

West Coast Fishing Fleet:

Analysis of Commercial Fishing Licence, Quota, and Vessel Values

As at March 31, 2009

Prepared for Fisheries and Oceans Canada, Pacific Region

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Introduction

This report offers assessments of licence, quota, lease, and vessel values as of March 31, 2009 for commercial fisheries in B.C. The assessments are based where possible on market transactions.

The valuations contained in this report represent the best efforts of the contractor to encapsulate prevailing asset value levels in the commercial fishery. The depth and quality of data upon which valuations are based varies by fishery – a few fisheries are active, with ample vessel and licence transactions, while others feature few or no transactions per year. For fisheries with very limited vessel/licence markets, valuations are based more on inference and anecdotal information than on hard data. This is reflected in the reported “confidence level” of each assessment.

Having completed valuation reports for the past six years—and 10 of the last 12—the contractor has noted a marked decline in the number of transactions occurring in the commercial industry annually. This is attributed to a number of factors, including: consolidation of licence/quota holdings, licence retirement programs, and poor performance in some of the commercial fisheries.

This report provides by-fishery analysis of current and historical licence, quota, lease, and vessel values. The findings of this report are offered with the objective to provide information across fisheries on a consistent basis. The report is designed to allow the user to gain a useful snapshot of the current situation and trends prevailing in each fishery.

The contractor cautions that valuations contained in this study, while reflective of March 31, 2009 licence, quota, and vessel values, should not provide the valuation rationale for any purchase/sale transactions that may be contemplated. Licence and quota values are extremely dynamic, changing dramatically and quickly as harvest volumes, ex-vessel prices, and supply/demand forces change. Valuations provided herein cannot replace the due diligence required to negotiate the “right” price for a fishing vessel, licence, or quota.

Summary: Year ending March 31, 2009

The market capitalization of commercial licences and quota in the BC fishery at March 31, 2009 is summarized as follows:

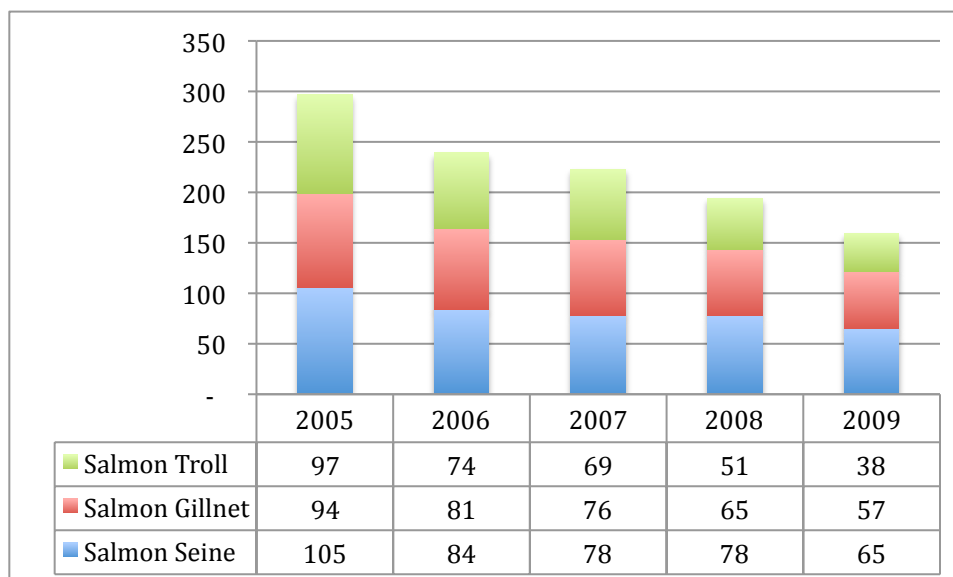
Fishery Grouping	Licence & Quota Value (\$million)	% of Total Value
Salmon	160	13%
Herring	107	8%
Groundfish	594	47%
Shellfish	398	32%
Schedule II	4	0%
Total	1,263	100%

Further details for each fishery category are provided below (in all charts, values are not adjusted for inflation):

Salmon

Values declined in all three salmon categories, a pronounced trend over the past five years. Poor catch levels, particularly for high value species (sockeye for net fleets, chinook for troll) are a primary cause. Some salmon licence owners now appear to be offering licences for “fire-sale” prices. Only the gillnet category features significant open-market transactions activity. PICFI was active in all salmon licence categories.

Aggregate Salmon Licence Value (\$ millions)

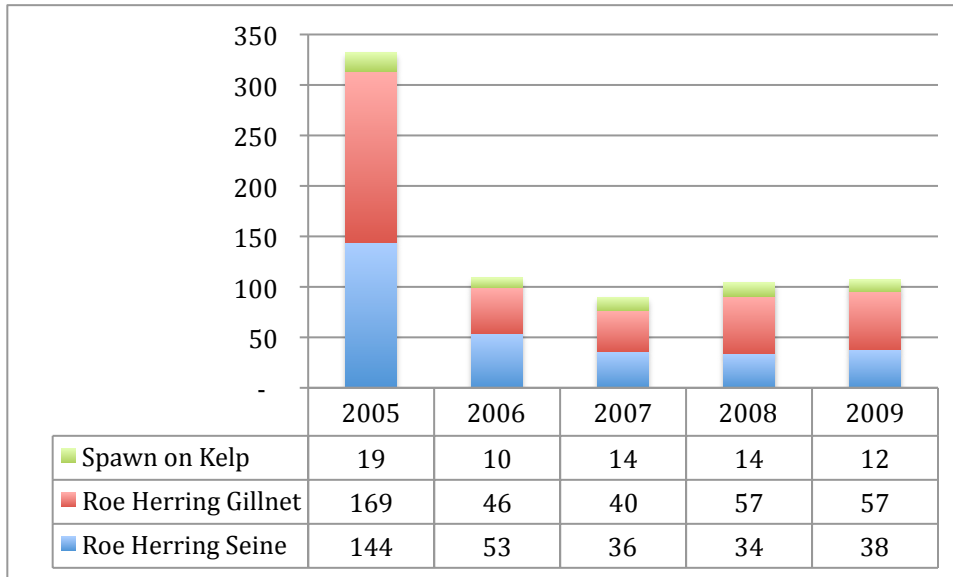


Herring

The herring quota for the 2009 fishery was the lowest in several years. Given low volumes, prices firmed somewhat. A very minor rally in roe herring seine licence values was seen. Gillnet values were stable, but appeared to firm after the valuation date. Spawn on kelp values softened due to weak market conditions attributed to increasing Alaskan competition.

Gillnet is the only category with significant open-market activity.

Aggregate Herring Licence Value (\$ millions)

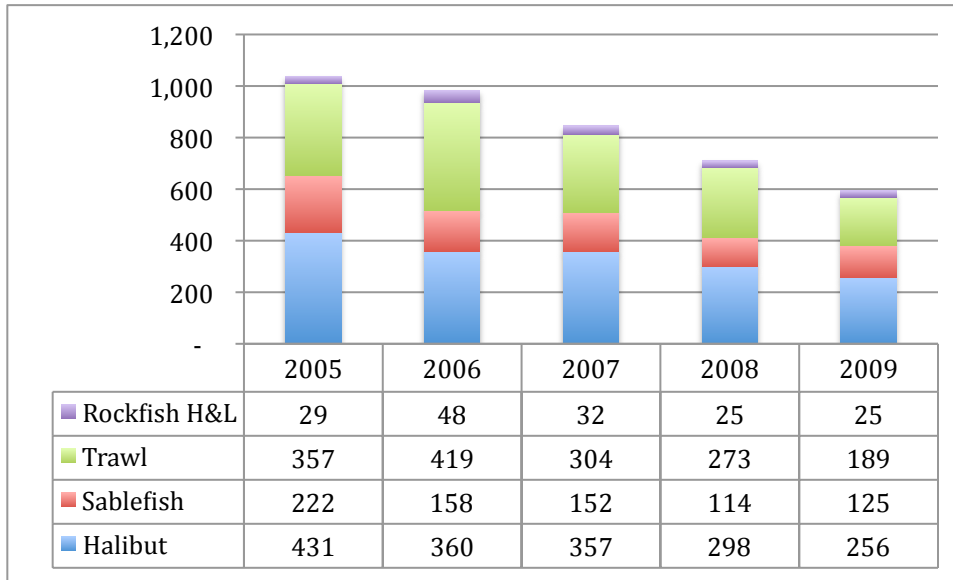


Groundfish

The bulk of value in the groundfish fisheries derives from Individual Vessel Quota (IVQ) in the halibut, sablefish, and trawl fisheries. Halibut and sablefish IVQ values were stable or rising, but declining TACs resulted in reduced capitalization. The trawl fishery saw reductions in both uncut groundfish and offshore hake IVQ valuations due to worsening competitive conditions. Rockfish valuations were stable in the period.

The frequency of open-market transactions is declining as holdings become more consolidated in the IVQ fisheries.

Aggregate Groundfish Licence and Quota Value (\$ millions)



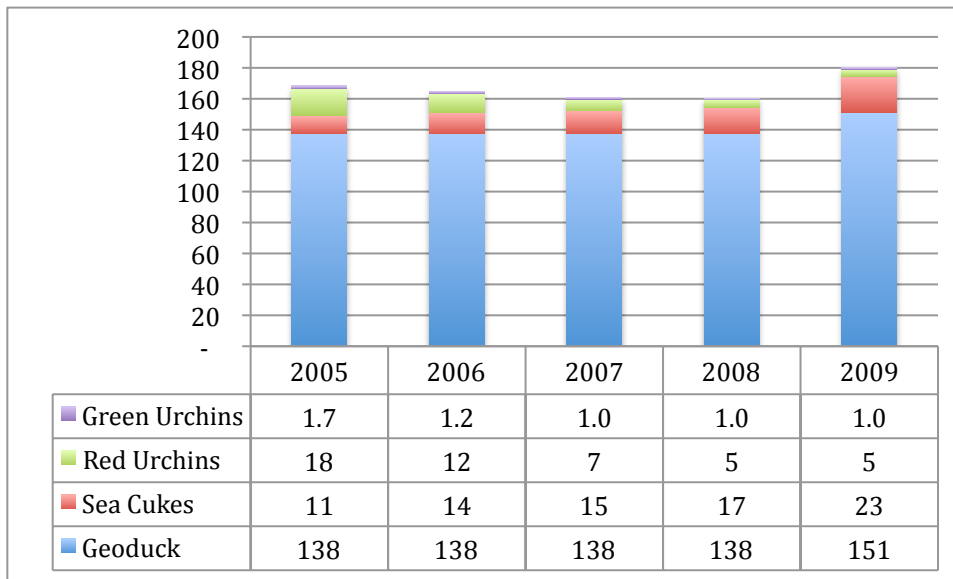
Shellfish

The shellfish category, including the dive species (geoduck, sea cucumber, and red and green sea urchins), and trap/trawl gear (prawn, shrimp, crab, and euphausiid) showed general stability for the valuation period.

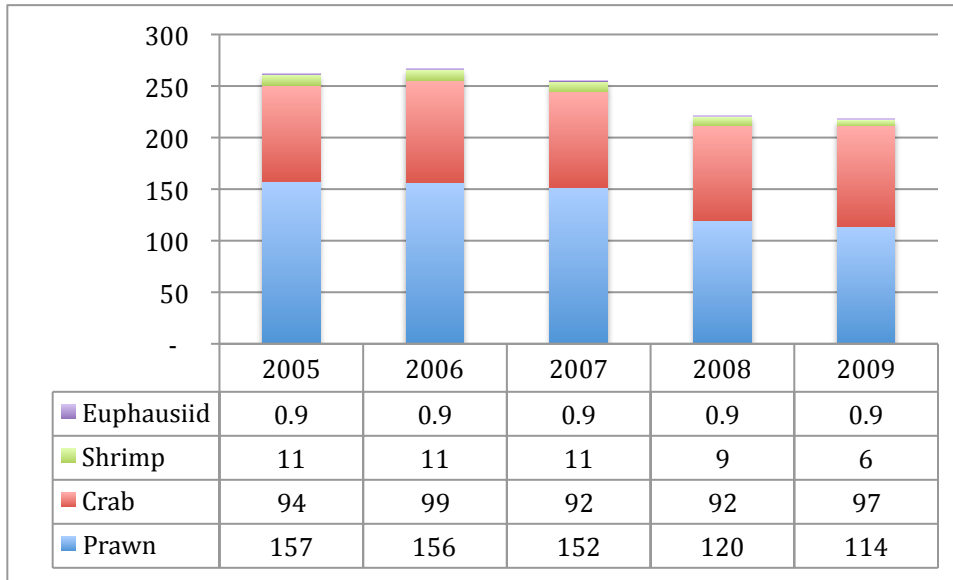
Geoduck, sea cucumber, prawn, and crab remained essentially strong, while red/green urchins shrimp, and euphausiid remained weak.

An open-market geoduck licence transaction occurred for the first time in many years, though the precise valuation cannot be determined.

Shellfish Dive Fisheries – Aggregate Licence Value (\$ millions)

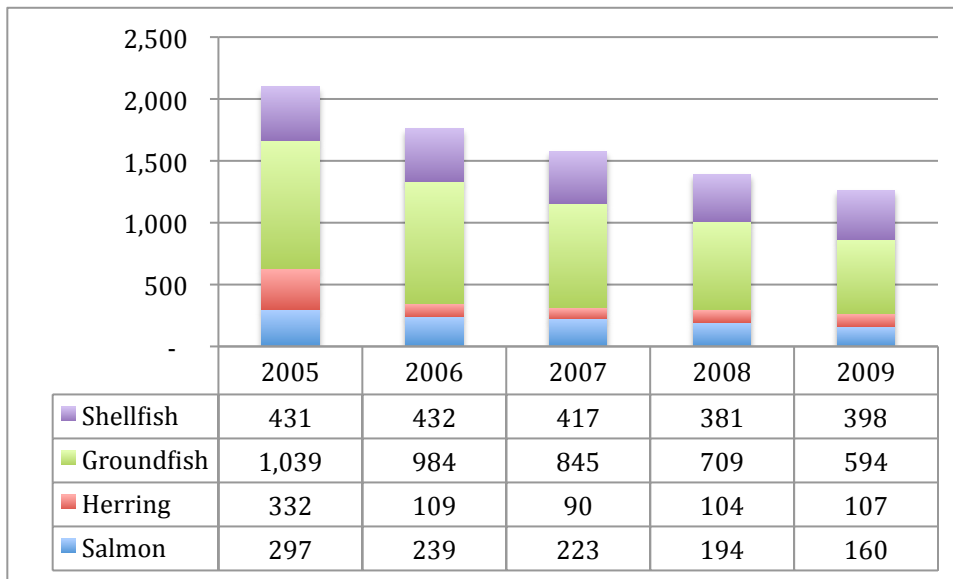


Shellfish Trap/Trawl Fisheries – Aggregate Licence Value (\$ millions)



All Fisheries

Aggregate licence and quota valuations have been on a declining trend for several years, as shown in the following chart:



In addition to catch/TAC reductions, BC’s commercial fisheries are strongly influenced by global economic conditions and the relative strength of Canada’s dollar compared to other currencies (particularly the USA dollar). Difficult economic conditions have contributed to a lesser level of transactions activity in many fisheries.

Methodology

Valuations Performed

The following table shows the scope of work carried out in this report:

Fishery	Gear	VALUATION				
		Average Vessel Value	Average Licence Value		Quota	Lease
			Full Fee	Reduced Fee	Value	Value
Salmon	Seine	X	X	X		
	Gillnet	X	X	X		
	Troll	X	X	X		
Herring – Roe	Seine	X	X	X		X
	Gillnet	X	X	X		X
Herring – Spawn on Kelp			X			
Halibut	Longline	X	X		X	X
Sablefish	Longline / Trap	X	X		X	X
Geoduck / Horseclam	Dive	X	X			X
Shrimp	Trawl	X	X			
Prawn	Trap	X	X			X
Groundfish	Trawl	X	X		X	X
Crab	Trap	X	X			
Sea Cucumber	Dive	X	X			X
Red Sea Urchin	Dive	X	X			X
Green Sea Urchin	Dive	X	X			X
Rockfish	Hook & Line	X	X			X
Schedule II Species		X	X			
Euphausiid	Trawl	X	X			

Valuation Methodology

In order to efficiently and most-accurately assess licence and vessel values, stratification was used where appropriate. Stratification is a statistical approach whereby licences or vessels being valued are divided into groups having similar characteristics. An average value is then determined for each group rather than each vessel (or licence).

Licence/Quota Stratification & Valuation Criteria

Licence stratification is generally quite simple, as each licence within a fishery tends to have similar characteristics. Exceptions are fisheries such as salmon and roe herring, where “full-fee” and “reduced-fee” licence distinctions bring different values. For fisheries where quotas are separable from licences, quota valuations are provided on a per-pound basis.

The valuation criteria applied to licence/quota valuation will be noted for each fishery (eg. value per licence, per foot, per pound of quota).

Vessel Stratification

Prior valuation studies have used a complex vessel stratification approach whereby a vessel in each fishery was assigned to one of ten classifications (see following table):

Vessel Type	Classic Style			Modern Style	
	Wood	Aluminium / Fibreglass	Steel	Aluminium / Fibreglass	Steel
Inside Waters / Smaller Vessel					
Outside Waters / Larger Vessel					

While sound in theory, this stratification approach relies on aging source data and a host of assumptions that suggest a higher level of valuation precision than can be delivered. Given a lack of current source data, a simplified vessel valuation approach is being adopted for this report, described as follows:

1. The number of licensed vessels in each commercial category is identified.
2. Vessels are apportioned between “classic” and “modern” style.

Classic vessels are of older design (typically pre-1980’s), meaning they may have less beam, power, sophisticated fishing gear, refrigeration, fish-packing capacity, and creature comforts than a modern vessel. Wood is the predominant construction material, though some are built of materials like steel, fibreglass, and aluminium.

Modern vessels are deemed to be those incorporating non-wood material with progressive design and enhanced capabilities, such as those mentioned above (speed, power, refrigeration, capacity, etc.). A surge in vessel construction occurred through the 1980’s in the salmon and roe herring fleets. Prosperity in the crab, prawn, and dive fleets resulted in considerable new vessel construction through the early-mid 2000’s.

3. A range of values—low and high—is pegged for both classic and modern vessels.

4. A calculation is provided, showing the estimated make-up and valuation of vessels in the fishery, for both individual vessels, and the fleet in aggregate. The following sample table is populated for each fishery:

Fishery	# Vessels	Avg Vessel Value	Aggregate Value
Classic Style			
Modern Style			
Total/Average			

Vessel Stratification Intent

The vessel stratification approach used in this study reflects the absence of a current database on commercial vessel attributes (for instance year built and construction material). With a high reliance on estimation, a framework with fewer parameters was deemed appropriate. The intent of the current methodology is to provide a couple of values—for individual vessels and the fleet in aggregate—for readers interested in assessing the approximate value of craft in a particular fishery.

Information Collection

This report follows a similar valuation methodology to that applied in prior reports. Valuations are based upon a variety of information, including:

- First-hand reports of specific transactions (“best” source);
- Anecdotal reports of general price levels or trends (expert opinion);
- Consideration of vessel and licence “listings” (e.g. brokerage information);
- Consideration of prevailing industry “fundamentals” (fishery landings, landed prices, market situation, etc.);
- Application of the contractor’s judgment.

The key source of information was interviews with industry participants, including fishermen, processing representatives, vessel / licence brokers, lawyers, and others close to a particular fishery.

Valuation Criteria

Each valuation furnished in the report represents a synthesis of the best information obtained from industry on transaction levels, and application of the contractor’s judgement in determining a going rate for licences and quota. Pegging a going rate often requires a high degree of judgement. For fisheries with a reasonable volume of trading activities, valuations are an attempt to encapsulate weighted average prices at the valuation date. For fisheries with little or no trading activity, valuations are merely estimates based upon anecdotal information, current fishery trends, and past price levels. The confidence level accompanying each valuation is linked to the depth and quality of information unearthed.

Valuation Trends

For each fishery, valuation trend graphs, including the current valuation along with those found in the four prior reports, are presented. Values in these graphs are in nominal terms (not adjusted for inflation).

Average Landings and Landed Value

For each fishery where landings and landed value trends are shown, the average volume and catch per licence, for the most current year, is provided. Except where noted, data is from the DFO Catch Data Unit. For some quota fisheries or fisheries where licence stacking is allowed, these values will not provide a true picture of per-vessel activity; some vessel owners have consolidated quota/licence holdings, while others have partially or totally divested.

Licensing Information

For each fishery evaluated in this report, a brief synopsis of the licensing system is provided in table format. Readers may require further information, which may be found in Integrated Fisheries Management Plans, or the Pacific Licensing web page. Links to these information sources:

- IFMP's: <http://www-ops2.pac.dfo-mpo.gc.ca/content/mplans.htm>
- DFO Licensing: <http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/MPLANS/MPlans.htm>

Salmon Seine

General Description

<i>Licence Designation</i>	AS
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	243
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	33 (FAS designation – Party based)
<i>Licensing/Management Framework</i>	Area Licensing; vessel owner must designate one of two areas, north or south (A and B); periodic area re-selection (2006 was last re-selection). Stacking allowed; currently 107 Area A licences and 169 Area B (includes F licences).
<i>Additional Information</i>	Competitive fishery. Licences have no associated quota. Vessel-based licence virtually precludes licence leasing. Reduced fee licences may only be held on a vessel where the vessel owner is an aboriginal individual. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	AS licence Vessels
Amount of trading activity underlying valuation:	Very low
Confidence in valuation:	Low

With very little open-market activity in this category, a confident valuation cannot be offered.

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
Full Fee	221	275,000	60,775,000
Reduced Fee	18	225,000	4,050,000
All AS	239	271,234	64,825,000

Valuation Comments

- Full fee valuation pegged at \$275,000. Estimated range: \$250,000-290,000.
- Seine salmon results were very poor, particularly in the south coast, for the 2007 and 2008 seasons. At the valuation date, expectations were for a strong Fraser River sockeye harvest and a pilot IVQ program for sockeye. The Fraser sockeye run harvest did not materialize, however.
- Little or no valuation difference related to area (north vs. south) noted. There may be a slight premium for longer-length licences (reflected in asking prices, not in actual transactions in the current year).
- This is a depressed licence category with little open-market activity.
- F licences (30 licences in 2009) are sometimes leased, with leases at nominal values (often, sharing arrangements).

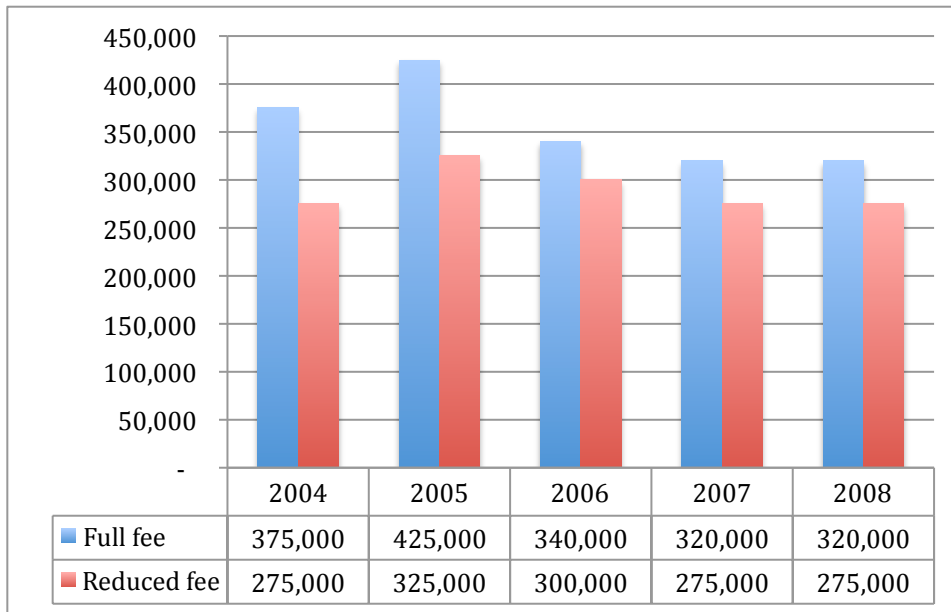
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

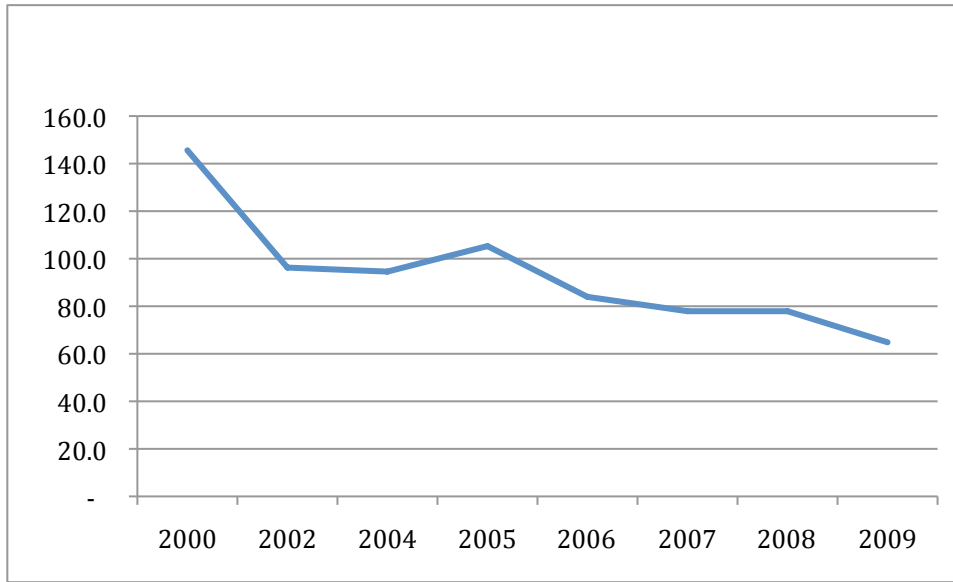
Salmon Seine	# Vessels	Avg Vessel Value	Aggregate Value
Classic Style	53	150,000	7,875,000
Modern Style	123	628,571	77,000,000
<i>Total</i>	175	485,000	84,875,000

Licensing Trends

Recent AS Licence Valuations (\$)

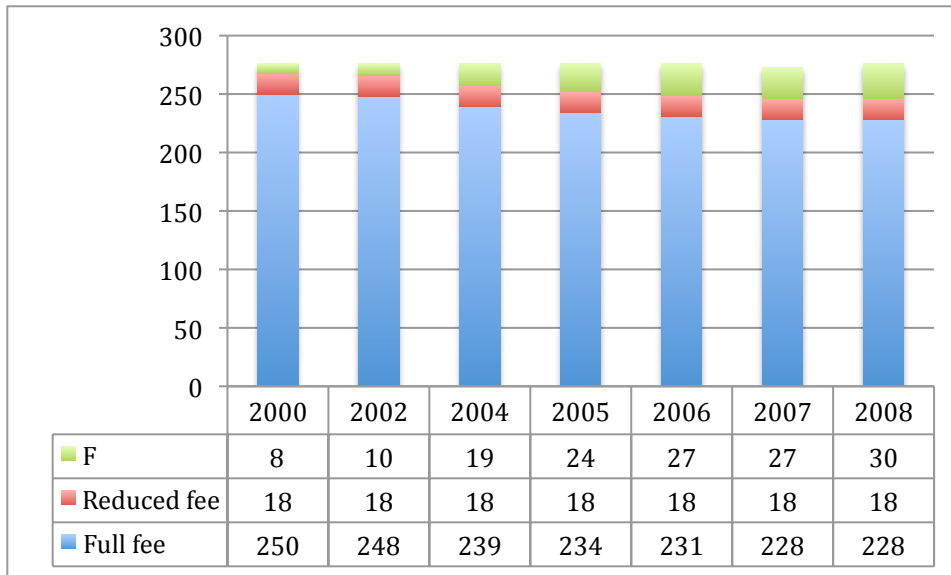


Aggregate Value of AS Licences (\$millions)



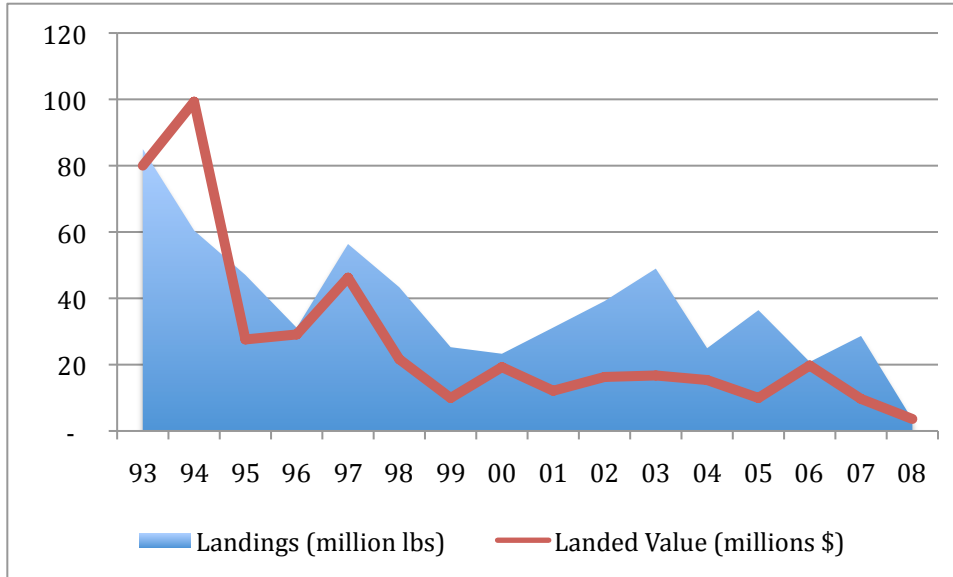
The market capitalization of AS licences has eroded dramatically in the past decade due to continued poor fishery results. Values have at times been propped-up by speculation about a move to quotas in the salmon fishery, and government licence retirement programs. A growing pool of F licences, not valued, also contributes to the trend.

AS Licence Counts by Category



Seine Salmon Landings & Landed Value Trend

Source: DFO Catch Stats



Note that 2008 has the lowest volume/value season on record. A bumper pink harvest for seines in 2009 means that the next data point will show substantially higher volume.

Outlook

- The outlook for the salmon seine sector is highly uncertain.
- The seine fleet is moving toward a quota system for its salmon fisheries. A planned coastwide quota system for sockeye did not occur because sockeye fisheries did not materialize in 2009.
- The catch mix is heavily weighted to pink and chum, relatively low value species, implying a volume orientation for this fishery. Without sockeye in the catch mix, seine vessels have difficulty earning a profit.
- The markets for salmon, particularly sockeye and Chinook, are reasonably healthy—lack of access to stocks is the primary issue.
- In spite of the failure of Skeena and Fraser sockeye returns in 2009, there is some optimism that ocean conditions are becoming more favorable. Area 6 had a record harvest of pinks by the seine fleet—a positive development.
- Future viability of the fleet is closely linked to salmon abundance and availability.

Salmon Gillnet

General Description

<i>Licence Designation</i>	AG
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	993
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	159 (FAG designation, Party-based)
<i>Licensing/Management Framework</i>	Area Licensing; vessel owner must designate one of 3 areas: North (C), Johnstone St/Barclay Sound (D), or Fraser River (E); periodic area reselection (2006 was last re-selection). Stacking allowed; currently 658 Area C, 355 Area D, and 393 Area E (includes FAG and NAG licences)
<i>Additional Information</i>	Competitive fishery. An additional 254 personal licences (NAG designation) are held by the Northern Native Fishing Corporation. Vessel-based licence virtually precludes licence leasing, except in FAG category. Reduced fee licences may only be held on a vessel where the vessel owner is an aboriginal individual. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	AG licence Vessels
Amount of trading activity underlying valuation:	This is a reasonably active category
Confidence in valuation:	Moderate

Gillnet is by far the most active of the salmon gear types in terms of licence transaction activity. PICFI was also very active in the market in 2009.

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Licence (\$)	Total Value (\$)
Full Fee	832	60,000	49,920,000
Reduced Fee	161	45,000	7,245,000
All AS	993	57,568	57,165,000

Valuation Comments

- Full fee valuation pegged at \$60,000. Values have declined since the valuation date, with prices in the \$50,000-55,000 range in the summer/fall of 2009 (after the disappointing 2009 salmon season).
- Gillnet licence values have eroded in recent years. Expectations of improved salmon return and new management approaches have consistently been met with disappointing results.
- In some cases, owners appear to be liquidating their licences for whatever value they can gain for them, reflecting dire economic circumstances.
- Little or no valuation difference related to area (C, D, E) noted. There may be a slight premium for longer-length licences (reflected in asking prices, not in actual transactions in the current year).
- F licences (30 licences in 2009) are sometimes leased, with leases at nominal values (often, sharing arrangements).

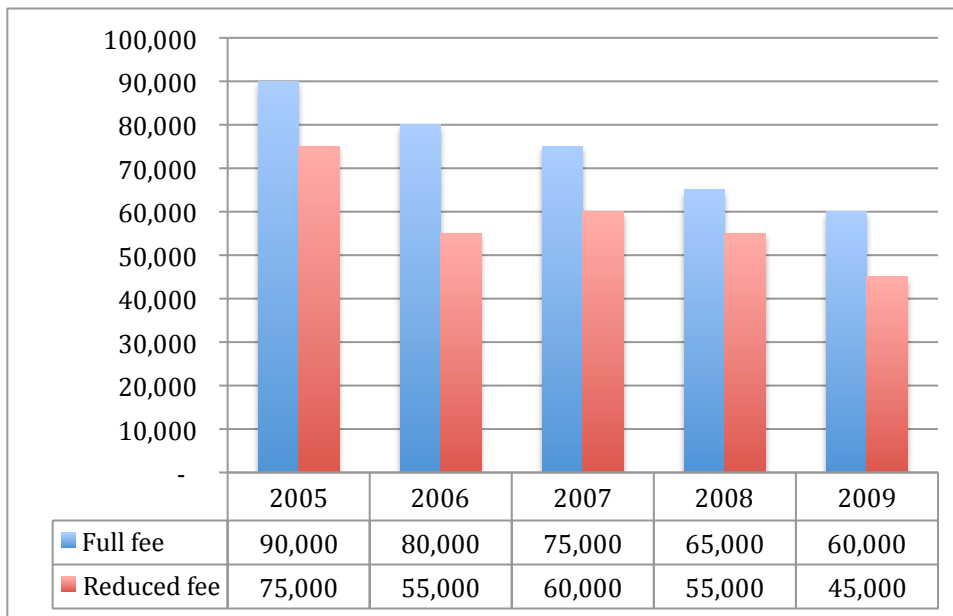
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

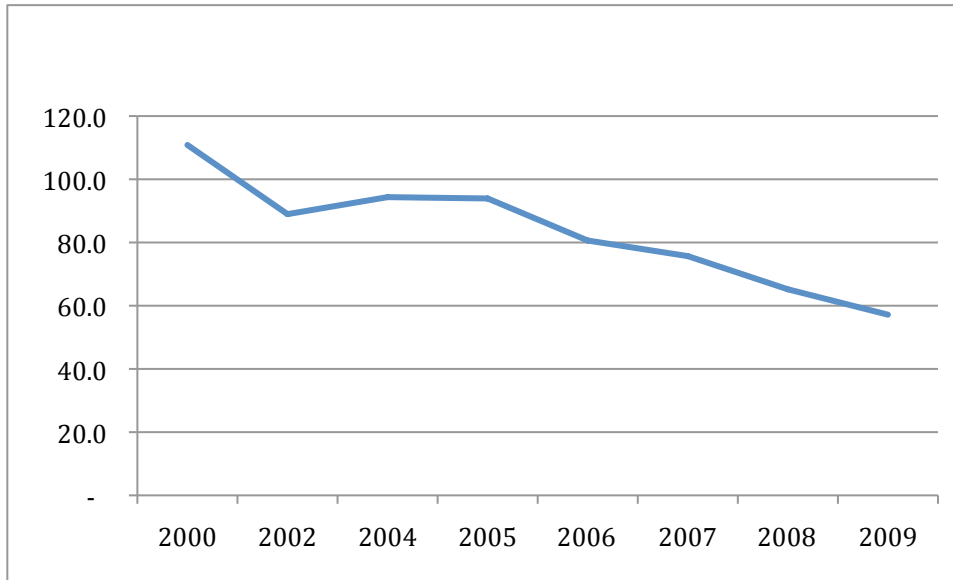
Salmon Gillnet	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	581	41,667	24,200,000
Modern Style	387	150,000	58,080,000
<i>Total</i>	968	85,000	82,280,000

Licensing Trends

Recent AG Licence Valuations (\$)

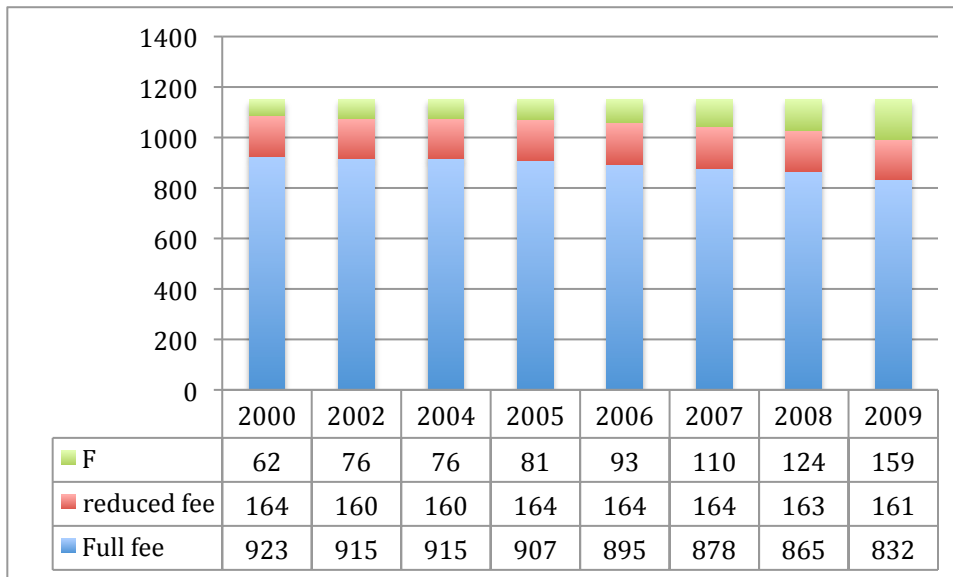


Aggregate Value of AG Licences (\$ millions)



The market capitalization of AG licences has eroded dramatically in the past decade due to continued poor fishery results. Values have at times been propped-up by speculation about a move to quotas in the salmon fishery, and government licence retirement programs. A growing pool of F licences, not valued, also contributes to the trend.

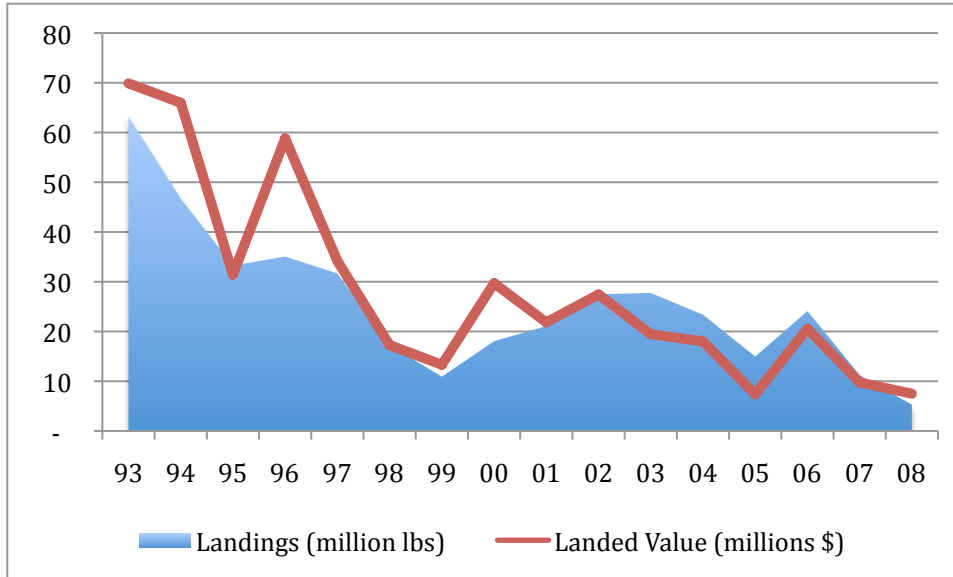
AG Licence Counts by Category



The above table does not include 254 Northern Native Fishing Corporation (NNFC) licences (NAG designation).

Gillnet Salmon Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The outlook for the gillnet salmon sector is highly uncertain.
- The gillnet fleet has largely rejected movements toward a quota fishery.
- The failure of both the Skeena and Fraser River sockeye runs spelled a disastrous season for gillnet fleets in 2009.
- The markets for salmon, particularly sockeye and Chinook, are reasonably healthy—lack of access to stocks is the primary issue.
- In spite of the failure of Skeena and Fraser sockeye returns in 2009, there is some optimism that ocean conditions are becoming more favorable.
- Future viability of the fleet is closely linked to salmon abundance and availability.

Salmon Troll

General Description

<i>Licence Designation</i>	AT
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	506
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	32 (FAT designation, Party-based)
<i>Licensing/Management Framework</i>	Area Licensing; vessel owner must designate one of 3 areas: North (F), West Coast Vancouver Island (G), and Georgia Strait (H); periodic area re-selection allowed (fall of 2007 was the last re-selection). Stacking allowed; currently 248 Area F, 168 Area G, 122 Area H (includes FAT licences).
<i>Additional Information</i>	Competitive fishery. Vessel-based licence virtually precludes licence leasing. Reduced fee licences may only be held on a vessel where the vessel owner is an aboriginal individual. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	AT licence Vessels
Amount of trading activity underlying valuation:	Few transactions
Confidence in valuation:	Low-medium

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Licence (\$)	Total Value (\$)
Full Fee	483	75,000	36,225,000
Reduced Fee	23	60,000	1,380,000
	506	74,318	37,605,000

Valuation Comments

- Full fee valuation pegged at \$75,000. Estimated range: \$70,000-80,000.
- Little or no valuation difference related to area (F, G, H) noted. There may be a slight premium for longer-length licences (reflected in asking prices, not in actual transactions in the current year).
- In Area F, a pilot quota program is in place. Chinook salmon quotas are sometimes leased, at approximately \$10 per fish.
- F licences (32 licences in 2009) are sometimes leased, with leases at nominal values (often, sharing arrangements).
- The AT market is currently depressed—few transactions at decreasing values (relative to past years). PICFI was the predominant player in the licence market in 2009.

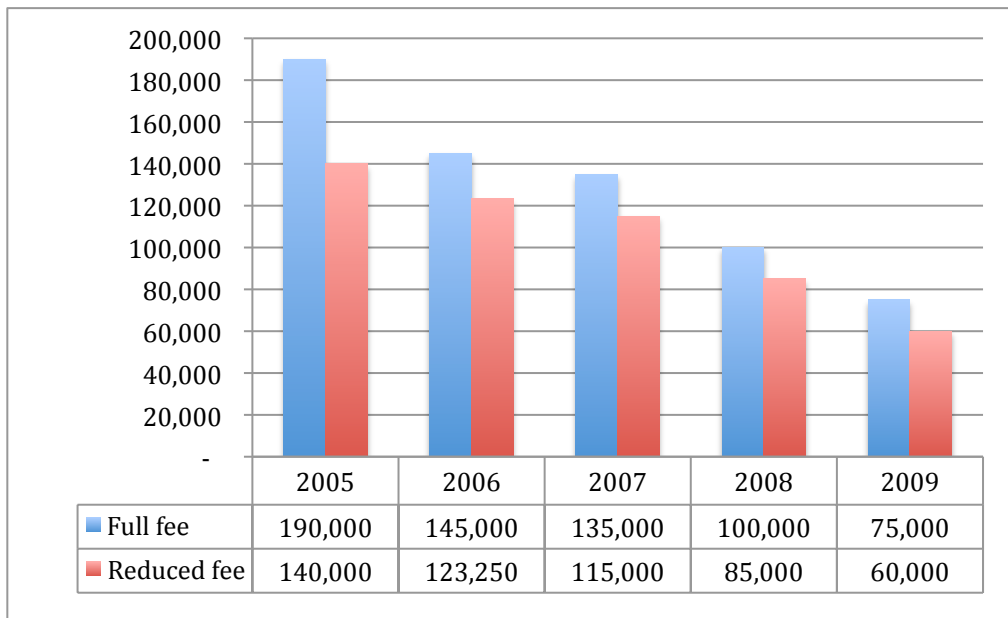
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

Salmon Troll	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	311	75,000	23,310,000
Modern Style	133	187,500	24,975,000
<i>Total</i>	444	108,750	48,285,000

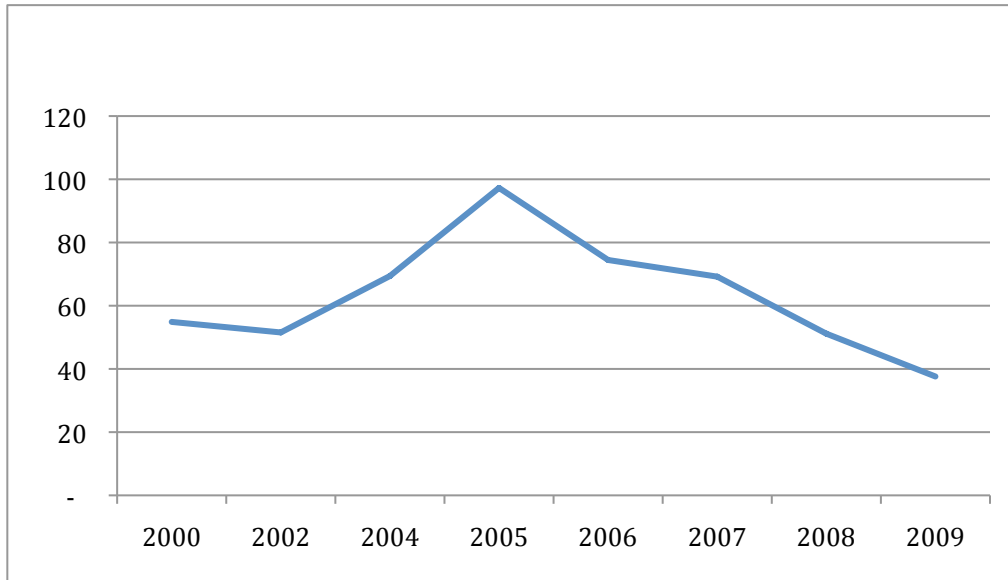
Licensing Trends

Recent AT Licence Valuations (\$)



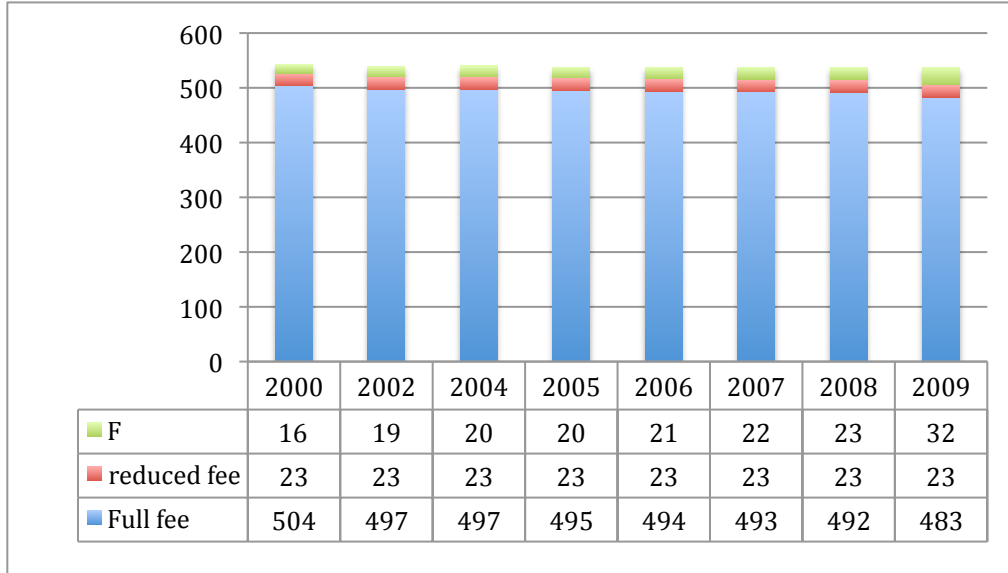
Declining Chinook TACs for the troll fleet are a primary driver behind falling licence prices.

Aggregate Value of AT Licences (\$ millions)



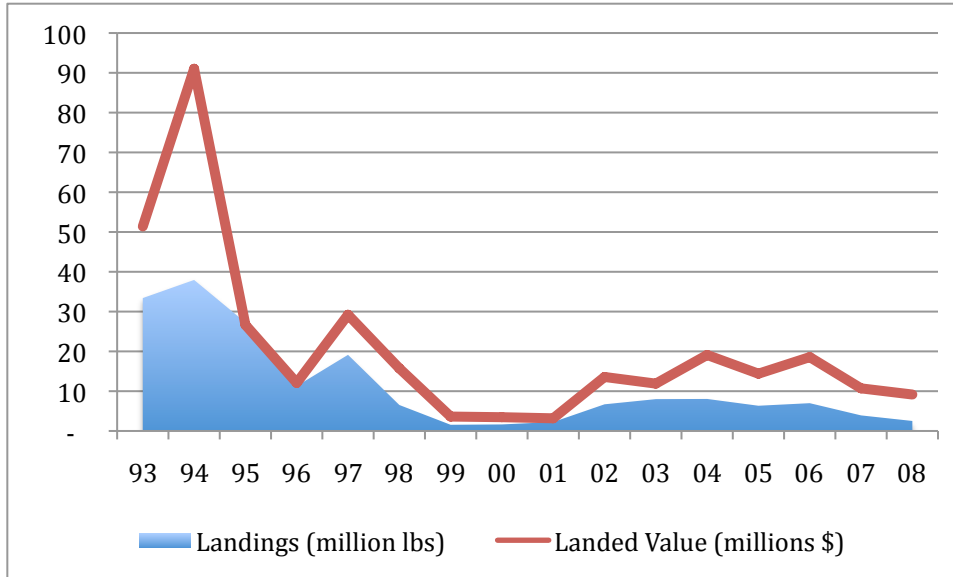
Troll aggregate licence values strengthened until 2005, fueled by improving access to chinook (and to a lesser extent coho) and high fish prices. Declining TAC since then have contributed to a diminution in values.

AT Licence Counts by Category



Troll Salmon Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The outlook for the troll salmon sector is highly uncertain.
- The troll sector is moving toward a quota system in its fisheries.
- The financial performance of the troll fleet is closely linked to Chinook availability (commercial TACs). The allocation framework between the commercial and recreational sectors means that, during periods of declining abundance, as seen in recent years, commercial TACs are reduced.
- The market for Chinook salmon is healthy.
- Future viability of the fleet is closely linked to salmon abundance and availability.

Roe Herring Seine

General Description

<i>Licence Designation</i>	HS
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	248
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	4 (FHS designation)
<i>Licensing/Management Framework</i>	Area Licensing – holder annually selects a fishing area. Pool fishery – licensed vessels are organized into pools in order to avoid quota overages; each licence in a given area receives the same entitlement of fish. Two licences per vessel allowed (three or four in special circumstances). Minimum of 8 licences per pool.
<i>Additional Information</i>	Active lease market for licences. There are five stock management areas: QCI, North, Central, WCVI, and Strait of Georgia.

Valuation Parameters

Valuations performed:	HS licence Annual lease rate Vessels
Amount of trading activity underlying valuation:	Very low (transactions) High (lease)
Confidence in valuation:	Low (transactions) High (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Licence (\$)	Total Value (\$)
Full Fee	196	160,000	31,360,000
Reduced Fee	52	130,000	6,760,000
All HS	248	153,710	38,120,000

Valuation Comments

- Full fee HS licence value pegged at \$160,000. Estimated range: \$150,000-200,000.
- Very few transactions in this licence category.

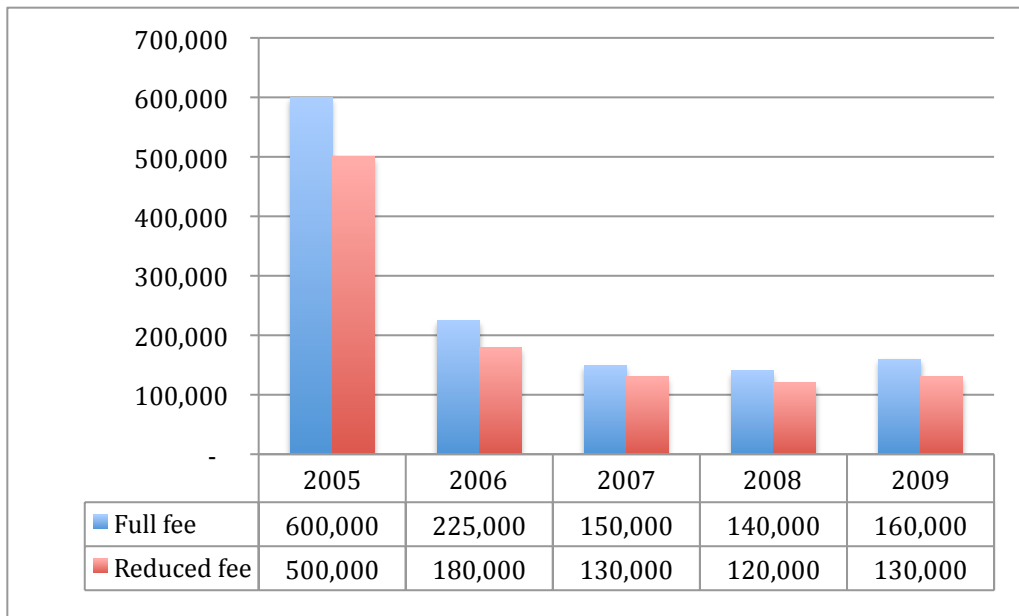
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

Herring Seine	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	32	170,000	5,397,500
Modern Style	95	666,667	63,500,000
<i>Total</i>	127	542,500	68,897,500

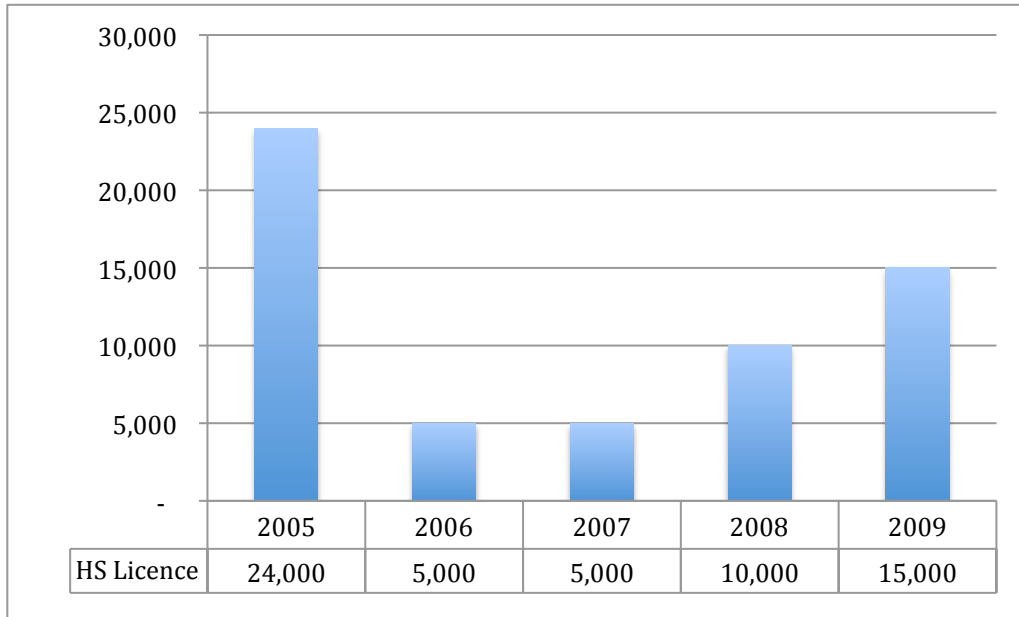
Licensing Trends

Recent HS Licence Valuations (\$)



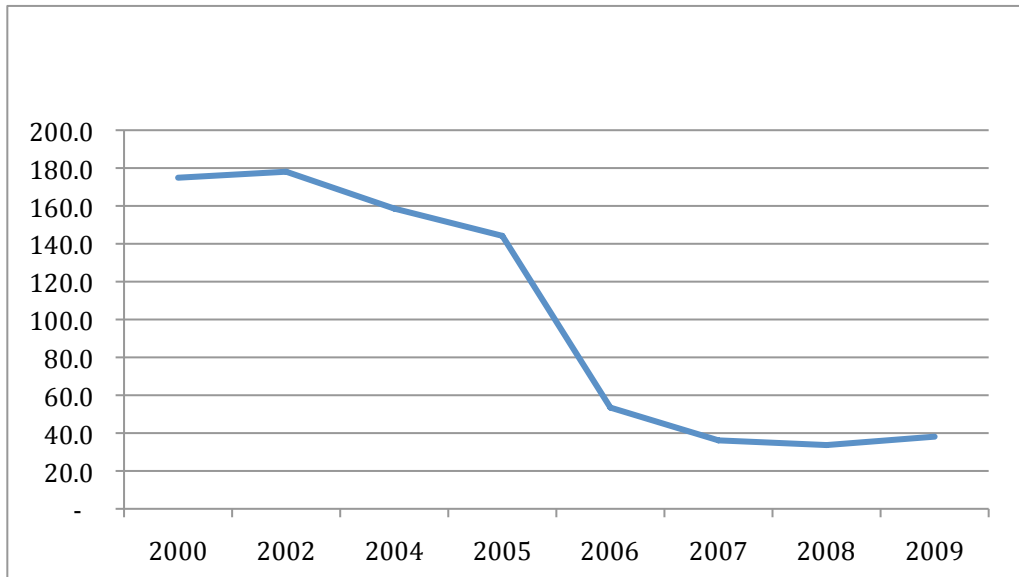
The valuations for the past three years reflect both low TACs for roe herring and relatively low fish prices. A modest improvement in fish price was experienced in the 2009 season, perhaps contributing to a very modest increase in licence value.

Recent HS Licence Lease Rates (\$)



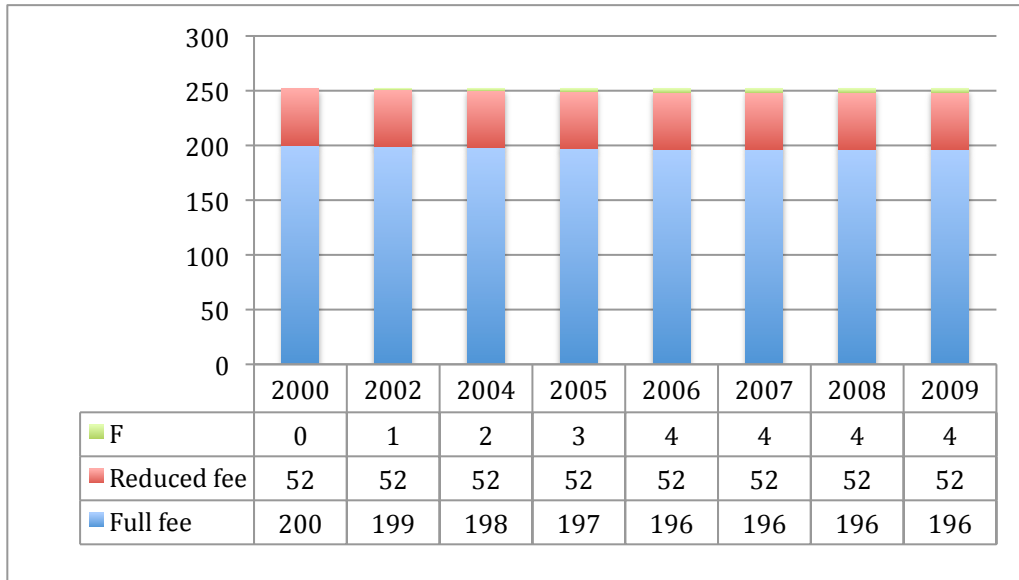
The HS licence lease rate has rallied in the past two years, due to moderately improving fish prices. Lease rates are still far below historic levels.

Aggregate Value of HS Licences (\$ millions)



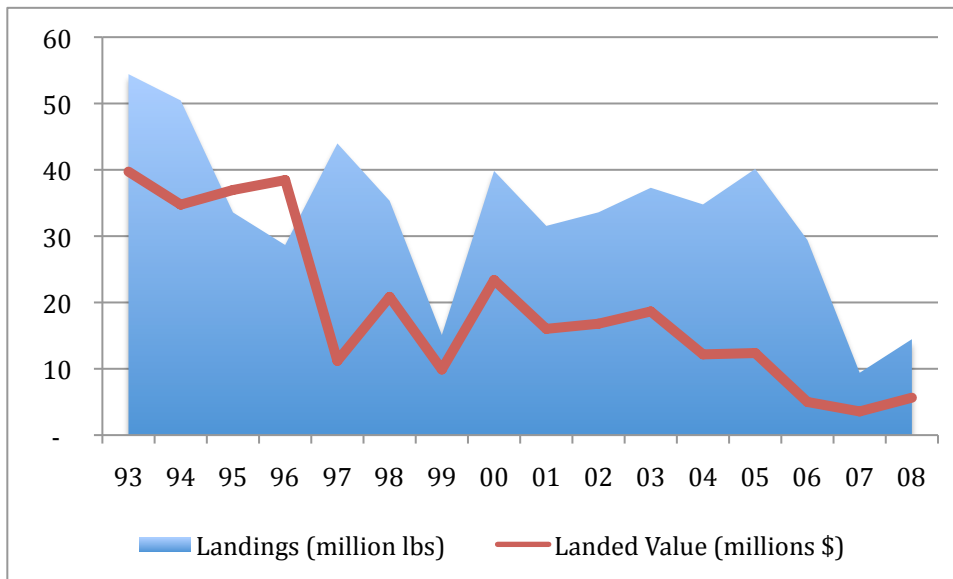
The longer term trend in HS licence capitalization shows the extent to which the value of licences in this category has declined over the past decade.

HS Licence Counts by Category



Seine Roe Herring Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- With smaller catch volumes seen in recent years, markets and price levels for BC roe herring have improved somewhat.
- Financial returns for the seine fleet were poor in 2009 due to low volumes and small fish size (caused by a high proportion of young fish in the catch).
- The 2010 fishery is expected to see another (modest) decline in TAC vs. the 2009 fishery.
- In spite of currently low surpluses, there is some optimism that herring stocks, in all management areas, are in a rebuilding state.
- While a return to past financial stature is limited by market factors, there is potentially a measure of upside for the roe herring fishery from its present condition.

Roe Herring Gillnet

General Description

<i>Licence Designation</i>	HG
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	1239
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	29 (FH) designation
<i>Licensing/Management Framework</i>	Area Licensing – holder annually selects a fishing area. Pool fishery – organized into pools in order to avoid quota overages; each licence in a given area receives the same entitlement of fish. Minimum of 4 licences per pool.
<i>Additional Information</i>	Active lease market for licences. There are five stock management areas: QCI, North, Central, WCVI, and Strait of Georgia.

Valuation Parameters

Valuations performed:	HG licence Annual lease rate Vessels
Amount of trading activity underlying valuation:	Moderate (transactions) High (lease)
Confidence in valuation:	Moderate (transactions) High (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Licence (\$)	Total Value (\$)
Full Fee	916	50,000	45,800,000
Reduced Fee	323	35,000	11,305,000
All AS	1239	46,090	57,105,000

Valuation Comments

- Full fee HG licence value pegged at \$50,000. Estimated range: \$45,000-50,000.
- There are a significant number of transactions in this category.
- In the summer and fall of 2009 (after the March 31 valuation date) values rose to the \$55,000-60,000 range.

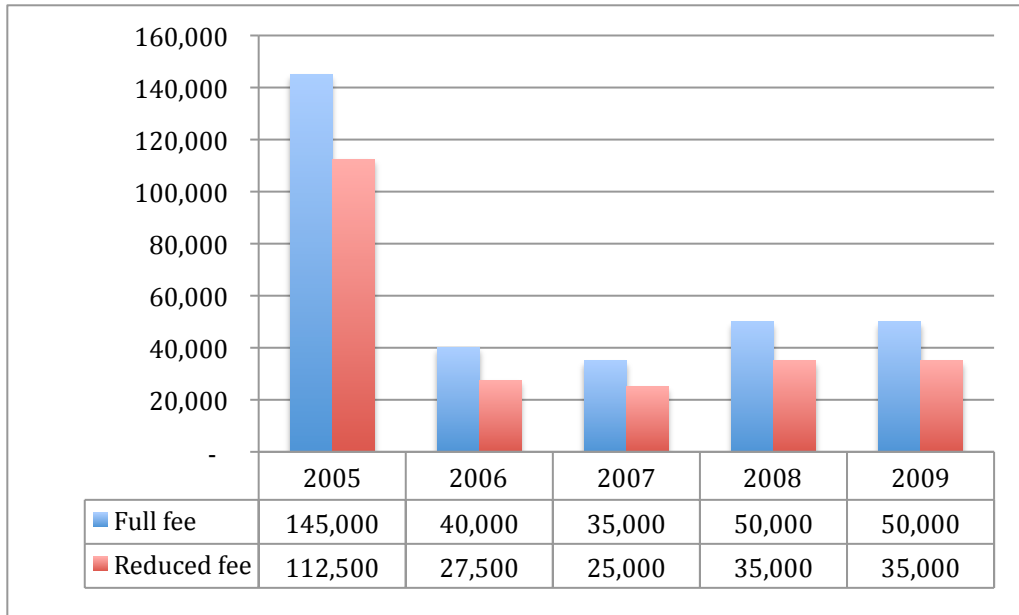
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

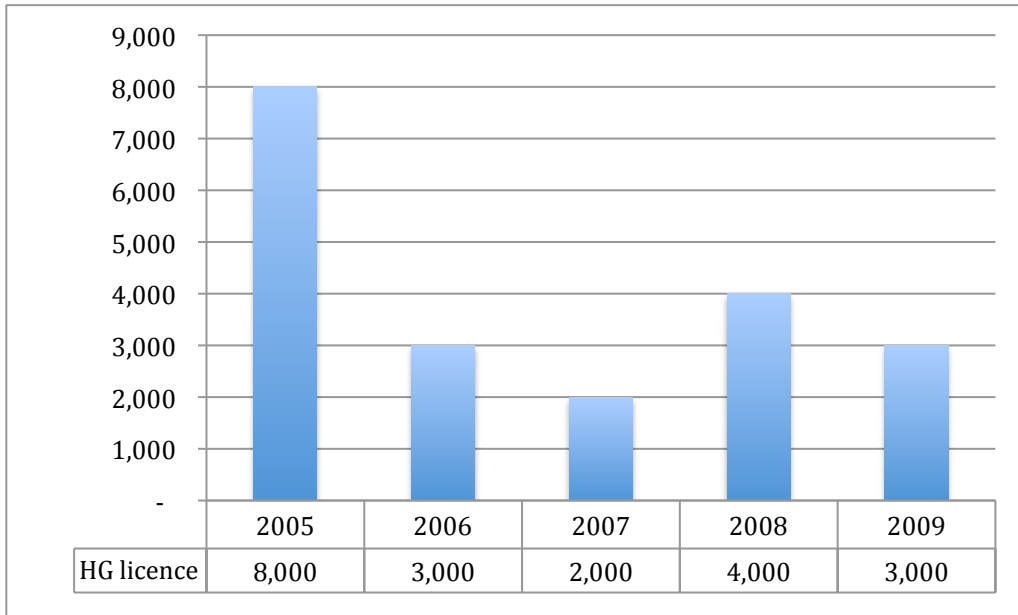
Herring Gillnet	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	90	37,500	3,375,000
Modern Style	210	132,143	27,750,000
<i>Total</i>	300	103,750	31,125,000

Licensing Trends

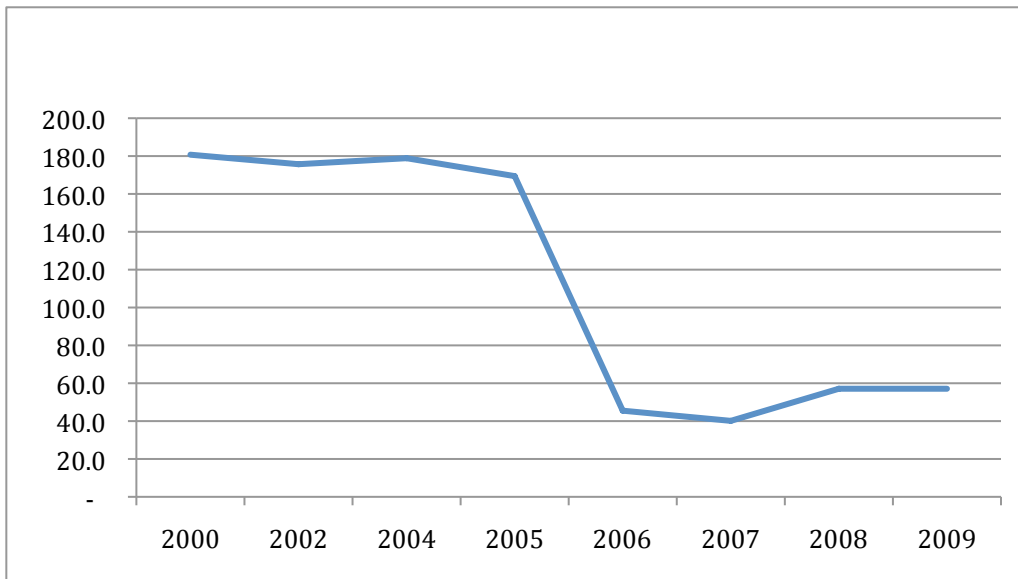
Recent HG Licence Valuations (\$)



Recent HG Licence Lease Rates (\$)

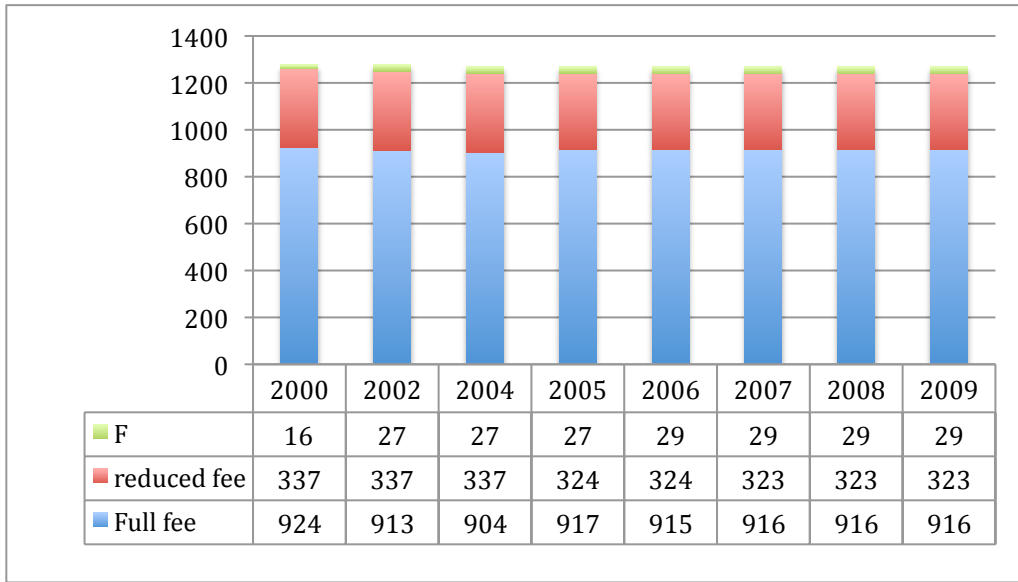


Aggregate Value of HG Licences (\$ millions)



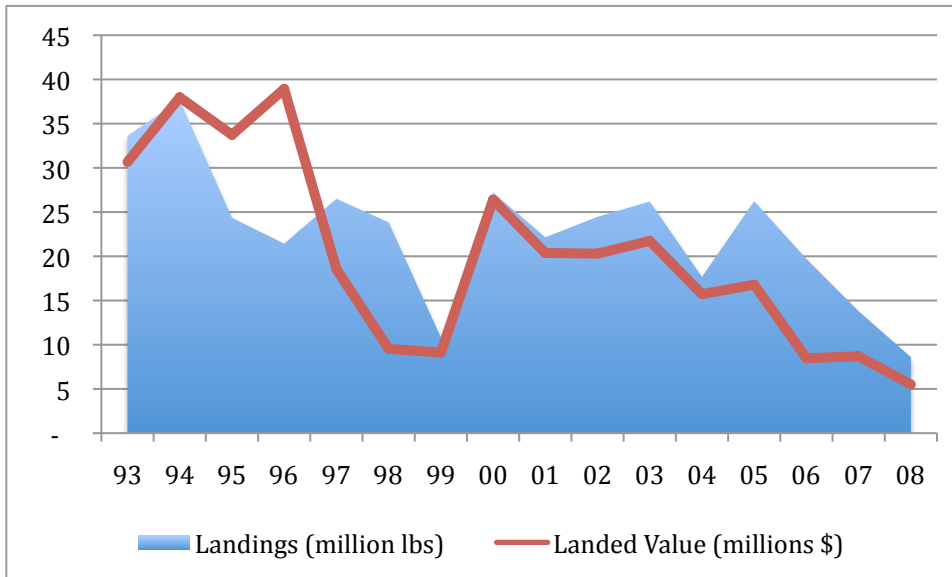
The longer-term trend in HG licence capitalization shows the extent to which the value of licences in this category has declined over the past decade.

Licence Counts by Category



Gillnet Roe Herring Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- With smaller catch volumes seen in recent years, markets and price levels for BC roe herring have improved somewhat.
- Financial returns for the gillnet fleet were somewhat improved in 2009 because fish prices were up somewhat, and licence lease prices were at low levels. Given recent patterns, lease rates will likely rise in 2010.
- The 2010 fishery is expected to see another (modest) decline in TAC vs. the 2009 fishery.
- In spite of currently low surpluses, there is some optimism that herring stocks, in all management areas, are in a rebuilding state.
- While a return to past financial stature is limited by market factors, there is potentially a measure of upside for the roe herring fishery from its present condition.

Herring Spawn on Kelp

General Description

<i>Licence Designation</i>	J
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	36
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	3 (FJ designation) An additional 7 FJ licences are issued annually to the Heiltsuk.
<i>Licensing/Management Framework</i>	Quota system – each licence entitled to harvest 16,000 lbs (8 short tons) of product. Licences are not technically transferable, but are effected through long term leases
<i>Additional Information</i>	Each licence is associated with a particular operating area; licences must be operated in that area Valuation is extremely imprecise, since there are no recognized transactions.

Valuation Parameters

Valuations performed:	J licence
Amount of trading activity underlying valuation:	None
Confidence in valuation:	Low

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Licence (\$)	Total Value (\$)
J Licences	36	325,000	11,700,000

Valuation Comments

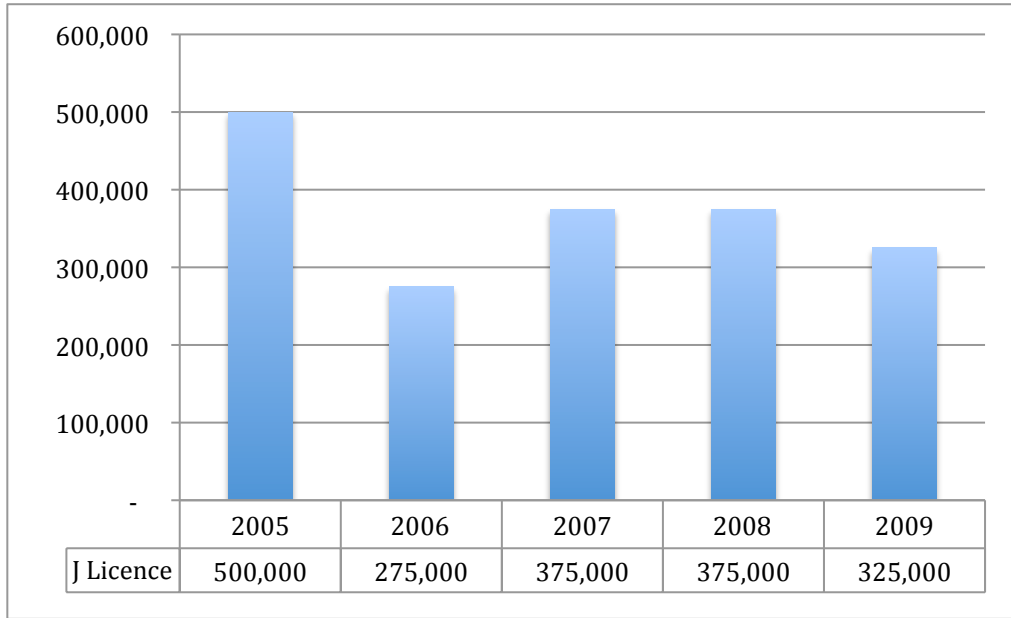
- J licence value is pegged at \$325,000, based largely on anecdotal information.
- Product prices were down in 2009, and a number of licences were once again un-fished. Lack of profitability in the fishery contributes to a moribund licence market.

Vessel Value

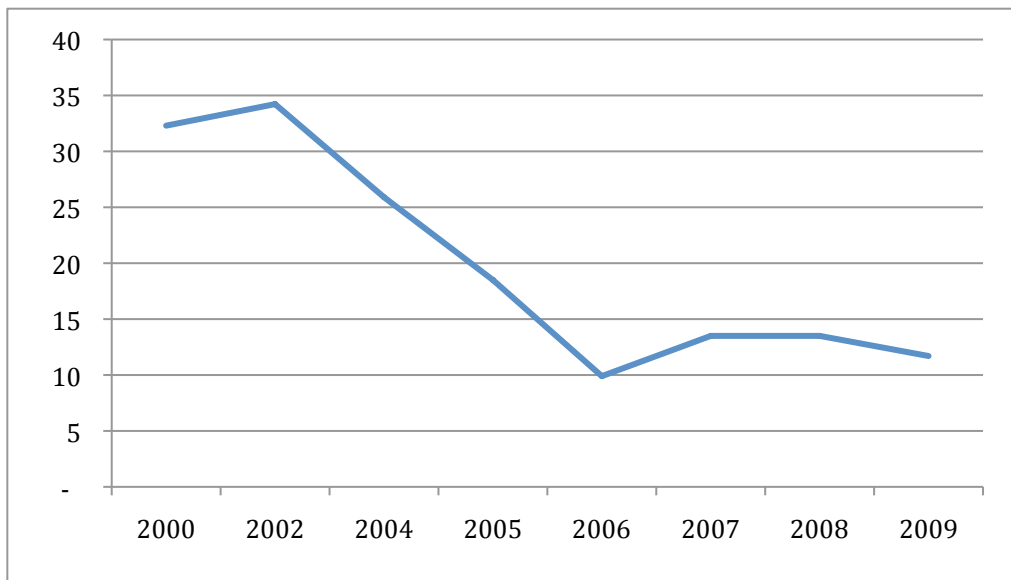
Not valued. There is no single vessel type associated with the spawn on kelp fishery, nor are licences assigned to a vessel.

Licensing Trends

Recent J Licence Valuations (\$)

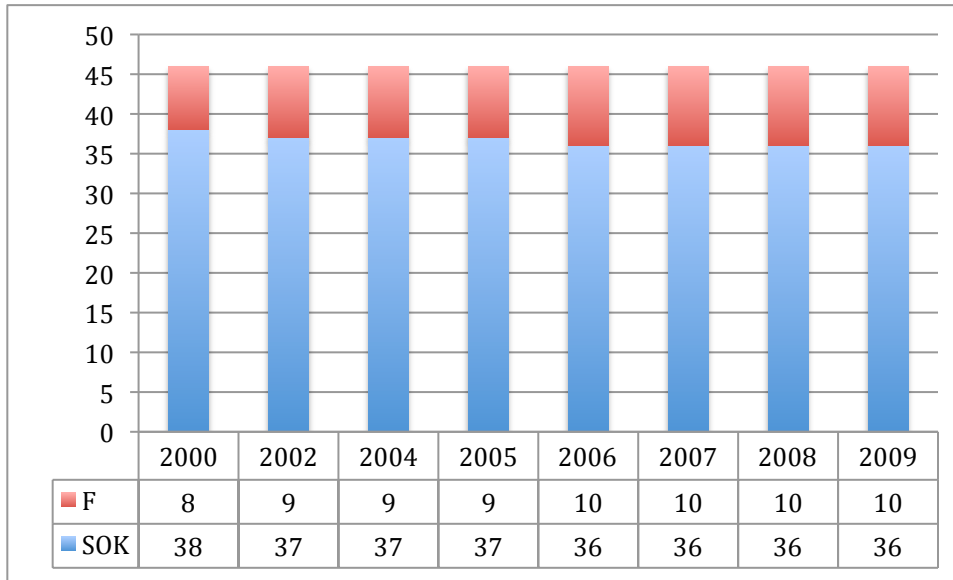


Aggregate Value of J Licences (\$ millions)



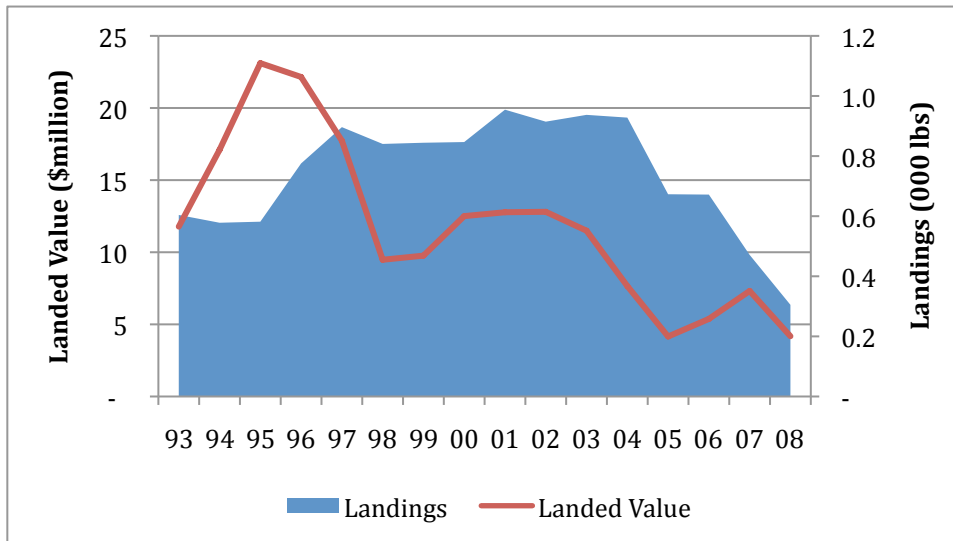
The sharp decline in J licence capitalization mirrors that seen in the roe herring fisheries.

J Licence Counts by Category



Spawn on Kelp Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The spawn on kelp fishery faces severe challenges due to increasing production from other areas (most notably Alaska), and an extremely limited market. In addition, low stock levels make it difficult for SOK operators to garner all allowable product.
- Because of poor economics, many licences were un-utilized or not fully utilized in 2009.
- The outlook for spawn on kelp is highly uncertain.

Halibut

General Description

<i>Licence Designation</i>	L
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	393
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	42 (FL designation, Party-based)
<i>Licensing/Management Framework</i>	<p>Quota management system. Quota is separable from licence and divisible into one-pound increments. Quota can be re-allocated (transferred) amongst L licensed vessels on a temporary or permanent basis (FL's temporary only). Vessel must hold a halibut licence to hold or fish halibut. There is a minimum quantity of quota to be held on L licences (permanent allocation); see Management Plan for details.</p>
<i>Additional Information</i>	<p>About 165 of the L-licensed fleet actively fish for halibut. Quotas have declined in recent years due to stock fluctuation and distribution.</p> <p>Quota in the 2009 management plan for the commercial fishery is 6.7 million pounds.</p> <p>Vessel-based licence allows harvest of Schedule II species and transporting (packing).</p>

Valuation Parameters

Valuations performed:	L licence (per foot) Quota value per pound Lease rate per pound Vessels
Amount of trading activity underlying valuation:	A moderate number of quota transactions (the # trades each year seems to fall) There is a high degree of leasing activity
Confidence in valuation:	Moderate (transactions) Moderate (lease)

Current Valuation

Licence and Quota Value at March 31, 2009

Category	# Licences/ lbs quota	Value per Foot/ lb quota (\$)	Total Value (\$)
L Licence	393	1,250	20,927,250
Quota	6,711,640	35.00	234,907,400
Total Value			255,834,650

Valuation Comments

- Average licence value pegged at \$53,250 (\$1,250 per foot x 43.6 average vessel length). Licence values range from \$1,000-1,500 per foot, and are generally sold with minimum quota.
- Quota value per pound pegged at \$35.00 per pound. Estimated range: \$34-38.
- Fewer transactions apparent than in prior years (continuation of a trend).

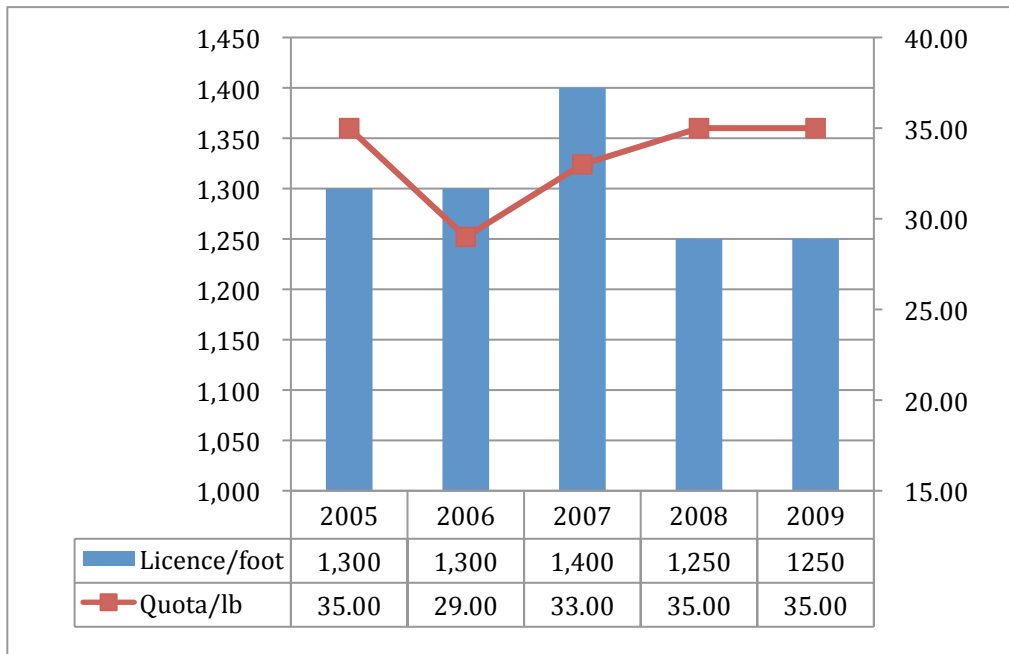
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

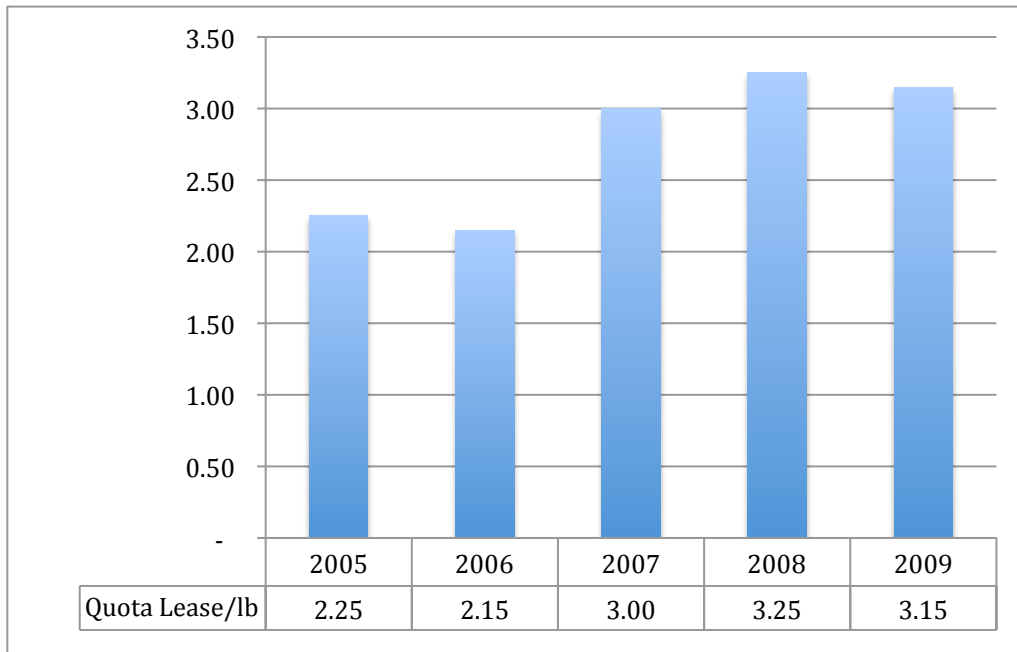
Halibut	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	261	76,250	19,901,250
Modern Style	174	203,125	35,343,750
<i>Total</i>	435	127,000	55,245,000

License & Quota Trends

Recent L Licence and Halibut Quota Valuations (\$)

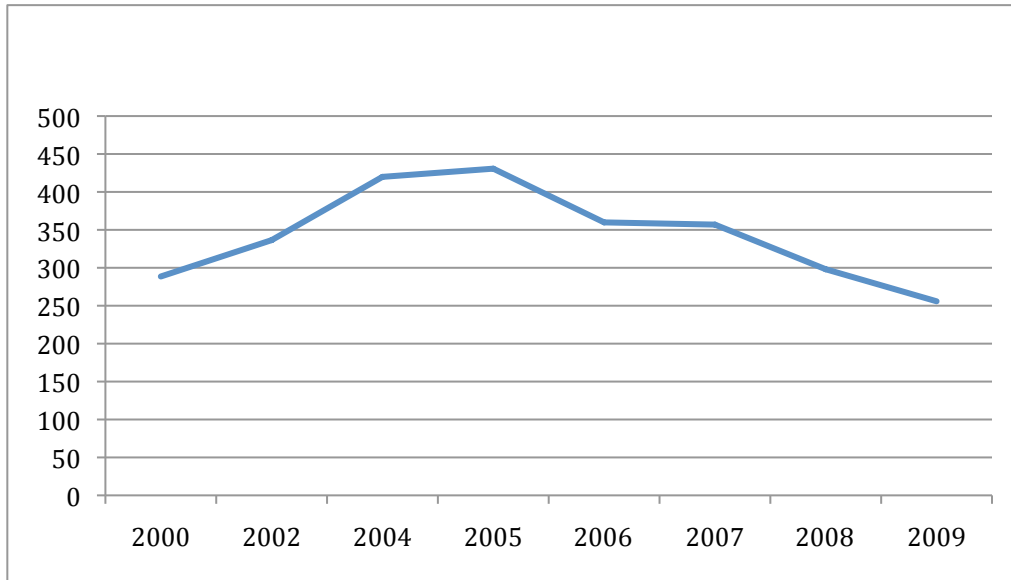


Recent Halibut Quota Lease Rates (\$ per lb)



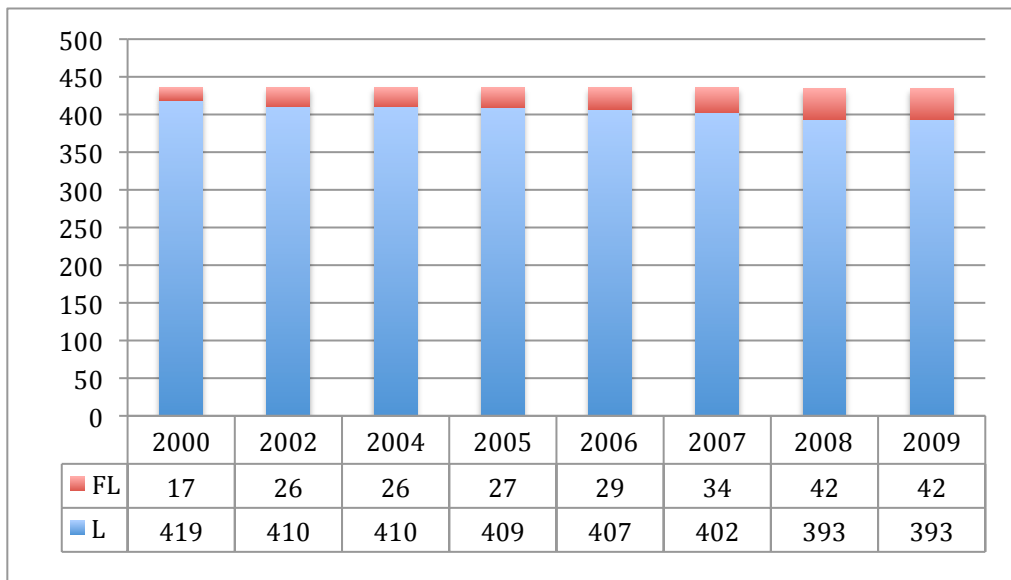
Quota lease price is pegged at \$3.15 at March 31, 2009. This rate reflects leases within the halibut sector for blocks of quota, with a range from \$2.75-\$3.30. Halibut quota is also leased to vessels in other groundfish sectors under the Commercial Groundfish Integration Pilot Program. For very small quantities of quota, these leases may be at substantially higher per-pound levels.

Aggregate Value of L Licences and Halibut Quota (\$ millions)



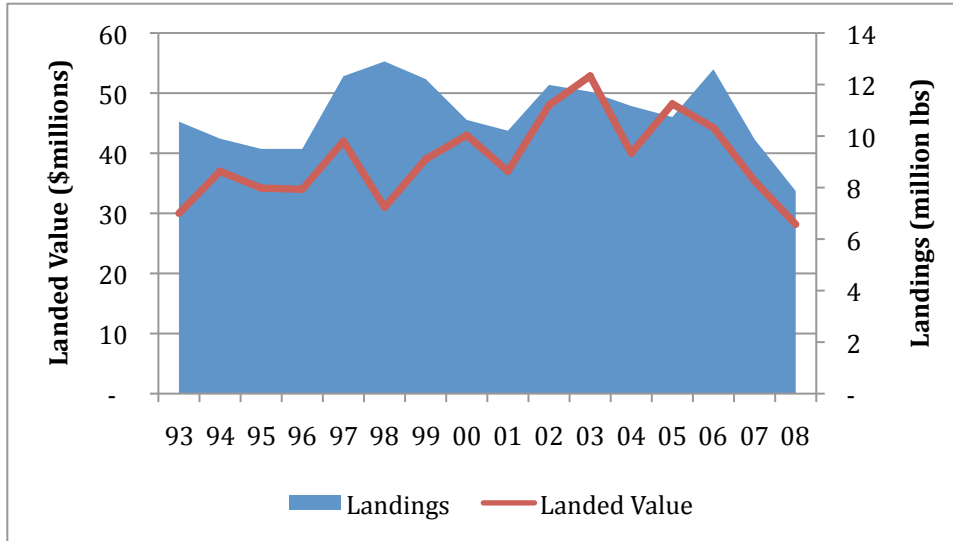
The substantial reduction in halibut licence and quota value in the last four years is largely due to TAC reductions—from over 12 million lbs to under 7 million lbs.

L Licence Counts by Category



Halibut Landings & Landed Value Trends

Source: DFO Catch Stats. Data includes halibut-only, not other groundfish that may be landed during halibut trips.



Outlook

- Halibut continues to be regarded as a well-managed fishery that supports profitable operations.
- The BC halibut fishery received Marine Stewardship Council (MSC) certification during 2009. This provides 3rd party confirmation that the fishery is sustainably managed, and preserves/enhances marketing opportunities for BC product.
- The halibut fishery is heavily reliant on the USA market. Weak economic conditions in the USA point to the merits of diversifying into other markets.
- The prospects for growth in TAC are unknown. The current TAC level is substantially below levels seen in prior years. The apportionment formula used by the International Pacific Halibut Commission is a strong determinant in setting the Canadian TAC.
- Halibut quota is in high demand from First Nations seeking enhanced commercial fishery resource access.
- The Commercial Groundfish Integration Pilot Program has concluded its fourth and final year. Many fishery participants feel that the CGIPP was a contributory factor in the halibut fishery receiving MSC certification. DFO will decide on the future course of groundfish management prior to the 2010 groundfish season.

Sablefish (Black Cod)

General Description

<i>Licence Designation</i>	K
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	46
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	2 (FK designation, Party-based)
<i>Licensing/Management Framework</i>	Quota management system. Each K licence was allocated a sablefish quota (permanent % of the TAC) based on a combination of vessel length and catch history. Quota is separable from licence and divisible into one pound increments. Quota can be re-allocated (transferred) amongst K licensed vessels on a temporary or permanent basis (FK's temporary only).
<i>Additional Information</i>	About 30 vessels actively fishing currently. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	K licence (per foot) Quota value per pound Lease rate per pound Vessels
Amount of trading activity underlying valuation:	Very few licence or quota transactions in the open market A substantial amount of leasing activity
Confidence in valuation:	Low (transactions)—because of few transactions Low (lease)—because of the wide range in lease rates seen during the period

Current Valuation

Licence and Quota Value at March 31, 2009

Category	# Licences/ lbs quota	Value per Licence/ lb quota (\$)	Total Value (\$)
K Licence	46	250,000	11,500,000
Quota	3,237,457	35.00	113,310,991
Total Value			124,810,991

Valuation Comments

- Average licence value pegged at \$250,000. Estimates of licence value range from \$200,000-300,000. Few licences traded in the current year.
- Quota value per pound pegged at \$35.00 per pound. Estimated range: \$33-38. Very few open-market transactions were unearthed. PICFI was the key source of transactions.
- Fewer transactions apparent than in prior years (continuation of a trend). The low level of transactions is not seen as reflecting poor prospects, but rather, the relatively tight holdings pattern of quota.

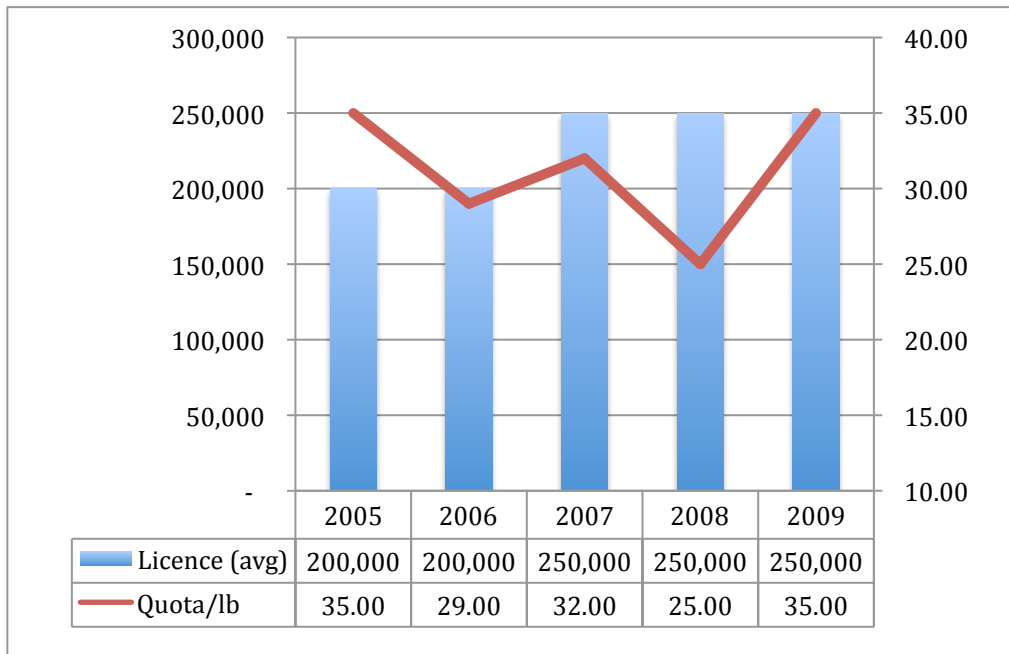
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

Sablefish	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	24	187,500	4,500,000
Modern Style	24	700,000	16,800,000
<i>Total</i>	48	443,750	21,300,000

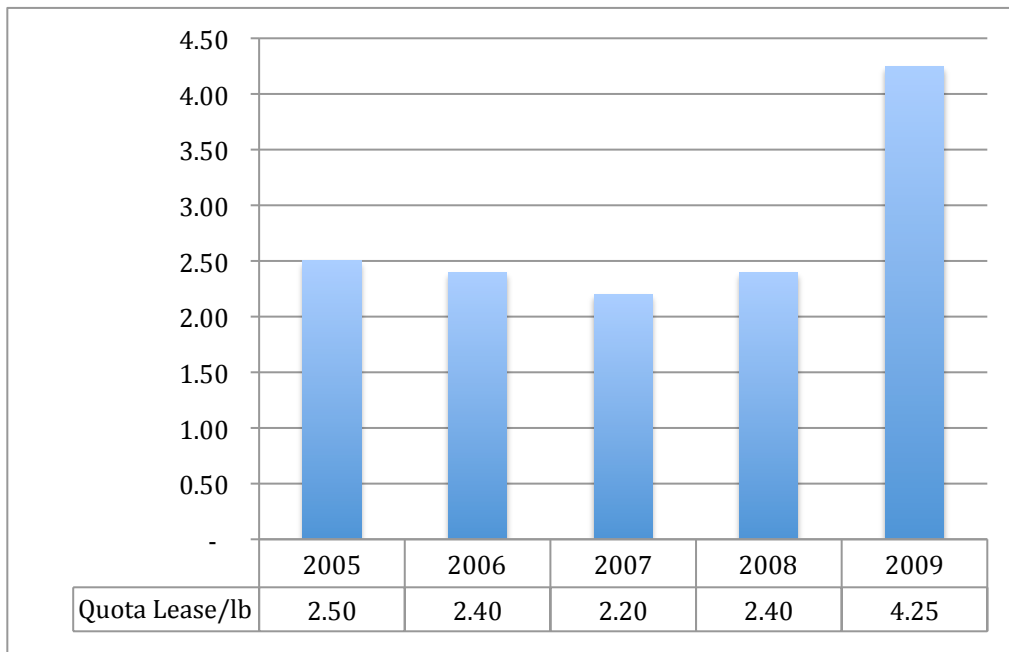
Licensing Trends

Recent K Licence and Sablefish Quota Valuations (\$)



The 2008 valuation (\$25/lb) represented a bottoming-out of sablefish values that was short-lived.

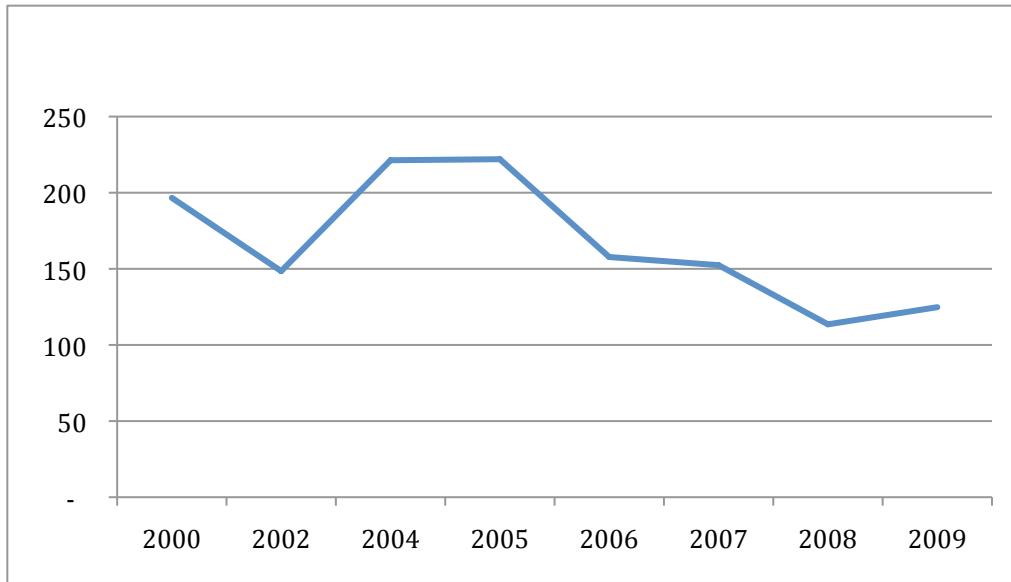
Recent Sablefish Quota Lease Rates (\$ per lb)



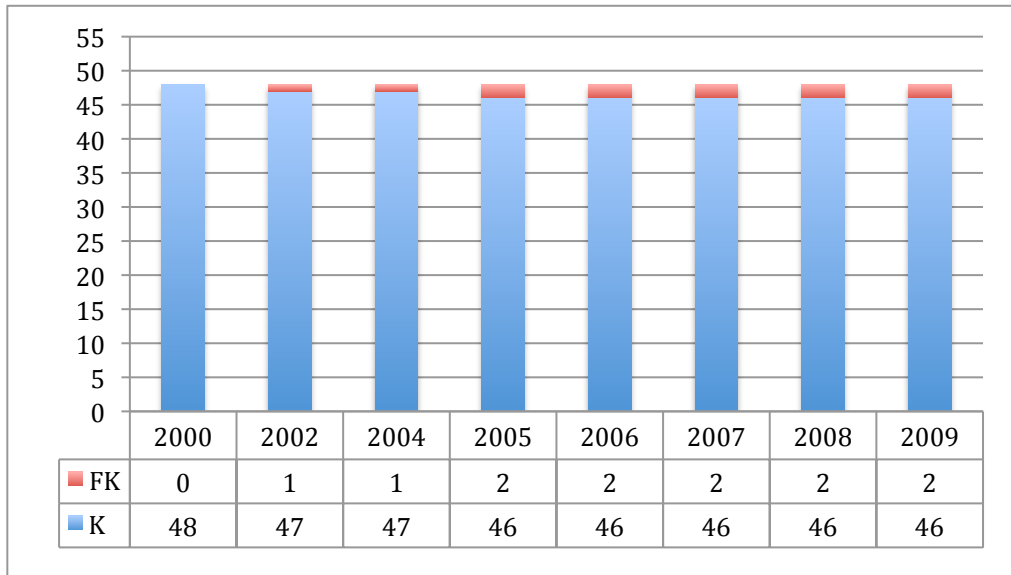
PACIFIC FLEET LICENCE, QUOTA, AND VESSEL VALUATION: AT MARCH 31, 2009

Quota leases varied wildly in 2009. Quota lease price is pegged at \$4.25. This rate reflects leases within the sablefish sector for blocks of quota, with a range from \$2.75-4.50. Sablefish quota is also leased to vessels in other groundfish sectors under the Commercial Groundfish Integration Pilot Program. For very small quantities of quota, these leases may be at substantially higher per-pound levels. Leases as high as \$5.75 per pound were reported. Because of the volatility of sablefish lease prices, the confidence level for this valuation is low.

Aggregate Value of K Licences and Sablefish Quota (\$ millions)

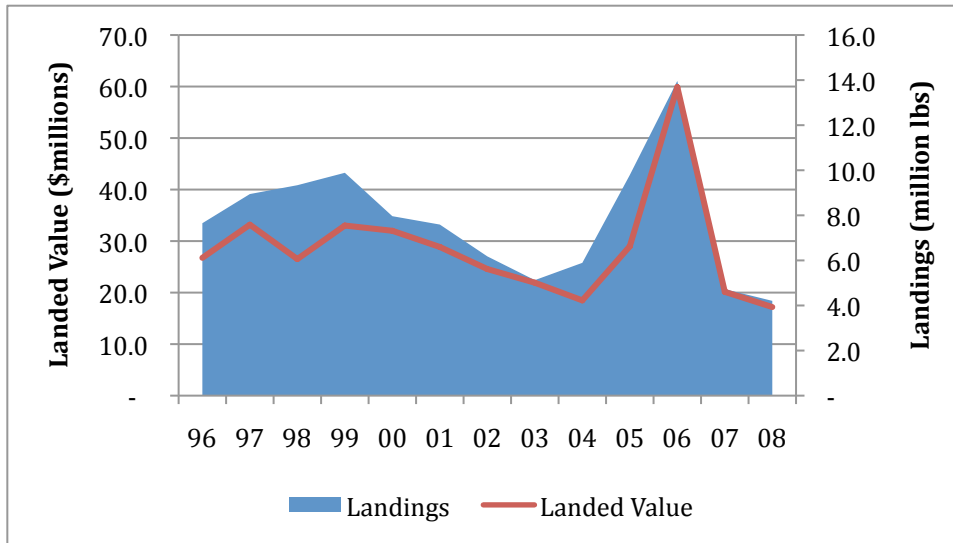


K Licence Counts by Category



Sablefish Landings & Landed Value Trends

Source: DFO Catch Stats. Data includes sablefish-only, not other groundfish that may be landed during sablefish trips.



Note that the 2006 data point appears to be incorrect (too high). Sablefish seasons straddle calendar years and at times exceed a 12-month period. The actual trend for the last few years should be a gradual decline, reflecting reductions in sablefish TAC.

Outlook

- Sablefish continues to be regarded as a well-managed fishery that supports profitable operations.
- Sablefish is currently in the MSC assessment process.
- There is belief in some circles that the TAC will stabilize or increase in the coming seasons.
- The Commercial Groundfish Integration Pilot Program has concluded its fourth and final year. DFO will decide on the future course of groundfish management prior to the 2010 groundfish season.
- Sablefish quota is in high demand from First Nations seeking enhanced commercial fishery resource access.
- Fishery participants are currently taking a more bullish view than they were at the time of last years valuation report.

Geoduck/Horseclam

General Description

<i>Licence Designation</i>	G
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	55
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	nil
<i>Licensing/Management Framework</i>	<p>Area Licensing: three areas, the north coast, WCVI, and inside waters of Vancouver Island. Each of the 55 “G” licence eligibilities selects an area annually. The number of licence eligibilities fishing each area may change annually according to the proportion of the total quota assigned to each area.</p> <p>Licence stacking allowed, 3 licences maximum per vessel.</p> <p>Quota management – each licence may harvest 1/55 of the total quota, or 62,500 lbs in 2009. Quotas unchanged last several years.</p>
<i>Additional Information</i>	<p>Dive fishery.</p> <p>39 vessels currently operating the 55 licences. Quotas not divisible.</p> <p>Vessel-based licence allows harvest of Schedule II species and transporting (packing).</p>

Valuation Parameters

Valuations performed:	G licence Annual lease rate Vessels
Amount of trading activity underlying valuation:	Low (transactions) Low-Moderate (lease)
Confidence in valuation:	Low (transactions)—because of low volume of transactions Low (lease)—because of wide variety of arrangements

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$m)	Total Value (\$)
G Licences	55	2.75	151.3

Valuation Comments

- Licence value pegged at \$2.75 million. A single transaction was reported during the valuation period but the terms of the sale are unknown. Estimates from varying sources range from \$2.5-3.1 million.

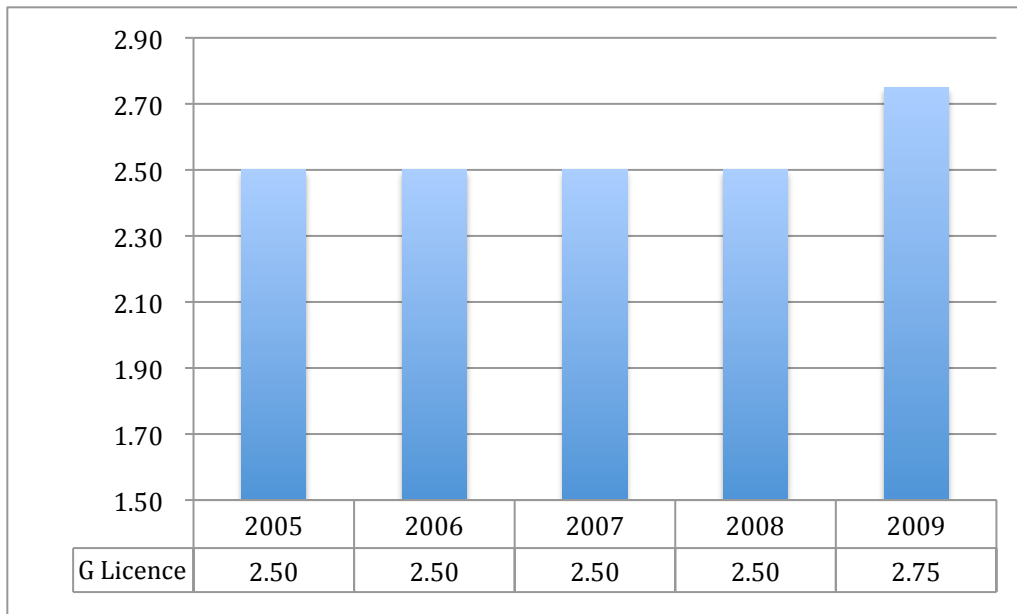
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

Geoduck	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	23	62,500	1,462,500
Modern Style	16	187,500	2,925,000
<i>Total</i>	39	112,500	4,387,500

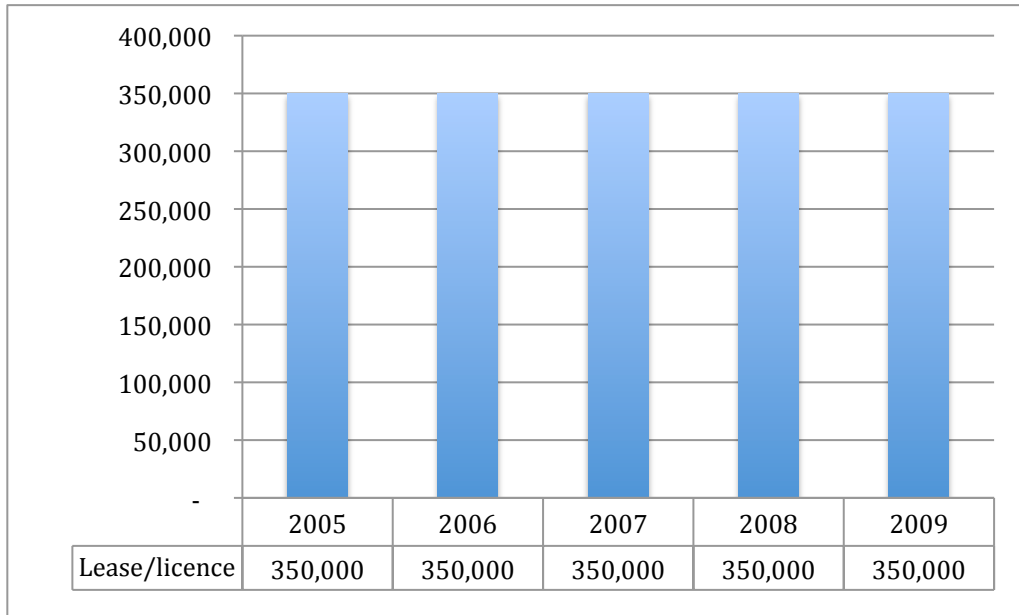
Licensing Trends

Recent G Licence Valuations (\$ millions)



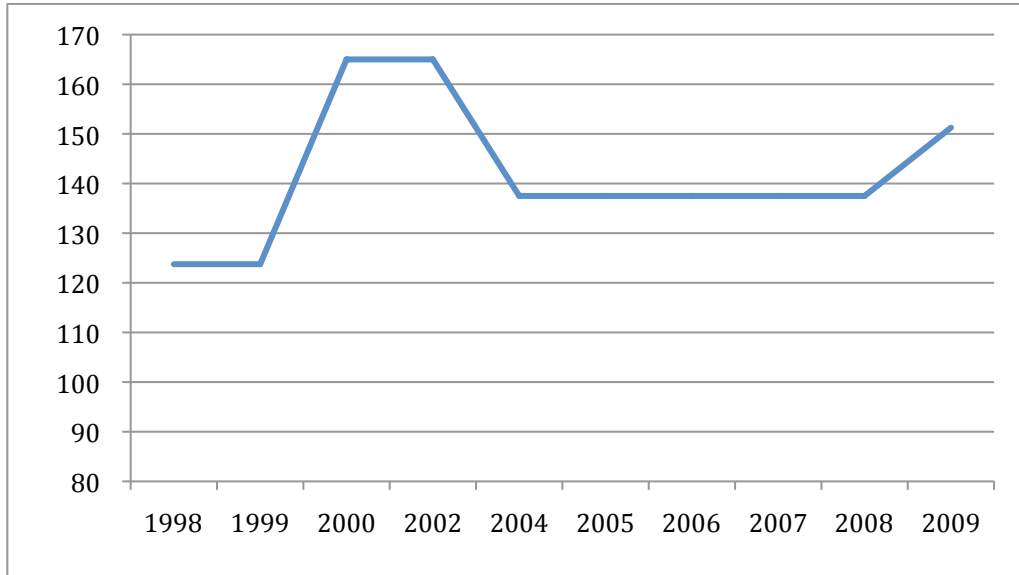
This is the first year on record where a transaction was reported. Though precise terms are not known, the value appears to be higher than the \$2.5 figure reported in prior reports.

Recent G Licence Lease Rates (\$)



A lease rate of \$350,000 is again pegged for G licences. A variety of leasing and a scarcity of quality information make a precise valuation difficult.

Aggregate Value of G Licences (\$ millions)

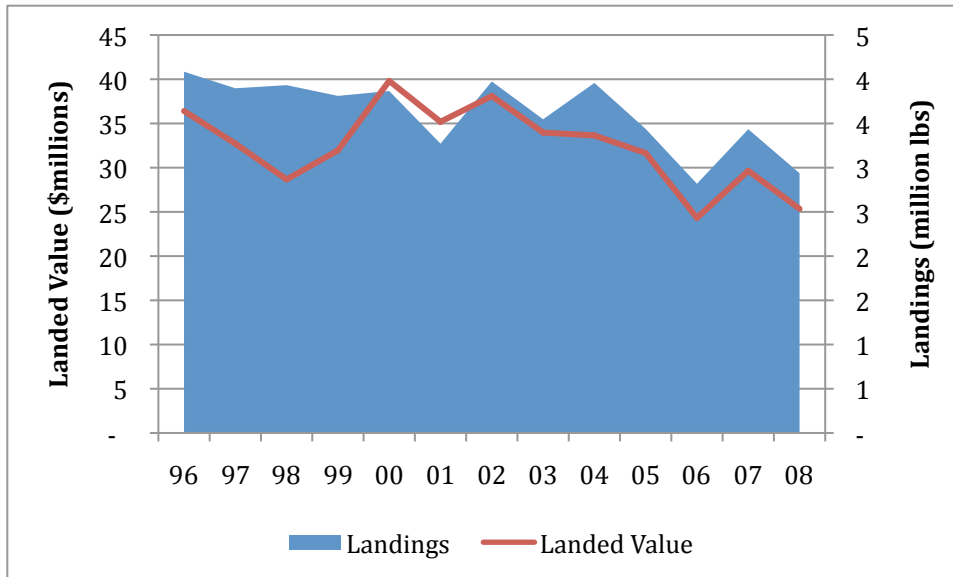


G Licence Counts by Category

No chart shown: all 55 licences are category G.

Geoduck Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The geoduck fishery enjoyed a good season in 2009, with ex-vessel product prices firming somewhat from the prior couple of seasons to about \$9.50 per pound.
- In spite of a stronger price in 2009, the geoduck sector remains influenced by currency exchange rates and global economic conditions. The state of the Chinese economy is an important factor in determining the marketability and price of the product.
- While 2009 saw the first geoduck licence transaction in many years, lack of access to capital for potential purchasers remains an impediment to a higher frequency of transactions. Fishing licences are not considered strong security by potential lenders, and few potential purchasers can summon the funds to purchase a G licence.
- Growth in Mexican geoduck exports is a concern. BC geoduck marketers are focusing on product quality in order to differentiate themselves in the marketplace.
- The primary challenges to continued resource access are the potential proliferation of marine parks and protected areas, thus displacing geoduck fishing grounds, and the growth in sea otter populations. Sea otter predation on the West Coast of Vancouver Island has already caused some geoduck licences to re-locate to other areas.
- Stock enhancement activities by the Underwater Harvester’s Association are intended to offset resource access erosion as described above.

Shrimp-by-Trawl

General Description

<i>Licence Designation</i>	S
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	234
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	11 (FS designation, Party-based)
<i>Licensing/Management Framework</i>	Fishery managed on basis of specie quotas by area (shrimp management areas). Areas are closed to fishing once a specie harvest is reached in a given area. Only one S (or FS) licence per vessel allowed.
<i>Additional Information</i>	Competitive fishery. Poor markets for pink shrimp in recent years have meant that the majority of the licensed fleet has not participated in the fishery. Vessel based licence virtually precludes licence leasing. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	S licence (per foot) Vessels
Amount of trading activity underlying valuation:	Few transactions reported
Confidence in valuation:	Low to moderate

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Foot (\$)	Total Value (\$)
S Licences	234	600	5,756,400

Valuation Comments

- Average licence pegged at \$24,600 (\$600/ft x 41 foot average vessel length). Licence values range from \$500-800 per foot.
- The low level of transactions this year is likely a reflection of the poor results and prospects in this fishery.

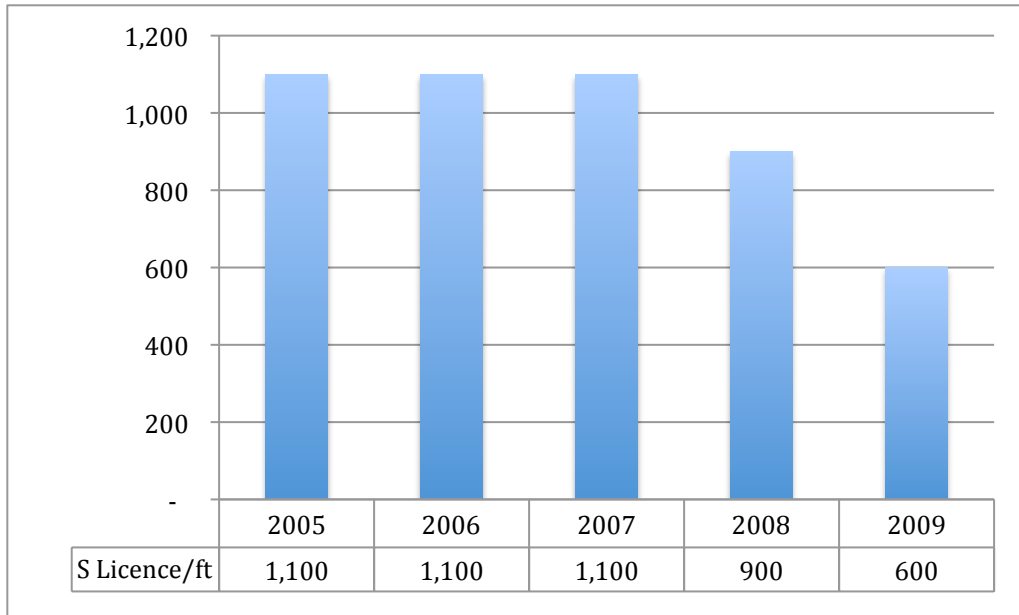
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

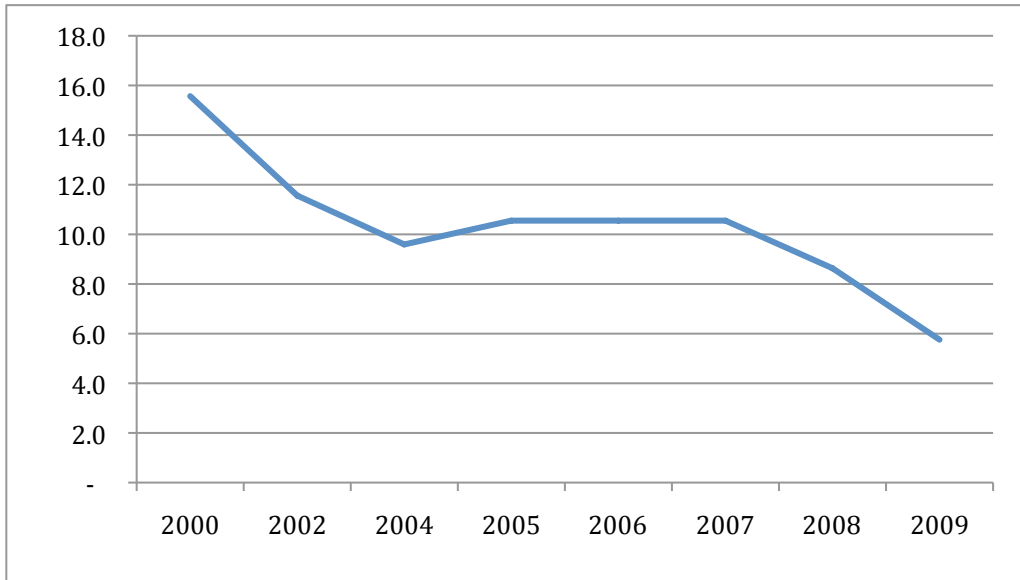
Shrimp Trawl	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	172	42,857	7,380,000
Modern Style	74	133,333	9,840,000
<i>Total</i>	246	70,000	17,220,000

Licensing Trends

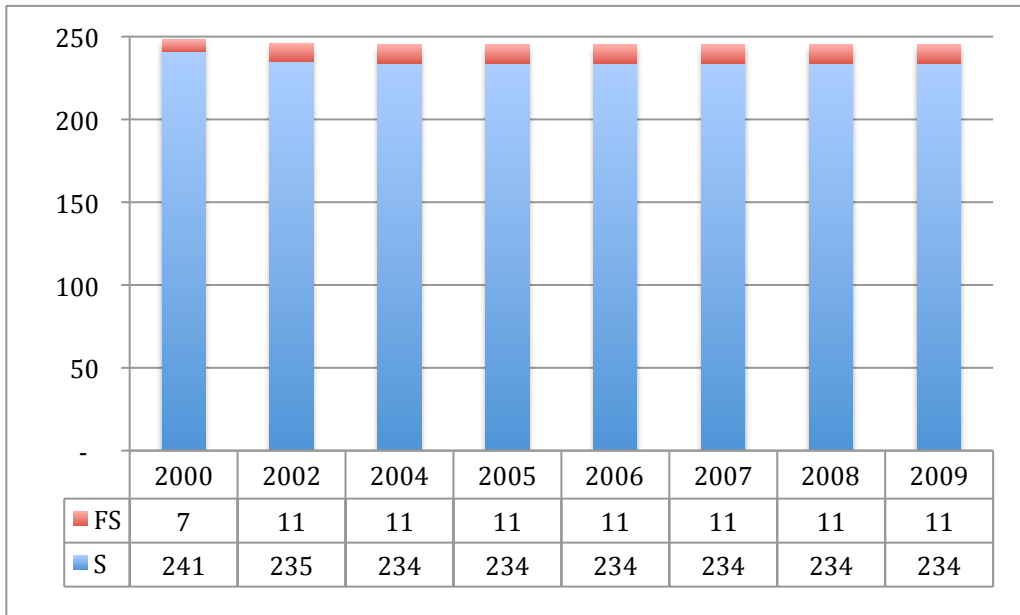
Recent S Licence Valuations (\$)



Aggregate Value of S Licences (\$ millions)

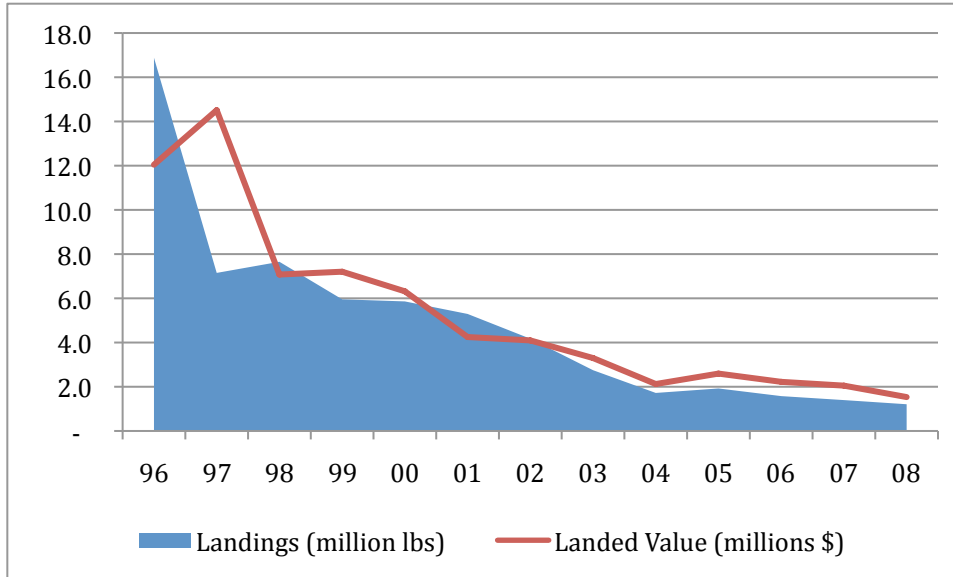


S Licence Counts by Category



Shrimp Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The fundamentals of the shrimp fishery continue to be poor. Only a small portion of the fleet actively participates in the fishery.
- Shrimp is a labour intensive fishery and product prices are low.
- International competition is strong.
- Industry will need to devise and implement a turnaround strategy to improve the prospects for this fishery.

Prawn-by-Trap

General Description

<i>Licence Designation</i>	W
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	223
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	29 (FW designation, Party-based)
<i>Licensing/Management Framework</i>	Fishery managed by time and area, with trap limits (300 traps per vessel). Licence stacking – additional traps may be placed on a W licensed vessel, allowing a total of 500 traps to be deployed.
<i>Additional Information</i>	Competitive fishery. Licence (trap) stacking provision creates a licence lease market. May retain octopus. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	W licence (per foot) Annual lease rate (per licence) Vessels
Amount of trading activity underlying valuation:	There is significant transaction activity in this category Leasing activity is moderate
Confidence in valuation:	Moderate (transactions). A more confident valuation is confounded by the fact that multiple assets are often involved and apportionment of values can be arbitrary. High (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Foot (\$)	Total Value (\$)
W Licences	223	14,000	113,953,000

Valuation Comments

- Average licence value pegged at \$511,000 (\$14,000/ft x 36.5 foot average vessel length). Licence values range from \$13,000-20,000 per foot.
- Many view prawn licence values on a per-licence (rather than per-foot) basis; licences tend to be in the \$500,000 ballpark, regardless of length. This implies a higher per-foot value for shorter licences than longer one.
- Values may have firmed somewhat after the valuation period—to perhaps \$550,000.
- This is an active licence category, with several open-market as well as PICFI transactions.

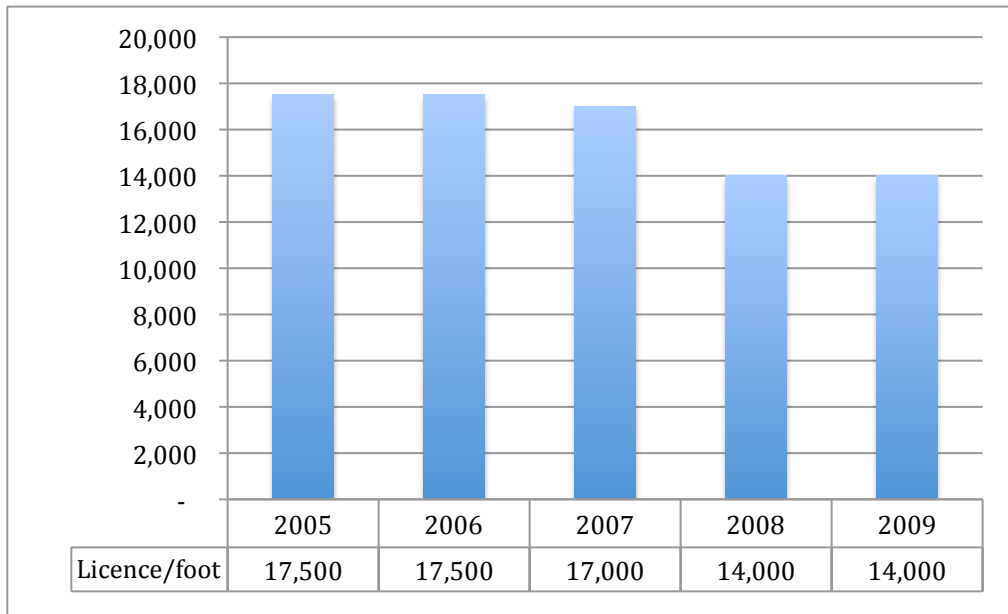
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

Prawn	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	126	90,000	11,340,000
Modern Style	126	180,000	22,680,000
<i>Total</i>	252	135,000	34,020,000

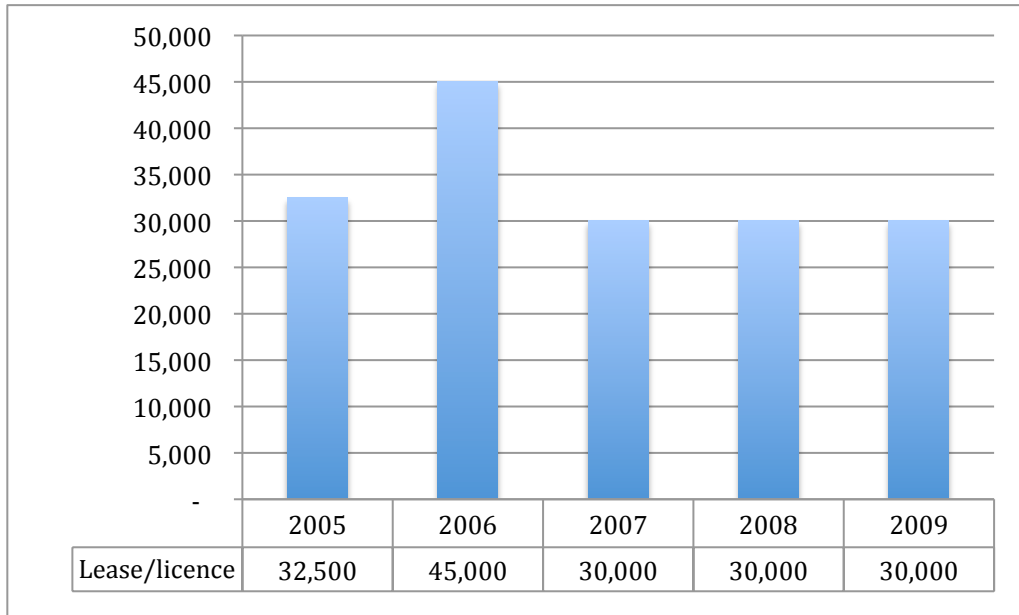
Licensing Trends

Recent W Licence Valuations (\$)



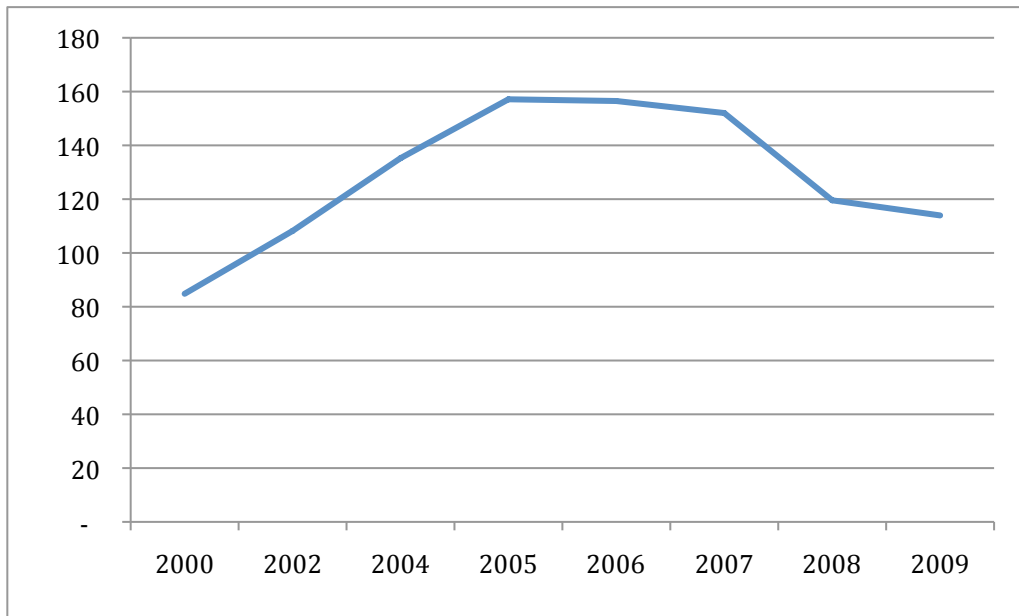
The drop in values in 2008 is linked to a reduction in BC spot prawn prices in the Japanese market. Values have likely risen somewhat after the 2009 valuation date, as the prawn fishery enjoyed a record-volume harvest in the 2009 fishery.

Recent W Licence Lease Rates (\$)

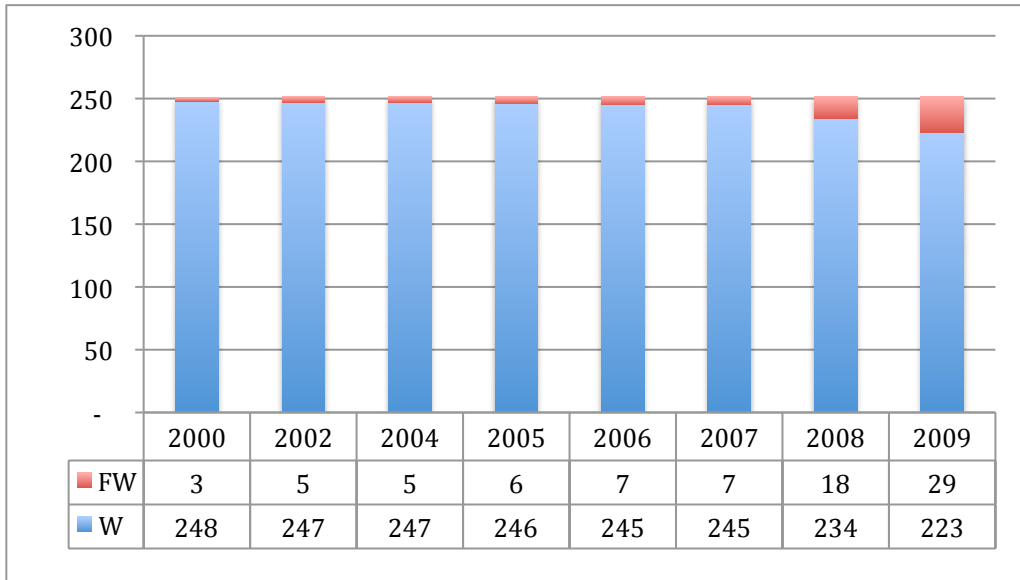


Lease rate in 2009 is pegged at \$30,000 per licence. Lease rates range from \$25,000-35,000.

Aggregate Value of W Licences (\$ millions)

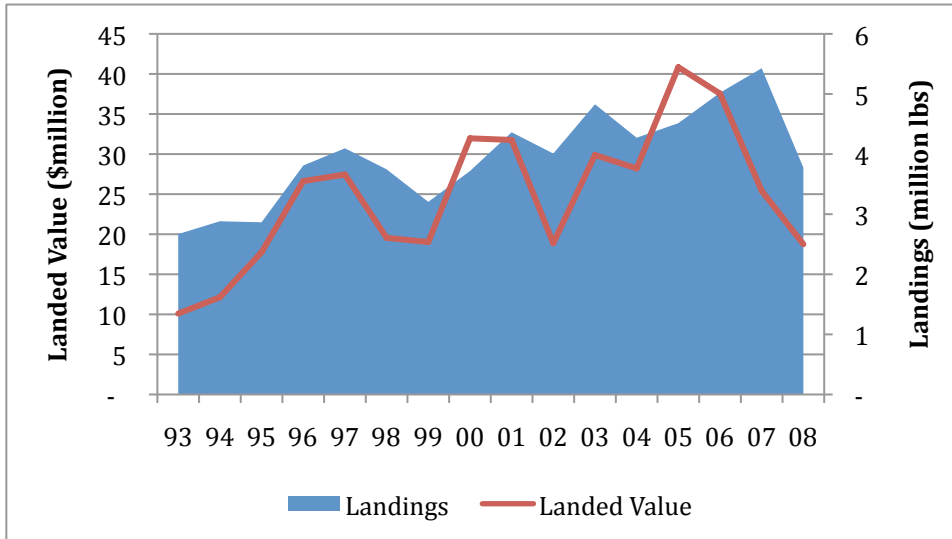


W Licence Counts by Category



Prawn Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The prawn fishery features an active licence market, indicative of a reasonable amount of optimism and enthusiasm for the fishery.
- The fishery is experiencing strong catch levels in recent years, with the 2009 harvest believed to be a record.
- High catches are alleviating the impact of softening prices in the Japanese market.
- The prawn sector recognizes some structural and market issues, but has difficulty dealing with them when catch levels are strong, and individual financial results are satisfactory.
- BC spot prawns are recognized as a sustainable fishery by certain eco-groups, creating marketing opportunities.
- Growth in recreational sector prawn fisheries are a concern for the commercial sector.

Groundfish Trawl

General Description

<i>Licence Designation</i>	T
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	141
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	1 (FT designation, Party-based)
<i>Licensing/Management Framework</i>	Individual quotas – about 50 quotas based on species and areas – complex system. 80% of quota allocated to vessels as IVQ, and 20% allocated to vessels via the Groundfish Development Authority (see Management Plan). Quotas divisible and transferable amongst T licensed vessels on a temporary or permanent basis.
<i>Additional Information</i>	100% at sea observer coverage, 100% offload monitoring coverage. Each T licence has a unique holdings cap, which influences licence value. Vessel-based licence allows harvest of Schedule II species and transporting (packing).

Valuation Parameters

Valuations performed:	T licence Quota values per pound: Uncut quota Offshore hake Gulf hake Arrowtooth flounder Lease rate per pound for above quotas Vessels
Amount of trading activity underlying valuation:	Very few licence or quota transactions during the valuation period High (lease)
Confidence in valuation:	Moderate for uncut quota transactions Low for offshore hake, gulf hake and arrowtooth flounder quota because of very few transactions Moderate (leases)

Current Valuation

Licence and Quota Value at March 31, 2009

Category	# Licences/ lbs quota, millions	Value per Foot/ lb quota (\$)	Total Value (\$ millions)
T	141	1,000	8.9
Uncut quota	85.0	1.25	106.3
Hake outside	132.0	0.50	66.0
Hake gulf	28.6	0.05	1.4
Arrowtooth	42.0	0.15	6.3
Total Value			188.9

Valuation Comments

- Average licence value pegged at \$63,000 (\$1,000 per foot x 63 foot average vessel length). Licence values range from \$800-1,500 per foot, depending on length, the holdings cap associated with the licence, and the needs of the parties.
- Uncut quota value pegged at \$1.25 per pound, with a range from \$1.10-1.40. Prices have softened since the valuation date to the lower end of the valuation range.
- Hake quota (offshore) value pegged at \$0.50 per pound. With no know transactions, this is an estimate of value based on a definite softening of demand (last year's valuation was \$0.60 per lb). Some sources estimated a \$0.40 per pound value.
- Pegged values for gulf hake and arrowtooth flounder—\$0.05 and \$0.15 per pound respectively—are estimates only, with little or no trading activity unearthed.
- Softening asset values in 2009 are reflective of very challenging market and financial conditions in the fishery.

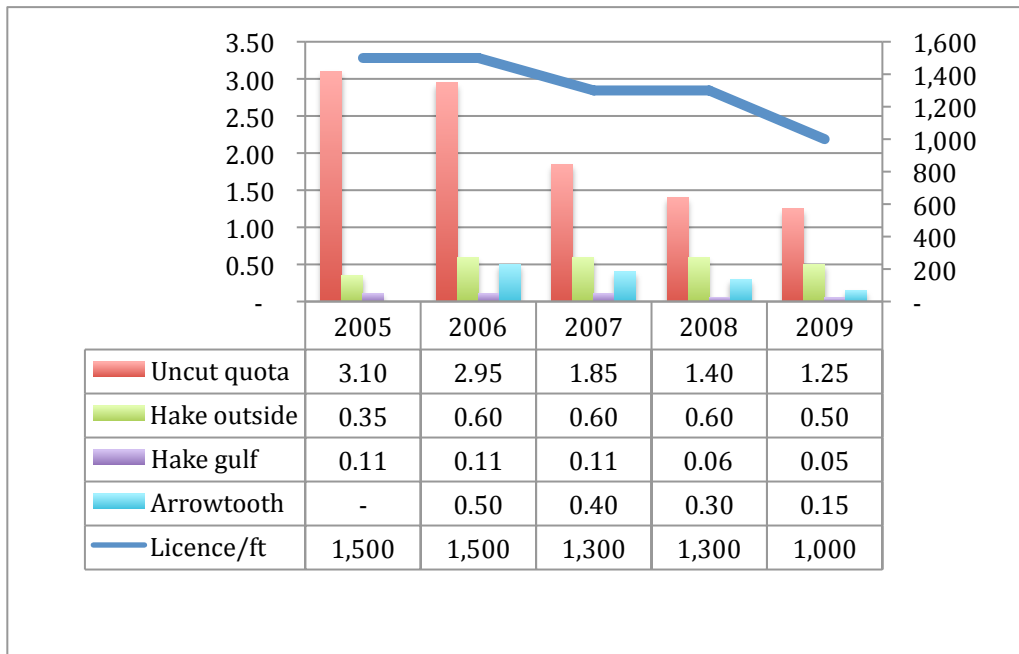
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

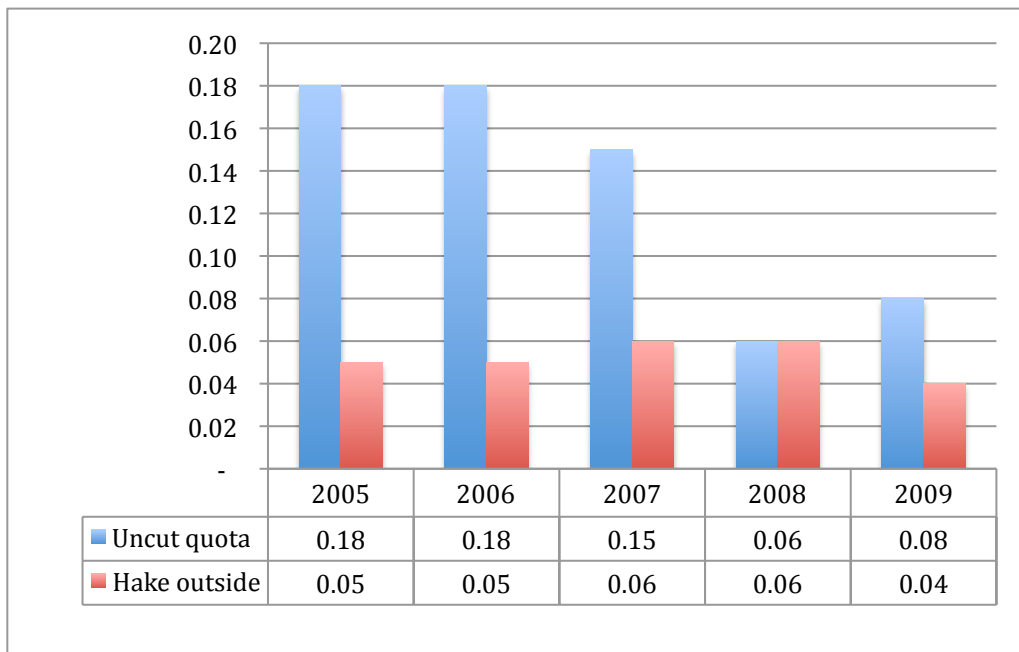
Trawl	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	71	440,000	31,240,000
Modern Style	71	1,125,000	79,875,000
<i>Total</i>	142	782,500	111,115,000

Licensing Trends

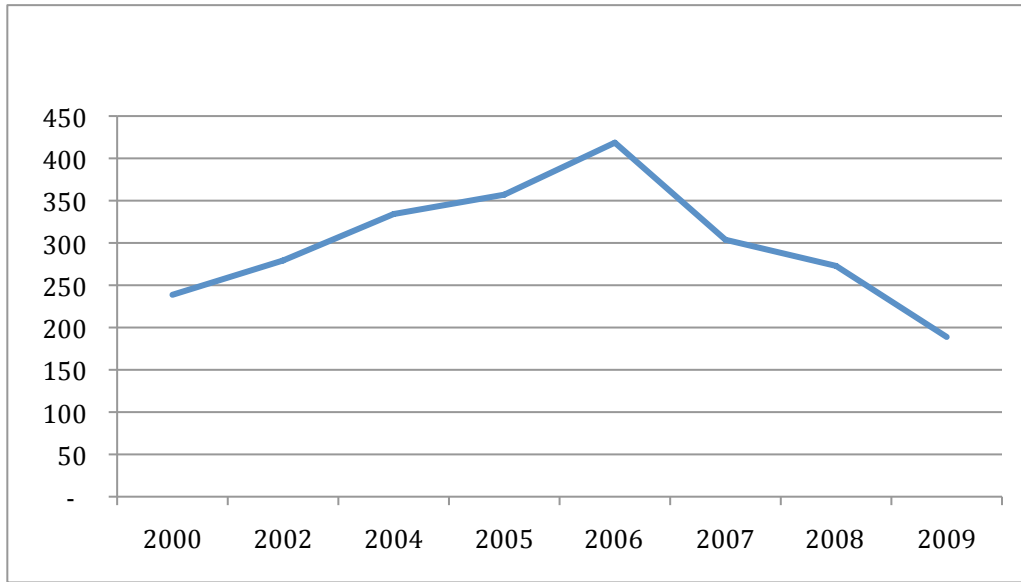
Recent T Licence and Trawl Quota Valuations (\$)



Recent Trawl Quota Lease Rates (\$ per lb)

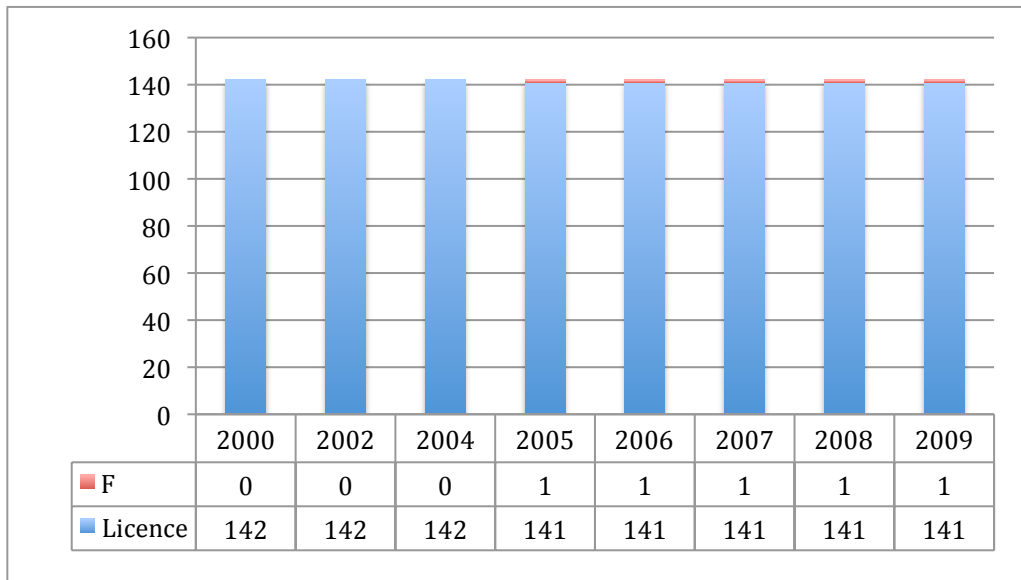


Aggregate Value of T Licences and Trawl Quota (\$ millions)



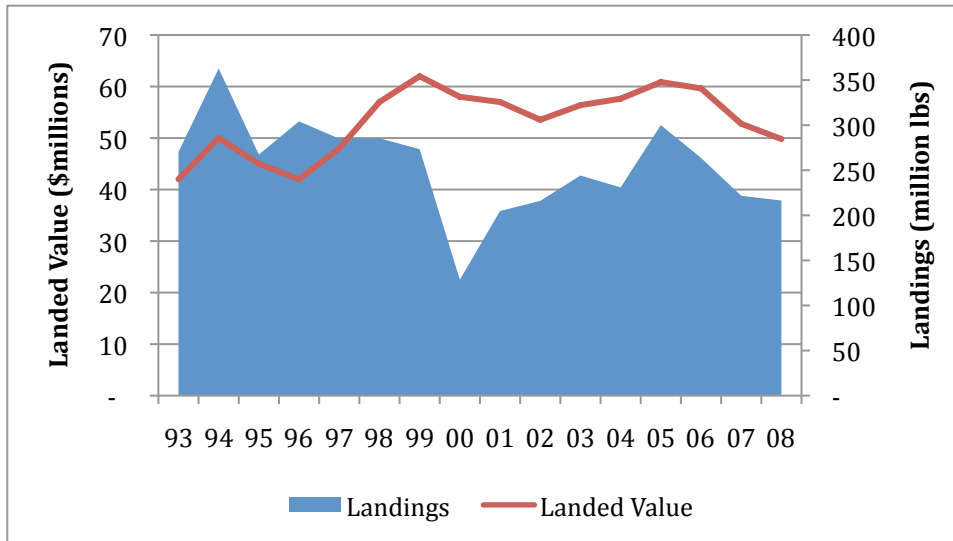
The reduction in trawl category capitalization since 2006 is a function of declining values for uncut groundfish quota, and declining TACs for hake.

Licence Counts by Category



Groundfish Trawl Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The groundfish trawl fishery is being strongly impacted by external competitive conditions.
- With heavy reliance on the I-5 market in the USA, the groundfish (fresh fillet) sector has been hurt by a strong Canadian dollar relative to the US dollar, a soft USA economy, and ever-growing competition for shelf space from farmed whitefish species at the retail level.
- Hake markets and prices, on a strengthening trend in recent years, took a turn for the worse in 2009, as many of the hake importing countries/customers faced an acute credit crunch.
- Hake received MSC certification in 2009, confirmation of a sustainable management approach, and a potential marketing advantage for the future.
- The groundfish trawl sector is in a depressed state, with few asset transactions, and poor financial results being seen.
- The need for doing business in different ways is clear, and some initiatives—for example high volume freezer trawlers and low volume “day-boats” (to offer premium fresh fish)—are meeting with success.
- Potential impact on the trawl fishery from COSEWIC/SARA listings remains a concern.

Crab

General Description

<i>Licence Designation</i>	R
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	203
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	19 (FR designation, Party-based)
<i>Licensing/Management Framework</i>	<p>Area Licensing – 7 areas. No stacking allowed – must select a single area. Area re-selection periodically; a re-selection was completed in 2008 applying to the 2009 season. Another re-selection will take place for the 2010 season. Fishery managed on basis of time, area, size, sex, and trap limits (limits vary by area)</p>
<i>Additional Information</i>	<p>Competitive fishery. Currently, the resource and market situation is reasonably healthy. Area A (QCI/Hecate Strait) is the predominant area in terms of landings and landed value. Vessel licence allows harvest of Schedule II species and transporting (packing). Vessel-based licence virtually precludes licence leasing, though a small market is emerging for FR (commercial communal party-based) licences.</p>

Valuation Parameters

Valuations performed:	R licence Vessels
Amount of trading activity underlying valuation:	This is a very active category
Confidence in valuation:	Moderate—precise valuations are difficult because of multi-areas and uncertain apportionment of asset values.

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/Foot (\$)	Total Value (\$)
R Licences	203	15,000	97,440,000

Valuation Comments

- Average licence value pegged at \$480,000 (\$15,000 per foot x 32 foot average vessel length). Licence values range from \$14,000-18,000.
- Many view crab licences on a per-licence (rather than per-foot) basis.
- With recent and pending area re-selections, there is little or no difference in values between areas.
- This is a very active licence category, with many open-market transactions.

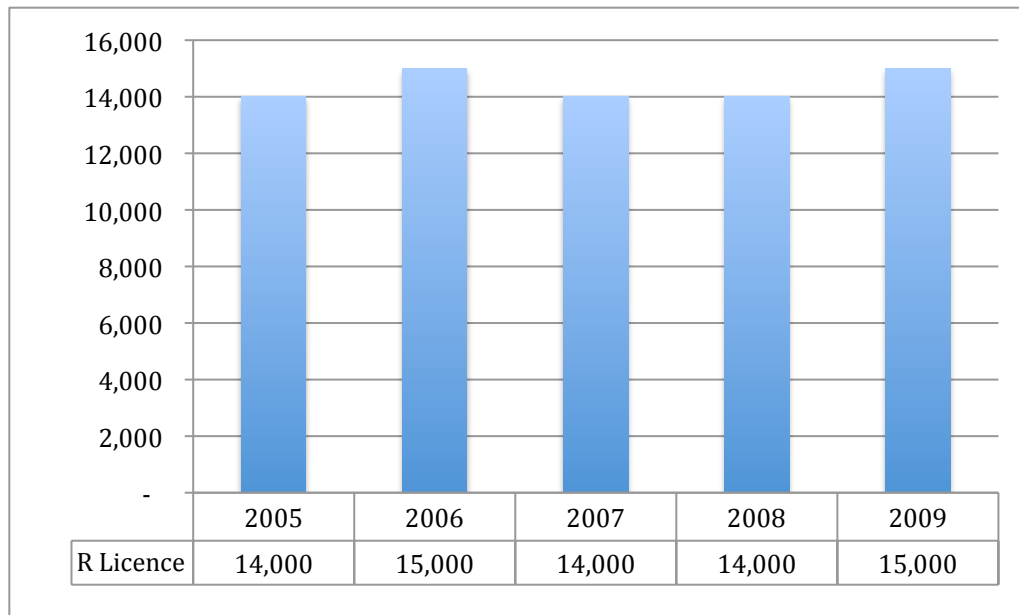
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

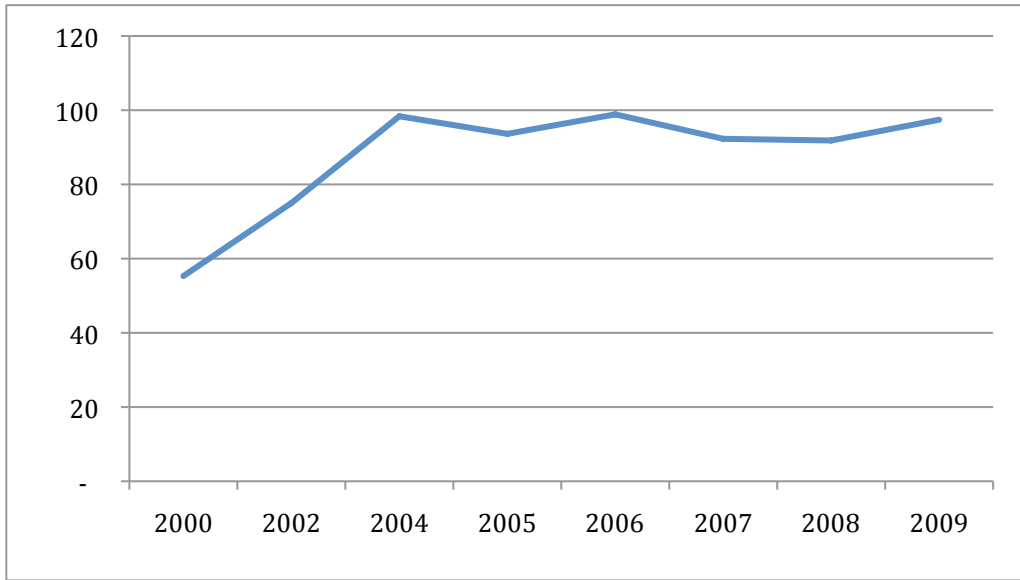
Crab	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	89	81,250	7,215,000
Modern Style	133	300,000	39,960,000
<i>Total</i>	222	212,500	47,175,000

Licensing Trends

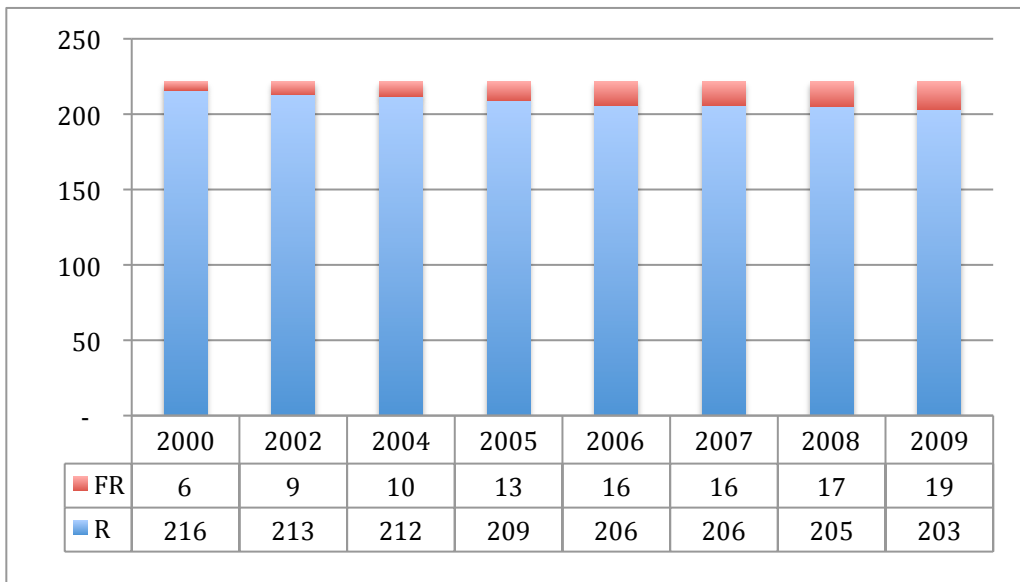
Recent R Licence Valuations (\$)



Aggregate Value of R Licences (\$ millions)

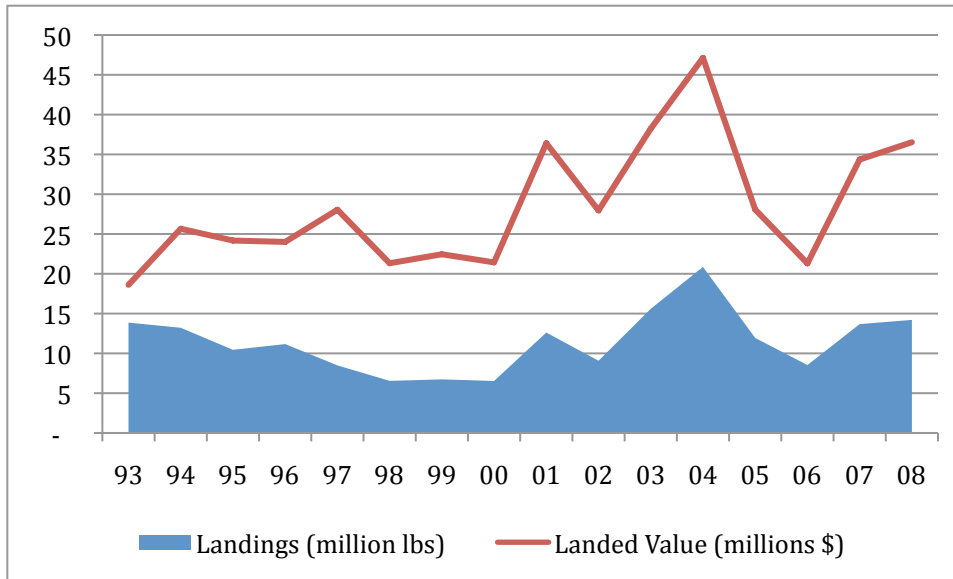


Licence Counts by Category



Crab Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- Markets for Dungeness crab are generally healthy. The product is consumed in many markets worldwide.
- There is an active market for crab licences, reflecting optimism amongst participants that a living can be forged from crab fishing.
- There are seven distinct management areas in the crab fishery and no cohesive industry organization, making the industry somewhat fractured. Area re-selections provide flexibility for licence holders to move between management areas, but compromise stability in each of the areas.
- From a conservation perspective, DFO is concerned about illegal harvest of undersize crabs in certain areas.
- Management tools to limit commercial fishing effort are being investigated and may include reductions in vessel and trap limits.
- A process to review the crab management framework is underway.

Sea Cucumber

General Description

<i>Licence Designation</i>	ZD
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	85
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	0
<i>Licensing/Management Framework</i>	Quota management – each licence receives 1/85 of the allowable catch – 14,615 pounds (split weight) per licence under the current fishing plan Area Licensing – 4 areas: North, Central, WCVI, St. of Georgia Stacking allowed – maximum 5 licences per vessel
<i>Additional Information</i>	Quotas not divisible. Allowed harvest is set on a fixed precautionary rate: 4.2% of the estimated biomass; this has allowed for steadily growing quotas. Currently 33 vessels operating the 85 licences.

Valuation Parameters

Valuations performed:	ZD licence Annual lease rate Vessels
Amount of trading activity underlying valuation:	None (transactions) Low (lease)
Confidence in valuation:	Low (transactions) Low (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
ZD Licences	85	275,000	23,375,000

Valuation Comments

- Valuation pegged at \$275,000 based on anecdotal information. Estimates of value range from \$275,000-\$300,000.
- Sea cucumber is a tightly knit, tightly held category.

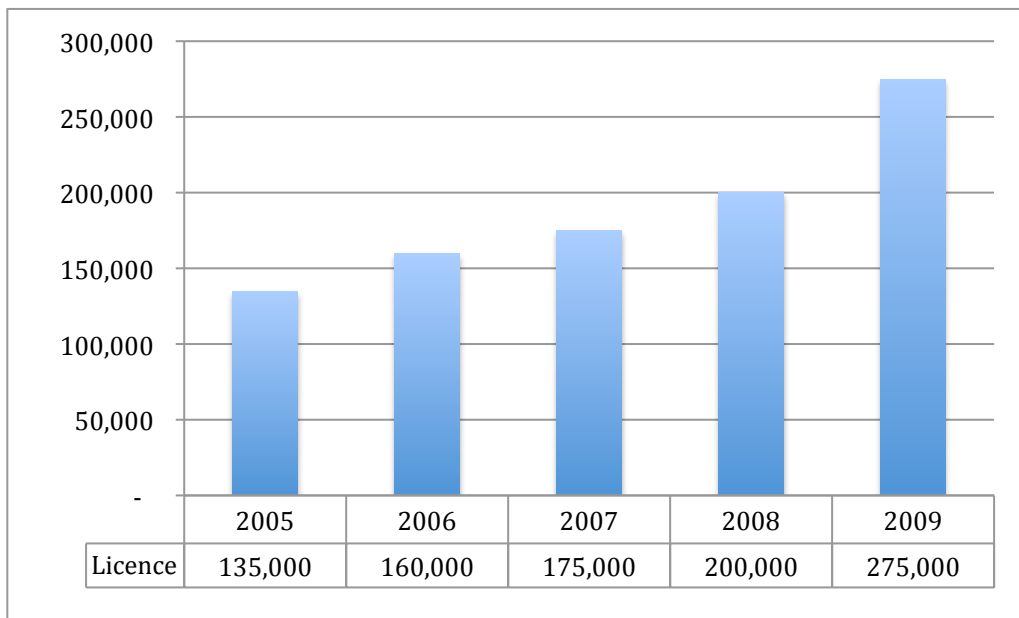
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

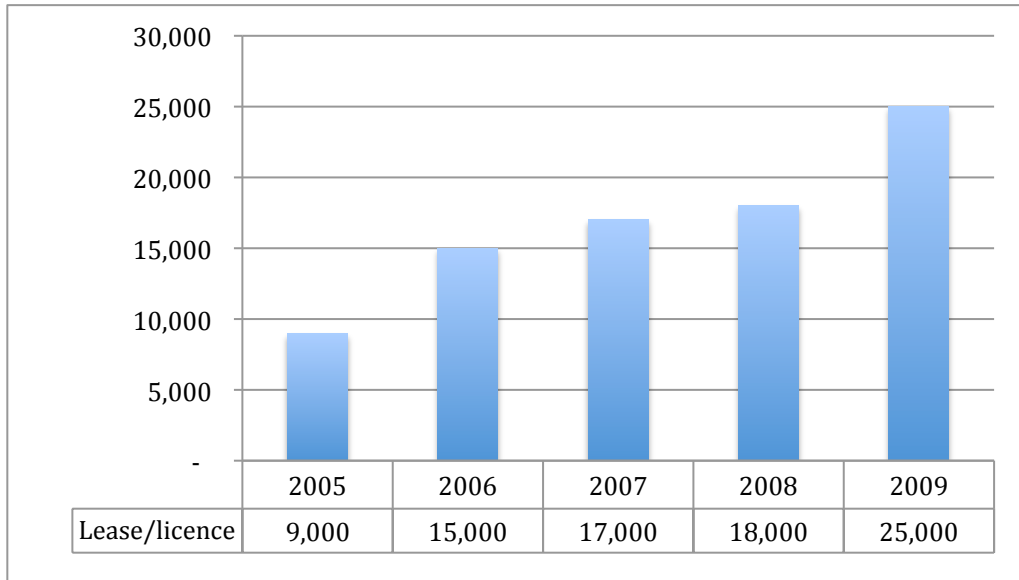
Sea Cucumber	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	13	65,625	866,250
Modern Style	20	187,500	3,712,500
<i>Total</i>	33	138,750	4,578,750

Licensing Trends

Recent ZD Licence Valuations (\$)

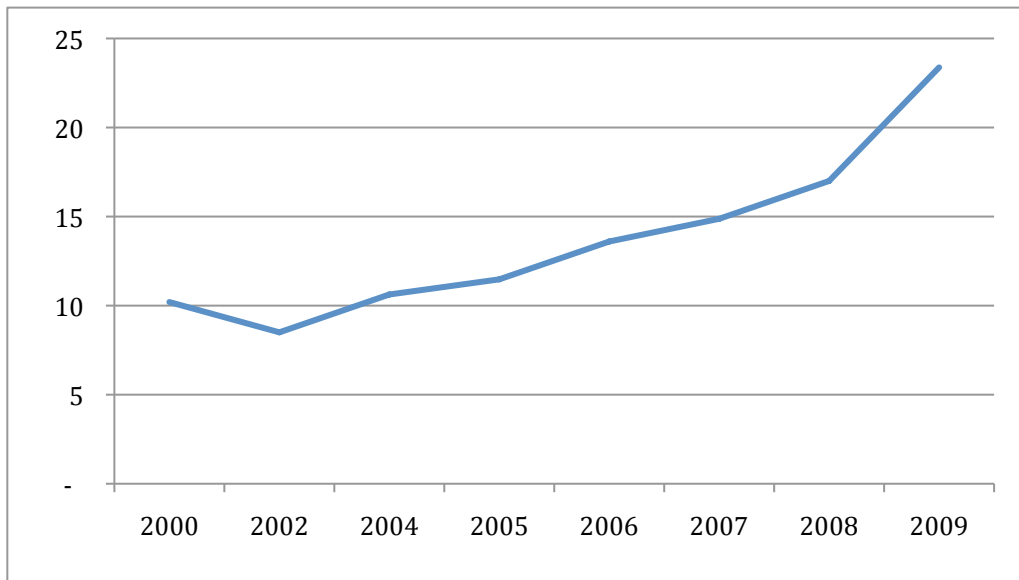


Recent ZD Licence Lease Rates (\$)



- Lease price for 2009 pegged at \$25,000. Some transactions may have been in the \$30,000 range. Some lease are profit sharing arrangements.

Aggregate Value of ZD Licences (\$ millions)

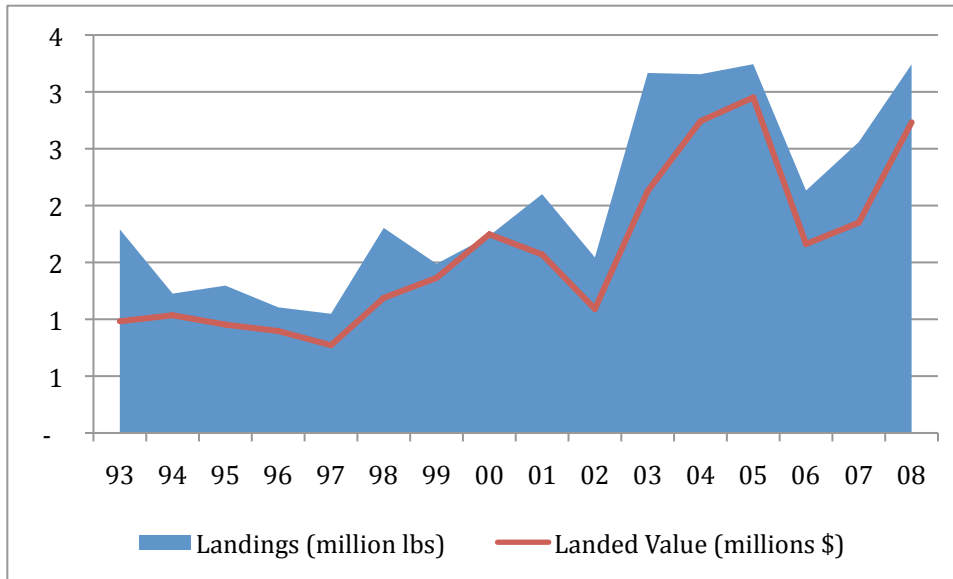


ZD Licence Counts by Category

No chart shown: all 85 licences are category ZD.

Sea Cucumber Landings & Landed Value Trends

Source: DFO Catch Stats



Some of the peaks and valleys in the trend chart may be related to incomplete data. A very gradually ascending trend line would better represent developments in the fishery.

Outlook

- Although a relatively small fishery in absolute terms, the sea cucumber industry has done an admirable job of improving both landings and values of the past several years.
- Quotas tend to be fully utilized, and no compliance issues have arisen in recent years.
- Continued conservative management combined with stock assessment work and improving product care are keys to future success.

Red Sea Urchin

General Description

<i>Licence Designation</i>	ZC
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	99
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	11 (FZC designation – Party-based)
<i>Licensing/Management Framework</i>	Quota management – average quota per licence for the 08/09 season 91,500 lbs; total quota 10,064,000 lbs. Area Licensing – north and south coast. Quota for each area divided by the number of licences in the area to determine per-licence quotas. Stacking allowed – maximum 5 licences per vessel.
<i>Additional Information</i>	Quotas not divisible. Currently 39 vessels fishing ZC licences. A lottery process is used for annual area selection.

Valuation Parameters

Valuations performed:	ZC licence Annual lease rate Vessels
Amount of trading activity underlying valuation:	Low (transactions) Low (lease)
Confidence in valuation:	Low (transactions) Low-Med (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
ZC Licences	90	50,000	4,500,000

Valuation Comments

- Licence value is pegged at \$50,000.
- Very few transactions this year in the open market. PICFI was an active participant in the market.
- This is a depressed fishery with little open market transaction activity.

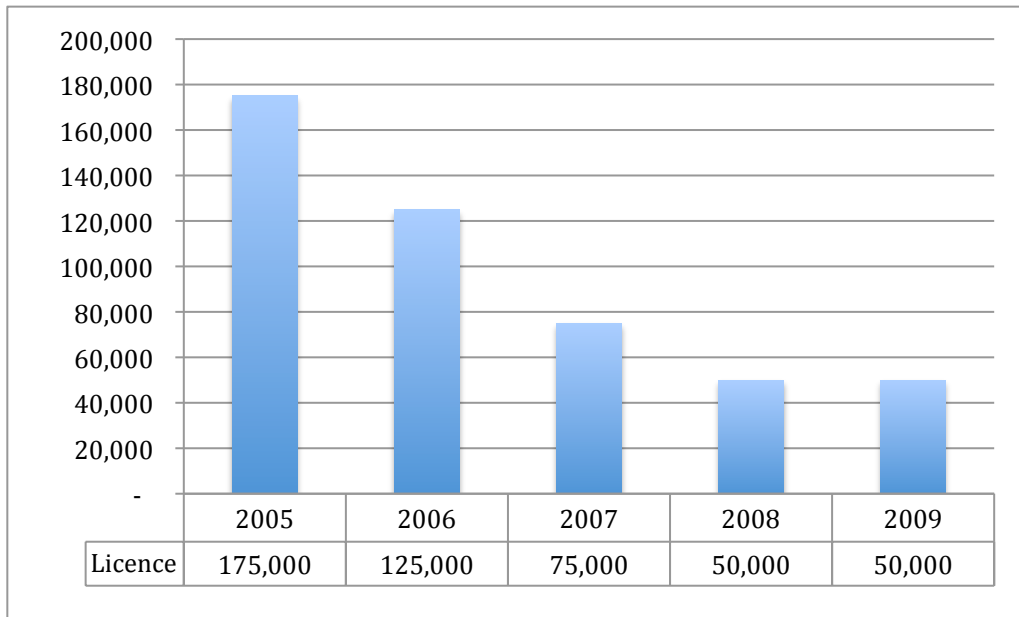
Vessel Value

Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

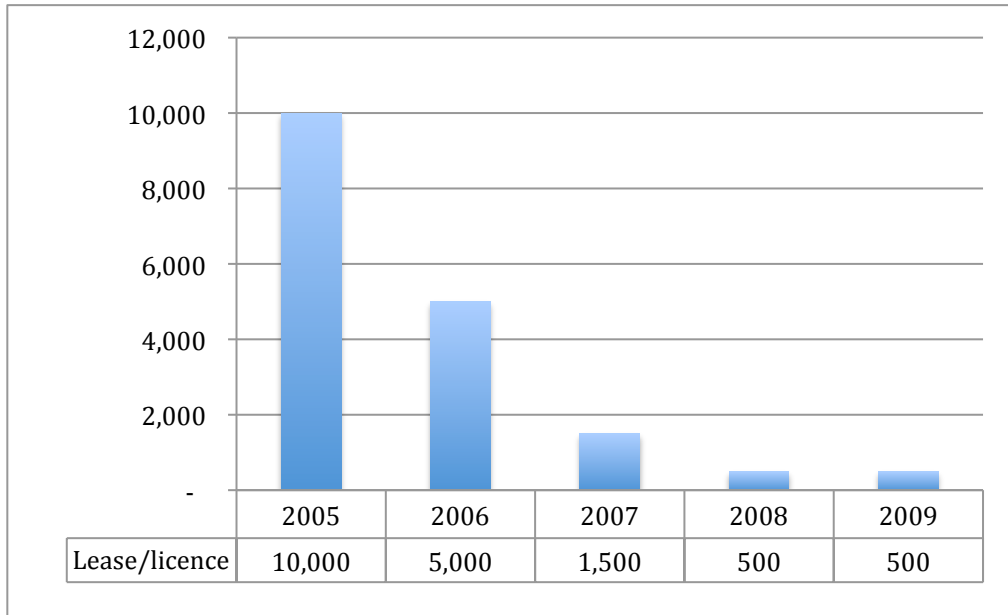
Red Sea Urchin	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	16	65,625	1,023,750
Modern Style	23	187,500	4,387,500
<i>Total</i>	39	138,750	5,411,250

Licensing Trends

Recent ZC Licence Valuations (\$)

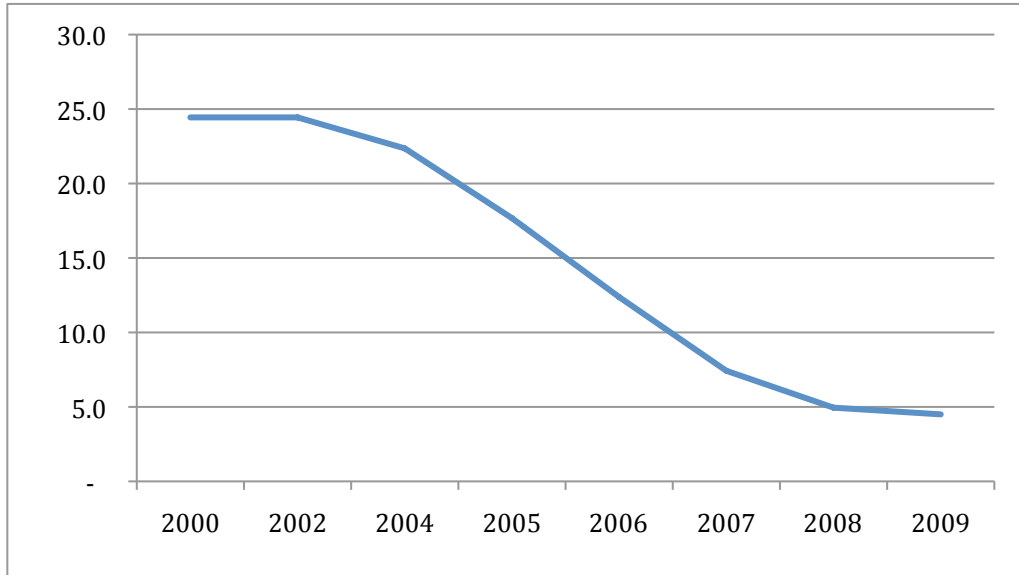


Recent ZC Licence Lease Rates (\$)



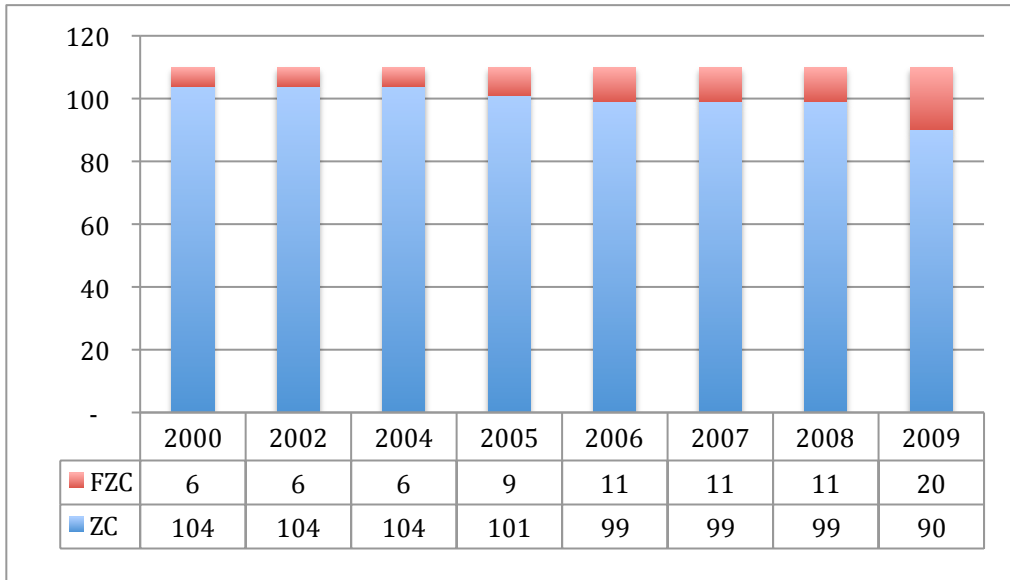
Lease rate is pegged at \$500 for 2009. Some licences are let at no cost (merely licence fees). Even at a negligible lease rate, many licences were unutilized (or partially utilized) in 2009.

Aggregate Value of ZC Licences (\$ millions)



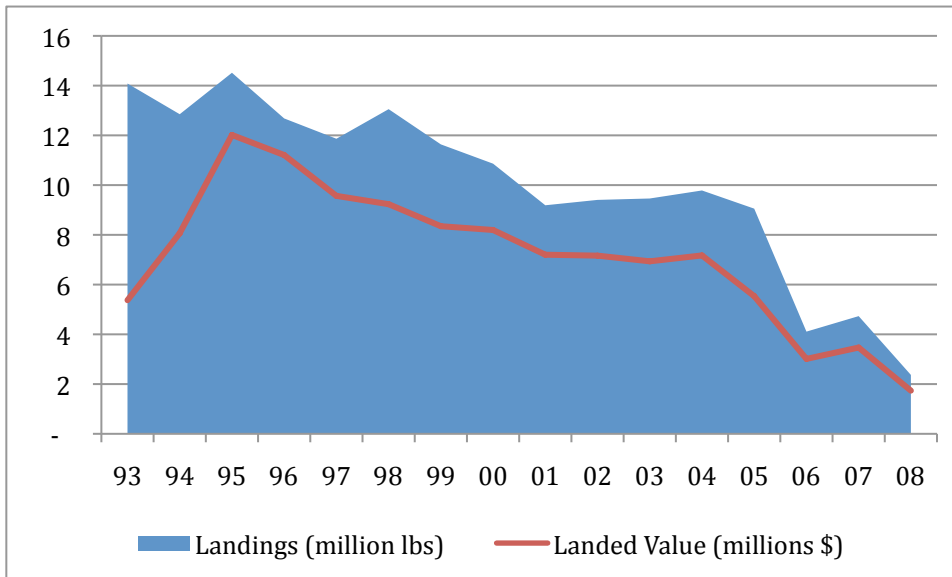
- The reduction in market value for ZC licences is mostly related to the reduction in licence value, but also to the declining number of licences (as the pool of F licences grows).

ZC Licence Counts by Category



Red Sea Urchin Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- It is expected that only about 50% of the red urchin will be caught in 2009. This was also the case in 2008.
- A glut of product imported by Japan from the Russian “IUU” fishery (illegal, un-regulated, un-reported) remains the largest challenge to the BC industry.
- It is uncertain how/when/if the current market flux will be resolved.
- Demand for BC urchin would rebound if the Russian fishery were to decline.
- Urchin stocks are currently healthy and the fishery is considered well-managed; stakeholders express frustration that, despite demonstrating a high level of resource stewardship, their industry is being undermined by external (illegal) forces.
- Industry remains concerned about the impact of sea otters on urchin stocks in areas where otter recovery has been successful.
- There are no overall concerns about red urchin stock levels.

Green Sea Urchin

General Description

<i>Licence Designation</i>	ZA
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	49
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	0
<i>Licensing/Management Framework</i>	Quota management – each licence receives an equal share of the TAC – 9,126 pounds per licence under current fishing plan (447,174 lbs coastwide). Area Licensing – the bulk of quota is allocated to five areas (in the Johnstone Strait and lower Strait of Georgia) Stacking allowed – maximum 5 licences per vessel.
<i>Additional Information</i>	The fishing season is Sept 1 to August 31. Quotas not divisible Currently 19 vessels (est.) fishing 49 licences.

Valuation Parameters

Valuations performed:	ZA licence Annual lease rate Vessels
Amount of trading activity underlying valuation:	Low (transactions) Low (lease)
Confidence in valuation:	Low (transactions) Low-Med (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
ZA Licences	49	20,000	980,000

Valuation Comments

- ZA licence value is pegged at \$20,000. Estimated value range: \$20,000-30,000.
- No known transactions during the valuation period.
- The green urchin market/fishery situation mirrors that for red sea urchins.

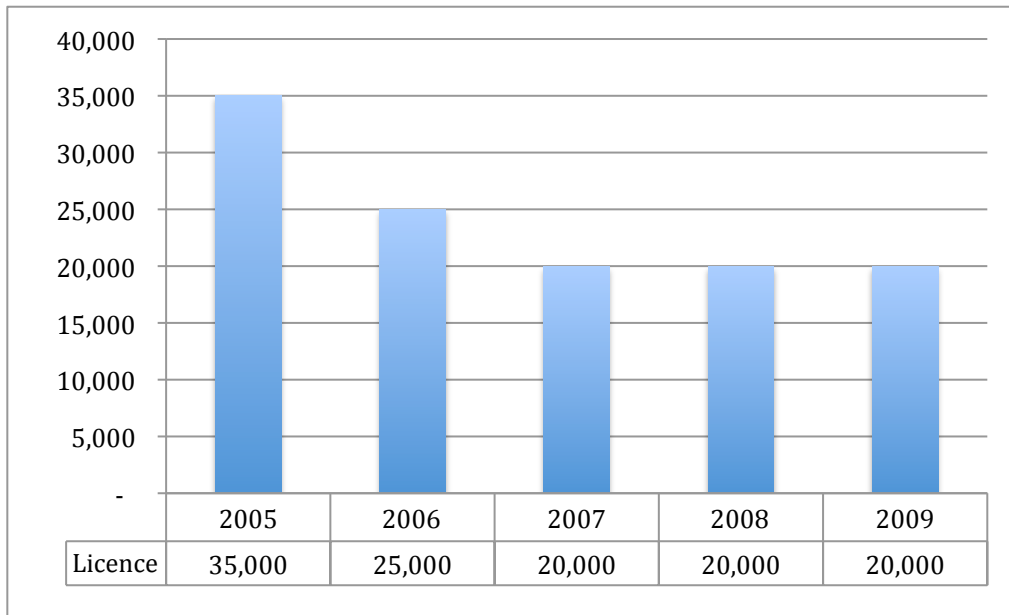
Vessel Value

Vessel counts exclude F licences. Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

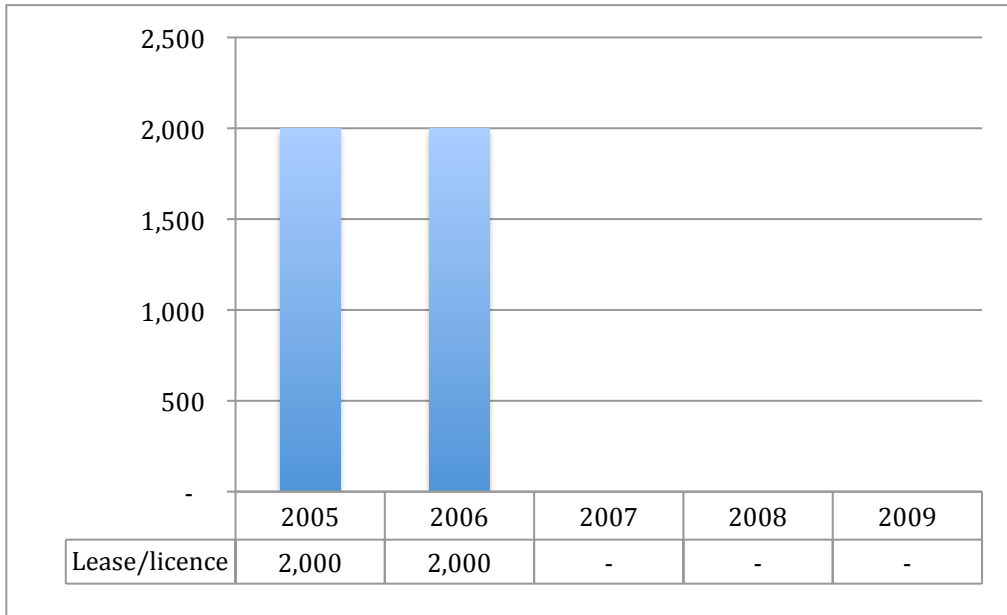
Green Sea Urchin	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	6	65,625	420,000
Modern Style	10	187,500	1,800,000
<i>Total</i>	16	138,750	2,220,000

Licensing Trends

Recent ZA Licence Valuations (\$)

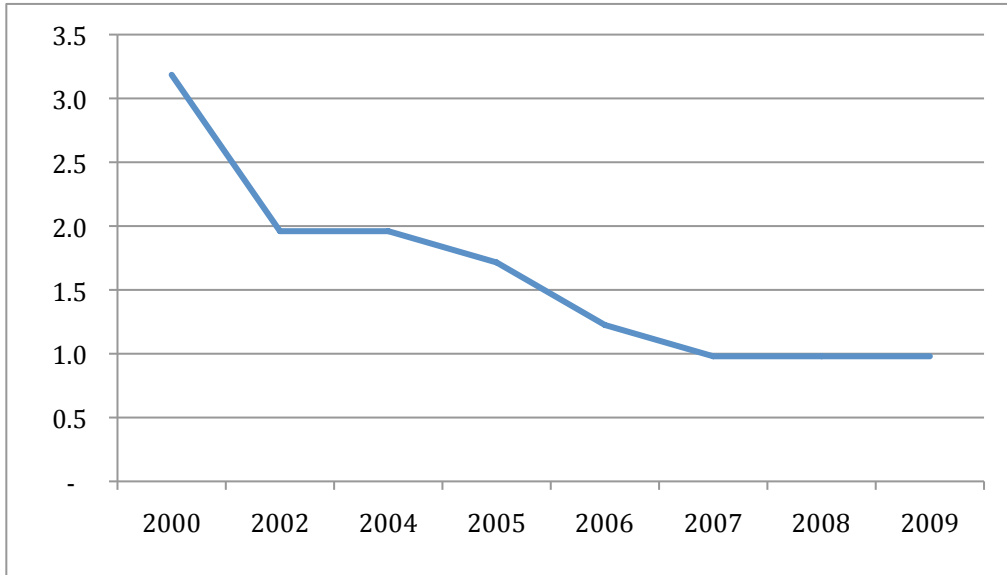


Recent ZA Licence Lease Rates (\$)



- A lease-rate of zero-value is pegged for 2009, although some transactions may have occurred for as much as \$1,500; others were for licence fees only.

Aggregate Value of ZA Licences (\$ millions)

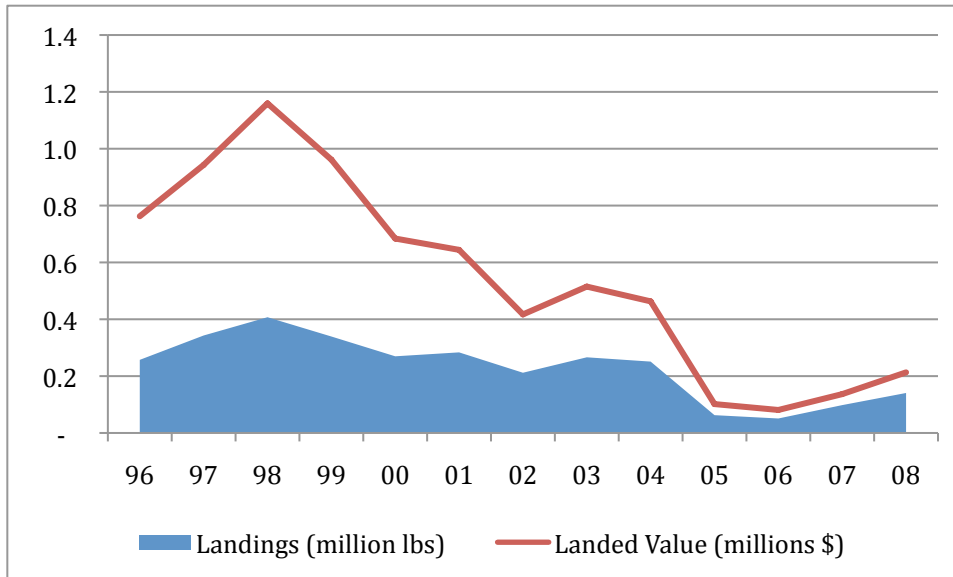


Licence Counts by Category

No chart shown: all 49 licences are category ZA.

Green Sea Urchin Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- Only a fraction of the TAC was harvested last season. The balance was left in the water because fishing/processing operations were un-economic.
- A glut of product imported by Japan from the Russian “IUU” fishery (illegal, un-regulated, un-reported) remains the largest challenge to the BC industry.
- It is uncertain how/when/if the current market flux will be resolved.
- Demand for BC urchin would rebound if the Russian fishery were to decline.
- Urchin stocks are currently healthy and the fishery is considered well-managed; stakeholders express frustration that, despite demonstrating a high level of resource stewardship, their industry is being undermined by external (illegal) forces.
- Industry remains concerned about the impact of sea otters on urchin stocks in areas where otter recovery has been successful.
- There are no overall concerns about green urchin stock levels.

Rockfish Hook & Line

General Description

<i>Licence Designation</i>	ZN
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	240 (174 Outside, 66 Inside)
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	22 (FZN designation – 17 Outside, 5 Inside)
<i>Licensing/Management Framework</i>	Final year of a four-year pilot IVQ program in ZN and other groundfish fisheries. Under the pilot, ZN fisheries are allocated Individual Vessel Quota (IVQ). IVQ can be temporarily transferred within the ZN fleet, and to other groundfish sectors. Each licence receives an equal share of ZN rockfish allocation.
<i>Additional Information</i>	The inside fishery is severely constrained due to inshore rockfish conservation measures. 100 % electronic monitoring.

Valuation Parameters

Valuations performed:	ZN Inside licence ZN Outside licence Annual lease rate for Inside and Outside Vessels
Amount of trading activity underlying valuation:	A few inside licence transactions A moderate number of outside licence transactions A significant number of leases for both categories
Confidence in valuation:	Moderate (transactions) Moderate (lease)

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
ZN Inside	66	1,300	3,003,000
ZN Outside	174	3,000	21,924,000
ZN Total	240	2,592	24,927,000

Valuation Comments

- ZN inside licence value pegged at \$1,300 per foot. Average licence value \$45,500 based on a 35' average vessel length. Values ranged from \$38,000-\$47,000.
- ZN outside licence value pegged at \$3,000 per foot. Average licence value \$126,000 based on a 42' average vessel length. Values range from \$120,000-140,000.
- There is a small premium for longer licences.
- Values may have softened slightly after the valuation date (outside licences).
- This is a reasonably active category.
- ZN outside licences are largely viewed as a source of rockfish non-directed catch in the integrated groundfish fishery.
- Separate from licence transactions, there are individual species leases within this category as the ZN fishery is managed on an Individual Vessel Quota system under the pilot integration program. There are no permanent transfers of quota under the pilot program.

Vessel Value

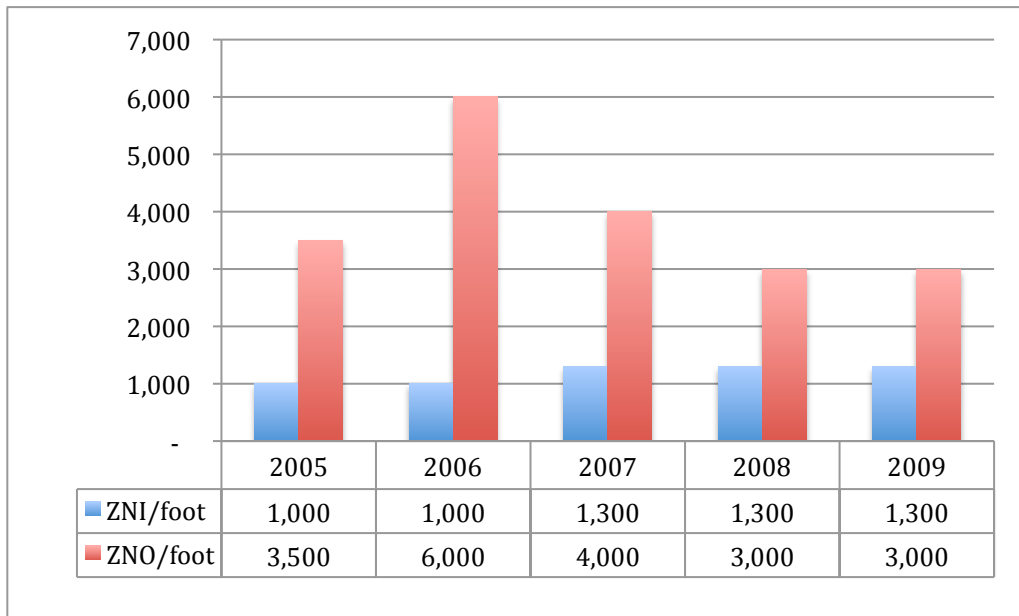
Vessel counts exclude F licences. Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

ZN Inside	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	16	40,769	636,000
Modern Style	8	117,857	990,000
<i>Total</i>	24	67,750	1,626,000

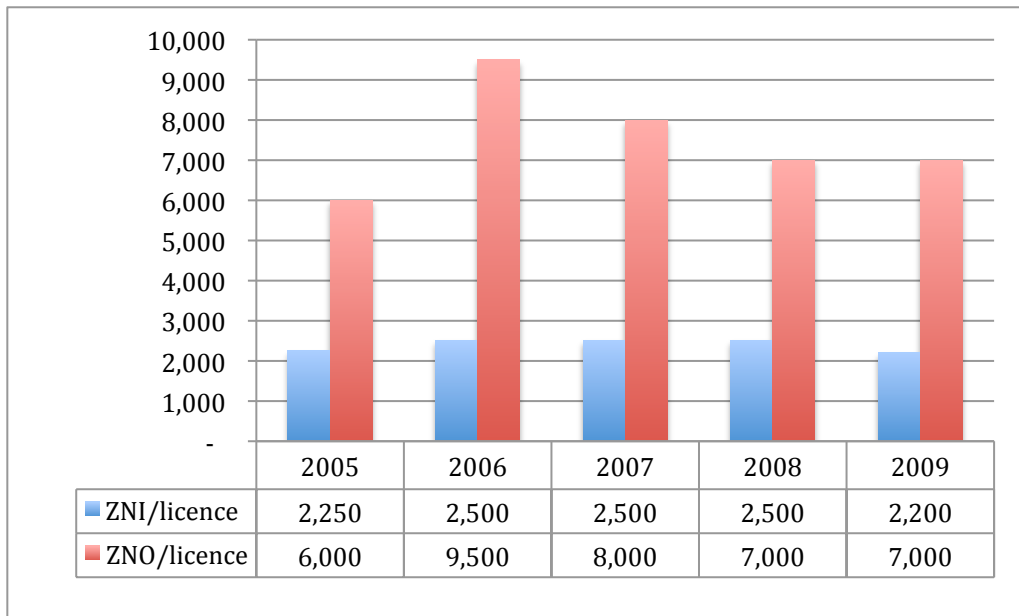
ZN Outside	# Vessels	Avg Vessel Value	Aggregate Value
Classic Style	113	67,308	7,612,500
Modern Style	61	196,429	11,962,500
<i>Total</i>	174	112,500	19,575,000

Licensing Trends

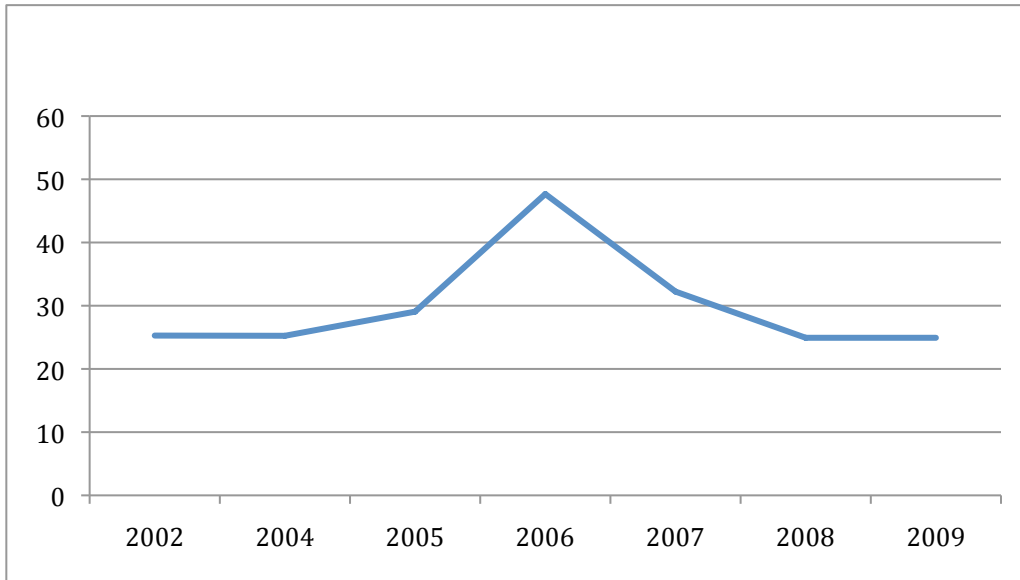
Recent ZN Licence Valuations (\$ per foot)



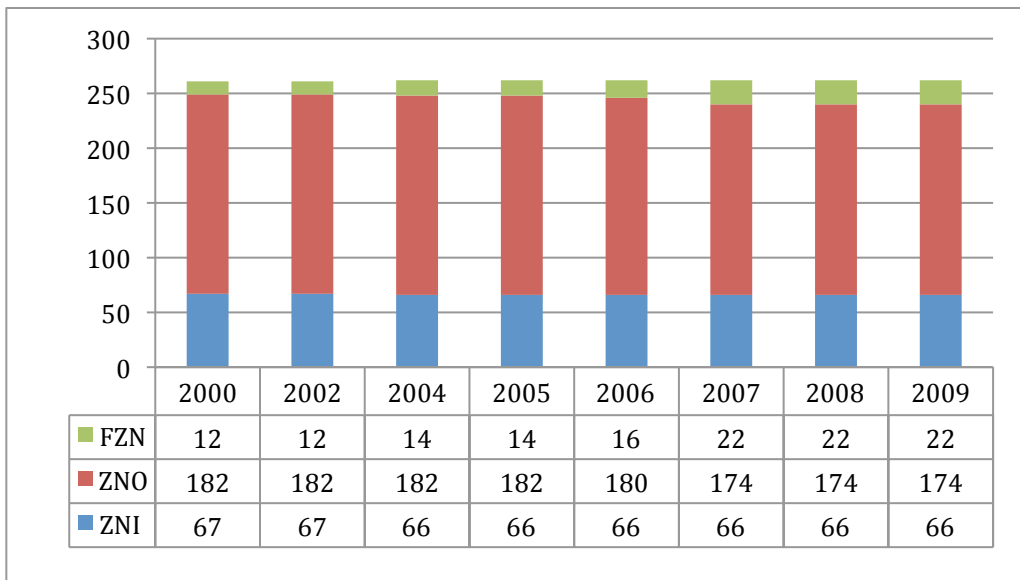
Recent ZN Licence Lease Rates (\$)



Aggregate Value of ZN Licences (\$ millions)

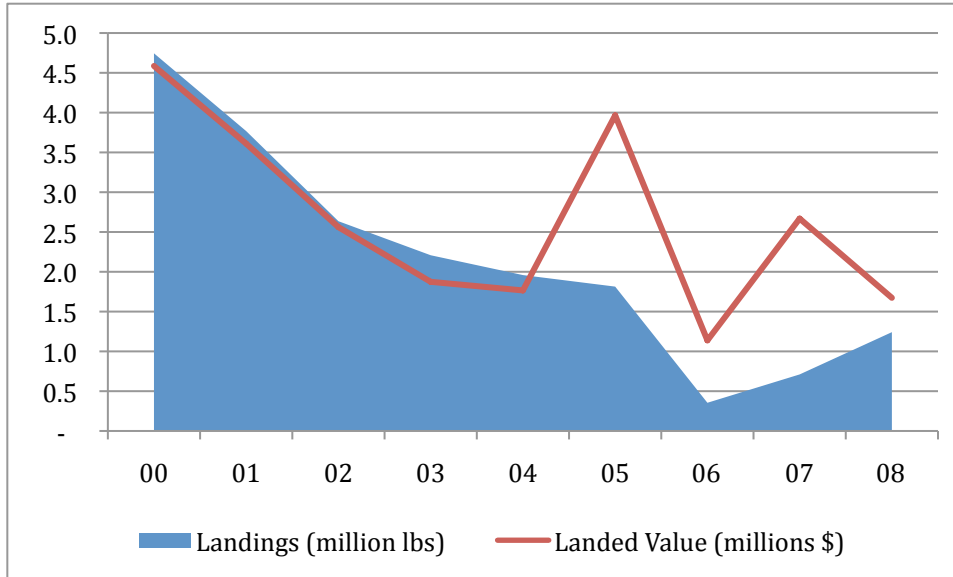


Licence Counts by Category



Rockfish Hook & Line Landings & Landed Value Trends

Source: DFO Catch Stats. Data includes rockfish-only, not other groundfish that may be landed during rockfish trips.



- Immediately after implementation of the integration pilot program ZN landings dipped sharply, as rockfish was “hoarded” by other sectors as bycatch. As concerns that rockfish would be in short supply have been allayed, landings have steadily grown.

Outlook

- the ZN fisheries are small-scale fisheries, sensitive to fish volumes and operating costs.
- Enhanced catch monitoring requirements, implemented along with the integration measures, have increased costs for the ZN fleet.
- ZN fishermen claim that continued financial support by DFO for the catch monitoring program is critical to continued viability.
- The pilot integration program period is over, and DFO is now deciding on what the ongoing management approach for groundfish will look like. If the pilot is made permanent, the ZN fisheries will be on an IVQ program, with much of asset value attributable to quota rather than licence.

Schedule II Species

General Description

<i>Licence Designation</i>	C
<i>Nature of Licence</i>	Vessel based – vessel owner may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	511
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	8 (FC designation – Party-based)
<i>Licensing/Management Framework</i>	Allows participation in Schedule II fisheries and transporting. Various time, area, gear, TAC, trip limit, and IVQ measures in place.
<i>Additional Information</i>	One C licence (or FC) per vessel. C licence cannot be held on a vessel with any other vessel based licence in most circumstances. List of Schedule II species: Smelt, Spiny Dogfish, Skate, Sole & Flounder, Pacific Cod, Lingcod & Tuna (Canadian & International Waters only). Dogfish and lingcod operating under pilot groundfish integration program.

Valuation Parameters

Valuations performed:	C licence Vessels
Amount of trading activity underlying valuation:	Moderate
Confidence in valuation:	Moderate

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
C Licences	490	250	4,165,000

Valuation Comments

- C licence value pegged at \$250 per foot. Average licence value \$8,500, given an average vessel length of 34'.
- There is a premium for longer licences.
- Because there is an ample supply of vessel based licences under which to conduct Schedule II fisheries, C licences have limited value. Also contributing to slight value is the fact that if another category of commercial licences is placed on a C-licensed vessel, the C licence is extinguished.

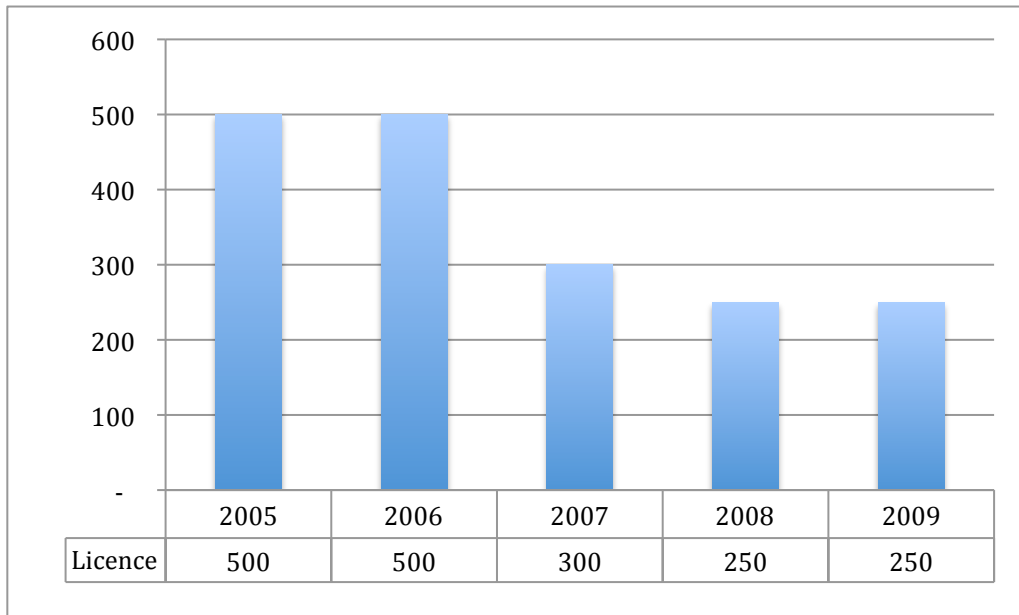
Vessel Value

Vessel counts exclude F licences. Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

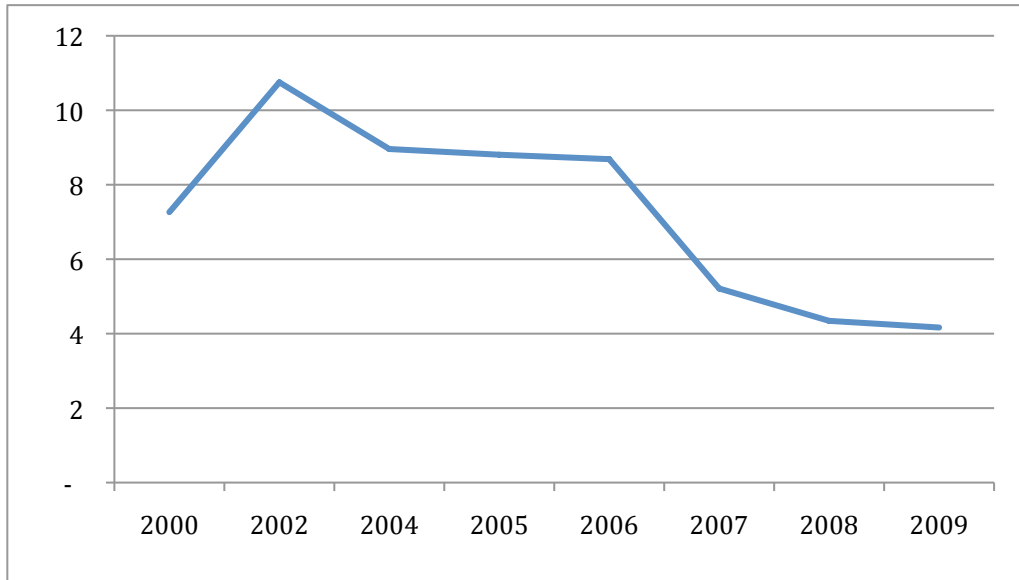
Schedule II	# Vessels	Avg Vessel Value (\$)	Aggregate Value (\$)
Classic Style	324	40,385	13,072,500
Modern Style	174	142,857	24,900,000
<i>Total</i>	498	76,250	37,972,500

Licensing Trends

Recent C Licence Valuations (\$ per foot)

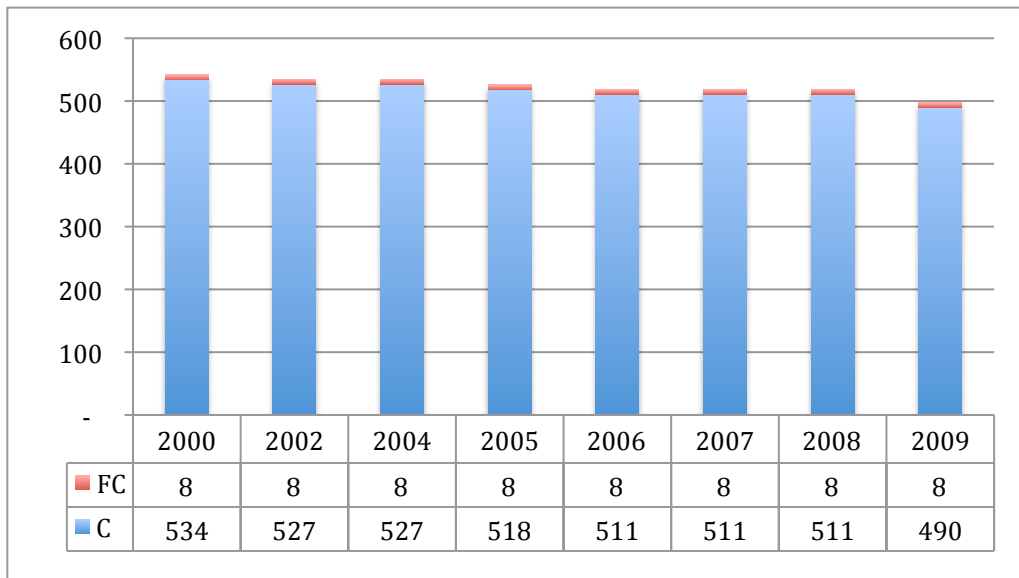


Aggregate Value of C Licences (\$ millions)



The value of licences in this category has declined appreciably, driven by both falling licence prices, and a diminishing pool of C licences (caused by licences being extinguished).

Licence Counts by Category



Landings & Landed Value Trends

No information is provided, since a wide range of species may be landed under Schedule II licences.

Outlook

- C licences remain a low-value category. There is little reason to expect significant change in the foreseeable future.

Euphausiid

General Description

<i>Licence Designation</i>	ZF
<i>Nature of Licence</i>	Party based – individual, corporation, or band may make annual application for issuance of licence
<i>Number of Commercial Licences (valued in this study)</i>	18
<i>No. of Commercial Communal Lic's (not valued in this study)</i>	1 (FZF designation)
<i>Licensing/Management Framework</i>	Competitive plankton (krill) fishery using trawl gear. Vessels vie for share of the annual 500 ton TAC.
<i>Additional Information</i>	Fishery primarily in mainland inlets of Georgia Strait

Valuation Parameters

Valuations performed:	ZF licence Vessels
Amount of trading activity underlying valuation:	None
Confidence in valuation:	Low

Current Valuation

Licence Value at March 31, 2009

Category	# Licences	Value/ Licence (\$)	Total Value (\$)
ZF Licences	18	50,000	900,000

Valuation Comments

- Average licence value pegged at \$50,000, based on expert estimations.
- There is presently no transaction activity in this category.

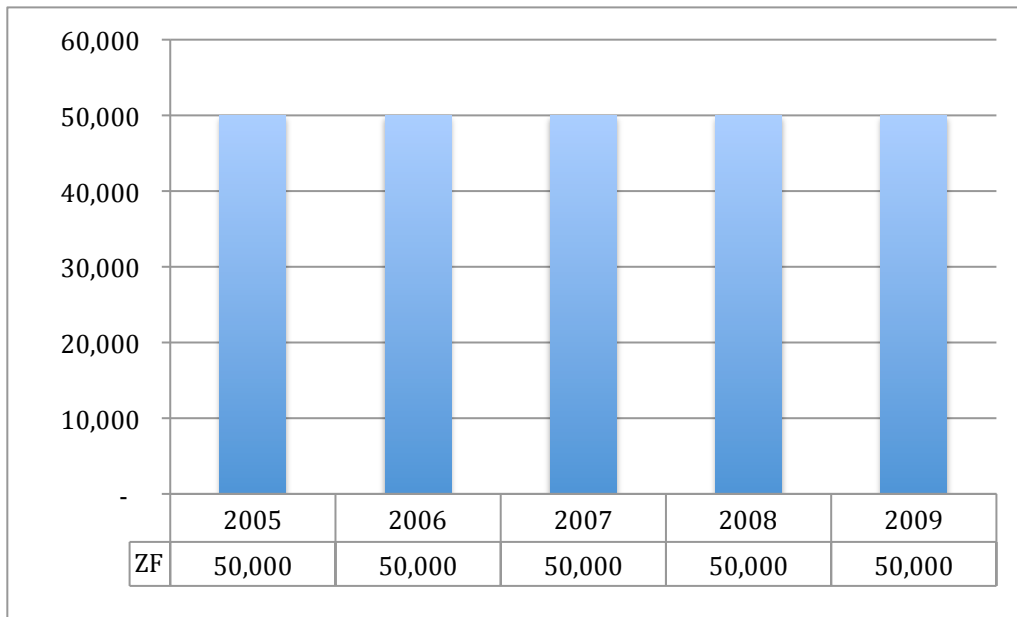
Vessel Value

Vessel counts exclude F licences. Fleet composition is arrived at by using past data as a baseline. By nature, fleet vessel valuation is very imprecise and results should be used for general purposes only.

Euphausiid	# Vessels	Avg Vessel Value	Aggregate Value
Classic Style	8	143,750	1,092,500
Modern Style	11	566,667	6,460,000
<i>Total</i>	19	397,500	7,552,500

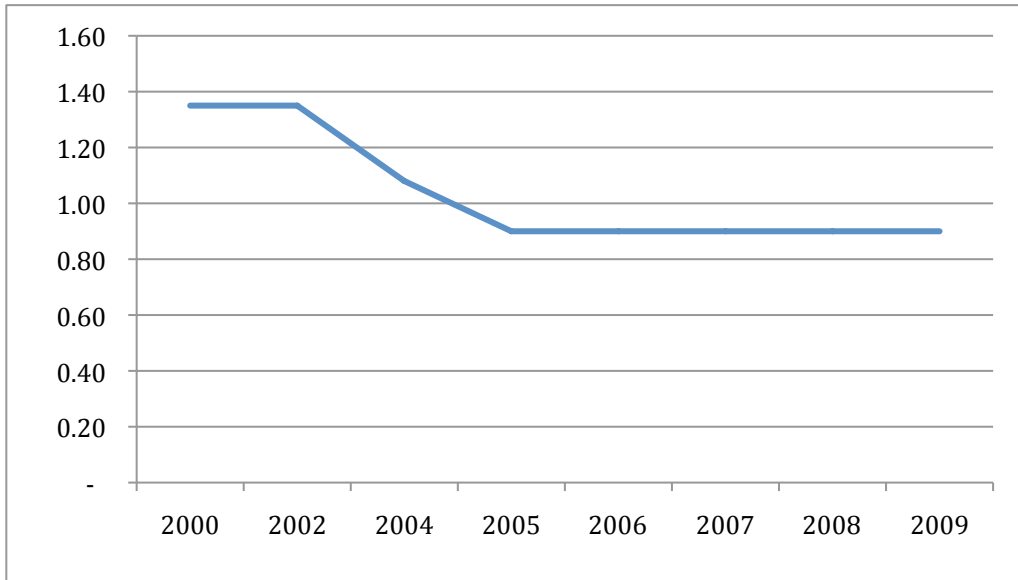
Licensing Trends

Recent ZF Licence Valuations (\$)

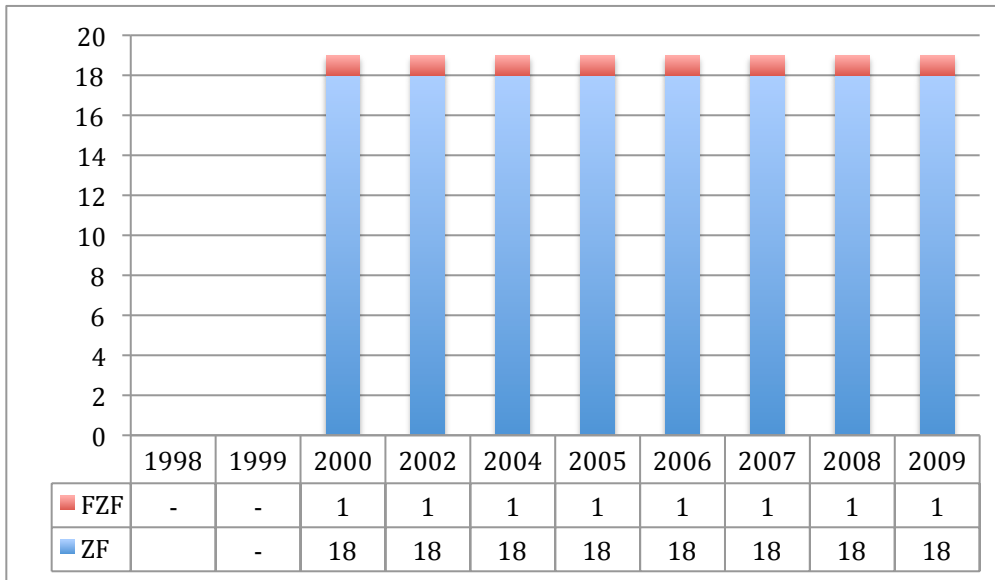


PACIFIC FLEET LICENCE, QUOTA, AND VESSEL VALUATION: AT MARCH 31, 2009

Aggregate Value of ZF Licences (\$)

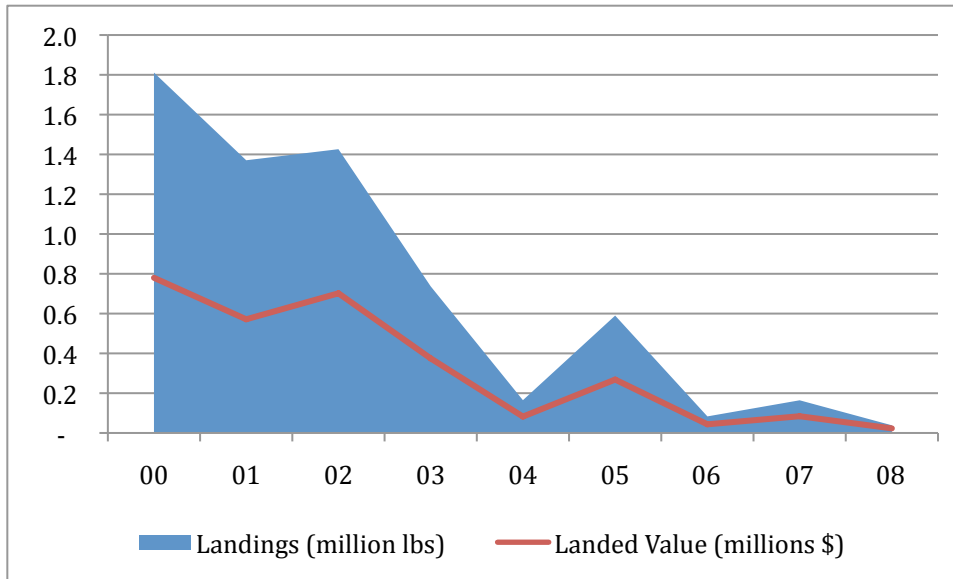


Licence Counts by Category



Euphausiid Landings & Landed Value Trends

Source: DFO Catch Stats



Outlook

- The market situation is currently challenging in this fishery.
- Economic operations are difficult to mount, so TACs are not fully utilized.
- A larger scale fishery could allow for economies of scale, but the optics of ramping-up catches in this plankton fishery are problematic.

Summary

Aggregate Value of Licences and Quota at March 31, 2009

Fishery	Licence Designation	# Licences	Aggregate Licence Value (\$ millions)	Average Licence Value (\$)	Aggregate Quota Value (\$millions)	Total Licence & Quota Value
Salmon Seine	AS	239	64.8	271,234		64.8
Salmon Gillnet	AG	993	57.2	57,568		57.2
Salmon Troll	AT	506	37.6	74,318		37.6
Roe Herring Seine	HS	248	38.1	153,710		38.1
Roe Herring Gillnet	HG	1239	57.1	46,090		57.1
Herring Spawn on Kelp	J	36	11.7	325,000		11.7
Halibut	L	393	20.9	53,250	234.9	255.8
Sablefish	K	46	11.5	250,000	113.3	124.8
Geoduck/Horseclam	G	55	151.3	2,750,000		151.3
Shrimp	S	234	5.8	24,600		5.8
Prawn	W	223	114.0	511,000		114.0
Groundfish Trawl	T	141	8.9	63,000	180.0	188.9
Crab	R	203	97.4	480,000		97.4
Sea Cucumber	ZD	85	23.4	275,000		23.4
Red Sea Urchin	ZC	90	4.5	50,000		4.5
Green Sea Urchin	ZA	49	1.0	20,000		1.0
Rockfish - Inside	ZNI	66	3.0	45,500		3.0
Rockfish - Outside	ZNO	174	21.9	126,000		21.9
Schedule II	C	490	4.2	8,500		4.2
Euphausiid	ZF	18	0.9	50,000		0.9
Totals			735.1		528.2	1,263.28