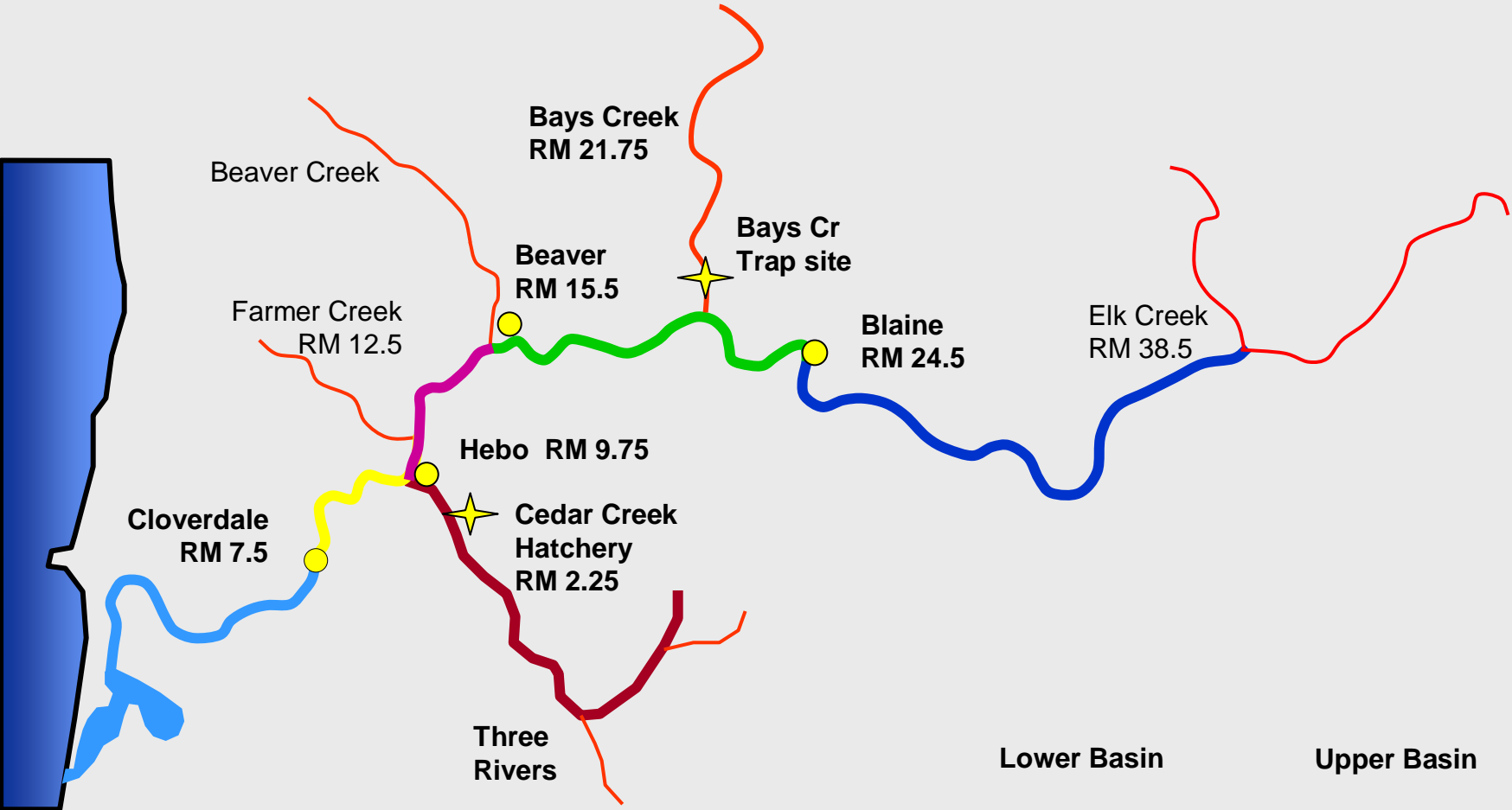







Nestucca Hatchery Winter Steelhead Evaluation

2005-2007 Brood Years

Nestucca River Basin



Lower Basin		Upper Basin	
Area 1		Area 3	
Area 2		Area 4	
Area 5			

EVALUATION COMPONENTS

- **ODFW Research**
 - Population monitoring
- **Tillamook District**
 - Hatchery rearing
 - Creel surveys
 - “Stray” monitoring
 - Trapping
 - Residualism

POPULATION MONITORING

Nestucca River Wild Winter Steelhead

Brood Year	Estimated wild adults	No. adults spawned at hatchery	% of population
2001	8060	--	--
2002	10723	44	0.41%
2003	6510	46	0.71%
2004	8738	50	0.57%
2005	4190	47	1.12%
2006	~5300	74	~1.4%

Population Summary

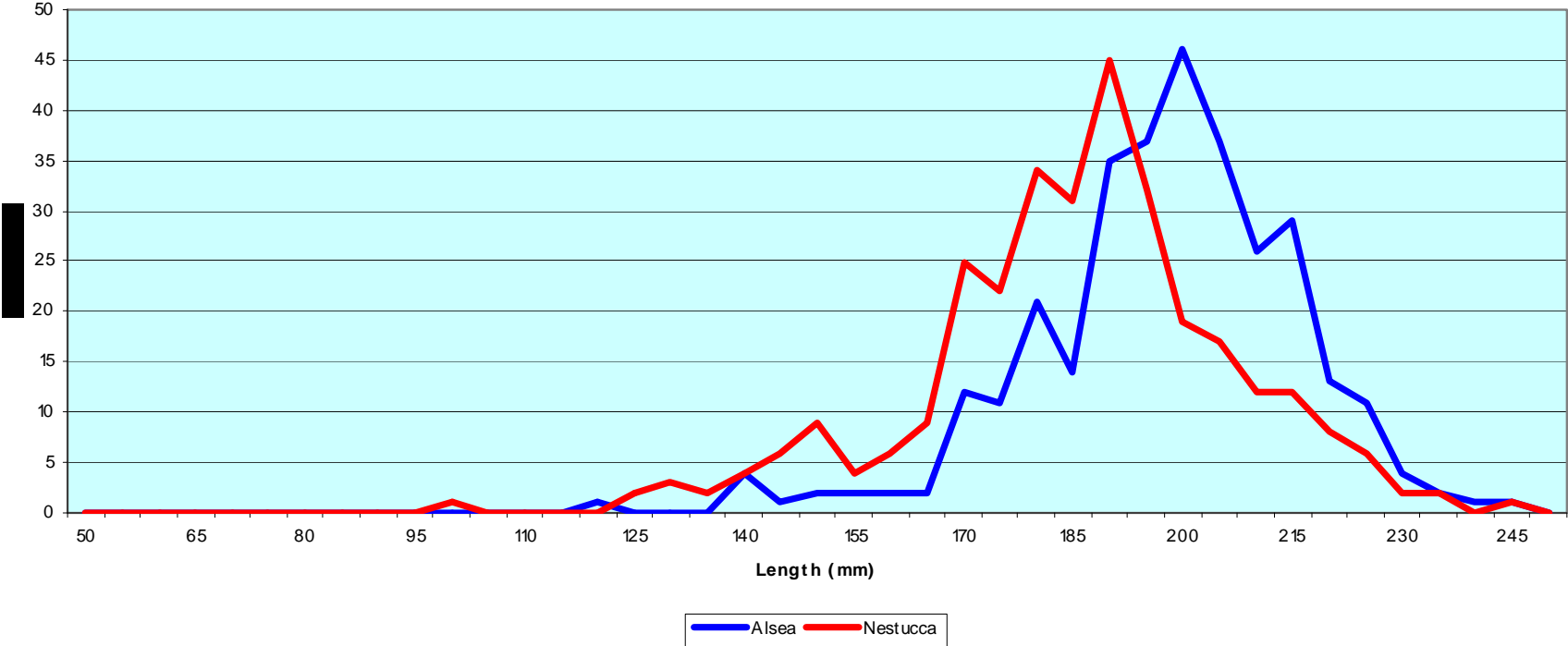
- **Wild Stw populations in good shape, can support the hatchery program**

HATCHERY REARING

Nestucca Hatchery StW Growth Chart, 2003

Month	Average Weight (fish/lb)	
	Alesea	Nestucca
April	670	x
May	264	1168
June	140	1200
July	80	220
August	40	104
September	18.6	58
October	13.4	34.0
November	13.4	28.0
December	9.4	16.6
January	8.6	12.0
February	6.3	8.4
March	5.6	7.1
April	5.7	6.3
Condition Factor	1.01	1.01

Nestucca Hatchery StW Length at Release, 2005



Cedar Creek Hatchery Winter Steelhead Releases

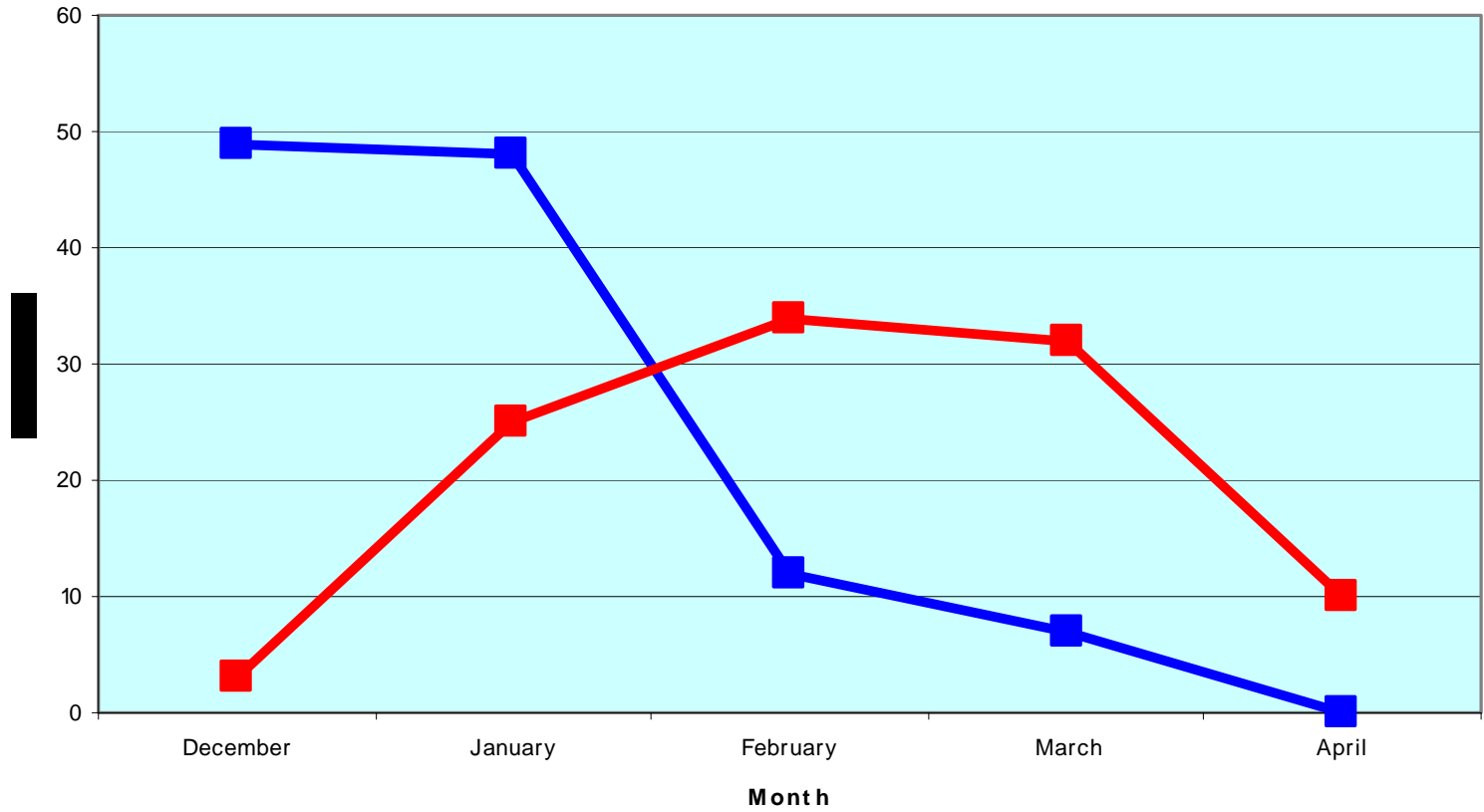
Brood Year	Release Year	Production Goal	Alesea Stock	Nestucca Stock
2002	2003	50,000	51,224	49,544
2003	2004	50,000	49,612	45,254
2004	2005	55,000	60,974	57,673
2005	2006	55,000	57,690	38,216
2006	2007	55,000	58,762	60,717

CREEL SURVEYS

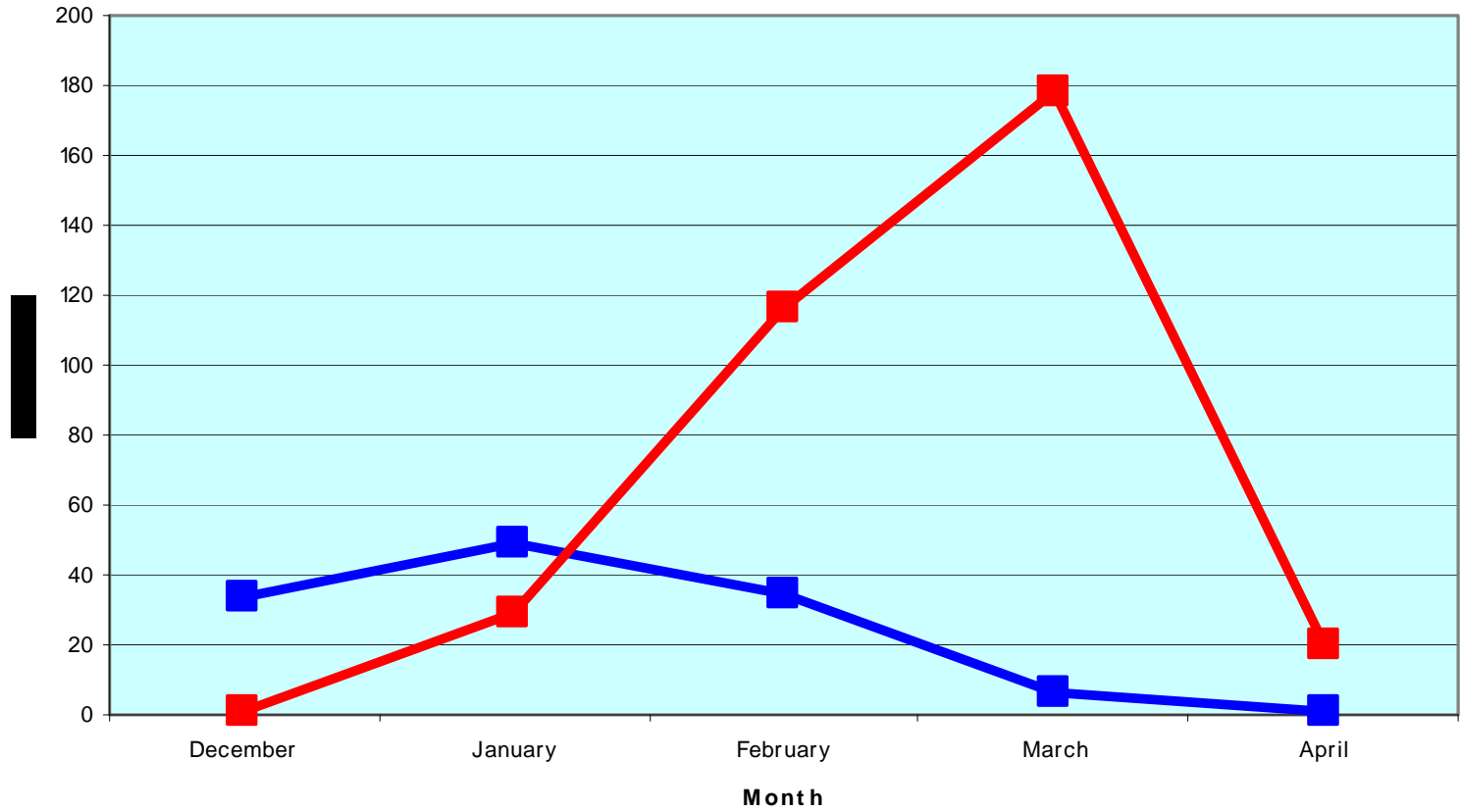
Nestucca River Winter Steelhead Creel Summary

Brood Year	Asea ADLM	Nestucca ADRM	AD	Summer ADRV	Released	
					H	W
2005	116	104	62	11	243	430
2006	125	344	65	21	245	855
2007	84	170	57	33	163	466

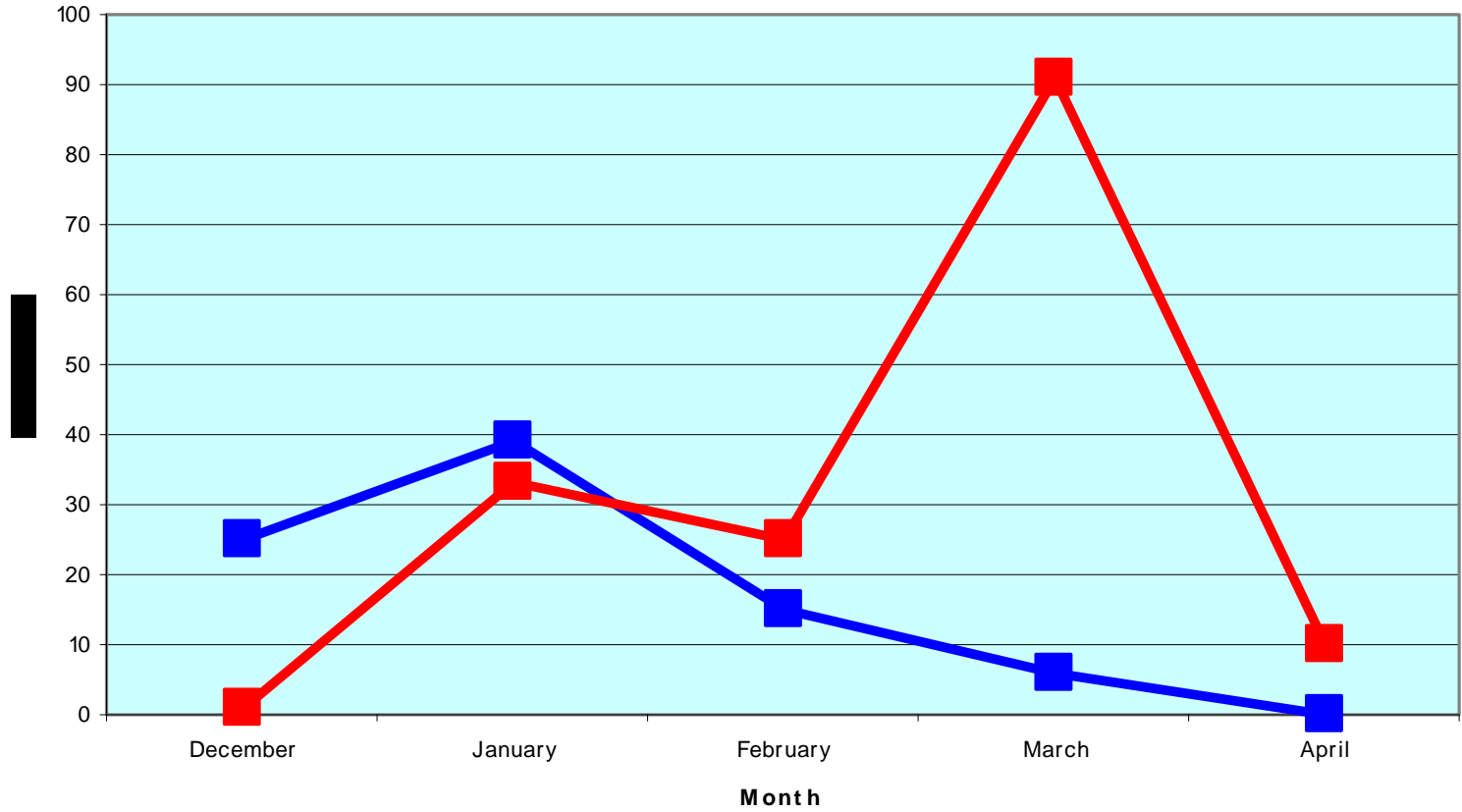
Nestucca River Hatchery StW Sampled Catch, 2005



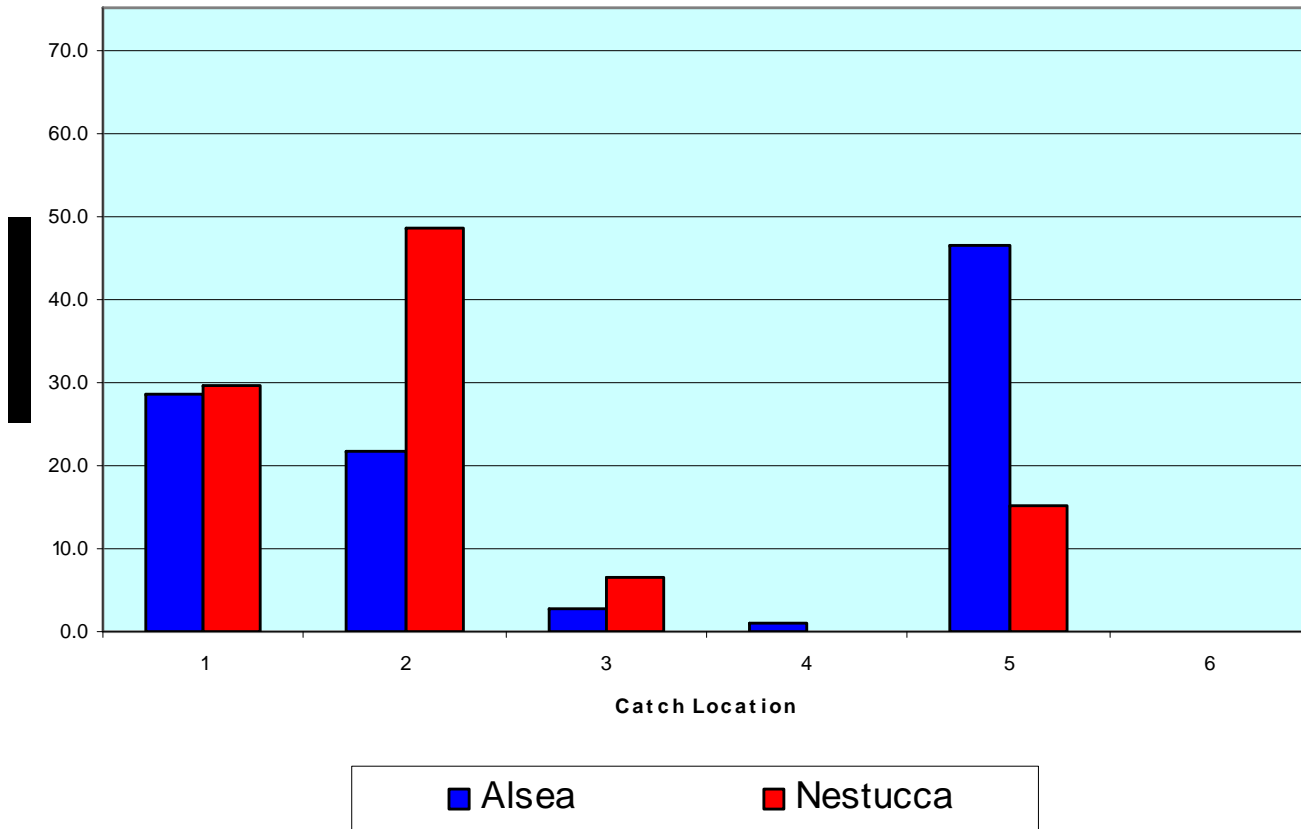
Nestucca Creel Hatchery StW Sampled Catch, 2006



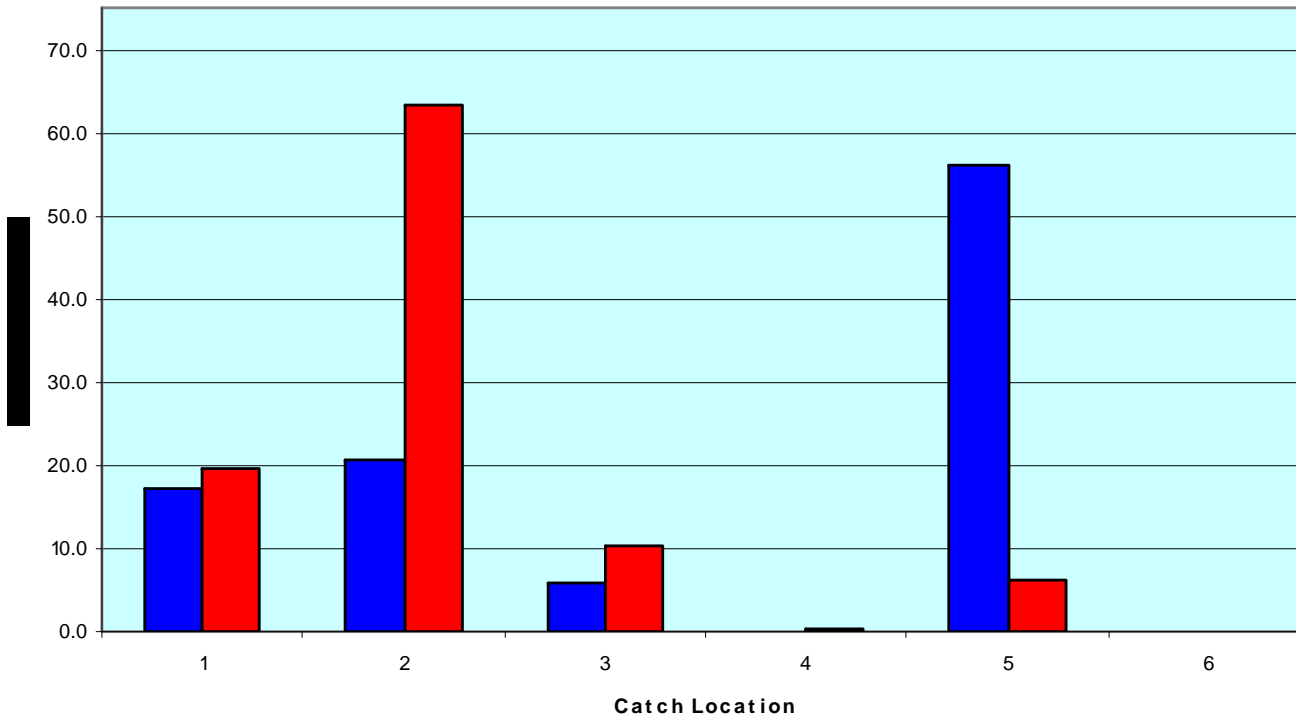
Nestucca Hatchery Winter Steelhead Creel Sample, 2007



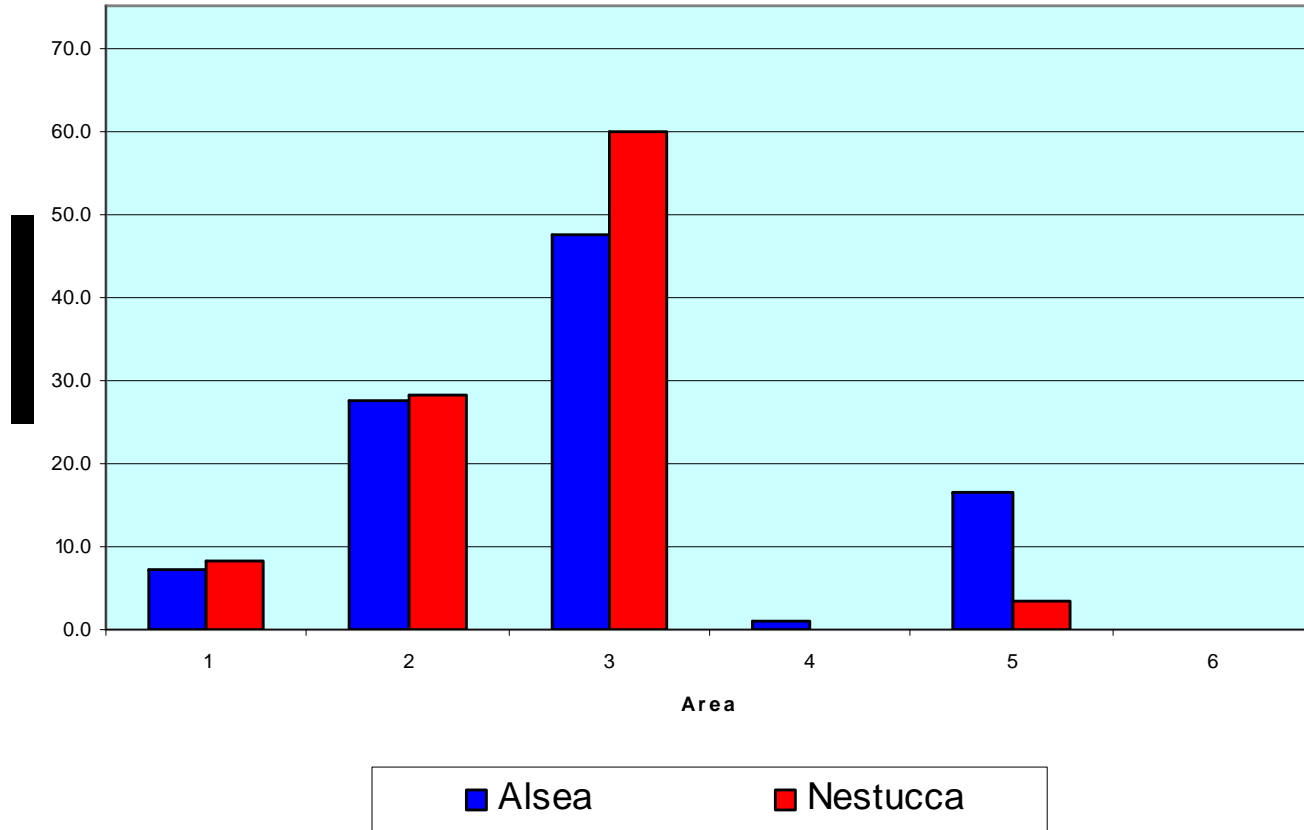
Nestucca Winter Steelhead Catch Distribution, 2004-05



Nestucca River Winter Steelhead Sampled Catch Distribution 05-06



Nestucca Hatchery StW Sampled Catch Distribution 2006-07



CREEL SUMMARY

- **Nestucca stock is a good contributor to the fishery over much of the winter**
- **Alsea stock provides early fishery, appears to provide better fishery for Three Rivers**
- **Combination of stocks may provide best overall fishery benefit**

STRAY MONITORING

Nestucca Winter Steelhead Stray Surveys

Year	Location	Number of Surveys
2004-05	Lower Basin	52
	Upper Basin	96
	TOTAL:	148
2005-06	Lower Basin	69
	Upper Basin	68
	TOTAL:	137
2006-07	Lower Basin	74
	Upper Basin	56
	TOTAL:	130
Combined	Lower Basin	195
	Upper Basin	220
	GRAND TOTAL:	415

Nestucca River Basin Stray Survey Data

Brood Year	Location	Wild	Alea ADLM	Nestucca ADRM	AD	Summer ADRV
2005	Upper basin	33	0	2	3	5
	Lower basin	16	6	2	0	1
	Total	49	6	4	3	6
	%	72.1	8.8	5.9	4.4	8.8
2006	Upper basin	51	5	1	4	6
	Lower basin	35	1	1	6	1
	Total	86	6	2	10	7
	%	77.5	5.4	1.8	9.0	6.3
2007	Upper basin	47	9	2	8	37
	Lower basin	51	3	2	4	5
	Total	98	12	4	12	42
	%	58.3	7.1	2.4	7.1	25.0
	Grand total	233	24	10	25	55
	%	67.1	6.9	2.9	7.2	15.9

STRAY MONITORING SUMMARY

– Nestucca stock

- Consistently found in lower numbers
- Even distribution in the watershed

– Alsea Stock

- Consistently found in higher numbers
- Distribution appears related to release strategy

TRAPPING

Nestucca Hatchery Winter Steelhead Trap Captures

Brood Year	Cedar Creek Hatchery		Bays Creek	
	Alesea	Nestucca	Alesea	Nestucca
2005	730	31	--	--
2006	602	50	88	65
2007	241	3	316	147

TRAPPING SUMMARY

- **Alsea stock consistently collected at higher rate than Nestucca stock (may be reflective of fishery contribution or spawning urge)**
- **Alsea stock attracted back to the hatchery at higher rate.**
- **Nestucca stock prefers mainstem; few return to Three Rivers**

RESIDUALISM

- Residualism rate appears to be low in both stocks; appears higher in Nestucca stock
- Residual juveniles appear to be localized near release site (Bays Creek), including mainstem

RECOMMENDATION

- Hatchery program should consist of both Asea and Nestucca stock to maximize fishery benefits
- 110K release with 70K Nestucca/40K Asea split
- Release strategy should include releases in Three Rivers and the mainstem Nestucca basin
- Proposal:
 - Asea stock- 30K 3R, 10K Farmer Cr
 - Nestucca stock- 20K Bays Cr, 20K 1st Br., 15K Farmer Cr, 15K 3R.