

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2012 PROGRESS REPORT

Quarter: (circle one)

2012 1st

2012 2nd

2012 3rd

2012 4th

Grant Number and Title: Application of the Coastal and Marine Ecological Classification Standard (CMECS) to the Northeast

Grant Receipt/Organization: The Nature Conservancy

Grant Project Leader: Mark Anderson

Were planned goals/objectives achieved last quarter? Yes

NALCC Conservation Need Addressed: Topic 1, Classification of Coastal and Marine Habitats

Progress Achieved: (For each Goal/Objective, list Planned and Actual Accomplishments)

Goal 1. Develop Contracts and Project Work plan

We started the project on 7/1, but had a few delays due to vacations and travel. We hosted two calls with the contract scientists John King and Kathryn Ford to discuss, revise and finalize the work plan (attached at the end of this document). We are currently preparing the contracts from the technical work plan and work is getting underway on the technical portion.

Goal 2. Hire GIS person to complete technical work

We are currently in the middle of the hiring process for a new GIS staff member to complete this project in our Eastern Division (to replace Eric Howard who recently left to pursue his PhD in mid-August). That should be complete by the end of the month, so we can start our portion of the technical work.

Summary of Progress: (Provide a paragraph describing progress, work to come, and timelines)

So far our work has focused on planning, hiring, and administrative tasks. We now have an agreed upon task list for all participants and we are on track to finish the project on time.

Difficulties Encountered: None

Activities Anticipated Next Quarter:

Next Quarter we will begin Phase 1: *Calibrate the CMECS model to the Northwest Atlantic (Geoform, Substrate, and Biotic Components) at local, subregional and regional scales. This will serve as the foundation for the classification for the Northwest Atlantic.*

Step 1): Identify existing state and regional marine classification units and create space/time diagrams for existing units to aid in Steps 2 and 3.

Task 1: Create a list of existing classification units

a: Regional marine classifications - NAMERA, NERRS and CMECS (TNC)

b: CT, RI, ME, NH, MA (KF - see below), VA?. (URI/Emily/John)

c: Massachusetts marine classifications. (Kathryn/MADMF)

Task 2: Each team creates one diagram for each scale.

Expected End Date: December 2013

Costs:

Funds Expended to Previous to this Report:

Amount of NALCC Funds Requested within this Report:

Total Approved Budgeted NALCC Funds:

Are you within the approved budget plan?

Are you within approved budget categories?

Signature:

A handwritten signature in black ink, appearing to read "Mark Anderson". The signature is written in a cursive style with a long, sweeping tail that extends to the right.

Date: October 22, 2012

Appendix 1: Final Work Plan.

Application of the Coastal and Marine Ecological Classification Standard (CMECS) to the Northeast

Task List – Final 8/30/2012

Phase 1: Calibrate the CMECS model to the Northwest Atlantic (Geoform, Substrate, and Biotic Components) at local, subregional and regional scales. This will serve as the foundation for the classification for the Northwest Atlantic.

- 1) Identify existing state and regional marine classification units and create space/time diagrams for existing units to aid in Steps 2 and 3.

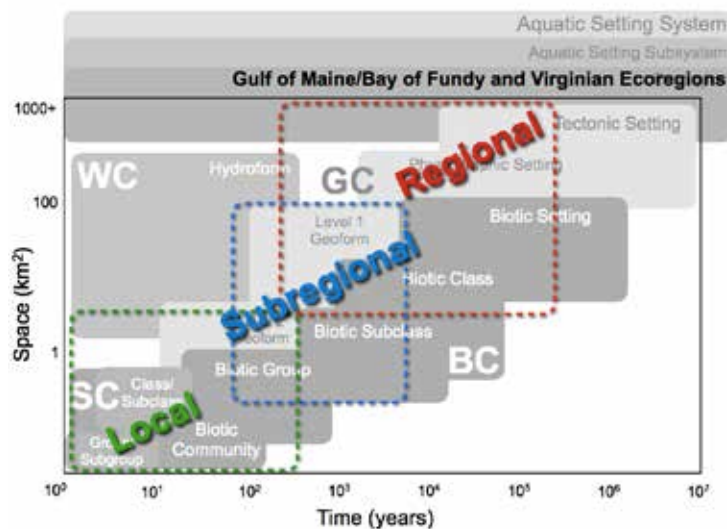
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b: CT, RI, ME, NH, MA (KF - see below), VA?. (URI/Emily/John)

c: Massachusetts marine classifications. (Kathryn/MADMF)

Task 2: Each team creates one diagram for each scale (below).



- 2) Justify the criteria for the proposed CMECS classification for the Northwest Atlantic

Task 3: Each team develops a list of components and subcomponents that can be mapped at each scale given the data available for the scale they are responsible for in order to populate the table below.

Scale	Available data/interpretation	Relevant CMECS Component(s), subcomponent(s), etc.
Regional	“Ecological marine unit” or seabed topographic form	Geoform physiographic setting, Level 1 geoform, depth modifier
Subregional		
Local		

Task 4: Core project team meets to discuss Tasks 1-3 and make edits

Task 5: TNC creates draft Phase 1 product – Northwest Atlantic CMECS catalog (a combined list of units from three teams Components and subcomponents relevant to each scale of Northwest Atlantic data)

Task 6: Hold WebEx (or in-person meeting if convenient) for NROC Benthic team for review and input

Task 7: Finalize Phase 1 product

Phase 2: Test the Northwest Atlantic CMECS by applying it at three scales (regional, subregional and local), building on existing work aimed at mapping marine habitats at overlapping scales. The regional scale mapping will be conducted with datasets assembled to develop The Nature Conservancy’s *Northwest Atlantic Marine Ecoregional Assessment* (Anderson et al. 2010, Greene et al. 2010). As each test area develops their map, the team will identify the subset of class thresholds relevant to CMECS components in the Northwest Atlantic (e.g. depth classes, or grain size classes) and prepare a description of each.

1) Create draft maps of each scale

Task 1:

a: Create draft 1:5,000,000 scale map of benthic settings based on sediment grain size, seabed form (i.e. bottom topography) and bathymetry. (TNC)

b: Create draft 1:250,000 scale map in Massachusetts and Rhode Island using datasets to inform marine spatial planning on state-wide scales. (URI)

c: Create draft 1:5,000 scale map using Boston Harbor watershed atlas. (MADMF)

Task 2: Each team documents findings in a draft written report reviewing the following details: characterize and compare the maps; compare the usefulness of the information conveyed by the CMECS maps at each scale for various planning and conservation efforts; discuss the limitations of the data at each scale toward classifying CMECS units

Task 3: Core team meets to review before Task 4

Task 4: Convene final workshop with the NROC Benthic Habitat Committee to review results of the CMECS crosswalk (maps and charts, draft report).

Task 5: Finalize technical report (A “practical guide” to mapping CMECS units in the northeast)

Deliverables Crosscheck:

- 1) A report including a description of the classification units, detail on how each component was cross walked to existing classifications, the sources of data used to evaluate the component, and identification of modifications to CMECS will be generated. (Task 2-4)
- 2) An excel spreadsheet containing the units in the same or similar format to the existing Northeast Regional Habitat Classification System will also be generated. (Task 1-2)
- 3) Three maps with habitats classified at regional (1:5,000,000), subregional (1:250,000), and local (1:5,000) scales will be included in the final report. (Task 2-1a,b,c)