

OREGON WILDLIFE

MAY 1983



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OREGON FISH AND WILDLIFE COMMISSION

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Ron E. Shay, Editor
Ken Durbin, Managing Editor

Cover — How did the big game hunting seasons stack up in 1982? Now that all the data is in, Staff Biologist Rod Ingram reviews the 1982 harvest figures. The Roosevelt Elk is one of Oregon's premier big game species.

Photo by Ken Durbin

HUNTER EDUCATION
PROGRAM
INSTRUCTORS APPROVED
Month of March 16
Total Active 1,520
STUDENTS TRAINED
Month of March 339
Total to Date 302,010
HUNTING CASUALTIES
REPORTED IN 1983
Fatal 0
Nonfatal 1

A Time For Proof

It has been said that if the sportsmen of Oregon ever got together on a project or ballot measure, they could accomplish almost anything. However, there is seldom a cause or project that can be agreed upon by most sportsmen. The Deschutes River access purchase mentioned last month by Ken Durbin should be such a cause.

Even though you may never have fished the river, the opportunity to aid in retaining the lower 13 miles of it in public ownership for use by recreationists should stir the imagination of all folks who use the outdoors. Even though you may not see yourself using it in the near future, the chance to help preserve this area for now and the future should come under the same reasoning as that used by a mountain climber when asked why he climbed a mountain. His famous reply was, "Because it is there."

It is rare nowadays that an individual has an opportunity to contribute in a positive fashion toward preserving a natural resource for present and future use. The acquisition of the private lands along the lower Deschutes is such a project. The uniqueness of this project can be somewhat understood by the broad support it is receiving. The Governor has endorsed the project. The Parks Department has budgeted money to help and the Fish and Wildlife Department has money in the budget from angler funds, hunter funds and nongame funds. Diverse groups such as the guides and packers, the major sports clubs, river runners and broad-based nature conservation groups have all thrown their support behind this once-in-a-lifetime challenge.

Oregon is fortunate in having many fine recreational lands in public ownership. Once land is lost to the public it is rare that there is a chance to get it back. This is just such a chance. If everyone in Oregon who bought a fishing or hunting license sent just one dollar to the Wildlife Heritage Foundation, their remaining goal of about \$850,000 would be easily met and they would have funds to work on additional projects of value to the sportsmen and fish and wildlife of the state.

We certainly aren't naive enough to think our editorial is going to stimulate all of the license buyers to come up with a buck. We only have some 60 thousand subscribers so we reach only a small portion of you who are interested in Oregon's natural resources. But maybe if the grapevine gets going we can double that number in spreading the word.

Tax time has just passed, but we would suggest that the Deschutes acquisition project of the Wildlife Heritage Foundation would be a good place to direct a tax deductible donation for 1983. In so doing, you will be buying a bit of the future for fish, wildlife and outdoor recreationists.

On the back page of this issue is a coupon with the necessary information and the proper address to send donations. This project would be a good one to prove sportsmen do care. □

R.E.S.

Commission Meetings

The Fish and Wildlife Commission has six scheduled meetings in May. All meetings, unless otherwise specified, begin at 8 a.m. at Fish and Wildlife Department headquarters, 506 SW Mill Street in Portland.

May 6 1983 Game Mammal Regulations (no public testimony)
May 14 Game Mammal Town Hall Hearing — Pendleton, Red Lion Motor Inn, 2 p.m.
May 16 Game Mammal Town Hall Hearing — Medford, Extension Service Auditorium 1301 Maple Grove Drive, 7:30 p.m.
May 19 General Business Meeting
May 20 1983 Game Mammal Regulations Hearing
May 21 1983 Game Mammal Regulations Hearing (continued) and Decisions □



Pronghorn antelope buck

1982 Big Game Seasons

*by Rod Ingram
Staff Biologist*

The number of deer and elk tags issued in 1982 declined approximately five percent from last year. The bowhunting season remained attractive and elk and deer bow tag issuance increased nine percent from 1981. Interest in controlled tags for antelope, cougar and bighorn sheep continued high and the department received a record number of applications for these tags. The sale of bear tags increased approximately 39 percent from the previous year.

Periodic showers through September and the first part of October provided good hunting conditions for the opening of the deer

season. Hunter success decreased significantly in eastern Oregon as deer were widely scattered and buck populations were down.

Hunting conditions for the first period Rocky Mountain elk season were good with fresh snow available. However, crusting snow conditions during the second period reduced success. Crusted snow conditions also hampered hunters in the Cascade Mountains during the Roosevelt elk season while a variety of weather conditions confronted elk hunters in the Coast Range areas.

Harvest estimates for the 1982

hunting season show a total of 3,074,648 recreation days enjoyed by 441,696 hunters who harvested 85,231 deer, 16,926 elk, 991 antelope, 1,313 bear, 57 cougar and 29 bighorn sheep.

Deer

An estimated 301,181 deer hunters harvested 85,231 deer in 1982, a decrease of 36,768 deer from the 1981 season. Hunters continue to prefer the longer and more liberal western Oregon deer season over the shorter, less successful eastern Oregon season. Fifty-four percent of the hunters reported hunting in

1982 DEER SEASON

Units by Area or Zone	of Hunters	General and Unit Controlled Seasons			Percent Hunter Success	Additional Harvest			Total All Seasons	
		General Seasons Buck Harvest	Unit Controlled & Hunter Choice Season Harvest	Total Harvest		Other Controlled Seasons Early	Seasons Late	Bow Harvest	Total Harvest	Hunter Days
Scappoose	5,626	548	509	1,057	19			78	1,135	37,314
Saddle Mt.	6,634	826		826	12			212	1,038	63,097
Wilson	5,626	461		461	8			78	539	38,983
Trask	10,940	1,162		1,162	11		56	67	1,285	67,972
Stott Mt.	6,250	702	307	1,009	16			44	1,053	37,008
Alsea	17,979	3,266	1,797	5,063	28			369	5,432	137,437
Siuslaw	10,388	1,748	682	2,430	23			168	2,598	68,959
Willamette	27,650	1,758	2,690	4,448	16			190	4,638	163,693
NORTH COAST AREA TOTALS	*69,890	10,471	5,985	16,456	24	56	1,206	17,718	614,463	
Tioga	10,804	2,296	487	2,783	26			302	3,085	82,931
Sixes	4,731	1,364	255	1,619	34			89	1,708	40,876
Powers	5,511	1,143	255	1,398	25			56	1,454	34,726
Chetco	4,191	941	335	1,276	30			67	1,343	33,701
Applegate	8,246	1,066	560	1,626	20		49	11	1,686	50,564
Evans Creek	7,560	1,163	444	1,607	21			0	1,607	47,755
Melrose	11,314	3,084	693	3,777	33			201	3,978	76,563
SOUTHWEST AREA TOTALS	*41,772	11,057	3,029	14,086	34	49	726	14,861	367,116	
Santiam	20,194	2,238	1,026	3,264	16	61		447	3,772	154,957
McKenzie	16,586	2,373	1,172	3,545	21	93	51	279	3,968	118,696
Indigo	8,766	1,278	488	1,766	20	4	119	145	2,034	54,533
Dixon	10,825	2,373	618	2,991	28			145	3,136	71,943
Rogue	16,773	2,190	464	2,654	16			11	2,665	127,800
CASCADES AREA TOTALS	*65,076	10,452	3,768	14,220	22	158	170	1,027	15,575	527,929
WESTERN OREGON DEER TOTALS	*149,940	31,980	12,782	44,762	30	158	275	2,959	48,154	1,509,508
Minam	1,961	465		465	24			11	476	8,690
Imnaha	2,010	531		531	26			33	564	10,351
Catherine Creek	3,587	721		721	20			11	732	14,487
Keating	2,453	474		474	19			56	708	10,555
Pine Creek	1,685	285		285	17			34	319	7,341
Lookout Mountain	1,419	303		303	21			0	303	4,195
WALLOWA ZONE TOTAL	*11,735	2,779		2,779	24	178	145	3,102	55,619	
Snake River	828	209		209	25			11	220	4,335
Chesnimnus	1,439	332		332	23		65	44	441	8,239
Sled Springs	2,739	740		740	27		90	90	920	15,244
Wenaha	1,419	313		313	22		82	33	428	7,333
Walla Walla	1,340	294		294	22			0	294	5,831
Mt. Emily	3,725	683		683	18			79	762	14,879
WENAH-SNAKE ZONE TOTAL	*10,198	2,571		2,571	25	237	257	3,065	55,861	
Starkey	3,419	636		636	19			101	737	18,024
Ukiah	4,493	1,062	282	1,344	30			0	1,344	19,980
Sumpter	3,163	692		692	22			101	793	13,700
Desolation	2,513	522		522	21			55	577	12,491
Heppner	7,213	1,831	434	2,265	31			78	2,343	30,329
Fossil	4,907	1,518	458	1,976	40			22	1,998	19,933
Columbia Basin	1,458	436	118	554	38			0	554	4,897
UMATILLA-WHITMAN ZONE TOTAL	*24,535	6,697	1,292	7,989	33			357	8,346	119,354
Northside	4,917	1,195		1,195	24			44	1,239	19,667
Murderers Creek	4,730	977		977	21		41	90	1,108	21,662
Beulah	5,488	1,423		1,423	26			0	1,423	18,813
Malheur River	3,833	683		683	18		56	22	761	15,305
Silvies	5,321	1,053		1,053	20			44	1,097	24,303
Ochoco	8,809	1,537	280	1,817	21			158	1,975	35,368
Grizzly	4,198	806	670	1,476	35			0	1,476	13,779
Maury	1,833	408		408	22			11	419	6,203
OCHOCO-MALHEUR ZONE TOTAL	*35,689	8,082	950	9,032	25	41	369	9,498	155,100	
BLUE MOUNTAIN AREA TOTALS	*75,999	20,129	2,242	22,371	29	56	456	1,128	24,011	385,934
Biggs	1,557	446	60	506	32			22	528	5,257
Maupin	995	341		341	34			22	363	3,670
Hood	1,577	142		142	9		107	56	305	8,597
White River	3,754	636		636	17		133	112	881	23,335
Metolius	4,996	522	499	1,021	20			89	1,110	25,852
Paulina	15,834	1,204	532	1,736	11			44	1,780	72,340
Upper Deschutes	7,380	607	136	743	10			114	857	41,709
Fort Rock	6,572	484		484	7			22	506	28,247
Silver Lake	4,937	484		484	10			11	495	20,603
Sprague	1,606	199		199	12			0	199	5,942
Klamath Falls	4,375	939		939	21	16	26	22	1,003	16,199
Keno	1,182	209		209	18			0	209	4,120
Interstate	6,444	958		958	15			0	958	27,802
Warner	2,966	702		702	24			11	713	13,210
CENTRAL AREA TOTAL	*51,415	7,873	1,227	9,100	18	16	266	525	9,907	296,883
Wagontire	2,040	285		285	14			0	285	7,161
Beatys Butte	1,350	379		379	28	101		22	502	6,728
Juniper	581	123		123	21			0	123	1,811
Steens Mountain	1,515	596		596	39			0	596	8,297
Whitehorse	1,687	683		683	40			11	694	6,820
Owyhee	2,306	768	191	959	42			0	959	7,538
HIGH DESERT AREA TOTAL	*9,016	2,834	191	3,025	20	101	0	33	3,159	38,355
EASTERN OREGON DEER TOTALS	*129,089	30,836	3,660	34,496	27	173	722	1,686	37,077	721,172
GENERAL SEASON TOTALS	*279,029	62,816	16,442	79,258	28					
EARLY SEASON TOTALS	3,330					331				
LATE SEASON TOTALS	5,532						997			
BOW SEASON TOTALS	*20,529							4,645		
STATE GRAND TOTALS	*301,181								85,231	2,230,680

*Totals omit duplication of hunters participating in more than one unit, area or zone.

DEER HUNTING TRENDS 1952-1982

STATE TOTALS				EASTERN OREGON DEER					WESTERN OREGON DEER						
Year	Hunters	Deer Harvested	Percent Hunter Success	General Season Hunters	Number Harvested	Percent Hunter Success	Percent of Total	Antler-less Harvest	Percent Antler-less	General Season Hunters	Number Harvested	Percent Hunter Success	Percent of Total	Antler-less Harvest	Percent Antler-less
1952	188,250	77,897	41	126,719	53,030	61	68	20,570	39	61,531	24,867	40	32	5,210	21
1953	204,808	105,275	51	121,356	64,607	53	61	24,652	38	83,552	40,668	49	39	13,045	32
1954	215,047	112,622	52	134,617	76,877	57	68	22,410	29	80,430	35,745	44	32	8,043	22
1955	230,585	133,834	58	148,566	90,126	61	67	37,752	42	81,919	43,708	53	33	13,446	31
1956	233,842	146,568	54	146,568	85,394	58	68	37,978	44	87,274	40,277	46	32	13,340	33
1957	221,960	116,409	52	140,627	81,873	58	70	26,853	33	81,333	34,626	43	30	8,877	26
1958	233,885	116,251	50	139,183	71,250	51	61	19,308	27	94,702	45,001	47	39	15,251	34
1959	248,701	146,003	59	138,856	88,261	64	61	23,685	27	104,750	56,670	54	39	20,108	35
1960	259,739	157,504	61	141,102	96,122	68	61	28,254	29	110,725	61,382	55	39	20,133	33
1961	265,326	163,939	62	147,597	97,951	66	60	30,538	31	101,971	65,988	65	40	24,529	37
1962	263,838	139,712	53	143,580	76,776	53	55	24,977	32	108,343	62,936	58	45	21,932	35
1963	258,375	117,619	45	136,676	64,678	47	55	15,403	24	105,603	52,941	50	45	16,754	32
1964	249,080	143,023	57	148,215	84,665	57	59	19,931	23	110,555	58,358	53	41	18,807	32
1965	267,840	119,369	45	143,618	71,637	50	60	19,242	27	108,281	47,732	44	40	13,348	27
1966	270,770	147,975	55	147,975	88,516	56	60	22,821	26	110,384	59,459	52	40	14,687	25
1967	272,150	142,000	52	153,950	87,180	57	61	29,518	34	109,250	54,820	50	39	15,089	27
1968	284,600	151,380	53	163,260	89,020	55	59	23,374	26	111,940	62,360	56	41	16,586	27
1969	264,900	101,500	38	166,350	68,860	41	68	14,265	21	88,850	32,640	37	32	5,757	18
1970	282,000	101,600	36	180,150	72,200	40	71	14,453	20	92,050	29,400	32	29	4,347	15
1971	279,220	87,800	31	162,180	47,240	29	54	7,840	17	109,120	40,560	37	46	7,990	20
1972	245,770	73,400	30	110,700	29,380	27	40	95	0	127,200	44,020	35	60	7,970	18
1973	296,290	103,470	35	124,040	41,340	33	40	62	1	153,360	62,130	41	60	19,099	31
1974	286,560	76,400	27	118,980	30,960	26	41	1,018	3	155,420	45,440	29	59	10,511	23
1975	251,930	54,980	22	112,430	23,620	21	43	390	2	151,430	31,360	21	57	2,230	7
1976	246,850	80,700	33	116,980	44,030	38	55	3,630	8	122,000	36,670	30	45	4,530	12
1977	292,470	129,120	44	141,740	79,650	56	62	9,400	12	127,460	49,470	39	38	10,844	22
1978	315,382	124,001	39	152,029	60,197	40	49	19,386	32	135,935	63,804	47	51	21,572	34
1979	300,982	99,702	33	140,098	44,619	32	45	6,806	15	160,884	55,104	34	55	14,808	27
1980	312,437	112,245	36	145,309	56,461	39	46	12,728	23	166,404	55,784	34	54	17,360	31
1981	317,473	121,999	38	151,053	71,364	47	58	14,764	21	166,420	50,635	30	42	13,894	27
1982	301,181	85,231	28	138,591	37,077	27	44	5,486	15	162,590	48,154	30	56	11,631	24



ELK HUNTING TRENDS 1933-1982

STATE TOTAL						ROCKY MOUNTAIN ELK					ROOSEVELT ELK				
Year	Hunters	Bulls	Antlerless	Total Harvest	Percent Hunter Success	Hunters	Bulls	Antlerless	Number Harvested	Percent Hunter Success	Hunters	Bulls	Antlerless	Number Harvested	Percent Hunter Success
1933 . . .	2,440	579	0	579	24	2,440	579	0	579	24	No Open Season				
1940 . . .	6,152	1,350	1,179	2,529	41	4,809	1,152	1,179	2,331	48	1,343	198	0	198	15
1945 . . .	8,597	2,398	67	2,465	29	7,270	2,176	67	2,243	31	1,327	222	0	222	17
1950 . . .	22,802	3,157	2,234	5,391	24	16,726	2,210	1,234	3,444	21	6,076	947	1,000	1,947	32
1955 . . .	27,709	4,228	1,855	6,083	22	21,504	3,361	1,749	5,110	24	6,205	867	106	973	16
1961 . . .	51,349	9,707	2,384	12,091	24	36,514	7,098	1,863	8,961	25	14,835	2,609	521	3,130	21
1962 . . .	52,991	7,998	2,178	10,176	19	39,432	6,460	1,925	8,385	21	13,559	1,538	253	1,791	13
1963 . . .	54,724	10,082	3,606	13,688	25	41,216	6,959	3,606	10,565	26	13,508	3,125	0	3,123	23
1964 . . .	62,898	11,846	5,311	17,157	27	41,010	7,576	4,879	12,455	30	21,888	4,270	432	4,702	21
1965 . . .	67,387	8,066	4,200	12,266	18	47,651	5,768	3,594	9,362	20	19,736	2,298	606	2,904	15
1966 . . .	68,178	8,030	3,372	11,402	17	49,504	5,529	3,189	8,718	18	18,674	2,501	183	2,684	14
1967 . . .	64,200	7,660	2,870	10,530	16	46,100	5,220	2,690	7,910	17	18,100	2,440	180	2,620	14
1968 . . .	65,900	7,160	2,250	9,410	14	45,600	4,170	1,980	6,150	13	20,300	2,990	270	3,260	16
1969 . . .	66,000	7,800	2,118	9,918	15	46,300	5,800	2,080	7,880	17	19,700	2,000	38	2,038	10
1970 . . .	73,560	10,150	2,530	12,680	17	52,190	6,920	2,420	9,340	18	21,370	3,230	110	3,340	16
1971 . . .	74,550	7,830	2,440	10,270	14	51,640	5,330	2,260	7,590	15	22,910	2,500	180	2,680	12
1972 . . .	79,100	8,075	2,235	10,310	13	53,700	5,742	2,188	7,930	15	25,400	2,333	47	2,380	9
1973 . . .	98,300	11,087	2,913	14,001	14	65,100	7,626	2,735	10,361	16	33,200	3,461	178	3,640	11
1974 . . .	106,200	9,527	4,543	14,070	13	69,100	6,628	4,036	10,664	15	37,600	2,899	507	3,406	9
1975 . . .	110,830	11,481	3,870	15,351	14	73,280	7,393	3,476	10,869	15	37,550	4,087	395	4,482	12
1976 . . .	98,510	9,767	3,423	13,190	13	64,970	7,389	2,838	10,227	16	33,800	2,378	585	2,963	9
1977 . . .	112,340	13,270	4,503	17,773	16	73,580	9,318	3,696	13,014	18	38,760	3,952	807	4,759	12
1978 . . .	100,949	9,699	6,298	15,997	16	67,389	7,287	5,063	12,350	18	33,560	2,412	1,235	3,647	11
1979 . . .	110,642	9,647	6,481	16,128	15	68,718	6,444	5,091	11,535	17	41,924	3,203	1,390	4,593	11
1980 . . .	119,270	13,626	9,174	22,800	19	74,655	9,279	6,672	15,951	21	44,615	4,347	2,502	6,849	15
1981 . . .	124,596	10,949	9,233	20,182	16	77,934	7,578	7,496	15,074	19	46,662	3,371	1,737	5,108	11
1982 . . .	121,691	10,526	6,400	16,926	14	74,986	7,128	4,910	12,038	16	46,705	3,398	1,490	4,888	10

western Oregon.

A total of 149,940 hunters participated in the 40-day general western Oregon rifle deer season, including the three-day hunter's choice season, and took 40,165 deer for an average 27 percent success. The harvest consisted of 31,980 bucks, two point or larger, during the general buck hunting season and 8,185 spike bucks and antlerless deer during the hunter-choice season. Western Oregon controlled antlerless deer seasons allowed permit holders to harvest another deer in addition to one allowed by the general tag. A total of 8,253 hunters participated in the controlled hunt season and harvested 4,650 for an average success of 56 percent. In addition, High Cascade buck hunters harvested 158 deer, muzzle loader hunters took 224 deer and bowhunters took 1,027 deer in western Oregon.

Eastern Oregon deer hunters were allowed only seven days to hunt in 20 management units and 12 days in the remaining units. The bag limit remained one buck, two point or larger except in two limited entry areas where the minimum bag limit was a four-point buck. Individuals receiving a permit for the limited entry four-point areas were restricted to hunting in only the area allowed by the permit. Poor fawn survival during the previous winter resulted in below average buck numbers and deer were widely scattered by an excellent moisture year in most of eastern Oregon. Hunter success was limited by these conditions.

An estimated 129,089 hunters reported hunting in the eastern Oregon general rifle deer season and they harvested 30,836 bucks for an average of 24 percent success. This was a decrease of 10,928 hunters and 24,129 bucks from the 1981 hunting season.

Eastern Oregon deer hunters with controlled antlerless deer permits were also allowed to take another deer in addition to one allowed by the general tag and 6,655 hunters took 4,258 deer for a success rate of 64 percent. Bowhunters harvested an additional 1,686 and muzzleloaders took 297 deer in eastern Oregon.

Elk

The 1982 elk season again required hunters to choose between Rocky Mountain or Roosevelt elk tags and between first or second hunt periods. Limited entry was continued on two Rocky Mountain elk units and two Roosevelt elk units. The limited entry system allows hunters to hunt only the specific unit for which they have a permit. Thirty-eight percent of Oregon's bull elk hunters chose to hunt Roosevelt elk and 42 percent chose Rocky Mountain elk hunting in 1982. The remaining 20 percent hunted antlerless elk in controlled seasons.

The first period, four-day Roosevelt elk season attracted 52 percent of the Roosevelt hunters, slightly below the 55 percent recorded in 1981. A total of 36,117 hunters took 3,134 bull elk for an average success of nine percent. This was one percent above the 1981 figure with 811 fewer hunters taking 112 more bulls.

Hunters wishing to hunt the Saddle Mountain and Tioga units were limited by permit quotas and three-point bull elk bag limits with 7,000 permits authorized for the Saddle Mountain Unit, 6,000 permits for the Tioga Unit. Saddle Mountain hunters totaled 2,445 and harvested 394 bull elk for an average success of 16 percent while 2,876 Tioga Unit hunters took 474 bulls for a success rate of 16 percent. Both units were down in hunter numbers from last year but total kill increased 26 percent. Controlled antlerless seasons provided 1,859 hunters with a harvest of 993 elk and bowhunters took 761 Roosevelt elk.

Rocky Mountain elk hunters had a choice between a five-day first season or a nine-day second season. Seventy-one percent of the hunters chose the first season as compared with 69 percent in 1981 and 65 percent in 1980. A total of 58,217 elk hunters took 6,709 bull elk for an average success of 12 percent. Hunter success was down one percent from 1981 with 1,315 more hunters taking 651 fewer bulls. First period hunters averaged 12 percent success, second period hunters 10 percent.

Hunters choosing the Chesnim-

nus and Snake River units were limited by quota with a three-point bag limit on the Snake River Unit. Some 1,242 Chesnimnus hunters took 285 bull elk and averaged 23 percent success while 859 Snake River Unit hunters harvested 127 bulls for an average success of 15 percent. A total of 11,188 hunters with controlled antlerless tags took 4,694 elk and 6,444 bowhunters took 635 elk.

Bear

The 1982 bear season allowed 88 days of hunting compared to 94 days in 1982. A total of 16,756 hunters harvested 1,313 bears during the season. This is a sharp increase from the 783 bears harvested by 10,124 hunters during the 1982 season. The increase in hunter numbers is primarily due to an extended period for the purchase of bear tags.

Antelope

Buck antelope hunters had a seven-day season in 22 areas of eastern Oregon where 1,460 tags were allowed. Report card returns indicate a minimum harvest of 911 bucks and an average hunter success of 65 percent. Compared to 1981, 12 percent more bucks were taken in 1982. An additional 78 antelope with horns shorter than the ears were taken by 280 doe permittees. Two bucks were reported taken by 299 bowhunters in the Gerber Reservoir bow season.

Cougar

Cougar hunters were allowed 117 tags in eastern Oregon and 51 tags in southwestern Oregon. Forty-three cougar were taken in a one-month season in eastern Oregon, up from 25 taken in 1981. A two-month season in southwestern Oregon resulted in a harvest of 14 cougars. The 98 hunters participating in all cougar seasons experienced a 58 percent success rate.

Bighorn Sheep

Thirty-four sheep tags were issued in five areas in 1982. In southeastern Oregon, 28 hunters took 24 California bighorn rams including seven from Steens Mountain, 12 from Hart Mountain, four

1982 ELK SEASON

Units by Area or Zone	General & Limited Entry Bull Season			Other Harvest		Total All Seasons	
	Number of Hunters	Bull Harvest	Percent Hunter Success	Controlled Hunts	Bowhunting Harvest	Total Harvest	Hunter Days
Scappoose	1,623	128	8	76	7	211	8,814
Saddle Mountain**	2,445	394	16	535	70	999	24,105
Wilson	7,042	529	8	101	160	790	42,278
Trask	4,759	257	5	73	35	365	22,222
Stott Mountain	1,344	35	3		7	42	6,251
Alsea	2,933	231	8	6	63	300	18,938
Siuslaw	1,615	111	7	22	21	154	7,907
Willamette	1,293	35	3	0	0	35	4,631
NORTH COAST AREA	*21,119	1,716	8	813	363	2,896	135,146
Tioga**	2,876	474	16	128	251	853	36,523
Sixes	482	69	14		7	76	1,796
Powers	1,598	135	8	16	14	165	7,567
Chetco	356	34	10		7	41	2,013
Applegate	16	0	0			0	68
Evans Creek	51	9	18		0	9	434
Melrose	423	26	6		7	33	2,114
SOUTHWEST AREA	*5,589	747	13	144	286	1,177	50,515
Santiam	3,686	180	5	35	28	243	19,159
Metolius	0	0	0		0	0	194
McKenzie	2,984	205	7		28	233	13,818
Upper Deschutes	76	0	0		7	7	4,434
Indigo	2,096	154	7	1	14	169	10,121
Fort Rock	76	0	0		7	7	661
Dixon	1,404	85	6		7	92	6,956
Sprague	0	0	0		0	0	0
Rogue	490	43	9		21	64	4,381
Keno	42	0	0		0	0	452
CASCADE AREA	*10,119	667	7	36	112	815	60,176
ROOSEVELT ELK TOTALS	*36,117	3,134	9	993	761	4,888	245,837
Minam	1,808	313	11	218	28	559	13,579
Imnaha	1,784	114	6	153	7	274	10,540
Catherine Creek	1,466	143	10	183	14	340	9,397
Keating	970	142	15	63	14	219	5,972
Pine Creek	978	92	9		7	99	4,175
Lookout Mountain	403	42	10	30	0	72	1,773
WALLOWA ZONE	*6,975	846	12	647	70	1,563	45,436
Snake River**	859	127	15	82	14	223	6,620
Chesnimnus**	1,242	285	23	135	49	469	11,401
Sled Springs	3,654	384	11	365	83	832	23,504
Wenaha	4,934	469	10	131	70	670	25,272
Walla Walla	1,885	306	16	292	0	598	10,874
Mt. Emily	6,688	689	10	384	42	1,115	33,876
WENAH-SNAKE ZONE	*18,464	2,260	12	1,389	258	3,907	111,547
Starkey	7,751	789	10	248	56	1,093	42,281
Ukiah	6,300	675	11	328	7	1,010	32,300
Sumpter	4,414	412	9	534	83	1,029	28,851
Desolation	5,602	569	10	438	70	1,077	35,326
Heppner	4,585	391	9	284	14	689	25,985
Fossil	559	64	11	42	0	106	3,385
UMATILLA-WHITMAN ZONE	*27,597	2,900	11	1,874	230	5,004	168,128
Northside	1,334	149	11	345	21	515	11,235
Murderers Creek	1,032	92	9	102	14	208	8,791
Beulah	776	100	13	219	7	326	7,094
Malheur River	846	107	13		7	114	4,247
Silvies	559	57	10		0	57	2,871
Ochoco	1,226	92	8	4	14	110	8,300
Grizzly	248	14	6	13	7	34	3,257
Maury	78	14	18		0	14	523
OCHOCO-MALHEUR ZONE	*5,702	625	11	683	70	1,378	46,318
BLUE MOUNTAIN AREA TOTAL	*56,758	6,631	12	4,593	628	11,852	371,429
Hood	372	0	0	1		1	2,455
White River	1,210	78	6	39	7	124	19,407
Fort Rock				23		23	558
Silver Lake				8		8	374
Sprague							
Klamath Falls							81
Interstate				22		22	1,303
Steens Mountain				8		8	282
CENTRAL & HI-DESERT AREAS	*1,450	78	5	101	7	186	24,460
ROCKY MOUNTAIN ELK TOTALS	*58,217	6,709	12	4,694	635	12,038	395,889
GENERAL BULL SEASONS TOTALS	*94,334	9,843	10				
CONTROLLED HUNT TOTALS	13,047			5,687			
BOWHUNTING TOTALS	*14,310				1,396		
STATE GRAND TOTALS	*121,691					16,926	641,726

*Total eliminates duplications of hunters hunting in more than one unit.

1982 GENERAL ELK SEASON BY HUNT PERIOD

Units by Area or Zone	First Period Hunt Results				Second Period Hunt Results			
	Total Hunters	Percent of Hunters	Bulls Harvested	Percent Hunter Success	Total Hunters	Percent of Hunters	Bulls Harvested	Percent Hunter Success
Scappoose	820	51	60	7	803	49	68	8
Saddle Mountain**	1,534	63	207	14	911	37	187	21
Wilson	3,508	50	247	7	3,534	50	282	8
Trask	2,460	52	120	5	2,299	48	137	6
Stott Mountain	583	43	9	2	761	57	26	3
Alsea	1,462	50	120	8	1,471	50	111	8
Siuslaw	778	48	94	12	837	52	17	2
Willamette	600	46	9	2	693	54	26	4
NORTH COAST AREA	*11,061	52	866	8	*10,058	48	854	8
Tioga**	1,876	65	309	16	1,000	35	165	17
Sixes	228	47	60	26	254	53	9	4
Powers	888	56	84	9	710	44	51	7
Chetco	178	50	0	0	178	50	34	19
Applegate	8	50	0	0	8	50	0	0
Evans Creek	34	67	9	26	17	33	0	0
Melrose	169	40	9	5	254	60	17	7
SOUTHWEST AREA	*3,313	59	471	14	*2,276	41	276	12
Santiam	1,606	44	86	5	2,080	56	94	5
Metolius	0	0	0	0	0	0	0	0
McKenzie	1,285	43	60	5	1,699	57	145	9
Upper Deschutes	51	67	0	0	25	33	0	0
Indigo	1,031	49	68	7	1,065	51	86	8
Fort Rock	68	89	0	0	8	11	0	0
Dixon	702	50	51	7	702	50	34	5
Sprague	0	0	0	0	0	0	0	0
Rogue	118	24	9	8	372	76	34	9
Keno	17	40	0	0	25	60	0	0
CASCADE AREA	*4,565	45	274	6	*5,554	55	393	7
ROOSEVELT ELK TOTALS	*18,677	52	1,611	9	*17,440	48	1,523	9
Minam	1,009	56	164	16	799	44	149	19
Imnaha	1,326	74	78	6	458	26	36	8
Catherine Creek	861	59	79	9	605	41	64	11
Keating	613	63	92	15	357	37	50	14
Pine Creek	800	82	85	11	178	18	7	4
Lookout Mountain	294	73	21	7	109	27	21	19
WALLOWA ZONE	*4,671	67	519	11	*2,304	33	327	14
Snake River**	440	51	81	19	419	49	46	11
Chesnimnus**	1,242	100	285	23	0	0	0	0
Sled Springs	2,901	79	320	11	753	21	64	8
Wenaha	4,096	83	419	10	838	17	50	6
Walla Walla	1,427	76	263	18	458	24	43	9
Mt. Emily	5,416	81	597	11	1,272	19	92	7
WENAH-SNAKE ZONE	*14,988	81	1,965	13	*3,476	19	295	8
Starkey	5,835	75	675	12	1,916	25	114	6
Ukiah	3,949	63	462	12	2,351	37	213	9
Sumpter	2,855	65	277	10	1,559	35	135	9
Desolation	3,391	61	377	11	2,211	39	192	9
Heppner	3,313	72	277	8	1,272	28	114	9
Fossil	287	51	21	7	272	49	43	16
UMATILLA-WHITMAN ZONE	*18,667	68	2,089	11	8,930	32	811	9
Northside	1,334	100	149	11	0	0	0	0
Murderers Creek	667	65	71	11	365	35	21	6
Beulah	776	100	100	13	0	0	0	0
Malheur River	512	61	50	10	334	39	57	17
Silvies	256	46	14	5	303	54	43	14
Ochoco	497	41	14	3	729	59	78	11
Grizzly	93	38	14	15	155	62	0	0
Maury	16	21	0	0	62	79	14	23
OCHOCO-MALHEUR ZONE	*3,949	69	412	10	*1,753	31	213	12
BLUE MOUNTAIN AREA TOTAL	*40,970	72	4,985	12	*15,617	28	1,646	11
Hood	101	27	0	0	271	73	0	0
White River	349	29	21	6	861	71	57	7
Fort Rock								
Silver Lake								
Sprague								
Klamath Falls								
Interstate								
Steens Mountain								
CENTRAL & HI-DESERT AREAS	*426	29	21	5	*1,024	71	57	6
ROCKY MOUNTAIN ELK TOTALS	*41,591	71	5,006	12	*16,626	29	1,703	10
GENERAL BULL SEASON TOTALS	*60,268	64	6,617	11	*34,066	36	3,226	9

*Totals eliminate duplicate hunters hunting in more than one unit.

1982 ANTELOPE CONTROLLED HUNT RESULTS

Estimates Made From Report Card Questionnaires Returned at Close of Hunt

Hunt Name	Hunt Number	Number of Permits		Number Hunted	Antlerless	Harvest Bucks	Total	Percent Hunter Success	Days Hunted	
		Authorized	Issued						Average	Total
North Paulina	435A	10	10	10		7	7	70	3.3	33
S. Paulina-N. Wagonfire	435B	50	49	49		34	34	69	2.4	116
Maury	436	50	49	44		23	23	52	3.2	140
Ochoco	437	80	80	78		41	41	53	2.8	215
Murderers Creek	446	50	49	49		31	31	63	2.5	123
North Sumpter	451A	10	10	10		8	8	80	1.4	14
South Sumpter	451B	15	15	13		9	9	69	1.5	20
Lookout Mountain	464	20	20	20		16	16	80	2.4	48
Beulah	465	75	74	74		51	51	69	2.2	163
Malheur River	466	150	149	145		102	102	70	2.2	319
Owyhee	467	80	80	77		60	60	78	2.0	152
Whitehorse	468	150	145	140		100	100	71	2.8	398
Steens Mountain	469	150	150	147		69	69	47	2.6	375
E. Beatys Butte	470A	125	123	119		85	85	70	2.2	257
W. Beatys Butte	470B	75	74	70		52	52	74	1.8	127
National Antelope Refuge	470C	20	20	16		13	13	81	2.3	36
Juniper	471	125	124	121		65	65	54	2.3	278
Silvies	472	50	50	46		29	29	63	2.3	107
South Wagonfire	473A	40	40	38		23	23	61	1.4	54
Warner	474	55	55	53		41	41	77	2.3	122
East Interstate	475A	50	50	47		31	31	66	2.4	112
Fort Rock-Silver Lake	476A	30	30	30		21	21	70	2.6	78
TOTALS:		1,460	1,446	1,396		911	911	65	2.4	3,287
Portion of Ochoco	437A	100	93	87	38		38	44	3.4	297
Portion of Malheur River	466A	150	143	129	33		33	26	1.6	212
Portion of Silvies	472A	30	30	25	7		7	28	3.6	90
TOTALS:		280	266	241	78		78	32	2.5	599
Gerber Reservoir Bow	475B	200	187	152		0	0	0	3.8	574
Gerber Reservoir Bow	475C	250	193	147		2	2	1	3.6	528
TOTALS:		450	380	299		2	2	1	3.7	1,102
GRAND TOTAL		2,190	2,092	1,936	78	913	991	—	—	4,988

from Owyhee and one from the Juniper-Warner area. In northeast Oregon, six Rocky Mountain big-horn sheep hunters took five rams from Hurricane Ridge.

Bowhunting

Bowhunters were allowed a 37-day statewide general season for both deer and elk, plus late season opportunities. Hunters were again required to choose between rifle hunting and bowhunting when purchasing a tag.

A total of 20,529 bowhunters harvested 4,645 deer and averaged 23 percent success. Sixty-four percent of the deer were taken in western Oregon with the statewide harvest consisting of 43 percent antlered bucks and 57 percent antlerless deer.

Some 14,310 bowhunters harvested 1,369 elk and averaged 10 percent success. Fifty-five percent of the elk were taken in western Oregon and 45 percent in eastern Oregon. The elk harvest consisted of 68 percent antlerless elk and 32 percent antlered bulls.

OREGON WILDLIFE

Muzzleloader Hunting

The 1982 season provided 1,800 deer permits in eight areas and 95 elk permits in four hunts.

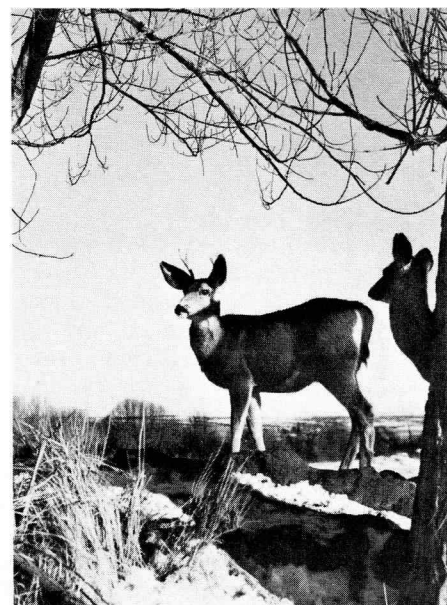
The Hart Mountain season with 200 permits was the most popular hunt. One-hundred-and-eighty-nine hunters took 59 bucks and 42 antlerless deer for a 53 percent success rate. A "package hunt" offered 1,600 permits in seven units. Hunters had to trade in their general season rifle tag for a permit entry muzzleloader tag. The muzzleloader hunt attracted 934 hunters who took 420 deer for an average success of 45 percent. The harvest consisted of 212 bucks and 208 antlerless deer.

The four elk hunts attracted 62 hunters who harvested seven elk for an average success of 11 percent.

Harvest Data

The figures in the accompanying tables are estimates. These figures are based on projections from information obtained by questionnaires mailed to a random sample

of deer and elk tag holders and from antelope and elk report cards returned by the hunters. In addition, controlled hunt report cards from deer, elk and cougar hunters and checkout reports from big-horn sheep hunters were used to compute the results.□





The *Tom & Al* was one of the vessels which participated in Oregon's brief whaling history.

“There She Blows!”

by Richard Fencsak,
Col. R. Maritime Museum
and
Bill Hastie,
Education Specialist

Oregon Played a Small, but Colorful Part in Man's Pursuit of the Whale Through the Centuries

Not so long ago, the *Tom and Al*, pictured above, entered the Columbia River with a humpback whale alongside. This whale “catcher boat”, owned by the Parker brothers of Astoria was outfitted with a 90mm whaling cannon designed to fire a 200-pound harpoon. Her destination was Hvalfangst at Warrenton (the name means whaling in Norwegian.) It was one of the last commercial whaling stations in the United States.

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The Hvalfangst whaling station was one of the last remnants of a colorful and exciting era of man's pursuit of the whale. In response to a growing realization that extinction of the great whales would be inevitable if whaling with modern techniques continued unchecked, the United States and some other nations banned all commercial whaling in 1971.

Hvalfangst was established by Bioproducts, Inc., a processor of

fish by-products in response to a need for a ready source of fresh, high protein meat for use as mink feed by local breeders. The first whale processed by Hvalfangst was a 38-ton, 40-foot sperm whale taken during the summer of 1961. It yielded 13,000 pounds of high-grade mink food. The blubber, bone and all other parts of the whale were processed by the plant. In all, about twelve whales of various species were processed by

MAY 1983

1965, when operations were discontinued.

Long before the first European and American colonist arrived in the Columbia River region, whaling was practiced by native Americans including the Makah of northwestern Washington and the Nootka of Vancouver Island. Gray whales were hunted from 30-foot dugout canoes and used as a source of food and oil. Upon their capture and kill, whales were towed back to the village beach for butchering. However, the lower river people at the mouth of the Columbia River, collectively known as Chinook, did no offshore whaling. Salmon, was the staple of their diet. The Chinook and other regional peoples did, however, use dead whales that drifted ashore. It is said that a Chinook with spirit power could set up a pole on the beach and say, "Here a whale will drift ashore." He would then sing for five days, with most of the village helping him. On the sixth day, they would send a man to look. And there would be the whale, or so the story goes.

The native Americans' impact on the whale was insignificant compared to the indiscriminate exploitation of sea mammals that occurred at the hands of yankee and European (mainly British) whalers during the 18th and 19th centuries. These first seafarers originally came to the unexplored coast to participate in the lucrative maritime fur trade. In fact, one of the earliest fur-traders, Robert Gray of Boston, was the first to enter the Columbia River in May of 1792. The dawn of the 19th century saw New England whalers begin to venture into Pacific whale-grounds due to the semi-depletion of traditional Atlantic grounds. During the next 40 years, called the "Golden Age of American Whaling," these daring seamen literally opened up the Pacific Ocean. Just prior to mid-century the American whaling fleet numbered well over 700 vessels which were valued at 21 million dollars.

Because of the great value and purity of its oil, the sperm whale was the preferred prey of these Pacific voyages. An excerpt from Niles' Register of August 2, 1834

describes a typical voyage:

The ships which pursue the sperm whale, are fitted out for a three years cruise. The whale they take, is found only in deep water. After making the western islands, where they frequently find some game, they stretch away for Cape Horn and pursue their prey through the Pacific Ocean. The oil of the sperm whale contains the substance called spermaceti — from which spermaceti candles are made. The head matter, is particularly rich in this substance. The spermaceti pays for the process of manufacture, so that the oil as it comes from the whale is of about the same value with the same quantity of manufactured oil. It is worth from twenty to thirty dollars per barrel.

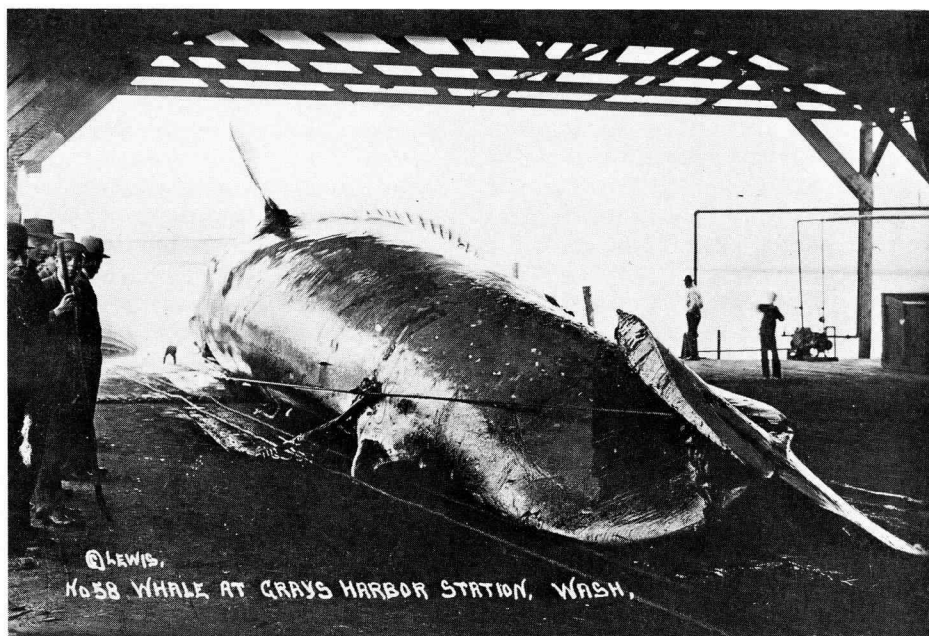
The decks of the whale ships are provided with great iron kettles set in brickwork, and the oil is separated from the blubber by heat, the scraps from which the oil has already been tried furnishing an excellent fuel.

For obvious reasons the crews receive no wages, but instead, they have what is called a *lay* — that is, a certain proportion of the oil. Those who are at the

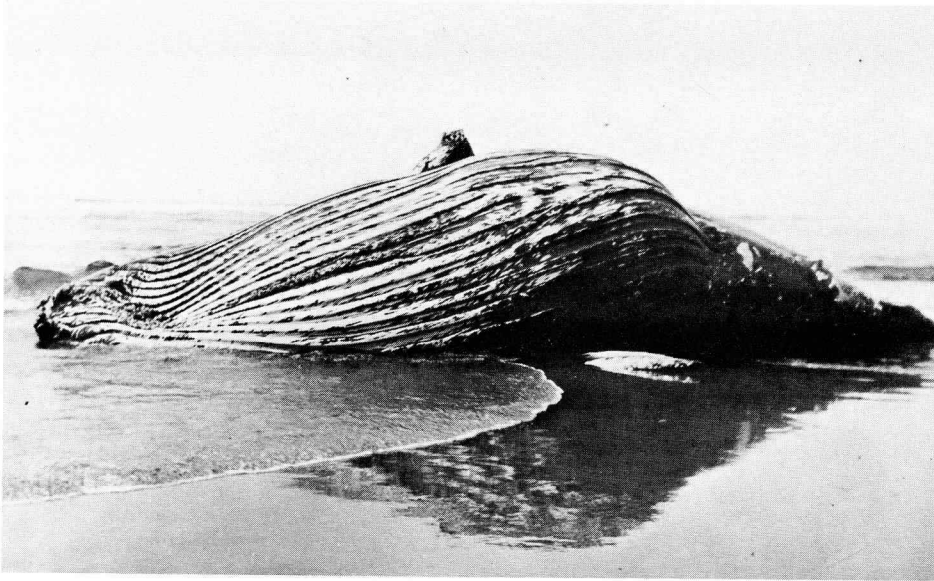
expense and risk of fitting out the vessel have of course the larger portion of the proceeds. The masters, mates and boat-steerers, have a share adequate to their skill and responsibility, the old whaler is paid for his experience, while the green hands draw a share proportionate to their services. On the whole a good deal depends on chance — but however profitable the whale fishery may be to those who furnish the capital and fit out the vessels, it does not appear that either the officers or men, are much better paid than those engaged in the merchant service.

The whaling vessels would sail to various whaling grounds searching out a pod of whales. When a lookout sighted one of the mammals, a hearty, "Thar she blows!" rang throughout the vessel. Then the 30 foot whaleboats were lowered over the side, each carrying crews of six.

There is a tremendous pride among whalemens. "A dead whale or a stove boat" became their motto, and once in pursuit of a whale, a boat's crew would take fearful chances if necessary to



Whaling in the eastern Pacific came essentially to an end in the early 1940's. Hvalfangst, at Warrenton, was but a brief revival of the whaling industry in the 1960's. Today no whaler steams from any North American port. Photo courtesy of the Oregon Historical Society.



This forty-foot whale washed ashore at Bay Beach in 1924. It had been taken by whale-hunters who anchored it temporarily at a mooring station near Agate Beach. The carcass broke its moorings and washed ashore where it was burned following futile attempts by the community to remove the animal. Photo courtesy of the Oregon Historical Society.

make the kill. An enraged sperm whale could break a boat in two with one snap of his mighty jaws, or knock it to pieces with a sweep of his flukes. But no whalesman worth his salt ever hesitated to attack.

The mate would direct the course of the boat, maneuvering as close as possible to the whale. As the craft came up alongside of the giant, the harpooner would drive his harpoon deep into the body; then the mate cried "stern all" and the boat backed off, the men waiting for the giant to react. It often did so violently, swimming off at express train speed, towing the whaleboat and its crew behind him in what came to be called a "Nantucket Sleigh Ride." Eventually the whale tired, the boat came up beside it and the mate plunged the razor-sharp lance deep into the great mammal, trying to puncture the lungs. When successful, there was a gush of blood from the blow-hole, giving rise to the cry, "His chimney's afire."

Thereafter, it was only a matter of time before the whale died. The boat made fast to the carcass and towed it back to the ship. From then on there was no rest until the blubber had been stripped and cooked down into oil in the huge kettles of the brick tryworks. The

oil was stored in barrels, below in the ship's hold, and the blood and grime were scrubbed from the decks . . . until a keen-eyed lookout spotted another whale and the entire process started all over again.

These whalers regularly took the sperm, Pacific right and bowhead whales, all of which would float when dead, and therefore were easier to handle in small boats. The size, speed and strength of the rorqual whales (primarily, the blue, fin, humpback, gray, sei and minke whales) made them inaccessible to these whalers. However, gray whales began to be taken more frequently on their wintering grounds in the lagoons of California and Mexico, and on their nearshore migration along the Oregon, Washington and California coast. Here they were concentrated and easy prey. As the search for whales continued, ships ventured farther north to find them and whaling ships became more common off the Oregon coast.

During the next 30 years, the North Pacific and Arctic whaling fleet gradually switched its base of operations from New England to San Francisco. In the latter half of the century, whaling as a business declined due mainly to: 1) the scar-

city and shyness of the whales, requiring longer and more expensive voyages; 2) the high cost of fitting out and refitting vessels; and 3) the introduction of petroleum products. However, the decline of commercial whaling was slowed by important technological developments.

The harpoon gun was introduced in 1868. Although more effective than the traditional method of "fixing to a whale," the harpoon gun did not become widely used by American whalers until the turn of the century.

The type of vessel used in the industry also changed. Faster steam-powered ships replaced sailing vessels. After 1900, most northeast Pacific whalers were steamers that towed their catches back to shore processing stations stretching from Washington to Alaska. These steamers hunted whales with the harpoon gun mounted on their bow.

As the sperm, bowhead and Pacific right whales became increasingly scarce, other species attracted more attention. The rorquals, up until this time too fast for the slower sail-powered whalers, came under heavy exploitation by the faster steam-powered vessels. The fact that these new species could now be harvested kept the whaling industry afloat during most of the first half of the 20th century.

The American whaling experience, for 150 years one of the most prominent ocean harvest activities on the continent and one that had embraced all the world's oceans, was now limited to nearshore waters adjacent to land based whaling stations. Coal Harbour in British Columbia and Grays Harbor in Washington were two of these. Probably the last northwest whaling fleet, based in Puget Sound, ceased operations in the early 1940's.

Hvalfangst, at Warrenton, was but a brief 1960's revival of the whaling industry. This small company at the mouth of the Columbia was one of the last vestiges of commercial whaling in the eastern Pacific. Today no whaler steams from any North American port.□

MAY 1983

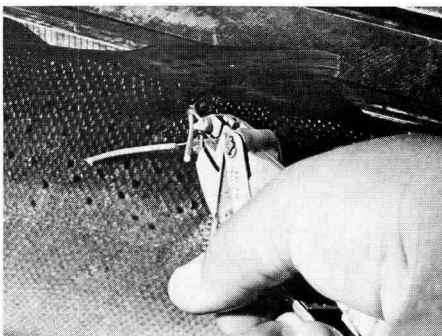
Deschutes River Trout Tags Sought

The Fish and Wildlife Department is asking anglers who fish the lower Deschutes River (from Pelton Dam to the mouth) to report tagged trout.

In February some 3,400 wild rainbow trout were marked with colored and numbered tags. The tags are inserted in the fish's back near the dorsal fin. The tagging is part of efforts to learn more about wild trout population densities, growth and movement. Most tagging was done in the Nena Creek and North Junction areas upstream from Maupin. Similar work was undertaken in 1982, and many of the fish tagged that year also remain available for anglers.

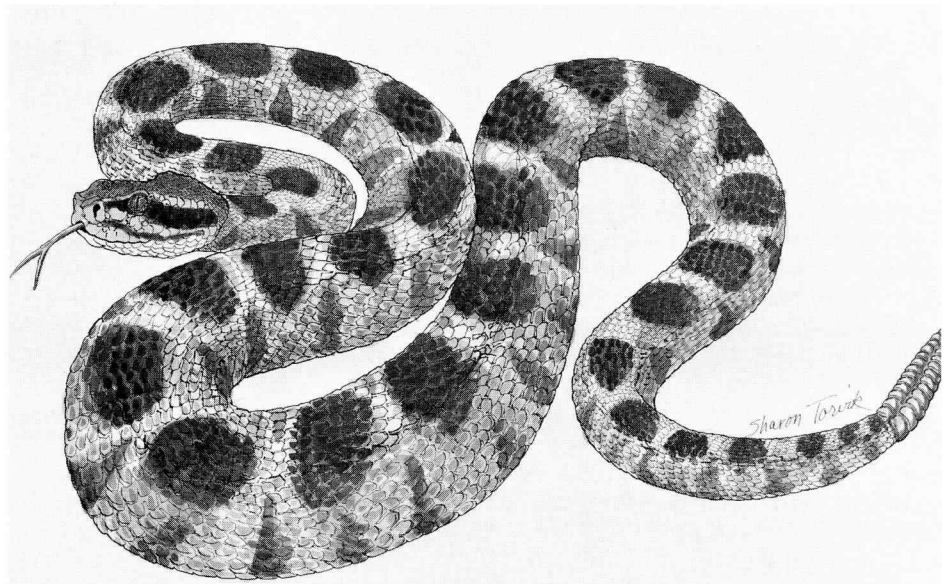
Several different colors of tags were used, and each has its own number. From fish that are kept, information needed is tag color and number, location where the fish was caught, and its length, if possible. If the fish is released, fishery biologist Jim Griggs suggests anglers simply note the tag color and number, and that they not attempt to measure the fish. Fish to be released should be handled as gently as possible, and preferably not removed from the water.

Tag information should be sent to Jim Griggs, Fish Division, P.O. Box 3503, Portland, Oregon 97208. Griggs says anglers who wish to keep the tags as souvenirs should do so. He merely needs the information.



Anglers are asked to report on tagged rainbow trout taken this year in the lower Deschutes River. Some 3,400 trout were tagged in February.

OREGON WILDLIFE



Rattler

Oregon is host to 15 snake species. Fourteen of those are interesting and relatively harmless to man. The fifteenth is interesting, but also potentially lethal.

The western rattlesnake, *Crotalus viridis*, is Oregon's only rattler. Although these snakes are sometimes called "diamondback", "prairie", or "timber" rattlers, the fact is that none of those species are found in the state. There are two sub-species, however. One is found in most areas east of the Cascades, in southwest Oregon, and in limited areas of the Willamette Valley foothills. The other sub-species is confined largely to southeastern Oregon.

The color and size of rattlesnakes varies greatly depending on where the snakes live. In timber, rattlers may take on the dark color of the surrounding country, while rattlers in the open desert may be much lighter.

Rattlesnakes are known for two outstanding characteristics, their bite and their rattle. The bite is delivered by two fangs that fold up inside the mouth when not in use. These hollowed fangs inject a venom that breaks down blood cells, vessel walls and muscle tissue. Although the snakes usually reserve the bite for prey such as ground squirrels or birds, they will also strike when surprised or threatened by an ill-placed human hand or foot.

Rattlers often give a warning with tail rattles that usually number eight to ten on a mature snake. These rattles are added one at a time with each skin shed. Counting rattles is not an accurate way to measure a snake's age since rattlers may shed more than once a year, or rattles may break off.

Rattlers see poorly, and hear not at all, but they use their nose and tongue to smell the scent of prey and track their victims. These snakes are also equipped with pits on either side of the head that act as sensors of heat and cold. They also feel ground vibrations and can detect a human footstep 200 feet away.

The western rattler spends the cold months in secluded dens where up to 200 snakes may gather for the winter. Young are born live in the fall, and are on their own from birth. An average rattler brood includes about seven young. □

Jim Gladson

This and That

Compiled by Ken Durbin

An Oldie But a Goodie

Fish biologists and fishermen should not give up hope of being rewarded for their efforts. In 1982 two anglers turned in a disc tag taken from a lake trout they caught in Susitna Lake north of Anchorage, Alaska. Tag number 5931 had been put on the fish by Alaska Department of Fish and Game biologists way back in 1965. Several tags were turned in by anglers over the next seven years, but no more had been received until "old 5931" showed up.

The biologists were disappointed that, after 17 years, the trout weighed only 16 pounds dressed and was three feet long. The anglers, however, seemed perfectly happy!

*

Yet Another Walleye

State walleye records have been tumbling in at a rate of several times a year. In March the old record which was set last August was broken. David Nash of Hood River took a 14 pound, 3½-ounce walleye on March 28. It measured 32½ inches in length, and was taken on a drifted nightcrawler from the Columbia River near Rufus. Nash had the fish weighed on state-certified scales, and species was confirmed by department fishery biologists Jim Newton and Steve Williams at The Dalles.

The previous record, set August 5, 1982, weighed 13 pounds even.

*

New Record Bass

Another new state record fish was the ten pound, 15 ounce large-mouth bass taken from Selmac Lake on April 13 by Butch Stauffacher of Grants Pass. Stauffacher's fish measured 24¼ inches in length and 19 inches in girth. This fish tops the previous record by two ounces. That fish also came from Selmac Lake in April of 1981.

One Tough Animal

For sheer toughness and determination, the badger may be unmatched. John Madson, writing in *Audubon* magazine, tells about an old, crusty badger penned in a cage consisting of 5/16-inch rods spaced two inches apart. One day the animal snapped the weld on one of the bars and pried it up. He was working on the second bar when the keeper caught him. Later, the same badger tackled the steel floor of the cage, tearing up one of the welds and opening a six-inch gap when he was apprehended.

In another zoo, new concrete floors were being installed and a big badger was put into a cage whose floor had been poured only a few hours earlier. The floor had not cured, but was strong enough to support a man. In this case, the badger dug through the green concrete, ripped the wire netting under it and was never seen again.

Wildlife Review

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Don't Hug the Armadillo

In Texas, armadillos are beloved creatures, popular in legend and lore. But a researcher at the University of Texas Medical Branch is advising people to admire the armor-plated creature only from a distance, or at least to use gloves when handling an armadillo. Reason: Dr. Jerome H. Smith recently discovered that about five percent of 450 wild armadillos in Texas were infected with leprosy. Until now, scientists thought the disease occurred naturally only in humans.

Armadillo meat is the purported secret ingredient in some prize-winning Texas chili recipes, says Smith, but he doubts that eating the creatures poses risks. "You could eat armadillo until the cows come home and not get leprosy," he says, "but cleaning the animal with bare hands might not be wise." Most of the 30 to 50 cases of human leprosy in Texas each year are treated without hospitalization.

Wildlife Digest

Brazen Birds

The underfur of an animal makes a beautifully soft, warm lining for a bird's nest, but it takes a bird with a lot of nerve to gather the stuff from a living animal.

Two observers in Ohio watched a pair of tufted titmice boldly harass a raccoon in their search for building material. The birds landed on the animal repeatedly, pulling bits of fur out of its tail, despite its frantic efforts to drive them away. Neither bird would give ground until its beak was so full that it couldn't carry any more, whereupon it would fly back to the construction site.

Wildlife Review

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REFUGE GUIDE AVAILABLE

A new pocket-sized guide to the country's 413 National Wildlife Refuges is available from the U.S. Fish and Wildlife Service.

The guide and map includes a list of major public uses on each refuge, addresses and other information. The *Visitor's Guide to the National Wildlife Refuges* is available for \$2.25, or \$31 per 100 copies from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (specify stock number 024-010-00529-7).

*

Tail's the Target

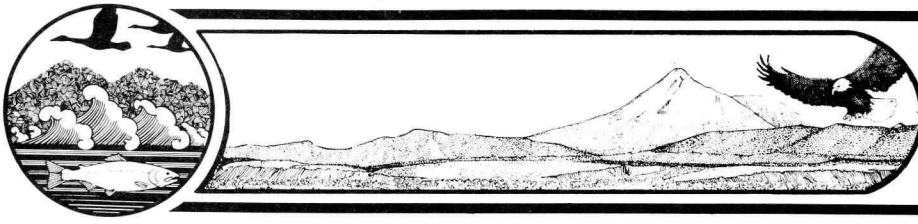
Acting on the assumption that natural phenomena have a reason for being, a biologist at North Carolina State University began wondering why the tip of the tail of an ermine, an otherwise pure white animal (in the winter), should be black. He concluded that the black tip protects the animal from its enemies.

The biologist, Dr. Roger Powell, has experimented with dummy ermines and captive hawks, and believes that the conspicuousness of the black mark against the snow acts as a target to the predators, who aim for the tail tip and miss the animal itself.

Wildlife Review

MAY 1983

THE WAYS OF WILDLIFE



Learning By Experiencing

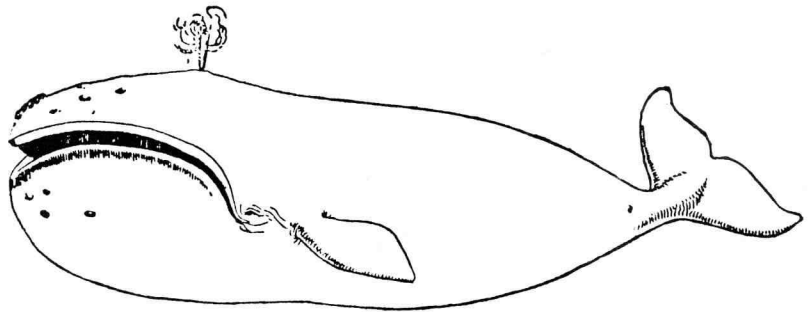
ECHOLOCATION... LOCATION... LOCATION... LOCATION...

The ancestors of whales and dolphins lived on land, and needed good eyesight to survive. Modern whales and dolphins also have fairly good eyesight, but with most of the ocean's waters poorly lighted or totally dark, their eyesight is much less effective. These animals must depend on other senses to guide them to their food.

Whales and dolphins depend on their sense of hearing to get around. They detect objects by producing high frequency sounds and then listening for the sounds to be echoed back to them from objects in the water. The time the echo takes to return can tell the animal how far away the object is. This is similar to the way bats catch flying insects. This process is called ECHOLOCATION.

Because the external ears of whales and dolphins are so small, it was long thought that these animals had very poor hearing. The middle and internal ears, however, are quite well-developed and are capable of picking up sounds received and transmitted through the lower jawbone.

Whales and dolphins produce high frequency sounds inside the blowhole and then "broadcast"



them through the water. When these sound waves strike an object, they are reflected back to the animal through the jawbone and into the middle and inner ears. The highly-developed auditory (hearing) area of the brain receives the messages. The nature of the echo can tell the animal the size, quality, shape and exact location of an object (like food!).

Try the following exercise to illustrate how echolocation works:

Materials: Two wooden dowels about the size of a broomstick. Scarf or cloth for blindfold (one for each student). Stopwatch and tape measure.

Action: This activity is best completed outdoors with a student group.

1. Give one student two wooden dowels and station him or her 100 feet away from a building.
2. Place all remaining students 120 feet from the building and blindfold them. As the dowels

are hit together, have all the blindfolded students slowly turn in a circle. Have them describe the echo. How does the echo change as the students turn? Is there a difference?

3. Select one student to time the echo with a stopwatch. Start the stopwatch when the dowels are hit together; stop it when the echo is heard (this takes some practice). How long did it take the echo to return to you?
4. Move within fifty feet and repeat step three. What is the difference in echo time?

Discussion: This demonstrates how whales and dolphins use echolocation to determine distance. Their use of this process is of course much more sensitive than demonstrated here. It is said that a dolphin using echolocation can tell the difference between a 2½-inch ball and a 2¼-inch ball at 100 feet!□

Bill Hastie

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More Help Sought in Bat Study

What is known about bats in Oregon is far outweighed by what is not known. Mark Perkins hopes to change that.

Perkins is involved in the second year of a project aimed at learning more about these shy, nocturnal animals. The study is funded partly by nongame tax checkoff funds through the Department of Fish and Wildlife, and by the Bureau of Land Management and the Pacific Northwest Forest and Range Experiment Station.

Last year the work concentrated in 11 northwest Oregon counties to learn more about the abundance of various bat species, their distribution and their habitat require-

ments. Perkins asked for help from the public through this magazine, and received more than 100 responses from people who advised him of bat concentrations, roost sites, nesting locations and many other tips.

This year his work is concentrating in Lane, Douglas and Coos counties, and in the Illinois River Valley. He would like any information he can get on bats in this area. Anyone with such information can send a note to the department's southwest regional office at 3140 NE Stephens, Roseburg 97470, or telephone a message to the same office. The number is 440-3353. All Perkins needs is your

name and telephone number. Although much of his work will be in the field, he will contact callers for further information.

Last year, Perkins says, public tips led to the location of 36 nursery colonies, ten productive sites where he live-trapped bats for further study, one night roost and feeding site, and a wealth of other information.

The response gave him information on nursery colonies of two species, hairy-winged and fringe-tailed bats, for which there was no previous nursery colony record in Oregon. Also received was information that indicated two species had very specific habitat requirements.

Two other species, the pallid bat and Townsend's big-eared bat, are apparently no longer found in the Willamette Valley and coast range north of Lane County, Perkins concluded although they were once found in these areas. He has also discovered that some bridges with inverted box-like understructures are providing valuable night roosts for bats as well as birds.

Many people are unduly frightened of bats, Perkins says. Bats have received years of "bad press" and are the victims of many old wives' tales, most of which are unfounded.

In truth, bats are timid creatures which generally avoid all contact with humans. This is one reason so little is known about them. While it is true that bats can carry rabies, the incidence of this is small, and many other mammals are potential rabies carriers, too. Most people who are bitten by bats are trying to kill or handle sick or injured animals. Bats serve a valuable function by consuming large quantities of insects.

If you have information about bats in any of the areas previously mentioned, Perkins would appreciate a note or call.□

Ken Durbin

OREGON WILDLIFE HERITAGE FOUNDATION

To help the Oregon Wildlife Foundation with the purchase and preservation of the Deschutes River property and in consideration of the gifts of others, I/we pledge

\$	Per year for ____ years.	for a total of	\$
or as follows: 198_ \$ _____		198_ \$ _____	Paid herewith \$
198_ \$ _____			

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You Can Help Buy the Lower Deschutes

As detailed in an article in last month's OREGON WILDLIFE, and further discussed in this month's editorial on page 2, the opportunity is ripe to put the lower 13 miles of frontage on both banks of the Deschutes River in public ownership.

The Wildlife Heritage Foundation is busily raising the remaining funds needed to complete the purchase later this summer. Some \$850,000 must be obtained through private donations if the purchase is to become reality. If you are willing to help with this project, simply fill out the pledge card and give what you can. Your generosity now will provide for generations of recreationists to come!□



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