

7.0 TRACEABILITY READINESS REPORT CARDS

“Traceability Readiness” report cards have been prepared for each of the major British Columbia wild fisheries as well as the Canadian finfish and shellfish aquaculture sectors (see Section 7.1 and 7.2 for individual reports). The purpose of these report cards is to:

1. Summarize the fishery or aquaculture sector from a water to buyer traceability perspective (management regime, examples of supply chain pathways, product form and markets);
2. Assess traceability data issues (data gaps, accessibility, data transfer and mapping);
3. Identify factors impeding and aiding the ability of the sector to meet traceability requirements, and;
4. Identify traceability goals and opportunities for each fishery or aquaculture sector.

The report cards provide an overall State of Readiness Rating (A (5 to 7 points), B (8 to 10 points), C (11 to 13 points) and D (>13 points)) based on five rating categories:

1. Data Availability (taken primarily from Appendix Tables A to E)
2. Use of Product Identifiers
3. Effective Data Transfer and Information Mapping
4. Industry Leadership
5. Processor Level Constraints

The first three categories reflect the basic elements of traceability as summarized in Figure 2.2 of the 2005 report:

1. Is the data being collected and is it accessible?
2. Can product units be identified?
3. Is the data effectively transferred along the water to buyer supply chain and is data mapping effective?

The last two categories identify important opportunities or constraints to achieving traceability.

1. The ability of industry to provide coordinated leadership to address this issue; and,
2. Outstanding issues at the processor level which might constrain traceability upstream of the water to buyer component.

Scoring criteria for each rating category are provided in Tables 7.1. Ratings were done independently by the project team members who subsequently reviewed the ratings jointly, reaching consensus on an overall rating for each sector. Ratings for each sector are summarized in Tables 7.2 and 7.3, with a lower overall numeric rating indicating a higher state of readiness.

Table 7.1 Scoring criteria for rating traceability readiness.

Rating Category	Score	Criteria
Data Availability	1	All required product and business data is collected and can be accessed by industry
	2	Essentially all required product and business data is collected but data is not fully accessible to industry
	3	Significant data gaps and accessibility constraints
Product Identifiers	1	Product identifiers are used for all product units
	2	Product identifiers are used for some product units and could be developed for others
	3	Product identifiers are not used and/or significant barriers exist to implementing product identities
Effective Data Transfer and Information Mapping	1	Integrated electronic data system which permits rapid and effective product tracking
	2	Paper based systems and/or databases which permit relatively effective information tracking
	3	Poor or no linking of data records (paper or electronic) through the water to buyer supply chain
Industry Leadership	1	Coordinated industry association which does or can take responsibility for traceability data
	2	Moderate level of coordinated industry representation, may not be responsible for data programs
	3	Little or no coordinated industry association. Existing associations are not responsible for data programs
Processor Level Constraints	1	No impediments at the processor level to addressing harvest/producer level traceability
	2	Moderate impediments at the processor level to addressing harvest/producer level traceability
	3	Significant impediments at the processor level to addressing harvest/producer level traceability

While it is acknowledged that this assessment is “opinion based”, a number of important observations can be made:

1. Salmon aquaculture sets the standard for traceability readiness.

The Canadian salmon aquaculture industry in both the Atlantic and Pacific regions is currently meeting all required traceability standards and can serve as a model to other sectors with respect to developing appropriate traceability data systems (See Table 7.3). In particular the Canadian salmon aquaculture industry can provide leadership on use of product identifiers and information technology systems.

2. Bivalve fisheries and shellfish aquaculture are well positioned due to Canadian Sanitary Shellfish Program (CSSP).

Due to public health and safety concerns about consumption of raw or cooked product, bivalve fisheries as well as oyster, clam and mussel aquaculture have the basic elements of upstream traceability to the harvest or grow-out site in both Atlantic and Pacific regions. Shellfish aquaculture businesses still have problems tracing product to the hatchery and nursery level due

to product pooling (Section 5) and both the wild and aquaculture sectors would benefit by improved information technology for data mapping.

3. Traceability practices in the aquaculture sector are similar between the Atlantic and Pacific regions of Canada.

A comparison of the readiness for traceability for salmon and shellfish aquaculture sectors between the Atlantic and Pacific regions of Canada concludes that there is equity between the two regions for both sectors (Table 7.3). Both the Atlantic and Pacific region salmon aquaculture sectors lead the way with a progressive approach to traceability data collection and practices which are verified through third party certification programs. The salmon aquaculture sector in both regions received readiness ratings of 5. The Atlantic and Pacific shellfish aquaculture sectors both received ratings of 6.5 with traceability practices driven by health and safety concerns in both regions.

4. Freshwater finfish and developmental species aquaculture sectors in Canada are well positioned for traceability.

The freshwater finfish and developmental species aquaculture businesses contacted have implemented traceability systems in order to meet third party certification programs, comply with regulatory requirements and meet product quality and safety requirements. In addition, businesses culturing developmental species require a mechanism for differentiating their product from wild. These drivers have contributed to Traceability Readiness ratings were 6 for each of the freshwater finfish and developmental species aquaculture sectors.

5. Individual quota (IQ) fisheries are better positioned than non-IQ fisheries.

The overall Traceability Readiness ratings for the nine IQ fisheries range from 6.5 to 10.0 (mean of 8.3). Overall ratings for the six non-IQ fisheries range from 8.5 to 14.0 (mean of 11.2). IQ fisheries rank higher primarily due to the presence of a verifiable landings data (dockside monitoring programs), better data accessibility (industry is an acknowledged partner in data collection and management in many, but not all, IQ fisheries), and the degree of industry leadership (all IQ fisheries are represented by a cohesive industry association). Non-IQ fisheries with relatively high ratings (herring roe and prawn) each have some management practices similar to IQ fisheries. Roe herring is managed by pooling fishing effort and vessel landings are tracked using independent dockside monitors. Most of the prawn catch is frozen at sea and packaging is labelled with a vessel identification code, facilitating traceability to the harvest level.

6. Almost all wild harvest fisheries need to develop or improve product identification, effective data transfer and information mapping.

Ratings for use of product identifiers as well as effective data transfer and information mapping were consistently poorer across all fisheries than other rating categories (see totals at the bottom of Table 5.2). Herring spawn-on-kelp was the only fishery with high ratings in each of these two categories, as it is the only wild fishery to use unique product identifiers on individual totes of spawn-on-kelp product.

7. Quality driven fisheries have fewer processor level constraints.

Fisheries where payment to the harvester is based on the quality of product leaving the processing plant face fewer constraints to traceability at the processing level (Section 6). Examples include sablefish, herring roe, herring spawn-on-kelp and groundfish trawl.

8. Wild salmon fisheries have significant traceability issues

From a “Water to Buyer” perspective the wild salmon fishery in British Columbia, as currently practiced, faces significant traceability issues, including lack of verifiable landings data, poor documentation of product pooling at the packer level and the absence of a coordinated harvester association to address traceability issues. At the processor level excellent systems exist to trace canned product upstream from retailer to the processor and processing batch lot. In contrast, product grading and cold storage practices make it practically impossible to trace product upstream from the processor shipping gate to individual harvesters (or pools of harvesters) for fresh, frozen and canned product. It is clear that changes to product handling and management from packer to cold storage need to occur in the wild salmon sector in order to meet the basic elements of traceability.

Table 7.2. State of readiness ratings for wild harvest fisheries in British Columbia. See individual report cards for detail.

Seafood Sector	Management Regime	Readiness Criteria					Overall Rating	
		Data Availability	Use of Product Identifiers	Information Mapping	State of Sector Leadership	Processor Constraints		
Sablefish	IQ	1.5	3	2	1	1	8.5	B+
Halibut	IQ	1.5	1.5	2	1	2	8	B+
Rockfish Hook and Line	IQ	1.5	3	2	1.5	2	10	B-
Schedule II Fisheries	IQ	1.5	3	2	1.5	2	10	B-
Groundfish Trawl	IQ	1.5	3	2	1	2	9.5	B
Roe Herring	Pooled Quota	1.5	3	2	1.5	1.5	9.5	B
Herring Spawn on Kelp	IQ	1.5	1	1.5	1	1.5	6.5	A-
Tuna		2	3	3	1.5	2	11.5	C+
Salmon all gear types	Time and Area	2.5	3	3	2.5	3	14	D
Geoduck	IQ	1.5	2	2	1	1	7.5	A-
Prawn	Time and Area	2	2	2	1	1.5	8.5	B+
Red and Green Urchins	IQ	1.5	2	2	1	1	7.5	A-
Sea Cucumber	IQ	1.5	2	2	1	1	7.5	A-
Crab (trap)	Area, Time, size	2	3	3	2.5	2	12.5	C
Shrimp Trawl	Time and Area quotas	2	3	2	2	2	11	C+
<i>Wild Fishery Average Score</i>		<i>1.7</i>	<i>2.5</i>	<i>2.2</i>	<i>1.4</i>	<i>1.7</i>	<i>9.5</i>	<i>B+</i>

Table 7.3. State of readiness ratings for Canadian aquaculture sectors. See individual report cards for detail.

Seafood Sector	Readiness Criteria					Overall Rating	
	Data Availability	Use of Product Identifiers	Information Mapping	State of Sector Leadership	Processor Constraints		
Pacific Region Salmon Aquaculture	1	1	1	1	1	5	A+
Atlantic Region Salmon Aquaculture	1	1	1	1	1	5	A+
Pacific Region Shellfish Aquaculture	1	1.5	1.5	1.5	1	6.5	A-
Atlantic Region Shellfish Aquaculture	1	1.5	1.5	1.5	1	6.5	A-
Freshwater Finfish Aquaculture	1	1	1	2	1	6	A
Developing Species Aquaculture	1.5	1	1	1.5	1	6	A
<i>Aquaculture Average Score</i>	<i>1.1</i>	<i>1.2</i>	<i>1.2</i>	<i>1.4</i>	<i>1.0</i>	<i>5.8</i>	<i>A</i>