

**Interviews with Inuvialuit Members of the
2018/19 Beluga Tagging Field Crew**

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Abstract

The Fisheries Joint Management Committee (FJMC), Fisheries and Oceans Canada and Inuvialuit Game Council partnered to deliver a new tagging program for Eastern Beaufort Sea beluga whales, with field operations in 2018 and 2019. The 2018 programs was highly successful, but a major mortality incident occurred in 2019 with at least eight whales confirmed to have died within three days after being live captured and tagged.

This paper was developed to address a recommendation by FJMC Members to interview Inuvialuit members of the 2018/19 beluga tagging field crew for their observations and insights into potential factors contributing to the mortalities. In total, ten people participated in a structured interview. Responses were summarized and reviewed in a validation workshop for participant clarification and group consensus on final conclusions.

Overall, Inuvialuit participants of the beluga tagging field crew did not identify any major difference in whales behaviour, body condition, or tagging procedure between the 2018 and 2019 field years. Despite the high level of mortality observed in 2019, several participants identified the importance of movement data for beluga whales and were supportive of future tagging programs. While not initially an objective of the interview project, a set of recommendations for future beluga tagging programs emerged from the results validation workshop and are also presented here.

Preface

This report was written by Elizabeth Worden under contract with the Fisheries Joint Management Committee, Inuvik, NT. Interviews were conducted and managed by Issiac Elanik, Joint Secretariat staff.

Elizabeth Worden is qualitative researcher based at the University of Manitoba in Winnipeg, MB where she works to develop science programs that align with community priorities in the Hudson Bay region. As part of her previous work in the Inuvialuit Settlement Region, she conducted interviews with Inuvialuit Knowledge holders to assess environmental and socioeconomic factors of a changing beluga harvest in Aklavik, NT.

Issiac Elanik is a staff member with the Joint Secretariat based in Inuvik, NT, where he supports the work of the Fisheries Joint management Committee. He is an active subsistence harvester with a strong interest in wildlife resources management in the Inuvialuit Settlement Region where he lives with his family.

The Canada/Inuvialuit Fisheries Joint Management Committee (FJMC) Report Series was initiated in 1986 and reports were published sporadically in a variety of formats until 1998. Information on the earlier publications can be obtained directly from the FJMC office. The Series was re-initiated in 2003 and a common format established with concurrent publication on the FJMC website (www.FJMC.ca).

1. Introduction

Fisheries and Oceans Canada (DFO), the Fisheries Joint Management Committee (FJMC) and Inuvialuit Game Council (IGC) partnered to deliver a new tagging program for Eastern Beaufort Sea (EBS) beluga whales (MacPhee et al. in press), with field operations in 2018 and 2019. In July 2018, 10 belugas were live-captured and instrumented with back-mounted transmitters. The program was highly successful, with tags reporting data between 14–356 days (Storrie et al. 2022). The following year (2019), an additional 20 EBS belugas were tagged using the same protocols, the same tags, and virtually an identical field crew. However, despite using the same methods, eight whales were confirmed dead based on the mortality function from a secondary pop-up archival tag, along with the discovery of three beachcast carcasses of tagged belugas (Loseto et al. in review).

In response, a key recommendation from the Tagging Advisory Group (TAG) was to interview members of the beluga tagging field crew for their observations, including any differences in procedure, whale condition or behaviour, or environmental conditions between the two years. The TAG is a project-level steering committee comprised of Inuvialuit members of the FJMC, IGC delegates, Joint Secretariat support staff and the DFO project leads. While all members of the tagging crew who were reachable were personally contacted, informed about the major incident, and asked for any thoughts on contributing factors (Aug 2019) (S. MacPhee, DFO, pers. comm.), the TAG felt that a more formal interview process including more structured methodology was needed to document observations from Inuvialuit members of the field crew. An additional recommendation was that the interviews were not to be led by DFO staff and should be conducted by Joint Secretariat staff or community-based research technicians.

Objectives

Objectives of this report are to provide:

1. Details on methods used to develop, implement, and analyse interviews of Inuvialuit members of the 2018/19 beluga tagging field crew for their observations and recommendations related to the 2019 mortality incident;
2. Provide a summary of interviewee responses, and;
3. Summarize overall themes and key recommendations provided by respondents.

2. Methods

Questionnaire Development

A questionnaire for semi-structured interviews was developed by Joint Secretariat staff (Sep 2019) but was not implemented at that time due to capacity challenges, staff and program turnover. Following a TAG meeting (Dec 2020) and reaffirmation from the FJMC on the priority of conducting these interviews (Feb 2021), Joint Secretariat and DFO staff worked together to obtain support from a contractor trained in qualitative research methods to (1) revise the draft interview questionnaire and (2) develop training materials for conducting semi-structured interviews. The questionnaire was updated (spring 2021) and later reviewed and revised by the TAG (Aug 2021). At the time, advice from the TAG was to interview all members of the beluga tagging field crew, but due to capacity and advice from FJMC members of the TAG, only Inuvialuit members were interviewed. Beluga monitors were not interviewed due to capacity shortages.

Interviews

A best practices guide for conducting interviews was prepared by one of us (EW) and was delivered virtually (Zoom Communications, Inc.) as a training model to Joint Secretariat staff who would lead on conducting the interviews and managing the data (Oct 2021). From October 2021 to January 2022, ten interviews were conducted by one of us (IE) with team members of the 2018 and 2019 beluga whale tagging crews. Interviews were conducted one-on-one by videoconference. Unfortunately in-person format was not possible due to travel restrictions related to the COVID-19 global pandemic. The length of the interviews ranged from 9 to 36 minutes. Interviews were audio recorded using an iPhone (Apple, Inc.) and were professionally transcribed (Transcript Heroes Transcription Services, Inc.). Prior to analysis, transcriptions were checked for accuracy (e.g., for local places names).

All 10 interviews were structured (i.e. question and answer format) and consistently followed the interview guide (see details on each subsection under ‘Results’). However, the interviewer adopted a reactive and flexible approach. Specifically, he used pre-determined prompting questions when necessary, skipped over questions that had already been answered in earlier sections of the questionnaire, and provided clarification to respondents when needed.

Transcriptions were entered into data analysis software (NVivo, QSR International) that was used to summarize participant responses to the structured questionnaire.

Group Validation

A half day results validation workshop was organized to ensure that the report properly represented the interviews that participants were comfortable with the final written product. The workshop was held on 29th March 2022 in hybrid format with Inuvik-based participants gathering in-person and all others joining via Zoom (Zoom Communications, Inc.). Six of the ten interview participants attended the workshop in addition to the contractor, the interviewer, and an additional Joint Secretariat staff member who served as rapporteur.

During the validation workshop, interview participants reviewed a draft of the current report while the contractor made edits in real time based on participant recommendations and consensus. Two key changes were made to the report, including (1) the removal of interviewee role in the field program after their quotes (to maintain anonymity), and (2) the addition of a list of recommendations for future tagging programs that emerged from discussion held during the workshop.

3. Results

Results are presented in the same structure as the interview guide and are presented as a mixture of written narrative and direct quotes from interview participants. Participants wished to remain anonymous but agreed that each quote could be associated with the year(s) that the interview respondent giving that quote worked as a beluga tagging crew member.

SECTION I: Background Questions

The following questions were included to establish basic information about the interviewee such as role in the tagging program, years of involvement in the program, and previous experience with beluga whales. These questions were a ‘warm-up’ and set the context for the remainder of the interview.

1) Which years were you involved in the program (2018, 2019, or both)?

Of the ten people interviewed, two worked in 2018, three worked in 2019, and five worked both in 2018 and 2019.

2) Are you a beluga harvester?

One person did not identify as a beluga harvester, whereas the remaining nine participants all said they were beluga harvesters.

3) What is your experience with belugas?

The responses to this question varied, with one person saying they harvested whales every summer and another saying they generally harvested in late July and early August. Four people (40% of the participants) said they had been harvesting whales all their lives, whereas two people said they had been harvesting ‘for years’. Finally, one participant said they got their experience with whales from working with Department of Fisheries and Oceans for the last three seasons. One participant did not specify their experience with beluga whales. In general, the participants all had significant experience working with beluga whales.

4) What did you do in the beluga tagging program?

Three of the respondents were captains of the boats in both 2018 and 2019. Of these three, one was the net boat captain, while the other two were herding boat captains. Three people were Zodiac operators (one from 2018, one from 2019, and one from 2018 and 2019). One participant was a herding boat mate in 2019. Two respondents were beluga monitors (one in 2018 and one in 2019). Finally, one participant was a whale handler in both 2018 and 2019.

SECTION II: Herding and Capture

The purpose of this section was to gain an understanding of the details of the capture process, including the selection and herding of whales to shore by Inuvialuit whaling teams, and the netting process, where whales were captured by an Inuvialuit whaling team and towed to shore by several boats working together. These steps of the tagging process were important as they brought peoples’ experience with beluga behavior, health and conservation into the selection process. A comparison question between 2018 and 2019 was asked to participants who were involved in both years of the tagging program.

5) How were whales selected for tagging?

One of the main comments regarding the selection of whales (50% of respondents) were that they avoided females that had young ones, focusing mainly on larger (male) whales, or;

“the perfect size to try and net”.

– (2018)

Two participants said that the experienced herders, Elders and/or captain would be the ones selecting the whales. One participant said the team would have a meeting before heading out to;

“see what they were going to try to capture that day”.

– (2018)

Another respondent explained the process of trying to net a whale – how they would;

“give it half an hour and if we didn’t reach the spot where we wanted to bring it to, we gave it half an hour. And then if that half an hour didn’t work, we just tried another one.”

– (2019)

Finally, one person said they were unsure of the selection criteria.

Seven of the ten participants were asked a prompting question of “*did sex and body condition affect tagging?*”, with three answering ‘yes’ and four answering ‘no’.

Eight of the ten participants were asked a prompting question of “*did whale behaviour affect selection?*”, with seven people answering ‘yes’ and one person answering ‘no’.

Some notable quotes include;

“Yeah, you’ll notice when you go to a pod there’s always one that tries to deter you away. It will keep coming up and make sure you see it, you know take you away from the pod.”

– (2018 & 2019)

and

“I found out that the younger whales were really responsive to the capture compared to the much older whales who were really docile, as soon as they were captured they settled right down, compared to the younger whales that were giving us quite a hard time.”
– (2019)

Seven of the ten participants were asked a prompting question of *“did the pod affect selection – e.g. pod size, behaviour, presence of calves?”* and four people answered ‘yes’, and three people answered ‘no’, stating that if they saw calves, they would avoid that group of whales.

6) What was the behaviour of whales in response to herding and capture?

Responses to this question were varied. One participant said that the whales were calm during herding and capture. Three participants (30%) said that whales were initially aggressive and ‘bucking’, but would calm down once the team got to them, got them under control, and interacted with them. In fact, one participant stated that:

“I really believe that they could hear you. And by just rubbing your hands around on their body tended to calm them down.”
– (2018)

One person commented on how larger males tended to be more aggressive than smaller whales or females^X. Another person commented on one capture when a whale was stressed by the presence of a depth sounder;

“Yeah the one capture we had was – it was a fishery officer traveling from Tuk back to Hendrickson and when we had that whale captured putting the tag on, it was acting different, so I told [...] to call him and tell him to turn his depth sounder off. And once they shut it off you could see it had calmed down, so the depth sounder really affect them.”
– (2018 & 2019)

Finally, one participant commented that the whales weren't particularly aggressive during the herding, with the boat teams trying not to spook them and keeping their distance, but that they were agitated during the capture and tagging process. Another person echoed this comment, saying the herding was good but the capture was the 'scary' part.

Eight of ten (80%) of participants were asked the prompting question; *"Did any whales seem tired or unhealthy?"*, with seven respondents saying 'no' and one saying;

"I think there were one or two whales that we herded a while and during the tagging process they were quite calm and seemed kind of tired."

– (2018 & 2019)

It should be noted that after the first couple of whales, the team had a meeting and decided on a protocol of a half-hour time limit for herding whales.

11) Were hunting boats on the water when whales were herded?

The answers to this question were all consistent, with everybody saying there was a protocol they followed to not interfere with subsistence harvesting activities. While some participants said they just avoided peak harvesting times (such as doing their operations at night when harvesters weren't out), most said that they would 'shut down their operations' when hunting boats came out.

12) Were there any differences in whales that were herded, or any differences in the herding process in 2018 vs 2019?

Because it was a comparison question for the two years, only seven of the ten (70%) participants answered this question. Of these, four commented that the years were mostly the same for the herding process. One of these four participants added that;

"There's different [whales] every year, so like, some of them is going good and some of them goes bad. But it's pretty much the same."

– (2018 & 2019)

One participant commented that there were drones in 2019 so whales could be found more efficiently than in 2018^x. The last person commented that they tried to be quicker in 2019 so as not to tire the whales out.

SECTION III: Towing and Handling

This next section covers the transport, or towing of netted beluga whales to the shoreline for the next phase of the tagging program. It also includes questions regarding the time spent with whales as they approached shore and prior to tagging, such as how whales behaved when being handled by the Zodiac teams. A comparison question between 2018 and 2019 was asked to participants who were involved in both years of the tagging program.

13) Did you notice anything happen during the netting process you would like to share?

While responses to this question were different for each participant, two themes emerged. One was the importance of teamwork/working together (30% of participants mentioned this), and how once people “*got a feel of what needed to be done*”, things went much more smoothly. Similar to this, 30% of participants said that they worked together to herd the whales as close to shore as possible before netting and towing them, so it was easier on the whale;

“Well we try and bring it as close to the beach as possible. This way the towing wasn’t too bad.”

– (2019)

Two participants (20%) discussed the importance of experienced elders making decisions for the process, and how it would be good to keep experienced people on the team if this program continued (rather than hiring new people). Finally, one participant mentioned that a longer net would make things easier for the netting process.

Conversations in the verification workshop (held on March 29th, 2022), had the participants talking about what kind of net to use for the netting process. People were saying rope nets were

harder on the whales, and maybe polymer or web nets would be better to use, with smaller mesh. Heavier sinker lines were also recommended.

14) How did the whales behave while being towed to shore?

The answers to this question had a bit of variety, but four out of the ten participants (40%) commented how the whales would initially thrash around in the net, but would calm down once they got netted more at shore;

“They were pretty calm after they petted around and they put a net in front of their face, on their head. After they put that netting on their head, face, their head there, they cool right down.”

– (2018 & 2019)

In total, 20% of the participants described how whales ended up being calm after initial panic, but only because the teams controlled them to keep them calm. Another 20% of the participants simply said that the whales were calm during the netting and towing, and one participant mentioned that most were calm but some (the mature ones) were more aggressive than others. Finally, one participant said the whales were slow, but got agitated when they got the tag put on.

15) Did you notice any difference while the whales were being towed to shore from 2018 to 2019?

Seven out of ten participants answered this question, and of these, five said the two years were more or less the same for towing. The remaining two explained that going to shore was a little bit longer in 2018 vs. 2019, because they were trying purposefully to be easier on the whales by tiring them out less in 2019.

“Going to shore was a little bit longer towing in 2018. 2019 it was a little bit shorter. But ’18 was our first year so it was a little bit longer towing...”

– (2018 & 2019)

“No everything went [pause] like, if anything, the tows in 2019 were shorter than 2018 so – but the whales were – the whales’ behaviour was still the same both years.”

– (2018)

16) How did the whales behave onshore while being handled by the Zodiac teams?

This question produced a scattered distribution of answers. Two of the participants (20%) described the whales’ behaviour as ‘awesome’ or ‘calm’, but one participant said that the whales were so unhappy that they were trying to bite peoples’ legs and escape, and were clearly in pain.

“We were working on – because they’re – it kind of bothered me because there’s – I just watched something – and some whales were trying to even bite a person’s leg but – trying to escape.”

– (2019)

Four participants (40%) explained that the whales would initially be more anxious, but once they got handled and interacted with, they would settle down.

“Oh, they tended to calm down quite good. And of course we did the work that needed to be done as quick as we could, like taking blood samples and putting on the tag. And throughout the summer season that we were out there, each one that was captured, the work seemed to go faster because we were all working together at the same time....”

– (2018)

One participant said the whales were stressed, they were sending off echolocation back to their pod, and that you could feel the pulses from their melon in the water. One participant did not answer the question, and finally, the last participant described the process in detail but did not assign an opinion on whale behaviour.

17) Did you notice any difference while the whales were being handled onshore from 2018 to 2019?

Minus one participant explaining that the process went a bit more rapidly in 2019 vs. 2018, the other six participants who answered this question stated that the handling process was pretty much the same from year to year.

SECTION IV: Tagging and Release

This section covers the final phase of the tagging process – the actual tagging of beluga whales, and the release of beluga whales after having been tagged. Questions focusing on whale behavior in response to being tagged are of special importance in this section. Also of interest is a question on the body condition of the whales, because this was the time when the tagging team had hands-on contact with the beluga. A comparison question between 2018 and 2019 was asked to participants who were involved in both years of the tagging program. The section ends with an opportunity for participants to add anything they felt was important about the tagging process.

18) Did you notice anything about the body condition of whales once they were on the beach? (e.g., size, colour, skin marks, injuries)?

Five out of ten (50%) of the participants commented on how scratches and scars were on the whales.

“Some of them had some pretty good scars on them. I don’t know if they were – obviously they were from ice and some of them – there was pictures taken but some of them looked like bear claws like all the scrapes were the same distance apart.”

– (2018 & 2019)

A couple participants went on to elaborate that in spite of the scars, the whales were in fairly good health.

One participant who only worked in 2018 commented that the whales then were in excellent shape, while another who only worked in 2019 described those whales as skinnier. Two of the ten participants said they didn’t notice anything in particular about the body condition of the whales.

19) Overall, how did the whales behave in response to being tagged?

Four out of ten participants (40%) commented that the whales seemed to be quite calm, and along the same line of thinking, one mentioned that they didn't seem stressed. Of these five people, two worked in both the 2018 and 2019 tagging season, two only worked in the 2019 tagging season, and one worked in only the 2018 tagging season. The person who worked in the 2018 tagging season mentioned;

“Once the tag was put in place and whatnot, the whales never acted aggressively or anything. They were very calm. Even when the tags were put on and we were releasing it, we'd walk out with it for a little deeper water and then the whales, they basically just calmly went out to deep water on their own.”

– (2018)

One participant who worked in both seasons said;

“I would say they were pretty, pretty calm. The odd kick of the tail here and there but like I said before that's expected, right, you've got a whale half out of the water.”

– (2018 & 2019)

One participant who worked in only 2019 said;

“Overall the whales, after being tagged they're [pause] they swam away really like nothing, like nothing happened and like it's regular swim away, yeah. I don't know how you could – you know, not being a scientist or anything, but I didn't notice any kind of stress on them after all the work was done.”

– (2019)

Three of the ten (30%) respondents said that the whales had mixed reactions to being tagged; with some calm and others aggressive; or some being initially aggressive then calming down after some time. All of these participants worked in either both tagging seasons or in just the 2019 tagging season.

“And that's the ones that were – kind of struggling trying to put on the – yes, cause there were some – a lot of aggressive ones and – but we managed to hold it back and keep it

calm. We tried to keep them calm when we got them in the beach and there was so much of us. And we were doing – it happens within five, ten minutes. The most we did was 15 minutes... at the most.”

– (2019)

Finally, two of the ten (20%) participants commented that the whales were visibly stressed, in pain, and distraught when they were tagged. Both of these respondents worked in the 2018 and 2019 seasons;

“But when they were putting that radio on them, when they poked them, there’s three or four of us, all of us had to hold the tail because once they jab that thing in them, oh man, it go crazy.

[...]

You could even hear them calling the other whales, making songs. It really hurt them I guess. Just right away told them that, me and my helper, I told – you guys is hurting that whale. Watch where you jab that thing. Experience, you know. I don’t think it should be done anymore.”

– (2018 & 2019)

20) Was there similar behaviour among the whales you worked with, or did individuals differ?

Seven out of ten people were asked this question and they gave varying responses. One participant said that the unique whale in his mind was the whale who reacted negatively to the fishery officer’s depth sounder. Another person said that “*every individual whale was a little bit different but not by much*”, whereas another participant more directly said that the individual whales were all different.

Three people said that whales were “*pretty much*” all the same – except one participant took note that they found the females to be more aggressive. Finally, one respondent said that it was hard to say if there was similar behaviour;

“They seemed to be kind of – it’s hard to say. You tag one and tag them all and they seem to be acting the same – similar tagging. I don’t know just, just try and get away while you’re holding it. And you land rope on the tail and we have a net on the – one for the blindfold on to head, to cover the eyes so they wouldn’t see you when they lift up their head. And give it a chance to calm down. And that’s what we were doing. And we try our – we tried our best to keep it calm.”

– (2019)

21) How did the whale(s) behave once they were released?

The answers to this question were quite consistent among all ten participants, with the consensus being that the whales seemed to swim away normally, and straight back to the pods. Two respondents who worked in both 2018 and 2019 said that the whales not only swam away but were calling or ‘sounding’ to the other whales;

“They swam out and just like sounding or calling for other whales, like looking back and forth with their head or sounding.”

Participants also mentioned that the drone footage in 2019 was neat and contributed to seeing their behaviour swimming back to the pods for five breaths.

22) Were there any noticeable differences in the whale’s response to the tagging procedure in 2018 vs 2019?

Eight out of ten (80%) of the participants answered this question. One person clarified that they weren’t there in 2018, but;

“...but 2019 was – they were saying – I worked with the workers that worked the year before me and they were saying it was both similar conditions that they were having.”

All other seven participants unanimously said that there were not any noticeable differences in the whales’ responses to tagging in 2018 versus 2019, (the difference was not with the whales, but with the crew getting more efficient).

23) Is there anything else you want to say about the tagging procedure?

All participants had varying answers to this question. Five out of ten (50%) of respondents said that they would do it again / it was important to keep going with this program, and that it was a great opportunity to work with whales.

“For me it was a really great learning experience on getting up close and personal with whales. I’ve never done that before and it was a really good experience. I would do it again if I was asked to do it again.”

– (2019)

“Well, I guess the only thing is, I’m happy that the program was put into place. I believe it’s important. And whether or not it’s going to continue in the future, I think that because we are subsistence uses of the beluga whale and the food source we get out of it is so important for the Inuvialuit people, that in the future I hope if they have the opportunity that the program can be done again, just to see the difference between the year span of the program.”

– (2018)

However, one of these answers also included words of caution about continuing the program;

“Well it would be good to do again, but we have to be cautious about putting our team out there again. Because you can not do a – like you know what you’re doing already but we – every time you’re doing this job it’s – you’re pushing a whale to the – to tag it, not to kill it. Doing this job, you’re pushing the whale and doing it about half an hour and you let it go. But you try and do it better and faster, but there’s no other way you can do it. You just got to do your job and try your best that you can.”

– (2019)

One participant felt that it was best not to continue the program into the future.

“I think it’s best that we don’t do that again. Yeah, well I mean to me anyway... like all the monitors watching and folks watching and they said, boy, you’re really hurting that animal. And I think it’s right, we shouldn’t do that.”

– (2018 & 2019)

Along the same lines, another participant said that if the program were to continue, they think it would be best to only use the harpoon tagging method rather than the netting method.

Finally, two participants mentioned important stories in response to this question. One participant described how in the ‘90s, there was a tagged whale that was harvested several years after it had been tagged, and noticed that the scar of the three tagging rods being pulled out was still visible on the whale. The other participant described their concerns with the depth sounders and the impact it had on the beluga whales.

“No I just want to note that 2019 there was a Coast Guard boat there and there were some barges going by so no other – and they both use depth sounders so, you know, that will affect them.”

– (2018 & 2019)

SECTION V: Environmental Conditions

This section’s aim was to gain perspective on environmental observations that could have possibly affected the tagging process, or the whales’ overall well-being.

24) How did environmental conditions compare between 2018 and 2019?

There was a bit of contrasting information in the answers to this question, with the seven respondents to this question recalling different aspects of the weather and surrounding environment. No comment was entirely alike. One respondent said that in 2018 there was a lot of ice and in 2019 there was a lot of wind;

“In 2019 we had some windy days, and I can’t remember what year it was, it might have been 2018 we had ice come in inside the island, and it was quite a bit of ice.”

– (2018 & 2019)

Another participant commented that in 2019, it was much warmer than in 2018, and yet another respondent said that there was calmer weather in the second season than the first. However, another person said that in 2019 they “*had to wait for a lot of good weather*”. Finally, another participant said;

“We worked a lot of long hours in 2018 because we tried to fight the weather. Of course when it’s windy you can’t go out and we kind of learnt our lesson in 2019 so we kind of switched to night shift and we did all our work during the night and it seemed to calm down at night. So as far as weather that was really the only factor.”

– (2018 & 2019)

25) Were there any major environmental events that might have impacted the tagging procedure or the process of whale tagging?

Four out of ten of the participants (40%) mentioned how ice impacted the tagging operations. One participant (who only worked in 2018) said the ice impacted the operations the year he worked, with “*chunks of ice right on the beach in front of our camp*”.

Two participants (who worked both in 2018 and 2019) just mentioned how the ice was bad in one year, but didn’t specify which one. However, they both said that the ice (and ‘*killer north wind*’) stopped the tagging operations for a couple days.

One participant who worked in 2019 mentioned the barges and weather combined might have affected beluga presence, as the whales were absent for a couple days when the barges went by. Another person mentioned that weather and wind in general dictate whether or not you can go on the water. Another participant described how, in 2018, there were very high waters;

“The ’18, the first – the ’18 was earlier, I think it was. And then was it that year – oh that year, the ’18, the water – that’s when it came up really high. High waters.”

– (2019)

Finally, two participants, who worked both years, didn't recall any major environmental conditions that impacted the whale tagging operations.

SECTION VI: Overall Impressions

This last section covered the over-arching impressions participants may have had about the tagging program, surrounding issues of interest (such as other whale mortalities), and sought their input on how they believe the tagging program should proceed, if at all. This section was important because the strength of these programs comes directly from first-hand collaboration and input from local Inuvialuit observations and their knowledge and perspectives.

26) Do you have any suggestions on how to look into the tagged whales that died?

A range of answers were presented for this question, however, one main theme emerged. Five out of ten (50%) of the participants referred to the importance of doing a necropsy to determine what happened to the whales – to get more information. One respondent said it was important to get to the deceased whales faster, especially if the tag started sending off a different signal when they passed. Another person explained that it was hard to get to the tagged whales that died, because they were so far out that they couldn't go with their teams. In the verification workshop, it was clarified that if the whale was close enough, they'd try to go with a boat, but if they were further, they needed a chopper. Weather was always an issue to deal with and affected the access to the deceased whales.

Two participants didn't have a comment on this question.

One respondent said that you could see the stress taking effect on the whale during the time they were handling it;

“You could see what's happening when you're tagging. You don't know which whale. You could see it happening and the whales are shaking. You're poking in a needle like to get the pin on the whale.”

– (2019)

The other participant took a different approach, saying;

“I believe, unfortunately, that’s out of our hands regardless what you try to do. As we all know, sometimes things happen for no reason at all. And unless you actually see the mortality of that specific whale or whatever that was tagged, you never know until you retrieve the carcass and whatnot, so yeah.”

– (2018)

27) Have you heard of any other whale mortalities since 2019?

Six out of ten of the participants (60%) said that they had not heard of any other whale mortalities since the tagging mortality event. One person said that the only other deaths they had heard of were ‘strike and loss’ from harvesting, but because of the bylaws in place, those incidences are more or less reduced to zero, although they do happen on occasion. Two other participants described how there were washed-up beluga whale calves at Shingle Point after a storm, and another person mentioned that more animals seemed to be dying off the Yukon coast;

“Yes, there was a lot of more animals and flying birds dying down towards the Yukon. There was a lot of animals dying around there, so I don’t know what’s going on with that.”

– (2018 & 2019)

Finally, the last participant described how they had been hearing of more bowhead whales coming closer, and a few of them had been dying ‘further south’.

28) What differences might have been important between the two years that could be looked into more?

There was a mixture of answers to this question, with each participant bringing up ideas that were at front of mind after having been through the interview process. One participant really elaborated on their thoughts regarding the whale mortalities, the journey of their migration, and potential contributing factors;

“Yeah there was – I remember some talk about the temperature of the water, and I know the whales migrate up to the Bering Sea and they come around Alaska and stuff and, you know, I don’t know if there was warmer waters or if they had more ice but they do have a pretty big journey before they get to where we tag them. And the journeys after we tagged them, you know, they went up and went to Melville, Viscount Melville Sound and [pause]. So yeah whatever, and then they obviously died within Yukon’s North Slope and Banks Island around, you know, within that area. So if we’re looking at the conditions that they were in within where they died or on their way up from the Bering Sea that could be potential things to look into.”

– (2018 & 2019)

Two other participants (20%) brought forward their concerns about thin uqruq (blubber) in 2019, from when friends who were monitors were butchering the whales, or possibly due to the heat. One of these participants went on to elaborate that it would be better to conduct this program later in the season, when whales had put on more fat, and to avoid the females birthing calves in the estuaries.

Three participants had suggestions, including; more Zodiac boats rather than aluminium boats (so the team can get closer to the whales), more experience to get better at the process, and continuing to use drones so as not to disturb the whales as much when chasing and herding.

Finally, two people (20%) focused on how harpoon tagging is better than net tagging and would recommend it for the future.

“...there’s going to be no more netting – or try not to be – but they’re still in that – that they’re going to use just the harpoon or the tagging and which is good.”

– (2019)

“Well yeah harpoon is working more and more important than the netting I think right now.”

– (2018 & 2019)

29) Have you seen any tagged whales since the beginning of the tagging program?

One participant had seen tagged whales since the beginning of the tagging program, but the nine others had not. The quote from the person who had seen the whale is;

“After we did that after I went home I went back out and I ran into one. Me and [...] were hunting whale. But we never tried to get it. We just let it go. It was still around Whitefish Station area. We didn’t want to get one with a tag. Yeah, just one I seen but the rest went straight out I guess. I don't know why. I don't know, they just went out away from the island most of them. That’s the only one that was spotted. But some of them [tags] came off too and we find some close to Tuk by the pingo come down and we checked all the beaches and find a couple there. Just drop off. I don't know how it could drop off but he was dropping off.”

– (2018 & 2019)

In the verification workshop it was mentioned that one more tag was found on a whale by a harvester between Whitefish and Hendrickson. The whale was not harvested due to the noticeable tag.

30) Is there anything else related to beluga tagging or the tagged whales that you would like to mention here?

Five of ten (50%) participants were satisfied with their ability to express themselves at this point, and said they did not need further elaboration. One participant simply wanted to mention that they found it to be a good experience and provided good data to learn from, but was happy it was just a two-year program.

One participant felt more strongly that the process was ‘tough on the animal’ and they didn’t like to see how the whales behaved during the process.

One participant said it would be nice to see where the whales go, because they are waiting all summer for the whales;

“I guess it would be nice to have, you know, to see where the whales go, the tagged whales. We live way up in Sachs Harbour and sometimes, we’re kind of waiting for whales but sometimes we might wait all summer and it will be nice to see, you know, where the whales travel.”

– (2019)

One participant who mentioned thin uqruq (blubber) in the previous question elaborated more on their perspective on the thin blubber;

“Well there’s a couple of times when we were doing the harpoon tagging that we called it off because the whales looked too thin. We’re always afraid that, you know, the harpoon head will hit the meat because we just wanted to go through the skin and – I know there was one whale we called it off because it looked too thin.”

- (2018 & 2019)

Finally, one participant said it would be good that if the program happened again, they needed to focus on getting the whales to the beach in a faster time frame, and just doing their best.

31) Do you have ideas for the future of this program?

As the final question of this interview process, it allowed for participants to share their perspectives for the future. The responses were varied, with some participants saying it was in the hands of management to decide whether or not to continue the program.

One participant expressed their knowledge of the management system;

“Unfortunately, I don’t. I guess it’s all left up to the department of DFO and FJMC and the HTCs that are involved. And we know everybody has different views and HTCs change from year to year, so it all depends on educating the membership at large for the importance of a program like this.”

– (2018)

Two participants (20%) said it would be good to continue the program, but by contacting the ‘original team members’ and bringing them on again, because the process would benefit from experienced team members. One participant said it was a good program that allowed people to get to know where the whales ‘hang out’, and ‘how far they travel’. Another respondent said;

“I don’t know if it will ever happen again because there’s mortalities, and if they don’t find out what caused it I don’t think it will get approved again.”

– (2018 & 2019)

One participant thought they should deploy harpoon tags in Ulukhaktok, and two participants felt that harpoon tagging would be best into the future.

Finally, the last participant spoke of the importance of DFO coming to the communities (after acknowledging COVID complications) to explain the next steps;

“Probably want to come down all right, but maybe if [...] could, when everything kind of settles down, maybe DFO could come down that were on the island and explain what they want to do later on.”

– (2018 & 2019)

4. Overall Themes and Recommendations

Overall, Inuvialuit participants of the beluga tagging field crew did not identify any major difference in whales behaviour, body condition, or tagging procedure between the 2018 and 2019 field years. Despite the high level of mortality observed in 2019, several participants identified the importance of movement data for beluga whales and were supportive of future tagging programs. While not an objective of the current report, the following recommendations arose during the group validation workshop:

1. The same field crew should be used in potential future years of live capture tagging, and if that wasn’t possible, at least provide a briefing and/or meeting to bring the new people up to speed.
2. Use of the Inuvik Dart harpoon tagging method is recommended in future instead of the live capture method.

3. If harpoon tagging proceeds, a community tour should be conducted including experienced people from previous tagging field crews and relevant DFO representatives providing information.
4. Youth should be involved in future programs to provide them with valuable experience to be leaders into the future.
5. DFO should provide high-level answers to the assessment of mortalities of beluga whales live captured and tagged in 2019 to each community in the Inuvialuit Settlement Region.
6. There should be more gender equality in field programs moving forward.
7. The DFO assessment report on the mortalities of beluga whales live captured and tagged in 2019 should be finalized and provided to communities so they information on this major incident.
8. It would be beneficial to have regular updates (especially during the whaling season) and clearer timelines on returning results to communities.
9. Questionnaire B (targeted for beluga whale harvesters and possibly whale monitors) should be completed.
10. Future tagging programs should engage Inuvialuit Knowledge and Elders' knowledge.

The goal of the interview project was to identify and document observations and from Inuvialuit Knowledge holders to point to any potential causes of death that should be explored further. It is hoped that this report will provide valuable information from the first-hand accounts from the tagging program team members, so that potential future follow-on work has context from an Inuvialuit perspective.

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