

Sea Urchin Zone Council Research Subcommittee Meeting July 13, 2015 in West Boothbay Harbor, ME

DMR staff: Trisha Cheney, Margaret Hunter, and Robert Russell.

SUZC members: Larry Harris, Joe Leask, Clint Richardson, Mark Nickerson, and Steve Eddy.

SUZC members not present: Tracy Sawtelle, Jason Leighton, Teresa Johnson, Chun Muth and Atchan Tamaki.

Public: Kim Ovitz, Tyler Gagne, David "Skip" Foster, Bill Sutter, and Schyler Belle.

Meeting commenced at 4:52pm

Cat Ledges Pilot Restoration Project

L. Harris: How about everyone go around the table and introduce yourselves please. [Introductions] Maggie has prepared a draft Special License and Trish is working on the proposed rulemaking for establishing the conservation area for the project.

T. Cheney: For the proposed rule that would establish the Cat Ledges Conservation Area that will facilitate the work being undertaken in the Pilot Study Area, please note the change to the chart as it now includes Hendricks Harbor (Appendix A & B). This change makes the lines easier to enforce and for everyone to abide by. The rulemaking will run concurrently with the scallop season rule and we will be doing a public hearing down here in Augusta likely in early September. I have it written up for three years with a sunset at the end of that period.

L. Harris: Clint and Mark have put out the AstroTurf settlement collector panels already. I have three sets of brightly colored bricks – yellow, green and red – for the experimental quadrats for each of the three study areas. Tentatively, July 23 is the date to go out and collect the settlement panels and deploy the bricks that will delineate each study area. Clint and I need to make sure we are all on the same page, but we will discuss that tonight. One goal will be to pick up the recruitment panels. It is a simple process of bagging each individual panel and bringing it back to the lab for processing

M. Hunter: How many panels are there?

L. Hunter: Should be three sets of five and nine pieces at each site - so a total of 45. We will not analyze all 45, but we will do the majority of them. It will give us the preliminary look at recruitment. We need to establish the baseline at the sites. I will have graduate students with me and we will run through with a GoPro to determine the algal populations. We will look to see if there are any small urchins tucked in there as well. We are seeing some one to two year olds down at the site around Nubble Light.

M. Hunter: You can see them when they are that small with the camera?

L. Harris: You will need to move along and disturb the algal cover to see them. So we may have someone go behind and mark down what they see in the transect we just went over with the GoPro.

D. Norris: Ill second that. I have used cameras and they can be hard to find.

L. Harris: Yes, and from what Mark said, it is really heavily covered in kelp. Analyzing urchins within a kelp bed can be challenging – Robert can attest to that. Robert won't be there, but we will have a graduate student who will.

J. Leask: We should be establishing them at the edges and there will be a lot less kelp in winter too.

L. Harris: I am depending on you to determine where this should be done. We are there to facilitate and document the project, but you are the ones who are the determinants of what we will do, the project leaders.

C. Richardson: Joe will you be there on July 23?

J. Leask: Yes.

D. Foster: You have to be flexible too for weather.

C. Richardson: Yes.

L. Harris: One person can pick up the panels and the other person can deploy the bricks.

J. Leask: When bagging the panels – what do you do?

L. Harris: You grab it from the bottom and bag it in a garbage bag. It is a very simple protocol.

J. Leask: You didn't put them in a cooler?

L. Harris: I have a cooler; they will be bagged and taken back to the lab.

D. Norris: What type of information will you be collecting?

L. Harris: This is the background [baseline] information. There are also panels at other locations along the coast to compare it with - Isle of Shoals, Nubble Light, Winter Harbor, and Eastport. This will be another site and relative to those. This is to give us a starting point as to how many urchins are out there now and roughly what the kelp bed community looks like before the urchins are actually put out. There will be a control plot that nothing is done at and a plot that has small urchins that Schyler and Steve are producing and a plot where urchins are transplanted to provide disturbance. You can put out panels in those areas next year to compare.

D. Norris: Are we going to evaluate the area that they are being taken from?

J. Leask: We could take note of that with the GoPro.

M. Nickerson: Need to keep this simple.

J. Leask: Are you looking at current?

L. Harris: Areas with greatest current in Eastport have poor recruitment, the Nubble Light site is OK, but in terms of the side of ledges, we don't have any difference to compare with. Generally, we have 15 panels at each site and we analyze 10 of them. I only believe differences if there is an order of magnitude of difference, i.e. 10 vs 100 or 1000. Shows that there is a big difference, a significant difference. Anyone that has spent time watching the bottom has seen the bottom covered in pin pricks. It is such a random game. Back in the early days we would get a piece of AstroTurf as big as my hand and there were a thousand urchins.

D. Foster: So you are measuring the overall water column and where they settle?

L. Harris: Yes, you get much better recruitment on the bottom than up in the water column. We used to have the panels at the surface, then at 8m down and then 45m. You would see an order of magnitude difference in the numbers when you dropped to the deeper depths. We got better recruitment in a kelp bed compared to where the bottom is disturbed, but they will not survive. Publications in the 1970s described that in Nova Scotia when they had full blown urchin barrens. It is the same in Jonesport.

D. Norris: They always have the biggest urchins.

L. Harris: Yes. Eastport urchins are in an anorexic environment.

J. Leask: How much of this can you do?

L. Harris: All of this is volunteer work by students in the lab. There is no funding being used.

D. Norris: Is there anything else that needs to be done before we start the reseeding effort? I haven't dove Cat Ledges in years, so I don't know when the crabs leave. I don't know what the date is that you want to start. November seems about right. Are you going to get in the water to see if the crabs have left?

J. Leask: We have had two cold years in a row and the coastal journal had a write up on it. I was speaking with a guy who drops pots for green crabs too in Penobscot Bay.

D. Norris: Jonah crabs too. Eastport is quite different – green crabs go down there quite deep.

J. Leask: Mark did you see a lot of crabs when you were there to drop the AstroTurf off?

M. Nickerson: No.

J. Leask: If you use lobsters as your guide, you should be all set. I don't think we have established a clear date yet.

L. Harris: I am relying on the three of you. This is urchin harvester driven.

M. Nickerson: We may be able to figure it out when we pick up the panels.

R. Russell: The lobster shed just started, it is late this year.

M. Hunter: For Amanda's project the crabs didn't become a problem until August.

J. Leask: We can do some crab adjustments. We should shoot for as early as possible once the conditions are right.

M. Nickerson: The more we can keep them in clusters, the better they will be. They will naturally keep the crabs off on themselves. I just worry about the weather in November.

J. Leask: The process of putting them on bottom needs to be accompanied with back to back dive days.

L. Harris: If you have three totes to keep them cool and put them on bottom well instead of dumping them into one.

J. Leask: I would be willing to use the November Gail [his fishing boat] with flowing sea water tanks and then you cover them with seaweed.

D. Norris: We have been having some good luck with some kelp. We used to have good luck with taking a whole days' worth of culls and put them somewhere else.

J. Leask: Everyone is in agreement from moving the entire size range.

D. Norris: I would agree with that. I can offer you guys my hooka system if you want to borrow it. Makes it simple when you get old – you don't have to refill tanks.

L. Harris: After the urchins have been transplanted, we should get back out there to take some pictures.

D. Foster: Yes, to document things possibly a week later. I have a couple of GoPros.

M. Nickerson: I am usually around too.

L. Harris: In the spring we would be doing a survey before the summer got started. Do it in May and put out the next set of panels so we can document the structure of the sites. You guys can pop in at some point during the winter too.

C. Richardson: Mark will be diving in the winter so he will have all his gear ready to go.

S. Eddy: A year later the seed will go in.

J. Leask: We should come to a conclusion about the number of totes and which ledge.

C. Richardson: I would shoot for late October. Weather is good, the crabs will be lethargic.

L. Harris: North of Casco Bay the temperature turns down quicker.

D. Norris: Keep your eye on it in case it is a freak summer and really warm.

T. Cheney: That is what Maggie wrote up in the Special License for the field work – October and November.

J. Leask: We will have to give some notice to Marine Patrol a day or so before we go out.

L. Harris: The tentative plan is three totes per sub site. So we will need a total of nine totes of urchins. Three totes into one plot.

M. Hunter: Area 1, 2, 3. Each of the areas will have three plots: one site will be the control with no urchins, the second site will have the hatchery urchins only and the third site will have the wild transplanted urchins and hatchery urchins (Appendix C). It is this third site that we want to evaluate whether the transplanted wild urchins can enhance the survival of the hatchery reared urchins. In total, we will need nine totes of wild transplanted urchins.

S. Eddy: What do you think will be the lowest size - urchins or the transplants?

J. Leask: You can get pinky size, but they don't survive. I would like to see the whole size range, but in terms of survival, the larger ones are better. Bill knows of a place to the east that we could get them from. It will be a haul by land or sea, either way.

M. Nickerson: You will need to set them upright.

S. Eddy: Will you have a note taker? I can help out during this.

L. Harris: We will have a ruler on the bottom and put the urchin on it and take a picture with the GoPro. Handling them individually to measure them is the fastest way to kill them. The second time they did it more successfully in April, but then Jonah crabs took them out later in the summer.

S. Eddy: Should we be shooting for a number of a certain sized urchin to evaluate whether the oversized urchins protect the smalls?

L. Harris: No.

C. Richardson: We are going to get a good sized range of urchins.

J. Leask: We have to nail down a place to bring these urchins from. We have to realize that the people in that area may be upset. Mark showed us one spot and I know an area quite well that has a lot of product that will not ever get any bigger.

C. Richardson: I would like to shoot for about half of them being legal size.

J. Leask: I don't want to negatively impact an area. Some areas have a lot of urchins naturally. They have certain conditions that they are there year in and year out.

D. Norris: I know of a junk bed we could get nine totes no problem at all.

J. Leask: Without the constraints of the size limit, you can leave a lot of urchin. If they are on sand or gravelly bottom, they won't leave their feet behind when you pick them up.

R. Russell: There are some on the NW side of some islands in Muscongus Bay and then there is a spot around the Cape Newagen as well you could look at.

D. Foster: I thought we were taking from some new stock and bringing it in. There are big barrens of nothing but junk in Muscle Ridge.

J. Leask: The key is to not move them far. I like the idea of somewhere close.

B. Sutter: How many totes are you moving?

J. Leask: Only nine. Bill has a spot that is a stone's throw from this place.

M. Hunter: But they are deep? Too deep to dive?

J. Leask: Yes. I don't know if we have that option as it was written up as dive. So we may have to stick to within those parameters.

L. Harris: There were massive mortalities when they were moved them from deeper to shallower water. However, we also had success when moving from mud bottom with a scallop drag. There is this extra variable thrown in [drag]. I'll leave it to you guys to decide.

R. Russell: Want to minimize pulling and ripping them, anything to keep the dermal layer from ripping.

J. Leask: Four totes fits perfectly in the exactic tub. I can run four to five exactics at a time with fresh sea water flowing through them. Then we can swim the tray of urchins to the bottom. We have had almost 100% survivability in the past when doing this.

L. Harris: I will assume that you will work that out, where to take them from.

J. Leask: We are going to have more than nine totes, really. We will want 18 half totes to give them some room.

L. Harris: Great, then you will have 18 pictures with a ruler in it.

J. Leask: I think it would be a good idea to take a ruler and a GoPro along the bottom before we move them.

D. Norris: I hope this goes well with the nine totes, and then I hope we can do it again with 90 totes so we can bring a dead reef back to life. Bad things have happened with mortality. I think that amount would really do it. We pulled 3000 totes off that reef in 1989 and never went back.

J. Leask: I have started the ball rolling in Sullivan River. There are a number of rivers that I think would be good. There are areas that are being shut down to scalloping. You need that in an area that you want moved urchins to survive. No one knows anyone who is diving the area in Sullivan River. There have been some folks, but not in a few years. I am 99% certain that this project will work.

C. Richardson: This will work, it is Steve's part that we need to get to work. Really, that is what we need to do.

J. Leask: They have done quite a bit of work in Japan and Canada. I want to get back up into the Sullivan to see what is up there, to see if it has come back.

T. Cheney: It was open this past scallop season and there was a lot of activity up there. However, the area will rotate closed for the next two seasons in the [scallop rotational management plan](#), so it would lend itself well to a project like this. I would like to review the Special License with you guys as I have a few questions. We will need to list the accompanying fishermen and scientists who will be handling the product in the project. Anyone participating in the project must have a clean violation record. Maggie has run your names and you all check out – Joe Leask, Clint Richardson, Mark Nickerson, David Foster, Larry Harris and Steve Eddy. I will also need to name the vessel that this work will be happening on – it will be your boat, right Joe? And she has a Coast Guard sticker, correct? I will also need information for any skiffs used as well.

J. Leask: Yes, I have had the Vessel Safety Inspection. I will get you the information for the F/V November Gail.

[Guys gave Trish the ME registration of the skiff's that will be used in project.]

M. Hunter: So, you are putting bricks out on Jul y23?

L. Harris: When we collect the AstroTurf settlement panels on July 23, if we have three sites that you agree on, we will GoPro them and can set out the bricks at that point.

T. Cheney: What about crab control?

J. Leask: We need to have some flexibility, so yes, we should put that in.

M. Hunter: We will just need to know if crabs were controlled or not. We will put it in there so give you the flexibility of being able to do it, but please record it if you did.

T. Cheney: This project can provide the means for evaluating the potential impact to crabs. However, the project is geared towards avoiding these interactions anyways due to the timing of the transplant.

B. Sutter: Any artificial manipulation of the environment will only go so far. If the crabs are going to get them, they will. You will not be able to control for that in any long term way.

D. Norris: You don't have to management them for the entire year.

M. Nickerson: Want to see if they can sustain themselves, but may need a little help to get them established at first.

J. Leask: They need to have a chance. Going to err towards to time of year.

T. Cheney: Ok, good. What is the total number of out planted urchins Steve?

S. Eddy: 90,000.

M. Hunter: What about muffins [oversized urchins]?

J. Leask: Not likely.

M. Hunter: We should include it just in case.

T. Cheney: Can anyone think of any other regulations we need to be exempt from to facilitate this project?

B. Sutter: Over the limit regulation. Not culling immediately. Culling on bottom. Possession out of season.

T. Cheney: Excellent, thanks Bill. We will include these as well in the draft. Also, Joe and I will be letting the DMR Advisory Council know about this Special License and will be keeping them updated as to the status of the project.

S. Eddy: What about exclusive harvest at the end of three years?

M. Hunter: No. We wrote it into the Special License that the participants will harvest and collect information as part of the reporting back on the project.

D. Foster: Is three years long enough? They will just be getting started. There are large masses, pockets in the Sheepscot that are left. I am concerned about those. We are going to go in there and effectively monitor these, monitor crab, no harvest. We are going to eliminate all the uses. We will be able to answer the question of whether they can come back or not. Will three years be long enough though?

T. Cheney: We can start by closing this area for three years and if needed, we can extend the sunset if needed at a later date during a season rulemaking.

D. Norris: What concerns me is that Briand Preney says there is something there biologically that has killed them off.

T. Cheney: That may be why you want to have a replicate somewhere else, like the Sullivan River as Joe suggested.

M. Nickerson: We also won't know if someone has hit them.

B. Sutter: One potential problem is disease. Bigelow Labs has found the parameoba in the urchins in Pemaquid, so we don't want to take them from there.

M. Hunter: As I understand it, it is something that is often on the urchins all the time and it is something else that triggers them to get sick.

J. Leask: Historically when we have had die offs it was a warm summer. Zone 1 needs another area that is going to start to come back and be more healthy. Sheepscot has deep, cold water. Even Muscongus Bay – that area has the chance to bounce back.

T. Cheney: Kim – as Teresa's new graduate student who will be working on urchins, do you have questions for the council members after hearing these discussions tonight?

K. Ovits: Yes, I have tons of questions. But I will follow up at a later point once I review and compile everything. I have also read through all the old minutes from past meetings that are online. I have to say this has been very interesting and it is a great group.

T. Cheney: How about the next meeting? Do we want to have one next month to continue these discussions and the other items Joe?

J. Leask: Yes. We can do an update to this project, continue the discussions on the Fishery Management Plan, and get an update import/export issue.

T. Cheney: Yes, I wanted to let you all know that our Deputy Commissioner, Meredith Mendelson, submitted a letter to the head of Law Enforcement at the US Fish and Wildlife Service regarding the inspections and resulting shipment delays, and has asked for a resolution to the issue (Appendix D).

M. Hunter: When is the reporting for special license?

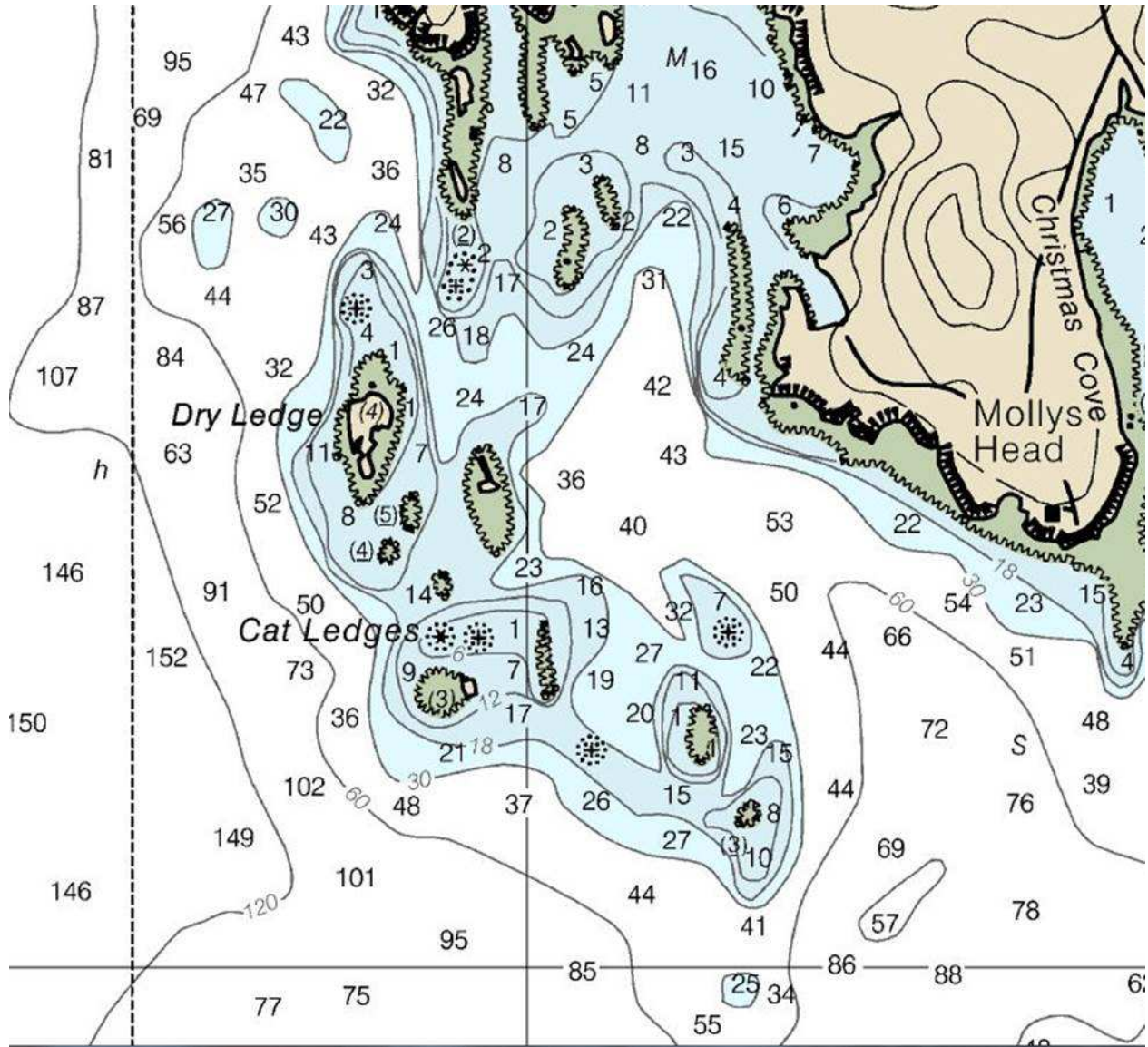
L. Harris: The first reporting period would be end of December.

Next meeting in Bangor on August 13 at 3:30pm.

Meeting commenced at 6:45pm.

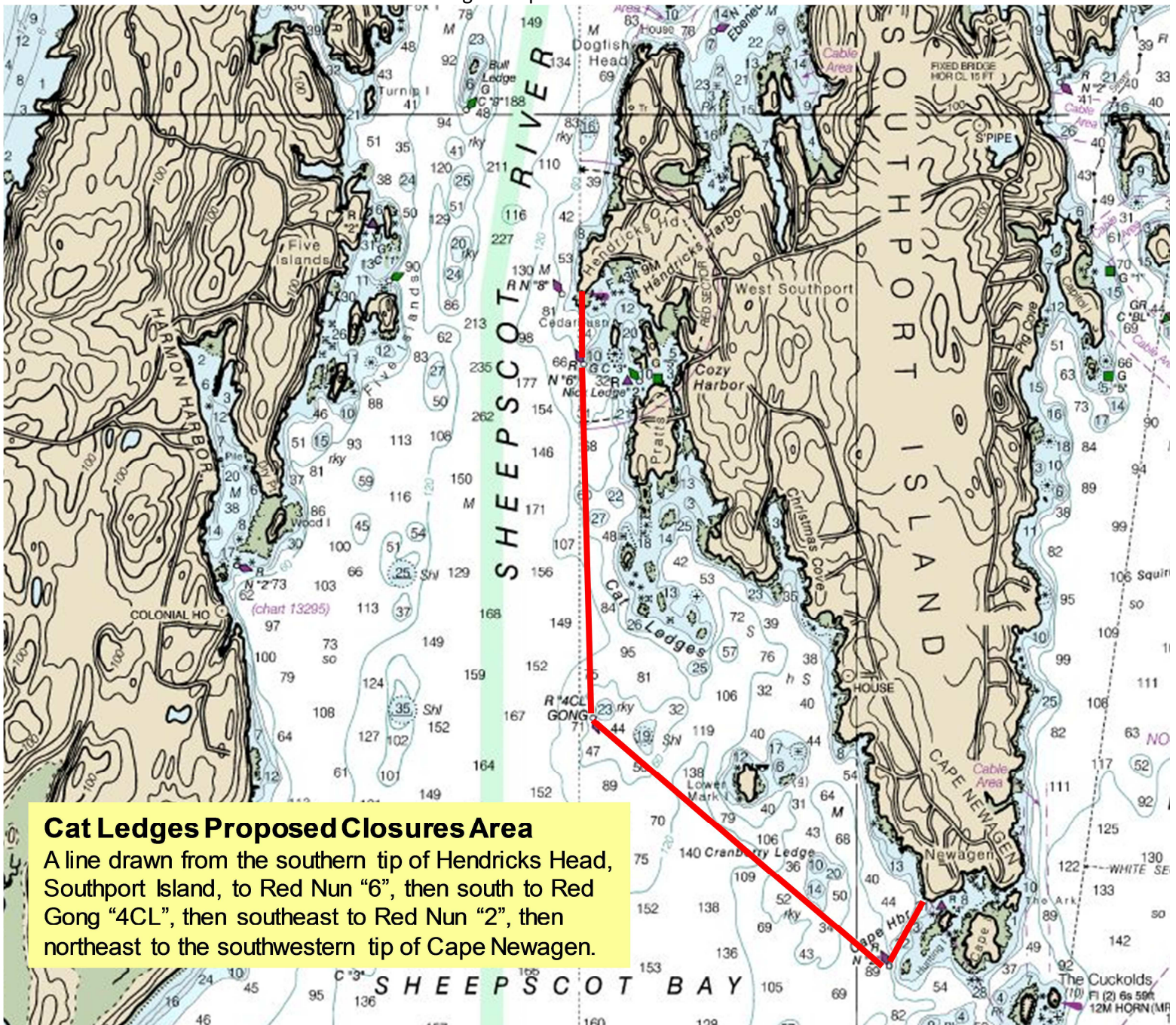
Appendix A

Study area for the Cat Ledge Pilot Restoration Project



Appendix B

Cat Ledges Proposed Conservation Closure

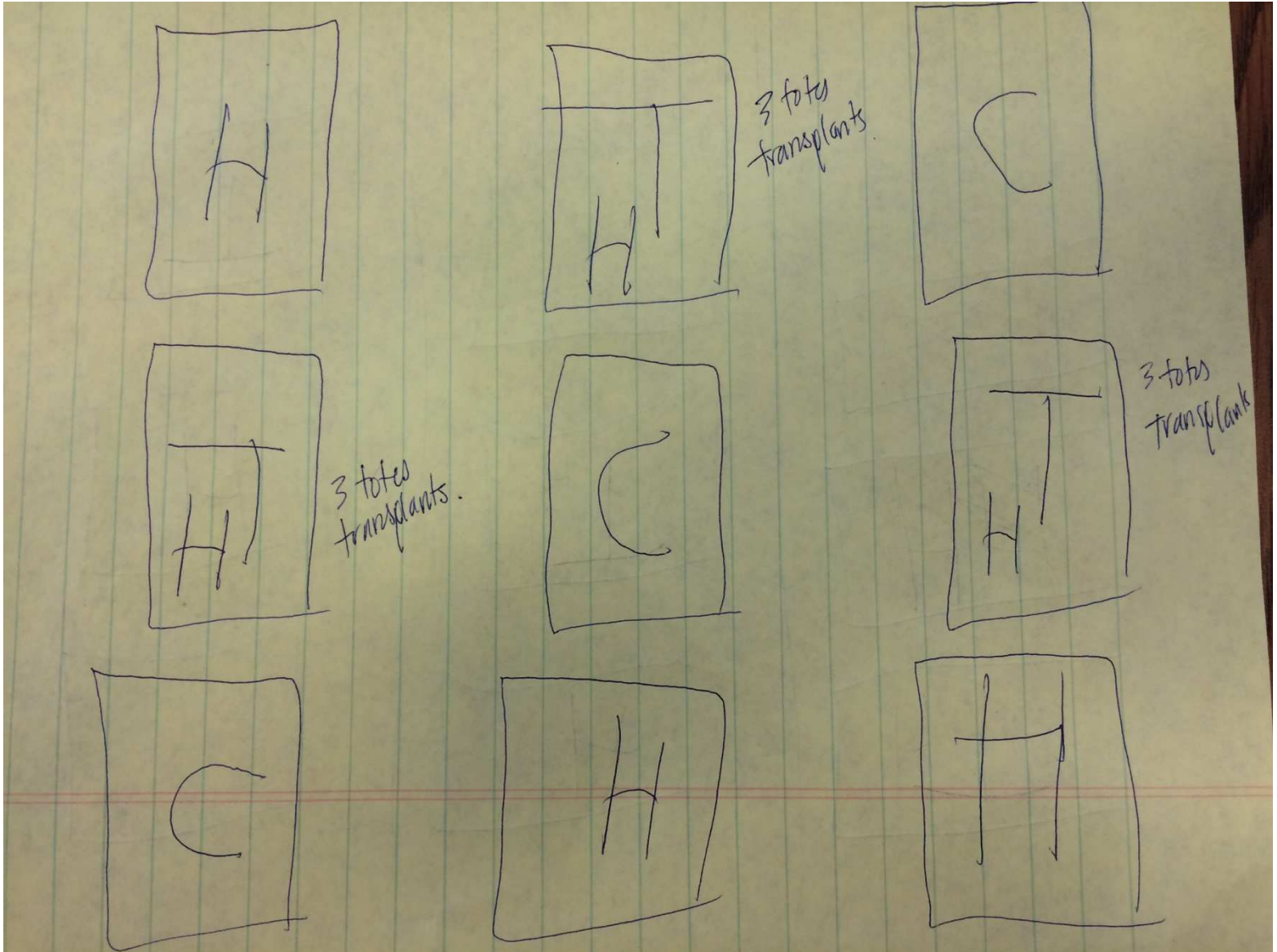


Cat Ledges Proposed Closures Area

A line drawn from the southern tip of Hendricks Head, Southport Island, to Red Nun "6", then south to Red Gong "4CL", then southeast to Red Nun "2", then northeast to the southwestern tip of Cape Newagen.

Appendix C

Study Areas with sub site treatments. H = hatchery urchins, T = wild transplanted urchins and C = control (no treatment).



Appendix D

Letter submitted by DMR on behalf of the Sea Urchin Zone Council to the US Fish and Wildlife Agency regarding the import/export issues.



STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
21 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0021

PATRICK C. KELJER
COMMISSIONER

July 13, 2015

William C. Woody
Director, Office of Law Enforcement
U.S. Fish and Wildlife Service
1949 C Street, NW
Washington, DC 20240

Dear Director Woody:

I write to request your assistance in resolving an issue of concern to an important segment of our commercial fishing industry here in Maine. The sea urchin fishery directly supports a total of 317 harvesters and 46 dive tender assistants, as well as 11 buyers and 5 processors who employ over one hundred workers. In 2014, the fishery landed 1,994,176 pounds of sea urchins valued at \$5,399,058. As Maine's eighth most valuable fishery, this fishery is especially important to "Downeast" coastal communities in Washington and Hancock counties, where economic opportunities are limited.

Management of Maine's sea urchin fishery is the joint responsibility of the Maine State Legislature and the Maine Department of Marine Resources ("DMR"), with advice from the Maine Sea Urchin Zone Council (the "SUZC"). At its most recent meeting on June 18, 2015, the SUZC unanimously voted to recommend that DMR submit a letter of support on their behalf to your agency regarding industry concerns that these highly perishable live products, previously believed to be exempted from inspection and permitting requirements, are being delayed by U.S. Fish and Wildlife Service at points of import to, and export from the U.S., causing product loss.

In accordance with that request, DMR writes to confirm that sea urchins and sea cucumbers are, in fact, shellfish and fishery products intended for human consumption. As such, sea urchins and sea cucumbers should be included in the definition of shellfish products and exempted from permitting or inspection requirements under 50 CFR 14.21. These products are neither threatened nor injurious. Therefore, the comprehensive management system designed to protect and conserve fish and wildlife worldwide would not be compromised by this exemption.

We are supportive of regulatory changes to resolve this issue over the long term, and in the near term ask that you seek policy and procedural remedies to ensure no unnecessary delay in import or export results in loss of product. Please do not hesitate to contact me if Maine DMR can be of further assistance in this matter.

Sincerely,

Meredith Mendelson
Deputy Commissioner

OFFICE AT 32 BLOSSOM LANE, AUGUSTA, MAINE
<http://www.Maine.gov/dmr>

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Appendix F

July 13, 2015 Sea Urchin Zone Council Research Subcommittee meeting participants.

