

NORTH ATLANTIC LANDSCAPE CONSERVATION COOPERATIVE GRANT 2013 PROGRESS REPORT

Quarter: (circle one) 2013 1st **2013 2nd** 2013 3rd 2013 4th

Grant Program, Number and Title: North Atlantic LCC, Grant 2011-12

Organization:

Project Leader: Richard R. Veit

Abstract: Please provide a short (1-2 paragraphs) abstract that addresses EACH of the following: the objectives of your project, accomplishments to date, future plans and timelines with an estimate for when the project will be completed.

We scanned the entire 270,000 record USGS database on marine birds to search for inconsistencies in the use of four-letter species codes for birds. On the whole, we found the database to be clean, and species codes were generally consistent. There were some exceptions. Potentially the most influential confusion was in the use of codes for Roseate and Royal Terns. Unambiguous and correct codes for these species are "ROST" and "ROYT" respectively, but it is quite certain that the ambiguous code "ROTE" was used for both of these species on the order of a few hundred times in the past. We have made corrections or suggestions within a separate column in the database about how to interpret these ambiguous codes. Another general observation based on our scan of the database is the interpretation of large numbers of birds unidentified to species, for example "UNTE" for unidentified tern, "UNAL" for unidentified alcid or "UNSH" for unidentified shearwater. It is possible, for example, that the majority of Roseate Terns observed during the entire 35 year period covered by the database were entered originally in the field as "UNTE", because the Roseates were in mixed flocks with Common Terns and perhaps some Arctics. In one sense there is no way we can know how many of these were Roseates, but there are many ways to estimate this quantity based on other data sources. We recommend this be done so that distributional models accurately reflect the entire content of the data on these birds collected at sea.

Were planned goals/objectives achieved last quarter?

Yes.

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

We scanned through the entire database manually, looking for mistaken species codes

within the species fields. Such would jump out fairly clearly as the database is sorted alphabetically. We selected what we thought would be the most likely sources of confusion to begin with – the terns mentioned above, Razorbills (for which we expected confusion in the pre-1990 data, which we did not find) and some unidentified groups (“UNTE”, “UNSH”, “UNAL”). For the unidentified groups, we did not make a suggestion in the database, because interpretation will have to be done in collaboration with modelers later, but it is our plan to consult on this issue. For other ambiguities, especially the Royal/Roseate Tern pair, we have made suggested changes with the column allocated for this purpose and returned the annotated database to Andrew Gilbert, Mark Wimer and Allison Sussman.

We reviewed the entire database and made suggested changes in a file sent to USGS personnel. We feel that the database is “clean” and free of errors. We recommend that all analyses be checked with knowledgeable seabird ecologist for inclusion of unidentified birds and for checking of potential “hotspots” that appear in modeled data.

The USGS database is a remarkable achievement, especially considering the disparate sources of information contained in it. There are still some issues of interpretation of the data, but we believe there are no further mistakes within the four letter species codes.

We recommend that models of abundance make use of the birds listed as “unidentified” to species, with perhaps 2-3 different versions of output, with, respectively, all unidentifieds included, all excluded, and some fraction included. The fraction to include can be determined through examination of other sources of data (e.g. Nisbet et al. 2013, state bird books, the journal *North American Birds*).

Difficulties Encountered:

None.

Activities Anticipated Next Quarter:

Project is completed

Expected End Date:

Costs:

Total life to date expenses (include this quarter): \$10,000.00

Total Approved Budgeted Funds: \$10,000.00

Are you within the approved budget plan and categories? Yes.

Signature: 

Date: 1 October 2013