

JUNE 1987

## Profile of a Fisheries Pioneer

By DAN GUTHRIE

"Ivan speaks precisely and he likes to use the unfamiliar word. I remember a tour of Bonneville when he had my class deep in the powerhouse, surrounded by all that sound down in the bowels of the dam. He said: 'Put your hands against the wall. Do you feel that? That's *cavitation*,' " recalled Howard Horton, fisheries professor at Oregon State University.

We were comparing notes on Ivan Donaldson, one of the 37 enrollees in the school's inaugural fish and wildlife class. Like many others from that 1935 cohort, Ivan went on to a career marked by firsts. He was the first fish biologist hired by the Army Corps of Engineers on the Columbia River, where he served from 1941 to 1973 as district biologist in charge of fish passage at the river's dams. He was general instructor on Washington State University's first Columbia River Gorge short course, a position he retained for 11 years until failing eyesight kept him from the annual summer event in 1984. And he was among the first to take a scientific interest in the river's white sturgeon. For almost half a century he has collected photographs, observations, anecdotes, articles and sturgeon samples. He keeps the photos and their annotations in manilla envelopes in a long box.

Last month I became acquainted with the contents of the box while visiting Ivan at his home in Stevenson, Washington. It sat between us on a couch where I plucked out pictures one by one. He identified each of them with the help of a magnifying visor. Then, flipping up the visor and closing his eyes, he provided what is missing from the mind of Minolta and other cameras: memories.

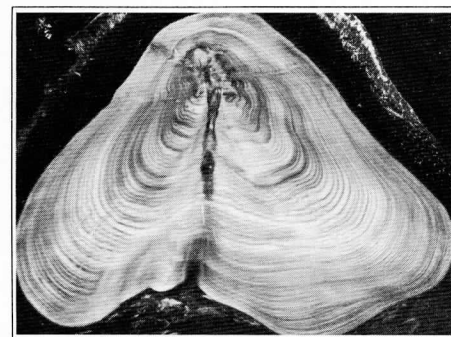
There were many giants in the box, including the record 1,500-pounder taken from the Snake River near Payette, Idaho (the angler used a jackrabbit for bait and tied his line to a willow tree until the fish was exhausted). There were cross-sections of pectoral fin rays whose rings reveal a sturgeon's age (the oldest in

Ivan's collection has 82 rings; it came from a 900-pounder captured on an Indian setline in 1951 near The Dalles). There were sturgeon fatally battered by fishwheels or stuck beneath floodgates, and there were even more deformed survivors: a fish without a tail, a fish blinded by overgrown sockets, a fish alive in spite of the cleft that hinged its skull from ear to ear.

"The tenacity of sturgeon is overrated in one case at least," said Ivan. "Most people think you can hold them out of water for hours. My experience was just the opposite. I used to haul fish across Bonneville Dam in an old Model T to the hatchery. They were out of water only 20 minutes, but half those sturgeon died. I maintain you should treat them like trout."

Ivan is regarded as a resident Columbia River historian nowadays, but he did not begin life near the great river's shores. He was a drylander from Eastern Oregon raised outside Maupin near a somewhat lesser waterway--Bakeoven Creek.

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This 900-pound white sturgeon was taken August 17, 1951, on an Indian setline near The Dalles. It was 82 years old, according to the rings of its pectoral fin rays (see above cross-section).

# Profile of a Pioneer

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At an early age he decided on a profession in fish and wildlife, and during the summer of 1935, when he wasn't digging post holes for highway guard rails at \$.45 an hour, he read Aldo Leopold's "Game Management" in preparation for the new Fish, Game and Fur Department at the agricultural college. He found the material foreign and the book difficult. Apparently it didn't prepare him enough, because his studies at school proceeded

poorly until, by watching classmate Jay Long, he learned how to make good grades.

"I noticed that he put away whatever we were doing an hour before class was over and started reviewing for the lab quiz. Since he was our best student, I imitated him, and shall be forever grateful for the help he unwittingly gave."

Ivan's career as a fisheries biologist for the Corps of Engineers also changed for the better after an unpromising start.

"At first I was flatly denied permission to do research. But in 1945, Gen. Orville Walsh set up provisions by which the Corps of Engineers would fund research

under the guidance of various fisheries agencies in the Northwest. Then the Corps hired Ed Mains, at the time Assistant to the Director of the Washington Department of Fisheries. No better choice could have been made. He proved a tremendous organizer with an unrivaled memory, and his stories--bawdy or otherwise, depending on the occasion--melted opposition. He was a nonpareil.

"With Ed carrying out Gen. Walsh's program, my life changed from one of anger and depression to one of joy in working with fish and research projects."

As a practicing fish researcher, Ivan found he had to suffer opposition from what should have been a kindred source.

## Message from the Chairman

Dear Friends,

Many people ask me the same question as graduation nears: "Are your students getting jobs?"

In 1987, as in other years, I must answer yes and no. Yes, the students and graduates are getting summer and temporary jobs. At this time, only one of the students who requested help doesn't have a temporary job. However, graduates with a B.S. degree are finding it ever more difficult to land a permanent position until they have held a series of part-time jobs and learned a variety of tasks. The surest path to full employment in fisheries and wildlife is a solid record of accomplishment as a seasonal worker, bolstered by recommendations earned along the way.

Department faculty and staff have done much to secure employment for students over the years. For nearly a decade, Howard Horton and Virginia Veach have worked under contracts with the National Marine Fisheries Service (NMFS) to provide trained personnel to serve as seasonal fisheries observers aboard foreign vessels. This Foreign Fishery Observer Program has given

hundreds of students employment in the commercial fishing industry.

Opportunities to receive pay while working on research projects are available to undergraduate as well as graduate students. Examples include recent research on stream ecology, animal damage, woodpeckers and other cavity-nesting birds, spotted owls, eagles and several predators. This year some of our students have been trained by Ruth Jacobs and Doug Markle to conduct a creel census for NMFS.

Our alumni and friends provide an invaluable service in alerting us to job opportunities. Over the years many have traveled this avenue to acquire jobs in federal and state agencies, where Fisheries and Wildlife students are respected for their record of accomplishment.

Charlotte Vickers, an administrative assistant in the Department, demonstrates an uncanny talent for matching student abilities with employer needs, and she continues to work with students after graduation to keep them informed about temporary and permanent jobs. She notes that many students who graduated some time ago make use of our employment registry, especially when they want to relocate.

If you need a student for a temporary position in fisheries or wildlife, or even if you want to ask a question about the situation ("Are your students getting jobs?"), give us a call at (503) 754-4531.

—DICK TUBB

"When I returned from the Armed Service in 1946, I was invited to a meeting of the Pacific Fisheries Biologists. At that time anyone who belonged to the Corps of Engineers was a GDSOB, a pariah, a hated adversary. On the first day of the meeting all of us had to stand, name our organization, and say a few words. They called upon me, and in angry silence I was terrified. I mumble-jumbled a few words and sat down to silence.

"Afterward, I wandered to a group of three people, and I heard one individual say, 'What is that GD COE man doing here?' Mr. Clarence Pautzke, who was with the University of Washington and regarded as Mr. Trout, replied, 'But he's working for the fish!' Then they saw me

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## NEWS & VIEWS

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# Profile of a Pioneer

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and I fled like a quail.

"But I overcame that, and in time they did realize I was working for the fish."

Indeed, in time Ivan became known by his accomplishments. He led thousands of students, citizens, and such dignitaries as Aldous Huxley on tours of the dams, educating them in the difficulties migrant fish must overcome. He and classmate Frederick Cramer coauthored "Fishwheels of the Columbia," a book that greatly disappointed him because three-fourths of it was cut by the publisher (but see Lee Kuhn's comments elsewhere in *News & Views* for a ringing endorsement anyhow). Twice, he had the honor of instructing his old fish and wildlife mentor, Prof. Dimick, on the Columbia Gorge Short Course. He even acquired a modest reputation as a bagpiper.

All the while, he continued researching what had begun as a "hobby interest": sturgeon.

When his vision began to deteriorate four years ago as a consequence of cortisone

therapy for another condition, Ivan bundled up 830 samples that included his extensive collection of pectoral fin ray cross-sections, and he consigned them, along with many scientific articles, to the care of Howard Horton. His collection of photographs he intends to divide between the Fisheries and Wildlife Department and the Oregon Historical Society.

In talking with Ivan, it soon becomes apparent he has more than photographs and pectoral ray samples to pass on. He has points of view. One of them emerged while we discussed the claim by some tribal fishermen that Columbia sturgeon females mature when only five feet long, and that they spawn infrequently or not at all after they exceed six feet. (Oregon law prohibits anglers from keeping sturgeon more than six feet long, as most readers of *News & Views* know).

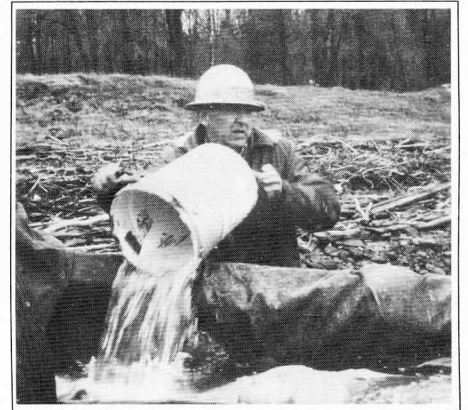
These really big fish, according to the Indian argument, just hang around competing for food with younger, more productive sturgeon. Thus, Indians should be allowed to take the big fish as a means of keeping the population strong.

Ivan wouldn't say whether he thought Columbia sturgeon as a rule were able to lay eggs at the tender length of five feet. He preferred to leave that part of the controversy to economists and field biologists. Instead, he looked at the

problem from a different angle.

"Philosophically," he asked, "is it true that all animals subservient to us should be sacrificed to our appetites? That seems to be the prominent view. I'm not a good philosopher, but I don't subscribe to that view. I would like to know there are sturgeon 10 feet long in the river yet."

Ivan just turned 76. He and his wife, Louise, planted May apples in their yard long ago, but so far no summer has been warm enough or long enough for the fruits to ripen. He thinks this might be the summer when, finally, he will taste a May apple. He would like that.



Ivan Donaldson pours water into a tarp-lined pickup bed before trucking sturgeon to hatchery.

## From the Mailbag

By LEE KUHN  
Professor Emeritus

**Bud Joyce** ('41) really started something when he inquired about several of his former classmates. Our search for the "Missing Persons" mentioned in the December issue of *News & Views* turned out well. One of the lost grads, misidentified as "Fritz Kramer," cleared the air by reporting that he was in fact **Frederick K. Cramer**, known to friends as

"Fritz." Also, he did graduate with his class in 1938, and he isn't lost at all but remains busy on his little ranch southwest of Dufur (mailing address: 709 E. 21st Place, The Dalles, OR 97058). Fritz retired in 1976 after 38 years with several federal agencies. At retirement he was Resource Management Administrator with the National Marine Fisheries Service, SW Region, Terminal Is., CA.

Had I been more astute, I might have figured that out for myself since Cramer and **Ivan Donaldson** ('40), both natives of Wasco County, just happen to be coauthors of a favorite little book of mine, "Fishwheels of the Columbia." Buy a copy if you can find one. It records so well an era that can never happen again. I've always considered myself fortunate that on arriving in Oregon in 1940, I stopped at Celilo Falls and watched Indian fishermen catching salmon from their rickety platforms perched out over the falls. The Dalles Dam wiped out that scene forever.

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**Don Johnson** ('39), who retired from NMFS in 1980, also remembered Fritz as having been with that agency in the SW Region. Don now lives on Stretch Island, a small land mass in southern Puget Sound, and gets his mail at PO Box 105, Grapeview, WA 98546.

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**Lee Strait** ('41), a West Coast expatriate living in Maryland, also picked up the trail and got in touch. Lee spent his professional career with the Food and Drug Administration, retiring in 1980 as District Director of the Baltimore office. He lives at 1903 Huntsfield Court, Fallston, MD 21047. Letters received over the past year indicate Lee has plenty of OSU company along the Atlantic Seaboard, easily enough for an East Coast chapter of Beavers.

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A chapter in Alaska is another possibility.

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# From the Mailbag

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**Carl Rosier** ('59) reports from Juneau that after working for the Alaska Department of Fish and Game for 22 years, he retired (?) and moved next door to work for NMFS, where he has been for the past seven years as Fisheries Development Chief. He says: "It's been exciting and the domestic industry now has the opportunity to replace the foreign fleet in the economic zone. The ground fish industry is coming on strong and it's been a tremendous boost for the entire West Coast."

My most vivid memory of Carl comes from a big game field trip in 1958. We had stopped for coffee in Paisley (Pop. 200), where he borrowed a cow pony and rode down main street. Louis L'Amour he was not!

Another Alaska story comes from **Larry Jennings** ('62), now retired and living in Springfield, OR. He writes of spending "... 23 years of sometimes hectic, trying, frustrating, extremely rewarding but never dull service with ADFG." Larry's beat as area biologist covered the 15,000 square miles around Fairbanks, where he worked with Dall sheep, moose, caribou, grizzly and black bears, wolves, a host of furbearers and small game. He even spent some time with musk ox and polar bears, and he found "... working and living among the Eskimo people during the musk ox transplant to be as interesting as the musk ox themselves." Who says managing wildlife is boring?

Larry misses his friends in Alaska but "NOT THE WINTERS!" Though he's lost track of many classmates, he reports that **Mike Nelson** ('61) is area biologist for ADFG in Dillingham; **Julius Reynolds** ('63) retired from ADFG to pursue commercial fishing out of Cordova; and Stan Kubik ('62), also retired, was last seen in Anchorage.

**Jim Brantner** ('40) was also an

Alaskan, from 1942-55, but transferred to Seattle in '55. Jim was with the U.S. Department of Justice as an Investigator with the Immigration and Naturalization Service until retiring in 1970. His address is 7735 2nd Ave. N.E., Seattle, WA.

**Tim Joyce** ('73) is with ADFG, and since '78 has managed the Kitoi Bay Hatchery on Afognak Island. Although it's one of the oldest facilities in the state, Kitoi releases more fish than any other Alaska hatchery. This year it will release 95 million pink fry, one million chum fingerlings, 250,000 coho fingerlings (for lake stocking), and 50,000 rainbow fingerlings. In 1985 it boasted a return of 3.5 million adult pinks.

The "Jim & Ernie Show" was on the road again this summer. Postcards and a letter arrived from **Jim Blaisdell** ('48) and **Ernie Hodson** ('50), postmarked from several pueblos in Baja California. Mostly they bragged about all the fish they had caught or were about to catch. They mentioned running in to **John Ely** ('50) and **Karl Morton** ('50) at one of their stops. Must have been like old home week. The good news was that Ernie is feeling great after his triple bypass operation in February '86. The bad news was that they had to quit fishing and head for home to do income tax forms, just like the rest of us mortals.

Received a nice note from **Andy Landforce** ('42)--guess the rivers must have been muddy that day. Andy says he thoroughly enjoyed Dan Guthrie's article about Home Creek, "Far from the Mooing Crowd." He even remembered having visited that area several years ago with **E.R. Jackman**, range specialist with the Extension Service. No doubt "Jack" said, "Andy, I think there might be a fish back there in Home Creek." To which Andy would have replied, "Let's go!"

**Rick Breckel** ('77) also liked Dan's article. Rick completed requirements for degrees in both wildlife and range management, then joined the BLM in Lakeview. As a range conservationist he gets to see similar ungrazed streams, but he still finds managing the resource much easier than managing the people who use it. How true!

**Don Beach** ('69), Idaho Department of Fish and Game, wonders why OSU students no longer seem interested in a career in wildlife law enforcement. So do

I. We used to supply well over half the COs for Idaho and several other Western states, and it was a great way for a newly hatched B.S. in wildlife to get a foot in the door. As Don says, "... the Conservation Officer is the backbone of most agencies. There are more of them, they collect a tremendous amount of data, and they do a majority of the public relations work as well as enforce the laws." He also points out that opportunities for graduate research in that field are limitless, since little has been done. Following graduation in '69, Don worked briefly for ODFW, then went to Idaho as a fish biologist. In '75 he transferred from fish research to enforcement, and is currently District CO for Region 3, Boise.

A note from **Wayne Howe** ('43) brought back memories when he recalled that "... the ROTC seniors of '43 graduated in uniform but as privates. Later they were sent to appropriate O.C.S. schools which for Fish & Gamers was artillery at Ft. Sill, Oklahoma." Wayne joined the National Park Service in '46 but was recalled to active duty and served with the engineers in Korea from 1950-52. Returning to the Park Service, he spent his professional career living in such interesting places as Crater Lake, the Olympic Peninsula, Bryce Canyon, Kings Canyon, Yosemite, Yellowstone, and yes--Washington, D.C. After 34 years with the park service, he retired in Seattle as Associate Regional Director, Pacific Northwest Region. Back to Roseburg in '78 to build his home on the banks of the South Umpqua River, where he can watch the ducks, deer, hawks, herons, etc., and do a bit of hunting and fishing. Once a wildlifer, always a wildlifer.

**David M. Leslie, Jr.** ('83), "Chip" to his friends, has been seeing some of the U.S. of A. since finishing his Ph.D. at OSU. Two years as Assistant Prof in the Department of Wildlife at the U. of Maine, then off to Stillwater and Oklahoma State University as Assistant Unit Leader at the OSU Fish and Wildlife Research Unit. Chip says, "No, we are *not* the OSU with the football team." We know, Chip. Unfortunately, we're not either.

One of the pleasures of being a senior citizen and retired is that you get invited to attend retirement parties for others. That pleasure was doubled last January when one of those recently retired was

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# Trucking may Stupefy Smolts

By **CARL SCHRECK**  
Cooperative Fishery  
Research Unit

Ulcers, blood pressure and poor disease resistance. Sound like anyone you know? Probably, but in this case the "anyones" are fish. Over the last dozen years, staff and students of the Oregon Cooperative Fishery Research Unit have shown that fish and people respond similarly to stress. Now we are establishing precisely how the fish react at the physiological level.

Fisheries unit laboratories in Nash Hall are equipped to run diverse assays that help elucidate the events resulting from a stressful encounter. Let's follow what happens to a typical hatchery smolt when it is captured, loaded on a hatchery truck and subsequently stocked in a stream.

The scenario begins when the fish

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## Mailbag

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former student **Monty Montgomery** ('50), who suffered (in silence) through many of my lectures of long ago and still managed to succeed as a professional wildlifer. Monty hung it up after 37 years with ODFW, and was duly roasted and toasted, along with fellow retiree **Irv Jones**, at Shenigans Restaurant in Portland--a full house and a fun night for many many Beavers and friends of these two great guys.

With the likes of Monty and Irv retiring, and more recently **Dale Snow**, the game of musical chairs appears to be resuming. So hang in there you younger folks and go for those empty seats!

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A note from **Nondor (Tim) Weiss** (M.S., '84) with a change of address. You can write to Tim at 1212 E. Mifflin St., Madison, WI 53703, where he's hard at work on a Ph.D. This reminds me that each time we send out News & Views we get a stack of them back, stamped **IMPROPER ADDRESS--RETURN TO SENDER. Please let us know when you move or change addresses.**

## Hormonal Jolts Leave Fish 'Learning Impaired'

perceives it is being netted, which causes fright (we've found that the psychological aspect of fright is a major ingredient for inducing a physiological stress response). This psychogenic reaction causes a "flight or fight" response by releasing adrenaline into the blood, and an adrenal response through the secretion of cortisol. These two hormones essentially cause all the reactions typical of a stress response, such as elevation of blood-sugar levels to provide energy, changes in the ability to maintain water and mineral balance, suppression of the immune system and disease resistance, and behavioral alterations.

If it takes a couple of hours to load, transport, and stock our fish, here's what happens:

- The fright reaction causes stress hormones to be released into the blood within seconds to minutes of capture, and they remain at high levels for another 12 to 24 hours after stocking.

- Blood-sugar levels remain elevated at least 24 hours after stocking, plus the fish needs at least half a day to pay back the oxygen debt built up during the ordeal.

- After the hormonal jolt, the immune system and the actual ability of the fish to resist pathogens stay suppressed for at least a week.

- Surprisingly, the fish's ability to learn is impaired for several weeks, which may interfere with the imprinting process essential for successful homing as an adult.

All this doesn't paint a very pretty picture for the future of our smolt. In fact, a study conducted jointly by the Unit and the Oregon Department of Fish and Wildlife concluded that return rates for coho stressed by transportation are lower than those of peers released directly from the hatchery.

Yet there are ways to soften the blows of stocking. We offer the following list of prescriptions:

1. There must be adequate recovery periods between stresses, since each discrete event the fish experiences acts cumulatively on subsequent responses.
2. Rearing history is an important factor in determining a fish's ability to cope with stress. Healthy fish do better.
3. Sensitivity to stress may vary with the developmental stage--e.g., parr resist some manipulations better than smolts.
4. Different strains of the same species handle stress differently, thus a genetically appropriate stock should be selected at the outset.
5. Finally, tricks can be played on fish to block their perception of peril and thereby lessen fright. In general, darkness reduces stress for fish (just as it does for horses equipped with blinders so they can be led from a burning barn). Anesthetics are also useful pacifiers.

We are continuing our efforts to find ways of minimizing fish stresses and their consequences. Our work now centers on hatchery practices, and on what fish experience during transportation, collection and marking at dams, and passage through dam bypasses or over spillways. Also of interest to us are the stressful aspects of fish social interactions and water quality.



# Eagle Eggshells Thinner along Columbia; Residues of DDE and PCB Implicated

**ROBERT ANTHONY**  
Cooperative Wildlife  
Research Unit

Bald eagles were very common along the Columbia River when Lewis and Clark boated down it in the fall of 1805 and returned in the spring of 1806. The Columbia has sustained great changes since then, and the changes adversely impacted many of its natural resources. Salmon and steelhead runs, waterfowl populations, old-growth forests: all have been depleted. Presumably the eagles dependent on these resources declined as well.

In a project funded by the Army Corps of Engineers, the Oregon Cooperative Wildlife Research Unit has been studying bald eagles of the lower Columbia River for the last three years. We collected information on numbers, distribution, productivity, diet, habitat use and foraging territories for birds from Longview, Wash., to the Pacific Ocean.

We also documented a negative influence of environmental contaminants on populations. Our goal was to develop sound information to use in managing bald eagles.

Numbers of bald eagles on the river fluctuate substantially, with lows from September through December and highs during February and March (Figure 1). Winter migrants make up the majority of the population during late winter, when our counts have documented as many as 150 eagles along the river. This sizable population is comparable to winter populations in the Harney Basin of Oregon and the Nooksack and Skagit rivers of Washington. In contrast the resident population consisted of breeding adults that rarely left their foraging territories, even during the winter. The residents also showed high fidelity to nest territories throughout the year.

Radiotelemetry and direct observation of adults provided us with valuable information on their

use of habitats, foraging behavior and territoriality. Bald eagles typically use old-growth forests for nesting and communal roosting, and this is certainly the case along the lower Columbia River. In fact, nest sites in the area were confined to the remaining small stands of large old trees--stands that continue to be entered by logging operations. Because most of the land along the lower Columbia is privately owned, habitat for nesting bald eagles has a precarious status. Its continued existence depends on the willingness of landowners to forgo profits from timber sales, or on the ability of state and federal governments to purchase land or provide tax easements for lost profits.

We observed that resident breeding adults were territorial around nest sites and defended foraging areas against adjacent breeding pairs. Home range sizes measured from 0.5 to 12.8 km<sup>2</sup>, and most nests were a mile or more apart.

A pair of bald eagles typically has three to

six favorite foraging areas within a territory, thus their territory is not used uniformly. Our observations indicated that foraging intensity of bald eagles was influenced by tidal cycles. Most pairs hunted most intensively at low tide and over tidal mud flats (this was particularly the case for pairs within 25 miles of the ocean).

Fish were the primary prey during all parts of the year, although waterfowl became more important for some pairs of bald eagles during winter. The most common prey species were shad, sucker, carp, steelhead, chinook salmon, western grebes and various species of ducks. Chinook salmon usually occurred as carrion, as did some steelhead.

An alarming finding of our study was the low productivity of bald eagles. In 1984, '85, and '86, the percentages of 22 breeding pairs to fledge young were 35, 41, and 55, while the average number of

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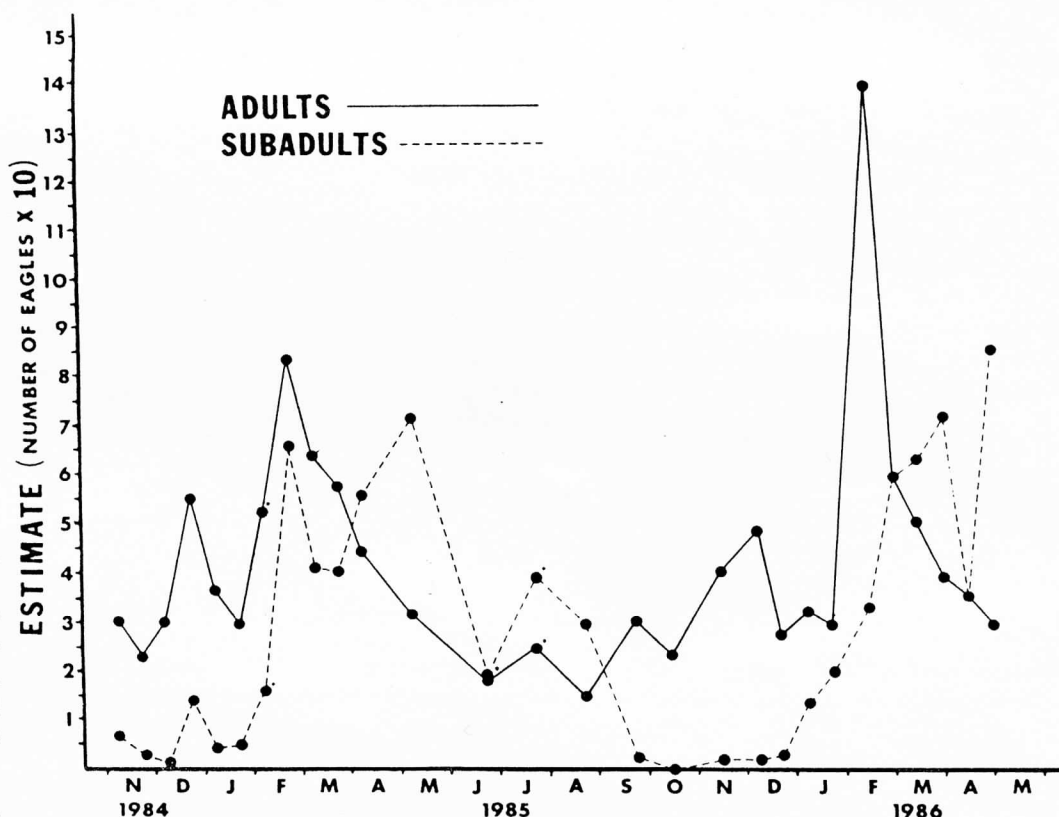


Fig. 1--Population estimates for bald eagles on the lower Columbia River.

# The Making of a Department

## A History of Fisheries & Wildlife at OSU

By BILL WICK

*Editor's note: An earlier version of the following history was delivered in 1985 at the Department's 50-year reunion.*

In the mid-1930s, during the days of the "duck depression," the New Deal, FDR, and J.N. "Ding" Darling (editorial cartoonist for The Des Moines Register), a conservation spirit came over the land. It was slow in building, fueled by events of the Great Depression and the growing dust bowl. In Oregon, where Order of the Antelopers led by Stanley Jewett and Ira Gabrielson trekked to the Blue Sky Hotel for the first time in 1932, a federal act was about to add a new face to the college at Corvallis. That act established Wildlife Research Units at nine Land Grant colleges. The units were to train students and cooperate with state wildlife agencies in promoting research beneficial to progressive wildlife management. Oregon State College was selected as one of the nine, but to qualify it needed an established curriculum leading to a degree in wildlife management.

To refresh your memories: Wildlife management in the 1930s called for some understanding of game farms, fish hatcheries, law enforcement, predator control and seed-stock refuges. State game and fish directors were political appointees, often fine people despite their lack of pertinent training. The Oregon director at about that time was Frank Wire, a former market

hunter.

The 1935-36 schedule of classes carried the following listing for a department so new it didn't make the catalog:

### FISH, GAME AND FUR ANIMAL MANAGEMENT

		Credits	Instructor
Fish and Game Cons.	FG 251	2	Dimick
Pres. and Mgmt. of Game Specimens	FG 261	3	Dimick
Fish and Game Mgmt.	FG 351,2,3	3/term	Dimick
Seminar	AI 507	1	Dimick

Who was this Dimick anyway? As head and only faculty of the new department, Roland E. Dimick was an assistant professor of entomology. He continued to head it for the next 28 years. "R.E." gave the department a soul. To the hundreds of his students he was truly another Dad, and we will never forget.

Arthur Einarsen of the Bureau of Biological Survey was selected as Leader of the Cooperative Wildlife Research Unit. Both men retained their early appointments until retiring, Einarsen in 1959 and Dimick in 1963.

The inaugural 1935 class consisted of 37 students, all of them male and all transfers from other academic programs. Soon they had more classes to choose from. Francis Griffith, a chemist, taught several early courses, while R.G. Johnson, the school's range professor, taught big game.

By the second year Einarsen was teaching a course in wildlife law enforcement in addition to establishing the unit's research programs. The early research centered on Murderer's Creek mule deer, pronghorn antelope, pheasant studies in the Willamette Valley and on Protection Island, quail in the Coast Range, and whitetail deer on the Umpqua.

The first class graduated in 1938. John McKean was the first professionally trained person to be employed--at the Corvallis Game Farm. John, as you may remember, in time became Director of the Oregon Game Commission, and he remains active in conservation matters. Many members of the first class were employed by Game Commission Director Frank Wire, and some were hired by other states.

## Eagle Eggshells Thinner along Columbia

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young produced per pair was 0.50, 0.65, and 0.77. Such low productivity falls well short of the rate of 1.0 young per pair required by the Pacific States Bald Eagle Recovery Plan for delisting the species.

Eggshell thinning appeared to be responsible for the nesting failures. Shell thickness ranged from normal to about 40 percent thinner than was recorded in the pre-DDT era. The thinning was associated with high levels of DDE and PCBs in eggs or blood of adults. All samples, including the blood of nestlings, had detectable levels of these two contaminants. Residues of both DDE and PCBs in eggs were from 5 to 20 parts per million, which is sufficient to reduce breeding success.

The occurrence of DDE and PCBs in nestlings suggests that these contaminants are coming from the Columbia River system rather than from

migratory waterfowl. Probably both contaminants have accumulated in the bottom sediments of the river, and hydroelectric dams along the Columbia and Snake rivers are adding PCBs to the system.

Because of the problems with contaminants and the threat of losing nesting habitat to logging operations, the future of bald eagles on the lower Columbia appears clouded. Management of eagles and their habitat will require the devoted attention of Oregon and Washington wildlife agencies, the U.S. Fish and Wildlife Service, and the Corps of Engineers. The Corps has perhaps the greatest responsibility, since it is responsible for issuing permits for activities that may influence bald eagle populations and habitats along the Columbia.

The attention of these agencies is needed to protect this valuable resource and our national symbol.

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# A History of OSU Fisheries & Wildlife

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Frank Groves, who graduated from another department at OSU in 1936, was hired in 1939 to teach the wildlife courses, leaving the fishery courses to Dimick and Griffith. Frank did not find teaching to his liking, and he left to become manager of the Desert Game Range, the largest such range in the U.S. He served later for many years as director of the Nevada Fish and Game Commission, and is now retired near The Dalles.

In 1940, Jay Long was appointed to teach the introductory course in wildlife conservation along with several upper division wildlife courses. He served in that position until retiring in 1973. Jay's 1942 salary as an assistant professor was \$1,875--*annually*.

To earn this princely sum, he taught four full classes (23 class hours per week), directed the experimental fur farm, helped butcher the horses and day-old ewes to grind up for mink food, checked on fish deliveries, fed the animals, and directed a research project titled "Chastek Paralysis in Mink." The pressures of this work load, he claims, undoubtedly led to his early retirement at age 62, "completely burned out."

Our scientific collection had modest beginnings. We started with a tattered stuffed pheasant, a desiccated mole, and several jars of small, pickled trout. Thanks to contributions from alumni and staff over the years, the collection now surpasses many of its kind along the West Coast.

The Department has relocated several times. In the early years it wandered from the Poultry Building to Home Economics to Agricultural Engineering, where its kingdom consisted of one lecture room and a laboratory on the second floor. In 1945 that laboratory housed all our collections plus two microscopes. The next stop was Snell Hall, and in 1970 Fisheries and Wildlife took up residence at its present address in Nash Hall.

Phil Schneider, class of 1940, was appointed in 1950 as the first professionally trained director of the Oregon Game Commission.

With the war years (WWII), the staff was decimated and student enrollment declined to a trickle. But veterans began moving back in the fall of 1945, and by the following spring they had the campus under siege. Lee Kuhn joined the faculty in January 1946 at an annual salary of \$2,600. Until his retirement in 1981, Lee taught wildlife management, forest wildlife, big game, rodent control, fur bearers, law enforcement, etc., etc.

Students of the post-war era were mature and dedicated. Their motto seemed to be, "We eat pre-med students for breakfast."

As graduates of a young department they competed well nationally for positions in fish and wildlife agencies, although at the time many feared a job shortage. When Russ Hupe ('47) was employed by the Washington Department of Game, he promptly announced that he had secured the last wildlife job of all time!

The student wildlife club--originally the Ding Darling Wildlife Club--became the Fin and Antler Club, since renamed the student chapter of The Wildlife Society. The club's spring outing at the old lab near Yaquina Pete's place was the highlight of the year, although the fall barbecue and liar's contest were also of note.

Fisheries concerns gained prominence in the Department of the 1950s. Carl Bond joined the faculty in 1949, Chuck Warren in 1953, and Howard Horton in 1958. Researchers added depth to the group, including the addition of Wilbur Breese in 1953. And who will forget such courtesy faculty as Pete Doudoroff or Max Katz?

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**Veterans began returning in 1945 and soon had the campus, and Fisheries & Wildlife, under seige. Their motto seemed to be: 'We eat pre-med students for breakfast.'**

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Around 1950, fisheries became part of the Cooperative Wildlife Unit. Ross Newcomb, fisheries, and Hank Schneider, wildlife, were assigned as assistant unit leaders by the Oregon Game Commission.

Even in the early days we were known as a "can-do" department, but when Prof. Dimick received a request to send some students to Africa to build a monkey-proof fence around a peanut farm, he was a bit concerned.

Several hundred graduates returned for the 25th reunion in February of 1960, when it was evident that our alums held jobs around the world on all seven continents. Now, over a quarter-century later, they have worked at nearly all levels, from seasonals to Director of the U.S. Fish and Wildlife Service. Few have forgotten their Oregon State roots. They continue to help the Department in many ways--by sending specimens (bear skulls, jars of exotic fish), by helping new grads find jobs, by building reputations in their fields, and by protecting fisheries and wildlife resources.

With Einarsen's retirement, the Cooperative Unit was deactivated and replaced by the Research Division of the Oregon Game Commission under John Rayner.

Among Professor Dimick's many honors and awards, he received the University's Distinguished Service Award in 1969 and the U.S. Department of Interior's Conservation Service Award in 1972. After retiring in 1963, he continued to pursue interests in stoneflies, trout distribution, and fisheries and wildlife students until his death in 1980.

Tom Scott became only the second person to head the Department in 1963, and a new era began. The art of fish and game management had evolved through the years to become the science of wildlife and fisheries. None of us can turn back the clock, nor should we want to. Yet, as we plan for the Department's future, let's remember our heritage, and the faculty, students and ideas that brought us to this point.

*Special thanks to Jay Long and Lee Kuhn for memories and documents.*



# Progressive Curriculum to Greet 20th Century

By JIM HALL

Bill Wick's history of the early days of the Department calls out for a companion piece comparing today's curriculum with the original model. The timing is especially good because our Resident Instruction Committee, in concert with the rest of the faculty, has just concluded a five-year reorganization of course requirements. Beginning in the fall of 1987, we will offer students greater flexibility in their pursuit of a degree in Fisheries and Wildlife. To quote from the document prepared by the committee:

"The curriculum will be based upon the belief that students in our Department should be provided a good education in biology and ecology as the basis for careers in resource science and management. But resource science and management are not simply biological disciplines. Well-educated professionals should be aware of the inherent social as well as biological considerations and should operate with a perspective that is integrative. Toward this end, social, economic, and political as well as biological knowledge will be emphasized and integrated within the curriculum so as to provide students a broad framework for approaching problems in resource science and management."

We will continue to offer a B.S. in Wildlife Science and Fisheries Science. In addition, students in either program may elect a concentration or specialty area. The following will be available during the first year: Fisheries Science and Wildlife Science (programs similar to what now exists), plus Marine Resources, Fisheries/Business and Public Education/Extension. In addition we will offer an Individual Studies concentration for students with specific interests different from the established concentrations. These might involve such topics as Fisheries/Forestry, Land Use Planning and Environmental Law.

After our years of work, and our creation of a core that emphasized the unity of fisheries and wildlife, we were in a self-congratulatory mood. We had put together a curriculum progressive in its new emphases on economics, political science, business, and public education--a curriculum designed for the 21st century. Then someone suggested we compare our handiwork with Prof. Dimick's 1936 program. We did . . . and experienced some humility (see box).

Revised, February 1936

## Curriculum in Fish and Game Management

### B. S. Degree

	Term hours		
	F	W	S
<b>Freshman Year</b>			
English Composition (Eng 111, 112, 113).....	3	3	3
Elementary General Chemistry (Ch 101, 102, 103).....	3	3	3
General Zoology (Z 201, 202, 203).....	3	3	3
Wild Life Conservation (FG 251).....	3	3	3
Elements of Agronomy (FC 111).....	3	3	3
Introduction to Animal Husbandry (AI 121).....	3	3	3
General Forestry (F 211).....	3	3	3
Forest Administration (F 212).....	3	3	3
Agricultural Engineering (AE 111).....	3	3	3
Physical Education.....	1	1	1
Military Science.....	1	1	1
	17	17	17
<b>Sophomore Year</b>			
Economics and Social Science.....	3	3	3
General Botany (Bot 201, 202, 203).....	3	3	3
Economic Ornithology (Z 321).....	3	3	3
Economic Mammology (Z 322).....	3	3	3
Animal Ecology (Z 311).....	3	3	3
General Bacteriology (Bac 204, 205).....	3	3	3
Biology of Fishes (Z 323).....	3	3	3
Anatomy of Domestic Animals (VM 211).....	3	3	3
Physiology of Domestic Animals (VM 221, 222).....	3	3	3
Physical Education.....	1	1	1
Military Science.....	1	1	1
	17	17	17
<b>Junior Year</b>			
Extempore Speaking (Sp 111).....	3	3	3
Fish and Game Management (FG 351, 352, 353).....	3	3	3
Anatomy of the Fowl (VM 311).....	3	3	3
Diseases of Poultry and Game Birds (VM 351).....	3	3	3
Parasitic Diseases of Domestic and Game Animals (VM 361).....	3	3	3
Principles of Economic Entomology (Ent 211).....	3	3	3
Aquatic Entomology (Ent 341).....	3	3	3
Animal Nutrition (AI 411).....	3	3	3
Wild Life Food Crops (FC 318).....	3	3	3
Incubation and Brooding (PH 321).....	3	3	3
Electives.....	5	5	5
	17	17	17
<b>Senior Year</b>			
Management of Livestock on the Range (AH 419, 420).....	3	3	3
Management of Game Birds (FG 451).....	3	3	3
Management of Game Fish (FG 454).....	3	3	3
Management of Big Game (FG 457).....	3	3	3
Management of Fur Bearers (FG 460).....	3	3	3
Applied Fish and Game Ecology (FG 360).....	3	3	3
Animal Breeding (AI 315).....	3	3	3
Land Economics (AEc 421).....	3	3	3
American National Government (PS 212).....	3	3	3
Seminar (AI 507).....	1	1	1
Electives.....	7	4	7
	17	17	17

<sup>1</sup>General Hygiene (PE 150), 2 term hours, is taken one term in place of physical education.

To be sure, differences exist. No doubt Prof. Dimick's yellowed notes are no longer being used as lecture props. There has been a strong infusion of courses in chemistry, math and computer science. And some of the courses have zippier titles. Even so, a better illustration of the adage "what goes around comes around" could not easily be found. Or, to put it another way, Prof. Dimick really knew what he was about when he put together the first complete curriculum in 1936.

(Continued on page 10)

**Do you want to see something new? Then walk the path you took yesterday.**

**--John Muir**

# F & W Revises Courses; Semesters Wait in Wings

(Continued from Page 9)

In the process of reviewing old Department materials, I came up with a couple other interesting comparisons. Consider first how the costs for tuition and room and board have changed:

	1935-36	1985-86
Tuition	\$79.50	\$1,391
Room & Board	220.00	2,364
Consumer Price Index	41.1	322.2

As those of you with offspring in college will immediately recognize, tuition takes a bigger bite out of the family budget today than it did when the department was new.

If increases had just kept up with inflation, The 1985-86 costs would be \$623 for tuition and \$1,725 for Room & Board.

Also remarkable is what has happened to our undergraduate enrollment over the years. For 1986-87, it averaged 136--substantially down from the peak of 367 in 1974-75, and almost the lowest in the history of the Department. Graduate enrollment has compensated for this decline to a degree, but it appears the numbers of undergraduates will remain well below their historical levels.

Incidentally, our new curriculum won't remain long in its present form. The State

Board of Higher Education voted last winter to end Oregon's 50-plus years of experience with the quarter system. It decreed that we must convert to a semester calendar by the summer of 1990, when classes will begin in late August. A committee headed by Bob Jarvis is now struggling to refashion the Resident Instruction Committee's efforts of five years. It has the additional constraint of reducing the number of courses to be taught by one-third.

All of which reminds me of curriculum planning in-the-round. It's like painting the Golden Gate Bridge: Just when you get to one end, it's time to start over at the other.

## The R.E. Dimick Memorial Scholarship Fund: A Progress Report

By LEE KUHN

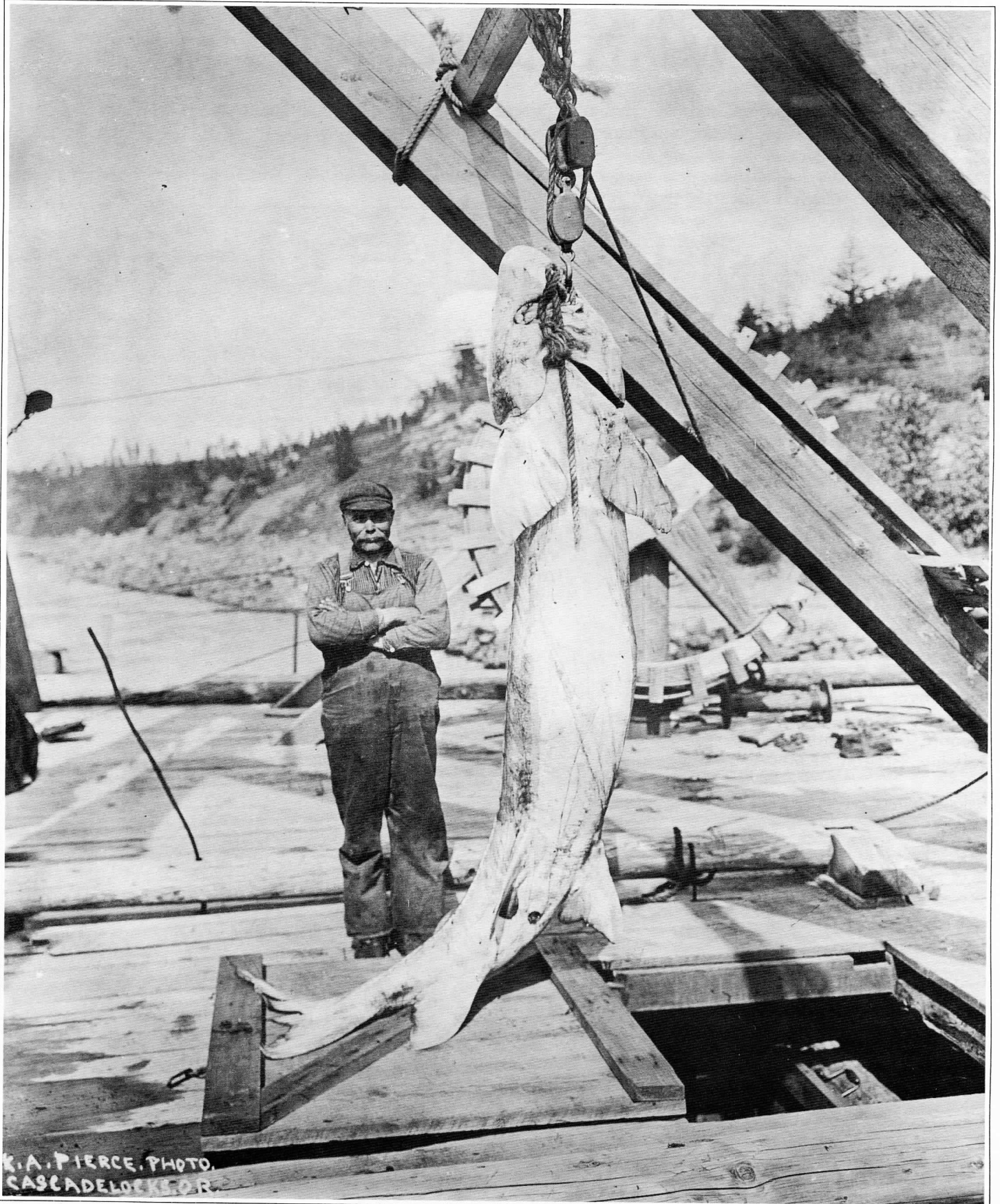
Following the death of Professor R.E. Dimick on February 1, 1980, a memorial scholarship fund was established at the Oregon State University Foundation in his memory. Since many of you contributed and have continued to do so during the past years, you may take pleasure in knowing that the fund now amounts to more than \$8,000, and that the interest earnings have provided financial aid to the following students:

<b>Saralyn Beer</b>	1980	\$100	graduated with B.S., 1983
<b>Terry Jackson</b>	1981	\$100	graduated with B.S., 1984
<b>Greg Short</b>	1982	\$100	graduated with B.S., 1986
<b>Walter Tsark</b>	1983	\$100	transferred
<b>Rosemary Stussy</b>	1984	\$100	graduated with B.S., 1986
<b>Glen Chamblin</b>	1985	\$100	transferred
<b>Scott Kelley</b>	1986	\$300	junior in Fisheries Science
<b>Simon Wray</b>	1987	\$300	sophomore in Wildlife Science

We continue to build this memorial fund, so if you're looking for a favorite charity, here's a good one. The auction of donated items at the July '85 reunion added more than \$2,000. Sales of a portion of my unused professional library plus several books, journals, and reprints donated by some of you (with all proceeds going into the fund) have also helped.

If you want to clean out that closet and rid yourself of some of those dusty old copies of Leopold, Bump, Stoddard, Roger Tory Peterson, etc., send them to me in care of the Department. Whatever they bring will go to fatten the fund.

Also, anyone wishing to replace a dog-eared journal or fill in missing issues in a set might drop me a line. We have a good number of the Journal of Wildlife Management and the price is right.



Andrew Vanstrom stands beside a 673-pound white sturgeon taken in 1912 in the McGowan fishwheel.

(Photo courtesy of Ivan Donaldson)



# WHAT'S HAPPENING?

We enjoy hearing from alumni and Department friends. Send your autobiographical notes to Lee Kuhn and your opinions to the editor, and we will share them with "News & Views" readers.

Please make any needed address corrections below. You might also send us a buck or so to help cover costs of your newsletter, which is appearing twice yearly.

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

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