

RMIS Overview & Infomap Service

PSMFC Regional Mark Processing Center (RMPC)



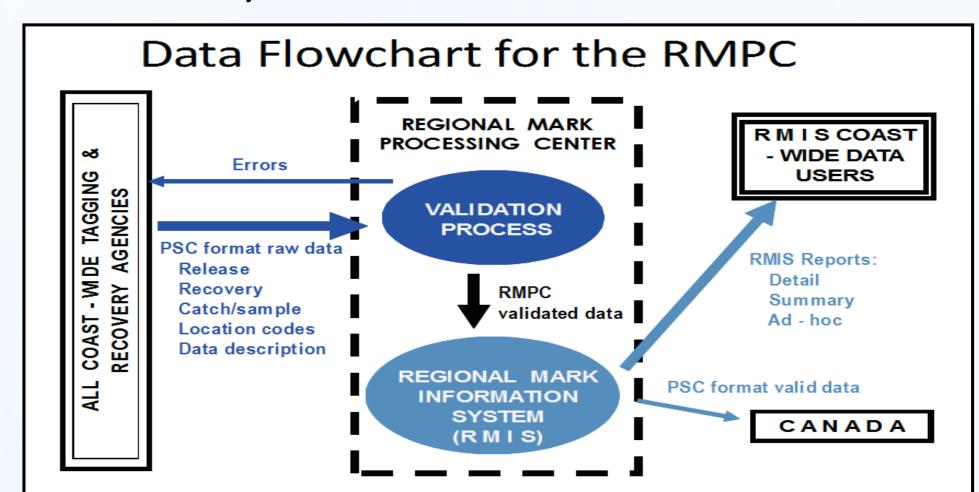
Overview of RMPC & CWT Database

Since 1977 the RMPC has provided essential services to international, state, federal, tribal and other fisheries organizations. One principal service involves the development and maintenance of the Regional Mark Information System (RMIS) – online & available for querying and reporting from the Coded-wire Tag (CWT) database. In addition to serving a diverse set of fisheries researchers & managers through RMIS, the RMPC serves two principal bi-lateral (U.S. & Canada) committees coast-wide: 1) Regional Committee on Marking & Tagging (RCMT); 2) Pacific Salmon Commission (PSC).

Many State, Federal, Tribal and private reporting agencies in the United States and Canada participate in a massive coastwide coded-wire tagging effort to provide essential data for effective conservation and management of Pacific salmonid stocks.

Agency CWT datasets are forwarded to the RMPC where they are loaded and validated against an extensive set of checks. Once validated, the data are moved into the CWT database accessible via RMIS. Some Reporting Agencies which send CWT Release & Recovery datasets to the RMPC include:

- National Marine Fisheries Service
- Northwest Indian Fisheries Commission
- U.S. Fish and Wildlife Service
- Idaho Department of Fish and Game - Oregon Department of Fish and Wildlife
- Washington Department of Fish and Wildlife
- Canada Department of Fisheries and Oceans
- California Department of Fish and Wildlife
- Columbia River Inter-Tribal Fish Commission
- Alaska Department of Fish and Game



RMIS – Decision Support for Management & Research

Salmon and steelhead feed in the ocean from one to five years, depending on the species, before returning to spawn in their natural streams. Consequently, many millions of tagged fish from a number of brood years are present in the Pacific Ocean at any given time. As such, the multiplicity of tagging studies today represent a long term, multi-million dollar investment by State, Federal, Tribal, and private sector entities.

Some benefits of the CWT program:

- One of the best ways to evaluate wild/natural stocks and their interactions;
- Reliable method to evaluate harvest contribution rates, distribution, survival trends;
- Management decisions based on CWT data are acquired in real time activities can be evaluated with immediate results;
- Changes in environment, hatchery practices, and harvest practices can be effectively tracked and factored into management decisions;
- Contributes to resolution of tribal and international harvest allocation issues;
- ESA concerns can be more effectively addressed;
- CWT is currently the only stock identification tool which is Pacific coast-wide in scope and provides information for the entire life cycle of fish.

RMIS – Key Data Elements

Release Data

When a group of fish is released from a hatchery or other release site containing any number of coded wire tagged fish, the group is associated with a unique tag code. Any pertinent information from releasing agencies regarding the release group is submitted to the RMPC by the responsible state, provincial, or federal agencies. There are approximately 50,000 tagged release groups in the database dating back to 1968.

When a group of fish is released without coded wire tagged fish present, the release group is called an untagged/unassociated group. The release group is assigned a 12 character alpha-numeric identifier. This information is likewise housed at the RMPC. There are approximately 100,000 untagged release groups in the database dating back to 1952.

Recovery Data

When tags are removed from fish and decoded, the tag is linked to the specific location of catch, date of catch, fishery, and other related biological data. Where possible, the ratio of the number of fish sampled to the total catch is multiplied by the total number of tags extracted to form the Estimated Number of fish.

In addition to passing rigorous validation tests, the recovery data records must match by tag code with a tagged release record. There are currently about 7 million reportable recovery records in the database.

RMIS - Example Tabular Reports

Release Listing Report:

This report lists some commonly used columns from the Releases data file (including numbers of fish released). It is sorted by Tag Code.

PAGE 1A										14:	52:15	11/08/2011
Tag Code o	r. Tag	g Run,	Spec	BdYr Rel .	Hatchery Location	Re lease Loc	cation	First.	Last	CWT	Loss	Non-CV/
Release ID	Ty	P		Agy				Release	Release	Mrk Cnt	Rate	Mrk Cnf
042222	0	Spri	Chin	1981 AUF6	DEER MOUNTAIN	KETCHIKAN C	Ж 101–47	830516	830516	8,341 0	.022	188
042244	0		Coho	1981 ADF6	SNETTISHWI	INDIAN LK 1	11-33	830626	830826	7,1640	.219	11,896
042255	0	Spri	Chin	1982 SSR4	WHITMAN LAKE	NEETS BAY 1	01-90	840601	840601	20,063 0	.012	50,593
044422	0	Fall	Coho	1993 AUF	MARK CREEK	MARX CR 101	1-15	950316	950529	686 0	.0186	13
051122	0	Fall	Chin	1981 FWS	QUINNULT NEH -COOK C	COOK CR	21,0429	830503	830503	27,545 0	.033	27,70
052222	0	Fall	Chin	1989 FWS	ABERNATHY SCOC HATCH	ABERNATHY C	R 25,0297	900329	900518	22,241 0	.0838	863,66
052233	0	Wint:	Sthd	1989 FWS	EAGLE CR NFH	EAGLE CR (C	CLACKAMAS)	900425	900425	21,027 0	.0659	1,483
052244	0	Spri	Chin	1989 FWS	WARM SPRINGS NEH	WARM SPRING	BS R	900926	910417	49,883 0	.03	1,542
052295	0	70000000	Coho	1988 FWS	QUILCENE NFH	BIG QUILOS	NE 17,0012	900503	900503	26,1090	.01	140,117
054422	0	Fall	Chin	1999 FWS	SPRING CR NFH	SPRING CR	29,0159	000420	000420	66,303 0	. 1282	2,084,198
064422	12	Fall	Chin	2000 COFW	MERCEO R FISH FACIL	MERCEO R FI	ISH FACIL	010508	010508	24,722 0	.019	479
071122	0	Spri	Chin	1994 OOFW	CEDC YOUNGS BAY NET	YOUNGS R &	BAY	960229	960229	51,737 0	.019	81,780
072211	0	Spri	Chin	1979 OOF	COLE RIVERS HATCHERY	ROGLE R 4		801211	801212	29,811 0	.009	65,86
072222	0	Spri	Chin	1979 OOFW	MCKENZ IE HATCHERY	MCKENZIER	1	810316	810316	36,005 0	.072	2,79
072233	0	Late	Chin	1979 OOF	FALL CR HATCHERY	FALL CR (AL	LSEA R)	801025	801025	25,214 0	.012	306
072244	0	Fall	Chin	1979 OOF	ELK R HATCHERY	ELKR		801025	801025	26,173 0	.014	372
072255	0	9	Coho	1979 OOF	SANDY HATCHERY	CEDAR CR #2	2 (SANDY R	810501	810501	27,742 0	.025	158,16
073322	0	3	Chin	1984 OOFW	BONNEVILLE HATCHERY	TANNER CR ((BN/ILLE)	850513	850513	79,162 0	.039	146,974
074422	9		Coho	1985 OOFW	TRASK R HATCHERY	TRASK R		870416	870416	27,1180	.018	150,180
082211	0	Fall	Chin	1982 COFO	H-Quinsam River H	R-Campbell	Est	8304	830421	11,666 0	.0201	239

Recovery **Summary Report:**

This report is a summary of recoveries of a tagcoded group & shows month recovered. It is aggregated by columns: Tag Code, Recovery Year, Reporting Agency, Recovery Site Name

14:34:21 12/21/2011			Re	gional	Mark	Informa	ation :	System						PAGE 1
REPORT: TS2			2	010 R	ECO/E	RIES OF	TAGCO	Œ						
					OE	52589								
				BY	CALB	DAR MOR	WH.							
2008 Hyb	rid	Chir	noak							LEN	GTH:			
RELEASE	ARENCY:	COFW	#CWT:		T:	13010	HATCHERY: FEATHER R HATCHERY							
RELEASED	: 10/31				.025	SITE: TIBURON NET PENS								
STUDY TY	PE: E		#1	#NON-CUT:		668	STOCK: FEATHER R HATCHERY							
F I SHERY AREA	DATA	JAN	FBB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK TOTAL
Hatchery			- 1	COFW										
FEATHER R HATCHERY	OBS									1	7			88
	EST									1	7			1
	#LM									1	7			- 1
	ММ									541	546			54
FISHERY TOTALS:										1	7			
	EST									1	7			
	#LM									1	7			
	ии									541	546			54
Hatchery			800	-WS										
COLEMAN NEH	OBS										3			
	EST										3			
	#LM										3			
	ии										556			55
FISHERY TOTALS:											3			
	EST										3			
	#LM										3			
*******************************	им										556			55
Ocean Sport			22777	COFW										
FORT ROSS-PIGEON PT							1							885
	EST						5							33
	#LM						1							
	им						592							593
FISHERY TOTALS:	35-25-7-25-7-2						1							336
	EST						5							18
	#LM						1							
TOTU 0 FOR 004 0	ММ						592							590
TOTALS FOR 2010	OBS						1			1	10			12
	EST						5			1	10			10
	#LM						1			1	10			12
End of court	ии						592			541	549			553
End of report														
The query criteria u		produc	æ thi	s геро	rt was	s :								
WHERE tag_code = '06														
AND tag_status = '	1 '													

RMIS Reporting - Infomap Service

Using RMIS:

CWT data in RMIS can be queried by anyone by going to the website: http://www.rmpc.org. To use RMIS, simply enter your email address and click on the Login button. The first time you login you'll be asked to verify that you want to create a new account. At this point, enter in the following information:

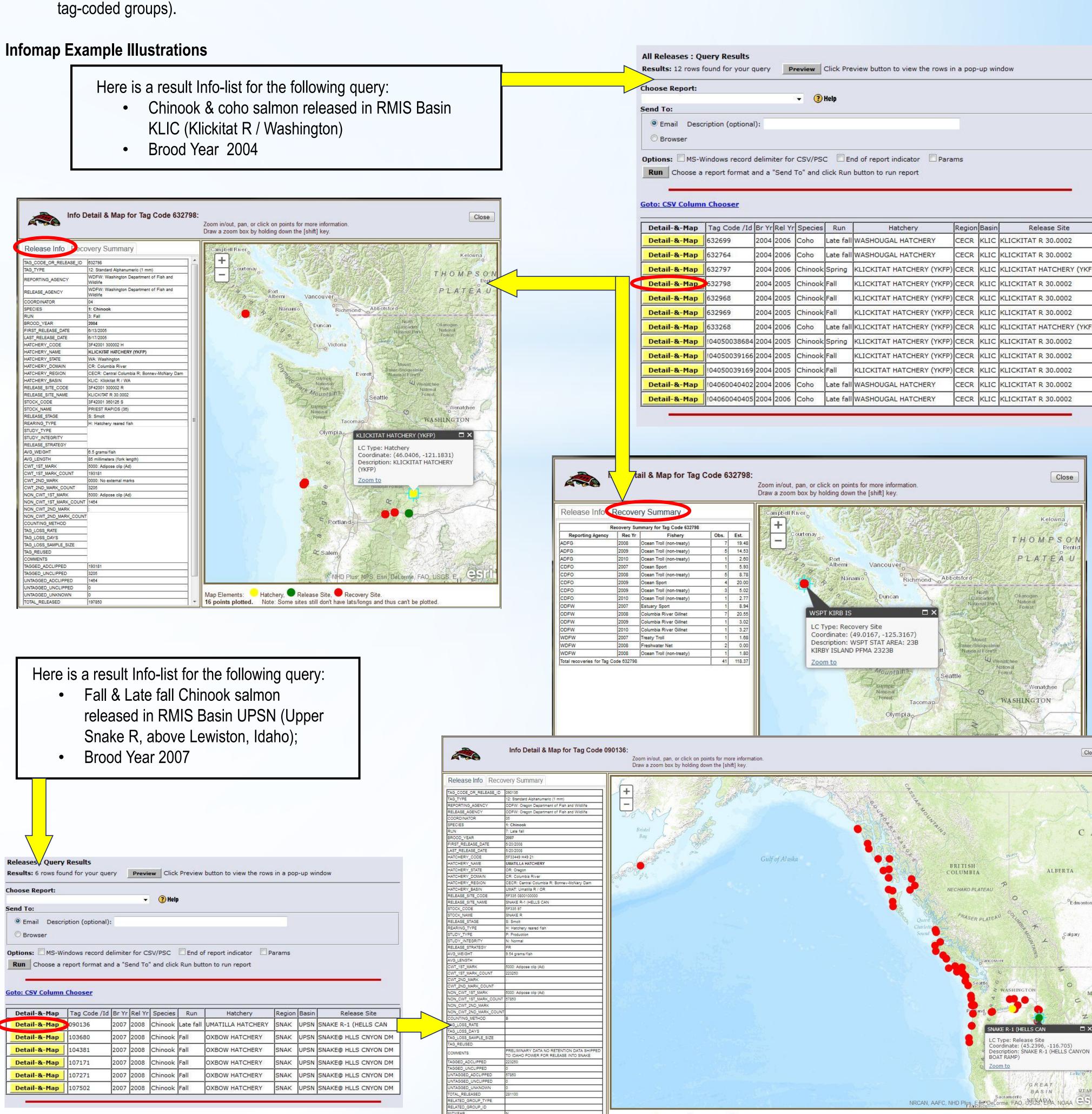
- 1. Email Address (re-type)
- 2. Name
- 3. Organization
- 4. Phone Number

On subsequent logins your email address will be recognized as a returning user.

RMIS Infomap Service

Recently RMIS has added an exciting new feature to the RMIS Releases query forms. The new feature is called the RMIS Infomap Service option. It presents the following:

- A detail of Release data for a given Tag Code or Release Id (untagged group) -- in the left tab;
- A **summary** of Recovery data by Reporting Agency, Recovery Year, & Fishery for the Tag Code (if applicable) -- in the right tab;
- A map which plots any available lat/long points relevant to the release event. The map-able points may include hatchery, release site, and/or recovery sites (for



'ap Elements: Hatchery, Release Site, Recovery Site.