

## Sea Urchin Zone Council's Research Subcommittee Meeting

October 22, 2015 in Boothbay

Maine DMR 194 McKown Point Road, West Boothbay Harbor, ME

**DMR Staff:** Trisha Cheney, Carl Wilson, Maggie Hunter, Hannah Dean and Robert Russell.

**SUZC Members:** Clint Richardson, Larry Harris, Joe Leask, Mark Nickerson and Dean Norris

**SUZC Members not present:** Tracey Sawtelle, Steve Eddy, Chuon Muth, Ed Fagonde, Teresa Johnson, Atchan Tamaki, Jason Leighton and Duane Carver.

**Public:** David Foster, Jim Wadsworth and Brian Preney.

L. Harris provided introductions and T. Cheney introduced new DMR Staff member H. Dean.

L. Harris introduced the meeting by saying that the primary focus is gearing up and figuring out how to move forward on the Cat Ledges Pilot Restoration Project. Field work is scheduled to take place in the weeks following the meeting. Unfortunately, Sea Grant did not fund around \$63,000 dollars for the project which would have covered funding to spawn urchins in a hatchery and then place the hatchery stock on the pilot sites. Hatchery funding is difficult to come by given that urchins are not a major fishery in Maine. As a result, finding alternative funding for the hatchery may be a challenge. L. Harris added that Maine Sea Grant only selected 3 research projects for funding, which is concerning and poses a real challenge to the community, which has depended on this source of funding to support experimental ventures that can lead to industry wide improvements.

J. Leask asked whether there is anything the Subcommittee can do to assist the project moving forward. L. Harris noted that they were planning to push forward without using research funds. C. Wilson asked whether the funds were written to encompass the entire project, to which L. Harris responded that the majority of the Sea Grant funding was to support a hatchery and that other elements of the project were via volunteers on the Subcommittee (including time, diving, ship time, and other equipment). In other words, the Sea Grant was really the only source of funding for the project. While C. Wilson encouraged the council to move forward, J. Leask did emphasize that the lack of funding will eliminate the opportunity to develop greater knowledge on the seeding process, and the aim of this was to see whether hatchery urchins could be integrated into a wild setting. So, this will be a setback in terms of developing new approaches to cultivating wild based urchin populations. Given variable recruitment from year to year, the aim was to stabilize the industry by developing the kind of techniques that have helped Japanese urchin fisheries establish a system where urchins are raised in hatcheries and then out-planted to develop to maturity in the wild.<sup>1</sup>

J. Leask also noted that part of the funds were going to be used for fuel. L. Harris responded that he will be able to gather funds to cover the cost of the fuel and other equipment costs given that this will be a small amount of money, and he has a fund that can be drawn on for these kinds of costs. J. Leask noted that while the hatchery can't move forward, the Subcommittee could still move forward on the aspect of the project that will test out planting brood stock. S. Eddy has brood stock that he has committed to planting on a site in Sorrento, close to the Franklin facility. T. Cheney noted that, given that the proposal is a finished product, the Subcommittee should consider the timing of resubmitting the proposal to Sea Grant. J. Leask added that conditions over the last couple of years have actually favored natural seeding of urchin sites, but that preparing for bad years via the development of a regular hatchery system is of great value to the fishery.

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<sup>1</sup> Perumal, Santhanam, A. R. Thirunavukkarasu, and Perumal Pachiappan. "Advances in Marine and Brackishwater Aquaculture." (2015).

Minutes taken by Hannah Dean on 10/22/2015 and revised by Hannah Dean on 10/26/2015, Trisha Cheney on 10/26/15

L. Harris noted that this project can move forward in a positive way by essentially gathering wild seed, staining them, and then out-planting them to test whether planting seed in new locations can be successful. This would at least simulate part of what was originally proposed. While J. Leask noted that this would be significantly different, the Subcommittee agreed that completing that part of the proposal would be a positive step forward. C. Richardson noted that they should wait a couple of weeks from the date of the meeting given the water temperatures, and R. Russel agreed.

Special licenses allow for the adjustment of crab predators, and J. Leask noted that they ran into predation problems on other sites, though die offs may have also been due to run off and water temperatures as much or more than it was due to predators. Predation remains the major problem, but J. Leask noted that as long as the urchins have time to establish themselves on the bottom, which depends on planters being careful when distributing the seed, crabs generally leave the stock alone.

L. Harris noted that one of the things that need to be done prior to reseeding and transport is to set out the brick markers of the areas in the appropriate patterns so that on the day of planting, the plots will be ready. The plot sizes will be about 10x10 ft. M. Hunter noted that there will be nine trays of urchins, adding up to 700 lbs, and the license allows for 720 lbs. The Subcommittee had discussed having three plots, one wild + hatchery, one control, one hatchery, which would be replicated three times, so there would be 9 plots in total. It partly depends on how spread out the seed will be and the size of the buffer needed to keep them contained. L. Harris noted that they should be planted densely enough so that they have an impact on the bottom, and that the buffer does not have to be very great given that they will not travel far given the high level of algae. J. Leask from his experiencing laying down trays at low tide, noted there was very little movement.

T. Cheney asked members when they want to plan to do the site assessment prior to the transplant. M. Hunter suggested that the assessment could be done the same day as the planting and crab adjustments should be done as close to planting as possible to avoid un-needed work. M. Nickerson suggested the assessment should be done as soon as possible and suggested that if there are no crabs, they could move forward, and if there are crabs, they could wait 2-3 weeks. T. Cheney emphasized that R. Russell should be available when the sites are set up so that the plots are standardized. The group agreed that three days would be set aside for siting assessment and planting to allow for a one day buffer in case there was bad weather: the team agreed to conduct the site assessment on November 11, and the planting was scheduled for November 19<sup>th</sup> and 20<sup>th</sup>.

J. Leask noted that keeping the stock closer to the planting area, and moving the sparsely seeded areas to new areas is not ideal. L. Harris added that the aim should be to take seed from places that are highly populated and move those to new sites so as to improve the distribution of biomass. C. Richardson noted that if they wait too long, it will be hard to transfer the seed without tanks, but if it is done before freezing weather, it can be done quickly. He also noted that transporting in bad weather will expose the stock to chop and bad conditions – so J. Leask suggested that the best option may be to use the F/V November Gale, which is a stable platform and can transport stock from further away. C. Wilson asked whether tanks on deck will pose a problem, and J. Leask noted that he has water circulators but may be down one pump. C. Wilson offered that DMR has trays available.

L. Harris asked for projected costs for fuel – and J. Leask responded that it will cost about \$800 for fuel from Rockland to Boothbay and back again – this will cover F/V November Gale's diesel costs. L. Harris noted that if R. Russell will be with the group, there will be two skiffs and the divers can divide and conquer in terms of setting out quadrats on November 11<sup>th</sup>. R. Russell asked whether L. Harris wants both the survey and the go pro recording – and L. Harris said that divers may be able to contribute the go pro. The group discussed whether the brick markers will move around, but noted that if they are fairly sheltered, they will not move around. The group discussed how to transport the juveniles and noted all that's needed is a cooler.

Minutes taken by Hannah Dean on 10/22/2015 and revised by Hannah Dean on 10/26/2015, Trisha Cheney on 10/26/15

The group also discussed in general recent trends in urchin populations. J. Leask noted there have been reports of new recruits throughout the state, including in Eastport, and this seems to be due to water temperatures remaining low. L. Harris noted that this past August, when urchins were collected from an area he's been visiting for years, it looked entirely different due to algae growth. L. Harris also noted that there are many areas that have urchin barrens, but these are not harvestable as the urchins remain anorexic.

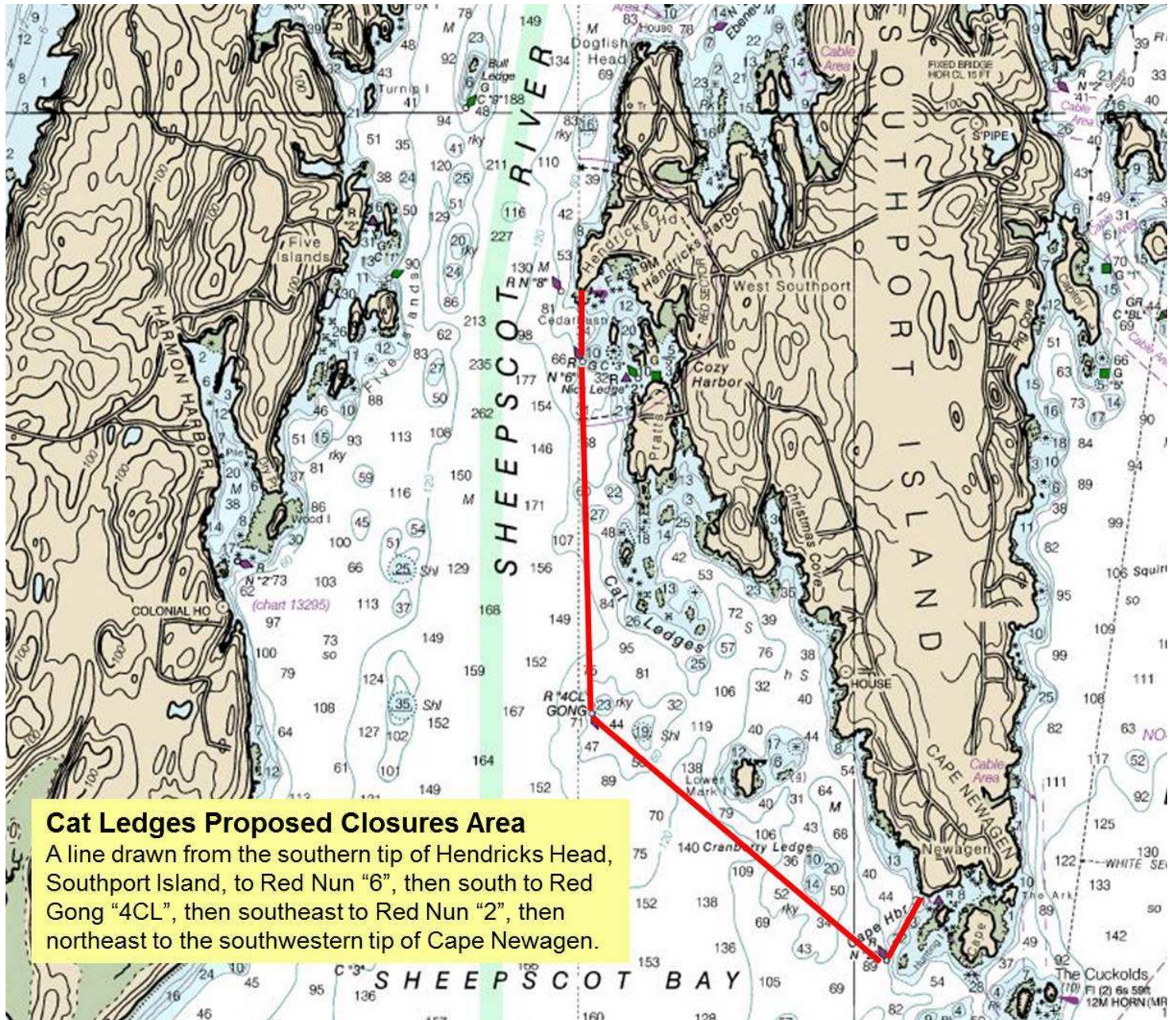
#### **ACTIONS**

1. Site assessment will take place November 11<sup>th</sup>.
2. Seeding site will take place November 19<sup>th</sup>/20<sup>th</sup> depending on weather conditions.
3. L. Harris will provide funds (around \$800) for fuel needs to and from the site for the F/V November Gale.
4. R. Russell will be on site when plots are laid out in order to ensure standard approach.

**Next meeting of the full Sea Urchin Zone Council will be on January 7, 2016 in Augusta.**

### Appendix A, part 1

#### Proposed Conservation Closure for the Cat Ledge Pilot Restoration Project



### Appendix A, Part 2

Study area for the Cat Ledge Pilot Restoration Project

