	1,292,500	1,595,000	2,887,500
Earnings (EBITDA)	-\$718,558	\$255,346	-\$463,212

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Single Licenced Vessels

Vessel Count	Salmon Seine (Single)	Diversification Fisheries						Non-Subject Fisheries Total
		Hake	Bottomfish	Roe Herring	Sardine	Halibut	Sablefish	
Active in Subject Fishery Only	29	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	18	**	5	12	3	4	5	18
Inactive in Subject Fishery + Active in Other Fisheries	15	10	14	5	**	11	14	15
Inactive (No Fisheries)	26	-	-	-	-	-	-	-
Total	88	**	19	17	**	15	19	33

Fleet Revenue (\$)	Salmon Seine (Single)	Diversification Fisheries						Non-Subject Fisheries Total
		Hake	Bottomfish	Roe Herring	Sardine	Halibut	Sablefish	
Active in Subject Fishery Only		-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	2,350,119	420,511	342,692	988,273	699,880	1,037,010	69,480	3,557,845
Inactive in Subject Fishery + Active in Other Fisheries	-	2,256,155	4,902,434	364,336	-	336,580	1,039,896	8,899,401
Inactive (No Fisheries)	-	-	-	-	-	-	-	-
Total	2,350,119	2,676,666	5,245,126	1,352,608	699,880	1,373,590	1,109,376	12,457,246

** suppressed to preserve confidentiality

- Assumed price for sardine = \$0.22 per kg; other prices per pricing assumptions used throughout the report.

Double Licensed Vessels

Vessel Count	Salmon Seine (Double)	Diversification Fisheries						Non-Subject Fisheries Total
		Hake	Bottomfish	Roe Herring	Sardine	Halibut	Sablefish	
Active in Subject Fishery Only	33	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	25	-	6	22	10	5	6	25
Inactive in Subject Fishery + Active in Other Fisheries	**	**	**	**	**	**	**	**
Inactive (No Fisheries)	10	-	-	-	-	-	-	-
Total	**	**	**	**	**	**	**	**

Fleet Revenue (\$)	Salmon Seine (Double)	Diversification Fisheries						Non-Subject Fisheries Total
		Hake	Bottomfish	Roe Herring	Sardine	Halibut	Sablefish	
Active in Subject Fishery Only	6,590,991	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		-	37,730	3,239,143	1,363,714	1,557,790	955,968	7,154,346
Inactive in Subject Fishery + Active in Other Fisheries	-	2,677	1,257,548	323,995	697,363	1,585	43,518	2,326,686
Inactive (No Fisheries)	-	-	-	-	-	-	-	-
Total	6,590,991	2,677	1,295,278	3,563,139	2,061,077	1,559,375	999,486	9,481,032

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets for both single and double licensed vessels. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are

drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).

- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Salmon Seine Replacement Cost of Assets	Single Licence	Double Licence
Licence Cost	275,000	550,000
Vessel Cost	485,000	485,000
Replacement cost	760,000	1,035,000
Amortization (annual) @ 5%	38,000	51,750
Loan Considerations if 50% borrowed:		
Loan amount	380,000	517,500
Interest (1st year)	30,400	41,400
Principal (1st year, 15 yr amort)	25,333	34,500
1st year pmt (principal + interest):	55,733	75,900

Comparison to 2007 Results

- 2009 and 2007 were similar in that each season featured fishing opportunities in the north coast and virtually no fishery in the south.
- Similar fleet revenue levels for the two seasons.
- Fewer vessels participated in 2009 (105 vs. 123).

Roe Herring Seine (HS)

Fishery Overview

The roe herring seine fishery targets herring just prior to spawning for the purpose of maximizing roe content. Licenses are party-based, placed on a vessel designated by the licence owner each season. The roe herring fishery is managed by areas (there are five areas and a licence allows operation in one) and organized into pools to preclude overages and eliminate the competitive element from the fishery. A maximum of two licenses per vessel are allowed to curb excessive fleet rationalization, although a few vessels have “grandfather” provisions allowing three or more.

Long a highly lucrative fishery featuring healthy stocks and fuelled by strong Japanese demand for gift market roe products, the fishery has experienced a dramatic downturn during the 2000s. The fishery is increasingly centered in the Strait of Georgia, where stocks are strongest but roe content and quality is poorest.

Most roe herring seine vessels are also licensed in the salmon seine fishery. The salmon/herring combination long provided strong returns to vessel owners and their crews, but for several years has yielded marginal returns at best.

The actual organization of roe herring pools – which boats catch the fish and how the proceeds are divided – may be quite different than the apparent organization of the fishery (for DFO management and licensing purposes). For this reason, only a partial financial profile of this fishery is provided herein⁴.

Licensing Profile

Count of HS Licences per Vessel	Count of Vessels	Sum of HS Licences	Sum of Non-HS Licences	Sum of Licences
1	34	34	63	97
2 or 3	106	214	230	444
Total	140	248	293	541

⁴ Concerns with the methodology used in the 2007 report have resulted in financial projections being omitted from this report.

Count of All Licences on HS Vessels	Count of Vessels	Sum of HS Licences	Sum of Non-HS Licence	Sum of Licences
1	1	1	-	1
2	27	40	14	54
3	37	62	49	111
4	35	67	73	140
5	26	50	80	130
6	7	14	28	42
7 or more	7	14	49	63
	140	248	293	541

Mix of Licences on HS Vessels	Sum of Licences
HS	248
Salmon Seine	149
Groundfish Trawl	37
Halibut	23
Sardine	22
Other	62
Total	541

Landings Profile

Count of HS Licence per Vessel	Count of Vessels	Count of Active Vessels	Landings (kg)	Catch Value (\$)
1	34	4	450,587	603,787
2 or 3	106	39	5,852,937	7,842,935
Total	140	43	6,303,524	8,446,722

Salmon Gillnet (AG)

Fishery Overview

The salmon gillnet fishery is a competitive fishery operating under an area licensing program, with the coast divided into three areas: C (north coast), D (Areas 11-15 and 23-27), and E (Areas 16-22, 28, and 29) for management purposes. Licence stacking is allowed; licences are vessel-based, meaning stringent vessel replacement rules apply.

Gillnet vessels are generally in the 30-40' range, and most vessels are crewed by a single person (earnings have been insufficient to support deckhands in recent years). Fortunes in the gillnet fishery have declined dramatically over the years, as both access to stocks and fish prices have eroded from levels seen in the 1980s and early 1990s. Fleet restructuring initiatives ("Mifflin Plan," PFAF) have been insufficient to restore viability.

While a single year glimpse is not the ideal timeframe for describing financial results in the salmon fishery (since runs are highly cyclical), the 2009 results portray a particularly poor year for the gillnet salmon fishery.

Licensing Profile

Count of AG Licences per Vessel	Count of Vessels	Sum of AG Licences	Sum on Non-AG Licences	Sum of Licences
1	582	582	140	722
2	172	344	51	395
3	14	42	7	49
Total	768	968	198	1166

Count of All Licences on AG Vessel	Count of Vessels	Count of Single AG Vessels	Sum of AG Licences	Sum of Non-AG Licences	Sum of Licences
1	465	465	465	0	465
2	236	96	376	96	472
3	49	19	87	60	147
4	14	2	31	25	56
5 or more	4	0	9	17	26
Total	768	582	968	198	1166

Mix of Licences on AG Vessels	Count
AG	968
Shrimp (S)	51
Halibut (L)	42
NAG	28
FAG	16
ZN	15
Prawn (W)	8
Other	38
Total	1166

Landings Profile⁵

Count of AG Licences	Count of Vessels	Count of Active Vessels	Count of Inactive Vessels
1	582	303	279
2	172	135	37
3	14	12	2
Grand Total	768	450	318

Count of AG Licences	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
1	303	820,629	1,799,541	52%	55%	2,708	5,939
2	135	688,917	1,304,464	43%	40%	5,103	9,663
3	12	78,033	154,155	5%	5%	6,503	12,846
Total	450	1,587,579	3,258,160	100%	100%	3,528	7,240

Single Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	101	579,446	1,332,384	71%	74%	5,737	13,192
Middle 1/3	101	183,142	367,584	22%	20%	1,813	3,639
Bottom 1/3	101	58,041	99,573	7%	6%	575	986
Total	303	820,629	1,799,541	100%	100%	2,708	5,939

Double Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	45	412,666	779,255	60%	60%	9,170	17,317
Middle 1/3	45	202,785	386,011	29%	30%	4,506	8,578
Bottom 1/3	45	73,466	139,198	11%	11%	1,633	3,093
Total	135	688,917	1,304,464	100%	100%	5,103	9,663

⁵ The analysis in this section relates to single, double, or triple licensing... not specific areas (C, D or E). This is because the data utilized did not specifically link licence-area to area of capture.

Triple Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	4	54,189	106,993	69%	69%	13,547	26,748
Middle 1/3	4	18,526	34,239	24%	22%	4,632	8,560
Bottom 1/3	4	5,318	12,922	7%	8%	1,330	3,231
Total	12	78,033	154,155	100%	100%	6,503	12,846

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices (from DFO Salmon Report):

Species	Price/Kg
Pink	0.37
Chum	1.46
Sockeye	4.06
Coho	2.80
Chinook	6.08

- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	Single licences: 0 Multiple licences: 1 (top tier), 0 (middle & bottom tiers)
Deckhand share	10% of gross each
Captain's Bonus	n/a

- A variety of settlement arrangements are used in the industry. Virtually all captains are owner operators.
- Repairs and maintenance includes both vessel and fishing gear. The levels assumed are very low – less than the long term average levels to properly maintain equipment for the long term – but reflective of 2009's economic realities.

Single Licensed Vessels

Individual Vessel Profiles

Salmon Gillnet Fleet (1 Lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	5,737	1,813	575	2,708
Vessel Price (per kg)	\$2.30	\$2.01	\$1.72	\$2.19
Gross Revenue (Gross Stock)	\$13,192	\$3,640	\$987	\$5,940
Less: Fishery Specific Expenses				
Fuel	4,500	1,800	450	2,250
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	970	970	970	970
Licence/Quota lease	-	-	-	-
Ice	750	225	75	328
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	6,220	2,995	1,495	3,548
Net Revenue (Net Stock)	6,972	645	(508)	2,392
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	-	-	-	-
Fishery Contribution (Boat Share)	6,972	645	(508)	2,392
Vessel Fixed Expenses				
Insurance	1,500	1,500	1,500	1,500
Repairs & Maintenance	3,500	3,500	3,500	3,500
Moorage	1,000	1,000	1,000	1,000
Miscellaneous	500	500	500	500
Total Vessel Expenses	6,500	6,500	6,500	6,500
Earnings (EBITDA)	\$472	-\$5,855	-\$7,008	-\$4,108

Double Licensed Vessels

Individual Vessel Profiles

Salmon Gillnet Fleet (2 Lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	9,170	4,506	1,632	5,103
Vessel Price (per kg)	\$1.89	\$1.90	\$1.90	\$1.89
Gross Revenue (Gross Stock)	\$17,316	\$8,578	\$3,094	\$9,663
Less: Fishery Specific Expenses				
Fuel	5,400	3,000	900	3,100
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,740	1,740	1,740	1,740
Licence/Quota lease	-	-	-	-
Ice	800	150	150	435
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	7,940	4,890	2,790	5,275
Net Revenue (Net Stock)	9,376	3,688	304	4,388
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	1,732	-	-	577
Fishery Contribution (Boat Share)	7,644	3,688	304	3,810
Vessel Fixed Expenses				
Insurance	1,500	1,500	1,500	1,500
Repairs & Maintenance	3,500	3,500	3,500	3,500
Moorage	1,000	1,000	1,000	1,000
Miscellaneous	500	500	500	500
Total Vessel Expenses	6,500	6,500	6,500	6,500
Earnings (EBITDA)	\$1,144	-\$2,812	-\$6,196	-\$2,690

Triple Licensed Vessels

Individual Vessel Profiles

Salmon Gillnet Fleet (3 Lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	13,547	4,632	1,329	6,503
Vessel Price (per kg)	\$1.97	\$1.85	\$2.43	\$1.98
Gross Revenue (Gross Stock)	\$26,747	\$8,561	\$3,231	\$12,847
Less: Fishery Specific Expenses				
Fuel	6,750	3,000	900	3,550
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	2,510	2,510	2,510	2,510
Licence/Quota lease	-	-	-	-
Ice	1,350	375	150	1,833
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	10,610	5,885	3,560	7,893
Net Revenue (Net Stock)	16,137	2,676	(329)	4,953
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	2,675	-	-	892
Fishery Contribution (Boat Share)	13,463	2,676	(329)	4,062
Vessel Fixed Expenses				
Insurance	1,750	1,750	1,750	1,750
Repairs & Maintenance	3,500	3,500	3,500	3,500
Moorage	1,000	1,000	1,000	1,000
Miscellaneous	500	500	500	500
Total Vessel Expenses	6,750	6,750	6,750	6,750
Earnings (EBITDA)	\$6,713	-\$4,074	-\$7,079	-\$2,688

Single Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	303			
Salmon Gillnet Fleet (1 Lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	579,447	183,162	58,045	820,654
Vessel Price (per kg)	\$2.30	\$2.01	\$1.72	\$2.19
Gross Revenue (Gross Stock)	\$1,332,428	\$367,658	\$99,670	\$1,799,756
Less: Fishery Specific Expenses				
Fuel	454,500	181,800	45,450	681,750
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	97,970	97,970	97,970	293,910
Licence/Quota lease	-	-	-	-
Ice	75,750	16,000	7,575	99,325
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	628,220	295,770	150,995	1,074,985
Net Revenue (Net Stock)	704,208	71,888	(51,325)	724,771
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	-	-	-	-
Fishery Contribution (Boat Share)	704,208	71,888	(51,325)	724,771
Vessel Fixed Expenses				
Insurance	151,500	151,500	151,500	454,500
Repairs & Maintenance	353,500	353,500	353,500	1,060,500
Moorage	101,000	101,000	101,000	303,000
Miscellaneous	50,500	50,500	50,500	151,500
Total Vessel Expenses	656,500	656,500	656,500	1,969,500
Earnings (EBITDA)	\$47,708	-\$584,612	-\$707,825	-\$1,244,729

Double Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	135			
Salmon Gillnet Fleet (2 Lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	412,646	202,792	73,462	688,900
Vessel Price (per kg)	\$1.89	\$1.90	\$1.90	\$1.89
Gross Revenue (Gross Stock)	\$779,221	\$386,019	\$139,232	\$1,304,473
Less: Fishery Specific Expenses				
Fuel	243,000	135,000	40,500	418,500
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	78,300	78,300	78,300	234,900
Licence/Quota lease	-	-	-	-
Ice	36,000	16,000	6,750	58,750
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	357,300	229,300	125,550	712,150
Net Revenue (Net Stock)	421,921	156,719	13,682	592,323
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	77,922	-	-	77,922
Fishery Contribution (Boat Share)	343,999	156,719	13,682	514,400
Vessel Fixed Expenses				
Insurance	67,500	67,500	67,500	202,500
Repairs & Maintenance	157,500	157,500	157,500	472,500
Moorage	45,000	45,000	45,000	135,000
Miscellaneous	22,500	22,500	22,500	67,500
Total Vessel Expenses	292,500	292,500	292,500	877,500
Earnings (EBITDA)	\$51,499	-\$135,781	-\$278,818	-\$363,100

Triple Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	12			
Salmon Gillnet Fleet (3 Lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	54,189	18,529	5,318	78,035
Vessel Price (per kg)	\$1.97	\$1.85	\$2.43	\$1.98
Gross Revenue (Gross Stock)	\$106,990	\$34,245	\$12,923	\$154,158
Less: Fishery Specific Expenses				
Fuel	27,000	12,000	3,600	42,600
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	10,040	10,040	10,040	30,120
Licence/Quota lease	-	-	-	-
Ice	5,400	16,000	600	22,000
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	42,440	38,040	14,240	94,720
Net Revenue (Net Stock)	64,550	(3,795)	(1,317)	59,438
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	10,699	-	-	10,699
Fishery Contribution (Boat Share)	53,851	(3,795)	(1,317)	48,739
Vessel Fixed Expenses				
Insurance	7,000	7,000	7,000	21,000
Repairs & Maintenance	14,000	14,000	14,000	42,000
Moorage	4,000	4,000	4,000	12,000
Miscellaneous	2,000	2,000	2,000	6,000
Total Vessel Expenses	27,000	27,000	27,000	81,000
Earnings (EBITDA)	\$26,851	-\$30,795	-\$28,317	-\$32,261

All Gillnet Vessels

Number of Vessels	303	135	12	450
Salmon Gillnet Fleet (3 Lic) Aggregate Vessel Profiles	Single	Double	Triple	Fleet Total
Landings (kg) – All Species	820,654	688,900	78,035	1,587,589
Vessel Price (per kg)	\$2.19	\$1.89	\$1.98	\$2.05
Gross Revenue (Gross Stock)	\$1,799,756	\$1,304,473	\$154,158	\$3,258,387
Less: Fishery Specific Expenses				
Fuel	681,750	418,500	42,600	1,142,850
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	293,910	234,900	30,120	558,930
Licence/Quota lease	-	-	-	-
Ice	99,325	58,750	22,000	180,075
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	1,074,985	712,150	94,720	1,881,855
Net Revenue (Net Stock)	724,771	592,323	59,438	1,376,532
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	-	77,922	10,699	88,621
Fishery Contribution (Boat Share)	724,771	514,400	48,739	1,287,911
Vessel Fixed Expenses				
Insurance	454,500	202,500	21,000	678,000
Repairs & Maintenance	1,060,500	472,500	42,000	1,575,000
Moorage	303,000	135,000	12,000	450,000
Miscellaneous	151,500	67,500	6,000	225,000
Total Vessel Expenses	1,969,500	877,500	81,000	2,928,000
Earnings (EBITDA)	-\$1,244,729	-\$363,100	-\$32,261	-\$1,640,089

Other fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Single Licensed Vessels

Vessel Count	Gillnet Salmon (Single)	Diversification Fisheries				Non-Subject Fisheries Total
		Shrimp	Halibut	Rockfish	Prawn	
Active in Subject Fishery Only	291	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	12	8	4	4	8	12
Inactive in Subject Fishery + Active in Other Fisheries	19	13	6	7	13	19
Inactive (No Fisheries)	260	-	-	-	-	-
Total	582	21	10	11	21	31

Fleet Revenue (\$)	Gillnet Salmon (Single)	Diversification Fisheries				Non-Subject Fisheries Total
		Shrimp	Halibut	Rockfish	Prawn	
Active in Subject Fishery Only	1,799,756	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		28,171	189,838	4,402	292,698	515,109
Inactive in Subject Fishery + Active in Other Fisheries	-	147,552	971,707	65,074	1,341,930	2,526,263
Inactive (No Fisheries)	-	-	-	-	-	-
Total	1,799,756	175,723	1,161,545	69,476	1,634,628	3,041,371

Multi Licensed Vessels

Vessel Count	Gillnet Salmon (Double & Triple)	Diversification Fisheries				Non-Subject Fisheries Total
		Shrimp	Halibut	Rockfish	Prawn	
Active in Subject Fishery Only	136	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	11	**	8	9	3	11
Inactive in Subject Fishery + Active in Other Fisheries	4	-	3	3	**	4
Inactive (No Fisheries)	35	-	-	-	-	-
Total	186	**	11	12	**	15

Fleet Revenue (\$)	Gillnet Salmon (Double & Triple)	Diversification Fisheries				Non-Subject Fisheries Total
		Shrimp	Halibut	Rockfish	Prawn	
Active in Subject Fishery Only	1,458,631					
Active in Subject Fishery + Active in Other Fisheries		3,957	888,311	67,870	202,272	1,162,409
Inactive in Subject Fishery + Active in Other Fisheries	-	-	829,048	25,411	207,306	1,061,765
Inactive (No Fisheries)		-	-	-	-	-
Total	1,458,631	3,957	1,717,359	93,281	409,578	2,224,174

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets depending on the number of gillnet salmon licences held. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from "Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.

- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Salmon Gillnet Replacement Cost of Assets	Single Licence	Double Licence	Triple Licence
Licence Cost	60,000	120,000	180,000
Vessel Cost	85,000	85,000	85,000
Replacement cost	145,000	205,000	265,000
Amortization (annual) @ 5%	7,250	10,250	13,250
Loan Considerations if 50% borrowed:			
Loan amount	72,500	102,500	132,500
Interest (1st year)	5,800	8,200	10,600
Principal (1st year, 15 yr amort)	4,833	6,833	8,833
1st year pmt (principal + interest):	10,633	15,033	19,433

Comparison to 2007 Results

- 2009 was a much poorer year than 2007. The fishery in the north was poor, and south coast fisheries were nearly non-existent.
- Fleet revenues in 2009 about 43% of 2007 levels.
- Participation down: 450 active vessels vs. 591 in 2007.

Salmon Troll (AT)

Fishery Overview

The salmon troll fishery is a competitive fishery operating under an area licensing program, with the coast divided into three areas: F (north coast), G (West Coast Vancouver Island), and H (Areas 12-19, 28, and 29) for management purposes. Licence stacking is allowed; licences are vessel-based, meaning stringent vessel replacement rules apply.

In the troll fishery vessels range between 35-50' and are generally crewed by 2-3 persons.

While the troll fleet has seen a reduction in access to stocks, particularly coho and sockeye, and has experienced poor results as seen in the seine and gillnet sectors, it has restored a north and west coast chinook fishery, and has benefited from an escalation in fish prices related to high demand for these fish. The troll fishery features individual transferable quota demonstration fisheries, most notably in Area F; for this reason, quota lease costs are incorporated in financial schedules.

While a single year glimpse is not the ideal timeframe for describing financial results in the salmon fishery (since runs are highly cyclical), the 2009 results shown in this snapshot are reasonably typical of recent performance.

Licensing Profile

Count of AT Licences per Vessel	Count of Vessels	Sum of AT Licences	Count of Active Vessels	Count of Inactive Vessels
1	345	345	205	140
2	63	126	40	23
3	5	15	1	4
Total	413	486	246	167

Count of All Licences on AT Vessels	Count of Vessels	Count of Single AT Vessels	Sum of AT Licences	Sum of Non-AT Licences	Sum of All Licences
1	196	196	196	0	196
2	112	96	128	96	224
3	53	33	73	86	159
4	28	15	41	71	112
5	13	2	27	38	65
6 or more	11	3	21	47	68
Total	413	345	486	338	824

Mix of Licences on AT Vessels	Sum of Licences
AT	486
Tuna (USA 68)	92
Halibut	86
Rockfish ZN	62
Shrimp	35
Prawn	23
Others	40
Total	824

Landings Profile⁶

Count of AT Licences per Vessel	Count of Vessels	Count of Active Vessels	Count of Inactive Vessels
1	345	205	140
2	63	40	23
3	5	1	4
Total	413	246	167

Count of AT Licences	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
1	205	1,217,749	6,290,224	74%	75%	5,940	30,684
2	40	420,275	2,119,655	26%	25%	10,507	52,991
3 (values not shown)	1						
Total	246	1,638,024	8,409,879	100%	100%	6,659	34,186

Single Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	68	744,969	3,962,588	61%	63%	10,955	58,273
Middle 1/3	68	328,315	1,662,173	27%	26%	4,828	24,444
Bottom 1/3	69	144,465	665,463	12%	11%	2,094	9,644
Total	205	1,217,749	6,290,224	100%	100%	5,940	30,684

⁶ The analysis in this section relates to single, double, or triple licensing... not specific areas (F, G or H). This is because the data utilized did not specifically link licence-area to area of capture.

Double Licensed Vessels	Count of Active Vessels	Salmon Catch (kg)	Salmon Catch Value (\$)	% of Catch	% of Catch Value	Catch/Vessel (kg)	Catch Value/Vessel (\$)
Top 1/3	13	249,226	1,279,581	59%	60%	19,171	98,429
Middle 1/3	13	123,593	647,516	29%	31%	9,507	49,809
Bottom 1/3	14	47,455	192,557	11%	9%	3,390	13,754
Total	40	420,275	2,119,655	100%	100%	10,507	52,991

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices (from DFO Salmon Prices):

Species	Price/Kg
Pink	0.37
Chum	1.46
Sockeye	4.06
Coho	2.80
Chinook	6.08

- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	Single licences: 2 (top tier), 1 (middle tier), 0 (bottom tier) Multiple licences: 2 (top & middle tier), 0 (bottom tier)
Deckhand share	10% of gross each
Captain's Bonus	n/a

- A variety of settlement arrangements are used in the industry. Virtually all captains are owner operators.
- Repairs and maintenance includes both vessel and fishing gear.

Single Licensed Vessels

Individual Vessel Profiles

Salmon Troll Fleet (1 Lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	10,955	4,828	2,093	5,940
Vessel Price (per kg)	\$5.32	\$5.07	\$4.61	\$5.17
Gross Revenue (Gross Stock)	\$58,328	\$24,471	\$9,654	\$30,714
Less: Fishery Specific Expenses				
Fuel	6,750	4,500	1,800	4,338
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	970	970	970	970
Licence/Quota lease	1,634	795	321	914
Ice	1,000	750	500	578
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	10,354	7,015	3,591	6,800
Net Revenue (Net Stock)	47,973	17,455	6,064	23,915
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	11,666	2,447	-	4,681
Fishery Contribution (Boat Share)	36,308	15,008	6,064	19,234
Vessel Fixed Expenses				
Insurance	2,000	2,000	2,000	2,000
Repairs & Maintenance	7,500	7,500	7,500	7,500
Moorage	1,500	1,500	1,500	1,500
Miscellaneous	750	750	750	750
Total Vessel Expenses	11,750	11,750	11,750	11,750
Earnings (EBITDA)	\$24,558	\$3,258	-\$5,686	\$7,484

Double Licensed Vessels

Individual Vessel Profiles

Salmon Troll Fleet (2 Lic) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	19,171	9,508	3,390	10,507
Vessel Price (per kg)	\$5.14	\$5.24	\$4.06	\$5.05
Gross Revenue (Gross Stock)	\$98,510	\$49,868	\$13,772	\$53,043
Less: Fishery Specific Expenses				
Fuel	9,000	5,400	3,600	5,940
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,740	1,740	1,740	1,740
Licence/Quota lease	2,507	1,077	258	1,255
Ice	2,000	1,200	800	1,330
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	15,247	9,417	6,398	10,265
Net Revenue (Net Stock)	83,262	40,451	7,374	42,778
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	19,702	9,974	-	9,645
Fishery Contribution (Boat Share)	63,560	30,477	7,374	33,133
Vessel Fixed Expenses				
Insurance	1,750	1,750	1,750	1,750
Repairs & Maintenance	7,500	7,500	7,500	7,500
Moorage	1,500	1,500	1,500	1,500
Miscellaneous	750	750	750	750
Total Vessel Expenses	11,500	11,500	11,500	11,500
Earnings (EBITDA)	\$52,060	\$18,977	-\$4,126	\$21,633

Triple Licensed Vessels

This profile is not shown for individual vessels for confidentiality reasons, since there are only five vessels (one active).

Single Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	205			
Salmon Troll Fleet (1 Lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	744,959	328,310	144,441	1,217,710
Vessel Price (per kg)	\$5.32	\$5.07	\$4.61	\$5.17
Gross Revenue (Gross Stock)	\$3,966,301	\$1,663,994	\$666,157	\$6,296,452
Less: Fishery Specific Expenses				
Fuel	459,000	306,000	124,200	889,200
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	65,960	65,960	66,930	198,850
Licence/Quota lease	111,145	54,069	22,144	187,358
Ice	68,000	16,000	34,500	118,500
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	704,105	442,029	247,774	1,393,908
Net Revenue (Net Stock)	3,262,195	1,221,965	418,383	4,902,543
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	793,260	166,399	-	959,660
Fishery Contribution (Boat Share)	2,468,935	1,055,565	418,383	3,942,884
Vessel Fixed Expenses				
Insurance	136,000	136,000	138,000	410,000
Repairs & Maintenance	510,000	510,000	517,500	1,537,500
Moorage	102,000	102,000	103,500	307,500
Miscellaneous	51,000	51,000	51,750	153,750
Total Vessel Expenses	799,000	799,000	810,750	2,408,750
Earnings (EBITDA)	\$1,669,935	\$256,565	-\$392,367	\$1,534,134

Double Licensed Vessels

Aggregate Vessel Profiles

Number of Vessels	40			
Salmon Troll Fleet (2 Lic) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	249,221	123,602	47,456	420,279
Vessel Price (per kg)	\$5.14	\$5.24	\$4.06	\$5.05
Gross Revenue (Gross Stock)	\$1,280,625	\$648,283	\$192,806	\$2,121,714
Less: Fishery Specific Expenses				
Fuel	117,000	70,200	50,400	237,600
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	22,620	22,620	24,360	69,600
Licence/Quota lease	32,595	14,003	3,613	50,211
Ice	26,000	16,000	11,200	53,200
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	198,215	122,823	89,573	410,611
Net Revenue (Net Stock)	1,082,409	525,461	103,233	1,711,103
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	256,125	129,657	-	385,782
Fishery Contribution (Boat Share)	826,284	395,804	103,233	1,325,321
Vessel Fixed Expenses				
Insurance	22,750	22,750	24,500	70,000
Repairs & Maintenance	97,500	97,500	105,000	300,000
Moorage	19,500	19,500	21,000	60,000
Miscellaneous	9,750	9,750	10,500	30,000
Total Vessel Expenses	149,500	149,500	161,000	460,000
Earnings (EBITDA)	\$676,784	\$246,304	-\$57,767	\$865,321

All Troll Vessels

The triple licensed vessels are excluded from this schedule in the interests of confidentiality.

Number of Vessels	205	40	1	246
Salmon Troll Fleet Aggregate Vessel Profiles	Single	Double	Triple (not calculated)	Fleet Total (exclude triples)
Landings (kg) – All Species	1,217,710	420,279	-	1,637,989
Vessel Price (per kg)	\$5.17	\$5.05	-	\$5.14
Gross Revenue (Gross Stock)	\$6,296,452	\$2,121,714	\$-	\$8,418,165
Less: Fishery Specific Expenses	0	0		
Fuel	889,200	237,600	-	1,126,800
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	198,850	69,600	-	268,450
Licence/Quota lease	187,358	50,211	-	237,569
Ice	118,500	53,200	-	171,700
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	1,393,908	410,611	-	1,804,519
Net Revenue (Net Stock)	4,902,543	1,711,103	-	6,613,646
<i>Less:</i>	-	-		
Captain's Bonus	-	-	-	-
Deckhand Shares	959,660	385,782	-	1,345,441
Fishery Contribution (Boat Share)	3,942,884	1,325,321	-	5,268,205
Vessel Fixed Expenses	-	-		
Insurance	410,000	70,000	-	480,000
Repairs & Maintenance	1,537,500	300,000	-	1,837,500
Moorage	307,500	60,000	-	367,500
Miscellaneous	153,750	30,000	-	183,750
Total Vessel Expenses	2,408,750	460,000	-	2,868,750
Earnings (EBITDA)	\$1,534,134	\$865,321	-	\$2,399,455

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Single Licensed Vessels

Vessel Count	Troll Salmon (Single)	Diversification Fisheries						Non-Subject Fisheries Total
		Tuna	Halibut	Rockfish	Sablefish	Shrimp	Prawn	
Active in Subject Fishery Only	165	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	40	8	23	25	12	6	6	40
Inactive in Subject Fishery + Active in Other Fisheries	40	3	25	25	15	8	14	40
Inactive (No Fisheries)	100	-	-	-	-	-	-	-
Total	345	11	48	50	27	14	20	80

Fleet Revenue (\$)	Troll Salmon (Single)	Diversification Fisheries						Non-Subject Fisheries Total
		Tuna	Halibut	Rockfish	Sablefish	Shrimp	Prawn	
Active in Subject Fishery Only	6,296,452	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		163,811	3,082,453	214,856	865,749	32,798	545,052	4,904,719
Inactive in Subject Fishery + Active in Other Fisheries		88,350	2,956,360	337,688	1,452,207	33,982	2,974,494	7,843,081
Inactive (No Fisheries)	-	-	-	-	-	-	-	-
Total	6,296,452	252,160	6,038,813	552,544	2,317,957	66,780	3,519,546	12,747,800

Multi Licensed Vessels

Vessel Count	Troll Salmon (Double & Triple)	Diversification Fisheries						Non-Subject Fisheries Total
		Tuna	Halibut	Rockfish	Sablefish	Shrimp	Prawn	
Active in Subject Fishery Only	27	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	14	**	12	12	11	**	**	14
Inactive in Subject Fishery + Active in Other Fisheries	12	**	8	8	6	-	4	12
Inactive (No Fisheries)	15	-	-	-	-	-	-	-
Total	68	**	20	20	17	**	**	26

Fleet Revenue (\$)	Troll Salmon (Double & Triple)	Diversification Fisheries						Non-Subject Fisheries Total
		Tuna	Halibut	Rockfish	Sablefish	Shrimp	Prawn	
Active in Subject Fishery Only		-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	2,121,714	5,232	2,296,883	205,956	987,784	-	503,022	3,998,906
Inactive in Subject Fishery + Active in Other Fisheries	-	39,522	2,138,356	173,073	1,143,373	-	1,644,636	5,138,960
Inactive (No Fisheries)	-	-	-	-	-	-	-	-
Total	2,121,714	44,755	4,435,239	379,029	2,131,157	-	2,147,658	9,137,866

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets for depending on the number of licences held. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from "Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.

- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Salmon Troll Replacement Cost of Assets	Single Licence	Double Licence	Triple Licence
Licence Cost	75,000	150,000	225,000
Vessel Cost	108,750	108,750	108,750
Replacement cost	183,750	258,750	333,750
Amortization (annual) @ 5%	9,188	12,938	16,688
Loan Considerations if 50% borrowed:			
Loan amount	91,875	129,375	166,875
Interest (1st year)	7,350	10,350	13,350
Principal (1st year, 15 yr amort)	6,125	8,625	11,125
1st year pmt (principal + interest):	13,475	18,975	24,475

Comparison to 2007 Results

- The 2009 season saw similar results to the 2007 season in terms of landings, fleet revenues, and earnings levels.

Tuna (USA 68)

Fishery Overview

The BC tuna fishery is an offshore jig fishery, targeting highly migratory albacore tuna. Fishing effort ranges from the northern tip of Vancouver Island to southern Oregon. A limited entry Albacore Tuna USA Section 68 licence is required for all vessels fishing in the waters of the USA. About 90 of the landings for 2009 were from US waters.

Fishing activity is dependent on price, ocean and weather conditions, albacore availability, the strength of other fisheries, particularly the salmon fishery, and fuel costs. Effort in the coastal fishery normally peaks in August and September, after the salmon season for trollers has wound down. Catch from the coastal fleet is sold into both the canned and the blast bled frozen tuna markets.⁷

Licensing Profile

Licence Category	Sum of Licences
USA 68	169
Troll Salmon	121
Halibut	62
ZN	33
Shrimp	24
Prawn	22
Other	85
Total Non-Tuna	347
Total	516

Count of All Licences on Tuna Vessels	Count of Vessels	Sum of Non-Tuna Licences	Sum of Licences
1	10	0	10
2	64	64	128
3	41	82	123
4	28	84	112
5	16	64	80
6 or more	10	53	63
Total	169	347	516

⁷ This paragraph is an excerpt from the Tuna IFMP.

Landings Profile

Catch Attribution	Kg
Catch attributed to licences	3,931,381
Catch unattributed	415,730
Total Catch	4,347,111

Activity Level	# Vessels
Active	96
Inactive	73
Total	169

Count of All Licences on Tuna Vessels	Catch (kg)	% Catch
1	49,043	1%
2	1,813,779	46%
3	781,210	20%
4 or more	1,287,350	33%
Total	3,931,381	100%

Tier	Catch (kg)	% Catch	Avg Catch/Vessel (kg)	# Vessels	Avg OAL
Top 1/3	2,352,663	60%	73,521	32	18.66
Middle 1/3	1,178,702	30%	36,834	32	15.51
Bottom 1/3	400,016	10%	12,500	32	14.91
Total/Avg	3,931,381	100%	40,952	96	16.36

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish price (from YIR 2009) for Tuna: \$3.15/kg
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Hired (top tier) Owner (middle & bottom tiers)
# Deckhands	3 (top tier) 2 (middle & bottom tiers)
Deckhand share	11% of gross each
Captain's Bonus	50% of a deckhand share (top tier only)

- A variety of settlement arrangements are used in the industry. Vessels are a mix between owner/operators and hired captains.
- Vessel fixed expenses reflect the fact that top-tier vessels are significantly larger than those in the lower tiers.

Individual Vessel Profiles

Tuna Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg)	73,521	36,835	12,501	40,952
Vessel Price (per kg)	\$3.15	\$3.15	\$3.15	\$3.15
Gross Revenue (Gross Stock)	\$231,782	\$116,125	\$39,409	\$129,105
Less: Fishery Specific Expenses				
Fuel	24,000	12,000	4,500	13,500
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,700	1,700	1,700	1,700
Licence/Quota lease	-	-	-	-
Ice	250	200	100	283
Bait	-	-	-	-
Gear Maintenance/replace	3,750	3,000	1,500	2,750
Total Fishery Specific Expenses	29,700	16,900	7,800	18,233
Net Revenue (Net Stock)	202,082	99,225	31,609	110,872
<i>Less:</i>				
Captain's Bonus	9,561	-	-	3,187
Deckhand Shares	76,488	25,547	8,670	36,902
Fishery Contribution (Boat Share)	116,033	73,677	22,939	70,783
Vessel Fixed Expenses				
Insurance	6,500	4,000	4,000	4,833
Repairs & Maintenance	20,000	12,000	10,000	14,000
Moorage	1,200	1,200	1,200	1,200
Miscellaneous	2,000	2,000	2,000	2,000
Total Vessel Expenses	29,700	19,200	17,200	22,033
Earnings (EBITDA)	\$86,333	\$54,477	\$5,739	\$48,750

Aggregate Vessel Profiles

Number of Vessels	96			
Tuna Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg)	2,352,687	1,178,714	400,020	3,931,422
Vessel Price (per kg)	\$3.15	\$3.15	\$3.15	\$3.15
Gross Revenue (Gross Stock)	\$7,417,030	\$3,715,989	\$1,261,094	\$12,394,113
Less: Fishery Specific Expenses				
Fuel	768,000	384,000	144,000	1,296,000
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	54,400	54,400	54,400	163,200
Licence/Quota lease	-	-	-	-
Ice	8,000	16,000	3,200	27,200
Bait	-	-	-	-
Gear Maintenance/replace	120,000	96,000	48,000	264,000
Total Fishery Specific Expenses	950,400	550,400	249,600	1,750,400
Net Revenue (Net Stock)	6,466,630	3,165,589	1,011,494	10,643,713
<i>Less:</i>				
Captain's Bonus	305,953	-	-	305,953
Deckhand Shares	2,447,620	817,518	277,441	3,542,578
Fishery Contribution (Boat Share)	3,713,058	2,348,071	734,053	6,795,182
Vessel Fixed Expenses				
Insurance	208,000	128,000	128,000	464,000
Repairs & Maintenance	640,000	384,000	320,000	1,344,000
Moorage	38,400	38,400	38,400	115,200
Miscellaneous	64,000	64,000	64,000	192,000
Total Vessel Expenses	950,400	614,400	550,400	2,115,200
Earnings (EBITDA)	\$2,762,658	\$1,733,671	\$183,653	\$4,679,982

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Tuna	Diversification Fisheries				Non-Subject Fisheries Total
		Troll Salmon	Prawn	Halibut	Rockfish	
Active in Subject Fishery Only	53	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	43	15	11	19	20	43
Inactive in Subject Fishery + Active in Other Fisheries	47	27	14	17	18	47
Inactive (No Fisheries)	26	-	-	-	-	-
Total	169	42	25	36	38	90

Fleet Revenue (\$)	Tuna	Diversification Fisheries				Non-Subject Fisheries Total
		Troll Salmon	Prawn	Halibut	Rockfish	
Active in Subject Fishery Only		-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	12,394,113	268,665	1,462,571	5,370,852	1,669,415	8,771,503
Inactive in Subject Fishery + Active in Other Fisheries	-	588,131	1,421,875	3,730,368	2,727,104	8,467,477
Inactive (No Fisheries)	-	-	-	-	-	-
Total	12,394,113	856,796	2,884,446	9,101,220	4,396,519	17,238,980

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the tuna fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.

- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Tuna Replacement Cost of Assets	Tuna Vessel & Licence
Licence Cost	150,000
Vessel Cost	225,000
Replacement cost	375,000
Amortization (annual) @ 5%	18,750
Loan Considerations if 50% borrowed:	
Loan amount	187,500
Interest (1st year)	15,000
Principal (1st year, 15 yr amort)	12,500
1st year pmt (principal + interest):	27,500

Comparison to 2007 Results

- The 2009 fishery was similar to that in 2007, though both volumes and prices eased slightly in 2009.

Halibut (L)

Fishery Overview

The BC halibut fishery is managed under an Individual Vessel Quota management (IVQ) program. Individual quotas are expressed as a percentage of the overall TAC and issued annually in pounds. Quotas were initially endowed using a formula combining vessel length and production history. Since then there have been significant reallocations of IVQ amongst the fleet.

Halibut has for several years been one of BC's most coveted fisheries, with strong market demand for fresh halibut translating into high asset values and attractive returns to fishermen. A buoyant lease market also prevails.

The halibut (L licence category) fishery features 100% electronic at-sea monitoring and landings validation, and is part of the integrated groundfish program. Canada operates under a Treaty with the USA with respect to halibut management (under the IPHC), since halibut are a trans-boundary stock. The fishery also features an explicit sharing arrangement with the recreational sector, with the commercial/sport split pegged at 88%/12%. The fishing season extends from March to November each year.

Halibut is perhaps the most in-demand fishery category for First Nations seeking expansion or diversification in BC fisheries.

Licensing Profile

Licence Category	Sum of Licences
Halibut (L)	360
Rockfish (ZN)	127
Salmon troll	120
Salmon gillnet	65
Tuna	66
Roe Herring seine	42
Salmon Seine	32
Sablefish	33
Prawn	28
Shrimp	21
Others	58
Grand Total	952

Count of All Licences on Halibut Vessels	Count of Vessels	Sum of Non-Halibut Licences	Sum of Licences
1	92	0	92
2	111	111	222
3	64	128	192
4	48	144	192
5	29	116	145
6	10	60	60
7 or more	6	49	43
Total	360	592	952

Landings Profile

Note: all weights are dressed head-off.

Catch Attribution	Kg
Catch attributed to L licensed vessels	2,808,861
Unattributed to L licensed vessels	251,893
Total	3,060,754

Count of Vessels	Catch Stats Dataset	Trip Level (DMP) Dataset
Active	144	150
Inactive	216	210
Total	360	360

Tier/Catch (kg)	# Vessels	Halibut	Rockfish	Sablefish	Dogfish	Lingcod	Other	Total
Top 1/3	50	1,511,961	235,762	57,790	99,564	111,265	93,485	2,109,827
Middle 1/3	50	971,986	141,627	33,108	233,921	81,552	95,360	1,557,554
Bottom1/3	50	325,277	70,950	15,008	113,460	40,947	32,195	597,837
Total	150	2,809,224	448,339	105,906	446,945	233,763	221,040	4,265,217

Tier/Average Catch per Vessel (kg)	Halibut	Rockfish	Sablefish	Dogfish	Lingcod	Other	Total
Top 1/3	30,239	4,715	1,156	1,991	2,225	1,870	42,197
Middle 1/3	19,440	2,833	662	4,678	1,631	1,907	31,151
Bottom1/3	6,506	1,419	300	2,269	819	644	11,957
Average	18,728	2,989	706	2,980	1,558	1,474	28,435

Tier/Catch Mix	% of Catch (All Species)	% Halibut in Catch Mix
Top 1/3	49%	72%
Middle 1/3	37%	62%
Bottom1/3	14%	54%
Total	100%	66%

Tier	Average OAL (m)
Top 1/3	17.04
Middle 1/3	14.96
Bottom1/3	13.57

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices are largely drawn from the contractor's research. Published prices for most species were not suitable as they reflect a mix of gear types (that may have widely varying prices):

Species	Price/Kg
Halibut	12.13
Rockfish	1.98
Lingcod	2.76
Sablefish	13.23
Dogfish, Other	0.72

- Trip expenses imputed from research.
- A portion of the fish harvested is assumed to be leased. Quota leasing has an important impact on results. The base assumption is that 30% of halibut is leased, and 50% of all other species is leased. Lease rates:

Species	Lease Rate/Kg
Halibut	7.05
Rockfish	0.33
Lingcod	0.77
Sablefish	9.37
Dogfish, Other	0.04

- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	3 (top and middle tiers) 2 (bottom tier)
Deckhand share	10% of gross per deckhand
Captain's Bonus	n/a

- A variety of settlement arrangements are used in the industry, including the treatment of quota. The fleet features a mix of hired captains and owner operators, though owner-operators are deemed to predominate.

- Repairs and maintenance is linked to vessel size and productivity.

Top Production Tier

Individual Vessel Profiles

Top Tier (1/3) Individual Vessel	Halibut	Rockfish	Lingcod	Sablefish	Dogfish, Other	Total
Landings (kg) – All Species Grndfish	30,239	4,715	2,225	1,156	3,861	42,197
Vessel Price (per kg)	\$12.13	\$1.98	\$2.76	\$13.23	\$0.72	\$9.48
Gross Revenue (Gross Stock)	\$366,660	\$9,356	\$6,132	\$15,288	\$2,777	\$400,213
Less: Fishery Specific Expenses						
Fuel	8,190					8,190
At sea monitoring	1,638					1,638
Offload Monitor	2,000	312	147	76	255	2,791
Licence / Co-management Fees	14,466					14,466
Licence/Quota lease	63,999	468	859	5,415	85	70,825
Ice	1,470					1,470
Bait	8,400					8,400
Gear Maintenance/replace	3,150					3,150
Total Fishery Specific Expenses	103,312	780	1,006	5,491	340	110,929
Net Revenue (Net Stock)	263,347	8,576	5,127	9,797	2,436	289,284
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	109,998	2,807	1,840	4,587	833	120,064
Fishery Contribution (Boat Share)	153,349	5,769	3,287	5,211	1,603	169,220
Vessel Fixed Expenses						
Insurance						4,500
Repairs & Maintenance						15,000
Moorage						1,500
Miscellaneous						1,500
Total Vessel Expenses						22,500
Earnings (EBITDA)						\$146,720

Middle Production Tier

Individual Vessel Profiles

Middle Tier (1/3) Individual Vessel	Halibut	Rockfish	Lingcod	Sablefish	Dogfish, Other	Total
Landings (kg) – All Species Grndfish	19,440	2,833	1,631	662	6,586	31,151
Vessel Price (per kg)	\$12.13	\$1.98	\$2.76	\$13.23	\$0.72	\$8.32
Gross Revenue (Gross Stock)	\$235,712	\$5,620	\$4,495	\$8,759	\$4,736	\$259,322
Less: Fishery Specific Expenses						
Fuel	6,000					6,000
At sea monitoring	1,560					1,560
Offload Monitor	1,286	187	108	44	436	2,060
Licence / Co-management Fees	9,451					9,451
Licence/Quota lease	41,143	281	629	3,102	145	45,300
Ice	1,400					1,400
Bait	6,000					6,000
Gear Maintenance/replace	2,400					2,400
Total Fishery Specific Expenses	69,240	468	737	3,146	581	74,172
Net Revenue (Net Stock)	166,473	5,152	3,758	5,613	4,156	185,151
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	70,714	1,686	1,348	2,628	1,217	77,593
Fishery Contribution (Boat Share)	95,759	3,466	2,409	2,985	2,938	107,558
Vessel Fixed Expenses						
Insurance						4,000
Repairs & Maintenance						12,000
Moorage						1,500
Miscellaneous						750
Total Vessel Expenses						18,250
Earnings (EBITDA)						\$89,308

Bottom Production Tier

Individual Vessel Profiles

Bottom Tier (1/3) Individual Vessel	Halibut	Rockfish	Lingcod	Sablefish	Dogfish, Other	Total
Landings (kg) – All Species Grndfish	6,506	1,419	819	300	2,913	11,957
Vessel Price (per kg)	\$12.13	\$1.98	\$2.76	\$13.23	\$0.72	\$7.53
Gross Revenue (Gross Stock)	\$78,882	\$2,816	\$2,257	\$3,970	\$2,095	\$90,019
Less: Fishery Specific Expenses						
Fuel	2,700					2,700
At sea monitoring	780					780
Offload Monitor	430	94	54	20	193	791
Licence / Co-management Fees	3,639					3,639
Licence/Quota lease	13,768	141	316	1,406	64	15,696
Ice	1,050					1,050
Bait	3,000					3,000
Gear Maintenance/replace	1,500					1,500
Total Fishery Specific Expenses	26,868	235	370	1,426	257	29,155
Net Revenue (Net Stock)	52,014	2,581	1,887	2,544	1,838	60,864
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	15,776	563	451	794	338	17,923
Fishery Contribution (Boat Share)	36,238	2,018	1,435	1,750	1,500	42,941
Vessel Fixed Expenses						
Insurance						3,500
Repairs & Maintenance						7,000
Moorage						1,500
Miscellaneous						750
Total Vessel Expenses						12,750
Earnings (EBITDA)						\$30,191

Summary of Production Tiers – Individual Vessels

Halibut and other groundfish aggregated

Halibut Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species Grndfish	42,197	31,151	11,957	28,435
Vessel Price (per kg)	\$9.48	\$8.32	\$7.53	\$8.79
Gross Revenue (Gross Stock)	\$400,213	\$259,322	\$90,019	\$249,852
Less: Fishery Specific Expenses				
Fuel	8,190	6,000	2,700	5,630
At sea monitoring	1,638	1,560	780	1,326
Offload Monitor	2,791	2,060	791	1,881
Licence / Co-management Fees	14,466	9,451	3,639	9,185
Licence/Quota lease	70,825	45,300	15,696	43,940
Ice	1,470	1,400	1,050	1,307
Bait	8,400	6,000	3,000	5,800
Gear Maintenance/replace	3,150	2,400	1,500	2,350
Total Fishery Specific Expenses	110,929	74,172	29,155	71,419
Net Revenue (Net Stock)	289,284	185,151	60,864	178,433
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	120,064	77,593	17,923	71,860
Fishery Contribution (Boat Share)	169,220	107,558	42,941	106,573
Vessel Fixed Expenses				
Insurance	4,500	4,000	3,500	4,000
Repairs & Maintenance	15,000	12,000	7,000	11,333
Moorage	1,500	1,500	1,500	1,500
Miscellaneous	1,500	750	750	1,000
Total Vessel Expenses	22,500	18,250	12,750	17,833
Earnings (EBITDA)	\$146,720	\$89,308	\$30,191	\$88,739

Top Production Tier

Aggregate Vessel Profiles

Number of Vessels	50					
Top Tier (1/3) Aggregate	Halibut	Rockfish	Lingcod	Sablefish	Dogfish, Other	Total
Landings (kg) – All Species Grndfish	1,511,961	235,762	111,265	57,790	193,049	2,109,827
Vessel Price (per kg)	\$12.13	\$1.98	\$2.76	\$13.23	\$0.72	\$9.48
Gross Revenue (Gross Stock)	\$18,332,985	\$467,786	\$306,618	\$764,420	\$138,838	\$20,010,647
Less: Fishery Specific Expenses						
Fuel	409,500	-	-	-	-	409,500
At sea monitoring	81,900	-	-	-	-	81,900
Offload Monitor	99,998	15,593	7,359	3,822	12,768	139,540
Licence / Co-management Fees	723,287	-	-	-	-	723,287
Licence/Quota lease	3,199,939	23,389	42,926	270,732	4,256	3,541,243
Ice	73,500	-	-	-	-	73,500
Bait	420,000	-	-	-	-	420,000
Gear Maintenance/replace	157,500	-	-	-	-	157,500
Total Fishery Specific Expenses	5,165,624	38,982	50,285	274,554	17,024	5,546,470
Net Revenue (Net Stock)	13,167,361	428,804	256,332	489,866	121,814	14,464,177
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	5,499,896	140,336	91,985	229,326	41,651	6,003,194
Fishery Contribution (Boat Share)	7,667,465	288,468	164,347	260,540	80,163	8,460,983
Vessel Fixed Expenses						
Insurance						225,000
Repairs & Maintenance						750,000
Moorage						75,000
Miscellaneous						75,000
Total Vessel Expenses						1,125,000
Earnings (EBITDA)						\$7,335,983

Middle Production Tier

Aggregate Vessel Profiles

Number of Vessels	50					
Middle Tier (1/3) Aggregate	Halibut	Rockfish	Lingcod	Sablefish	Dogfish, Other	Total
Landings (kg) – All Species Grndfish	971,986	141,627	81,552	33,108	329,281	1,557,554
Vessel Price (per kg)	\$12.13	\$1.98	\$2.76	\$13.23	\$0.72	\$8.32
Gross Revenue (Gross Stock)	\$11,785,620	\$281,007	\$224,736	\$437,943	\$236,815	\$12,966,121
Less: Fishery Specific Expenses						
Fuel	300,000	-	-	-	-	300,000
At sea monitoring	78,000	-	-	-	-	78,000
Offload Monitor	64,285	9,367	5,394	2,190	21,778	103,013
Licence / Co-management Fees	472,564	-	-	-	-	472,564
Licence/Quota lease	2,057,126	14,050	31,463	155,105	7,259	2,265,004
Ice	70,000	-	-	-	-	70,000
Bait	300,000	-	-	-	-	300,000
Gear Maintenance/replace	120,000	-	-	-	-	120,000
Total Fishery Specific Expenses	3,461,976	23,417	36,857	157,295	29,037	3,708,582
Net Revenue (Net Stock)	8,323,644	257,590	187,880	280,649	207,778	9,257,539
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	3,535,686	84,302	67,421	131,383	60,870	3,879,662
Fishery Contribution (Boat Share)	4,787,958	173,288	120,459	149,266	146,907	5,377,877
Vessel Fixed Expenses						
Insurance						200,000
Repairs & Maintenance						600,000
Moorage						75,000
Miscellaneous						37,500
Total Vessel Expenses						912,500
Earnings (EBITDA)						\$4,465,377

Bottom Production Tier

Aggregate Vessel Profiles

Number of Vessels	50					
Bottom Tier (1/3) Aggregate	Halibut	Rockfish	Lingcod	Sablefish	Dogfish, Other	Total
Landings (kg) – All Species Grndfish	325,277	70,950	40,947	15,008	145,655	597,837
Vessel Price (per kg)	\$12.13	\$1.98	\$2.76	\$13.23	\$0.72	\$7.53
Gross Revenue (Gross Stock)	\$3,944,078	\$140,775	\$112,840	\$198,515	\$104,753	\$4,500,961
Less: Fishery Specific Expenses						
Fuel	135,000	-	-	-	-	135,000
At sea monitoring	39,000	-	-	-	-	39,000
Offload Monitor	21,513	4,693	2,708	993	9,633	39,540
Licence / Co-management Fees	181,949	-	-	-	-	181,949
Licence/Quota lease	688,421	7,039	15,798	70,307	3,211	784,776
Ice	52,500	-	-	-	-	52,500
Bait	150,000	-	-	-	-	150,000
Gear Maintenance/replace	75,000	-	-	-	-	75,000
Total Fishery Specific Expenses	1,343,383	11,731	18,506	71,300	12,844	1,457,764
Net Revenue (Net Stock)	2,600,695	129,044	94,334	127,215	91,909	3,043,197
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	788,816	28,155	22,568	39,703	16,894	896,135
Fishery Contribution (Boat Share)	1,811,879	100,889	71,766	87,512	75,015	2,147,062
Vessel Fixed Expenses						
Insurance						175,000
Repairs & Maintenance						350,000
Moorage						75,000
Miscellaneous						37,500
<i>Total Vessel Expenses</i>						637,500
Earnings (EBITDA)						\$1,509,562

Summary of Three Production Tiers – Aggregate

Halibut and other groundfish aggregated

Number of Vessels	150			
Halibut Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species Grndfish	2,109,827	1,557,554	597,837	4,265,217
Vessel Price (per kg)	\$9.48	\$8.32	\$7.53	\$8.79
Gross Revenue (Gross Stock)	\$20,010,647	\$12,966,121	\$4,500,961	\$37,477,729
Less: Fishery Specific Expenses				
Fuel	409,500	300,000	135,000	844,500
At sea monitoring	81,900	78,000	39,000	198,900
Offload Monitor	139,540	103,013	39,540	282,093
Licence / Co-management Fees	723,287	472,564	181,949	1,377,800
Licence/Quota lease	3,541,243	2,265,004	784,776	6,591,023
Ice	73,500	70,000	52,500	196,000
Bait	420,000	300,000	150,000	870,000
Gear Maintenance/replace	157,500	120,000	75,000	352,500
Total Fishery Specific Expenses	5,546,470	3,708,582	1,457,764	10,712,816
Net Revenue (Net Stock)	14,464,177	9,257,539	3,043,197	26,764,913
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	6,003,194	3,879,662	896,135	10,778,991
Fishery Contribution (Boat Share)	8,460,983	5,377,877	2,147,062	15,985,922
Vessel Fixed Expenses				
Insurance	225,000	200,000	175,000	600,000
Repairs & Maintenance	750,000	600,000	350,000	1,700,000
Moorage	75,000	75,000	75,000	225,000
Miscellaneous	75,000	37,500	37,500	150,000
Total Vessel Expenses	1,125,000	912,500	637,500	2,675,000
Earnings (EBITDA)	\$7,335,983	\$4,465,377	\$1,509,562	\$13,310,922

Summary & Sensitivities (Individual Vessels by Tier)*Summary: 30% of Halibut and Rockfish Leased, 50% of other species*

Financial Indicator	Top 1/3	Middle 1/3	Bottom 1/3
Gross Revenue	\$400,213	\$259,322	\$90,019
Fishery Contribution	\$169,220	\$107,558	\$42,941
EBITDA	\$146,720	\$89,308	\$30,191

Sensitivity: 60% of Halibut and other species leased

Financial Indicator	Top 1/3	Middle 1/3	Bottom 1/3
Gross Revenue	\$400,213	\$259,322	\$90,019
Fishery Contribution	\$103,481	\$65,359	\$28,675
EBITDA	\$80,981	\$47,109	\$15,925

Sensitivity: no fish is leased

Financial Indicator	Top 1/3	Middle 1/3	Bottom 1/3
Gross Revenue	\$400,213	\$259,322	\$90,019
Fishery Contribution	\$240,045	\$152,858	\$58,637
EBITDA	\$217,545	\$134,608	\$45,887

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant non-groundfish diversification activity. Note that values in the "Diversification Fisheries" rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Diversification Fisheries						
	Halibut Fishery	Gillnet Salmon	Troll Salmon	Tuna	Roe Herring Seine	Prawn	Non-Subject Fisheries Total
Active in Subject Fishery Only	87	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	57	28	7	5	5	11	57
Inactive in Subject Fishery + Active in Other Fisheries	56	17	19	7	**	15	56
Inactive (No Fisheries)	160	-	-	-	-	-	-
Total	360	45	26	12	**	26	113

Fleet Revenue (\$)	Diversification Fisheries						
	Halibut Fishery	Gillnet Salmon	Troll Salmon	Tuna	Roe Herring Seine	Prawn	Non-Subject Fisheries Total
Active in Subject Fishery Only		-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	37,477,729	111,084	1,633,160	625,640	940,644	3,112,740	6,423,269
Inactive in Subject Fishery + Active in Other Fisheries	-	175,064	617,583	524,711	262,335	3,579,228	5,158,921
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	37,477,729	286,148	2,250,743	1,150,351	1,202,979	6,691,968	11,582,190

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

1. The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
2. The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets for vessels in each “tier.” This assumes that assets are purchased/owned outright (that is, all quota is owned, none is leased). The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Halibut Replacement Cost of Assets	30,000 kg Halibut Quota	20,000 kg Halibut Quota	6,500 kg Halibut Quota
Licence Cost	53,000	53,000	53,000
Quota	2,314,830	1,543,220	525,000
Vessel Cost	203,000	127,000	127,000
Replacement cost	2,570,830	1,723,220	705,000
Amortization (annual) @ 5%	128,542	86,161	35,250
Loan Considerations if 50% borrowed:			
Loan amount	1,285,415	861,610	352,500
Interest (1st year)	102,833	68,929	28,200
Principal (1st year, 15 yr amort)	85,694	57,441	23,500
1st year pmt (principal + interest):	188,528	126,369	51,700

Comparison to 2007 Results

- A sharp reduction in the total allowable catch for halibut in 2009 vs. 2007 had a significant impact on results.
- Halibut fleet revenues declined about 25% as a result of the lower TAC.
- Lower quotas prompted fleet consolidation; fewer vessels participated in the fishery: 150 vs. 181.

Sablefish (K)

Fishery Overview

The BC sablefish fishery is managed under an Individual Vessel Quota management (IVQ) program. Individual quotas are expressed as a percentage of the overall TAC and issued annually in pounds. Individual quotas were initially endowed using a formula combining vessel length and production history. Since then there have been significant reallocations of IVQ amongst the fleet. Quota is divisible into one pound increments and is freely transferable, but a vessel must hold a K licence to hold quota or harvest sablefish.

Sablefish, a closely held category with only 48 licences (including FKs), has for several years been one of BC's most lucrative fisheries, with strong market demand for frozen sablefish in Japan translating into high asset values and attractive returns to fishermen. A buoyant lease market also prevails.

The sablefish (K licence category) fishery features 100% electronic at-sea monitoring and landings validation, and is part of the integrated groundfish program. The bulk of sablefish TAC is harvested by a relatively few large vessels using trap gear. Under groundfish integration, a growing number of vessels are utilizing longline gear and engaging in combination fishing (including sablefish, halibut, and rockfish).

Licensing Profile

Licence Category	Sum of Licences
Sablefish (K)	44
Halibut	33
Rockfish	20
Tuna	20
Salmon troll	14
Roe Herring Seine	8
Groundfish Trawl	7
Others	26
Total	172

Count of All Licences on Sablefish Vessels	Count of Vessels	Sum of Non-Sablefish Licences	Sum of Licences
1	2	0	2
2	8	8	16
3	8	16	24
4	10	30	40
5	10	40	50
6 or more	6	34	40
Total	44	128	172

Landings Profile

Note: all weights are j-cut.

Catch Attribution	Kg
Catch attributed to K licensed vessels	1,424,207
Unattributed to K licensed vessels	342,831
Total Catch	1,767,038

Vessel Count	Catch Stats Dataset	Trip Level (DMP) Dataset
Active	31	35
Inactive	13	9
Total	44	44

Tier/Catch (kg)	# Vessels	Sablefish	Halibut	Rockfish	Lingcod	Dogfish	Other	Total
Top1/3	11	1,113,008	17,091	126,134	9,028	-	134	1,265,395
Middle 1/3	12	297,112	6,569	55,043	373	249	18,687	378,033
Bottom 1/3	12	59,345	6,220	82,387	17,520	-	28,767	194,239
Total	35	1,469,465	29,879	263,564	26,921	249	47,589	1,837,667

Tier/Average Catch per Vessel (kg)	# Vessels	Sablefish	Halibut	Rockfish	Lingcod	Dogfish	Other	Total
Top1/3	11	101,183	1,554	11,467	821	-	12	115,036
Middle 1/3	12	24,759	547	4,587	31	21	1,557	31,503
Bottom 1/3	12	4,945	518	6,866	1,460	-	2,397	16,187
Average		41,985	854	7,530	769	7	1,360	52,505

Tier/Catch Mix	% of Catch (All Species)	% Sablefish in Catch Mix
Top 1/3	69%	88%
Middle 1/3	21%	79%
Bottom1/3	11%	31%
Total	100%	80%

Tier	Average OAL (m)
Top 1/3	24.26
Middle 1/3	17.01
Bottom1/3	18.12

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices are largely drawn from the contractor's research. Published prices for most species were not suitable as they reflect a mix of gear types (that may have widely varying prices):

Species	Price/Kg
Sablefish (j-cut)	13.67
Rockfish	1.98
Halibut	11.57
Lingcod	2.76
Other	1.10

- Trip expenses imputed from research.
- A portion of the fish harvested is assumed to be leased. Quota leasing has an important impact on results. The base assumption is that 30% of sablefish is leased, and 50% of all other species is leased. Lease rates:

Species	Lease Rate/Kg
Sablefish	9.37
Rockfish	0.33
Halibut	7.05
Lingcod	0.77
Other	0.04

- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Hired (top and middle tiers) Owner (bottom tier)
# Deckhands	5 (top tier) 3 (middle and bottom tiers)
Deckhand share	45% of net stock (top and middle tiers) 7% of gross per deckhand (bottom tier)
Captain's Bonus	50% of a deckhand share (top and middle tiers)

- A variety of settlement arrangements are used in the industry, including the treatment of quota. The fleet features a mix of hired captains and owner operators, though hired captains are deemed to predominate.
- Repairs and maintenance is linked to vessel size and productivity.

Top Production Tier

Individual Vessel Profiles

Top Tier (1/3) Individual Vessel	Sablefish	Rockfish	Halibut	Lingcod	Other	Total
Landings (kg) – All Species Grndfish	101,183	11,467	1,554	821	12	115,036
Vessel Price (per kg)	\$13.67	\$1.98	\$11.57	\$2.76	\$1.10	\$12.40
Gross Revenue (Gross Stock)	\$1,383,015	\$22,752	\$17,983	\$2,262	\$13	\$1,426,025
Less: Fishery Specific Expenses						
Fuel	105,750					105,750
At sea monitoring	9,165					9,165
Offload Monitor	3,346	379	51	27	0	3,804
Licence / Co-management Fees	62,531					62,531
Licence/Quota lease	284,410	1,138	5,480	317	0	291,345
Ice	940					940
Bait	44,613					44,613
Gear Maintenance/replace	11,750					11,750
Total Fishery Specific Expenses	522,506	1,517	5,532	344	1	529,899
Net Revenue (Net Stock)	860,509	21,235	12,451	1,918	13	896,126
<i>Less:</i>						
Captain's Bonus	32,269	796	467	72	0	33,605
Deckhand Shares	387,229	9,556	5,603	863	6	403,256
Fishery Contribution (Boat Share)	441,011	10,883	6,381	983	7	459,264
Vessel Fixed Expenses						
Insurance						15,000
Repairs & Maintenance						100,000
Moorage						2,000
Miscellaneous						10,000
Total Vessel Expenses						127,000
Earnings (EBITDA)						\$332,264

Middle Production Tier

Individual Vessel Profiles

Middle Tier (1/3) Individual Vessel	Sablefish	Rockfish	Halibut	Lingcod	Other	Total
Landings (kg) – All Species Grndfish	24,759	4,587	547	31	1,578	31,503
Vessel Price (per kg)	\$13.67	\$1.98	\$11.57	\$2.76	\$1.10	\$11.29
Gross Revenue (Gross Stock)	\$338,424	\$9,101	\$6,335	\$86	\$1,740	\$355,685
Less: Fishery Specific Expenses						
Fuel	32,500					32,500
At sea monitoring	5,281					5,281
Offload Monitor	819	152	18	1	52	1,042
Licence / Co-management Fees	15,471					15,471
Licence/Quota lease	69,595	455	1,931	12	35	72,028
Ice	1,950					1,950
Bait	10,917					10,917
Gear Maintenance/replace	8,125					8,125
Total Fishery Specific Expenses	144,658	607	1,949	13	87	147,314
Net Revenue (Net Stock)	193,765	8,494	4,387	73	1,653	208,371
<i>Less:</i>						
Captain's Bonus	10,899	478	247	4	93	11,721
Deckhand Shares	87,194	3,822	1,974	33	744	93,767
Fishery Contribution (Boat Share)	95,672	4,194	2,166	36	816	102,883
Vessel Fixed Expenses						
Insurance						5,000
Repairs & Maintenance						20,000
Moorage						1,200
Miscellaneous						5,000
Total Vessel Expenses						31,200
Earnings (EBITDA)						\$71,683

Bottom Production Tier

Individual Vessel Profiles

Bottom Tier (1/3) Individual Vessel	Sablefish	Rockfish	Halibut	Lingcod	Other	Total
Landings (kg) – All Species Grndfish	4,945	6,866	518	1,460	2,397	16,187
Vessel Price (per kg)	\$13.67	\$1.98	\$11.57	\$2.76	\$1.10	\$5.80
Gross Revenue (Gross Stock)	\$67,597	\$13,622	\$5,999	\$4,023	\$2,643	\$93,884
Less: Fishery Specific Expenses						
Fuel	12,250					12,250
At sea monitoring	2,275					2,275
Offload Monitor	164	227	17	48	79	535
Licence / Co-management Fees	3,794					3,794
Licence/Quota lease	13,901	681	1,828	563	53	17,027
Ice	1,750					1,750
Bait	2,181					2,181
Gear Maintenance/replace	3,500					3,500
Total Fishery Specific Expenses	39,814	908	1,846	612	132	43,311
Net Revenue (Net Stock)	27,783	12,714	4,154	3,412	2,510	50,573
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	14,195	2,861	1,260	845	555	19,716
Fishery Contribution (Boat Share)	13,588	9,853	2,894	2,567	1,955	30,858
Vessel Fixed Expenses						
Insurance						4,000
Repairs & Maintenance						15,000
Moorage						1,200
Miscellaneous						2,000
Total Vessel Expenses						22,200
Earnings (EBITDA)						\$8,658

Summary of Production Tiers – Individual Vessels

Sablefish and other groundfish aggregated

Sablefish Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species Grndfish	115,036	31,503	16,187	52,505
Vessel Price (per kg)	\$12.40	\$11.29	\$5.80	\$11.47
Gross Revenue (Gross Stock)	\$1,426,025	\$355,685	\$93,884	\$602,317
Less: Fishery Specific Expenses				
Fuel	105,750	32,500	12,250	48,579
At sea monitoring	9,165	5,281	2,275	5,471
Offload Monitor	3,804	1,042	535	1,736
Licence / Co-management Fees	62,531	15,471	3,794	26,258
Licence/Quota lease	291,345	72,028	17,027	122,099
Ice	940	1,950	1,750	1,353
Bait	44,613	10,917	2,181	18,512
Gear Maintenance/replace	11,750	8,125	3,500	7,679
Total Fishery Specific Expenses	529,899	147,314	43,311	231,685
Net Revenue (Net Stock)	896,126	208,371	50,573	370,632
<i>Less:</i>				
Captain's Bonus	33,605	11,721	-	14,580
Deckhand Shares	403,256	93,767	19,716	165,646
Fishery Contribution (Boat Share)	459,264	102,883	30,858	190,406
Vessel Fixed Expenses				
Insurance	15,000	5,000	4,000	7,800
Repairs & Maintenance	100,000	20,000	15,000	43,429
Moorage	2,000	1,200	1,200	1,451
Miscellaneous	10,000	5,000	2,000	5,543
Total Vessel Expenses	127,000	31,200	22,200	58,223
Earnings (EBITDA)	\$332,264	\$71,683	\$8,658	\$132,183

Top Production Tier

Aggregate Vessel Profiles

Number of Vessels	11					
Top Tier (1/3) Aggregate	Sablefish	Rockfish	Halibut	Lingcod	Other	Total
Landings (kg) – All Species Grndfish	1,113,008	126,134	17,091	9,028	134	1,265,395
Vessel Price (per kg)	\$13.67	\$1.98	\$11.57	\$2.76	\$1.10	\$12.40
Gross Revenue (Gross Stock)	\$15,213,166	\$250,268	\$197,810	\$24,880	\$148	\$15,686,272
Less: Fishery Specific Expenses						
Fuel	1,163,250	-	-	-	-	1,163,250
At sea monitoring	100,815	-	-	-	-	100,815
Offload Monitor	36,806	4,171	565	299	4	41,845
Licence / Co-management Fees	687,845	-	-	-	-	687,845
Licence/Quota lease	3,128,514	12,513	60,285	3,483	3	3,204,798
Ice	10,340	-	-	-	-	10,340
Bait	490,747	-	-	-	-	490,747
Gear Maintenance/replace	129,250	-	-	-	-	129,250
Total Fishery Specific Expenses	5,747,567	16,685	60,850	3,782	7	5,828,891
Net Revenue (Net Stock)	9,465,599	233,584	136,960	21,098	141	9,857,381
<i>Less:</i>						
Captain's Bonus	354,960	8,759	5,136	791	5	369,652
Deckhand Shares	4,259,519	105,113	61,632	9,494	63	4,435,821
Fishery Contribution (Boat Share)	4,851,119	119,712	70,192	10,813	72	5,051,908
Vessel Fixed Expenses						
Insurance						165,000
Repairs & Maintenance						1,100,000
Moorage						22,000
Miscellaneous						110,000
<i>Total Vessel Expenses</i>						1,397,000
Earnings (EBITDA)						\$3,654,908

Middle Production Tier

Aggregate Vessel Profiles

Number of Vessels	12					
Middle Tier (1/3) Aggregate	Sablefish	Rockfish	Halibut	Lingcod	Other	Total
Landings (kg) – All Species Grndfish	297,112	55,043	6,569	373	18,937	378,033
Vessel Price (per kg)	\$13.67	\$1.98	\$11.57	\$2.76	\$1.10	\$11.29
Gross Revenue (Gross Stock)	\$4,061,084	\$109,212	\$76,025	\$1,028	\$20,874	\$4,268,223
Less: Fishery Specific Expenses						
Fuel	390,000	-	-	-	-	390,000
At sea monitoring	63,375	-	-	-	-	63,375
Offload Monitor	9,825	1,820	217	12	626	12,501
Licence / Co-management Fees	185,656	-	-	-	-	185,656
Licence/Quota lease	835,142	5,461	23,170	144	417	864,334
Ice	16,000	-	-	-	-	16,000
Bait	131,003	-	-	-	-	131,003
Gear Maintenance/replace	97,500	-	-	-	-	97,500
Total Fishery Specific Expenses	1,728,501	7,281	23,387	156	1,044	1,760,369
Net Revenue (Net Stock)	2,332,582	101,931	52,638	871	19,830	2,507,854
<i>Less:</i>						
Captain's Bonus	130,792	5,734	2,961	49	1,115	140,651
Deckhand Shares	1,046,332	45,869	23,687	392	8,924	1,125,204
Fishery Contribution (Boat Share)	1,155,459	50,329	25,990	430	9,791	1,241,999
Vessel Fixed Expenses						
Insurance						60,000
Repairs & Maintenance						240,000
Moorage						14,400
Miscellaneous						60,000
Total Vessel Expenses						374,400
Earnings (EBITDA)						\$867,599

Bottom Production Tier

Aggregate Vessel Profiles

Number of Vessels	12					
Bottom Tier (1/3) Aggregate	Sablefish	Rockfish	Halibut	Lingcod	Other	Total
Landings (kg) – All Species Grndfish	59,345	82,387	6,220	17,520	28,767	194,239
Vessel Price (per kg)	\$13.67	\$1.98	\$11.57	\$2.76	\$1.10	\$5.80
Gross Revenue (Gross Stock)	\$811,161	\$163,467	\$71,993	\$48,280	\$31,710	\$1,126,611
Less: Fishery Specific Expenses						
Fuel	147,000	-	-	-	-	147,000
At sea monitoring	27,300	-	-	-	-	27,300
Offload Monitor	1,962	2,724	206	579	951	6,423
Licence / Co-management Fees	45,523	-	-	-	-	45,523
Licence/Quota lease	166,811	8,173	21,941	6,759	634	204,319
Ice	21,000	-	-	-	-	21,000
Bait	26,166	-	-	-	-	26,166
Gear Maintenance/replace	42,000	-	-	-	-	42,000
Total Fishery Specific Expenses	477,763	10,898	22,146	7,339	1,586	519,732
Net Revenue (Net Stock)	333,398	152,569	49,847	40,941	30,125	606,880
<i>Less:</i>						
Captain's Bonus	-	-	-	-	-	-
Deckhand Shares	170,344	34,328	15,119	10,139	6,659	236,588
Fishery Contribution (Boat Share)	163,054	118,241	34,728	30,803	23,465	370,291
Vessel Fixed Expenses						
Insurance						48,000
Repairs & Maintenance						180,000
Moorage						14,400
Miscellaneous						24,000
<i>Total Vessel Expenses</i>						266,400
Earnings (EBITDA)						\$103,891

Summary of Three Production Tiers – Aggregate

Sablefish and other groundfish aggregated

Number of Vessels	35			
Sablefish Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species Grndfish	1,265,395	378,033	194,239	1,837,667
Vessel Price (per kg)	\$12.40	\$11.29	\$5.80	\$11.47
Gross Revenue (Gross Stock)	\$15,686,272	\$4,268,223	\$1,126,611	\$21,081,106
Less: Fishery Specific Expenses				
Fuel	1,163,250	390,000	147,000	1,700,250
At sea monitoring	100,815	63,375	27,300	191,490
Offload Monitor	41,845	12,501	6,423	60,770
Licence / Co-management Fees	687,845	185,656	45,523	919,024
Licence/Quota lease	3,204,798	864,334	204,319	4,273,451
Ice	10,340	16,000	21,000	47,340
Bait	490,747	131,003	26,166	647,916
Gear Maintenance/replace	129,250	97,500	42,000	268,750
Total Fishery Specific Expenses	5,828,891	1,760,369	519,732	8,108,992
Net Revenue (Net Stock)	9,857,381	2,507,854	606,880	12,972,115
<i>Less:</i>				
Captain's Bonus	369,652	140,651	-	510,302
Deckhand Shares	4,435,821	1,125,204	236,588	5,797,614
Fishery Contribution (Boat Share)	5,051,908	1,241,999	370,291	6,664,198
Vessel Fixed Expenses				
Insurance	165,000	60,000	48,000	273,000
Repairs & Maintenance	1,100,000	240,000	180,000	1,520,000
Moorage	22,000	14,400	14,400	50,800
Miscellaneous	110,000	60,000	24,000	194,000
Total Vessel Expenses	1,397,000	374,400	266,400	2,037,800
Earnings (EBITDA)	\$3,654,908	\$867,599	\$103,891	\$4,626,398

Summary & Sensitivities*Summary: 30% of Sablefish and Rockfish Leased, 50% of other species*

Financial Indicator	Top 1/3	Middle 1/3	Bottom 1/3
Gross Revenue	\$1,426,025	\$355,685	\$93,884
Fishery Contribution	\$459,264	\$102,883	\$30,858
EBITDA	\$332,264	\$71,683	\$8,658

Sensitivity: 60% of Sablefish and other species leased

Financial Indicator	Top 1/3	Middle 1/3	Bottom 1/3
Gross Revenue	\$1,426,025	\$355,685	\$93,884
Fishery Contribution	\$312,327	\$68,101	\$15,787
EBITDA	\$185,327	\$36,901	\$(6,413)

Sensitivity: no fish is leased

Financial Indicator	Top 1/3	Middle 1/3	Bottom 1/3
Gross Revenue	\$1,426,025	\$355,685	\$93,884
Fishery Contribution	\$608,579	\$138,447	\$47,884
EBITDA	\$481,579	\$107,247	\$25,684

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant non-groundfish diversification activity. Note that values in the "Diversification Fisheries" rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Sablefish Fishery	Diversification Fisheries						Non-Subject Fisheries Total
		Tuna	Salmon Troll	Prawn	Roe Herring Seine	Hake (Trawl)	Sardine	
Active in Subject Fishery Only	18	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	13	**	5	5	**	**	**	13
Inactive in Subject Fishery + Active in Other Fisheries	3	-	-	**	**	**	**	3
Inactive (No Fisheries)	10	-	-	-	-	-	-	-
Total	44	**	5	**	**	**	**	16

Fleet Revenue (\$)	Sablefish Fishery	Diversification Fisheries						Non-Subject Fisheries Total
		Tuna	Salmon Troll	Prawn	Roe Herring Seine	Hake (Trawl)	Sardine	
Active in Subject Fishery Only	21,081,106	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		145,434	238,923	1,680,198	53,848	335,156	11,961	2,465,519
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	353,802	222,031	79,568	401,109	1,056,510
Inactive (No Fisheries)	-	-	-	-	-	-	-	-
Total	21,081,106	145,434	238,923	2,034,000	275,879	414,724	413,070	3,522,029

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets for vessels in each “tier.” This assumes that assets are purchased/owned outright (that is, all quota is owned, none is leased). The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Sablefish	100,000 kg	25,000 kg	5,000 kg
Replacement Cost of Assets	Sablefish	Sablefish	Sablefish
	Quota	Quota	Quota
Licence Cost	250,000	250,000	250,000
Quota	7,716,100	1,929,025	385,805
Vessel Cost	700,000	700,000	187,500
Replacement cost	8,666,100	2,879,025	823,305
Amortization (annual) @ 5%	433,305	143,951	41,165
Loan Considerations if 50% borrowed:			
Loan amount	4,333,050	1,439,513	411,653
Interest (1st year)	346,644	115,161	32,932
Principal (1st year, 15 yr amort)	288,870	95,968	27,444
1st year pmt (principal + interest):	635,514	211,129	60,376

Comparison to 2007 Results

- The sablefish catch in 2009 was sharply lower than in 2007 (calendar-2007 was an aberrantly high production year).
- Although fish prices were higher, fleet revenues declined by almost 1/3.
- Although vessels remained profitable, margins were eroded significantly.

Groundfish Trawl (T)

Fishery Overview

The BC groundfish trawl fishery is managed under an Individual Vessel Quota/Groundfish Development Authority (IVQ/GDA) program. Eighty percent of the quota is allocated directly to vessels (the initial formula combined production history with vessel length), while 20% flows to vessels based on “fit” with GDA criteria (a host of goals including community economic development and industry stability).

An array of species coupled with several management areas means that each T licence receives around 50 individual quotas. Quota is divisible into one pound increments and is freely transferable (subject to holdings caps), but a vessel must hold a T licence to hold groundfish quota or harvest groundfish trawl TACs. The fishery features 100% at-sea observer coverage and 100% offload monitoring.

Groundfish trawl is comprised of two reasonably distinct fisheries – bottomfish (a host of groundfish species including rockfish, soles, and cod) and hake. Some vessels specialize on one of these activities, while others participate in both. Financial schedules are segmented accordingly: bottomfish only, hake only, or hake and bottomfish.

Licensing Profile

Licence Category	Sum of Licences
Trawl (T)	139
Roe Herring Seine	55
Salmon Seine	27
Shrimp	38
Tuna	15
Sablefish	7
Sardine	6
Other	49
Total	336

Count of Licences per Vessel	Count of Vessels	Sum of Licences
1	45	45
2	37	74
3	35	105
4	8	32
5	9	45
6 or more	5	35
Total	139	336

Landings Profile

Fishing Trip Type/Catch (kg)	# Vessels	Hake	Bottomfish	Total	% Hake	% Bottomfish
Hake trips only	8	30,742,234	239,729	30,981,963	25%	0%
Bottomfish trips only	31	44,551	33,887,478	33,932,029	0%	51%
Hake and Bottomfish	25	92,434,822	32,172,252	124,607,074	75%	49%
Total	64	123,221,607	66,299,459	189,521,066	100%	100%

Activity Level	Average OAL (m)
Active	23
Inactive	16
Average	19.6

Hake Trips Only/ Catch (kg)	# Vessels	Hake	Bottomfish	Total
All Vessels	8	30,742,234	239,729	30,981,963

Bottomfish Trips Only/ Catch (kg)	# Vessels	Hake	Bottomfish	Total	% of Catch
Top 1/3	10	34,255	22,247,562	22,281,817	66%
Middle 1/3	10	9,279	10,673,333	10,682,612	31%
Bottom 1/3	11	1,017	966,583	967,600	3%
Total	31	44,551	33,887,478	33,932,029	100%

Bottomfish Trips Only/Catch per Vessel (kg)	# Vessels	Hake	Bottomfish	Total
Top 1/3	10	3,426	2,224,756	2,228,182
Middle 1/3	10	928	1,067,333	1,068,261
Bottom 1/3	11	92	87,871	87,964
Average	31	1,437	1,093,144	1,094,582

Hake and Bottomfish Trips/Catch (kg)	# Vessels	Hake	Bottomfish	Total	% of Catch
Top 1/3	8	46,691,888	16,435,508	63,127,396	51%
Middle 1/3	8	27,202,832	8,137,704	35,340,536	28%
Bottom 1/3	9	18,540,102	7,599,040	26,139,142	21%
Total	25	92,434,822	32,172,252	124,607,074	100%

Hake and Bottomfish Trips/Catch per Vessel (kg)	# Vessels	Hake	Bottomfish	Total
Top 1/3	8	5,836,486	2,054,439	7,890,925
Middle 1/3	8	3,400,354	1,017,213	4,417,567
Bottom 1/3	9	2,060,011	844,338	2,904,349
Average	25	3,765,617	1,305,330	5,070,947

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Hake price per YIR 2009 (shore based fishery only). The bottomfish price is a weighted average of the estimated prices for each groundfish species (considering the species mix). The groundfish trawl species mix is composed of some high-value species, such as sablefish and thornyheads (idiots), and low value species such as arrowtooth flounder and pollock. The bulk of production comes from the core species groups of rockfish, soles, and cod.

Species	Price/Kg
Bottomfish	1.10
Hake	0.24

- Trip expenses imputed from research.
- A portion of the fish harvested is assumed to be leased. Quota leasing has an important impact on results. The base assumption is that 30% of both hake and bottomfish is leased. Lease rates:

Species	Lease Rate/Kg
Bottomfish	0.15
Hake	0.08

- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Hired
# Deckhands	3
Deckhand share	45% of net stock
Captain's Bonus	50% of a deckhand share

- A variety of settlement arrangements are used in the industry, including the treatment of quota. The fleet features a mix of hired captains and owner operators, though hired captains are deemed to predominate.
- Vessel fixed expenses are linked to the level of landings; it is assumed that the top tier boats are larger and fish more trips (thus incurring higher maintenance expenditures) than the middle and bottom tier craft

Groundfish Only

Individual Vessel Profiles

Trawl Fleet (Bottomfish) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	1,010,697	484,560	39,900	496,499
Vessel Price (per kg)	\$1.10	\$1.10	\$1.10	\$1.10
Gross Revenue (Gross Stock)	\$1,112,755	\$533,769	\$43,946	\$546,730
Less: Fishery Specific Expenses				
Fuel	165,000	91,800	12,750	87,363
At sea monitoring	49,500	40,500	5,625	31,028
Offload Monitor	8,356	4,006	330	4,105
Licence / Co-management Fees	29,397	15,508	3,754	15,818
Licence/Quota lease	46,756	22,424	1,846	22,971
Ice	22,000	18,000	1,500	8,145
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	321,009	192,238	25,806	169,430
Net Revenue (Net Stock)	791,746	341,531	18,140	377,300
<i>Less:</i>				
Captain's Bonus	44,536	19,211	1,361	21,046
Deckhand Shares	356,286	153,689	8,163	167,405
Fishery Contribution (Boat Share)	390,925	168,631	8,617	188,850
Vessel Fixed Expenses				
Insurance	15,000	15,000	15,000	15,000
Repairs & Maintenance	150,000	125,000	50,000	106,452
Moorage	2,000	2,000	2,000	2,000
Miscellaneous	5,000	5,000	5,000	5,000
Total Vessel Expenses	172,000	147,000	72,000	128,452
Earnings (EBITDA)	\$218,925	\$21,631	-\$63,383	\$60,398

Hake Only

Individual Vessel Profile

Trawl Fleet (Hake) Individual Vessel Profiles	Fleet Average
Landings (kg) – All Species	1,756,666
Vessel Price (per kg)	\$0.25
Gross Revenue (Gross Stock)	\$437,689
Less: Fishery Specific Expenses	
Fuel	45,000
At sea monitoring	3,375
Offload Monitor	6,455
Licence / Co-management Fees	15,381
Licence/Quota lease	40,978
Ice	15,000
Bait	-
Gear Maintenance/replace	-
Total Fishery Specific Expenses	126,189
Net Revenue (Net Stock)	311,499
<i>Less:</i>	
Captain's Bonus	15,575
Deckhand Shares	124,600
Fishery Contribution (Boat Share)	171,325
Vessel Fixed Expenses	
Insurance	15,000
Repairs & Maintenance	75,000
Moorage	2,000
Miscellaneous	5,000
Total Vessel Expenses	97,000
Earnings (EBITDA)	\$74,325

Groundfish and Hake

Individual Vessel Profile

Trawl Fleet (Hake + Bottomfish) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species	3,579,300	2,003,795	1,317,404	2,260,856
Vessel Price (per kg)	\$0.47	\$0.44	\$0.49	\$0.46
Gross Revenue (Gross Stock)	\$1,669,233	\$882,645	\$648,770	\$1,050,158
Less: Fishery Specific Expenses				
Fuel	207,656	172,500	132,000	169,170
At sea monitoring	39,459	39,459	33,300	37,242
Offload Monitor	17,432	9,482	6,600	10,988
Licence / Co-management Fees	46,614	26,128	19,630	30,344
Licence/Quota lease	104,426	57,065	39,361	65,847
Ice	40,375	34,000	31,000	30,397
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	455,962	338,634	261,891	343,988
Net Revenue (Net Stock)	1,213,270	544,011	386,879	706,170
<i>Less:</i>				
Captain's Bonus	68,246	30,601	29,016	42,077
Deckhand Shares	545,972	244,805	174,096	315,723
Fishery Contribution (Boat Share)	599,052	268,606	183,768	348,370
Vessel Fixed Expenses				
Insurance	15,000	15,000	15,000	15,000
Repairs & Maintenance	175,000	125,000	125,000	141,000
Moorage	2,000	2,000	2,000	2,000
Miscellaneous	5,000	5,000	5,000	5,000
Total Vessel Expenses	197,000	147,000	147,000	163,000
Earnings (EBITDA)	\$402,052	\$121,606	\$36,768	\$185,370

Groundfish

Aggregate Vessel Profiles

Number of Vessels	31			
Trawl Fleet (Bottomfish) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	10,106,966	4,845,601	438,900	15,391,467
Vessel Price (per kg)	\$1.10	\$1.10	\$1.10	\$1.10
Gross Revenue (Gross Stock)	\$11,127,549	\$5,337,687	\$483,403	\$16,948,640
Less: Fishery Specific Expenses				
Fuel	1,650,000	918,000	140,250	2,708,250
At sea monitoring	495,000	405,000	61,875	961,875
Offload Monitor	83,557	40,060	3,629	127,245
Licence / Co-management Fees	293,971	155,080	41,299	490,350
Licence/Quota lease	467,558	224,237	20,309	712,105
Ice	220,000	16,000	16,500	252,500
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	3,210,086	1,758,377	283,861	5,252,325
Net Revenue (Net Stock)	7,917,463	3,579,310	199,542	11,696,315
<i>Less:</i>				
Captain's Bonus	445,357	192,111	14,966	652,434
Deckhand Shares	3,562,858	1,536,889	89,794	5,189,542
Fishery Contribution (Boat Share)	3,909,247	1,850,309	94,782	5,854,339
Vessel Fixed Expenses				
Insurance	150,000	150,000	165,000	465,000
Repairs & Maintenance	1,500,000	1,250,000	550,000	3,300,000
Moorage	20,000	20,000	22,000	62,000
Miscellaneous	50,000	50,000	55,000	155,000
Total Vessel Expenses	1,720,000	1,470,000	792,000	3,982,000
Earnings (EBITDA)	\$2,189,247	\$380,309	-\$697,218	\$1,872,339

Hake

Aggregate Vessel Profiles

Number of Vessels	8
Trawl Fleet (Hake) Aggregate Vessel Profiles	Fleet Total
Landings (kg) – All Species	14,053,325
Vessel Price (per kg)	\$0.25
Gross Revenue (Gross Stock)	\$3,501,510
Less: Fishery Specific Expenses	
Fuel	360,000
At sea monitoring	27,000
Offload Monitor	51,637
Licence / Co-management Fees	123,049
Licence/Quota lease	327,828
Ice	120,000
Bait	-
Gear Maintenance/replace	-
Total Fishery Specific Expenses	1,009,514
Net Revenue (Net Stock)	2,491,996
<i>Less:</i>	
Captain's Bonus	124,600
Deckhand Shares	996,798
Fishery Contribution (Boat Share)	1,370,598
Vessel Fixed Expenses	
Insurance	120,000
Repairs & Maintenance	600,000
Moorage	16,000
Miscellaneous	40,000
Total Vessel Expenses	776,000
Earnings (EBITDA)	\$594,598

Groundfish and Hake

Aggregate Vessel Profiles

Number of Vessels	25			
Trawl Fleet (Hake + Bottomfish) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species	28,634,399	16,030,362	11,856,637	56,521,398
Vessel Price (per kg)	\$0.47	\$0.44	\$0.49	\$0.46
Gross Revenue (Gross Stock)	\$13,353,862	\$7,061,164	\$5,838,931	\$26,253,956
Less: Fishery Specific Expenses				
Fuel	1,661,250	1,380,000	1,188,000	4,229,250
At sea monitoring	315,675	315,675	299,700	931,050
Offload Monitor	139,453	75,854	59,397	274,704
Licence / Co-management Fees	372,909	209,022	176,671	758,602
Licence/Quota lease	835,410	456,522	354,251	1,646,183
Ice	323,000	157,913	279,000	759,913
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	3,647,698	2,594,986	2,357,018	8,599,702
Net Revenue (Net Stock)	9,706,164	4,466,178	3,481,913	17,654,255
<i>Less:</i>				
Captain's Bonus	545,972	244,805	261,143	1,051,920
Deckhand Shares	4,367,774	1,958,441	1,566,861	7,893,075
Fishery Contribution (Boat Share)	4,792,418	2,262,932	1,653,909	8,709,259
Vessel Fixed Expenses				
Insurance	120,000	120,000	135,000	375,000
Repairs & Maintenance	1,400,000	1,000,000	1,125,000	3,525,000
Moorage	16,000	16,000	18,000	50,000
Miscellaneous	40,000	40,000	45,000	125,000
Total Vessel Expenses	1,576,000	1,176,000	1,323,000	4,075,000
Earnings (EBITDA)	\$3,216,418	\$1,086,932	\$330,909	\$4,634,259

Groundfish Trawl Summary (Aggregate)

Number of Vessels	31	8	25	64
Groundfish Trawl Fleet Aggregate Vessel Profiles	Bottomfish Only	Hake Only	Bottomfish and Hake	Fleet Total
Landings (kg) – All Species	15,391,467	14,053,325	56,521,398	85,966,190
Vessel Price (per kg)	\$1.10	\$0.25	\$0.46	\$0.54
Gross Revenue (Gross Stock)	\$16,948,640	\$3,501,510	\$26,253,956	\$46,704,106
Less: Fishery Specific Expenses				
Fuel	2,708,250	360,000	4,229,250	7,297,500
At sea monitoring	961,875	27,000	931,050	1,919,925
Offload Monitor	127,245	51,637	274,704	453,586
Licence / Co-management Fees	490,350	123,049	758,602	1,372,001
Licence/Quota lease	712,105	327,828	1,646,183	2,686,115
Ice	252,500	120,000	759,913	1,132,413
Bait	-	-	-	-
Gear Maintenance/replace	-	-	-	-
Total Fishery Specific Expenses	5,252,325	1,009,514	8,599,702	14,861,540
Net Revenue (Net Stock)	11,696,315	2,491,996	17,654,255	31,842,565
<i>Less:</i>				
Captain's Bonus	652,434	124,600	1,051,920	1,828,954
Deckhand Shares	5,189,542	996,798	7,893,075	14,079,415
Fishery Contribution (Boat Share)	5,854,339	1,370,598	8,709,259	15,934,196
Vessel Fixed Expenses				
Insurance	465,000	120,000	375,000	960,000
Repairs & Maintenance	3,300,000	600,000	3,525,000	7,425,000
Moorage	62,000	16,000	50,000	128,000
Miscellaneous	155,000	40,000	125,000	320,000
Total Vessel Expenses	3,982,000	776,000	4,075,000	8,833,000
Earnings (EBITDA)	\$1,872,339	\$594,598	\$4,634,259	\$7,101,196

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Groundfish Trawl (Hake or Bottomfish)	Diversification Fisheries					Non-Subject Fisheries Total
		Salmon Seine	Roe Herring Seine	Tuna	Prawn	Sardine	
Active in Subject Fishery Only	56	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	11	3	7	-	**	**	11
Inactive in Subject Fishery + Active in Other Fisheries	10	3	**	4	3	**	10
Inactive (No Fisheries)	62	-	-	-	-	-	-
Total	139	6	**	4	**	**	21

Fleet Revenue (\$)	Groundfish Trawl (Hake or Bottomfish)	Diversification Fisheries					Non-Subject Fisheries Total
		Salmon Seine	Roe Herring Seine	Tuna	Prawn	Sardine	
Active in Subject Fishery Only	46,704,106	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		194,762	1,984,908	-	401,094	**	2,580,764
Inactive in Subject Fishery + Active in Other Fisheries	-	29,612	120,642	217,932	812,316	58,092	1,238,595
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	46,704,106	224,374	2,105,550	217,932	1,213,410	58,092	3,819,359

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, licences, and quotas required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in both groundfish and hake. This assumes that assets are purchased/owned outright (that is, all quota is owned, none is leased). The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from "Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Groundfish Trawl - Bottomfish Only Replacement Cost of Assets	1,100,000 kg Groundfish Quota	500,000 kg Groundfish Quota	40,000 kg Groundfish Quota
Licence Cost	63,000	63,000	63,000
Quota	3,031,325	1,377,875	110,230
Vessel Cost	782,500	782,500	782,500
Replacement cost	3,876,825	2,223,375	955,730
Amortization (annual) @ 5%	193,841	111,169	47,787
Loan Considerations if 50% borrowed:			
Loan amount	1,938,413	1,111,688	477,865
Interest (1st year)	155,073	88,935	38,229
Principal (1st year, 15 yr amort)	129,228	74,113	31,858
1st year pmt (principal + interest):	284,301	163,048	70,087

Hake Only Replacement Cost of Assets	3,850,000 kg Hake Quota
Licence Cost	63,000
Quota	4,243,855
Vessel Cost	782,500
Replacement cost	5,089,355
Amortization (annual) @ 5%	254,468
Loan Considerations if 50% borrowed:	
Loan amount	2,544,678
Interest (1st year)	203,574
Principal (1st year, 15 yr amort)	169,645
1st year pmt (principal + interest):	373,219

Hake quota kg	2,650,000	1,550,000	935,000
Bottomfish quota kg	930,000	450,000	385,000
Groundfish Trawl - Hake & Bottomfish Replacement Cost of Assets	Hake & Groundfish Quota	Hake & Groundfish Quota	Hake & Groundfish Quota
Licence Cost	63,000	63,000	63,000
Quota	5,483,943	2,948,653	2,091,614
Vessel Cost	782,500	782,500	782,500
Replacement cost	6,329,443	3,794,153	2,937,114
Amortization (annual) @ 5%	316,472	189,708	146,856
Loan Considerations if 50% borrowed:			
Loan amount	3,164,721	1,897,076	1,468,557
Interest (1st year)	253,178	151,766	117,485
Principal (1st year, 15 yr amort)	210,981	126,472	97,904
1st year pmt (principal + interest):	464,159	278,238	215,388

Comparison to 2007 Results

- The groundfish trawl fleet saw similar results in 2009 vs. 2007.
- The bottomfish fishery saw marginally poorer results, while hake was slightly improved.
- A reduction in the hake fish price was offset by enhanced catch volumes.

Rockfish (ZN)

Fishery Overview

The Rockfish ZN is a hook and line groundfish fishery divided into Inside (shallow waters, inshore) and Outside (greater depths, offshore). The inside fishery produces primarily live rockfish, while the outside fishery has mostly fresh landings.

The ZN fishery operates along with the other groundfish fisheries under a single integrated groundfish management plan. It features comprehensive electronic monitoring and dockside validation. While the fishery features transferable quotas in-season, quota is not yet permanently transferable.

Licensing Profile

Licence Category	Sum of Licences
Rockfish (ZN)	228
Halibut	115
Salmon Troll	85
Tuna	33
Sablefish	20
Salmon Gillnet	19
Prawn	16
Others	82
Total	598

Count of All Licences on ZN Vessels	Count of Vessels	Sum of ZN Licences	Sum of Non-ZN Licences	Sum of Licences
1	163	163	352	515
2-5	4	11	8	19
6 or more	7	54	10	64
Total	174	228	370	598

Landings Profile

Inside ZN

Tier/Catch (kg)	Vessels	Rockfish	Halibut	Lingcod	Other	Total	% Total Catch
Top 1/3	4	14,385	-	254	657	15,296	56%
Middle 1/3	4	8,095	195	23	1,638	9,952	36%
Bottom 1/3	4	1,534	458	150	37	2,178	8%
Total	12	24,014	653	427	2,332	27,426	100%

Tier/Average Catch per Vessel (kg)	Vessels	Rockfish	Halibut	Lingcod	Other	Total
Top 1/3	4	3,596	-	64	164	3,824
Middle 1/3	4	2,024	49	6	410	2,488
Bottom 1/3	4	383	114	37	9	545
Average	12	2,001	54	36	194	2,286

Tier/Catch Mix	% of Catch (All Species)	% Rockfish in Catch Mix
Top 1/3	56%	94%
Middle 1/3	36%	81%
Bottom 1/3	8%	70%
Total	100%	88%

Outside ZN

Tier/Catch (kg)	# Vessels	Rockfish	Halibut	Sablefish	Dogfish	Lingcod	Other	Total
Top 1/3	13	297,911	39,439	13,849	1,678	39,510	20,629	413,016
Middle 1/3	14	99,746	20,093	1,953	33,107	6,525	10,397	171,822
Bottom 1/3	14	23,973	9,419	62	21,648	8,124	4,038	67,265
Total	41	421,631	68,951	15,864	56,433	54,160	35,064	652,103

Tier/Average Catch per vessel (kg)	# Vessels	Rockfish	Halibut	Sablefish	Dogfish	Lingcod	Other	Total
Top 1/3	13	22,916	3,034	1,065	129	3,039	1,587	31,770
Middle 1/3	14	7,125	1,435	139	2,365	466	743	12,273
Bottom 1/3	14	1,712	673	4	1,546	580	288	4,805
Average	41	10,284	1,682	387	1,376	1,321	855	15,905

Tier/Catch Mix	% of Catch (All Species)	% Rockfish in Catch Mix
Top 1/3	63%	72%
Middle 1/3	26%	58%
Bottom 1/3	10%	36%
Total	100%	65%

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices are largely drawn from the contractor's research. Published prices for most species were not suitable as they reflect a mix of gear types (that may have widely varying prices):

Species	ZN Inside Price/kg	ZN Outside Price/kg
Rockfish	14.33	1.98
Halibut	11.57	11.57
Lingcod	3.64	2.76
Sablefish	-	13.23
Dogfish, Other	0.50	0.43

- Note that ZN inside prices are higher as the product is generally delivered for the live market.
- Trip expenses imputed from research.
- A portion of the fish harvested is assumed to be leased. Quota leasing has an important impact on results. The base assumption is that 30% of rockfish is leased, and 50% of all other species is leased. Lease rates:

Species	ZN Inside Lease/kg	ZN Outside Lease/kg
Rockfish	5.51	0.33
Halibut	7.05	7.05
Lingcod	0.77	0.77
Sablefish	-	9.37
Dogfish, Other	0.11	0.05

- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	1 (top tier Inside) 0 (middle and bottom tiers Inside) 2 (top and middle tiers Outside) 1 (bottom tier Outside)
Deckhand share	20% of gross (Inside) 10% of gross each (Outside)
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry, including the treatment of quota.

Individual Vessel Profiles – Inside ZN

Rockfish Inside Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species Grndfish	3,824	2,488	545	2,286
Vessel Price (per kg)	\$13.58	\$12.07	\$12.79	\$12.97
Gross Revenue (Gross Stock)	\$51,947	\$30,038	\$6,965	\$29,650
Less: Fishery Specific Expenses				
Fuel	5,200	4,200	1,125	3,508
At sea monitoring	3,380	2,730	731	2,280
Offload Monitor	1,265	823	180	756
Licence / Co-management Fees	1,325	1,325	1,325	1,325
Licence/Quota lease	5,980	3,543	1,052	3,525
Ice	325	263	113	1,479
Bait	975	788	338	700
Gear Maintenance/replace	650	525	225	467
Total Fishery Specific Expenses	19,100	14,196	5,089	14,041
Net Revenue (Net Stock)	32,848	15,842	1,876	15,610
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	10,389	-	-	3,463
Fishery Contribution (Boat Share)	22,458	15,842	1,876	12,146
Vessel Fixed Expenses				
Insurance	1,500	1,500	1,500	1,500
Repairs & Maintenance	2,500	2,500	2,500	2,500
Moorage	750	750	750	750
Miscellaneous	500	500	500	500
Total Vessel Expenses	5,250	5,250	5,250	5,250
Earnings (EBITDA)	\$17,208	\$10,592	-\$3,374	\$6,896

Individual Vessel Profiles – Outside ZN

Rockfish Outside Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species Grndfish	31,770	12,273	4,805	15,905
Vessel Price (per kg)	\$3.29	\$3.00	\$3.04	\$3.19
Gross Revenue (Gross Stock)	\$104,683	\$36,836	\$14,589	\$50,752
Less: Fishery Specific Expenses				
Fuel	12,150	7,000	3,000	7,267
At sea monitoring	3,510	2,275	975	2,223
Offload Monitor	2,627	1,015	397	1,315
Licence / Co-management Fees	2,325	2,325	2,325	2,325
Licence/Quota lease	19,233	6,774	2,889	9,398
Ice	1,800	1,400	600	1,166
Bait	4,500	2,450	1,050	2,622
Gear Maintenance/replace	1,800	525	150	801
Total Fishery Specific Expenses	47,944	23,763	11,386	27,116
Net Revenue (Net Stock)	56,739	13,073	3,203	23,636
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	20,937	7,142	1,384	9,550
Fishery Contribution (Boat Share)	35,803	5,931	1,819	14,086
Vessel Fixed Expenses				
Insurance	2,000	2,000	2,000	2,000
Repairs & Maintenance	4,500	3,500	3,500	3,817
Moorage	1,000	1,000	1,000	1,000
Miscellaneous	500	500	500	500
Total Vessel Expenses	8,000	7,000	7,000	7,317
Earnings (EBITDA)	\$27,803	-\$1,069	-\$5,181	\$6,769

Aggregate Vessel Profiles – Inside ZN

Number of Vessels	12			
Rockfish Inside Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species Grndfish	15,296	9,952	2,178	27,426
Vessel Price (per kg)	\$13.58	\$12.07	\$12.79	\$12.97
Gross Revenue (Gross Stock)	\$207,789	\$120,153	\$27,859	\$355,801
Less: Fishery Specific Expenses				
Fuel	20,800	16,800	4,500	42,100
At sea monitoring	13,520	10,920	2,925	27,365
Offload Monitor	5,058	3,291	720	9,070
Licence / Co-management Fees	5,300	5,300	5,300	15,900
Licence/Quota lease	23,920	14,172	4,210	42,302
Ice	1,300	16,000	450	17,750
Bait	3,900	3,150	1,350	8,400
Gear Maintenance/replace	2,600	2,100	900	5,600
Total Fishery Specific Expenses	76,398	71,733	20,355	168,487
Net Revenue (Net Stock)	131,391	48,420	7,504	187,315
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	41,558	-	-	41,558
Fishery Contribution (Boat Share)	89,833	48,420	7,504	145,757
Vessel Fixed Expenses				
Insurance	6,000	6,000	6,000	18,000
Repairs & Maintenance	10,000	10,000	10,000	30,000
Moorage	3,000	3,000	3,000	9,000
Miscellaneous	2,000	2,000	2,000	6,000
Total Vessel Expenses	21,000	21,000	21,000	63,000
Earnings (EBITDA)	\$68,833	\$27,420	-\$13,496	\$82,757

Aggregate Vessel Profiles – Outside ZN

Number of Vessels	41			
Rockfish Outside Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species Grndfish	413,016	171,822	67,265	652,103
Vessel Price (per kg)	\$3.29	\$3.00	\$3.04	\$3.19
Gross Revenue (Gross Stock)	\$1,360,882	\$515,709	\$204,251	\$2,080,841
Less: Fishery Specific Expenses				
Fuel	157,950	98,000	42,000	297,950
At sea monitoring	45,630	31,850	13,650	91,130
Offload Monitor	34,145	14,205	5,561	53,911
Licence / Co-management Fees	30,225	32,550	32,550	95,325
Licence/Quota lease	250,023	94,834	40,442	385,299
Ice	23,400	16,000	8,400	47,800
Bait	58,500	34,300	14,700	107,500
Gear Maintenance/replace	23,400	7,350	2,100	32,850
Total Fishery Specific Expenses	623,273	329,088	159,403	1,111,765
Net Revenue (Net Stock)	737,609	186,620	44,847	969,077
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	272,176	99,985	19,382	391,543
Fishery Contribution (Boat Share)	465,433	86,636	25,465	577,534
Vessel Fixed Expenses				
Insurance	26,000	28,000	28,000	82,000
Repairs & Maintenance	58,500	49,000	49,000	156,500
Moorage	13,000	14,000	14,000	41,000
Miscellaneous	6,500	7,000	7,000	20,500
Total Vessel Expenses	104,000	98,000	98,000	300,000
Earnings (EBITDA)	\$361,433	-\$11,364	-\$72,535	\$277,534

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Diversification Fisheries						Non-Subject Fisheries Total
	Rockfish (ZN)	Salmon Troll	Tuna	Salmon Gillnet	Prawn	Crab	
Active in Subject Fishery Only	69	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	37	21	5	5	7	3	37
Inactive in Subject Fishery + Active in Other Fisheries	19	4	3	**	9	5	19
Inactive (No Fisheries)	49	-	-	-	-	-	-
Total	174	25	8	**	16	8	56

Fleet Revenue (\$)	Diversification Fisheries						Non-Subject Fisheries Total
	Rockfish (ZN)	Salmon Troll	Tuna	Salmon Gillnet	Prawn	Crab	
Active in Subject Fishery Only	2,436,642	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		1,103,620	147,304	71,141	1,936,452	1,075,599	4,334,117
Inactive in Subject Fishery + Active in Other Fisheries	-	95,144	176,626	6,164	1,937,436	1,624,566	3,839,936
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	2,436,642	1,198,764	323,931	77,305	3,873,888	2,700,165	8,174,052

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the prawn fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from "Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.

- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

ZN Inside Replacement Cost of Assets	Single Licence
Licence Cost	45,000
Quota	-
Vessel Cost	112,500
Replacement cost	157,500
Amortization (annual) @ 5%	7,875
Loan Considerations if 50% borrowed:	
Loan amount	78,750
Interest (1st year)	6,300
Principal (1st year, 15 yr amort)	5,250
1st year pmt (principal + interest):	11,550

ZN Outside Replacement Cost of Assets	Single Licence
Licence Cost	126,000
Quota	-
Vessel Cost	112,500
Replacement cost	238,500
Amortization (annual) @ 5%	11,925
Loan Considerations if 50% borrowed:	
Loan amount	119,250
Interest (1st year)	9,540
Principal (1st year, 15 yr amort)	7,950
1st year pmt (principal + interest):	17,490

Comparison to 2007 Results

- No analysis performed in 2007.

Lingcod

Fishery Overview

The small-scale lingcod fishery is a part of the integrated groundfish management program. The bulk of landings are live, with a portion also delivered dressed in fresh or frozen-at-sea form. Lingcod fishing is authorized under the schedule II privileges associated with any vessel-based licence.

Because lingcod is not a specific licence, a full analysis cannot be conducted. A partial analysis is enabled because groundfish vessels must declare for each fishing trip (hail-out) what type of trip they are making. Data sorts by hail-out type allowed lingcod trips to be isolated.

Licensing Profile

Because the lingcod fishery does not require a specific category of licence (any vessel-based licence can be used for lingcod fishing), the Licensing Profile methodology used for this report cannot be applied.

Landings Profile

Tier/Catch (kg)	# Vessels	Lingcod	Rockfish	Halibut	Sablefish	Dogfish	Other	Total
Top 1/3	9	252,833	10,603	2,800	8	-	900	267,145
Middle 1/3	10	126,422	4,477	1,240	-	-	11	132,151
Bottom 1/3	10	16,320	663	734	-	-	-	17,717
Total	29	395,576	15,743	4,774	8	-	912	417,013

Tier/Average Catch per vessel (kg)	# Vessels	Lingcod	Rockfish	Halibut	Sablefish	Dogfish	Other	Total
Top 1/3	9	28,093	1,178	311	1	-	100	29,683
Middle 1/3	10	12,642	448	124	-	-	1	13,215
Bottom 1/3	10	1,632	66	73	-	-	-	1,772
Average	29	13,641	543	165	0	-	31	14,380

Tier/Catch Mix	% of Catch (All Species)	% Lingcod in Catch Mix
Top 1/3	64%	95%
Middle 1/3	32%	96%
Bottom 1/3	4%	92%
Total	100%	95%

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish prices are largely drawn from the contractor's research. Published prices for most species were not suitable as they reflect a mix of gear types (that may have widely varying prices):

Species	Price/Kg
Lingcod	3.64
Rockfish	1.98
Halibut	11.57
Other	1.10

- Trip expenses imputed from research.
- A portion of the fish harvested is assumed to be leased. Quota leasing has an important impact on results. The base assumption is that 30% of lingcod is leased, and 50% of all other species is leased. Lease rates:

Species	Lease Rate/Kg
Lingcod	0.77
Rockfish	0.26
Halibut	7.05
Other	0.11

- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	1 (top and middle tiers) 0 (bottom tier)
Deckhand share	10% of gross each
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry, including the treatment of quota. Most captains in the fleet are believed to be owner-operators.
- Repairs and maintenance is linked to vessel size and productivity.

Individual Vessel Profiles

Lingcod Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species Grndfish	29,683	13,215	1,772	14,380
Vessel Price (per kg)	\$3.65	\$3.66	\$3.90	\$3.66
Gross Revenue (Gross Stock)	\$108,239	\$48,312	\$6,918	\$52,636
Less: Fishery Specific Expenses				
Fuel	10,000	8,000	1,500	6,379
At sea monitoring	3,250	2,600	488	2,073
Offload Monitor	3,272	1,457	195	1,585
Licence / Co-management Fees	1,975	1,975	1,975	1,975
Licence/Quota lease	7,762	3,423	646	3,812
Ice	500	400	75	733
Bait	-	-	-	-
Gear Maintenance/replace	3,500	2,800	525	2,233
Total Fishery Specific Expenses	30,259	20,655	5,403	18,790
Net Revenue (Net Stock)	77,980	27,657	1,515	33,846
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	10,824	4,831	-	5,025
Fishery Contribution (Boat Share)	67,156	22,826	1,515	28,821
Vessel Fixed Expenses				
Insurance	1,500	1,500	1,500	1,500
Repairs & Maintenance	7,500	3,500	3,500	4,741
Moorage	1,000	1,000	1,000	1,000
Miscellaneous	750	750	750	750
Total Vessel Expenses	10,750	6,750	6,750	7,991
Earnings (EBITDA)	\$56,406	\$16,076	-\$5,235	\$20,830

Aggregate Vessel Profiles

Number of Vessels	29			
Lingcod Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species Grndfish	267,149	132,151	17,717	417,017
Vessel Price (per kg)	\$3.65	\$3.66	\$3.90	\$3.66
Gross Revenue (Gross Stock)	\$974,151	\$483,118	\$69,182	\$1,526,450
Less: Fishery Specific Expenses				
Fuel	90,000	80,000	15,000	185,000
At sea monitoring	29,250	26,000	4,875	60,125
Offload Monitor	29,448	14,567	1,953	45,968
Licence / Co-management Fees	17,775	19,750	19,750	57,275
Licence/Quota lease	69,855	34,230	6,456	110,541
Ice	4,500	16,000	750	21,250
Bait	-	-	-	-
Gear Maintenance/replace	31,500	28,000	5,250	64,750
Total Fishery Specific Expenses	272,327	218,547	54,034	544,909
Net Revenue (Net Stock)	701,823	264,570	15,148	981,542
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	97,415	48,312	-	145,727
Fishery Contribution (Boat Share)	604,408	216,259	15,148	835,815
Vessel Fixed Expenses				
Insurance	13,500	15,000	15,000	43,500
Repairs & Maintenance	67,500	35,000	35,000	137,500
Moorage	9,000	10,000	10,000	29,000
Miscellaneous	6,750	7,500	7,500	21,750
Total Vessel Expenses	96,750	67,500	67,500	231,750
Earnings (EBITDA)	\$507,658	\$148,759	-\$52,352	\$604,065

Other Fishery Diversification

Because the Lingcod fishery does not require a specific category of licence (any vessel-based licence can be used for lingcod fishing), the Diversification methodology used for this report cannot be applied.

Comparison to 2007 Results

- No analysis performed in 2007.

Dogfish

Fishery Overview

The dogfish fishery is a part of the integrated groundfish management program. Dogfish fishing is authorized under the schedule II privileges associated with any vessel-based licence.

Because dogfish is not a specific licence, a full analysis cannot be conducted. A partial analysis is enabled because groundfish vessels must declare for each fishing trip (hail-out) what type of trip they are making. Data sorts by hail-out type allowed dogfish trips to be isolated.

Licensing Profile

Because the dogfish fishery does not require a specific category of licence (any vessel-based licence can be used for dogfish fishing), the Licensing Profile methodology used for elsewhere in this report cannot be applied.

Landings Profile

Tier/Catch (kg)	# Vessels	Dogfish	Halibut	Sablefish	Rockfish	Lingcod	Other	Total
Top 1/3	6	1,987,423	52,957	1,448	22,045	23,679	54,979	2,142,530
Middle 1/3	6	814,153	32,795	53	5,682	1,478	30,440	884,600
Bottom 1/3	6	151,784	7,970	591	4,230	1,482	5,528	171,584
Total	18	2,953,359	93,721	2,092	31,957	26,638	90,947	3,198,714

Tier/Average Catch per vessel (kg)	# Vessels	Dogfish	Halibut	Sablefish	Rockfish	Lingcod	Other	Total
Top 1/3	6	331,237	8,826	241	3,674	3,946	9,163	357,088
Middle 1/3	6	135,692	5,466	9	947	246	5,073	147,433
Bottom 1/3	6	25,297	1,328	98	705	247	921	28,597
Average		110,412	2,942	80	1,225	1,315	3,054	119,029

Tier/Catch Mix	% of Catch (All Species)	% Dogfish in Catch Mix
Top 1/3	67%	93%
Middle 1/3	28%	92%
Bottom1/3	5%	88%
Total	100%	92%

Financial Profiles

Key Assumptions

The 2009 dogfish season featured a higher-than-average landings volume. As the season was not representative of normal operations, dogfish fishermen were reluctant to participate in this study. Thus, fishery and vessel expenses are inferred from recent existing data.

- Landings by production tier are derived from DFO Data.
- Dogfish price per BC stats. Other fish prices are largely drawn from the contractor's research. Published prices for most species were not suitable as they reflect a mix of gear types (that may have widely varying prices):

Species	Price/Kg
Dogfish	0.46
Halibut	11.57
Rockfish	1.98
Lingcod	2.76
Other	1.41

- Trip expenses imputed from research.
- A portion of the fish harvested is assumed to be leased. Quota leasing has an important impact on results. The base assumption is that 30% of dogfish is leased, and 50% of all other species is leased. Lease rates:

Species	Lease Rate/Kg
Dogfish	0.02
Halibut	7.05
Rockfish	0.26
Lingcod	0.77
Other	0.05

- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	2 (top and middle tiers) 1 (bottom tier)
Deckhand share	50% of net stock
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry, including the treatment of quota. Most captains in the fleet are believed to be owner-operators.
- Repairs and maintenance is linked to vessel size and productivity.

Individual Vessel Profiles

Dogfish Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg) – All Species Grndfish	357,088	147,433	28,597	177,706
Vessel Price (per kg)	\$0.80	\$0.92	\$1.07	\$0.85
Gross Revenue (Gross Stock)	\$286,964	\$135,823	\$30,606	\$151,131
Less: Fishery Specific Expenses				
Fuel	23,100	12,000	3,000	12,700
At sea monitoring	5,460	3,120	780	3,120
Offload Monitor	14,761	6,094	1,182	7,346
Licence / Co-management Fees	2,225	2,225	2,225	2,225
Licence/Quota lease	51,417	30,317	7,440	29,725
Ice	4,200	2,400	600	2,489
Bait	25,200	14,400	2,400	14,000
Gear Maintenance/replace	6,300	3,600	900	3,600
Total Fishery Specific Expenses	132,663	74,157	18,429	75,204
Net Revenue (Net Stock)	154,301	61,667	10,736	75,927
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	77,151	30,833	6,040	38,008
Fishery Contribution (Boat Share)	77,151	30,833	4,696	37,919
Vessel Fixed Expenses				
Insurance	3,500	3,000	2,000	2,833
Repairs & Maintenance	12,000	12,000	5,000	9,667
Moorage	1,000	1,000	1,200	1,067
Miscellaneous	1,500	1,500	2,000	1,667
Total Vessel Expenses	18,000	17,500	10,200	15,233
Earnings (EBITDA)	\$59,151	\$13,333	-\$5,504	\$22,686

Aggregate Vessel Profiles

Number of Vessels	18			
Dogfish Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg) – All Species Grndfish	2,142,530	884,600	171,584	3,198,714
Vessel Price (per kg)	\$0.80	\$0.92	\$1.07	\$0.85
Gross Revenue (Gross Stock)	\$1,721,784	\$814,941	\$183,638	\$2,720,363
Less: Fishery Specific Expenses				
Fuel	138,600	72,000	18,000	228,600
At sea monitoring	32,760	18,720	4,680	56,160
Offload Monitor	88,564	36,566	7,093	132,223
Licence / Co-management Fees	13,350	13,350	13,350	40,050
Licence/Quota lease	308,501	181,905	44,640	535,046
Ice	25,200	16,000	3,600	44,800
Bait	151,200	86,400	14,400	252,000
Gear Maintenance/replace	37,800	21,600	5,400	64,800
Total Fishery Specific Expenses	795,975	446,541	111,163	1,353,679
Net Revenue (Net Stock)	925,809	368,400	72,475	1,366,684
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	462,904	185,000	36,238	684,142
Fishery Contribution (Boat Share)	462,904	183,400	36,238	682,542
Vessel Fixed Expenses				
Insurance	21,000	18,000	12,000	51,000
Repairs & Maintenance	72,000	72,000	30,000	174,000
Moorage	6,000	6,000	7,200	19,200
Miscellaneous	9,000	9,000	12,000	30,000
Total Vessel Expenses	108,000	105,000	61,200	274,200
Earnings (EBITDA)	\$354,904	\$78,400	-\$24,962	\$408,342

Other Fishery Diversification

Because the Dogfish fishery does not require a specific category of licence (any vessel-based licence can be used for lingcod fishing), the Diversification methodology used elsewhere in this report can not be applied.

Comparison to 2007 Results

- No analysis performed in 2007.

Prawn (W)

Fishery Overview

The BC prawn fishery is a competitive trap fishery, managed using time and area closures along with trap limits and other measures. “W” licenses are vessel based, subject to strict vessel replacement regulations. In-season trap stacking is allowed in the fishery, with vessels stacking allowed 200 traps in addition to the standard 300 trap limit.

BC spot prawns have traditionally commanded high prices in Japan, where the bulk of the BC catch is marketed in whole frozen form. The BC spot prawn resource is considered healthy, and catches have been on a gradually rising trend. This has translated into strong returns for BC prawn fishermen. As catches has risen, however, the length of the season has declined. The majority of the harvest takes place in the first four weeks of the season.

Licensing Profile

Licence Category	Sum of Licences
Prawn	215
Salmon Troll	30
Halibut	28
Tuna	22
Shrimp	18
Rockfish	16
Crab (A)	15
Others	30
Total	374

Count of Licences on Prawn Vessels	Count of Vessels	Sum of Prawn Licences	Sum of Licences
1	129	129	129
2	45	46	90
3	19	19	57
4	12	12	48
5	4	4	20
6	5	5	30
Total	214	215	374

Landings Profile

# Traps/Catch (kg)	Count of Vessels	# Active	Catch	% Catch
500 Traps	22	22	614,530	20%
300 Traps	165	159	2,512,233	80%
No Traps	27	0	0	0%
Total	214	181	3,126,763	100%

300 Traps	Count of Vessels	Sum of Prawn Catch	Average Prawn Catch per Vessel	% of Catch
Top 1/3	53	1,207,179	22,777	48%
Middle 1/3	53	829,692	15,655	33%
Bottom1/3	53	475,362	8,969	19%
Total	159	2,512,233	15,800	100%

500 Traps	Count of Vessels	Sum of Prawn Catch	Average Prawn Catch per Vessel	% of Catch
Top 1/3	7	251,243	35,892	41%
Middle 1/3	7	197,409	28,201	32%
Bottom1/3	8	165,879	20,735	27%
Total	22	614,530	27,933	100%

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish price for Prawn: \$13.23/kg; this value is substantially higher than the YIR 2009 figure (\$9.71/kg). Research suggests that the higher value better reflects prawn prices for the 2009 season.
- Lease rate for a “stacked” licence (200 additional traps): \$30,000.
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	3 (500 trap all tiers, 300 trap top tier) 2 (300 trap middle & bottom tiers)
Deckhand share	10% of gross each
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry. Vessels are a mix between owner/operators and hired captains.

Individual Vessel Profiles

300 Traps

Prawn Fleet (300 Trap) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg)	22,777	15,655	8,969	15,800
Vessel Price (per kg)	\$13.23	\$13.23	\$13.23	\$13.23
Gross Revenue (Gross Stock)	\$301,285	\$207,072	\$118,640	\$208,999
Less: Fishery Specific Expenses				
Fuel	10,500	8,750	7,000	8,750
At sea monitoring	3,500	3,500	3,500	3,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	2,020	2,020	2,020	2,020
Licence/Quota lease	-	-	-	-
Ice	250	250	250	267
Bait	8,000	6,000	5,000	6,333
Gear Maintenance/replace	3,500	3,500	2,000	3,000
Total Fishery Specific Expenses	27,770	24,020	19,770	23,871
Net Revenue (Net Stock)	273,515	183,052	98,870	185,128
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	90,385	41,414	23,728	51,843
Fishery Contribution (Boat Share)	183,129	141,638	75,142	133,286
Vessel Fixed Expenses				
Insurance	5,000	5,000	5,000	5,000
Repairs & Maintenance	12,000	12,000	12,000	12,000
Moorage	1,200	1,200	1,200	1,200
Miscellaneous	2,000	2,000	2,000	2,000
Total Vessel Expenses	20,200	20,200	20,200	20,200
Earnings (EBITDA)	\$162,929	\$121,438	\$54,942	\$113,086

500 Traps

Prawn Fleet (500 Trap) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg)	35,892	28,201	20,735	27,933
Vessel Price (per kg)	\$13.23	\$13.23	\$13.23	\$13.23
Gross Revenue (Gross Stock)	\$474,763	\$373,035	\$274,272	\$369,489
Less: Fishery Specific Expenses				
Fuel	17,500	14,000	11,375	14,159
At sea monitoring	3,500	3,500	3,500	3,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	2,020	2,020	2,020	2,020
Licence/Quota lease	30,000	30,000	30,000	30,000
Ice	250	250	250	898
Bait	10,000	8,000	6,500	8,091
Gear Maintenance/replace	5,000	5,000	4,000	4,636
Total Fishery Specific Expenses	68,270	62,770	57,645	63,304
Net Revenue (Net Stock)	406,493	310,265	216,627	306,185
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	142,429	111,910	82,282	110,847
Fishery Contribution (Boat Share)	264,064	198,354	134,345	195,338
Vessel Fixed Expenses				
Insurance	5,000	5,000	5,000	5,000
Repairs & Maintenance	15,000	15,000	15,000	15,000
Moorage	1,200	1,200	1,200	1,200
Miscellaneous	2,000	2,000	2,000	2,000
Total Vessel Expenses	23,200	23,200	23,200	23,200
Earnings (EBITDA)	\$240,864	\$175,154	\$111,145	\$172,138

- Note: many vessels freeze prawns on board. They receive a higher selling price, but also bear processing and packaging costs that may be around \$1.00 per lb.

Aggregate Vessel Profiles

300 Traps

Number of Vessels	159			
Prawn Fleet (300 Trap) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg)	1,207,179	829,692	475,362	2,512,233
Vessel Price (per kg)	\$13.23	\$13.23	\$13.23	\$13.23
Gross Revenue (Gross Stock)	\$15,968,082	\$10,974,834	\$6,287,898	\$33,230,814
Less: Fishery Specific Expenses				
Fuel	556,500	463,750	371,000	1,391,250
At sea monitoring	185,500	185,500	185,500	556,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	107,060	107,060	107,060	321,180
Licence/Quota lease	-	-	-	-
Ice	13,250	16,000	13,250	42,500
Bait	424,000	318,000	265,000	1,007,000
Gear Maintenance/replace	185,500	185,500	106,000	477,000
Total Fishery Specific Expenses	1,471,810	1,275,810	1,047,810	3,795,430
Net Revenue (Net Stock)	14,496,272	9,699,024	5,240,088	29,435,384
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	4,790,425	2,194,967	1,257,580	8,242,971
Fishery Contribution (Boat Share)	9,705,847	7,504,057	3,982,508	21,192,413
Vessel Fixed Expenses				
Insurance	265,000	265,000	265,000	795,000
Repairs & Maintenance	636,000	636,000	636,000	1,908,000
Moorage	63,600	63,600	63,600	190,800
Miscellaneous	106,000	106,000	106,000	318,000
Total Vessel Expenses	1,070,600	1,070,600	1,070,600	3,211,800
Earnings (EBITDA)	\$8,635,247	\$6,433,457	\$2,911,908	\$17,980,613

500 Traps

Number of Vessels	22			
Prawn Fleet (500 Trap) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg)	251,243	197,409	165,879	614,530
Vessel Price (per kg)	\$13.23	\$13.23	\$13.23	\$13.23
Gross Revenue (Gross Stock)	\$3,323,340	\$2,611,242	\$2,194,176	\$8,128,758
Less: Fishery Specific Expenses				
Fuel	122,500	98,000	91,000	311,500
At sea monitoring	24,500	24,500	28,000	77,000
Offload Monitor	-	-	-	-
Licence / Co-management Fees	14,140	14,140	16,160	44,440
Licence/Quota lease	210,000	210,000	240,000	660,000
Ice	1,750	16,000	2,000	19,750
Bait	70,000	56,000	52,000	178,000
Gear Maintenance/replace	35,000	35,000	32,000	102,000
Total Fishery Specific Expenses	477,890	453,640	461,160	1,392,690
Net Revenue (Net Stock)	2,845,450	2,157,602	1,733,016	6,736,068
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	997,002	783,373	658,253	2,438,627
Fishery Contribution (Boat Share)	1,848,448	1,374,229	1,074,763	4,297,441
Vessel Fixed Expenses				
Insurance	35,000	35,000	40,000	110,000
Repairs & Maintenance	105,000	105,000	120,000	330,000
Moorage	8,400	8,400	9,600	26,400
Miscellaneous	14,000	14,000	16,000	44,000
Total Vessel Expenses	162,400	162,400	185,600	510,400
Earnings (EBITDA)	\$1,686,048	\$1,211,829	\$889,163	\$3,787,041

All Prawn Vessels

Number of Vessels	159	22	181
Prawn Fleet Aggregate Vessel Profiles	300 Trap	500 Trap	Fleet Total
Landings (kg)	2,512,233	614,530	3,126,763
Vessel Price (per kg)	\$13.23	\$13.23	\$13.23
Gross Revenue (Gross Stock)	\$33,230,814	\$8,128,758	\$41,359,572
Less: Fishery Specific Expenses			
Fuel	1,391,250	311,500	1,702,750
At sea monitoring	556,500	77,000	633,500
Offload Monitor	-	-	-
Licence / Co-management Fees	321,180	44,440	365,620
Licence/Quota lease	-	660,000	660,000
Ice	42,500	19,750	62,250
Bait	1,007,000	178,000	1,185,000
Gear Maintenance/replace	477,000	102,000	579,000
Total Fishery Specific Expenses	3,795,430	1,392,690	5,188,120
Net Revenue (Net Stock)	29,435,384	6,736,068	36,171,452
<i>Less:</i>			
Captain's Bonus	-	-	-
Deckhand Shares	8,242,971	2,438,627	10,681,598
Fishery Contribution (Boat Share)	21,192,413	4,297,441	25,489,854
Vessel Fixed Expenses			
Insurance	795,000	110,000	905,000
Repairs & Maintenance	1,908,000	330,000	2,238,000
Moorage	190,800	26,400	217,200
Miscellaneous	318,000	44,000	362,000
Total Vessel Expenses	3,211,800	510,400	3,722,200
Earnings (EBITDA)	\$17,980,613	\$3,787,041	\$21,767,654

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Prawn	Diversification Fisheries					Non-Subject Fisheries Total
		Tuna	Rockfish	Halibut	Crab	TR Salmon	
Active in Subject Fishery Only	154	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	28	4	11	11	9	6	28
Inactive in Subject Fishery + Active in Other Fisheries	8	-	-	-	6	**	8
Inactive (No Fisheries)	24	-	-	-	-	-	-
Total	214	4	11	11	15	**	36

Fleet Revenue (\$)	Prawn	Diversification Fisheries					Non-Subject Fisheries Total
		Tuna	Rockfish	Halibut	Crab	TR Salmon	
Active in Subject Fishery Only	41,359,572						
Active in Subject Fishery + Active in Other Fisheries		274,886	112,073	3,028,619	1,100,401	133,676	4,649,656
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	736,112	86,225	822,337
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	41,359,572	274,886	112,073	3,028,619	1,836,513	219,901	5,471,993

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the prawn fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Prawn Replacement Cost of Assets	Prawn Vessel & Licence
Licence Cost	511,000
Vessel Cost	135,000
Replacement cost	646,000
Amortization (annual) @ 5%	32,300
Loan Considerations if 50% borrowed:	
Loan amount	323,000
Interest (1st year)	25,840
Principal (1st year, 15 yr amort)	21,533
1st year pmt (principal + interest):	47,373

Comparison to 2007 Results

- 2009 was an excellent year; both catch volume and prices were higher than in 2007.
- Fleet revenues and earnings were up sharply in 2009.

Crab (R)

Fishery Overview

The BC crab fishery is a competitive trap fishery managed under an area licensing regime. The coast is divided into seven areas, and each licence can operate in a single area. There is no licence stacking permitted. Periodic area re-selection is allowed (generally every three years); this allows a measure of flexibility for fishermen, but also undermines stability and long term planning, since the number of licences in a given area may vary substantially.

The Hecate Strait fishery – Area A – is the predominant area in terms of landings, and is characterized by larger vessels and higher trap limits than Areas B through J. The other areas feature much lower landing levels in aggregate and per vessel, but may provide fishermen with more lucrative marketing opportunities (access to local live markets).

Dungeness crab is marketed mostly live, but also in frozen and cooked/section form. Economics in the crab fishery have been generally strong, though periodic dips in production (crab catches are cyclical) and in market prices influence results.

Licensing Profile

Area A

Licence Category	Sum of Licences
Crab - Area A	49
Halibut	8
Rockfish	5
Shrimp	4
Others	4
Total	70

Count of All Licences on Crab (A) Vessels	Count of Vessels	Sum of Licences
1	36	36
2	7	14
3 or more	6	20
Total	49	70

Areas B-J

Licence Category	Sum of Licences
Crab (B-J)	151
Prawn	13
Rockfish	4
Salmon Troll	3
Salmon Gillnet	3
Halibut	2
Other	1
Total	177

Count of All Licences on Crab (B-J) Vessels	Count of Vessels	Sum of Licences
1	131	131
2	16	32
3 or more	4	14
Total	151	177

Landings Profile

Activity Level/Count of Vessels	Area A	Areas B-J	Crab Total
Active	45	146	191
Inactive	4	5	9
Total	49	151	200

Area A Tier/Catch (kg)	# Vessels	Catch	% of Catch	Average Catch	OAL
Top 1/3	15	976,848	52%	65,123	15.0
Middle 1/3	15	568,761	30%	37,917	13.3
Bottom 1/3	15	342,372	18%	22,825	12.2
Total	45	1,887,981	100%	41,955	13.5

Areas B-J Tier/Catch (kg)	Count of Vessels	Catch	% of Catch	Average Catch	OAL
Top 1/3	48	1,623,886	55%	33,831	9.4
Middle 1/3	49	864,091	29%	17,635	8.3
Bottom 1/3	49	446,742	15%	9,117	7.5
Total	146	2,934,720	100%	20,101	8.4

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish price (from YIR 2009) for Crab: \$5.96/kg. This value was broken into separate prices for Area A and Areas B-J. Area A price = \$4.96/kg. Areas B-J price = \$6.61/kg. The weighted average price remains per the YIR 2009 value.
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	3 (top tier Area A) 2 (middle and bottom tiers Area A) 2 (top and middle tiers Areas B-J) 1 (bottom tier Areas B-J)
Deckhand share	30% of net (Area A top tier) 10% of gross per person (all others)
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry. Vessels are a mix between owner/operators and hired captains.
- Vessel fixed expenses reflect the differences in vessel size in the crab fishery.

Area A

Individual Vessel Profiles

Crab Fleet (Area A) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg)	65,123	37,917	22,825	41,955
Vessel Price (per kg)	\$4.96	\$4.96	\$4.96	\$4.96
Gross Revenue (Gross Stock)	\$323,034	\$188,084	\$113,219	\$208,112
Less: Fishery Specific Expenses				
Fuel	45,000	25,000	20,000	30,000
At sea monitoring	5,500	5,500	3,500	4,833
Offload Monitor	-	-	-	-
Licence / Co-management Fees	2,290	2,200	1,700	2,063
Licence/Quota lease	-	-	-	-
Ice	1,000	1,000	1,000	1,022
Bait	30,000	20,000	10,000	20,000
Gear Maintenance/replace	20,000	15,000	12,000	15,667
Total Fishery Specific Expenses	103,790	68,700	48,200	73,586
Net Revenue (Net Stock)	219,244	119,384	65,019	134,527
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	65,773	37,617	22,644	42,011
Fishery Contribution (Boat Share)	153,471	81,767	42,375	92,515
Vessel Fixed Expenses				
Insurance	7,500	5,000	3,000	5,167
Repairs & Maintenance	25,000	15,000	10,000	16,667
Moorage	2,000	1,200	1,200	1,467
Miscellaneous	3,500	2,500	2,500	2,833
<i>Total Vessel Expenses</i>	38,000	23,700	16,700	26,133
Earnings (EBITDA)	\$115,471	\$58,067	\$25,675	\$66,382

Areas B-J

Individual Vessel Profiles

Crab Fleet (Areas B-J) Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg)	33,831	17,635	9,117	20,101
Vessel Price (per kg)	\$6.61	\$6.61	\$6.61	\$6.61
Gross Revenue (Gross Stock)	\$223,751	\$116,631	\$60,299	\$132,943
Less: Fishery Specific Expenses				
Fuel	24,000	21,000	14,000	19,637
At sea monitoring	3,800	3,800	3,800	3,800
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,790	1,790	1,790	1,790
Licence/Quota lease	-	-	-	-
Ice	1,500	1,500	1,000	938
Bait	18,000	15,000	8,000	13,637
Gear Maintenance/replace	12,000	9,000	6,000	8,979
Total Fishery Specific Expenses	61,090	52,090	34,590	48,782
Net Revenue (Net Stock)	162,661	64,541	25,709	84,161
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	44,750	23,326	6,030	24,565
Fishery Contribution (Boat Share)	117,911	41,215	19,679	59,596
Vessel Fixed Expenses				
Insurance	3,000	3,000	3,000	3,000
Repairs & Maintenance	10,000	10,000	7,500	9,161
Moorage	1,200	1,200	1,200	1,200
Miscellaneous	1,500	1,500	1,500	1,500
Total Vessel Expenses	15,700	15,700	13,200	14,861
Earnings (EBITDA)	\$102,211	\$25,515	\$6,479	\$44,735

Area A

Aggregate Vessel Profiles

Number of Vessels	45			
Crab Fleet (Area A) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg)	976,848	568,761	342,372	1,887,981
Vessel Price (per kg)	\$4.96	\$4.96	\$4.96	\$4.96
Gross Revenue (Gross Stock)	\$4,845,508	\$2,821,255	\$1,698,287	\$9,365,049
Less: Fishery Specific Expenses				
Fuel	675,000	375,000	300,000	1,350,000
At sea monitoring	82,500	82,500	52,500	217,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	34,350	33,000	25,500	92,850
Licence/Quota lease	-	-	-	-
Ice	15,000	16,000	15,000	46,000
Bait	450,000	300,000	150,000	900,000
Gear Maintenance/replace	300,000	225,000	180,000	705,000
Total Fishery Specific Expenses	1,556,850	1,031,500	723,000	3,311,350
Net Revenue (Net Stock)	3,288,658	1,789,755	975,287	6,053,699
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	986,597	564,251	339,657	1,890,506
Fishery Contribution (Boat Share)	2,302,060	1,225,504	635,629	4,163,193
Vessel Fixed Expenses				
Insurance	112,500	75,000	45,000	232,500
Repairs & Maintenance	375,000	225,000	150,000	750,000
Moorage	30,000	18,000	18,000	66,000
Miscellaneous	52,500	37,500	37,500	127,500
Total Vessel Expenses	570,000	355,500	250,500	1,176,000
Earnings (EBITDA)	\$1,732,060	\$870,004	\$385,129	\$2,987,193

Areas B-J

Aggregate Vessel Profiles

Number of Vessels	146			
Crab Fleet (Area B-J) Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg)	1,623,886	864,091	446,742	2,934,720
Vessel Price (per kg)	\$6.61	\$6.61	\$6.61	\$6.61
Gross Revenue (Gross Stock)	\$10,740,060	\$5,714,928	\$2,954,664	\$19,409,652
Less: Fishery Specific Expenses				
Fuel	1,152,000	1,029,000	686,000	2,867,000
At sea monitoring	182,400	186,200	186,200	554,800
Offload Monitor	-	-	-	-
Licence / Co-management Fees	85,920	87,710	87,710	261,340
Licence/Quota lease	-	-	-	-
Ice	72,000	16,000	49,000	137,000
Bait	864,000	735,000	392,000	1,991,000
Gear Maintenance/replace	576,000	441,000	294,000	1,311,000
Total Fishery Specific Expenses	2,932,320	2,494,910	1,694,910	7,122,140
Net Revenue (Net Stock)	7,807,740	3,220,018	1,259,754	12,287,512
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	2,148,012	1,142,986	295,466	3,586,464
Fishery Contribution (Boat Share)	5,659,728	2,077,032	964,288	8,701,048
Vessel Fixed Expenses				
Insurance	144,000	147,000	147,000	438,000
Repairs & Maintenance	480,000	490,000	367,500	1,337,500
Moorage	57,600	58,800	58,800	175,200
Miscellaneous	72,000	73,500	73,500	219,000
Total Vessel Expenses	753,600	769,300	646,800	2,169,700
Earnings (EBITDA)	\$4,906,128	\$1,307,732	\$317,488	\$6,531,348

Crab Total

Aggregate Vessel Profiles

Number of Vessels	45	146	191
Crab Fleet Aggregate Vessel Profiles	Area A	Areas B-J	Fleet Total
Landings (kg)	1,887,981	2,934,720	4,822,702
Vessel Price (per kg)	\$4.96	\$6.61	\$5.97
Gross Revenue (Gross Stock)	\$9,365,049	\$19,409,652	\$28,774,701
Less: Fishery Specific Expenses	0	0	
Fuel	1,350,000	2,867,000	4,217,000
At sea monitoring	217,500	554,800	772,300
Offload Monitor	-	-	-
Licence / Co-management Fees	92,850	261,340	354,190
Licence/Quota lease	-	-	-
Ice	46,000	137,000	183,000
Bait	900,000	1,991,000	2,891,000
Gear Maintenance/replace	705,000	1,311,000	2,016,000
Total Fishery Specific Expenses	3,311,350	7,122,140	10,433,490
Net Revenue (Net Stock)	6,053,699	12,287,512	18,341,211
<i>Less:</i>	-	-	
Captain's Bonus	-	-	-
Deckhand Shares	1,890,506	3,586,464	5,476,970
Fishery Contribution (Boat Share)	4,163,193	8,701,048	12,864,241
Vessel Fixed Expenses	-	-	
Insurance	232,500	438,000	670,500
Repairs & Maintenance	750,000	1,337,500	2,087,500
Moorage	66,000	175,200	241,200
Miscellaneous	127,500	219,000	346,500
Total Vessel Expenses	1,176,000	2,169,700	3,345,700
Earnings (EBITDA)	\$2,987,193	\$6,531,348	\$9,518,541

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the "Diversification Fisheries" rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Crab Area A	Diversification Fisheries					Non-Subject Fisheries Total
		Halibut	Rockfish	Prawn	Tuna	Shrimp	
Active in Subject Fishery Only	42	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	7	6	6	**	-	-	7
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	-	-	-
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	49	6	6	**	-	-	7

Fleet Revenue (\$)	Crab Area A	Diversification Fisheries					Non-Subject Fisheries Total
		Halibut	Rockfish	Prawn	Tuna	Shrimp	
Active in Subject Fishery Only		-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	10,405,610	1,363,985	42,612	137,570	-	-	1,544,167
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	-	-	-
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	10,405,610	1,363,985	42,612	137,570	-	-	1,544,167

Vessel Count	Crab Areas B-J	Diversification Fisheries					Non-Subject Fisheries Total
		Prawn	Rockfish	Halibut	Shrimp	TR Salmon	
Active in Subject Fishery Only	139	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	9	9	-	-	-	-	9
Inactive in Subject Fishery + Active in Other Fisheries	**	**	-	-	-	-	**
Inactive (No Fisheries)	**	-	-	-	-	-	-
Total	151	**	-	-	-	-	**

Fleet Revenue (\$)	Crab Areas B-J	Diversification Fisheries					
		Prawn	Rockfish	Halibut	Shrimp	TR Salmon	Non-Subject Fisheries Total
Active in Subject Fishery Only		-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	19,409,652	1,713,444	-	-	-	-	1,713,444
Inactive in Subject Fishery + Active in Other Fisheries	-	175,602	-	-	-	-	175,602
Inactive (No Fisheries)	-	-	-	-	-	-	-
Total	19,409,652	1,889,046	-	-	-	-	1,889,046

** suppressed to ensure confidentiality.

Capital Considerations

The earnings shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the crab fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from "Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Area A Crab Replacement Cost of Assets	Crab Vessel & Licence
Licence Cost	900,000
Vessel Cost	212,500
Replacement cost	1,112,500
Amortization (annual) @ 5%	55,625
Loan Considerations if 50% borrowed:	
Loan amount	556,250
Interest (1st year)	44,500
Principal (1st year, 15 yr amort)	37,083
1st year pmt (principal + interest):	81,583

Area B-J Crab Replacement Cost of Assets	Crab Vessel & Licence
Licence Cost	480,000
Vessel Cost	212,500
Replacement cost	692,500
Amortization (annual) @ 5%	34,625
Loan Considerations if 50% borrowed:	
Loan amount	346,250
Interest (1st year)	27,700
Principal (1st year, 15 yr amort)	23,083
1st year pmt (principal + interest):	50,783

Comparison to 2007 Results

- Area A revenues and earnings were down in 2009 vs. 2007. Many vessels tied up before the end of the season.
- Areas B-J featured improved results vs. 2007, in terms of both landings and earnings.

Shrimp (S)

Fishery Overview

The BC shrimp fishery is a competitive trawl fishery. Licences are vessel based, meaning strict vessel replacement restrictions apply. While pink shrimp (for peeling) is the highest volume species, other, higher value species, such as side-stripe and coon-stripe, are also harvested.

Most vessels in the BC shrimp fleet are small – gillnet-sized craft – and fish day-trips for modest catch volumes. Of the larger vessels in the BC fleet, often groundfish trawlers, virtually all are inactive. This fleet structure contrasts to global competition, particularly from the east coast of Canada, where factory trawlers engage in an industrial scale fishery. The BC industry, with low volumes and high production costs, is not competitive with large-scale shrimp fisheries. Thus, the majority of the BC fleet is tied-up because operations are non-economic. While high-value species in BC afford opportunities for live or direct-to-public sales, the TACs for these species are low.

The shrimp industry, much like the salmon sector, has explored means of reforming the fishery to improve viability, but has been unable to reach an agreeable alternative approach. Asset values in the fishery are extremely depressed.

Licensing Profile

Licence Category	Sum of Licences
Shrimp	231
Salmon Gillnet (AG)	64
Groundfish Trawl	38
Salmon Troll (AT)	41
Halibut (L)	21
Sablefish (K)	4
Tuna (USA68)	24
Prawn (W)	18
Rockfish (ZN)	10
Other	31
Total	482

Count of All Licences on Shrimp Vessels	Count of Vessels	Sum of Licences
1	80	80
2	86	172
3	42	126
4	15	60
5 or more	8	44
Total	231	482

Landings Profile

Activity Level	Count of Vessels	Avg OAL
Active	57	11.60
Inactive	174	13.18
Total	231	12.79

Tier/Catch (kg)	Count of Vessels	Pink Shrimp	Other Shrimp	Average Pink Shrimp	Average Other Shrimp
Top 1/3	19	21,173	347,337	1,114	18,281
Middle 1/3	19	11,618	160,213	611	8,432
Bottom 1/3	19	811	27,767	43	1,461
Total	57	33,602	535,318	590	9,392

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish price (from research) for Shrimp: \$3.20/kg. This price, deduced from research, is substantially higher than the YIR 2009 price of \$1.86/kg.
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	1 (top and middle tiers) 0 (bottom tier)
Deckhand share	20% of gross
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry. Most captains in the fleet are believed to be owner-operators.

Individual Vessel Profiles

Shrimp Fleet Individual Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Average
Landings (kg)	19,395	9,044	1,504	9,981
Vessel Price (per kg)	\$3.20	\$3.20	\$3.20	\$3.20
Gross Revenue (Gross Stock)	\$62,000	\$28,910	\$4,808	\$31,906
Less: Fishery Specific Expenses				
Fuel	15,000	7,500	900	7,800
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	3,300	3,300	3,300	3,300
Licence/Quota lease	-	-	-	-
Ice	3,000	1,500	300	1,381
Bait	-	-	-	-
Gear Maintenance/replace	1,500	750	150	800
Total Fishery Specific Expenses	22,800	13,050	4,650	13,281
Net Revenue (Net Stock)	39,200	15,860	158	18,625
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	12,400	5,782	-	6,061
Fishery Contribution (Boat Share)	26,800	10,078	158	12,565
Vessel Fixed Expenses				
Insurance	1,500	1,500	1,500	1,500
Repairs & Maintenance	5,000	5,000	3,500	4,500
Moorage	1,000	1,000	1,000	1,000
Miscellaneous	500	500	500	500
Total Vessel Expenses	8,000	8,000	6,500	7,500
Earnings (EBITDA)	\$18,800	\$2,078	-\$6,342	\$5,065

Aggregate Vessel Profiles

Number of Vessels	57			
Shrimp Fleet Aggregate Vessel Profiles	Top 1/3	Middle 1/3	Bottom 1/3	Fleet Total
Landings (kg)	368,511	171,832	28,578	568,920
Vessel Price (per kg)	\$3.20	\$3.20	\$3.20	\$3.20
Gross Revenue (Gross Stock)	\$1,178,008	\$549,289	\$91,354	\$1,818,651
Less: Fishery Specific Expenses				
Fuel	285,000	142,500	17,100	444,600
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	62,700	62,700	62,700	188,100
Licence/Quota lease	-	-	-	-
Ice	57,000	16,000	5,700	78,700
Bait	-	-	-	-
Gear Maintenance/replace	28,500	14,250	2,850	45,600
Total Fishery Specific Expenses	433,200	235,450	88,350	757,000
Net Revenue (Net Stock)	744,808	313,839	3,004	1,061,651
Less:				
Captain's Bonus	-	-	-	-
Deckhand Shares	235,602	109,858	-	345,459
Fishery Contribution (Boat Share)	509,206	203,981	3,004	716,192
Vessel Fixed Expenses				
Insurance	28,500	28,500	28,500	85,500
Repairs & Maintenance	95,000	95,000	66,500	256,500
Moorage	19,000	19,000	19,000	57,000
Miscellaneous	9,500	9,500	9,500	28,500
Total Vessel Expenses	152,000	152,000	123,500	427,500
Earnings (EBITDA)	\$357,206	\$51,981	-\$120,496	\$288,692

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the "Diversification Fisheries" rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Diversification Fisheries									Non-Subject Fisheries Total
	Shrimp	Crab	Rockfish	Tuna	Prawn	Halibut	Salmon Gillnet	Salmon Troll	Hake	
Active in Subject Fishery Only	34	-	-	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	23	-	-	**	9	-	8	6	-	23
Inactive in Subject Fishery + Active in Other Fisheries	77	4	27	7	10	14	19	20	7	77
Inactive (No Fisheries)	96	-	-	-	-	-	-	-	-	-
Total	230	4	27	**	19	14	27	26	7	100

Fleet Revenue	Diversification Fisheries									Non-Subject Fisheries Total
	Shrimp	Crab	Rockfish	Tuna	Prawn	Halibut	Salmon Gillnet & Troll	Hake		
Active in Subject Fishery Only		-	-	-	-	-	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	1,818,651	-	-	1,939	1,583,934	-	244,596	-	-	1,830,469
Inactive in Subject Fishery + Active in Other Fisheries	-	897,531	7,615,049	204,398	2,709,726	2,166,791	683,171	2,795,402	-	17,072,068
Inactive (No Fisheries)	-	-	-	-	-	-	-	-	-	-
Total	1,818,651	897,531	7,615,049	206,338	4,293,660	2,166,791	927,766	2,795,402	-	18,902,537

** suppressed to ensure confidentiality.

Capital Considerations

The earnings shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the shrimp fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from "Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).
- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Shrimp Replacement Cost of Assets	Shrimp Vessel & Licence
Licence Cost	25,000
Vessel Cost	70,000
Replacement cost	95,000
Amortization (annual) @ 5%	4,750
Loan Considerations if 50% borrowed:	
Loan amount	47,500
Interest (1st year)	3,800
Principal (1st year, 15 yr amort)	3,167
1st year pmt (principal + interest):	6,967

Comparison to 2007 Results

- The fishery remains depressed, with very low participation levels (57 vessels in 2009 vs. 78 in 2007).
- Top and middle tier vessels showed positive results (in part because vessel fixed expenses were revised downward).

Geoduck (G)

Fishery Overview

The BC geoduck fishery is a dive fishery operating under a quota management and area licensing (3 areas) program. Each licence receives an equal share of the annual TAC. The quotas on each licence are not divisible, but licence stacking is allowed, with a maximum of three licences per vessel. G licences are vessel based, though certain accommodations are made for this category of licence.

Geoduck is a closely-held fishery, with only 55 commercial licences issued. The resource is considered well managed, with licence holders contributing heavily to research, and entirely funding a comprehensive monitoring program. Geoduck beds are harvested on a rotational basis – a bed harvested one year will be left fallow for several more before the next harvest.

Geoduck is a high-priced delicacy in Asia, and strong demand has translated into attractive returns and high asset values for G licence holders. Recent increases in production from other jurisdictions, however, including farmed product, has caused prices to soften in recent years.

Licensing Profile

Licence Category	Sum of Licences
Geoduck	55
Red Sea Urchin	13
Sea Cucumber	23
Green Sea Urchin	5
Other	17
Total	113

Count of All Licences on Geoduck Vessels	Count of Vessels	Sum of Geoduck Licences	Sum of Non-Geoduck Licences	Sum of Licences
1	10	10	-	10
2	13	16	10	26
3	7	16	5	21
4	3	7	5	12
5 or more	6	6	38	44
Total	39	55	58	113

Landings Profile

Count of Licences/Catch (kg)	Count of Vessels	Catch	Average Catch	% Catch
1	29	825,384	28,462	53%
2	4	226,896	56,724	15%
3	6	509,765	84,961	33%
Total	39	1,562,044	40,052	100%

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish price (from YIR 2009) for Geoduck: \$19.89/kg.
- Licence lease rate at \$350,000.
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Hired
# Deckhands	2
Deckhand share	30% of net stock
Captain's Bonus	30% of a deckhand share

- A variety of settlement arrangements are used in the industry. Vessels are a mix between owner/operators and hired captains.

Individual Vessel Profiles

Geoduck Fleet Individual Vessel Profiles	One Licence	Two Licences	Three Licences	Fleet Average
Landings (kg)	28,462	56,724	84,961	40,052
Vessel Price (per kg)	\$19.89	\$19.89	\$19.89	\$19.89
Gross Revenue (Gross Stock)	\$565,971	\$1,127,983	\$1,689,487	\$796,462
Less: Fishery Specific Expenses				
Fuel	8,750	15,000	22,500	11,506
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	48,344	96,488	144,633	68,096
Licence/Quota lease	-	350,000	700,000	143,590
Ice	500	1,300	2,400	1,151
Bait	-	-	-	-
Gear Maintenance/replace	1,500	3,000	4,500	2,115
Total Fishery Specific Expenses	59,094	465,788	874,033	226,458
Net Revenue (Net Stock)	506,877	662,194	815,454	570,004
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	152,063	198,658	244,636	171,084
Fishery Contribution (Boat Share)	354,814	463,536	570,818	398,919
Vessel Fixed Expenses				
Insurance	5,500	5,500	5,500	5,500
Repairs & Maintenance	25,000	25,000	25,000	25,000
Moorage	1,500	1,500	1,500	1,500
Miscellaneous	10,000	10,000	10,000	10,000
Total Vessel Expenses	42,000	42,000	42,000	42,000
Earnings (EBITDA)	\$312,814	\$421,536	\$528,818	\$356,919

Aggregate Vessel Profiles

Number of Vessels	39			
Geoduck Fleet Aggregate Vessel Profiles	One Licence	Two Licences	Three Licences	Fleet Average
Landings (kg)	825,384	226,896	509,765	1,562,044
Vessel Price (per kg)	\$19.89	\$19.89	\$19.89	\$19.89
Gross Revenue (Gross Stock)	\$16,413,171	\$4,511,930	\$10,136,920	\$31,062,021
Less: Fishery Specific Expenses				
Fuel	253,750	60,000	135,000	448,750
At sea monitoring	-	-	-	-
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,401,982	385,954	867,796	2,655,731
Licence/Quota lease	-	1,400,000	4,200,000	5,600,000
Ice	14,500	16,000	14,400	44,900
Bait	-	-	-	-
Gear Maintenance/replace	43,500	12,000	27,000	82,500
Total Fishery Specific Expenses	1,713,732	1,873,954	5,244,196	8,831,881
Net Revenue (Net Stock)	14,699,439	2,637,977	4,892,724	22,230,140
Less:				
Captain's Bonus	-	-	-	-
Deckhand Shares	4,409,832	794,633	1,467,817	6,672,282
Fishery Contribution (Boat Share)	10,289,607	1,843,344	3,424,907	15,557,858
Vessel Fixed Expenses				
Insurance	159,500	22,000	33,000	214,500
Repairs & Maintenance	725,000	100,000	150,000	975,000
Moorage	43,500	6,000	9,000	58,500
Miscellaneous	290,000	40,000	60,000	390,000
Total Vessel Expenses	1,218,000	168,000	252,000	1,638,000
Earnings (EBITDA)	\$9,071,607	\$1,675,344	\$3,172,907	\$13,919,858

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Geoduck	Diversification Fisheries			
		Sea Cucumber	Red Sea Urchin	Green Sea Urchin	Non-Subject Fisheries Total
Active in Subject Fishery Only	30	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	9	7	6	**	9
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	-
Inactive (No Fisheries)	-	-	-	-	-
Total	39	7	6	**	9

Fleet Revenue (\$)	Geoduck	Diversification Fisheries			
		Sea Cucumber	Red Sea Urchin	Green Sea Urchin	Non-Subject Fisheries Total
Active in Subject Fishery Only	31,062,021	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		1,133,498	454,863	16,630	1,604,991
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	-
Inactive (No Fisheries)	-	-	-	-	-
Total	31,062,021	1,133,498	454,863	16,630	1,604,991

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the geoduck fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).

- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Geoduck Replacement Cost of Assets	Geoduck Vessel & Licence
Licence Cost	2,750,000
Vessel Cost	112,500
Replacement cost	2,862,500
Amortization (annual) @ 5%	143,125
Loan Considerations if 50% borrowed:	
Loan amount	1,431,250
Interest (1st year)	114,500
Principal (1st year, 15 yr amort)	95,417
1st year pmt (principal + interest):	209,917

Comparison to 2007 Results

- Landings levels have been steady of the last few years.
- While indicated revenues and earnings were higher in 2009 vs. 2007, the price assumed in 2007 may have been too low.

Red Sea Urchin (ZC)

Fishery Overview

The BC red sea urchin fishery is a dive fishery managed under a quota and area management approach (2 areas, north and south coast). Licences are party based, with the holder selecting a vessel each season. Each licence receives an equal share of the TAC in the area chosen. Quotas are not divisible, but licence stacking is allowed, with a maximum of five licences per vessel.

Red urchins are harvested for their roe, with the roe extracted, salted, and exported to Japan. The fishery is considered well managed, with licence holders funding management activities and a monitoring program. Results in recent years have been very poor, as the Japanese market has been flooded with illegal, un-regulated, un-reported (IUU) product from Russia, meaning weak demand for BC product. Given non-viable economics, participation of BC ZC licence-holders has been sporadic.

Licensing Profile

Licence Category	Sum of Licences
Red Sea Urchin	61
Sea Cucumber	66
Green Sea Urchin	29
Geoduck	6
Schedule II	25
Others	9
Total	196

Count of All Licences on Red Urchin Vessels	Count of Vessels	Sum of Red Urchin Licences	Sum of Non Red Urchin Licences	Sum of Licences
1	0	0	0	0
2	4	4	4	8
3	3	3	6	9
4	2	2	6	8
5	2	7	3	10
6	3	6	12	18
7	3	6	15	21
8	8	18	46	64
9 or more	6	15	43	58
Total	31	61	135	196

Landings Profile

Count of Red Urchin Licences/Vessel	Count of Vessels	Sum of Red Sea Urchin (ZC)2	Count of Active Vessels	Sum of Red Sea Urchin (kg)	% of Catch	Average Catch (kg)
1	15	15	11	648,425	32%	58,948
2	8	16	8	568,506	28%	71,063
3	4	12	4	306,564	15%	76,641
4 or more	4	18	4	516,331	25%	258,166
Total	31	61	27	2,039,827	100%	75,549

Financial Profiles

Key Assumptions

- Landings by production tier are derived from DFO Data.
- Fish price (from YIR 2009) for Red Sea Urchin: \$1.43/kg.
- The lease rate for a licence is nil due to the depressed state of the fishery.
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	2
Deckhand share	50% of net stock
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry. Vessels are a mix between owner/operators and hired captains.

Individual Vessel Profiles

Red Sea Urchin Fleet Individual Vessel Profiles	One Licence	Two Licences	Three or More Licences	Fleet Average
Landings (kg)	58,948	71,063	102,862	75,549
Vessel Price (per kg)	\$1.43	\$1.43	\$1.43	\$1.43
Gross Revenue (Gross Stock)	\$84,471	\$101,833	\$147,400	\$108,261
Less: Fishery Specific Expenses				
Fuel	7,500	12,500	22,500	13,426
At sea monitoring	4,500	9,000	16,875	9,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,730	2,260	3,055	2,280
Licence/Quota lease	-	-	-	-
Ice	500	1,000	1,500	1,241
Bait	-	-	-	-
Gear Maintenance/replace	2,500	4,000	6,000	3,981
Total Fishery Specific Expenses	16,730	28,760	49,930	30,428
Net Revenue (Net Stock)	67,741	73,073	97,470	77,833
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	33,871	36,536	48,735	39,065
Fishery Contribution (Boat Share)	33,871	36,536	48,735	38,769
Vessel Fixed Expenses				
Insurance	5,000	5,000	5,000	5,000
Repairs & Maintenance	10,000	10,000	10,000	10,000
Moorage	1,500	1,500	1,500	1,500
Miscellaneous	1,500	1,500	1,500	1,500
Total Vessel Expenses	18,000	18,000	18,000	18,000
Earnings (EBITDA)	\$15,871	\$18,536	\$30,735	\$20,769

Aggregate Vessel Profiles

Number of Vessels	27			
Red Sea Urchin Fleet Aggregate Vessel Profiles	One Licence	Two Licences	Three or More Licences	Fleet Total
Landings (kg)	648,425	568,506	822,896	2,039,827
Vessel Price (per kg)	\$1.43	\$1.43	\$1.43	\$1.43
Gross Revenue (Gross Stock)	\$929,186	\$814,664	\$1,179,201	\$2,923,051
Less: Fishery Specific Expenses				
Fuel	82,500	100,000	180,000	362,500
At sea monitoring	49,500	72,000	135,000	256,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	19,030	18,080	24,440	61,550
Licence/Quota lease	-	-	-	-
Ice	5,500	16,000	12,000	33,500
Bait	-	-	-	-
Gear Maintenance/replace	27,500	32,000	48,000	107,500
Total Fishery Specific Expenses	184,030	238,080	399,440	821,550
Net Revenue (Net Stock)	745,156	576,584	779,761	2,101,501
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	372,578	292,292	389,881	1,054,751
Fishery Contribution (Boat Share)	372,578	284,292	389,881	1,046,751
Vessel Fixed Expenses				
Insurance	55,000	40,000	40,000	135,000
Repairs & Maintenance	110,000	80,000	80,000	270,000
Moorage	16,500	12,000	12,000	40,500
Miscellaneous	16,500	12,000	12,000	40,500
Total Vessel Expenses	198,000	144,000	144,000	486,000
Earnings (EBITDA)	\$174,578	\$140,292	\$245,881	\$560,751

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Diversification Fisheries				Non-Subject Fisheries Total
	Red Sea Urchins	Geoduck	Sea Cucumber	Green Sea Urchins	
Active in Subject Fishery Only	3	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	24	6	20	9	24
Inactive in Subject Fishery + Active in Other Fisheries	**	**	**	**	**
Inactive (No Fisheries)	**	-	-	-	-
Total	31	**	**	**	**

Fleet Revenue (\$)	Diversification Fisheries				Non-Subject Fisheries Total
	Red Sea Urchins	Geoduck	Sea Cucumber	Green Sea Urchins	
Active in Subject Fishery Only		-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	2,923,051	3,385,089	3,115,200	94,793	6,595,082
Inactive in Subject Fishery + Active in Other Fisheries	-	563,606	140,687	23,804	728,096
Inactive (No Fisheries)	-	-	-	-	-
Total	2,923,051	3,948,694	3,255,887	118,597	7,323,178

** suppressed to ensure confidentiality.

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the red sea urchin fleet. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from

“Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).

- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 50% of the purchase price (replacement cost) is borrowed.

Red Sea Urchin Replacement Cost of Assets	Red Urchin Vessel & Licence
Licence Cost	50,000
Vessel Cost	138,750
Replacement cost	188,750
Amortization (annual) @ 5%	9,438
Loan Considerations if 50% borrowed:	
Loan amount	94,375
Interest (1st year)	7,550
Principal (1st year, 15 yr amort)	6,292
1st year pmt (principal + interest):	13,842

Comparison to 2007 Results

- Fewer vessels participated in 2009 (27 vs. 39 in 2007). While overall landings were down, higher landings per vessel translated to improved results.

Sea Cucumber (ZD)

Fishery Overview

The BC sea cucumber fishery is a dive fishery operating under a quota/area licensing management framework (4 areas: north, central, WCVI, Strait of Georgia). ZD licences are party-based, with the holder choosing a vessel each season. Each licence receives an equal share of the TAC. Quotas are not divisible, but licence stacking is allowed, with a maximum of five licences per vessel.

Sea cucumbers are split and dried, with the meat exported to Asia for consumption. The fishery is closely held, with 85 licences issued annually. The resource is considered well managed, and the fishery is economically sound, with licence values having risen considerably in recent years.

Licensing Profile

Licence Category	Sum of Licences
Sea Cucumber	85
Red Sea Urchins	37
Green Sea Urchins	22
Geoduck	7
Schedule II	20
Other	4
Total	175

Count of All Licences on Sea Cucumber Vessels	Count of Vessels	Sum of Sea Cucumber Licences	Sum of Non-Sea Cucumber Licences	Sum of Licences
1	0	0	0	0
2	0	0	0	0
3	5	9	6	15
4	5	11	9	20
5 or more	18	65	75	140
Total	28	85	90	175

Landings Profile

Count of Red Urchin Licences per Vessel/Catch (kg)	Count of Vessels	Sum of Sea Cucumber Licences	Catch	% of Catch	Average Catch (per vessel)
1	3	3	57,933	4%	19,311
2	8	16	290,169	19%	36,271
3	7	21	364,572	24%	52,082
4	5	20	378,407	25%	75,681
5	5	25	451,319	29%	90,264
Total	28	85	1,542,399	100%	55,086

Financial Profiles

Key Assumptions

The information gathered for the sea cucumber fishery was only partial, so confidence in the assumptions used and the resulting financial profiles is low.

- Landings by production tier are derived from DFO Data.
- Fish price (from YIR 2009) for Sea Cucumber: \$2.60/kg.
- Lease rate for a sea cucumber licence: \$25,000.
- Trip expenses imputed from research.
- Settlement assumptions:

Crewing Parameter	Assumption
Captain	Owner
# Deckhands	2
Deckhand share	40% of net stock
Captain's Bonus	none

- A variety of settlement arrangements are used in the industry. Vessels are a mix between owner/operators and hired captains.

Individual Vessel Profiles

Sea Cucumber Fleet Individual Vessel Profiles	One Licence	Two Licences	Three or More Licences	Fleet Average
Landings (kg)	19,311	36,271	70,253	55,086
Vessel Price (per kg)	\$2.60	\$2.60	\$2.60	\$2.60
Gross Revenue (Gross Stock)	\$50,236	\$94,357	\$182,758	\$143,301
Less: Fishery Specific Expenses				
Fuel	6,250	11,250	15,000	12,991
At sea monitoring	700	1,400	2,718	2,125
Offload Monitor	-	-	-	-
Licence / Co-management Fees	1,800	3,400	6,370	5,032
Licence/Quota lease	-	25,000	72,000	50,857
Ice	500	500	500	929
Bait	-	-	-	-
Gear Maintenance/replace	1,000	2,000	3,000	2,500
Total Fishery Specific Expenses	10,250	43,550	99,588	74,434
Net Revenue (Net Stock)	39,986	50,807	83,170	68,868
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	15,994	20,323	33,268	27,719
Fishery Contribution (Boat Share)	23,991	30,484	49,902	41,149
Vessel Fixed Expenses				
Insurance	3,000	3,000	3,000	3,000
Repairs & Maintenance	10,000	10,000	10,000	10,000
Moorage	1,500	1,500	1,500	1,500
Miscellaneous	1,000	1,000	1,000	1,000
Total Vessel Expenses	15,500	15,500	15,500	15,500
Earnings (EBITDA)	\$8,491	\$14,984	\$34,402	\$25,649

Aggregate Vessel Profiles

Number of Vessels	28			
Sea Cucumber Fleet Aggregate Vessel Profiles	One Licence	Two Licences	Three or More Licences	Fleet Total
Landings (kg)	57,933	290,169	1,194,297	1,542,399
Vessel Price (per kg)	\$2.60	\$2.60	\$2.60	\$2.60
Gross Revenue (Gross Stock)	\$150,707	\$754,854	\$3,106,878	\$4,012,439
Less: Fishery Specific Expenses				
Fuel	18,750	90,000	255,000	363,750
At sea monitoring	2,100	11,200	46,200	59,500
Offload Monitor	-	-	-	-
Licence / Co-management Fees	5,400	27,200	108,290	140,890
Licence/Quota lease	-	200,000	1,224,000	1,424,000
Ice	1,500	16,000	8,500	26,000
Bait	-	-	-	-
Gear Maintenance/replace	3,000	16,000	51,000	70,000
Total Fishery Specific Expenses	30,750	360,400	1,692,990	2,084,140
Net Revenue (Net Stock)	119,957	394,454	1,413,888	1,928,299
<i>Less:</i>				
Captain's Bonus	-	-	-	-
Deckhand Shares	47,983	162,581	565,555	776,120
Fishery Contribution (Boat Share)	71,974	231,872	848,333	1,152,180
Vessel Fixed Expenses				
Insurance	9,000	24,000	51,000	84,000
Repairs & Maintenance	30,000	80,000	170,000	280,000
Moorage	4,500	12,000	25,500	42,000
Miscellaneous	3,000	8,000	17,000	28,000
Total Vessel Expenses	46,500	124,000	263,500	434,000
Earnings (EBITDA)	\$25,474	\$107,872	\$584,833	\$718,180

Other Fishery Diversification

The following tables show the extent to which vessels in the subject fishery participated in other fishery categories. The fisheries included encompass all significant diversification activity. Note that values in the “Diversification Fisheries” rows may not sum to the Totals, as some vessels participate in more than one of these fisheries.

Vessel Count	Sea Cucumber	Diversification Fisheries			
		Geoduck	Red Sea Urchins	Green Sea Urchins	Non-Subject Fisheries Total
Active in Subject Fishery Only	3	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries	25	7	21	7	25
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	-
Inactive (No Fisheries)	-	-	-	-	-
Total	28	7	21	7	25

Fleet Revenue (\$)	Sea Cucumber	Diversification Fisheries			
		Geoduck	Red Sea Urchins	Green Sea Urchins	Non-Subject Fisheries Total
Active in Subject Fishery Only	4,012,439	-	-	-	-
Active in Subject Fishery + Active in Other Fisheries		3,953,141	1,882,564	63,809	5,899,514
Inactive in Subject Fishery + Active in Other Fisheries	-	-	-	-	-
Inactive (No Fisheries)	-	-	-	-	-
Total	4,012,439	3,953,141	1,882,564	63,809	5,899,514

Capital Considerations

The cash flows shown in the preceding schedules ignore:

- The capital costs to acquire the vessel, gear, and licences required to mount the fishing operation.
- The costs of servicing any debt that may be incurred in assembling required capital assets.

Because every member of the fleet has a different capitalization arrangement (purchase cost, net book value, debt level, etc), the following schedule is offered to recognize:

- The replacement cost of assets in the sea cucumber fishery. The vessel cost excludes fishing gear, and assumes purchase of a reasonable-quality used vessel. Values are drawn from “Analysis of Commercial Fishing Licence, Quota, and Vessel Values as at March 31, 2009 (Nelson).

- An amortization calculation based on newly purchased assets.
- Interest and principal payments for the first year, assuming 40% of the purchase price (replacement cost) is borrowed.

Sea Cucumber Replacement Cost of Assets	Sea Cucumber Vessel & Licence
Licence Cost	275,000
Vessel Cost	138,750
Replacement cost	413,750
Amortization (annual) @ 5%	20,688
Loan Considerations if 50% borrowed:	
Loan amount	206,875
Interest (1st year)	16,550
Principal (1st year, 15 yr amort)	13,792
1st year pmt (principal + interest):	30,342

Comparison to 2007 Results

- Results were slightly improved in 2009, in part because landings and revenues accrued to fewer vessels (28 in 2009 vs. 31 in 2009).

Summary

Financial Results

Fishery	# Active Vessels	Landings (kg)	Subject Fishery Gross Revenue (\$)	Fishery Contribution (\$)	EBITDA (\$)	EBITDA % of Landed Value	Gross Revenue in Other Fisheries (\$)	# Persons on Vessels
Salmon Seine	105	13,364,811	8,941,110	2,424,288	(463,212)	-5%	21,938,280	420
Roe Herring Seine	43	6,303,524	8,446,722	n/a	n/a	n/a	n/a	n/a
Salmon Gillnet	450	1,587,589	3,258,387	1,287,911	(1,640,089)	-50%	5,265,545	499
Salmon Troll	245	1,637,989	8,418,165	5,268,205	2,399,455	29%	21,885,666	501
Tuna	96	3,931,422	12,394,113	6,795,182	4,679,982	38%	17,238,980	320
Halibut	150	4,265,217	37,477,729	15,985,922	13,310,922	36%	11,582,190	550
Sablefish	35	1,837,667	21,081,106	6,652,677	4,614,877	22%	3,522,029	162
Trawl	64	85,966,190	46,704,106	15,934,196	7,101,196	15%	3,819,360	256
ZN Inside	12	27,426	355,801	145,757	82,757	23%	8,174,052	16
ZN Outside	41	652,103	2,080,841	577,534	277,534	13%		109
Lingcod	29	417,017	1,526,450	835,815	630,165	41%	n/a	48
Dogfish	18	3,198,714	2,720,363	682,542	411,342	15%	n/a	48
Prawn	181	3,126,763	41,359,572	25,566,854	21,844,654	53%	5,471,993	603
Crab	191	4,822,702	28,774,701	12,864,241	9,518,541	33%	3,433,213	539
Shrimp	57	568,920	1,818,651	716,192	288,692	16%	18,902,537	95
Geoduck	39	1,562,044	31,062,021	15,557,858	13,919,858	45%	1,604,991	117
Red Sea Urchins	27	2,039,827	2,923,051	1,046,751	560,751	19%	7,323,178	81
Sea Cucumber	28	1,542,399	4,012,439	1,152,180	718,180	18%	5,899,514	84

Note that Active Vessel, Gross Revenue in Other Fisheries, and # Persons on Vessels columns cannot be summed as there is overlap amongst fisheries.

Crewing Assumptions

Crewing Levels	Top 1/3			Middle 1/3			Bottom 1/3		
	Captain = Owner	Captain = Hired	Deckhands	Captain = Owner	Captain = Hired	Deckhands	Captain = Owner	Captain = Hired	Deckhands
Salmon Seine - Single	-	1	3	-	1	3	-	1	3
Salmon Seine - Double	-	1	3	-	1	3	-	1	3
Roe Herring Seine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Salmon Gillnet - Single	1	-	-	1	-	-	1	-	-
Salmon Gillnet - Multiple	1	-	1	1	-	-	1	-	-
Salmon Troll - Single	1	-	2	1	-	1	1	-	-
Salmon Troll - Multiple	1	-	2	1	-	2	1	-	-
Tuna	-	1	3	1	-	2	1	-	2
Halibut	1	-	3	1	-	3	1	-	2
Sablefish	-	1	5	-	1	3	1	-	3
Trawl	-	1	3	-	1	3	-	1	3
ZN Inside	1	-	1	1	-	-	1	-	-
ZN Outside	1	-	2	1	-	2	1	-	1
Lingcod	1	-	1	1	-	1	1	-	-
Dogfish	1	-	2	1	-	2	1	-	1
Prawn	1	-	3	1	-	2	1	-	2
Crab Area A	1	-	3	1	-	2	1	-	2
Crab Areas B-J	1	-	2	1	-	2	1	-	1
Shrimp	1	-	1	1	-	1	1	-	-
Geoduck	-	1	2	-	1	2	-	1	2
Red Sea Urchins	1	-	2	1	-	2	1	-	2
Sea Cucumber	1	-	2	1	-	2	1	-	2

Fish Price Assumptions

Wherever possible, “published” fish prices were used in this analysis. In some circumstances, however, published prices did not fit the analysis. For example, the published price for lingcod is a weighted average for landings by a variety of gears/sectors, and prices vary according to harvesting sector; thus, sector-specific prices needed to be ascertained. In other cases, published prices conflicted with information researched by the contractor, in which case judgment was applied.

Salmon Prices

Salmon Species/ Gear Type	Seine	Gillnet	Troll	Source
Sockeye	\$3.70	\$4.06	\$4.96	DFO salmon price report
Coho	\$1.98	\$2.80	\$4.06	
Pink	\$0.51	\$0.37	\$0.95	
Chum	\$1.72	\$1.46	\$2.09	
Chinook	\$5.42	\$6.08	\$7.83	

Groundfish Prices

Species/ Harvesting Fleet	Primary (Subject) Fleet	Other Fleets	Source
Halibut	\$12.13	\$11.57	research
Sablefish	\$13.67	\$13.23	YIR 2009
Rockfish (ZN Inside)	\$13.23	n/a	research
Rockfish (Outside hook & line)	\$1.98	\$1.98	research
Mixed bottomfish (trawl)	\$1.10	n/a	research
Lingcod	\$3.64	\$2.76	research
Dogfish	\$0.46	\$0.46	YIR 2009
Hake	\$0.24	\$0.24	YIR 2009

Other Species Prices

Species/Harvesting Fleet	Price/lb	Price/Kg	Source
Roe Herring	\$0.61	\$1.34	YIR 2009
Tuna	\$1.43	\$3.15	YIR 2009
Prawn	\$6.00	\$13.23	research
Crab - Area A	\$2.25	\$4.96	Weighted average per YIR 2009; area breakdown per research
Crab - Areas B-J	\$3.00	\$6.61	
Shrimp	\$1.30	\$2.87	research
Geoduck	\$9.02	\$19.89	YIR 2009
Red Sea Urchins	\$0.64	\$1.41	YIR 2009
Sea Cucumber	\$1.18	\$2.60	YIR 2009