

COASTAL HABITAT RESEARCH PROGRAM

STEERING COMMITTEE

MINUTES OF THE 20TH MEETING

HELD IN MONTRÉAL ON APRIL 11 AND 12, 2019

PRESENT:

William Blackned – Cree Nation of Wemindji
James Bobbish – Cree Nation of Chisasibi
Norman Cheezo – Cree Nation of Eastmain
Réal Courcelles – Hydro-Québec
Carine Durocher – Hydro-Québec
Marc Dunn – Niskamoon Corporation
Jean-Philippe Gilbert – Hydro-Québec
Louie Kanatewat – Cree Nation of Chisasibi
John Lameboy – Cree Nation of Chisasibi
Ernest Moses – Waskaganish First Nation
Roderick Pachano – Cree Nation of Chisasibi
Ernie Rabbitskin – Niskamoon Corporation
Nadia Saganash – Cree Nation Government
Emily Sinave – Cree Nation Government
Robbie Tapiatic – Cree Nation of Chisasibi
Alain Tremblay – Hydro-Québec

ABSENT: Jean Rodrigue – Canadian Wildlife Service

GUESTS:

Mhaly Bois-Charlebois – Hydro-Québec
Kaleigh Davis – University of British Columbia
Murray Humphries – McGill University
Zou Zou Kuzyk – University of Manitoba
Melanie-Louise Leblanc – McGill University
Brigitte Leblon – University of New Brunswick
Mary O'Connor – University of British Columbia

PROPOSED AGENDA

Thursday, April 11, 2019

9:00 a.m. – 12:00 p.m. Pre-Steering Committee for the Cree members

1:30 p.m. – 16:30 p.m.

- 1) Approval of the agenda

- 2) Introduction of the new researchers of the Eelgrass mandate

- 3) Revision of the research proposal
- 4) Hydrological variations in James Bay in relation to eelgrass beds (Z. Z. Kuzyk)

Friday, April 12, 2019

9:00 a.m. – 16:00 p.m. Steering Committee

- 5) Approval of the minutes of the 15th, 16th, 17th, 18th and 19th meetings
- 6) Responses of the signatories of the Agreement to the letter sent about the extension of mandate (R. Courcelles and M. Dunn)
- 7) Discussion on the meeting with the new researchers of the Eelgrass mandate
- 8) University of New Hampshire's mandate (M. Dunn)
 - a. Dante Torio's participation
 - b. Nick Anderson's proposal
- 9) Field work logistic
 - a. Update (E. Rabbitskin)
 - b. Helicopter incident and participation of Marie-Claude Pelletier-Leclerc (M. Dunn)
- 10) Communication plan, action plan and newsletter
 - a. Report and minutes of the Symposium (M. Bois-Charlebois)
 - b. Past and upcoming actions
- 11) Update on research programs:
 - a. Research program on Geese (J.P. Gilbert)
 - b. Research program on Cree Knowledge and Land Use – Discussion with CERRI (M. Dunn)
 - c. Research program on Oceanography – coastal (A. Tremblay)
 - d. Research program on Oceanography – rivers (A. Tremblay)
 - e. Research program on Eelgrass (M. Dunn)
- 12) Next meeting
- 13) Meetings schedule for 2019
- 14) To do list
- 15) Miscellaneous

CHAIR AND SECRETARY

Marc Dunn chaired the meeting.

Mhaly Bois-Charlebois acted as Secretary. The meeting began at 1:45 p.m. on Thursday, April 11, 2019.

Participants introduced themselves for the benefit of the guests.

1) APPROVAL OF THE AGENDA

The Chair reviewed the agenda. No new items were added.

2) INTRODUCTION OF THE NEW RESEARCHERS OF THE EELGRASS MANDATE

Mary O'Connor began a presentation entitled *Assessing Eelgrass Health in James Bay*. A copy of the presentation is appended to the minutes. She said that they do not have to do all three methods outlined on page 12 of the presentation.

Ms. Saganash asked how it is possible to measure the time of the growth.

Dr. O'Connor replied that these relations are based on a previous study. She said that they go onsite to take some measurements and mark shoots and then go back two weeks later. She added that it shows whether the eelgrass is growing more quickly on a site than the other.

Zou Zou Kuzyk asked if it is possible to compare the growth between winter and summer.

Dr. O'Connor replied that they could test it.

John Lameboy asked how the weather affects growth.

Dr. O'Connor replied that when they did this study, the weather was quite variable in that some days were sunny and some were cloudy. She said that some sites had better growth than others. She added that it is easy to be wrong if they try to estimate the growth when it is really foggy, so they have to be careful when estimating.

Carine Durocher said that on northern sites, the summer is very short.

Dr. O'Connor said that they have other sites like this, such as one in northern Russia. She said that there is no difference between the growth of the eelgrass in the Atlantic or the Pacific Ocean. She added that even though the *Zostera* is giant in the Pacific Ocean and smaller in the Atlantic Ocean, they get the same relation, so she is not worried about the latitude. Dr. O'Connor said that they do not have data from Hudson Bay and this is why she would like to check.

Roderick Pachano said that Dr. O'Connor had said they would study the growth in June and July and asked if she considered August to be a growing period.

Dr. O'Connor replied that since the days are getting shorter in August compared to June, there is more daylight in June and July.

Mr. Pachano said that people in Eeyou Istchee will consider eelgrass reaches its full growth in mid-September, so he wondered why she would not study the growth in August.

Dr. O'Connor said that they could consider August. She added that the plant perhaps grows more quickly in June and July, but that it is still growing in August.

Mr. Dunn said that getting on the field is quite a challenge in June because of the ice.

Dr. O'Connor said not to worry, that they would try one method, and if it does not work, they will modify it. She said that they make guesses, so doing the study in August as well is fine.

Mr. Lameboy asked if anything else affects the growth of eelgrass.

Dr. O'Connor replied that in British Columbia, diseases can certainly affect growth. She said that when they do the molecular analysis on the plants, the diseases is present without causing damage. She added that they are learning a lot about the diseases, but that so far, temperature has become the biggest factor affecting growth. Dr. O'Connor added that it can also affect the plant if it is not in a good salinity range.

Mr. Pachano asked how long the plant is in the picture on page 13 of the presentation.

Dr. O'Connor replied that this one is about one metre long. She said that they are easily two metres long on their Pacific Ocean sites. She added that the smaller one is what they see in the Atlantic Ocean, but that she did not see any in the James Bay area.

Mr. Dunn said that some elders said that before the depletion, some plants were in the two-metre range, but that they no longer see that.

Louie Kanatewat said that the diver that went on his trapline said he saw plants that were two metres long.

Dr. O'Connor said it was interesting because they do not see this in the Atlantic Ocean.

Mr. Kanatewat said that Hydro-Québec said that when they went in the 1980s.

William Blackned asked how they define healthy eelgrass.

Dr. O'Connor replied that it was an excellent question. She said that she defines it as an eelgrass meadow that persists even in the presence of storms, that comes back and that also provides food for animals. She added that it takes time in the meadows to understand what a healthy meadow is.

Mr. Pachano said that she keeps using the word animal to describe a fish and from what he knows about English, a fish is not an animal.

Dr. O'Connor said that when she says animals, it includes fish, birds and mammals.

Mr. Dunn said he just wanted to go back to the definition of healthy eelgrass. He said that it would be important to sit down with the community members and try to define it. He added that the land users have a fairly clear definition of what healthy eelgrass is and it is close to what she said, but maybe it would be important to define it with them, especially if they want a good communication with the land users. He said that if not, it could lead to a situation where a healthy eelgrass bed according to the researchers' criteria is perhaps not one according to the Crees'.

Ms. Durocher said the Chisasibi task force had a definition of healthy eelgrass.

Melanie-Louise Leblanc, who was part of the task force, said they did work on a definition.

Mr. Pachano said that when a Cree talks about healthy eelgrass, he has a very concise and precise definition of what it is, so they will need to communicate with the people.

Brigitte Leblon began a presentation entitled *Eelgrass Mapping using Remote Sensing*. A copy of the presentation is appended to the minutes. She said that UAV imagery (a drone) has a ground resolution of 3 cm and flies under the clouds, so it provides detailed information. She added that the problem with remote sensing is that the specialists are not field specialists. She said that she likes to go on the field and that, for example, the study of Kennedy, E. B., King, D., and Duffe, J., 2009 was never verified on the field. Dr. Leblon said that the study of Leblanc, M., A. Larocque, B. Leblon, Al Hanson, K. Abraham, M. Humphries, 2019 is better, because they did photointerpretation. She added that very skilled people can do photointerpretation. Dr. Leblon showed the graph on page 5 of the presentation and said that it is possible to do some mapping with satellites for some spectra. She then showed the map on page 7 of the presentation and said that the precision depends on whether the image is taken at low or high tide. She added that you can wrongly interpret that eelgrass is gone at high tide. Dr. Leblon said that with the use of OLI (Landsat), they were able to map eelgrass at high tide and were able to compare what decreased or increased, but again, they are preliminary results. She added that with UAV imagery, it is possible to map eelgrass. She said the image shown on page 7 of the presentation has a resolution of 5 cm but needed to be validated. Dr. Leblon showed the report entitled *Historical analysis of eelgrass beds in James Bay between 1985 and 2016*. Dr. Leblon stated that this is preliminary and that they have to validate in the field. She said they did not have time to do the field validation. She added that there is a difference between eelgrass in shallow, turbid and deep waters, because eelgrass produces photosynthesis, and they can see the green color.

Mr. Dunn asked if the green color could be something else in the water.

Dr. Leblon replied that it could, but that they used the data from the 1996 Hydro-Québec study to validate.

Mr. Dunn asked if algae would have a different signature compared to eelgrass.

Dr. Leblon replied that it would and that algae is dark green whereas eelgrass is lighter green. She asked Dr. O'Connor to confirm.

Dr. O'Connor confirmed.

Mr. Dunn asked if they were planning to work in the methodology and validate the mapping.

Dr. Leblon replied that they were and that they will also have to go in the field.

Ms. Leblanc said that they will also do workshops with the land users to validate the mapping, because the land users' definition of healthy eelgrass may not be the same as theirs. She said that they will use that information to validate the mapping.

Dr. Leblon said that UAV imagery is very detailed and that they use it to get an idea of the big picture. She added that she does not know how long it takes to have Landsat imagery, but with UAV it takes about 10 minutes.

Dr. Kuzyk said that for a whole meadow it can take 10 minutes.

Dr. Leblon said that drones are now a very common thing and that a lot of her students use them. She added that the problem with satellite images is clouds. She said they have some models that can correct for a certain amount of fog. Dr. Leblon said that they will do the UAV imagery at the same time and try to get the satellite images as close as possible. She said the first map will be presence/absence with the satellite images and that this will not change drastically from one month to another. She added that for the health aspect, they will work more with the drone because it needs to be seen from a closer distance. She said that it is also important to have a big picture before going in the field.

Mr. Kanatewat said that there is a lot of eelgrass shown on the maps of the report, but that he does not see it on the territory.

Dr. Leblon said that it could be an algae problem and that this is why they need to validate this in the field. She said that it may be something other than eelgrass.

Mr. Kanatewat said that the deep water line did not seem right either.

Dr. Leblon said that this is why they have to validate the mapping on the field.

Ernest Moses said that they need to reverse things. He said that they should validate in the field before and do the image after. He added that he did not think this document should be taken into consideration.

Ms. Durocher asked whether there is a way to correct the fact that the shores change over time because the maps show the coast as always being the same.

Dr. Leblon said that they work with a spectral difference. She said she did not remember if they did a mask or if they changed it, but that to show this variation, it is important to put a mask for different periods. She added that the sedimentation, the erosion and the movement of the currents also make the eelgrass presence change.

Alain Tremblay asked how they can go back 20 years before now.

Dr. Leblon replied that when they have a good calibration in 2019, it is possible.

Mr. Tremblay asked Dr. Leblon if they will reanalyze the images from the past.

Dr. Leblon replied that it is a spectral continuity and that photosynthesis has a code called a spectral signature.

Mr. Pachano said they will spend a lot of time verifying this method and trying to convince somebody it is right.

Dr. Leblon replied that she does not mean that it is right but suggested doing it with more field data so that the method can be improved a lot. She said they did a map in Nunavut, not for eelgrass but other things, and the field validation improves the map a lot.

Ms. Leblanc said that this report was just an example of what happens when Cree people are not included. She said they will start with Sentinel and match the data they have with the data from the 1990s.

Dr. Leblon said that she was not saying that the report is true, but that this report is based on the spectral signature and that it is possible to map using those tools.

Mr. Lameboy asked if it is possible to add another color, such as dark green. He said that on the map she showed, it was probably algae.

Dr. Leblon replied that it was something they have to differentiate. She said this will be done in 2019 and that they now have better tools.

Mr. Tremblay said that one thing they asked of Fred Short was to validate what was found in the field but this was never done.

Mr. Dunn said he agreed and that this was a big improvement compared to what was done. He said he just wanted to understand where they were with the discussion with Dante Torio.

Dr. Leblon replied that Dr. Torio is currently in New Hampshire and is looking to get a job there. She said he applied for a U.S. grant and that if he does not get it, they told him he could be involved in their study.

Mr. Dunn said that as they know, they made a considerable investment with Dr. Short and were a bit worried that this investment was going to fall through. He asked if Dr. Torio was available to provide some data.

Dr. Leblon replied that Dr. Torio told her they will send the final report but that it is not possible to share satellite images with colleagues.

Mr. Dunn said that this will need to be discussed, because Niskamoon paid for those images.

Dr. Leblon asked if Niskamoon's name is on the license.

Mr. Dunn said he will have to see with the lawyers and said it was his understanding that she would meet with Simon Bélanger the following day.

Dr. Leblon agreed.

Mr. Dunn said the SC simply did not understand where this report came from and that they were not aware of the mandate. He said they were just trying to understand the context of the work and added that the most important thing for the SC is to move forward. He asked if there were other reports the SC is not aware of.

Dr. Leblon said there were not.

Ms. Leblanc said that this study was in 2017 and was commissioned by Colin Scott. She said that at that time, he was still on the research team.

Nadia Saganash asked which research team.

Mr. Dunn replied that it was before the SC was created.

Ms. Leblanc said that Dr. Scott was interested in seeing if he could detect eelgrass with Landsat because it is free. She said he initiated contact with people in Ottawa and because he knew that Dr. Leblon was doing research in New Brunswick, he contacted her.

Mr. Dunn said that when Niskamoon was brought on board, Dr. Scott was the principal researcher. He added that the relationship ended based on a mutual decision, because Dr. Scott was not comfortable, and neither were they. He said that it would be better not to mention this report.

Dr. Leblon said that this report is still important because it assesses all the problems associated with using Landsat.

Mr. Bobbish said that they should not talk about this report and that the SC's concern is that it was referenced, because they know a lot of the information is not accurate.

Dr. Leblon said that it would not be referenced because it is confidential.

Mr. Dunn said they asked the Grand Council if the report could be used and were given the go-ahead, but on the understanding that there are constraints identified by the SC.

Dr. Leblon showed the maps and said that at high tide, you cannot see eelgrass, but that they have some models that could remove the water reference to see if they can get better mapping. She added that this was a six-month contract and that some steps were not done. She said that the method can certainly be refined. Dr. Leblon reiterated that she guaranteed the confidential nature of the report and said that it is not available for public consultation.

Mr. Cheezo asked why there was water on one image but none in the same area on the other image.

Dr. Leblon replied that this may be due to the erosion or because OLI is another kind of satellite. She added that OLI is a brand-new satellite with improved detection capacity and a better quality sensor than the one used on the other image.

Mr. Pachano asked what depth is considered low.

Ms. Leblanc answered from two to three metres, depending on how shallow the water is. She said that if there is too much turbidity, it will not detect it, regardless of any correction you make.

Dr. Kuzyk asked how the results could ideally be validated.

Dr. Leblon replied that the first thing would be to develop the method based on the 2019 work and data.

Ms. Leblanc said that they could use an underwater camera and pictures and that locals could accompany them on the field.

Dr. Kuzyk said she understood they would do spot checks.

Ms. Leblanc said that they want many points with different densities and conditions. She added that the more points you have with different conditions, the better the calibration is.

Dr. Leblon said that the first thing is to map the presence or absence on a large scale and that assessing health is another thing. She said that they can use some of Dr. Short's data.

Mr. Dunn asked how many years they need to validate the method.

Dr. Leblon said that if they calibrate for three years, they will have enough data to validate and apply the method to the past and that they have data going back to 2016.

Dr. Kuzyk said that on the field, the eelgrass patches can be very dispersed. She asked how this can be mapped.

Ms. Leblanc replied that she had noticed that a resolution of 10 metres is good for mapping thick eelgrass. She said that where there is more water, it is more challenging, and that when it is sparse, a lot of signals are missed, as are the small patches.

Dr. Leblon said that they could also split the eelgrass category on the map into more categories to have a better picture of what happens. She said that UAV imagery uses different cameras, which is really good for photosynthesis. She added that after this, they need to go in a historic foreshore.

The meeting paused at 3:05 p.m. and resumed at 3:20 p.m.

Murray M. Humphries began a presentation entitled *Centre for Indigenous Peoples' Nutrition and Environment*. A copy of the presentation is appended to the minutes. Dr. Humphries said that the team is composed of nutritionists and environment researchers. He read the principles written on page 1 of the presentation and added that the Coastal Habitat Research is really related to

those principles. Dr. Humphries said that Ms. Leblanc is finishing her PhD and that she works on eelgrass in New Brunswick. He added that he wanted to highlight some key points of the terms of reference. He said that his team has a meeting with the UQAM researchers the next day. Dr. Humphries said he does not know much about remote sensing or eelgrass and that in his opinion, the Cree users need to supervise this research to help merge the remote sensing data with the field data. He added that he and his team do not want to arrive with some data and tell the Crees what is happening, but that instead, they want to share. He noted that there exists a very clear responsibility to communicate with the communities. Dr. Humphries said that the terms of reference excluded some items. He presented the items written on page 7 and said it is important to talk about the scientists' ability to communicate the science behind the project. He said that they will need to divide up the work they are doing and communicate with other scientists. Dr. Humphries said that, for example, Ms. Leblanc will not send a paper without sending it to him first, because procedure dictates that results must be validated with collaborators before being published. He added that on one hand, they know they need to communicate with other scientists, and, on the other hand, they recognize the need to communicate with the communities. He said he wanted to be sure they are on the same page regarding the fact that academic exchange is necessary and that the students have to talk to other students. Dr. Humphries read the rest of the points on page 7 to 11 of the presentation and finished by presenting the diagram on page 12.

Mr. Dunn said that just to explain the context, Dr. Humphries contacted him in this regard and agreed that there is nothing about this in the terms of reference. He said that the SC never wanted to control the researchers and that this is why they did it this way. Mr. Dunn said that he appreciated Dr. Humphries' initiative and that his points were valid. He added that he wanted to share an experience the SC had had and the consequences. He said that somebody talked to the media about things they did not have a consensus on and that the other researchers did not agree that it was a fair conclusion at that point. He added that this event created conflicts. Mr. Dunn said that he does not know what the solution is and that he would like to say they will set those criteria over time. He added that they do not want to control what is communicated and said that when it comes to logistics, Dr. Humphries' team would logically contact Ernie Rabbitskin. Mr. Dunn said he really liked the way they presented and that it was a good start.

Mr. Tremblay said that this is why Hydro-Québec works with universities, because they want credible results. He added that the SC has its own objectives and that the researchers do research to reach those objectives. He added that it is always interesting to see where the results end up. Mr. Tremblay said that Hydro-Québec will never refuse to publish something, positive or negative, but that they have to make sure the science is done properly. He added that Hydro-Québec relies on this credibility and that sharing the results should not be something they should be worried about. He said that it is always interesting to know about negative things so that adjustments can be made. Mr. Tremblay said that he did not think anybody in the SC wants to control the research team and that they are willing to go in the same direction. He added that this is customary practice for Hydro-Québec with regard to many projects.

Ms. Durocher said she really appreciated what she saw and the fact they already took time to identify potential issues. She said it is a very good idea to say this at the outset, because they had some problems in the past. She referred to the graph on page 12, adding that since the SC wants a summary of all the results at the end of the research, Dr. Kuzyk will play a big role. Ms. Durocher

said that in order to be sure all the pieces fit together, Dr. Kuzyk needs to know the process and be involved or informed in some way.

Mr. Tremblay said that the SC wants something that the Crees can rely on as well as results they can accept. He added that they have to put this in a way that the Crees understand and that the results need to make sense, so even if each aspect of the research is important, the final summary is very important.

Dr. Kuzyk said that the need for a summary is recognized, but that the path to get there and the roles still need to be defined. She said that the players have changed, so they need to plan how to do the summary. She added that the meeting on the following day will help define the role they can all play in the summary, but that she believed a team should be created to prepare the summary. Dr. Kuzyk said they learned a lot in January and that they are learning about how best to communicate the results. She added that in science, they are used to generalizing, but in the Cree world, those generalizations can cause problems. She said they discovered it the hard way but it is good because it shows the importance of good communication.

Mr. Pachano said that at the January meeting, people had some expectations that were not met. He said that they wanted the preliminary conclusions but did not get that. He said that if there is a disagreement over the interpretation or presentation of results, the research team will have to be open to discussing it so that there is a shared understanding and consensus about the results. Mr. Pachano said that people will not be convinced by somebody else that the traditional knowledge is incorrect and that this is as it should be. He added that they should include the land users in the research because the fact is they are on the land and the land does not lie. Mr. Pachano said that people also have different interpretations of what they see. He said that for instance, for the Crees there is no separation between the different types of algae—algae is just algae for them. He added that English is not his first language, nor is it for most of the Crees, so the researchers have to communicate in a way that people will understand. He said that they also have to keep people updated. Mr. Pachano said that the land users are not looking for a piece of paper at the end of the project, but instead, they want answers and they want to know what can be done to address the problems. He added that they cannot simply find the information that will validate their findings and that they have to develop the research with the collaboration of the people, because they are tired of people studying them and every aspect of their lives, and not getting any acknowledgement.

Mr. Bobbish said he truly believes that the two types of knowledge are compatible once they find the way in which they are compatible. He repeated what he had said at a previous meeting, namely that the foundation of science is based on observation, and people's survival on the land is also based on observation. He said this is the same knowledge but learned in a different way. He added that he is feeling really positive, because the two most important aspects of the research—the eelgrass and the Cree knowledge—are now part of the project. Mr. Bobbish said that all the other aspects are also very critical in order to have a fuller understanding of the situation. He said that native people have a very holistic approach to their environment. He added that when he came back from school in the south, he actually experienced culture shock coming back to his people. Mr. Bobbish said that the eelgrass project is what will bring everything together. He added that peoples' expectations are based on their understanding, so they need to understand the methodology and the techniques. He said that this was part of the intention in

January—not to provide the results, but to explain what was done and how, because the SC knew at that time they would not be able to deliver the results.

Mr. Pachano said that “sharing” is the right word in English, but there are conditions to that. He said that the researchers sometimes act like the results belong to them and it does not make any sense. He added that if the researchers want to use the results, they need the Crees’ permission. Mr. Pachano said that people are not happy about information they shared and then used as personal ones and it is important the researchers do not use the traditional knowledge they gathered for other needs, especially if the people who shared it do not get credit for it.

Mr. Dunn said that in addition to that, and as far as the committee is concerned, traditional knowledge belongs to the communities. He added that people share information with the researchers but they are not giving it away. He said that when they meet with people, they say they are there to collaborate or share, but it goes both ways in that when they collect data, they also have the obligation to share what they are doing. Mr. Dunn said they saw this before, when people came and it was unclear what they were going to do. He added that this way, the exchanges are not as rich as they could be if people really understood the purpose. Mr. Dunn said that concerning the conferences, they could see which SC members could go. He added that when researchers present at a conference, it is a good idea for Cree people to accompany them because it shows they really participated.

Mr. Bobbish said that when the researchers are interviewed about something and they are not sure what their colleagues will say, they should consult one another before answering the questions.

Ms. Durocher said that she liked the part when Dr. Humphries talked about disagreement. She said that the fact that those potential disagreements are highlighted is very interesting, because it is something that has happened a lot in the past. She said that some disagreements come from the fact that people do not share the same definitions. She added that there are cisco on the Rupert River and that Hydro-Québec studied the larvae for many years. She said that the results they have now show everything is fine with the cisco, but for the Crees, the condition of the fish is evident based on the number of fish caught in the nets. She said that they could have argued about this a lot, but they saw they did not even have the same criteria to sense the abundance. She added that for the eelgrass, they are going through the same issue. Ms. Durocher said that to see if the eelgrass is there by imagery or on the field is not the same, and it shows different points of view.

Dr. Leblon said that the researchers are teachers too, so she would like to have some young Crees involved in the research. She said they would like to train the younger population.

Mr. Dunn said that since the researchers will be meeting the following day, he hoped the SC could finish its meeting and join them. He said that they could discuss all of this and get back to them, but that it is important the researchers have their meeting first. He said that integrating the results is a lot of work, but when it is done, it is an investment that pays for itself.

Dr. Kuzyk said that all the research groups have some logistical demands and they need to coordinate.

Mr. Dunn said it would be more productive to have interns that the researchers share. He added that it would be more productive for the interns too, because they would see a lot of things.

Ms. Durocher said that she saw some thoughts about communication in the proposal the SC received from the new team and she had mixed feelings about it. She said that it talked about the website, but that she personally prefers direct communication. She added that doing a website is time-consuming and that by the time they put the information on there, it is not the right time to communicate it.

Dr. Kuzyk said she thinks the newsletters have been good.

Mr. Dunn agreed but said that Cynthia Taylor, the Communications Officer, had left her position at Niskamoon.

Dr. Leblon said that if there are some young people involved, social media could be a good way to communicate.

Mr. Dunn said that there were 20 minutes left in the meeting so the SC could discuss the proposal and give the researchers the green light. He added that it did not have to be a full green light, but that they need a definitive answer before continuing with the project.

Mr. Pachano asked if some modifications will be made to the proposal with everything that has been said during the meeting.

Mr. Dunn replied that there will be and that it was understood, but that they needed to give the researchers the principle.

The researchers left the room to allow the SC to discuss the situation.

Mr. Tremblay said the researchers seem to know where they are going. He added that they want to integrate traditional knowledge in the eelgrass project and in the summary. He said that he had a good impression. He added that he liked their approach because they consider the SC to be part of their research.

Ms. Durocher said that one thing needed to be clarified. She said that the Richmond Gulf is significantly further north than the study area. She said that they have requested a large budget for the satellite part and she wondered if changing the study area would have a big impact on it.

Réal Courcelles said that in the terms of reference, they stop at Cape Jones.

Mr. Dunn said he agreed with that and that they will make a note of that detail.

Ms. Durocher said that the other thing is that they are really willing to do training, but that she did not see any time set aside for training in the proposal. She said that she was afraid that they will do what other researchers have done, namely say they'll do it, but not plan for it.

Mr. Dunn said the SC can ask them for a timeline.

Ms. Durocher said that they should communicate adequately before going on the field, because it is always better to plan in advance than to change the schedule with Mr. Rabbitskin and the land users once there.

Mr. Dunn said that this is a recurring issue with all the researchers.

Ms. Durocher said that the third thing she wanted to say is that they seem really willing to cross-check things and validate with the users, so she hoped they can bridge those activities with the traditional knowledge study.

Mr. Dunn said they could talk about that the following day.

Ms. Durocher said that paying them to do a workshop and then having another group do it does not make sense.

Mr. Dunn said that he and Mr. Gilbert will take the SC members' comments and send them to the researchers. He said that they were welcome to talk with the researchers themselves, but to facilitate things, they will put all the comments in a document. He added that the first question is whether they should hire them.

Norman Cheezo said that maybe it was because he was not at the last meeting, but he did not think that the purpose of this meeting was to hire them.

Mr. Dunn said that they sent them the terms of reference and asked them to send a proposal, so they were ready to know whether or not they will hire them.

Mr. Bobbish asked what will happen with Dr. Torio.

Mr. Dunn said that Niskamoon is committed to supporting Dr. Torio if he wants to continue to work on the project. He said that he seems to be in discussion with Dr. Leblon about this.

Mr. Bobbish asked how it will work as Nick Anderson will not continue.

Mr. Dunn replied that his opinion was that Mr. Anderson was not doing a lot. Mr. Dunn said Dr. Short's team never sent anything to the SC. He added that they will demand the data and Dr. Short will not be paid if he does not share the information, but if they do not have somebody to analyze the data, everything will be lost.

Mr. Bobbish asked what happened to all the information Dr. Short's team gathered.

Mr. Dunn replied that he is sure the new research team will try to use Dr. Short's data, if possible. He added that they should not expect much, because based on the new team's experience, not much can come from the data.

Mr. Pachano asked how much money they have spent on the data.

Mr. Courcelles answered close to \$6 million.

Mr. Dunn said that this amount was committed, not spent, and that they had spent \$2 million.

Mr. Courcelles said that until June 2019–2020, they need other sponsors, or they need the current sponsors to provide more money.

Mr. Dunn said that the new team would like to ask for a NSERC grant but all the researchers have to be Canadian given that it is a federal organization.

Ms. Durocher said that maybe the New Hampshire team could be the coauthor.

Mr. Pachano asked how they can make a commitment if they do not know the budget.

Mr. Dunn replied that what he was told not to worry about this and to keep going. He said they are not approving the budget right now and that they just want to approve the team. He added that they still need to confirm the budget and the information regarding Dr. Torio. Mr. Dunn asked whether, in light of the decision to not give the mandate to Dr. Short, the SC agrees to give this new team the mandate to continue the eelgrass research.

Mr. Pachano said they can agree in principle, but that it does not mean they are approving the new team without conditions.

Mr. Dunn said that it means the SC cannot talk to other people about carrying out the mandate.

Mr. Bobbish asked if this would be a definitive answer.

Mr. Dunn said that they are not able to give a definitive answer, because they need to see the budget. He asked if two weeks would be enough time to receive the budget—just before the goose hunt.

Mr. Tapiatic asked if it means they have less obligation to report to the SC and the other teams if they receive NSERC funding.

Mr. Dunn replied that Niskamoon will fund the same amount, so they have the same obligation. He asked the people in the room if the SC agreed to give the mandate to continue the eelgrass research to the new team (Murray Humphries, Melanie-Louise Leblanc, Mary O'Connor and Brigitte Leblon).

William Blackned voted yes

James Bobbish voted yes

Norman Cheezo did not vote

Carine Durocher voted yes

Emily Sinave voted yes

Alain Tremblay voted yes

Réal Courcelles voted yes

Marc Dunn voted yes

Jean-Philippe Gilbert voted yes

Louie Kanatewat voted yes

Ernest Moses voted yes

Roderick Pachano did not vote
Robbie Tapiatic voted yes
Ernie Rabbitskin voted yes
Nadia Saganash voted yes
John Lameboy voted yes

The SC members voted unanimously, except for two abstentions, to give the mandate to continue the eelgrass research to the new team.

The researchers came back in the room.

Mr. Dunn told them the SC would like to welcome them on board. He said they still have a few comments and questions about the budget. He added that hopefully, they will come back with those questions within two weeks.

The meeting paused at 4:32 p.m. and resumed at 9:30 a.m. on April 12, 2019.

3) REVISION OF THE RESEARCH PROPOSAL

This item was postponed and the Chair decided to continue with item 7 of the agenda.

7) DISCUSSION ON THE MEETING WITH THE NEW RESEARCHERS OF THE EELGRASS MANDATE

Mr. Moses said that during the new team's presentations, he felt like they were further ahead than they were before. He said that the presentations were good and that he felt they should be able to work with them. He added that it is still important that the SC stay involved in the whole process.

Mr. Kanatewat said that he was glad to have them on board, especially Ms. Leblanc, who has knowledge of Eeyou Istchee.

Mr. Rabbitskin said that he liked the presentations and how they are approaching the research. He added that establishing good communication is very important and that he liked their idea of training a Cree from beginning to end.

Ms. Sinave said it was very interesting and that all the presentations were quite complete. She said they will have to be careful when comparing the data to British Columbia's data and regarding the definition of healthy eelgrass. She added that she was wondering at what point they will resume the calibration of the mapping method and what data will be used from what was done before.

Mr. Dunn said it is difficult to answer this, because they never really received the data from Dr. Short, so they do not know what they will be able to use from what he has done. He said that his opinion is that they are not the kind of people to analyze things for no reason.

Mr. Blackned said that the validation of the satellite images is important. He said that he did not know why the report they sent was published. He added that the growing season of eelgrass compared to British Columbia is quite different. He said that they did not get to see the budget, but that he was quite pleased with what they presented.

Mr. Bobbish said that he was also quite pleased about the introduction of the research group. He said that, like everybody else, he was wondering if there is some way to integrate what Dr. Short did so that the work is not duplicated. He added that the new team seems willing to talk with the other researchers and share the information they have and that he was hoping it would work out with Dr. Torio. Mr. Bobbish said that the people from Chisasibi enjoy working with him, and that he felt that having him on board would help ensure the information they have in New Hampshire would be shared. He added that he was quite optimistic about how things were going and that even though he wonders what will happen with the previous results, he was feeling quite confident.

Mr. Gilbert said that they were proposing recognized methods, so they will not be surprised about how they do the sampling. He added that they also know that they have to go to the same spots where the satellite imagery was used, so it is a big step forward. He said he was looking forward to working with them.

Mr. Dunn said that it worked very well and that they have a lot of experience, which is good. He added that they still have some work to do, and that he, Mr. Rabbitskin and Mr. Gilbert would need to meet with Ms. Leblanc to specify issues, and even more so if they want to train people. He said he was happy they had found the right people. He said that they have to get Dr. Short's data as soon as possible and that he also hoped that Dr. Torio would be involved because if not, the chances of success would be lower.

Mr. Tapiatic said that he was really happy with the presentations. He said he was optimistic with the new team because the researcher they had before was American and seemed to have his own opinion about the situation. He said that also, Dr. Short is a planter and a businessman. He added that the new team wants to work with trappers and that he was happy to hear they want to hire and teach youth. Mr. Tapiatic said that he felt very positive and optimistic.

Mr. Tremblay said that he was happy to see they want to work with the other research groups and that hopefully, they will have Dr. Short's data. He added that he has a good feeling and that there were still questions on the budget to address.

Mr. Lameboy said that he liked the presentation and appreciated that Dr. O'Connor talked about the animals that eat eelgrass. He said that the technology they use has improved but reiterated that traditional knowledge is very important. He said that they lost the eelgrass 30 years ago and

that the new generation will not see it. Mr. Lameboy said that they cannot forget that it is a package and that the water, the geese and the land are all connected to eelgrass.

Mr. Pachano said that the previous week, he was invited to the band council meeting and they discussed a few issues, including this one. He said that the proposal is a lot closer to the original idea at the beginning of the project and that he felt that people will be happy with it. He added that the experience with Dr. Short gave the SC the knowledge to question the presentations more in detail. Mr. Pachano said that they did not question Dr. Short enough because he is an expert, so he was basically left on his own. He said that he was glad to hear the new team is prepared to take on local interns and that they are ready to pass on their teaching. He added that, as Mr. Lameboy said, the SC has to make sure the researchers understand the basis of traditional knowledge that will be shared with them, because nobody, not even a Cree, has the authority to give this knowledge away. Mr. Pachano said that they do not give, they share, and that there is no point keeping it for personal uses. He added that they do the same thing with health services when they work on medicinal plants. He said that like everybody else, he is hopeful that the research will be a lot better than before.

Mr. Cheezo said that the way he sees it is that the new team should start validating the data they have with the people, and then take a picture to verify the technology. He said it is good that the youth will be involved, because they do not know how eelgrass help the geese to be there.

Ms. Durocher said that she felt like she said everything the previous day and that they look like a great team. She said that, like Dr. Short, they have many good intentions, but that the SC will need to work with them to make it work.

Mr. Cheezo said that the interaction with the population is crucial and that they do not see the other researchers doing that. Instead, they just come and go.

Mr. Dunn said that this is something they have to improve. He said that Dr. Kuzyk told him that some of the researchers will leave earlier to have the chance to meet with the land users. He added that it would be good to delegate people to go with them. He said that the traditional knowledge team is also thinking about starting this summer. Mr. Dunn said that he felt the team was serious about having interns and they should be, but they need to start thinking about that soon.

Mr. Moses said that they have to all present a work plan together.

Mr. Dunn agreed and said that the best idea would be to send him their specific comments about the new team before the following Thursday. He said he would compile them before sending them to the other teams. He added that the SC should choose a delegated person, not to replace the committee, but just to ensure clearer communication. He said that each research team has an official spokesperson and asked for the SC members' recommendation.

Ms. Durocher said she recommended Mr. Gilbert.

Mr. Dunn said that they could also discuss this later if people agreed.

People agreed.

The chair returned to item 4 of the agenda.

4) HYDROLOGICAL VARIATIONS IN JAMES BAY IN RELATION TO EELGRASS BEDS (Z. Z. KUZYK)

Mr. Dunn said that Chris Peck, Dr. Kuzyk's PhD student, would like to present some information about hydrology at an external event and that Dr. Kuzyk wanted to inform the SC.

Mr. Tremblay said that this was an improvement because nobody had done it before.

Mr. Pachano said that Ms. Bois-Charlebois should send the presentation to the members.

Mr. Dunn said that maybe they should add something to the presentation stating that the project is ongoing and that the community did not end on this.

Mr. Bobbish asked where it is going to be presented.

Mr. Tremblay said he will check.

Mr. Dunn said that Mr. Peck's name is on the website of The General Assembly 2019 of the European Geosciences Union (EGU). He said it is good that the SC has been informed and that they appreciate the gesture. He added that it is important to add the acknowledgement of the community and to inform the SC about when and where it will be presented.

Mr. Pachano said that if there is a report about this or any feedback, it should also be sent to the SC.

The meeting paused at 10:25 a.m. and resumed at 10:45 a.m.

The chair moved to point 8 of the agenda.

8) UNIVERSITY OF NEW HAMPSHIRE'S MANDATE (M. DUNN)
a. Dante Torio's participation

Mr. Dunn said that he, Paul John Murdoch and Mr. Tapiatic went to New Hampshire to speak to Dr. Short. He said that since the meeting, Dr. Short had called him and sent an email saying he was confident that Alyssa Novak, Nick Anderson and Dante Torio would be able to do the work.

He added that he explained to Dr. Short that the SC does not want to continue with an American team because the exchange rate is too high. Mr. Dunn said that he told Dr. Short that the SC was communicating with other research teams and that they would not continue the mandate with the University of New Hampshire. He said that Dr. Short clearly did not understand. He added that he spoke with Alyssa Novak, who informed him of her planting work. Mr. Dunn said he told her the SC is not at that point in the mandate and that if one day they come to the conclusion they have to plant eelgrass, he would let her know. He added that he spoke with Dr. Torio and told him the SC would like to keep him on board. He said that as Brigitte Leblon had said the day before, Dr. Torio is in the process of deciding if he will work or continue doing research.

b. Nick Anderson's proposal

Mr. Dunn said that Nick Anderson is Dr. Short's master's student. He added that Mr. Anderson has not completed his master's degree yet and that Dr. Short asked him if the SC would agree to extend Mr. Anderson's mandate. Mr. Dunn read the letter sent by Dr. Short. A copy is appended to the minutes. Mr. Dunn said that his recommendation to that request should be no and that Mr. Anderson should complete his mandate for June 2019. Mr. Dunn said that he told Dr. Short's team that they will not receive the final payment until they send the final report. He added that it is important they all agree that the answer to this letter should be no.

Mr. Tapiatic asked why they should fund him because he decides to extend.

Ms. Durocher said that master's students are not usually paid anyway.

Mr. Tremblay said that if he had this salary for six months, he would be a student too. He added that tuition is not the responsibility of the agreement signatories.

Mr. Tapiatic said that his contract ends in July, so he did not understand why they should pay more.

Mr. Dunn asked if everybody in the room agreed with this decision.

Everybody agreed.

Mr. Pachano said that he should finish the mandate and send the final report. He added that they did not agree to pay for the tuition for as long as the students wanted it.

Mr. Dunn said that tuition fees in the United States are significantly higher and this is another reason the SC does not want to work with American teams anymore.

Ms. Durocher said that the obligations toward Mr. Anderson have been met and that he should have enough data to write a master's thesis.

Mr. Dunn said that given that everybody agreed on this point, he would write to Dr. Short to inform him that the answer to their request is no. He added that regarding Dr. Short, it was suggested during the pre-meeting that it would be a good gesture to recognize Dr. Short's participation in the research. He asked for ideas of what they could do to recognize his research. Mr. Dunn suggested inviting him to the next symposium and paying for his transportation costs, but not everybody agreed with that.

Mr. Tremblay asked why they should do that if they do not intend to do it for the other researchers. He added that he did not think Dr. Short should have special recognition given that he did not contribute that much to the research.

Ms. Saganash said that she did not disagree with Mr. Tremblay and she would suggest sending a letter of appreciation. She added that inviting him to the next symposium and giving him a gift would not be appropriate since the SC had not received the data he promised.

Mr. Pachano asked who is going to prepare the report once their mandate is finished.

Mr. Dunn said that Dr. Short will send the report and that he will distribute it to the SC members. He suggested having a meeting at the end of the month to discuss the progress.

Mr. Pachano said that when they present the report, the SC could send him a goose decoy.

Mr. Dunn said that it would be a very nice gesture. He said that they would do a combination of what Ms. Saganash and Mr. Pachano suggested.

Mr. Tapiatic said he agreed, but only once they receive the report.

Mr. Dunn said that it means nothing will be done for the moment. He said that he will send Dr. Torio an email to encourage him to work on the project.

Mr. Tapiatic said that two weeks ago, Dr. Short sent an email saying Ms. Novak, Dr. Torio and Mr. Anderson would not work with the SC anymore. He added that now that they have a new research team, they have to move forward.

Mr. Pachano asked if Dr. Torio would be the only one continuing with the research.

Mr. Dunn said that Dr. Torio would be the only one from the New Hampshire team who would continue with the research. He said that the advantage to having Dr. Torio with them is that he will help Dr. Short finish the report.

5) APPROVAL OF THE MINUTES OF THE 15TH, 16TH, 17TH, 18TH AND 19TH MEETINGS

The Chair reviewed the minutes of the 15th, 16th and 17th meetings page by page. Some corrections were requested and the minutes were approved as corrected.

The revision of the minutes of the 18th and 19th meetings was postponed because the final documents were not ready.

6) RESPONSES OF THE SIGNATORIES OF THE AGREEMENT TO THE LETTER SENT ABOUT THE EXTENSION OF MANDATE (R. COURCELLES AND M. DUNN)

Mr. Dunn asked if everybody received the letter sent regarding the extension. He said he had just received an official answer from Hydro-Québec. He added that the letter is in French and that Mr. Courcelles has requested a translation. Mr. Dunn read the letter and translated it. He said that Hydro-Québec agreed to extend the mandate and that they set the maximum amount they agreed to invest at \$2.1 million, which is more than what the SC originally thought. He asked how many times Guy Bouchard (from Hydro-Québec) and his team went on the field.

Mr. Rabbitskin replied about three times.

Mr. Dunn said that two days ago, they had a resolution from Niskamoon. He added that the Grand Council of the Crees is the only one that has not yet provided an official response. He said that the Council of Chisasibi, although they are not signatories of the agreement, agreed to the extension request. Mr. Dunn said that they did not receive anything formal from Chisasibi and the Grand Council and added that depending on how comfortable they are with a verbal authorization, the researchers can continue the work.

Ms. Durocher asked if the SC has to trust them that they will have enough money to extend the research mandate.

Mr. Dunn replied that that is what he told Niskamoon. He said that it is one thing to agree on principle, but that the budget is another matter, so that needs to be discussed. He said that the researchers sent the budget. Mr. Dunn said he asked Niskamoon what to say if the researchers mentioned the budget, and they replied that the program will continue. He added that they left the budget aspect for later, but that at least the commitment is clear for the extension.

Mr. Bobbish asked if it meant that the researchers will be working until the end of June 2019.

Mr. Dunn replied that they will work beyond the month of June because the answer he was given by Niskamoon is that they can extend the research even without a monetary commitment. He added that Niskamoon had already begun looking into funding and that financially, they were okay for this year because the researchers' teams had not spent all the money they had and that they would have those funds for this summer.

Mr. Pachano asked how much has been spent and how much additional money they need.

Mr. Dunn displayed the table of expenses for all the researchers on the screen.

Mr. Tremblay said that he and Ms. Durocher estimated the total cost of the research at \$9 million, so they are not far from that amount.

Mr. Bobbish asked if it is relevant to say that the eelgrass aspect of the research was the most expensive part and the area they are getting the least amount of information about.

Mr. Dunn replied that it was and that he had actually mentioned this to Dr. Short in the past.

Mr. Gilbert said that they knew when they began with Dr. Short that it would be the most expensive aspect of the research.

Mr. Pachano asked if the amounts in the table represent the money that has been committed until the end of June.

Mr. Dunn replied that they did.

Mr. Pachano said it was his understanding that they had not yet paid the final amount to the researchers.

Mr. Dunn showed the difference between both columns, saying that if the new team for the eelgrass portion finds funding, they are okay with this amount (year 3 column). He added that he will double-check the eelgrass numbers.

Mr. Pachano asked if the biomass part was included in this contract.

Mr. Bobbish replied that it was.

Mr. Dunn said that if the SC wants to claim that money was paid for aspects included in the contract that Dr. Short's team did not do, they would need a subcommittee and it would take at least half a day to go through the entire contract and the work performed. He added that most of Dr. Short's budget is for salaries.

Mr. Pachano asked if it was organized based on activity.

Mr. Dunn replied that it was not and that it was based on salary. He said that from what he could see, the new eelgrass team's budget was not salary based.

Mr. Gilbert said it was not and that Dr. Short was the only one who prepared the budget in that way.

Mr. Dunn said that this is why they would have to go back to the beginning of the research to see which aspects of the contract were respected and which were not.

Mr. Pachano said that this would show what was not done.

Mr. Dunn asked who would be willing to help him with this work. He said that US\$100,000 has been set aside until the SC receives the final report. He said that Ms. Saganash and Mr. Cheezo would help him and that they would report back with the conclusions at the next committee meeting.

Mr. Pachano said that as far as he understood, from a financial perspective, they were fine for this year.

Mr. Dunn replied that they are for now.

Mr. Pachano asked what they can commit to the researchers for the coming year.

Mr. Tremblay said they can commit to the planned amounts only.

Mr. Dunn said that those amounts will not be enough. He said that it is okay for this year, but probably by the end of the summer, they will need to have formal answers if they have not yet received any.

Mr. Moses asked if they can have a breakdown of the actual costs for each year compared to the forecast costs.

Mr. Dunn said he would try. He said that what is important is that the representatives keep tabs on what has been spent, because he does not have those numbers. He added that the bands have them and that the only one missing is Eastmain. Mr. Dunn said that all the research teams submitted a proposal and a budget. He said that he did not have time to distribute them to everybody, so the SC cannot approve them today. He asked Mr. Tremblay and Mr. Gilbert to give them some details about what they received.

Mr. Tremblay said that he received the budget for the next two years, including the cost of the meeting in 2021.

Ms. Durocher asked Mr. Tremblay if he was talking about the river team.

Mr. Tremblay said he was not, but that he was talking about IMSER, the coastal team. He said that it represents \$1 million plus 40% of overhead. He said he needed the details, because there are a lot of salaries for students. He added that it was perhaps a bit higher than what he was expecting. Mr. Tremblay said that oceanography is always expensive. He said that for the University of Manitoba, the budget was not really detailed and that most of the expenses are related to

transportation and lodging, namely \$607,000 for the two years. He added that for the river team, it represents \$332,000 plus 15% of overhead for the two years, and that it makes sense for the time they spend on the field.

Mr. Bobbish asked why Mr. Tremblay mentioned 2 years.

Mr. Tremblay replied that the budget is for half of 2019 plus 2020.

Mr. Dunn asked if they will need more because they need Guy Bouchard's team.

Mr. Tremblay replied that they will not because this is paid by Hydro-Québec.

Mr. Dunn said Niskamoon has to pay for the helicopter.

Mr. Gilbert said that there are two different scenarios for the waterfowl depending on whether the SC agrees to do an aerial survey in the fall. He added that they will only do a fall survey if they can do it along the entire coast.

Mr. Dunn asked if they have to do it in one day.

Mr. Gilbert replied that they do and that there are two teams with two helicopters. He said that if they can have good eelgrass data from the new team, they can assess this during the goose migration. He added that if they can do it, it would add \$30,000. Mr. Gilbert said that this does not include the cost for the helicopter. He said that the budget would then be \$50,000 per year if they cannot do the fall survey.

Ms. Durocher asked why the survey is only worthwhile if they do it along the entire coast.

Mr. Gilbert replied that it is because most of the data comes from up north, and that they do not have goose data on this part of the territory.

Mr. Bobbish asked where.

Mr. Gilbert said he was talking about the area north of the Grande River.

Mr. Dunn said that they were never able to do the survey in those areas. He said that in spring, that makes sense because it bothers people. He added that Jean-François Giroux said that given the fact it bothers people, he does not think it is necessary to do it in the spring, but he does for the fall data if they can do the entire coast.

Mr. Gilbert said that of course doing it twice would be best, but if they can at least have one survey, it would be ok. He added that he had a conversation with the dealer about the collars with the broken antennae put in Boatswain Bay. He said they had not paid for those collars yet and that they were going to have new ones—new prototypes—and put them back this summer.

Mr. Bobbish asked if those collars have the same signal reception.

Mr. Gilbert replied that they do and that they will get some that work with the cell tower and that do not have an antenna, which will reduce the chance of them breaking.

Mr. Dunn said that with the other collars, someone caught a goose one week after the collar was installed and the antenna was already gone.

Mr. Gilbert said that in Boatswain Bay, they use two technologies, the cell tower one and the satellite one. He added that for the satellite technology, you need an antenna and that they break. He said they already have seven killed geese and that they do not have any data from the others, so they did not get any data at all.

Mr. Dunn said that the person who installed those collars said the antenna would break because the birds make a lot of head movements.

Ms. Sinave asked if all of them have been lost.

Mr. Dunn replied that the birds they collected did not have the antenna.

Mr. Gilbert said that when the antenna breaks, it has a hole and water can get inside. He added that it is supposed to be sealed, but maybe it breaks something in the collar.

Mr. Dunn said that the SC will need to approve the budget for the next meeting, so the researchers can know that they can plan their work. He suggested April 25, before the goose break, to receive the final proposals and approve them.

Mr. Gilbert said that they have to decide if they want to do the fall survey in order to finish the proposal.

Mr. Dunn said to prepare the proposal with the planned survey and to remove it if they do not do it.

Mr. Gilbert asked Mr. Lameboy what he thought about that.

Mr. Lameboy replied that the fall hunt is not as important as it was before the disappearance of eelgrass. He said it is more important in spring.

Mr. Dunn asked Mr. Lameboy if he would like to participate in the surveys.

Mr. Lameboy said that the long-necks migrate earlier than the other geese.

Mr. Dunn told Mr. Lameboy that if he can recognize the geese, they will be happy to have him participate in the survey.

Mr. Gilbert said it was more a question of timing.

Mr. Kanatewat said that long-necks migrate earlier.

Mr. Gilbert said that the best scenario would be to do two surveys in the fall. He said that if they have the permission to fly twice, it would be useful to assess the migration of long-necks followed by that of the other geese.

Mr. Kanatewat said that they could ask the tallymen if they want and present the answer at the next meeting.

Mr. Tremblay asked if it can still bother people when the helicopter flies at that altitude.

Mr. Gilbert replied that it is not really a question of altitude.

Ms. Durocher asked if the SC has a meeting planned in Chisasibi during the summer. She said she felt like they should have a meeting with the land users about this topic.

Mr. Dunn said they talked about doing it before the goose break, but it was too late.

Ms. Durocher said they could have a meeting before the fall survey.

Mr. Pachano asked if the researcher wants to do the flyovers all on the same day.

Mr. Gilbert replied that it is about migration timing. He said that they know that if they do the flyovers all in one day, they will not have the perfect scenario, because if the geese are north, they are not in Waskaganish. He added that they try to optimize the time with the land users' consideration.

Mr. Pachano said that the tide is also a major factor for the geese in the eelgrass beds.

Mr. Gilbert agreed that doing the survey at low tide is better.

Mr. Pachano said that the geese start to go on the eelgrass beds when there is less water, so that is the best time to be there.

Mr. Gilbert said that if they have one day, they should ideally have two helicopters ready to cover most of the coast at low tide. He said that they would do one day in Wemindji and Chisasibi at low tide, and then a couple of days in the southern area to give the geese time to migrate.

Mr. Dunn said that it requires a lot of planning and that they need to meet with the land users. He said that if Chisasibi agrees, the other communities will agree. He added that the tougher sell is Chisasibi.

Mr. Gilbert said that if they agree, it will be interesting to sit with the Cree representatives and plan the best way to do the surveys. He said that planning it all together will help ensure the best possible results of a survey of the long- and short-neck geese.

Mr. Dunn said that the team always needs a person with them in the helicopter and it is better if it is a local person.

Ms. Durocher said that the survey will provide crucial information for the final report.

Mr. Gilbert agreed and said that it will, especially if they get good data for the eelgrass.

Ms. Sinave asked Mr. Gilbert if the flyovers are the only way to survey the geese. She said that Ms. Leblanc did some surveys on the ground.

Mr. Gilbert said that it is difficult to do it any other way because the study area is so big.

Ms. Sinave said that they could have spot checks on the field.

Mr. Cheezo asked if they will end up counting the same geese more than once if they do two flyovers on the same day.

Mr. Gilbert said that it is possible, and that while they want to count the geese, they also want to know if they feed on eelgrass and where they are. He added that regarding what Ms. Sinave said, they could have some people on the ground making observations. He said that it would be logistically difficult, but that they had done that before in smaller areas.

Mr. Dunn said that it would be good in an area where you have a view of an entire bay, but that it would require a lot of logistics.

Ms. Durocher said the booklets were designed for this kind of observation.

Mr. Dunn said that the first thing he would suggest is that Mr. Lameboy have a discussion with the waterfowl team. He added that if the survey is planned the way the Crees see it, the chances are they will approve it more easily. He said that they have to see if everybody agrees to the survey along the coast, because if not, they are spending a lot of money for nothing.

Mr. Moses said that the hardest part of the planning is coordinating the work with where they are going to be. He said that they are moving faster this year than before.

Mr. Dunn said that north of the Grande River, the problem is that they were told they can go on Sunday only, so the researchers have to choose the best Sunday. He added that this way, they can see when the best day is, but they cannot do any surveying. He said that the SC specifies clearly with the researchers that they must do what the tallymen want and no more.

Mr. Moses said that they have to consider the weather too.

Mr. Gilbert said that the input from the tallymen is essential for this reason and to know when the geese are in a certain area.

Mr. Dunn said it would be good to have all the SC members present on April 25 to finalize the revision of the proposals. He added that it would be good to have a document for each mandate to know what the researchers will do.

Ms. Durocher said that those documents will have to be circulated before that date.

Mr. Dunn said that this is why he said they need more complete documents before April 25.

9) FIELD WORK LOGISTIC

a. Update (E. Rabbitskin)

Mr. Rabbitskin said that the River team would begin with Waskaganish and go to Chisasibi around May 30.

Mr. Dunn asked if the team had seen the no-fly zone map. He said that there is no map for Chisasibi, so if they want to go, they have to consult the land users about where they want to go, the trajectory and the height.

Mr. Moses said that they will probably need one Cree with them.

A conversation took place about the number of fuel barrels on each community territory.

b. Helicopter incident and participation of Marie-Claude Pelletier-Leclerc (M. Dunn)

Mr. Rabbitskin said that he was called by the Waskaganish airport manager because a helicopter wanted to refuel. He said that he called Mr. Moses, who told the pilot to wait and see what he could do. He added that while Mr. Moses was looking for a solution, the pilot left.

Mr. Dunn asked if it was at the end of the day and if it was dark.

Mr. Rabbitskin replied that it was.

Mr. Dunn said that the pilot probably left because it was dark.

Mr. Moses said that Transport Canada does not allow helicopter fuel to be kept at an airport. He added that by the time he got the fuel, the pilot had left.

Mr. Tremblay asked Mr. Moses to find the name of the pilot's company.

Mr. Dunn said that it was hard for the representatives to coordinate and that this event confirms their need to have Marie-Claude Pelletier-Leclerc help them. He added that the pilot should have at least told them he was leaving.

Mr. Bobbish said that the pilots also have constraints.

Ms. Durocher asked Mr. Dunn if he had received an answer about the request they made for Ms. Pelletier-Leclerc's help.

Mr. Dunn said he had not.

Mr. Gilbert said that Valérie Groison told him Ms. Pelletier-Leclerc would help.

Mr. Blackned said that when the River team came to Wemindji, the pilot contacted him, so he got local people to take the fuel down. He said that four drums were dropped on the site, but the team never came. He said that the pilot landed on the river and took off. Mr. Blackned said it was probably a safety issue because it is a very fast-flowing part of the river. He said that they never fueled in Wemindji and that there was no trace of the helicopter on the site where he told them they could land.

Mr. Rabbitskin said they went to Radisson to refuel.

Ms. Durocher asked if they know they have fuel on the field.

Mr. Rabbitskin replied that they do.

Mr. Tremblay said that when you fuel in the communities, you save time and money.

Mr. Tapiatic said that they should have a memo saying where they have to fuel every time.

Mr. Dunn said that Paul del Giorgio said that the pilots tend to do what they want, so he did not think it was Dr. del Giorgio's fault.

Mr. Tapiatic said that they do pay for the helicopter and that it is a huge cost when they go to Radisson to refuel. He said that when he was working as a pilot, he was told where to go.

Mr. Dunn said that the SC should know who the pilots are when they are hired.

Mr. Bobbish asked if they use different companies.

Mr. Dunn replied that they do.

Mr. Tremblay said it depends on who is available.

10) COMMUNICATION PLAN, ACTION PLAN AND NEWSLETTER

a. Report and minutes of the Symposium (M. Bois-Charlebois)

This item was postponed.

b. Past and upcoming actions

This item was postponed.

11) UPDATE ON RESEARCH PROGRAMS

a. Research program on Geese (J.P. Gilbert)

This item was addressed in previous discussions.

b. Research program on Cree Knowledge and Land Use – Discussion with CERRI (M. Dunn)

Mr. Dunn said that they probably have some collaborators for Eastmain, Wemindji and Waskaganish. He added that the Cree representatives will meet them on April 26. He said that the University of Manitoba will be involved remotely mainly because the administrative requirements regarding their direct involvement would be time-consuming. Mr. Dunn said that they do not have to be directly involved. He said that there would also be an advisory board, made up of Fikret Berkes and Iain Davidson-Hunt and possibly somebody from Chisasibi.

Ms. Durocher said that she does not think they need more people to be involved in the research, but they would benefit from the board's advice on ethical matters.

Mr. Dunn said the name of the researcher is Julian Idrobo and that he worked with the Inuit and with some populations living on the coast. He added that he has biology and social sciences training and that he is very interested in the project, but he is uncertain if he can commit for two years. He added that Dr. Idrobo can definitely commit for this year. He said that he would suggest meeting him in person with the Cree representatives on the 26th and start working on a plan. Mr. Dunn said that the meeting would be held in the morning of the 26th, and the afternoon

would be set aside for planning purposes. He said that Dr. Idrobo would work with Anderson Jolly, Mr. Rabbitskin and Maxine Mark-Stewart.

Mr. Pachano asked who Anderson Jolly is.

Mr. Dunn replied that he works for the Cree Nation Government in Nemaska and that he was at the symposium.

Ms. Saganash asked how they will structure the research with the ethical issues brought up by Dr. Davidson-Hunt.

Mr. Dunn said that the ethical approval process is very elaborate. He said that basically, what is referred to as ethics is more of a legal consideration. He added that a code of conduct would be just as strong as the ethical protocol of the universities.

Ms. Durocher said that the SC wants the university involved for the scientific aspect but not really for the ethical aspect. She added that if the SC decides to work with Dr. Idrobo, they could set up their own committee with Cree elders and one or two university researchers or committee members. She said that the university's ethics committee is made up of lawyers and it is not really what the SC is looking for.

Mr. Dunn said that the first thing to do is tell Dr. Idrobo to write a protocol and terms of references for the advisory board. He added that Dr. Davidson-Hunt said he is happy to sit on the advisory board. He said that once they have the terms of reference, they will bring him on board, because Dr. Berkes is retired.

Ms. Saganash asked what will happen if publications about this project are made public.

Mr. Dunn replied that this will have to be defined.

Ms. Saganash said that based on her understanding, if the collaborators do not respect the ethical process, they cannot be involved.

Ms. Durocher said that it is accurate to say they cannot be coauthors. She added that in any case, if you are on an ethics committee, you cannot be a coauthor, but you can be acknowledged.

Mr. Dunn said that all this will have to be defined in a protocol. He said that Dr. Hunt-Davidson and Dr. Idrobo wanted to be clear in stating the potential conflicts of interest, because Dr. Idrobo did his master's under Dr. Berkes' supervision. He added that they wanted the SC to know they are connected.

Ms. Durocher said it is okay and that that is why the SC wants an ethics committee. She added that that is why she would be uncomfortable having Dr. Idrobo write the terms of reference for the committee.

Mr. Dunn agreed and said it would be better if Dr. Idrobo wrote the terms of reference and if the SC revised the document.

Ms. Saganash asked who would be on the advisory board.

Mr. Dunn replied that it would be Dr. Berkes, Dr. Davidson-Hunt and somebody from the communities. He asked if Dr. Kuzyk could be on the board.

Ms. Durocher replied that two university researchers is enough and that they do not need more. She added that to have more researchers would make the process more complicated and that they need Crees on the board.

Ms. Saganash agreed and said that it would not be so much about respecting the ethical process, but more about the traditional knowledge.

Ms. Durocher said that she trusts Dr. Idrobo to do that.

Ms. Saganash said that they cannot just have one person.

Ms. Durocher said that they cannot and that this is why Dr. Berkes, Dr. Davidson-Hunt and other people from the communities will be on the board.

Ms. Saganash said that they need to propose a structure and a mandate.

Mr. Dunn said that what was suggested was good and that before talking about who will be on the board, the SC needs to define the terms of reference. He said that this is assuming everything will be good on the 26th and added that they can start working on the terms of reference and then determine the scope of the mandate.

c. Research program on Oceanography – coastal (A. Tremblay)

This item was addressed in previous discussions.

d. Research program on Oceanography – rivers (A. Tremblay)

This item was addressed in previous discussions.

e. Research program on Eelgrass (M. Dunn)

This item was addressed in previous discussions.

11) Next meeting

The next meeting was planned for Montréal on April 25. A meeting with Dr. Idrobo, Ms. Durocher and the Cree representatives was planned for April 26.

12) Meeting schedule for 2019

No other meetings were planned.

13) To do list

This item was postponed.

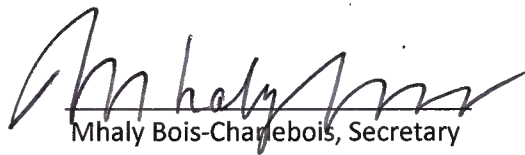
14) Miscellaneous

N/A

The meeting was adjourned at 3:55 p.m.



Marc Dunn, Chair of the meeting



Mhaly Bois-Charlebois, Secretary