Oral Interview With
Robert Schumacher
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Robert Schumacher
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(406)

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Art Whitney interviewed Robert Schumacher at his residence at Kalispell, Montana. Bob has been retired from the Montana Fish, Wildlife and Parks for 11 years.

AW: Well, Bob, let's start off with a little bit of your early history.

RS: I moved to Montana in November of 1965 and I started working on the 15th of November, reporting to the Kalispell office here. I met the staff and made a trip to Helena and met the fish and game staff there. I was hired to work here as a fisheries manager, which was then known as a district fisheries manager in 1965, and I retired in November, I don't remember the exact date, of 1982 at the age of 64. I retired in the same position I had when I came here 17 years previously and that was my choice when I moved here. I didn't really enjoy working in the Capitol office anymore after leaving Minnesota.

AW: We might back up a little bit here and tell where you were born and the fact that you had part of a career before you came out to Montana.

RS: I was born in southwestern Minnesota on a farm near a small farm town called Heron Lake. I went to school there and then I joined the Air Corps during World War II and spent five years in the service. After the war was over I enlisted in the GI bill for education and went to the University of Minnesota and spent four years getting my bachelor's degree and I spent about a year and a half in graduate school working towards a master's degree in fisheries management. I did not finish my thesis there because I had a job offer for the University of Minnesota. I had worked summers during the time I was in an undergraduate position with the department, so when I finished my bachelor's degree they were anxious for me to come to work for them and work in the field of disease and nutrition program. Some of my

elective courses in school were aimed in that direction. I first wanted to become a waterfowl biologist when I learned that there was such a thing as fisheries and game people.

AW: Did you learn that after the war when you went to the university?

RS: After the war. Prior to that I thought that all people who worked for conservation departments were game wardens. And most of them were at that time. I think at that time, just before the war, we had one fisheries biologist in the state of Minnesota, the land of 10,000 lakes, you know. But I learned about it when inquiring about getting a job and found out I had to have a college education and I was going to be a waterfowl biologist. After working one summer with the fisheries research unit in the department I found out that working with smaller populations in smaller environments lent itself to a lot more manipulation of species in an environment than working on an international population of waterfowl. So I changed my direction to fisheries management field. While we were employed by the Minnesota department, I started out as an aquatic biologist too, I worked out a system for controlling the disease programs in the trout and initiated a new formulation of dry pellet trout food which was a complete change from the wet ground diets of livers and spleens of butchered animals. I moved up to aquatic biologist I and took on the steam survey jobs and hired summer crews to write surveys and winter crews to write reports - write the surveys up into reports for management. I was promoted to research biologist heading up the coldwater research program and I worked with our regional and area biologists in designing and implementing research projects on coldwater fish -- trout and smelt, primarily. One day as I was sitting in my St. Paul office, Art Whitney stopped in to visit the department and he stopped at my desk because we had known each other at the university and graduate school. And he made a comment that he had a job in Montana that he thought I'd be interested in. I had seen eastern Montana in my earlier days and wasn't too interested in that it didn't look particularly like trout habitat there. But he said, no, they had some real good trout habitat in the mountainous areas and he wanted to show it to me. On my way through Whitefish to Portland for a meeting, I stopped and Art showed me some of the area around the Kalispell region. I was pretty well impressed. So much, in fact, that two months later I was working at the Kalispell office as the district fisheries manager.

AW: That's a background different than most people today have. I have the same thing as you did. Somebody here was looking for a job and if they knew you and offered you the job. You didn't have to turn in an application or do interviews and go through the selection process. It's a different ball game today.

RS: I'm sure I was interviewed by Frank Dunkle when I first arrived and the other staff probably made comments to the personnel officers whether they thought I might be qualified. But, no I didn't have to make a job application at all. And I hadn't in Minnesota either. They were waiting for me to finish my graduate work or reach a stopping point so they could put me on the hatchery problems. It was very interesting moving out to western Montana where practically all the waters are trout waters. Back in Minnesota I had to search for trout

waters, for spring-fed streams in some northern deeper lakes. It was entirely different when I moved out here. There were three fisheries biologists in the region plus myself and I met them and I met the other division units, the game warden, staff, information and education staff and game management staff. At that time, we didn't have a parks unit. It was installed shortly after I came, if I recall. Some of the first things I did when I come on board was to review their stream and lake survey programs and their stocking programs and work with the biologist, Domrose, Laney Hanzel, and Joe Huston in updating where necessary and planning the necessity for surveys in certain streams or lakes and assigning priorities to the program. We also got involved with the Helena staff and the other district biologists in implementing some long-range planning. The concept was initiated in the Helena office and we had some help from the fish and wildlife man, Chuck Phenicie. Anyhow, we got into some long-range planning which is necessary -- looking down the road particularly when you have a limited staff and limited bucks to handle a large resource with. A large resource in district one, there were over 600 lakes in the district and about 5,000 miles of trout streams from minor tributaries to large flowing rivers like the Flathead. The lakes range from high-mountain lakes of a few to 40 to 50 acres and were generally inaccessible except from horseback or helicopter. We'd use the helicopter in the early days for surveying. Most of those lakes were surveyed within the first three years I was here. Some of--. When I first came we had rather limited equipment and limited people so the extensive equipment probably wasn't even necessary. We did get into some new equipment, some ideas I brought from Minnesota with me. Like the boom shocker, for doing population estimates on shorelines and in streams that I developed in Minnesota back in '58 or '59.

AW: And that was useful in both streams and lakeshore areas?

RS: Right.

AW: You mentioned the helicopter. We just went through that with Bob Mitchell's interview. Up until shortly before you arrived here, we didn't have any means of staying ahead of the high lake surveys of staying ahead of the fish planting. The tanks for planting fish by air were developed before the method was developed to use helicopters to get crews into survey lakes. There was considerable amount of stocking that went on in unsurveyed waters because the ability was there. Mitchell and Higgins figured out a method of carrying equipment by helicopter and surveying. You were able to utilize that and get ahead of the planting trucks, so to speak.

RS: We made recommendations for stocking the high mountain lakes. Based on a few limitations, and one was if you were going to fly the fish in, with a helicopter or a plane, by necessity they had to be small fish because you had to carry a large ratio of water for the fish. So, our practice in these high mountain lakes was stock what we called "swim-up fry" which were trout that were usually an inch and a half to two inches in length because you could carry a larger number of fish per gallon of water at that size. Because we were planting very small fish, repeat stockings were delayed for approximately a five-year period.

So that stocked fish could grow up pretty well and pretty well have been utilized before you stocked again with a small fry fish. To reduce the mortality on the stocking program and it seemed to work pretty well as long as we had a span or a range of different lakes being stocked in different years, reduced the amount of helicopter time and it also spread the fishing pressure out on those high mountain lakes. Along, in addition to the boom shocker which we used on a large 18-foot flat bottom skow like they fish in the southern waters with, I added electronic temperatures devices similar to what we used in Minnesota and portable sonar depth finders primarily for doing surveys in high mountain lakes and for locating netting sites by various depths quickly rather than trying to do it with a hand line.

RS: Well they started making standard chemical reagents for us to use in our water chemistry so chances are there was a better uniformity in the readings from a given sample over a period of time, if the reagents were standardized in large batches. I think some of the - couple of the major contributions that I've made to the department, and particularly to this region, was that shortly after I got here and I attended a forest service meeting between fish and game and forest service, I found that fish and game really didn't have any input into what the foresters were doing. And I suppose at the time that seemed logical because the forest service didn't have much input into fish and game and what they were doing. But what the forest service was doing had a direct effect on the environment and subsequently on fish populations. So about the second year or third year I was here after I got familiar with the region and the job requirements and many of the waters (I had been on many of them by that time) I started working with rangers from the individual ranger districts. At that time we had four national forests in district one and there were about 20 or 21 ranger districts that lie within region 1. I started working with the rangers expressing to them our concerns about logging, logging practices, too large a cutting in a drainage, clear cuts, and the riparian activity of harvesting right down to the stream banks. I got the forest service involved to the point where we started working with them from a fisheries standpoint; in their pre-sales which were as much as five years ahead of their anticipated sale, in planning road locations, planning design and sizes and types of stream crossing structures; these were an attempt to reduce the erosion problems that occurred from road construction where water would come down from a newly formed ditch and pour water right into the stream. And we got them to install small culverts to spill the ditch drainage water over the bank or over the slope so the water had to filter down through several hundred feet or hundred yards of forest ... before it had a chance to enter the stream. Also, sizing culverts -- the economy was such that they never tried to put in a bigger culvert than was absolutely necessary, based on what they figured the high flows might be in about a ten year period. But, looking at the number of culvert failures and bridge abatement failures over that period of time we convinced them it was cheaper in the long run to put in a more adequate culvert or a more extensive bridge that had a wider span or better footing foundations so that it would not wash out and add a lot of fill and sediment to the stream to be carried down and spread over the fish habitat area.

AW: You convinced them that it was to their economic advantage not to have to put in something that they would have to redo?

RS: That's right, but most of these people had a conscience and they knew that doing it poorly as far as erosion was concerned was bad business. Some of them actually were biologists before they became rangers and most of them had a conscience; very few of them that didn't; it was relatively easy to work with them in that regard. It not only convinced the ranger of each district that we needed to have some input and concerns into their land management practices out there. It soon boiled up to the forest supervisor and very soon to the regional forester. When I came here in '65, there was one fisheries biologist and one game biologist in the regional forest. And this region forest encompassed, I'm not sure how many forests, about 12 forests in total. Four were in my district that I was concerned about. Within about three years the forest service had fisheries biologists in almost every ranger district plus some staff in their forest supervisor's office. Not only had a fisheries biologist and some of them had a half a game biologist split between two regions, or two ranger districts. But in that same period of time, they quickly put on hydrologists to help figure out culvert size, bridge size, gradient problems, runoff before and after a clear cut or before and after a selective cut as it would impact the stream in high flows and scouring. So it was a very short time, within a period of about five years the forest was pretty well staffed with trained fish biologists, game biologists, hydrologists that were a big help to us in strengthening our argument for better land management.

AW: It's more than likely that if they hadn't had the push from our side to start with they wouldn't have expanded at least nearly that rapidly into that field; somebody had to tell them what they were doing wrong in the first place. To their credit they expanded directly.

RS: Yes. The actual environmental concerns didn't actually start for about another twenty years until we began to badger the forest service, so we got at least a fifteen-year head start in getting them to do things that were less harmful to the fish and wildlife populations.

AW: It comes full circle. Bob Mitchell brought out in his interview that the first fish biologist in Montana worked for the forest service: a fellow by the name Ray West. He was instrumental in getting the five-year planting program set up although by today's standards they were poor fisheries management, they were way ahead of what had been before, which was no direction at all. At least they listened to what we were trying to do. Then Montana began to hire their first fisheries biologist in '48, expanded and then later on now, we push the forest service on environmental concerns and they expand too. We've helped each other.

RS: That's very true. I think we had a very good cooperation from the forest service up to the point where it did not affect their total cut; or their economic method of harvest; or their most economic method of harvest, which eventually became clear-cutting. Wasted a lot of timber and exposed a lot of land to erosion without cover; put barriers in the way of wildlife movement and wildlife habitat. But they were working in the right direction; at least they were moving in the right direction at that time. I think the second probably most important contribution I made was for the instigation of some federal grants to protect the upper Flathead drainage and to reduce the impact of the Bureau of Reclamation dam discharges on

the kokanee spawning habitat. I was contacted early in 1973 or 4 by Cliff Martinka who was a wildlife biologist in Glacier National Park. They did not have a fisheries biologist in Glacier Park at that time. Cliff gave me a call one day and said, "You know, we just heard there's going to be an open pit coal mine developed down some tributaries in the North Fork of the Flathead." And we ourselves had just heard that I believe it was called Sage Creek Coal Company was in there doing some exploratory drilling to define the limits of the coal bed and see how big an operation could be and if they could get in there. Well we were concerned that any operation of soil movement in the size and type that would occur in an open pit coal mine would probably wipe out a lot of fisheries habitat on the whole North Fork which was one of our main bull trout and our main cutthroat trout spawning avenues; most of these fish spawn in a smaller tributary but they still have to negotiate the main North Fork down to the Flathead River and into Flathead Lake. It would also bring tailings and probably mine acid from the exposed arsenic that is usually associated with that type of deposit plus the organic material of the coal. And so we called, we got together a mailing list and mailed out letters to all of the agencies that we could think of in this part of the country that might be concerned about a coalmine development on the Flathead River. And of course, hopefully, someone who might have some funding that might be available. We had a good turnout, I think we had about 50 people, from agencies primarily although there were some newspapers there as well; a representative from Sen. Baucus' office and I don't remember if Pat Williams was on board at the House of Representatives at that time or not, but it seems like he was. But we had representatives from Congress at these meetings and we tried to stir up enough enthusiasm to go home and talk to their bosses about the problem and come back for another meeting about four or five months later and see what they had to offer. Well, they all came back, at least most of them, for the second meeting, but nobody had anything to offer in the form of funds or help with our problem. What we needed was bucks. In the meantime I had talked to the Helena office about the problem and they were aware of it. I talked to them about our necessity to acquire enough data background on fish populations, fish habitat, water quality and the stream biota of insect larvae that fish feed upon. So that we could have some mitigation if this coal mine developed. It took almost a year but Sen. Baucus did get an appropriation in Congress for a study on the North Fork and its impact from the possible coalmine on aquatic life. It seemed like it was about $1.9 million, the authorization. After Sen. Baucus got the initial authorization for the $1.9 million, the Yellow Bay Biological Station which had experts in the field of entomology, aquatic organisms, algae and to some degree water chemistry. They were given a part, about 40% as I recall, of this allocation to do that type of work during the same period of time that we were going to do the fisheries habitat and fisheries inventory. The authorization was for a five-year study. The way the government works, there wasn't any money available until the appropriation, which didn't come for about a year later.

AW: I think you were right the first time. Authorization means you can do it, but appropriation is giving you the money to do it. The Corps of Engineers once described it as authorization is just a hunting license to go looking for money.

RS: Well, at any rate, the appropriation finally got into the Congress and the money was

appropriated to the Environmental Protection Agency of the federal government and they were to allocate the money for the projects and act as watchdogs over the project. The Governor, Schwinden at the time, was interested in the project. He had been from the start. He also had his office at our earlier meetings. And one of the things he wanted to do was to set up a commission of local people; people who lived within the Flathead Valley to act, more or less as a steering committee for the project expenditures and the type of work that would be done. And he did this and he provided a man from his staff to meet with the people that were selected for the commission. First he acted as chairman to get them started. And the money became available and we started to work. One thing I'd like to mention in going back a little bit, after we had asked Helena if there was money to get into this project in the magnitude that I thought we had to get into it, obviously the money wasn't there because it hadn't been budgeted two years in advance like our budget system usually works. So I asked for authority, I asked the director, who at that time was Wambach, and he was up in our regional office for a meeting and when he was with Tom Hay, our supervisor, one day I asked him for permission to go after funding. I explained the problem of the coalmine and the impacts it would have on the aquatic habitat, and I asked him for authority to go outside looking for money. It was his authorization then, he said sure, that's ok, as long as we don't have the money, if you can find it go get it. And so we did and we drew up the study proposals; Jack Stanford drew up one that related to the fauna and aquatic invertebrates and I drew up one that related to fisheries populations, fisheries habitat, water flows and things like that. So then after that was when the appropriations became available. Along with this EPA grant for the North Fork of the Flathead and the impact that the coal mine might have, we had a meeting with the Bureau of Reclamation people concerning the impact their reservoir discharges on the survival of the kokanee spawning population; it was being impacted very severely with their increased withdrawal programs leaving the streams and the eggs high and dry for a long period of time without water to cover them. And we got a grant from Bureau of Reclamation for $300,000 to do a three-year study on the impact of the reservoir discharge on salmon population. We actually initiated the two studies almost simultaneously. It might have been better manpower wise to have staggered them but as far as the impact of these events were having on the fish population it was imperative that we get going all at once. So we did. When the money finally became available we had a staff total of 34 fisheries people, most of them, a good part of them master's degree people who were looking for permanent jobs or at least some working job and then a number of aides to help gather data in the field. So when I started here we had three biologists plus myself and when I left we had 33 biologists plus myself.

AW: Your supervisor headaches increased.

RS: Oh yeah. When I retired at least one year earlier than I had planned to. The project needed to be finished when I was having my 65th birthday but I was having some pretty severe chest pains a year before I retired and going through the cardiologist examinations we decided even though I thought I enjoyed stress and activity it was getting to me. And he suggested that I let up on the work. There wasn't much way of letting up on this when you get an outfit like this by the tail, like a lion by the tail, you know, you can't just let go. So I let go by

having somebody else come in and finish the job and I retired. And interestingly the cardiologist was pretty correct because within six or eight months after I retired I didn't have any more chest pains and I haven't had chest pains in the last 11 years. So I got rid of the problem by getting rid of the stress. My advice to everybody is to know when to quit, I guess.

AW: That's good advice. And that probably brings us to the ending point.

RS: Well, you asked for anything that I saw as problems. These are problems that are not necessarily typical of Montana; they apply to some large degree across the wildlife management people of the whole nation. One of the problems is that we were always playing catch-up, which kept us in the negative position of having to attack. Projects and operations that other state agencies, federal, either on the books or had initiated and begun, this coal mine was a typical one. Thank goodness they hit a coal slump in the middle of our study, which delayed their really getting into the mining business; the prices fell drastically so it gave us a breathing space to gather five years of data. The affect of that information that we gathered was the tools with which the international joint commission was able to put enough barriers in the type of development that they could do in Canada where, to the point, the operation was abandoned. The coalmine was never developed. The timber was cut on most of the two hills they were going to start to mine so they were really going at it; it was cleared and ready for construction. Undoubtedly that clearing had some affect on sediment downstream particularly in that one stream that was a bull trout stream almost between the two hills they were going to mine. There was another illustration of playing catch up. Our inability to respond quickly because of budgetary problems, particularly biennial budgetary induced problems, doesn't let you get on top of anything of any magnitude that happens until two or three years later.

AW: It's hard to plan for it when you don't know it exists. You can't predict two or three years down the line.

RS: You can't gather information all over on every bit of water and fish population with the idea that maybe some day one of them would be threatened by some development. But it does put us in that negative position of always being against "Congress." I think one of the problems that is most upsetting to me is the invasion of politics into the professional fields of expertise. Politicians hearing a few protests of I want bigger fish and more of them over the managing of sensible sustained harvest which was generally supported by the old style conservationists, the true sportsmen's groups that existed in the days of not having a lot of notoriety and news standing and waiting for you to criticize what some agency was doing like they do nowadays, the true sportsmen's groups were better informed as a group probably because they asked the professional people for opinions and for explanations of why things happened or how they happened or what might happen. Where as now, many of the so-called organizations preservationists or whatever you want to call them, are better informed than the professional people in their own mind, and they want instant populations and they

want instant growth back on the trees and slopes in the forests and things like that. Everything has got this world of ours become a consumptive today thing and a “me” thing: “want my things and I want it now. I don't want to wait for a fish to grow up, I want it now.” Put him on the hook for us.

AW: Is there anything else you want to add, Bob?

RS: That's about it.

Addition:

RS: I mentioned Art that the things we did in the general day-by-day and year-by-year activity would be picked up by Bob Domrose and Laney Hanzel who were biologists who worked with me and handled a good part of those chores. But when I first came here in '65, the state had just been into a program of stream habitat preservation where any governmental agency, federal or state, had to have a permit before they started working on stream crossings, stream banks, and things like that, riprap. In two years it was expanded, no it wasn't two years, five years before it was expanded to include all streams and waters under the stream and lake protection act. Also pertained to farmers.

AW: Yeah, that was about five years later in the early '70s. The difference between the two was the first act our department was the administering agency. In the second act, the soil and water conservation districts were the administering agencies. And we gave them advice. We didn't have quite the authority. It was a little bit more of an advisory deal than a supervisory deal, but it gave us our foot in the door on all stream alterations.

RS: It did not apply to the federal government, though. This was where my early work with the forest regions and rangers helped because we got them immediately into the program of giving us notice on every activity they were going to do on a stream. Primarily they weren't too concerned with lakeshores, but stream crossings and anything that involved a project that was close enough to carry sediment into the streams. And at that time I carried most of these meetings with the soil conservation districts and with the forests and the cities, the cities had to go through this also, and the state forests had to go through it, I carried most of these field meetings myself. With one real objective in mind and that was I'd seen many programs where a rule or law was administered by a number of different people without a lot of close supervision and it became to the point where some of them were very effective in getting the job done and some were very ineffective. And the rules were bent in various ways in many areas. And I figured if one person was working with all these agencies on all these projects they ought to be getting the same approach to stream preservation and the same answer to what was a good structure and what was a detrimental project and how to modify it. And so when I, I probably spent about a third of my time in working on the stream preservation act and lakeshore preservation act with the private sector and the soil conservation district and all the agencies. I think it was time well spent because we got away from the undersize

culverts; we got away from riprap in places that were appeasing a farmer instead of just modifying a stream or controlling a stream's modifications. When I retired and quit that position they had to split that job up amongst three different people. I think--. I know that we have saved a lot of sediment in streams and a lot of damage to lakeshore property and docks and obstructing sediment movement around the lakeshore at Flathead Lake. So I felt that it was a very important function that I worked very hard at.

AW: I think you were right in having it under one person for consistency in dealing with the public. We felt the same need statewide as you did in your region. Of course, we didn't have the ability to assign one person statewide but that was where Norm Peterson's position came in, worked with each regional manager and tried to ensure some consistency within regions.

End of Tape.

Transcribed by Margie Peterson
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