

Name of person Interviewed: Amy Van Atten [AVA]

Facts about this person:

Age (if known) Born 1968

Sex Female

Occupation NOAA Observer Program Operations Coordinator

If a fisherman (if retired, list the ports used when fishing),

Home port, and

Hail Port (port fished from, which can be the same)

Residence (Town where lives)

Ethnic background (if known) European American

Interviewer: Janice Gadaire Fleuriel [JGF]

Transcriber: Janice Gadaire Fleuriel

Place interview took place: New Bedford Harbormaster House

Date and time of interview: Sept. 22, 2007

## INDEX / KEYWORDS

KEYWORDS: Women; Fisheries observation; NOAA; Regulations

[Start of File WAV\_0020\_001]

[00:00]

AVA born in Worcester, Massachusetts, 1968, one of five children, oldest female; two other siblings in environmental work; Mother's background in teaching/science interest; Father was a finance manager; Family lived other places growing up—Australia, France; Finished high school back in Shrewsbury, Massachusetts; Knew study, some kind of, controversial [laughs] animal-related and human use issues; Initially interested in whaling, marine mammals, impacts of whaling, why people whaled in the first place; Turned into interest in fisheries and accidental interactions with whales.

[02:34]

Interested on controversial aspects because always wanted a challenge; Always fascinated by dolphins; Desire to be with them, see them, touch them wore off after a few whale watches; Then more interested in the long-term survival of the stocks, on a population level vs. individual animal level; Worked for a little while as an assistant trainer for the New England Aquarium, realized benefits of captivity allowing public to have access to animals otherwise wouldn't see; Wasn't fulfilled by that; Majored in wildlife and fisheries biology with a minor in forestry, U Mass Amherst; Master's, from University of Maine in Orono, wildlife management; Mostly terrestrial wildlife, but same issues—managing resources, sustainability, interacting with/respecting different views on resource use; Worked at a deer check station though not a hunter—did tick collecting/other sampling from the deer

[05:55]

Same kind of thing whether terrestrial animals, fish, timber; Controversial issues pop up—endangered species, habitat protected areas, need to balance a lot of different concerns in ways to use public resources; Lived overseas because of father's work; JGF relating how controversial issues topic reminds her of difficult bear trapping law that came up for vote a few years ago, controversial for western Mass; AVA interested in things like Green Peace, but through schooling you learn to look at bigger picture, lose that sense of concern of individual animal vs. overall welfare of population, accept that people have different views

[08:33]

Got involved in fisheries observer work right out of undergraduate school, 1991; Before that, one summer job working as a mate on a bluefish charter boat, Barnegat Light, New Jersey; Made more money, worked harder than friends who waitressed; Big boat, started collecting environmental logs, would see the NOAA boats off shore doing fish population surveys; Started working for NOAA on a harbor porpoise survey, 40-day trip, line transect survey to estimate population size Gulf of Maine and Bay of Fundy

[10:40]

Line transect survey methodology; Can end up being able to predict a detection factor, with different environmental conditions/animal characteristics to come up with

a total population estimate area surveyed, extrapolate to entire area; That was a temporary position, came back and worked with the observer program, now mostly doing work in office at Woods Hole; Fisheries covered during that period—drift gill net fishery for large pelagics, sword fish and tuna, pelagic long line, pelagic pair trawl (two boats towing a net in between); Large pelagic fisheries no longer in existence, New Bedford had been pretty active port for sword fish, but fishing right at the same depth that marine mammals tended to aggregate in, lot of different stocks impacted, and resource, was being depleted; Law put in place to stop it early nineties; Office work was initially reviewing observer logs, part of time was spent at sea on line transect surveys or opportunistic sightings, occasionally observing on commercial fishing boats; Moved up from just reviewing/collecting data to more involved with program management and observer training; Became area lead, more involved with, tracking the current regulations some budget issues; Now operations coordinator

[15:28]

Northeast Fisheries Observer Program based out of Northeast Fisheries Science Center, Woods Hole; In a building off site in Falmouth, Observer Training Center. Program is from Maine through North Carolina, about seventy observers right now, across the states; Cover twelve or more different fisheries, main gear types are otter trawl, scallop dredge, and gill net; Also do some pots and traps, hag fish more recent; Hag fishing method; Hag fish are eel-type things, slimy; Right now dealing with sampling issues because hard straighten out, hold onto, safety issues with slime and lines; Hag fish used for leather products, a lot shipped to Orient

[17:52]

Never had problems personally with being a woman on a boat; Get a lot of women observers, part of my job is to support them, deal with any compliance issues, harassment, problems on boat; Probably more problems with the males than females; Hesitations on behalf of the industry, have to overcome when break into a new fishery or port, from women are bad luck to fishermen's wives might not like it; Observer training includes vessel etiquette, what to expect for amenities/privacy; Have to screen people before hired to be sure can accept conditions; Still some boats hesitant to taking females but required to, NOAA is equal opportunity employer, accepting observers mandatory if have a permit; Try to work with fishermen in assigning, but can't always meet everybody's requests; Most female observers don't care if not accepted, have to be that way to do job; Does exit interviews when observers leave, overall they really enjoy interactions with fishermen, see they work so hard, deal with lots of regulations

[22:57]

Pretty much everybody has a horror story about particular boats; May be completely ignored for entire trip; Observers dedicated to field, not fish cops, but to monitor resource on the whole vs. going after individual violations;

[Paused / end of file WAV\_0020\_001]

[Start of file WAV\_0020\_002]

Screen observers, don't want to hire activists, need them to be, collecting non-biased info, hard working, independent, reliable, trustworthy; 3 week training class at training center/what's included; Hard to teach in classroom kinds of interactions going to have on boats; Have 3 training trips, have a mentor, each trip reviewed

thoroughly by a debriefer in office before sent back out; Keep close tabs, they have a lot of support; Have area coordinators they can call 24-7, on boat if in cell phone range, all carry cell phones; Usually when on boat, start doing solo trips, pretty much on own; Don't really use the vessel communication equipment; Some ways to e-mail in an emergency, never had to use that; Don't really have any horror stories in Northeast, but have had occasional harassment or interference/examples of these; For most part don't have problems like that, if do, on very few vessels; Vessels might start it in hopes won't observe on them anymore, but everyone has to take fair share; Complaints they hear about observers only on nice boats, etc.; Helps if observers have some kind of industry familiarity before come to training, working on boats, running boat, recreationally

[05:30]

Three laws now require observer coverage—Marine Mammal Protection Act, Endangered Species Act, Magnuson Stevens Act; What Marine Mammal act requires, similar under Magnuson; Most of the federal fisheries management plans have some kind of observer requirement, more recently SBRM, Standardized Bycatch Reporting Methodology.

[Paused/End of File WAV\_0020\_002]

[Start of File WAV\_0020\_003]

A lot of the level of coverage dependent on congressional funds; Scallop fishery has an industry funded program, fishermen pay for a portion; Majority of coverage is federally tax dollars, so always a limit on how much can actually do per year; How much is done in different fisheries usually based on analysis that needs to be done; Confidence interval around the final estimates/ CV coefficient of variation); Different types bycatch require different levels of coverage because of data variability; A little more monitor driven in some special access programs—Regular B-Day Program to use B-days rather than just the A-days for multi-species, hook special access program, and U.S./Canada Management Area—observer data used for monitoring, total allowable catches, bycatch; Probably not most qualified person to answer questions about how well regulations working; Attend a lot of the council meetings, but kind of an outsider to the regulatory process; Regional office more involved with the regulations themselves; Their program more related to doing the stock assessments that go into creating regulations;. Interprets the ones that are going to involve observe coverage; Great class UNH, called Bridging the Gap, involving fishermen, science and managers to teach about data collection, do stock assessments, the regulatory process; Gets people from different backgrounds to talk about their interpretations; The whole council process is very complicated; Program deals with federally managed and state-run fisheries, thirteen different states, lot of different regulations; Don't have too many town regulations, those might for things like clamming; Program covers the one to three mile area from shore, trawling for squid or whiting, gill netting for cod or monkfish, summer flounder; Mid-Atlantic program just starting in menhaden purse seine fishery, governing body is not state or federal

[05:51]

Observer program don't too much of the analyzing, mostly aggregate, summarize, don't extrapolate; More involved with collecting data, training observers, developing sampling protocols, sampling scheme/ vessel selection, number of sea days, coverage Have a big data quality program; Monitor how well the observers are doing assess/review each trip, debrief, review log, enter data to database; Do close to 10,000 sea days a year; Seventy observers, new class of sixteen in October, will take two or three months to become fully certified; Data quality audits/checks; How data used by scientists/end users; Intake reduction team process, fishermen and scientists and gear specialists all get together and look at ways to reduce bycatch, come up with some mitigative measures that wouldn't necessarily involve closures or complete change in gear/types of measures;

[09:43]

Under the Marine Mammal Protection Act, a little different from the fisheries management councils, try to get a variety of regions, gear types represented on intake reduction team; Then have to evaluate whether or not changes work; Festival helpful for the program as another way to interact with fishermen, get their feedback/work with observers if hear they're not doing their job while on boats; Festival good chance for fishermen to understand better the value/use of data collection, understand that females make great observers/work hard/fit on boat;

[End of File WAV\_0020\_003/End of Interview]

## TRANSCRIPT

[Start of File WAV\_0020\_001]

00:00

JGF: This is Saturday, September 22<sup>nd</sup>, 2007. This is Janice Fleuriel. I'm talking with Amy Van Atten, at the Working Waterfront Festival in New Bedford. We're in the Harbor Master's House. And, I have down here that we'll be talking about your work as a fisheries observer.

AVA: That's right.

JGF: OK. So if you could just start though by telling us a little about where and when you were born, and any family background related to the fishing industry.

AVA: I was born in Worcester, Massachusetts. In 1968. I'm one of five children. I'm the oldest female. I have an older brother who went into the military. And myself. And then a younger brother who's in the environmental sciences. And two younger sisters. And one of them is also in, wildlife related work.

My mom's a school teacher. So, she's always been interested in science. And that's probably where our interests came from originally. My dad was a finance manager. So, we didn't really have too much in common.

JGF: [laughs]

AVA: [laughs] So I was born in Worcester. We traveled a lot. I lived in the United States for three years before moving with my whole family to Australia.

JGF: Wow.

AVA: And lived there years there. And then another six years in France.

JGF: Huh!

AVA: And then back... And then finished high school back in Shrewsbury, back in Massachusetts. And, knew that I wanted to—Knew that I wanted to study, some kind of, controversial [laughs] animal-related and human use issues.

So, initially I was interested in whaling. And interested in marine mammals. And, the impacts whaling had and to try to understand why people whaled in the first place. And that turned into...into just being interested in fisheries and interactions with—accidental interactions with whales.

[02:34]

JGF: Huh... Do you have any sense of how you came to, have an interest in the sort of controversial aspect of human and animal use? Was there any defining moments that you can think of?

AVA: I think I just always wanted a challenge. I was always fascinated by dolphins. But that, kind of wore off after doing a few whale watches. Not the fascination part, but just it wasn't that I just wanted to be with them, see them, or touch them. You know, I've kind of gotten over that. And then was more interested in the long-term survival of the stocks. More on a population level than an individual level.

So I did work for a little while as an assistant trainer for the New England Aquarium. So I did get my little fix [laughs].

JGF: Yeah [laughs] your fix of yeah, playing with them! Yeah.

AVA: So... And actually after working with them in captivity, I realized the benefits of doing that was, you know, providing access of those animals to people that wouldn't

normally be able to ever see them. So there was some benefit to that. But for me personally, I wasn't fulfilled by just doing that.

JGF: Yeah. You were looking at a more long-term and global kind of issues it sounds like?

AVA: Yeah.

JGF: Did you major in a related kind of thing in school?

AVA: I majored in wildlife and fisheries biology with a minor in forestry.

JGF: And where was that?

AVA: U Mass Amherst.

And then I have my master's, and that was from University of Maine in Orono. And that was in wildlife management.

JGF: Interesting. Huh. So that wouldn't necessarily just be water wildlife? It could be any kind of....

AVA: Yeah. Right. It was actually mostly terrestrial. But the same—you're dealing with the same issues. You know, managing resources. Sustainability. Probably dealing with people that probably have different views than you do on how they want to use a resource. But, you know, respecting their choice and finding a way to make things work.

Either reduce the bad things as much as you can, but accept that it's going to happen. Like... I'm not a hunter myself but I did work, at a deer check station. And, you know I was working with hunters. So although I wouldn't go out and hunt myself, I wasn't opposed to what the hunters were doing. And I was trying to make the best of what they were going to do anyway.

So, we were sampling them and doing... Collect ticks and, do whatever biological sampling we could to the deer before they take it home.

JGF: Oh, OK. Interesting.

[05:55]

AVA: So it's the same kind of thing whether it's terrestrial animals or harvesting fish.

Or, harvesting timber. There's always these kind of, controversial issues that pop up. Endangered species. You know, habitat protected areas. And you're always having to balance a lot of different people's concerns in wanting to use resources—public resources, in different ways.

JGF: So I'm just curious before we move on. Did your going to Australia and France have something to do with parents' work or something?

AVA: Yeah. My father, his finance managing.

JGF: Oh, OK. Took him to offices in other...

AVA: Yeah.

JGF: Huh. That's really interesting.

When you were just talking about the issue too of deer check station... I don't know what age you would have been. Several years back—I live out in western Mass. now-

AVA: Oh yeah. It was in Lee.

JGF: Oh, OK. A law came up about bear trapping. There was this law and you had to vote on whether to allow... There was like two things that got mixed together. One that I thought—even though I would never do it people should be able to do and one I didn't really like. And it was so, like wrenching, to have to, either take action or not

take action on this, because the issues around it were so... I just remember feeling like, I was really torn. You know, there was one that really didn't sit well with me and one that... It was just interesting.

AVA: Yeah.

JGF: And I know that living where I do there's lots of people that would hunt and so...

AVA: Yeah. I do remember, kind of crossing over the line, and accepting, you know not being... I'm trying to think of the word... You know, initially I was interested in, probably things like, Green Peace and... You know, thinking that they have these novel ideas, radical is what I was thinking of. Of, protecting, the things. But, through my schooling and actually in my wildlife management, wildlife use classes, you learn more to, kind of lose..., lose—not lose interest but, try to look at the bigger picture. And you lose that sense of the individual concern of the individual animal vs. the overall welfare of the population. You accept that people have different views on things.

JGF: Right. Right. Yeah.

[08:33]

So maybe you could talk about how and when you got involved in the actual fisheries observer work?

AVA: Well it was right, right out of undergraduate school. So in 1991 I started working for the National Marine Fisheries Service. Actually before I even worked for them, I didn't know a whole lot about them. We did study like, government organizations in Wildlife Management, but. At that point I never really thought that would be me—maybe I would be in the Fish and Wildlife Service or something like that. One of my summer jobs, my first job working on a fishing boat was a mate on a bluefish charter boat.

JGF: Oh! Huh.

AVA: Out of Barnegat Light, New Jersey. My friends were renting a house at Barnegat Light. So I went in on the deal. They all got jobs as waitresses and I walked to the docks and ended up on a charter boat as a mate.

So I made a lot more money than they did [laughs].

JGF: [laughs] Yeah, right!

AVA: On tips. But I also worked a lot harder, so. My days were much, much longer. And, just going out to sea every day. And fishing. Recreationally. But, the boat was so big. It was... A lot of fish were caught.

Then I started collecting environmental logs. Where we were fishing. Different bottom types. And, I would see the NOAA boats off shore doing fish population studies, surveys.

And... So anyways, I started working for NOAA after I graduated, on a harbor porpoise survey. And that was, a 40-day trip. And we were just doing a line transect survey to estimate the size of the population of harbor porpoise in the Gulf of Maine and the Bay of Fundy.

JGF: Oh! OK.

[10:40]

Now can you explain a little bit what a line transect... Is that what you called it?

AVA: Yeah. A line transect survey. You basically have a preset track line that you're going to follow, at a given speed. And you have a whole bunch of people up in the



mast and at different positions on the boat. As high as you can off the water. Because your visibility's better. And you're looking for marine mammals. And they're recording the number of animals that they see, the species, how many calves are with them, their behavior, their swim distance, the direction, and the distance and angle that they are away from the track line. And in the end, with all that information, you can end up being able to predict a detection factor, with different environmental conditions. [Sea states?] Visibility, distances, the size of the animal. And the behavior of the animal—some you have a more likelihood than seeing of others. So you know that you're missing some animals. So the line transect survey, you can estimate how many animals are actually missing and add that on to the ones that you're seeing. So you can come up with a total population estimate, in the area that you surveyed. And then they extrapolate that to the entire area.

JGF: Wow. Hmm! Interesting. And you did that for 40 days?

AVA: Yeah.

That was the first one that I did. That was a temporary position. And then that turned into a... Temporary position, I came back and worked with the observer program now. And, mostly I just started doing work in the office. I was reviewing trips.

JGF: And where was that?

AVA: In Woods Hole.

JGF: OK. Yeah.

AVA: And, the fisheries that we covered during that period were the drift gill net fishery for large pelagics. Sword fish and tuna. And pelagic long line.

There was also the pelagic pair trawl fishery.

JGF: *Pear* trawl? P-e-a-r?

AVA: P-a-i-r. So two...

JGF: Oh OK! [laughs]

AVA: Two boats towing a net in between.

JGF: Oh. All right. Yeah.

AVA: So those—the large pelagic fisheries are no longer in existence. Actually this was probably a pretty active port, for sword fish. In New Bedford. So there are still some draggers around that used to be active in that fishery.

Unfortunately they were fishing right at the same depth that marine mammals tended to aggregate in. So they did have a high interaction level with marine mammals. From sperm whales, right whales, humpbacks, common dolphins, bottlenose dolphins. A lot of different stocks were impacted. So between that and just the resource, was being depleted. The fishery was too efficient to continue.

JGF: Oh, OK. So was there a law put in place to stop it?

AVA: Yes.

JGF: Was that a very controversial thing at the time?

AVA: Yes, it was. It was probably in the, early nineties. Yes.

So. I was initially reviewing the logs that observers had collected out at sea. And then I did—part of my time was spent at sea on, either doing those line transect surveys on research boats or doing opportunistic sightings on different kinds of research boats. Or occasionally doing observing on commercial fishing boats.

Then I moved up the ranks from, just reviewing or just collecting data to being more involved with the program management and training of the observers. And, became

area lead, where I was more involved with, tracking the current regulations and their [...] schedules, and some budget issues.

And now I'm the operations coordinator for the program.

[15:28]

JGF: Oh, OK. And that's just for Woods Hole, or is that...?

AVA: No. The program—well the Northeast Fisheries Observer Program is based out of the Northeast Fisheries Science Center which is in Woods Hole. And we're actually in a building which is off site, in Falmouth, Massachusetts. We're called the Observer Training Center. Our program, though, is from Maine through North Carolina. So we have approximately seventy observers right now, that are distributed across the states. And we have different—we cover a variety of fisheries. Probably twelve or more different fisheries. The main gear types are otter trawl, scallop dredge, and gill net. But we also do some pots and traps. Hag fish, is more recent.

JGF: *Hag* fish?

AVA: Hag fish. Yes. I just saw a bunch of pots going by in the back seat of this trunk.

JGF: Huh. So is that a thing where they end up in pots like lobster pot kind of thing?

AVA: They use olive barrels and put holes in them. And they have some bait in there, and weights to hold the pots down. It's actually called a trawl, but they have a string, with different pots on it. A bunch of pots. Kind of spaced out. So they set them out and haul them back. And they're full of these hag fish, which are squirmy, eel-type things. They're like eels. And, they produce a lot of slime, actually when they get agitated. And, so it's—we're right now dealing with how to sample it, how to estimate the weights, how to get the length. Frequently you can't even get them to—

JGF: [laughs]

AVA: --straighten out.

JGF: And they're too slimy to hold onto?

AVA: Yeah you can't hold onto them.

And then, we assess the safety, dangers on deck for the observers to go on out there. So there's a lot of *slime*. There's a lot of *line*.

JGF: What are they used for?

AVA: They use them for leather products. A lot of it is shipped to the Orient. And they're used—they use the hide for leather products. Kind of a high-end leather. Wallets and pocketbooks and shoes and belts.

JGF: Wow. I'd never heard of those before.

[17:52]

JGF: So you... What's it been like say, from even your first bluefish charter on, to be a woman on a fishing boat? Have you felt that that's made any particular difference in anything or...?

AVA: It has. I've never had any problems personally. But we have a lot of women observers and part of my job is to support them, deal with any compliance issues, harassment or, you know problems that might occur on a boat. Overall we—Actually we probably have more problems with the males than females. But... So it seems to work out well. There are hesitations on behalf of the industry oftentimes when they have to take a female on their boat. And when we do break into a new fishery or a new port we have to usually overcome that. From the "Women on board are bad luck," to the wives might not necessarily like—

JGF: Oh...! I never thought about that!

AVA: --the fact that there are women out with their husbands. So we're—In part of our training we go through... We train the observers on etiquette on board the vessels. You know when they should be calling the fishermen. How they should set up on the boat. What kind of amenities there are on board so the women aren't *surprised* when they get out there. Because there might not be a head. There might not be running water there. So, there are some hygiene issues [laughing]. And some privacy issues.

JGF: Yeah. Now there might not be a head I'm taking it those aren't overnight trips or are they?

AVA: They could be overnight trips.

JGF: They could be? Oh OK. Wow!

AVA: So. BYOB. You know, bring your own bucket.

JGF: [laughs] OK. All right.

AVA: [laughs] So there are things that you have to get used to or accept or know about before you go into, to doing it.

JGF: Right. Right. Do you screen people out before they even get hired?

AVA: Yes.

JGF: You must have to.

AVA: Yeah. There are—We go through a lot of different questions. You know, “Do you mind not showering for four or five days?” Or, you know, food. Also, you have to be adaptable to eating food that you have available to you out there. We talk about dress, the appropriate dress, attire to have on board.

So I think there are still some boats that are hesitant to taking females. It's required that they do take them. I recently did run into a boat that just refused to take a female. We said, you know, “We really can't allow that to happen this day and age. We're an equal opportunity employer.” And... They were upset because they basically didn't—They were saying “So I don't have a choice in deciding who comes on my vessel or not?” Pretty much [...] some mandatory observer program and you have a fishing permit, then part of having the permit requires observer coverage.

JGF: Oh OK. Right.

AVA: You kind of do have to take who you could get assigned. And, we try to work with fishermen in assigning... If they are really uncomfortable with a female observer then we try to do what we can. But we can't always meet everybody's requests.

Because there are only so many observers to go around. And we do have to put them out when they're selected.

JGF: And there are some of the observers that are women that are, you know, maybe more OK with stepping into that situation than others? Do you have to try to, like—I could imagine, someone would be like, “I don't care. I'll go even if they don't want me.” And others might be like, “Ohh!”

AVA: Well most of them are like that [not caring]. They have to be because—

JGF: Yeah. They wouldn't even be on the job.

AVA: Right. Yeah. And most of them have... I do all the exit interviews. I interview all the observers when they're leaving the program to find out why they're leaving, and if they had any problems. And what things we could improve. And so one of the questions is, “What were your interactions like with the industry?” Usually it runs the full gamut of really great to really bad. But overall it's the really great ones. And

that's why they're doing it. They really enjoy the interactions that they have with the fishermen. And they respect their work. You know, and they see that they work so hard and they're dealing with a lot of regulations. And interpreting—trying to interpret the current regulations. It's difficult in itself.

[22:57]

AGA: But pretty much everybody has a horror story too. At one point or another. Just of... “Oh, that..”, “Except for *that* boat!” You know [laughs].

JGF: Oh...! So there are certain boats I imagine that have like, maybe reputations of being easier...

AVA: Yeah.

JGF: I wouldn't ask you to name names but [laughs].

AVA: No and I wouldn't! [laughs].

JGF: So what would the horror stories...? Would it be...? I suppose it could be anything but would it be a matter of just trying to pretend the person doesn't exist while they're trying to do their job or....?

AVA: Yeah. They can—And that does happen, where they'll completely ignore the person for the entire trip. And it's a ten or twelve or fourteen day trip. That can—It can really get you down by the end of the trip. A lot of the observers are dedicated to the field itself. And, they're not there as fish cops. They're not there as, you know, compliance driven, to try to report or monitor what they're seeing to get somebody in trouble. They're more—We need to monitor the resource on the whole. But we're not going after individual vessels that have violations. If we observe them it might be picked up through other, you know a larger investigation. But. That's not our main purpose to be out there. So, the observers usually sign up—

[Paused / end of file WAV\_0020\_001]

[Start of file WAV\_0020\_002]

JGF: We were talking about the job description of the observers is not to deal with compliance so much as...

AVA: Right. So a lot of them are just really interested in fishing, in management of the fishing resource. We do screen them. We're not—we don't want to hire, you know activists. We need them to be, collecting non-biased information. You know, very factual. So they need to be hard working, independent, reliable, trustworthy. They go through a 3 week training class at our training center. And safety is included in that as well as data confidentiality. And a little background on the fishing history itself. Then all of their species identifications. Sampling requirements. How to fill out the gear logs.

So, anyway when they get out there they're not—It's hard to teach in the classroom what kinds of interactions they're going to have. On the boats.

JGF: Yes. And when they go, they go on their own the first time and...?

AVA: No they have 3 training trips. And they have a mentor. So they work with an experienced observer at first. And each trip is reviewed thoroughly by a debriefer back in the office before they're sent back out on their next trip.

So we keep real close tabs on them and they have a lot of support. There are area coordinators, that they can call, you know 24-7. Twenty-four hours a day, seven days a week.

JGF: Oh while they're out on the boat?

AVA: Well, if they're in cell phone range. They all carry cell phones. But, usually when they are out on a boat, and once they start doing their solo trips, they're pretty much on their own. While they're out there. We don't really use the communication equipment on board the vessel. We stay away from their radios, and their VMS[?] systems. There are some ways to e-mail and things like that. But only in the case of an emergency. And we've never had to use that.

So as far as, you know... We don't really have any horror stories, luckily, here, in the northeast. Knock on wood [laughs].

JGF: [laughs]

AVA: But they do—We've had the occasional harassment, or, interference. Not allowing the observer access to the discards before they're thrown over the side. Not allowing them into the wheelhouse where they're supposed to collect the coordinates for the positional data. And, the occasional piece of gear that will disappear over the side [chuckles]. Tampering with their equipment.

JGF: Oh boy.

[03:24]

AVA: So. Yeah, they can go for a long time without anybody talking to them. Or, a lot of swearing at them. Things that, you know they might not, be offered the same food or, mealtimes, or just...

JGF: Yeah. Social shunning or whatever.

AVA: Yeah. But for the most part we don't have problems like that. And if we do, there are very few vessels that it occurs on. But. They might start to do that in hopes that we wouldn't observe on them anymore. But. We have to. We can't ignore them. So they have to take their fair share of it just like everybody else.

And we do hear complaints. "Oh, the observers are only on the nice boats." "They only go on the boats with..." you know, nice, *bunks*, or good *food*, or good *cook* or something like that. So we have to make sure that we are selecting all of the vessels fairly, and not avoiding the ones that are just giving the observers a hard time.

So we have a lot of observers that actually, you know enjoy the challenge.

JGF: Oh good [laughs]. I was going to say it must take a very special personality, I would think to do it and--. Also, you know I've heard other people say that, sometimes having some like—I don't know how many observers come in with any familiarity of the industry to begin with? Or, that sometimes that can help.

AVA: Yeah. Well...

JGF: But does the training do that anyway?

AVA: Well, we do that. But it definitely helps if they did it on their own before they come to the training. So, we do look at that. Any background experience that they have. You know, working on boats. Or running boats. Or just doing it recreationally. It does help in their selection.

So. We have a lot of applicants. And we screen them for sure.

[05:30]

JGF: What's the law actually around...? So this is being done really for research purposes? To track the stocks is that correct? And how do they—the law around—do all boats have to have some at some point? Is that how? Or...?

AVA: Yeah. Well, the law—There are two laws, actually three laws now that require observer coverage. It's under the Marine Mammal Protection Act. Under the Endangered Species Act. And under the Magnuson Stevens Act. So, initially it was just the Marine Mammal Protection Act that required observer coverage. It doesn't set the levels of coverage or, anything like that. It just says that there—once selected for observer coverage you must take the observer. And then a whole bunch of other things say that the observer has to have equal accommodations, and food available to them as the rest of the crew. And, they have to be told when fishing operations start and end. And have to have access to the positional information and, have to have help with collecting samples if required. So, that's the kind of laws that are in place. It's similar under the Magnuson Act. Most of the federal FM--fisheries management plans have some kind of observer requirement with them. And more recently was the SBRM, which stands for Standardized Bycatch Reporting Methodology.

[Paused/End of File WAV\_0020\_002]

[Start of File WAV\_0020\_003]

AVA: So... Yeah, those are the regulations as far as the level of coverage. A lot of it is dependent on congressional funds. And we do have—the scallop fishery has an industry funded program. So the fishermen pay for a portion of them. But the majority of our coverage is federally funded through tax dollars. So there's always going to be a limit there on how much we can actually do per year. And then, as far as how much we do in the different fisheries, it's usually based on the analysis that needs to be done. And, we try to have a confidence interval around the final estimates that you're trying to estimate. So we have what we call a thirty percent CV, or coefficient of variation. So whatever you're trying to look for, whether it's yellowtail bycatch in the scallop fishery, or, cod bycatch in the haddock fishery, they'll all have different levels of coverage that's required because of the variability in the data that are coming in.

JGF: OK.

AVA: But it's generally between five percent and up to fifty percent in some areas. And we're a little more monitor driven in some of the special access programs. The Regular B-Day Program, which was kind of a new, program that came out through Amendment 13, the frameworks that were done after Amendment 13. To use B-days rather than just the A-days that they could use for multi-species. And then, there's a hook special access program. And there's the U.S./Canada Management Area. So in those areas the observer data are used for monitoring and total allowable catches. And bycatch.

JGF: OK. Yeah.

AVA: And that's compared to the fishermen's' reports. So in those areas our coverage has to be a little bit higher than what we would just need for the straight science, stock assessment work.

JGF: Interesting. Wow. It sounds very complex.

AVA: [laughs]

JGF: [laughs]

So the one question I'd like to ask you still, as I'm sure you're aware the whole issue of regulations of the fishing industry is, you know a big topic of conversation and you hear varying views. And I'm just curious what are your thoughts on how well all the regulations around things like closed areas are working? And also, what would be your, sort of, assessment of how the stocks are doing these days?

AVA: Hmm... Yeah I'll probably not be the most qualified person to answer those questions. I do attend a lot of the council meetings, but... So, I'm kind of an outsider looking at the process, the regulatory process. Our regional office is more involved with the regulations themselves, whereas our program is run from the center. So we're more related to doing the stock assessments that ultimately go into an assessment to create regulations. But I'm not really involved with actually creating the regulations. I interpret the ones that are going to eventually involve observe coverage, so that I know that it's coming down the line.

JGF: Oh...OK. Yeah.

AVA: But I do know that they're extremely complex. Yeah.

It's—There's a great program, class...I'm trying to remember the name of it. It's at UNH. It's called Bridging the Gap between—it's fishermen, science and managers. And they do two sessions three days each, of, one teaching fishermen and managers and scientists at the same time, what kind of data are being collected, and, to do stock assessments. Because that number is ultimately what you're managing on. And the second three day session is on the regulatory process.

JGF: OK. Wow. Mmm.

AVA: So it's kind of a neat program. Because it gets people from different backgrounds to talk about their interpretations of it. And then to learn about it. Because it's very complicated. The whole council process is very complicated.

But we deal with federally managed fisheries and also state-run fisheries.

JGF: Oh wow.

AVA: And we have thirteen different states in our program. So. A lot of different regulations.

JGF: Yeah. [laughs]

And there's probably to some degree town ones. Well maybe you don't get into those so much.

AVA: Which ones?

JGF: Well there's some town regulations too, or maybe they don't apply to the big fisheries.

AVA: Yeah. We actually don't have too many of those. Because that might be for like, clamming and that kind of thing.

JGF: Yeah. Like inshore.

AVA: And we don't cover those fisheries. But we would cover like the one to three mile area from shore. Where they might be doing some trawling for squid, or whiting. Or gill netting for cod or monkfish. Summer flounder. And down south, in the mid-Atlantic we're just starting in the menhaden purse seine fishery, which is, an even different government body that governs them. It's not state or federal [laughs].

JGF: Oh OK [laughs]. Wow. It's all pretty complicated.

AVA: Yeah.

[05:51]

JGF: So then... In your role you're sort of—like you said you're sort of working with the observers. Are you the, one of the people that would then—are you passing the data on? Or are you actually analyzing the data too?

AVA: We don't too much of the analyzing ourselves. We mostly aggregate, summarize. But, we don't extrapolate. We leave that up the hard core [chuckles] analysts.

JGF: [laughs] Uh huh.

AVA: So I'm more involved with collecting the data, training the observers, developing the sampling protocols. And sampling scheme, or vessel selection. The number of sea days that we'll do. The coverage levels. Monitoring compliance. You know, if anybody—they're supposed to be calling in and they're not calling.

JGF: OK. Yeah.

AVA: And then we do have a big data quality program. So we receive all the data back. We also monitor how well the observers are doing. We assess each trip. Review each trip. Debrief them. And, trainer editors, who are reviewing the logs once they do get to the office. And we key punch the data into an Oracle system, a database, interactive database. Which is—it's huge. Because we do close to 10,000 sea days a year.

JGF: Wow!

AVA: In all these various fisheries.

JGF: And how many observers?

AVA: Seventy. Give or take. So we have a class in October actually. So we'll have sixteen new observers in that class. It'll take two or three months though, to become fully certified.

Then our data qual—before the data get loaded into the databases, they go through audits and checks for ranges and making sure, you know everything is complete and makes sense, before it's put into the databases. And once that's available to end users like the scientists at the center, the Northeast Fisheries Science Center, can access, can pull that data. If they're looking at sea turtle interactions or, the size of haddock that are being caught. Or, whatever it is that they're looking for we collect length, frequencies for a lot of fish. And collect age structure samples. We do the full workup of any marine mammals that are caught. Or sea turtles and sea birds. So that data are used for the intake reduction team process. Where the fishermen and scientists and gear specialists all get together and look at ways to reduce bycatch.

JGF: Oh... OK! Yeah. So if you're seeing—like if somebody's seeing, for instance, certain kind of bycatch in a certain kind of gear thing, they might look at ways to modify that gear?

AVA: That's right. Yeah.

JGF: Oh that's neat. Interesting.

AVA: Try to come up with some mitigative measures that wouldn't necessarily involve closures or rolling closures or, complete change in gear. It might just be the way they're setting or, you know if the bait was sunk a little bit faster maybe they'll get fewer birds. Or, it could be something small that—And so a lot of times the fishermen have that knowledge. Or the gear technicians have that knowledge. So working together to identify the problem, see where it occurs, the observer data are used heavily on that. Because we're the ones that are usually seeing that and then collecting all the gear information along with where it occurred.



[09:43]

JGF: And is that where, say a council would come in? I don't want to make you late but—or where the fishermen, have the know—like how are they sharing their knowledge? Is it like meetings that happen or something...?

AVA: Well that's under the Marine Mammal Protection Act. So it's a little bit different from the fisheries management councils. Once a take-reduction team is formed, that's where we have a lot of really good input from fishermen. And also different fishermen. You know, like a fisherman in New Bedford might know something different than a fisherman in Cape May. Or whether it's bottom tending gear or midwater trawl gear. So we try to get representatives of all of the different gear types, or different regions or areas.

JGF: Wow... Interesting.

AVA: And then you have to evaluate whether or not those—if you change the gear, whether or not that works. Because you don't want to just keep changing the gear. And, that's a cost for the industry. Just make them change that mesh size. So you want to base that on something. You want to see if it's working. So the observers will kind of—by collecting the data afterwards can see whether or not the bycatch reduction plan is actually working.

JGF: Yeah. Interesting. OK. Well, we're getting close to time. I just want to end—if you could, quickly—I like to end with everybody, what would you want the average festival visitor to understand about the fishing industry or women's roles in it or both?

AVA: Um... Huh!

JGF: Or fisheries. In your case it may not be the industries per se, but.

AVA: Yeah! No, the industry, I work a lot with the outreach. And, it's just really, you know trying to interact, communicate with the fishermen to hear what their fears or concerns are when there's an observer on board. We do have a fishermen's comment card. We have a booth here. So we have all the forms. We try to solicit feedback from the fishermen directly, so that—so if we hear stories that there's a lazy observer or they're not sampling or this and that, then we can actually track it down and find out if it's *true* or not, and try to get them a little more... Oh, I don't know what the word I'm looking for is.

JGF: Like up to speed or something.

AVA: Well we try to inspire them to, you know work harder. You know, see if you can do that through supporting them or just getting more involved in knowing how the data are being used. We actually do that—we bring them down to the center and we get them to talk to the scientists. So the same thing for the fishermen I guess. A lot of them have seen observers before. They take the observers out. But they don't really understand where that data, how valuable that information is. Or, why it is that we collect the things that we collect. So... I guess that's—that's why we're here, is to be available to answer questions of just, just talk to them about their experiences with observers. That females make great observers, too...

JGF: Oh, OK [laughs].

AVA: [laughs]

JGF: So you're advocate with the fishermen as much as with the average festival visitor really.

AVA: Oh yeah!

JGF: That's great.

AVA: They're really hard workers. They fit in on the boats. I guess that's it.

JGF: OK. Thanks very much.

[End of File WAV\_0020\_003/End of Interview]