National Heritage Team of the U.S. Fish and Wildlife Service Oral History Program
Subject/USFW Retiree: Art Sowls
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Interviewed by: John Cornely

John Cornely:
This is John Cornely with the U.S. Fish and Wildlife Service Heritage Committee in Homer, Alaska at the Islands and Oceans Visitor's Center of the Maritime National Wildlife Refuge. And we are here today to do an oral history recording with Art Sowls, who works here with the Fish and Wildlife Service, and I understand is not too far from retirement. So he's going to share with us some of his recollections of growing up and his career with the Fish and Wildlife Service.

Art Sowls:
Okay, this is Art Sowls; I was born in Tuscon, Arizona on January 14, 1951. My mother was Grace Sowls and my father Lyle Sowls; and my dad is the most responsible for me having the interest in wildlife. He was born on a farm in Wisconsin and decided to leave the farm and go off to college, and went off to the university in Madison. And to pay his way through college he needed to get a job, and he was going to be a forester and he ended up getting a job working for Aldo Leopold. And Aldo Leopold talked him into leaving forestry and going into wildlife management. And my mother was very interested in birds and art, and together they were a great couple, so I basically grew up with parents who were very interested in wildlife. And my father worked on ducks in Canada and then became the coop unit [Cooperative Wildlife Research Unit] leader at University of Arizona in Tuscon, so ever since I was a small boy I was around people doing wildlife studies and graduate students and things.

And then I graduated from high school in Tuscon, from Amphitheater High School. I went on to the University of Arizona and I ended up getting a bachelor's degree in biology. And what I would do when summer came would, when I was a freshman my first summer, I ended up getting a job working up at Denali [National] Park in Alaska, and I worked for a concession, and I did that for four summers from breaks from college. And I worked at the hotel one summer I worked out at a kind of a wilderness lodge, Camp Denali, which was a great place to be. It had been formed by a couple of women who ended up flying planes up to Alaska during World War II as part of the transfer of aircraft to the Soviet Union, that was Celia Hunter and Ginny Wood. And then later Camp Denali was taken over by Wally Cole, and I worked for him. And it was a wonderful place to be because Denali National Park has lots of grizzly bears and wolves and moose and sheep. And I would on my time off go hiking, and I ended up getting lots of stories of observations I saw, wolves and bears and other things.

And then after getting my bachelor's degree in biology I was planning to go on to graduate school but I decided I wanted some more practical experience before graduate school, and went off back to Alaska and I got my first job at the Kenai National Wildlife Refuge in 1975. That was, well it was my second federal job, I had worked for the Park Service one summer in Denali. And so I left Tuscon, Arizona in April and I drove up the

Alcan [Alaska-Canadian Highway] in a 1931 Model-A Ford, and it was a great trip and arrived in the Kenai National Wildlife Refuge with my throw-out bearing worn out but I did make into the refuge there.

And the reason Kenai National Wildlife Refuge had hired me is because they had a new garbage truck, and when I worked up at Denali one of the jobs I had had was driving tour buses. And they wanted someone that they felt could drive their garbage truck that wouldn't wreck it, because the previous year they had a new vehicle that a biotech had totaled. And so they hired me to drive the garbage truck, which actually wasn't that bad of job because I was out and about and I saw a lot of the refuge and I got to do other things other than pick up the garbage, but that's kind of my start with the Fish and Wildlife Service.

At the end of that summer the refuge manager got a call from Dave Klein, who was with the Office of Biological Services in Anchorage. And that was kind of a special office that was set up when the Outer Continental Shelf Oil Leasing Program began, and this was an office that was going to do seabird work related to this offshore oil leasing in Alaska. And Jim Bartonek and Cal Lensink were real forces behind that along with Dave Klein. And literally the refuge manager got a call asking if there was anyone that they could let go early because they didn't have time to hire anyone. There was an icebreaker that had broken down up in the Chukchi Sea and the Coast Guard was going to send another icebreaker up, and they wanted to put someone onboard to do marine mammal and bird observations on the ship of opportunity, and literally they needed someone in a couple of days.

And I drove up to Anchorage and I got about a five minute interview from Dave Klein, and they told me that they were going to hire me and I was going on this icebreaker, and so... But I wouldn't have to go alone, there was someone who was going with me who would train me because I had told Dave that I had never seen a whale and I didn't even know my seabirds. So two days later I was back in Anchorage and found out they didn't have anyone to send with me, so they gave me a field guide and they had me talk to Scott Hatch, and he told me how to fill out the forms, and I flew off to San Diego to report to the Coast Guard icebreaker Burton Island. And I arrived in San Diego and I went down to the ship and I told them who I was and that I wanted to see the captain and they said I didn't want to see the captain! And the XO (Executive Officer) came down and he said, "The government flew you all the way down from Alaska to count birds?" And I said, "Yes." And so I went onboard. And we left San Diego and headed out to sea. And I was literally out on the flying bridge with my field guide and I'd look and I'd say, oh those must be Brown Pelicans and well that must be a Black-footed Albatross. And I kind of figured this stuff out always about five minutes before somebody would ask me what we're seeing so I'd say those are brown pelicans and those are Black-footed Albatross. And everyone thought I knew what I was doing but I was really learning as I went. And we got off just about a day out and we got in a big storm, and the icebreakers have a hull and the hull on them is kind of shaped like half of a football, and they don't ride well in rough seas. They ride great in ice but in the open ocean and big seas they don't ride very well. And I was up on the flying bridge about 70-feet above the water, and literally the

ship was pitching so much that I would have put the raincoat over my head because of the water splashing down on me, and it was rolling 50-degrees to each side, which means the ship was rolling like over 100-degrees. And I was trying to do my bird transects and figure out what I was seeing and having lots of fun at it. And I remember one evening going down to eat dinner, and it was all very formal, I ate with the officers on that ship and you had to ask permission to sit down at the table, ask permission to leave. And I went down one day and half the officers didn't make it to dinner because they were too seasick, and the other half that were there half of them ordered Wheat Chex for dinner because they didn't want to eat anything greasy. And I ate my first steak that night and the steward asked me if I wanted another one and I had another steak, and this EXO who had sort of been giving me a hard time through this trip turned to me and said, "You've been on a lot of ships haven't you?" And I responded that, "No, this was the first time I ever had been on a ship." And that was the truth. But we went on and went up through the Gulf of Alaska and through Unimak Pass, and Unimak Pass was pretty amazing because the seabird concentrations they were phenomenal. And then up into the Bering Sea and into the ice and I saw walrus and polar bears and Ross's Gulls and had a great time. And then transferred to the icebreaker Glacier, which had had problems up there, and returned down to San Diego kind of doing the same thing that I did on the way up, and I ended up being gone a month and kind of learned to how to do pelagic transects and saw a lot of stuff and had lots of fun.

I ended up working in the Office of Biological Services then, and I did other pelagic cruises on ships of opportunity and I did some aircraft survey work, and I ended up getting assigned the job of compiling a catalog of Alaska seabird colonies. And the reason that I was picked for that was I was the only one in the office who could draw a straight line and had a little drafting experience and it was basically going to be kind of a mapping project. So I worked for the Office of Biological Services primarily on compiling data on seabird colonies and doing surveys of areas during the summer. One of the first places I went was St. Matthew Island, which is an island out in the middle of the Bering Sea, which is very isolated, and I went out there with Tony DeGange. And we were dropped off by a NOAA [National Oceanographic and Atmospheric Agency] ship, and basically had a Zodiac and we ended up circumnavigating St. Matthew and Hall Island and censusing all the seabird colonies there, and you know we were literally 200-miles away from anyone else and had a great time doing that.

And then I left Alaska after the seabird colony catalog was done and went to California. And I ended up working on a project cataloging seabird colonies for California under Jay Watson out of the Portland office. And that was really a pretty amazing job because we were basically given a government vehicle and a Zodiac and we could stay in a hotel, and our job was to census the seabird colonies between the Oregon border and Santa Barbara. And our boss, Jay Watson, was in Portland and he would call us up pretty much once a month and say, "What can I do to help you?" And we would have things like, "Well we're having trouble getting permission to get on Vandenberg Air Force Base" or, "We need a new outboard motor" or something, and he always would come through for that. And it really was an amazing job, sort of cruising the California coast. And having worked in Alaska for three or four summers before that I kind of thought that going to

California would be a piece of cake, but actually ocean conditions there were a lot rougher than they were in Alaska a lot of the time. And with the prevailing winds from the northwest in the summer and that big stretch of the whole Pacific Ocean, we worked a lot in pretty big seas and we ended up wearing wetsuits and we actually even swam around some islands with flippers and used **(unclear)** and recorded data that way. And I worked on that project primarily with Tony DeGange and Jay Nelson and then a couple of temporaries, Gary Lester and Bill Rodstrum.

John Cornely:
When did you go to California and start that project?

Art Sowls:
We started that in 1980, and then that went through 1981. We also did some work on a winter use along the coast. And then after that I came back to Alaska and worked for the Office of Migratory Birds, did survey work in southeast Alaska. I ended up going back to St. Matthew Island several times. And that became a situation in its day that was kind of like ANWR or the Artic National [Wildlife] Refuges now. There was an oil lease sale plan for the Navarin Basin, and St. Matthew Island was traded to a native corporation during the Regan Administration by James Watt, and the idea was that St. Matthew would have this exploration and oil support base on it with runways and facilities and a harbor. And St. Matthew was a wilderness area, and in many ways one of the wildest of the wilderness areas, it was over 200-miles from any inhabitant location, which at the time I figured was about as wild of place as you could get in Alaska away from folks. And so I ended up being involved with things relating to the possible land exchange at St. Matthew. And it was amazing, the President of The United States, Ronald Reagan, the Secretary of Interior, James Watt, native corporations who were going to benefit from this land exchange were all pushing for this very actively, and folks within Fish and Wildlife Service felt we needed to do it because that's kind of what people higher up wanted up. And it ended up not happening; it went to court and got thrown out. And that to me was kind of a lesson in sort of checks and balances in our system, and I think the right thing happened on that.

John Cornely:
How many staff were there in that period of time when you went to work for the Migratory Bird Program up here, some of the folks that were there like who was the Migratory Bird Coordinator?

Art Sowls:
Well when I started on the seabird work Cal Lensink, he had done a lot of work in Alaska he had been out on the Yukon Delta a lot, he had been actually out on the Pribilof's before that, him; Dave Klein, he had worked in Antarctica on his graduate work; and then Jim Bartonek. And what they were trying to do, which I think was a real vision of the time, was kind of up to that point Fish and Wildlife Service had not had a very active program in marine birds, or seabirds in particular. And their sort of goal during the wasn't only to collect data on seabirds, but also to kind of train people and seabird biology and try to bring them into the service and have an ongoing seabird program

beyond that, and they were successful at that. Many of the people who ended up working in our office ended up working for the Fish and Wildlife Service in a long-term basis, either on seabirds or shorebirds or sea ducks. And I give them real credit for that vision of making seabirds a part of what Fish and Wildlife Service did over the long term. Another person in that office was Bob Jones, or "Sea Otter Jones," who is certainly a legend within the Fish and Wildlife Service. He had gone through large portions of the Aleutians in a dory, and he was just a real kick to be able to talk to and do fieldwork with and was a real part of the early history of Alaska. He came up to Alaska during World War II, fell in love with the Aleutians, and ended up being the refuge manager for the Aleutian Islands National Wildlife Refuge.

So let's see, after that I ended up... let's see, I went to California, I came back to Alaska and worked more on monitoring in St. Matthew, Navarin Basin. And in 1987, I moved down to Homer, Alaska, and I became a biologist for the Alaska Maritime National Wildlife Refuge. And this was done when they decided they wanted to cut the size of the national and regional offices and put more people out in the field, it was a real big deal back in 1987. And I think the net result of it was two of us came to Homer and one person went out to Dillingham, and I was fortunate enough to be a person who came to Homer. And the refuge office was in a small, little rented building, and I think there were a total of three or four of us in those early years. And since then the refuge staff has grown considerably and we have our own visitor's center office complex here now, which I think is probably the envy of the refuges in Alaska. At the Maritime Refuge my responsibility included the Pribilof Islands. And that was an area that is incredibly important biologically; it has about 300 million nesting seabirds on it, it has at one time had over 200 million fur seals there, which are administered primarily by the National Marine Fisheries Service. And my initial kind of reaction of going to the Pribilof's was not as enthusiastic as other places because I loved going to the wilderness areas like the Aleutians or St. Matthew, and I wasn't super keen on having to deal with the politics of the villages and other agencies and visiting VIPs and things. But my attitude on that kind of changed over time because I felt that from a conservation standpoint the Pribilof's was really where it was happenings. It's just where harbors were being built, the fishing industry was moving in, there were issues with invasive species, there were issues with oil spills, there were issues related to native subsistence rights and interpretation and the whole kind of gambit of things. So then I really kind of got to where I enjoyed that part of the job. And my initial immediate supervisor was Dave Nysewander, who had come down with me from Anchorage, and he was around for three or four years and then moved on. And then Vernon Byrd came in, and of course he has been involved with the Maritime Refuge for a long time. He started working for them out in the Aleutians with the Navy back in the early '70's, I think he got on with the Fish and Wildlife Service in the Aleutian's in '75, and he's kind of "Mr. Aleutian Islands," and I've been very pleased to be able to work him out of the Homer office.

Work in the Pribilof's primarily started around monitoring seabird populations, kind of keeping track of some very basic things, population numbers, productivity. And then more and more we got involved with issues related to management questions, and this included things like oil spill, prevention, response. And one of the big things that came

up when I was there, with the construction of harbors that was occurring on St. Paul and St. George was the fear that rats could introduced from ships coming into the harbor. And it kind of started when I went into the post office on St. Paul one day and there was a notice on the bulletin board from the Corp of Engineers about a permit they were giving to a floating fish processor; the UniSea Barge it was, it was a World War II Liberty Ship that was going to come up to St. Paul from Dutch Harbor, and be moored in the harbor there for several years and processing crab and fish. And Dutch Harbor of course is a heavily rat infested place, so I called the Ecological Services office and said we have to be worried that this ship could bring rats up. And literally within about a weeks' time we had gotten some conditions on this permit about them being certified to be rat-free and to have rat prevention efforts and be inspected and various things. And it was kind of that we figured that what was the point of monitoring the birds if rats got introduced and wiped most of them out. So from that I got involved with this issue on the Maritime Refuge of invasive rodents, and primarily my job was related to keeping rats from getting onto the Pribilof's and then later being able to respond to shipwrecks that might introduce rats to the islands. And that got me involved with a lot of partnership stuff, initially primarily working with the villages of St. Paul and St. George, and then State Department of Environmental Conservation and then later on NGOs like the Nature Conservancy and World Wildlife Fund and Island Conservation. And that's an ongoing effort that I'll be off to the Pribilof's later this week to continue working on.

In addition to those things I've mentioned, of course things like the Exxon Valdez occurred. And that was something that I spent I think two weeks out in Prince William Sound, literally landing on beaches that had oil, you know a foot deep on it and mucking around in there and trying to document damage to wildlife. Heading off responding to a couple of other oil spills; the M/V Citrus that was a spill that happened out in the Pribilof's in '96; Selendang Ayu happened in December of 2004; and the Clipper Odyssey that was I think in September or October of 2004. And the Citrus, the Selendang Ayu, and the Clipper Odyssey were all spills that literally I would get a call at 8 o'clock in the morning and be told about it, and I would be on the first plane out of Homer in two or three hours and gone for three weeks or a month on that, which is not pleasant duty dealing with oil spill stuff because you get out there and there's lots of dead and dying. And it's something that was an area that the Service, I think, could have done more preparation and the training for, and we're getting better at that as time goes.

John Cornely:
Art, I'm real interesting in more details on the rat problem; I know a little bit about it, but I think probably not only the general public, but most Fish and Wildlife Service folks that don't have experience in coastal areas, especially in say the Aleutians, that don't understand maybe the magnitude of the problem and also the importance. So could you talk about kind of the magnitude of how many rats are out there, how they got there, and what kind of damage they're capable of causing? And then I think maybe explain a little more detail of what's been done to try and control them.

Art Sowls:
Okay, well probably Ed Bailey is the one at the refuge that really started off concerned about rodents. The Maritime Refuge has had a long history of trying to deal with invasive species; "Sea Otter" Jones back in 1949 started the first attempt at removing introduced foxes from Amchitka Island. And that's been a very successful program where introduced foxes have been removed and there's been tremendous recovery of seabird populations.

So related to rats and house mice, but rats you know are members of the rodent family, and a few species of rats and house mice have kind of adapted to live with people, they've become commensal rodents. And there are three species of rats that have caused tremendous destruction, particularly the island ecosystems all over they world; and those are the Polynesian rats, which actually got carried through large areas of the South Pacific by the Polynesians starting 10,000 years ago. And it's pretty well accepted that the introduction of Polynesian rats to islands in the South Pacific caused the decimation of literally millions of seabirds and affected all other types of wildlife. The Norway rat is not originally from Norway, it's kind of from Southeast Asia and it ended up going to Europe when the spice trade started probably back in 1200. And with the Norway rat coming to Europe, fleas on those rats brought in the plague, which caused the Black Death in Europe. And Norway rats and Roof rats have continued to spread around the world primarily on ships, and continue to do that to this day.

Alaska probably got its first rats introduced, Norway rats, back in 1780. It's actually documented in the literature when a Japanese sailing ship went aground on an island in the western Aleutians that became known as Rat Island. And that island, we don't have any historical information on seabirds that would have been there before, but it was probably a pretty substantial seabird colony. And today you can go to Rat Island and you'll see a song sparrow or two or a winter wren or maybe a ptarmigan, but there are very few birds at all on that island, and there are lots of rats. I camped on Rat Island, and I had my tent set up, and before I went to bed I put traps all around the outside of my tent because I did not want to get chewed on by a rat at night. And I was lying in bed wondering if I had enough snap traps and all the sudden a snap trap went off, and I said I'd better get up and put some more traps out because I don't want to be chewed on by rats! But then I fell asleep and I didn't put anymore traps out, but the next morning immediately adjacent to my tent I had killed six rats in traps, and the next night I had six more dead rats in traps. And the Maritime Refuge is looking at the possibility of completely removing rats from Rat Island. And worldwide now there have been about 250 islands that rats have been totally eradicated from, and there have been some incredible recovery of wildlife species. And the Maritime Refuge hopefully will be in a position to start doing that in the Aleutians. Rat Island is a pretty big island; it's almost 7000-acres, if we could do that it would be I think the third largest island in the world that has had a complete rat eradication.

The refuge got rats to other islands over the years; I think whaling ships brought rats to Alaska Island probably 150 years ago, and during World War II when there was a lot of activity in the Aleutians, with the Japanese and the American and Canadian forces, rats

were introduced to several islands. One island that got rats during World War II was Kiska, and it is the only rat-infested island that we know about that still has a substantial seabird colony on it. And on Kiska at the north end is Sirius Point auklet colony, which our estimates for the number of birds there range from about half a million to on the low end, to fifteen million has been the high estimate, and our best estimate is probably right now is about three and a half million birds in this colony. And it is truly one of the most magnificent spectacles I've ever been at, and I've been to a lot of big seabird colonies. But this auklet colony is in a lava flow area, and so basically you land there and you're on the side of a volcano and up high there's steam usually come out, and if the wind is blowing the right direction you can smell a little bit of sulfur in the air. These auklets have an attendance patterns where they're either active or they're not active, but when they're active they almost literally blacken the sky. And the primary auklet there is the Least Auklet and the second most common one there is the Crested Auklet; and these Crested Auklets have a faint kind of tangerine smell about them. And it's something I've always read about and I've always wanted to smell but I never, I don't have a very good nose and I didn't notice. But when the ship pulled up next to Kiska I'd walk out on the deck and I could smell the tangerines because of all the birds there. And you can be on Kiska and there are tens of thousands of these auklets coming in and swirling around, and there are peregrines and there are eagles, and you can look right off shore and see a sperm whale sound and you can see an albatross fly by. You can take your binoculars and you can look out on the horizon and you can see what looks like smoke, and it's really just more auklets coming in.

And this is truly one of the great challenges of the Maritime Refuge to save this colony from extinction. Rats are in the colony, they're eating adults, they're eating eggs, they're eating chicks, and it quite likely will take, if nothing is done, maybe forty or fifty years for them to wipe this colony out. But it certainly seems that it would be doomed unless something is done. And the refuge currently has a program we've had going for a number of years where we're monitoring the productivity of birds here, and trying to get more information on the rats. And hopefully it may be possible in the next ten or twenty years to either do a complete eradication of rats from Kiska, or maybe some kind of controlled program that will allow this truly incredible seabird colony to survive. But Kiska is a huge island, it's almost 70,000 acres, and the largest island in the world that has ever had a complete rat eradication today is Campbell off of New Zealand, and that's less than half the size of Kiska.

The prevention effort that was started in the Pribilof Islands was where initially I thought that if rats could be a problem in the Pribilof's they would have been there, because people had been going to the Pribilof's for a couple hundred years. And we contacted some rat experts to check on that, and Rowley Taylor from New Zealand came up and Joe Brooks, who worked with APHIS [USDA, Animal and Plant Health Inspection Service], came up. And basically what they concluded was is that Norway rats could survive in the Pribilof Islands, and unless something was done it was just a matter of time before they got established there. And if they got established there they would have devastating effects on seabird colonies, they'd certainly be a negative thing for the communities, and there'd even be some danger for things like fur seals because rats can

carry diseases that could be transferred to fur seals. So when we had this kind of realization that the Pribilof Islands were probably doomed to be getting rats, we started this rat prevention program. And when it first struck me as an issue we had to deal with, I couldn't find people that were interested in it. The refuge manager said, "Well, the rats would be getting off in the harbor and that's not refuge lands, so that's not our responsibility." Fish and Game said, "Well that sounds like federal thing." And nobody really wanted to step up to the plate and take any action. And I finally got I think $10,000.00 to start a rat prevention program, we flew folks out from the DEC (Department of Environmental Conservation) and we did some training with the locals. We had locals certified to use rodenticides, and we set up a defensive system of bait stations and traps in the harbor and other key locations. We got the local governments to pass ordinances which required ships using the harbor to be rat-free, for the fish processors that worked there to have a prevention program for the harbor masters to be able inspect ships for rats and kick out ships that were infested. And to-date, well we started that program in 1993, and to-date we have killed six rats on St. Paul Island, and that's probably in a million trap nights. So very low efficiency, but the whole goal is to kill the very first one. And that program is almost entirely done now by the tribal governments on St. Paul and St. George.

Now in addition to rats coming into the harbor you can have shipwrecks, and that's happened several times in the Pribilof's and is a threat to islands all throughout the refuge. And so we formed basically a shipwreck response team that's kind of similar to being prepared to respond to an oil spill. And we've done some training and state certification in using rodenticides, and we've gotten special clearances from the EPA to use rodenticides in case of a shipwreck that has rats on it. And we have currently about 75 people who've done the training and been certified, and those are people from Fish and Wildlife, and Fish and Game, and tribal governments, and Park Service, and others. We've also had good cooperation from some marine salvage companies; Magone Marine out of Dutch Harbor has been very helpful throughout. And we have done responses to four shipwrecks, none we believe had rats on them, and we're trying to improve our methods for the next one. We know there are ships out there that have rats on them, there was a ship that went aground on Alaska Island in 1992 that was very heavily rat infested, and rats were seen leaving that ship and going ashore. The only sort of saving thing on that was when Alaska had gotten rats 150 years ago from whaling ships, so it wouldn't have been a new introduction. The Coast Guard boarded and confiscated an illegal fishing boat in the Bering Sea and took them into Adak one winter, and that was a very heavily rat infested ship. But there are rats out there, when we catch a rat on the Pribilof's we try to figure out the ship that it came from, we think that those rats have primarily been on relatively clean ships, probably didn't have a breeding population on them, but these were kind of like hitchhiker rats, probably came up from Dutch Harbor.

And since we were catching rats in the Pribilof's we decided to do an outreach effort to try to make ships rat-free and spread the word about how bad rats can be, not only for the islands they could be introduced, but also they can cause health issues, they carry lots of disease, they could be a nuisance to fish product and things. And since they like to chew on things, they're known to chew on things like wiring or hydraulic lines, and literally a

ship can burn up from that. So that's an ongoing effort, and our whole approach on rat prevention work is really to try to deal with partners on that to kind of get it institutionalized and spread the message and try to get the best folks involved that they can. Right now our partners include the Environmental Office on St. Paul, on St. George, the city of St. Paul and St. George, World Wildlife Fund, the Nature Conservancy, the Marine Conservation Alliance, Sea Grant, Alaska Department of Fish and Game, Island Conservation. We've also done some work sponsored by World Wildlife Fund to work with the Commander Island Nature and Biosphere Reserve, kind of sharing our experience and cooperating with them.

John Cornely:
Tell me since there's been response to a few shipwrecks, just briefly can you go into what the response team would do if they have a report of shipwreck.

Art Sowls:
What we do, usually we know about a ship that's in trouble before it's gone aground. And we try to, the Fish and Wildlife Service is involved with the Coast Guard and the Incident Command Structure to deal with oil spills. So we try very hard to communicate with our oil spill response folks and with the Coast Guard this other issues of the potential of introducing rodents. And I think the first case that I'm aware of was back I think in '92, when a grain ship went aground on a reef in the Shumagin's, and the Coast Guard wanted to tow it into Flying Eagle Harbor on Big Koniuji Island, a very important seabird colony. And Ed Bailey was at the refuge at the time and was totally against them doing that because of the threat of introducing rodents. And the Coast Guard's response was, "Well we might have an oil spill here, we don't have to worry about little, fuzzy animals." And this is something they'd never heard of before. And when you have a situation with a ship in trouble and the potential oil spills, loss of human life and things, it's very difficult to bring up a whole new thing and get some action on it. So what we've tried to do is to communicate well with the Coast Guard, marine salvage companies, and others. And when a ship gets in trouble, the first thing we try to do is to see if there's anyway of avoiding taking it to an important wildlife island that's rat-free. If you had a ship in trouble and you can take it to Dutch Harbor that would be great, you know they're already rats there, we wouldn't have to really worry about new introductions. The other thing that we have told folks is we would rather see the ship sunk or burned and then try to find out information whether it truly is rat infested. If a ship goes aground what we would do is work with the Coast Guard and the spilled responders to first of all having ships that go in to do the clean up, don't bring rats in, and then we have a special permit from the EPA to use rodenticides. What we have found is that often when a ship goes aground it doesn't break immediately. We had one ship that went aground on St. George Island, it crashed into the island right below the biggest seabird area there, and we had a person on St. George, Mike Williams with National Marine Fisheries Service, and he was able to board that ship two or three times. He looked for rat sign and didn't find any, he put out bait stations, he put out traps, and it was actually several days before that ship started breaking up, and he put out stations adjacent on the mainland. So the idea would be to first avoid a ship going into an important island; second try to determine if there are rodents, house mice would be another potential introduction on the ship; and to kill them

before the ship breaks up, because I mean literally rats would tend to leave a sinking ship, but unless they're population was really high they wouldn't be jumping overboard. Through the EPA currently we have a permit to put out bait stations with rodenticides in such a way that we would put out kind of a grid adjacent to where the ship went ashore, we would check those, and hopefully kill any rats that came ashore. We're working with the EPA to get a little more authority, we'd like to be able to sort of either hand broadcast or even broadcast from a helicopter rodenticides, basically to kill the rats before they start reproducing. And the whole idea of kind of throwing poison around, you know it strikes a lot of people as pretty scary but the reality is that these baits do break down fairly quickly, the one we use basically decomposes into water and CO2 relatively quickly. And literally if one pregnant female got on an island and was lucky enough to have its young survive and they were to breed, you could literally wipe out seabird colonies up here, which there's several that have over a million birds. And one of the things that you have to keep in mind about the introduction of something like a rat is that I was involved in the Exxon Valdez oil spill, and that was out in Prince William Sound. I spent a couple of week out there, and if you were a marine bird or a sea otter or kind of a marine wildlife, that oil spill must have been like a nuclear bomb going off because I'd been in the Sound before and there were birds and otters all over the place, and you'd go out there and you wouldn't see anything. And that happened in 1989, and since then some things have recovered pretty well and some things haven't recovered yet, but time goes by pretty quick and things can recover. But if you look at the situation like Rat Island, it got rats in 1780, and it is basically an extinct island today. And that's because the rats come in and they wipe everything out, but they can continue to survive feeding on seeds and vegetation and they feed a lot in the intertidal zone work. And there's been some research done out of UC Santa Cruz that they think that rats feeding in the intertidal zone even have affected the composition of intertidal species. So basically the introduction of an invasive rodent to an island can basically cause that island to go extinct forever. And there is some hope, and Rat Island could be an example of a place where we might be able to totally remove rats there and it might recover and come back, and if that were to happen that would probably... Probably the introduction of rats to Rat Island was one of the first or one of the earliest ecological disasters in Alaska because it hasn't recovered from that introduction back in 1780 yet.

Okay, I'm going to relate another story about being on an icebreaker; and I think it was in 1985, when I was working for the migratory bird office in Anchorage that the Fish and Wildlife Service got a request to send polar bear guards on the icebreaker Polar Star. And the icebreaker had been chartered by some oil company folks, and they wanted to look at the Bering Sea and see about the possibility of running icebreaker tankers to take oil out of the Chukchi Beaufort Sea area. And they were going to be putting lots of scientists out on the ice and drilling cores and things, and they were worried about polar bears. And they contacted the Fish and Wildlife Service and the Fish and Wildlife Service's response was, "Well, we're really not in the bear guarding business or people guarding business, but we would love to send some biologists out there to gather some information on marine birds and mammals for our pelagic database. And I ended up flying out to Nome and went out to the ship, and Scott Schliebe had gotten on in Dutch Harbor and he was getting off while I was getting on and he said, "Well, now you're the

polar bear guard." And the message had never really gotten through to the captain that we weren't bear guards. And so we left Nome and we would travel through the ice and that worked out wonderful because I could be up on the flying bridge and I could do my transects for marine birds and mammals. And when the ship stopped it didn't really work for doing any kind of wildlife observations because the ship would scare some things away and attract some other things. So when the ship stopped and the scientists went out on the ice to study, I was a polar bear guard. And the routine was basically they would give you a 45-caliber pistol and a shotgun, as I recall it was buckshot or slugs, I can't remember, and there were five crewmembers on this icebreaker that were certified with firearms, and they assumed that I knew how to shoot a firearm, which I sort of did. And the plan was is that we would go down off the ship, and one of us would go out of one side and the other the other side on kind of the far end, and then the scientists would be kind of working in a group behind us and we would be scanning the horizon for polar bears with binoculars. And I believe we had VHF radios and if we were to see something the scientist would be alerted and they would kind of go back to the ship and me and the other guard would kind of be going last, sort of walking backwards and shooting any bears that were attacking. And they also had someone up the crow's nest of the icebreaker who was looking for bears and if they saw a bear they would toot the horn twice or something. So we would stop, and I remember I think it was the first or second time that they gave this 45-caliber to the coastguard, the other guard, and he put a shell in the chamber and cocked and put it in his holster, and I felt very lucky he didn't shoot his foot off! So one day we were out and we were sitting on our blocks of ice scanning the horizon for attacking polar bears, and all the sudden the ships whistle blew, which was the signal that there was a polar bear. And the oil scientists, instead of doing kind of a slow orderly retreat to the ship, panicked and they started running back to the ship as fast as they could. And I knew there weren't any polar bears around, there had been helicopters flying around and I had been watching, but they didn't know that, so they were running back to the ship. And usually when an icebreaker stops in the ice it's kind of wedged in, but the ice was separating and so there was a fair amount of water between the ship and where the scientists were and they couldn't get back on board, and they were pretty upset and somebody almost had a heart attack from that whole thing. And apparently someone in the crow's nest was just playing a little game and tooting the horn.

But being on the icebreaker was a really wonderful experience. When icebreakers are in the open water they can really roll around, but once they get in the ice it's totally calm except for breaking ice. And I remember they had a little movie theater, in the galley at night they would show movies and all the movies they had were Kung Fu movies for some reason. But the level of the theater was basically the waterline, so as the icebreaker would be going through leads and open water it would be fine, but when they got in the ice you would just hear the ice scraping along the side of the ship. Maybe that's why they had Kung Fu moves because you didn't have to know what they were saying. And it was incredible, there were places you would go and it was like... The Bering Sea has one year ice, it doesn't really get icebergs say, but you could look as far as you could see in any direction; it was like the world was paved over with a sheet of ice. And I remember seeing an Ivory Gull, and it was kind of white-out conditions and all I saw was its bill, and as it was flying by the ship I saw this little black spot and my put my binoculars and

it was the bill of an Ivory Gull. And at times you would be in areas that would have these pressure ridges, where you get these huge masses of ice that could be hundreds of miles across, and they move by the wind and currents and they could hit each other and basically kind of form an accordion of ice. And that was one thing that the scientists were doing, was measuring these ice ridges to see what would be an obstacle for these icebreaking tankers to go through. And we measured one that from the very top of the ice that was above the sea surface to the bottom of it down in the water was over 70-feet and, I don't know, maybe a quarter or so of it was above and the rest was below. And the icebreaker basically spent several minutes ramming that before it could break through it. We did get through it, but the oil company folks were kind of disturbed to see that because it made the possibility of using tankers much less likely.

John Cornely:
The icebreaker just kind of physically wedged through the ice, how did that work?

Art Sowls:
Well the icebreakers I was on, and I don't if they're all this way, but at least the ones I was on, the principal is that the hull is kind of like half of a football, and you don't push the ice away, you push it down. So you basically try to ride up on top of the ice and break it down. If you had to push it to the side, I mean you literally could have sheets of ice that could be a couple of hundred miles big and trying to push that whole thing would be really formidable. So you basically are riding up on top of the ice and crushing it below the boat or ship. And what they try to do when they're navigating is they look for leads or thin ice or for areas where it's much easier to travel then the thick stuff.

I'd sort of gotten to the point in my career that I think a successful summer is when you come back without stories to tell! But I remember one summer that I had been working in southeast Alaska, primarily with Jay Nelson**,** and we decided that we would really to go up to Kotzebue Sound and census a refuge up there, Chamisso [NWR]. It's now part of the Alaska Maritime, but at that point it had just become that, it originally was set aside I think by Teddy Roosevelt. But the office didn't have any money, but we found that we could get an airlift through Rod King, who was doing some duck banding. And they said that we didn't have enough money to buy any food to take but they had this old freeze-dried stuff and we could take that with us. And so we headed up to Chamisso, and Jay looked at that freeze-dried food and said we don't eat this, so we went and bought our own food. And we flew into Kotzebue and got dropped off at Chamisso by Rod King. And we had this little tiny Mark 1 Zodiac, and we had enough gas to get back to Kotzebue, which was about 70 miles.

And what we were doing there was basically setting up plots for monitoring populations of seabirds at Chamisso. And we thought it would take us you know three or four days, we didn't have a radio with us at all, which we would never get away with today. And we also were trying to census the coast of Kotzebue Sound for seabird colonies for this colony catalog project I working on. So we had done that, we had been along the coast and censusing colonies and we were trying to do this intensive monitoring at Chamisso. And we were doing the work and it was just like one storm would come up after another,

and it was just taking forever and we were running out of food. And we were getting really low on food and the weather just wouldn't break, and finally we got down to where all we had left was a freeze-dried thing of kind of rice, a pack of M&M's, and I had a little square thing of jam like you get in restaurants that I had put in my pocket on the plane flying from up in Anchorage, and I think that was it! And there were some blueberries there, so we were eating blueberries. And we did take a fishing rod with us but we couldn't catch any fish. And it finally got so bad that we went over to the seabird colony and I crawled in a cave and I captured some murre's with my bare hands and we were eating murre's. And it was a really bad year for the birds, they were really thin and they tasted terrible.

And so we were trying to figure out what to do and we finally decided that we needed to get out of there because at some point our office was going to start worrying about us and send the coastguard or something at that wouldn't be good, so we decided we would launch our Zodiac and head back to Kotzebue. And there was a pretty good swell coming down from the north, but we got the boat loaded up and we launched and we went into this heavy swell and after about an hour we'd only gone about a mile and we had seventy miles to go, and so we just weren't going to make it. So we turned around and we went back and camped again.

And then the next day we were looking at the map and we couldn't go into the swell but we could run with it. And we looked on the map and there was a village on the mainland south of us, Kowalik I think its name was, and it wasn't that far and there was a little airplane on there, you know which meant there was a runway there. And we thought, "Well, shoot we'll just go down to Kowalik and we'll charter a plane and we'll get out of here before they wonder where we are and send the coastguard looking for us. So what we decided to do was the beach where our camp was had pretty big swells breaking in on it, but we decided we'd just take everything over to the other side of this spit we camping on. So we packed up our gear and we took over the boat and then we took this over, and Jay and I were carrying this 25-horse outboard across, and I'd pulled out that little thing of jam I'd got off the airplane and we split that for lunch, and we could feel the sugar hit our system and man we carried that motor a ways and then the sugar was gone! But we finally got everything over there and we launched the boat. And you know a little Mark 1 Zodiac with two people and I think we had like fifty or sixty gallons of gas, and on the top of the whole pile we had a little cook pot that had a cooked murre in it. And at this point we were down to this cooked murre, one thing of freeze-dried rice and a pack of M&M's. And so we go zinging down towards Kowalik and we're in these... Kotzebue Sound is really shallow, so these waves are curling quite a ways off shore, and we're zinging along and you can't see anything when you're in the trough of these waves, but when you get on top you look around. And finally we saw the village, and there was a river coming out by the village so we figured we could go up the river and land pretty easily. And as soon as we saw the village we got the M&M's and we split them and ate them! And so now we were down to the freeze-dried rice and the cooked murre. And we went in and landed and the village was abandoned, nobody there at all. There were a couple of cabins that had locks on them that must have been used as fishing camps or something, but we didn't want to break in or anything. I don't know how long it had

really been abandoned but I remember there was a 1931 Model A Ford parked there. And so we kind of looked at each other and we said, "Well, we don't want to stay here."

And earlier on when we had been censusing, the southern part of Kotzebue Sound we had landed in Deering, a native village to the west of us, and we decided we were going to head to Deering. So we launched the boat and we were going out and we were kind of bucking into these big waves, and I'd done a lot of small boat work in Alaska and that was one of the very few times that I kind of threw myself up on the bough to keep us from flipping over. I don't know if we would have flipped or not, but it came pretty close to us. Of course we were wearing mustang suits and the waves would hit us on the head and the water would run down inside your suit and down in your underwear and down into your boots, and it was really pretty kind of miserable. And then a wave came over the boat and we had our little pot with the cooked murre in and it went over the side. So we were down to one thing of freeze-dried rice. It was a miserable, miserable boat trip, but we finally got to Deering.

John Cornely:
And how far was that about from the abandoned village that you'd been?

Art Sowls:
Well, I would have to check on a map but I think it was probably 30- or 40-miles, it was a ways. And we'd actually had lunch with some folks, the Moto's, in Deering. And so when we came into Deering we landed right next to their house and they came out and they sort of said something like, "What are you crazy white men doing out in seas like this?" And we sort of pretended like we did it all the time. And they said, "Well we're about to have dinner, would you like to join us?" And I said, "Yeah, we'll join you." And then we went in and they said, "Would you like a cup of coffee?" And I said, "Oh yeah, I'd like coffee?" And they said, "Would you like some sugar?" And we like would just keep dumping the sugar into the coffee. And we had coffee with lots of sugar in it and then we had a big meal, I can't remember what it all was. And we had gotten on the phone and we had chartered a plane from Kotzebue and it came back down and picked us up and flew us to Kotzebue and then we went out and had pizza!

One of the biggest changes that's happened in my career in Alaska is the passage of the Alaska Native Claim Settlement Act, and related to Parks and Refuges was the D2 Lands thing, which created over a hundred million acres of refuge lands. And when I first started working for Fish and Wildlife Service in Alaska was in the days of debate on the D2 Lands Bill, and it was the type of thing that if you were somewhere and someone asked what you did, you tried not to tell them you worked for Fish and Wildlife Service because there was a lot of very anti-feelings against the federal government, and locking Alaska up was what they were thinking was happening, keeping it away from miners and other folks. But I was a biotech in the Office of Biological Services and Dave Klein, who worked in our office, was very active in his own time with the conservation movement. And there was a whole bunch of folks getting together to talk about D2 Lands issues, and they were working on a conservationist proposal, or alternative to the D2 Lands thing.

And I was kind of sort of draftsman type person in the office, and Dave asked me if I could be at one of these meetings and do the maps for them, so I showed up. And they had prominent people in conservation, and we were standing around a table and here was a big map of Alaska, and it was a map that was all colored in section blocks like kind of a big checkerboard with these section blocks. And they would talk amongst themselves about should we create Alaska Peninsula Wildlife Refuge, should we put a park in here or should we put a national forest in here? And they would debate back and forth and they would finally say, "Okay, we're going to put in the Yukon Flats National Wildlife Refuge up here." And I would literally draw it in on the map. And this would go back and forth and they would do things and then they would decide something was going to be in, and I would put it in on the map and I would kind of say, "Well where to you want the boundary to go?" And I remember one point they said, "Well you decide." So we would kind of look this and say, "Well I think I'll put this section in here and I'll put this section and I'll leave that section out." And I don't know if in the whole process of ANILCA (Alaska National Interest Lands Conservation Act) how significant their proposal was or how it kind of related to the final boundaries. But I've kind of always thought it would be interesting if a whole section got included in a national park or a wildlife refuge because I drew it on the map that way instead of another way.

Unverified: Jay Nelson (pg 13); Kowalik (pg 14);

Key Words: Art Sowls, Tom Early, U.S. Fish and Wildlife Service Heritage Committee, Homer, Alaska, Islands and Oceans Visitor's Center of the Maritime National Wildlife Refuge, Lyle Sowls, Aldo Leopold, Denali National Park, Camp Denali, Celia Hunter, Ginny Wood, Wally Cole, Alcan Highway, Kenai National Wildlife Refuge, David R. Klein, Office of Biological Services, Anchorage, Alaska, Outer Continental Shelf Oil Leasing Program, seabird studies, Jim Bartonek, Calvin Lensink, Chukchi Beaufort Sea, Scott Hatch, ships of opportunity, Coast Guard, The Burton Island Icebreaker, brown pelicans, Black-footed Albatross, Gulf of Alaska, Unimak Pass, Bering Sea, walrus, polar bears, Ross's Gulls, Glacier Icebreaker, pelagic transects, Office of Biological Services, pelagic cruises, Alaska seabird colonies, Alaska seabird census, St. Matthew Island, Anthony (Tony) DeGange, Hall Island, Jay Watson, Oregon-California seabird census, Vandenberg Air Force Base, Jay Nelson, Gary Lester, Bill Rodstrum, Office of Migratory Birds, Navarin Basin, St. Matthew Island Land Exchange, Migratory Bird Program, Yukon Delta, Pribilof Islands, Bob "Sea Otter" Jones, Refuge Manager for the Aleutian Islands National Wildlife Refuge, Dillingham, fur seals, National Marine Fisheries Service, David Nysewander, Vernon Byrd, Corp of Engineers fish processor permit, UniSea Barge, Dutch Harbor, rat prevention, Ecological Services, invasive rodent issue, State Department of Environmental Conservation, Nature Conservancy, World Wildlife Fund, Island Conservation, Exxon Valdez oil spill, Prince William Sound, M/V Citrus oil spill, Selendang Ayu oil spill, Clipper Odyssey oil spill, Ed Bailey, Sea Otter Jones 1949 Amchitka Island introduced fox removal program, Polynesian rat, Norway rat, Black Death Plague, Roof rat, 1780 Japanese sailing ship wreck on Rat Island and documented

introduction of Norway rats, ptarmigan, Kiska Island, Sirius Point auklet colony, attendance pattern, Least Auklet, Crested Auklet, peregrines, eagles, sperm whales, Rowley Taylor, Joe Brooks, APHIS, rat prevention program, Department of Environmental Conservation, rodenticides, EPA, Magone Marine Salvage Company, Environmental Office on St. Paul, on St. George, the city of St. Paul and St. George, Marine Conservation Alliance, Sea Grant, Alaska Department of Fish and Game, Commander Island Nature and Biosphere Reserve, Incident Command Structure, Shumagin Island, Flying Eagle Harbor, Big Koniuji Island, Mike Williams, UC Santa Cruz rat intertidal species study, icebreaker Polar Star, Scott Schliebe, Nome, ivory gull, Kotzebue Sound, **Jay Nelson,** Chamisso Refuge**,** Rod King, Deering, Alaska Native Claim Settlement Act, D2 Lands Bill, Yukon Flats National Wildlife Refuge, ANILCA (Alaska National Interest Lands Conservation Act)