# Interview with John Gaffney
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John Gaffney is a fisheries biologist who worked most of his career with the Department of Fish, Wildlife and Parks and has been retired for a few years. This interview was conducted at his residence 1139 N Spruce, Bozeman, Montana.

AW: Bud, would you like to start with a brief description of your early history?

JG: Thank you, Art. I grew up in the eastern part of South Dakota on a small farm. My parents purchased the farm shortly after they were married in the 'teens. My father was born in South Dakota and my mother was born in Iowa. They operated the farm during the 1920s and 30s which were commonly known in that country as the dirty 30s. My interest in fish and wildlife goes back to those early years. A neighbor of ours on an adjoining farm subscribed to several outdoor magazines and he always brought them over for me to read when he was through with them. It was pretty enlightening for a small boy on a dry-land farm to read about hunting and fishing trips all over the country. It was also difficult to realize that maybe someday I'd be taking part in some of those activities. I grew up on the farm and when I started high school my parents moved into town. My father's health was bad and he wasn't able to operate the farm anymore. When I finished high school I went in the Navy for several years. When I returned to Faulkton after the war, I continued to read outdoor magazines. At that time one of them published a little pamphlet about careers in fish and wildlife management. Actually that was the first time I realized you could make a living managing fish and wildlife.

AW: This was after your career in the Navy and after high school?

JG: That's right. This was in the late '40s. Actually when I was in high school we didn't think about a career. Career choices were rather limited at that time and being able to find a job that would provide a living was higher on your priority list than selecting a career. This publication that I read listed schools around the country that were offering training in fish and wildlife and wildlife technology. The University of Montana at Missoula listed two options – one was a forestry option.

You could get a degree in forestry with a wildlife option or they also offered courses in the zoology department that they called wildlife technology. It seemed to me that Montana would be a pretty nice place to live after living in the flatlands most of my life and it seemed to me that the mountains would be a pretty attractive place to live. So I applied for admission to the University and attended there for four years. I graduated from the University in 1952 and applied to graduate school in Bozeman. Dr. Brown was the fisheries professor at that time and Dr. Quimby was in charge of the wildlife aspect. I came down here and worked under Dr. Brown for two years in graduate school.

I enjoyed living in Montana so I decided if employment was available I would like to join the department after I got out of school. As I recall the application and employment process was not highly structured at that time. I made a phone call to Chuck Phenicie who was the chief fishery biologist at that time to see what the employment prospects would be. He invited me to come in for an interview, I guess it was more of a visit. I went to talk to Chuck and I was favorably impressed with Chuck. He's been a favorite person of mine. He made me feel at ease and he's always been very capable administrator. Chuck indicated that he intended to add a number of biologists to his staff over the next few years. I don't recall exactly who was working where then in 1954. I believe you were in Missoula at that time. Nels was in Great Falls, Opie was in Bozeman, Frank Stefanich was in Kalispell. Chuck's intention was to get additional people to help each of these fellows in their district. However, at that time he didn't have any openings. Clint Bishop was starting a survey of fishery resources on public lands and they wanted to get someone to help with that project for a year or two.

Chuck offered me the job and I accepted so when I finished school in June 1954 I started working with the department. The first few weeks are interesting. I went to Helena for my first day of work and that same day Frank Stefanich called down from Kalispell and wanted someone to come up and help him collect spawning cutthroat below the road culverts on the road that went around Hungry Horse Reservoir. That was a pretty interesting first assignment. We were only there a few days but it was impressive to see some of those fish that were running up being blocked by the culverts on that highway. I spent the summer with Clint. We each had a summer employee with us and we traveled around the state and looked at the waters that were on public lands and made notes as to the fishery values those waters had. The department had an agreement with the state land board and also some federal agencies that any of those lands that contained water that had an importance to the fishery of the state that those lands would be withheld from sale. They would never be sold.

Other interesting things about those early days I remember about a week or two after I went to work Clint and I needed an extra vehicle for traveling around on this project. Nels Thoreson happened to be in Helena that day. There was an old truck at the Great Falls hatchery that wasn't being used and Chuck thought I should go up and get the truck and bring it back for summer use. Nels and I left Helena about 5 o'clock and by the time we got to the hatchery in Great Falls it was well into the night. I don't remember the reason but for some reason I wanted to get back to Helena that night. We headed down the highway to return to Helena. Near the entrance to the canyon the battery fell out of the truck. This was on the old highway. I heard it hit the pavement and I knew there was no way we were going to go anywhere that night. I pulled the truck off on the ditch and slept on the seat until daylight and hitched a ride back to Helena. Had to get another battery and vehicle and go back and get the truck. It got us through the summer, barely, but it did.

AW: That was one of the trucks you used in the summer of '54?

JG: I don't recall what happened to it after that.

AW: I can remember the vehicle. It left something to be desired.

JG: Helpless and hopeless might describe the vehicles we had on that project. But we got through the summer. I do recall helping you with a number of projects in the Ovando-Lincoln area that summer.

AW: I remember helping you guys move to Great Falls. It wasn't the condition of your truck but I think someone forgot to bring the maps. One of the vehicles had to go back to Helena. I offered mine to help move the two trailer houses. I pulled one of them to Great Falls.

JG: Yea, we had a truck full of maps and had all kinds of problems keeping them straight that summer. We got through the summer and hopefully some waters that might have gone into private ownership were kept in public ownership as a result of our efforts. Another thing I remember about those early years are the boats and the motors we used. You were on the Marias that summer and I was on the lower Clark Fork. We had some money from the Washington Water and Power Company and Chuck felt I should stay on that project since we were using outside money for it. I didn't spend that much time on the Marias. I needed a boat and a motor so you loaned me your big 18-horse motor for the summer. I believe it was a lone star boat you had at that time but I used those that summer. That was a pretty big motor in those days. Now that would probably be a trolling motor in most of our boats. We've got much better equipment now.

AW: Have you noted any of the present boats they're using on Canyon Ferry? Inboard, outboard jets.

JG: Boats became a sore spot at times in the department with the administrators. I remember one director was a little concerned about the number of boats that the fish division had. I don't recall if you asked us to do this Art or if we did it on our own. I got to looking around Region 3 and we had a little over two boats per person at that time. That wasn't quite as bad as it sounds because we were down on staff and we had two or three old boats around that weren't safe to use. We couldn't dispose of them so they were still on our property list.

AW: That was the problem I had explaining to the director that some of them were almost unserviceable but sometimes were what you needed to get into small places and not worry about banging up equipment.

JG: Yes, and a lot of those boats were pretty specialized. When we got into electrofishing projects in Region 3 we used the small 13' Boston whalers. By the time we equipped them for electrofishing they weren't usable for anything else. We couldn't put a motor on them and go out and gill net. It was a very specialized piece of gear. Another interesting item along the equipment line was our infamous pirate traps we used for a while. You recall that it was a monstrous trap that we used to get fish that were moving along the shore line. We did set it in some slack water on reservoirs where we had a little current. It was difficult to set, as I'm sure you remember.

AW: I think I was helping you and Frank; didn't we set it up in the hatchery yard so we could see how it was supposed to look and we caught the dog in it.

JG: Yes, we were able to release the dog. Another interesting item on the pirate trap, you recall it had a long lead on the main part that led on to the pod and there was a long rope attached to that with an anchor on the other end. The anchor was permanently attached so we didn't have a free end of rope to take up slack when we needed. When I was in the navy I learned a variety of knots that probably had some significance back in the old sailing days. One of them was a square knotted sheep shank that was designed primarily to take up slack in a line. We were setting this pirate trap in the Flathead River and when we tried to anchor the lead up on the shore we were faced with an eight-foot vertical bank and no way to get up there. The only way to anchor that lead properly was to get some slack out of that line. Frank Stefanich was amazed when I tied a square knotted sheep shank about 8' long to use up the extra rope.

AW: It served a purpose.

JG: Yes, that was the only time in my life I've ever been able to utilize a square knotted sheep shank to advantage. Some of the other problems we had in those earlier years were the distances involved in Montana. Everything was a longs ways away and especially that first summer when Clint and I were on that land survey. We worked ten days on and four off. We worked the last five days of the week and then take four days off and go back for another ten. That minimized travel a little bit. It wasn't so difficult for the employee but it was difficult for family. We had two daughters at the time they were preschoolers and it was difficult for everyone to have the family separated that way. But it was a requirement of the job and we had to do it.

I guess one of the big problems in those early years was one of attitudes – both internal in the department and with the public. Biological management of the fish and wildlife resource was not well accepted. I guess it still isn't completely accepted but we've gained considerable ground since that time. It was difficult to overcome some of the long established practices in fish and wildlife management that may have been less than sound from a biological standpoint. Attempts to change were difficult, often creating hard feelings among employees from different divisions in the department; certainly with a lot of the public who felt that the old way of doing things was the best and we should continue to do them that way.

AW: You had a real good point there. It wasn't just the public but internally too. There were folks that had been managing the resource one way and then we came along and said much of what you're doing is ineffective, you should do it this way. Then, too, we were just starting out with D-J {Dingell-Johnson} funding and money was easy for us compared to what the hatchery crew had to do. They looked at us with all this new equipment.

JG: After that point fish and wildlife management had been primarily law enforcement and hatchery operations. Not just fish hatcheries but game farms where game birds were raised. It was a transition period where the difficulty people had accepting new ideas were certainly understandable. In many cases it led to hard feelings and problems on a personal level that may have been unavoidable. Fortunately, over the years we got by most of those things. Feelings are a lot better in recent years. Another vivid memory in my mind is the process of moving families around. Reassignments were fairly common; it was necessary to move from one community to another. At that time the department had a snub-nosed truck. It had a large stock rack on it and that was the moving equipment. When you were being reassigned to a new area you would borrow the truck for a few days and get some of your fellow employees and neighbors to help load some of the furniture and cover it up with a tarp as best you could and head for your new home. I guess it's to the credit of wives and families that they survived those moves. Like anything else we made the

best of it. And I don't recall when that change in policy came about; it was probably in the '60s when the department decided to move people by professional moving company when they were reassigned. It probably took the pressure off the family when they were moving to a new area.

In those early years, because we were spread so thin around the state and didn't have full staff in any area, it was necessary to help each other out. I'm sure you'll remember when you and Frank Stefanich and I used to net the Thompson Lakes in the winter. That probably wasn't a major milestone in fisheries management in Montana but I always remember that you pulling fish out of the gill nets bare-handed in sub-zero weather. It just amazes me that you could do that and still have your hands function after a few hours of that. I always wore some kind of gloves and my hands were still cold. Ordinarily when I'm out in the winter like that I've got some kind of glove liners inside of mittens and its completely impossible to pick gill nets with mittens. It was difficult enough with gloves on and how you could do that bare-handed amazed me.

AW: As I remember both Frank and I had recently invested in felt lined boots and fleece lined overshoes that kept our feet warmer. You had a pair of just plain overshoes. We said you gotta keep your feet warm if you use your hands in the gill net.

JG: That was pre-Sorrel days. Now we've got Sorrels to keep our feet warm. That could be. Maybe it was my feet that were cold.

AW: That's one of the things that I remember about those early days, too. This helping each other was really good for the division as a whole. It got us working together and realizing other people's problems.

JG: It did make a lot closer contact with other people in the department and you knew people in the other divisions pretty well. In more recent years as the department grew and the operation got spread out around the state with different activities, there were a lot of people you didn't know. In the last few years that I worked there were a lot of people I didn't know at all. I guess that's the normal part of growth in an organization. It removed a lot of that personal touch we had in the early years. I did work on that survey on the Lower Clark Fork. It was a cooperative project with the Washington Water and Power Company. I remember when the budget was prepared for that project it included a small trailer house that was used for an office and a field station. I still remember it was 8' wide and 22' long with one bedroom with two single beds in the back and a bathroom; and a living and kitchen area. I was kind of amused; one of the administrators from Helena came through the Kalispell office one time and I was out doing something , getting prepared to move the trailer house. He came by and looked at the trailer house and I had the feeling

that something was worrying him. I asked him what he thought of the trailer house. He said, well, I guess it's alright. But it hasn't been our practice to furnish living quarters for employees' families. I couldn't wait to get home to tell my wife and she and I and the two girls were going to move into an 8' by 22' trailer house for the next two years. That wasn't the purpose of it. It was a nice trailer house and it served well for a field station but it certainly wasn't suitable for a family to move into. In my mind, one of the big problems we had in those early years was the problem of stream alteration – both the streambank and the streambed. There were a variety of reasons to alter streams in those years and build roads. Farmers and ranchers wanted to keep the stream from running where they didn't want it to go and a number of other reasons.

We went on a lot of inspections in those years with individuals and agencies to discuss the effects of work on fisheries values, but actually fisheries values got very little consideration in the final design of the project. It was pretty frustrating to me and to a lot of other people to see that work being conducted without considering what was a very important natural resource for the people of Montana. In many instances this work was financed in part if not entirely with public funds. A number of the programs involved a sharing arrangement where federal money was used to pay a large part of the costs. In many instances representatives of other agencies encouraged those practices or at least did very little to discourage them. That was difficult for me to see that going on where we were using public funds to damage something that was actually important to the public. Sometime after I moved to Bozeman as fish manager in 1960 – shortly after I came down here one of the local clubs asked me to meet with them and talk about fish management. We didn't get a date arranged until the early part of the winter and I remember that the night I went to the meeting was a stormy night. I drove quite a ways on slippery snowy roads. The meeting was scheduled to be with the fish committee with this club and I anticipated three or four, maybe half a dozen people. When I walked into the room there were 24 people sitting around the table. And that was the fish committee. You can imagine the outcome of any meeting where you had 24 people on one committee. They weren't particularly interested in discussing management philosophy or long-range goals. They had a list of all the waters they wanted planted with hatchery fish; the numbers of fish, the species, the sizes. I tried to explain to them what the division's policy was on fish planting and what my personal philosophy was on that type of management. They weren't interested at all. I felt somewhat like a clerk in a Sears catalogue office – I just went over to pick up the order. The items they wanted and where they wanted them put. It was interesting and there was a lot of that during that period of time. In fact, later on that same club modified their philosophy over time and by the time I left the region in the '70s they were thinking about wild fish management and habitat protection. There was a lot of progress made with sportsmen's groups over the years.

AW: I think much of the progress in groups like that was being able to sample fish populations in larger streams. In the '60s we couldn't tell them for sure what the fish population was in the Madison.

JG: That's right. That was probably one of the most interesting parts of my career. The work that we did with electrofishing in Region 3. As you say, Art, we were managing a number of blue-ribbon streams across the state. Devising fishing regulations and planting schedules and the management program without knowing anything about the wild fish we were managing. That didn't make a lot of sense to me. We needed to know more about the wild fish we were dealing with. In the early '60s we began to apply the technology we had for electrofishing in big rivers. And of course prior to that time fish stocking had been done on smaller streams where we carried a portable generator out and put it on the banks. We'd block off a section of stream 300 feet or similar distances; 528 feet was what some of us used, that was one-tenth of a mile. We made repeated runs through there and tried to get as many of the fish as we could. We knew we didn't get them all. We'd use the number of fish we took as an index for the number that were there. Maybe we only had 90% of them but it was the number we used for trend data and we'd come back in another year and shock and see how it compared with the previous years.

AW: You couldn't work any stream that was too large.

JG: That's right. You couldn't block off part of the Madison or Yellowstone. There was no way to hold the nets so we were limited to small and medium streams where we could collect data. The mark and recapture method to study populations has been used extensively in other fields as well as fish and wildlife management. We attempted to modify this electrofishing process where we'd carry the shocker in a boat, float through several miles and collect as many fish as we could and mark them either with fin clipping or a tag of some kind. We'd come back a week or ten days later, go through the same section and then compare the number of marked fish in the second sample to the total number of fish taken. That ratio would give us an idea of the total number of fish in the section. That's a pretty simplified description of what we were doing but we were doing it that way for a few years. Later on we hired a project biologist and assigned him full-time to work on that project. Dick Vincent took the job and conducted that project very successfully for several years and got a great deal of information about trout populations in some of our bigger rivers. Eventually the population data we got lead to the revision of our planting policy for streams; prior to that time we'd been planting larger numbers of catchable trout in most of the big rivers in Montana. Since we were able to make estimates of the number of fish we were dealing with we were better able to modify our study practices. The studies on the Madison-O'Dell Creek, one of its major tributaries showed us when we plant large numbers of hatchery reared fish on top of

a wild fish population we reduce that wild fish population substantially without regard to the impact of the fishermen. Fishermen are harvesting fish all the time in these streams. Over and above that the introduction of the hatchery fish was creating some sort of a stress factor on the wild fish that increased the mortality.

AW: Up until that time we thought they were just getting the cream on top and then we realized the economics – your study showed we were not adding, we were subtracting.

JG: Right. Dick Vincent summed that up very well. He said that we used to think that the practice of planting fish in the stream, that two and two made six. He said that with the data, we knew that two and two made three. That was a pretty good description. There was one interesting side line on the electrofishing operation – you recall, Art, one time a fisheries administrator from Australia or New Zealand was here.

AW: Chas Hardy, he wrote his name Chas and that was what he wanted to be called. Chas.

JG: You got him around to look at a number of field projects and you met us on the Big Hole River, we had planned some shocking that day and you brought him around to see the operation. I still remember the one question he asked me. The fellows were getting their boots on and the gear ready in the boat, getting ready to make a run down the river. He looked at me with his down under accent, rather quizzically and said, I say. Do I understand you right that you chaps actually get in the water when that device is running? He was pretty amazed that we would get in the water when you mix electricity and water.

AW: Apparently in New Zealand they stay in the boat. They have a lot of safety features in the boat. He asked what safety precautions we have and George said we have a long list of applicants who want to go to work for us.

JG: Well, admittedly, Art, our safety precautions left something to be desired in the early years but we did improve over the years. As you say, initially we were walking ahead of the boats and the people operating the electros and the nets actually got in the water and walked ahead of the boat. In the deep holes, they had to jump on the bow of the boat. In later years they got to the point that everyone stayed in the boat which was a better safety factor. And we improved some of the safety considerations. We did get a lot of good information from that shocking on the Madison and other parts of the region. Other regions adopted the gear, too. One gratifying thing was that we didn't have many serious injuries. There had been some serious injuries around the country with electrofishing gear, and we did have some

near misses and people got a pretty good jolt. That scared us considerably but actually no one was seriously injured or killed.

AW: There was one person killed but it was with unauthorized use.

JG: A fellow from Bozeman, Don Vennecolt, played a major role in those early years of modifying fish shocking gear. Don was an electrician in Bozeman and I met him the year I came to the department. He was on the payroll traveling around the country checking devices for electrofishing. I remember one generator he had just about filled the back of the pickup. It wasn't practical because it limited you to where you could drive. Don was a very skilled electrician and had a lot of good ideas. Don and I became very close friends over the years and when he closed the shop he used to work on these shockers in his basement. He'd get some ideas for modifying it and making it more effective. He'd go out and buy some electric components and work in his basement. The thing blew up and that was no concern to Don; he'd go out and buy some more and try another idea. Actually the Coffelt shockers used later on, I believe they were produced in Wyoming, and the Fisher shockers built by a man in Bozeman were pretty similar to the ones Don was building for us in those early years.

AW: I remember Chuck Phenicie saying that in the early years when they wanted to get the shockers going, they'd go to an electrical engineer and tell him what they wanted and they couldn't do it so they'd go to Don and he'd do it.

JG: He had a good knowledge of electricity. Don did a lot of valuable work for the department in those early years. Another fellow who gave us some help on that project was Norm Strong. He was an outdoor writer who lived up Cottonwood Canyon south of Bozeman. He was on the staff for Field and Stream and also wrote extensively for other magazines, anything connected with hunting, fishing, equipment, management. He even wrote articles on wood cutting. Norm got interested in this electrofishing early on and he went with us a number of times to watch the operation. When we were approaching completion of the Madison-O'Dell study, he wrote several articles for popular magazines and introduced the idea that maybe planting large numbers of hatchery fish into a stream population was probably not a good idea. So it helped us a little in the area of public understanding.

AW: From the administrator standpoint when you set that project up, so the folks would understand how fully ingrained fish planting was, I had to get permission from the Commission for you to take the plants out of the Varney section just for the test. Not saying it would cure things, we just wanted to find out what the situation was.

JG: Another man who gave us a lot of help on this concept of wild fish versus hatchery fish was Ed Maynard. Ed owned Channels Resort on the south end of Ennis Lake. Ed grew up on that ranch, an operating ranch. When he took over the operation, he expanded into recreational services. He guided fishermen a great deal in the river and he got a few hunters in the fall. In the years that I knew Ed he was always receptive to the concept of managing stream populations for wild fish, so this idea fit into his philosophy pretty well. He gave us a lot of help in the Ennis area convincing people that wild trout management was a valid approach to resource management. Ed operated that ranch from the time I met him in the early '60s until the late '70s when he sold the ranch to some out-of-state interests and moved down south. I haven't seen him in recent years but I still remember the help he gave us. He was an understanding person and a gentlemen. There have been a number of people that I've met in the department who have positive effects. We don't have the time or the space to list them all. There were also a few who weren't helpful. In fact, some were very difficult, but I don't want to dwell on the negative aspect. In general it was an interesting career for me. I enjoyed it a great deal. If I could go back to the time I entered this field, whether I would take the same route or not is difficult to tell. It was an enjoyable career and hopefully we accomplished something to benefit the resources over those years. I always think of the blunders made. I probably made as much as anyone. Some I don't want to talk about. But one has become humorous over the years. That was the boat accident we had on the West Gallatin River.

In the early years we worked for the electrofishing gear and some outdoor writers contacted the director and wanted a supply of large trout – as I recall 2-3 lb. fish or larger for a film they were making on the Yellowstone River. The commitment was made to them that they would have those fish. The message we got was that we would go out and collect these fish. We got a few in the first few days. We were out on the West Gallatin River one morning. There'd been a heavy rain up in the canyon the night before and we weren't aware of that when we went out. The river was up considerably and it was really too high to effectively shock and probably too high to be on the river safely. But we were on a tight schedule that spring and this extra work created a problem. So rather than cancel the day's work we made an effort. We floated down to the first bridge to see if we could get any fish. We never made it to the first bridge. We came around a bend in the river and the boat hit a rock and up-ended. There were four of us in the boat and we all went into the water. It was a narrow escape for a couple of us. Al Wipperman spent a night in the hospital; they thought he might have gotten water in his lungs. Fortunately he was alright.

AW: Was the generator running at the time the boat went over?

JG: It was running. As soon as it hit the water it killed the engine so no one got a jolt of electricity. It was just the risk of drowning or physical injury. It wasn't funny at the time. During the next week or two I got a couple of humorous notes on my desk. We came out of it alright and the humor has gotten to me a little better over the years. It was an example of the pressure and trying to get a certain amount of work done in a day.

AW: We were all pushed and to a large extent we set our own schedules and wanted to stay on them.

JG: We could determine our schedules at the local level. Everybody felt that their schedule was important and the work needed to be done. Anyway, it could have been a tragic accident, drownings. Al was fine the next day. It was interesting; we shocked several places during that summer and I noticed anytime Al was in the boat if it run aground or tilt suddenly, Al would impulsively grab from going over the boat. Once was enough.

AW: I think you feel about how I do. We had more fun in those days and we wouldn't want to do it all now. Is there anything else you want to add?

JG: I don't think so. Tomorrow I'll probably think of some things that would be fun to put on tape. But this gives us an outline of my 30+ years in the business.

End of interview.

Transcribed by Margie Peterson.
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