

9-20-2016

Timber Management that Enhances Avian Diversity Without Detriment to Forest-Interior Species

Len Rietsma
Plymouth State University

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Recommended Citation

Rietsma, Len, "Timber Management that Enhances Avian Diversity Without Detriment to Forest-Interior Species" (2016). *Clusters*. 207.
<http://digitalcommons.plymouth.edu/plymouthclusters/207>

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PSU Non-IC-Funded Project Profile Form

The intent of this form is to capture project information for both active and proposed projects associated with an Integrated Cluster (IC) which **do not require specific IC funding**.

Note that PSU has created a separate process for funding Integrated Cluster projects. For additional information on that process and the associated forms, review the collateral posted on the PSU site: <https://www.plymouth.edu/clusters/project-proposal-submission/>

Instructions for the PSU Non-IC-Funded Project Profile Form:

- ✓ Download this form to your computer

- ✓ Complete the form and save it on your computer; include the title of your project in the file name

- ✓ Forward the file via email to the IC Project Manager, Ross Humer at rhumer@plymouth.edu

- ✓ Project Profile will then be logged & forwarded to the appropriate IC Guide Team(s)

Instructions for the PSU Non-IC-Funded Project Profile Form: Please complete all of the elements of the following form in the spaces provided before saving and then submitting the document.

PSU Integrated Cluster Project Proposal Form

Title: Timber management that enhances avian diversity without detriment to forest-interior species

Project Status:

This is an active project which began: 5/30/2011

This is a proposed project which is expected to begin:

Project Leadership: (Identify Project Director/Manager or Co-Manager(s) Len Reitsma

Project Description: I own an American Tree Farm with an active timber management plan. In Spring 2011, I began to do annual censuses of breeding birds in this forest and then laid out a harvest that resulted in 15 patch cuts from 1/3 of an acre to a full acre. In 2012 and 2013, a PSU grad student in the MS in Biology program under my advising did a two-year study that examined the impact of this harvest on three exemplary forest-interior species (hermit thrush, ovenbird and black-throated blue warbler) and also on the avian species diversity. Since the harvest in March of 2012, the bird community has been constantly censused at 30 point counts 150 meters apart. The results of our findings were consistent with what we had hoped: the small size of the patch cuts did not affect the three mature-forest species but did cause the average diversity per point count to increase by 5 species and this increase has persisted since the harvest. This approach has gained traction with the UNH Cooperative Extension Service and forestry workshops have been conducted (by me) on the tree farm every year since harvest. This results were just presented in a paper at the recent North American Ornithological Congress VI in Washington, DC in August, 2016.

Project Goals and Outcomes:

- 1. Project Goals – Briefly identify and describe the objectives of this project** Execute a timber harvest that would increase species diversity without negatively affecting mature forest birds
- 2. Student Learning Outcomes – Outline the expected student learning outcomes** one graduate student has completed data collection and most analyses to complete the MS in Biology program and one undergraduate student was a field technician on the project in 2013 and has since gotten a job in a bird lab at UNH working on the endangered saltmarsh sparrow

Rationale and Impact:

Considering the questions below, please write your project rationale and impact statement.

Include how this project will further the Mission and Vision of PSU with respect to 1) fostering collaboration across disciplines; 2) addressing a relevant societal issue, and 3) establishing

relationships with community partners, external institutions, companies, non-profits, schools, government agencies, etc. and 4). Making an impact

How does this proposed project advance the Integrated Cluster mission and vision? How does this project facilitate high impact teaching and learning, cross disciplinary collaboration, student engagement and partnership involvement, and real world problem exploration? What are the anticipated impacts of this project?

Is this project an extension of work already in progress, or an entirely new endeavor? Does it integrate with areas that team leaders are already teaching or is it an opportunity to delve into unfamiliar content or a bit of both?

Project Rationale and Impact Statement: PSU is within the North Country and timber is one of the largest industries in this part of the state. Having PSU faculty actively engaged with students in best practices research for this industry demonstrates the willingness of the institution to take the lead on cutting-edge research that informs the interface between economics and biodiversity. As well, this is an ongoing project that will undoubtedly involve more MS in Biology graduate students and biology undergraduates serving as field technicians and thereby developing the skill-set to branch out into other jobs and opportunities.

Project Team

PSU Project Participants (essential core team participants including faculty and staff)

Name	Position/ Title	Project Role	Discipline/ Specialty	Email
Len Reitsma	Professor of Ecology	PI	Avian ecology	leonr@plymouth.edu

Non-PSU Project Participants (stakeholders; partners; academic institution; etc.)

Name	Organization	Project Role	Discipline/ Specialty	Email
Matt Tarr	UNH Coop Extension	collaborator	Avian ecology and forestry	

Student Participant Profile (Identify the student population(s) to be engaged in the project. Identify if this has been or is planned to be incorporated into curricula)

Class/ Student Organization/ Individuals	Role in Project	Academic Level (Undergraduate or Graduate)	Academic Discipline	Total Student Population
Graham Bassett	Graduate student	graduate	biology	2

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If this is planned to be incorporated into curricula, provide a description: I share the findings of this study in Ecology, Conservation, Ornithology and Vertebrate Zoology and it comes up in class discussions in Current Env'tl Issues.

Project Funding

- This project requires no funding (*skip to IRB Compliance*)
- This project has/requires funding from other sources than the IC budget (*complete the following*)

Cost Category	Requested funds
SOURCES OF FUNDS	
o Grants	
o External Partners	
o Other	
<i>Total: Sources of Funding</i>	\$ -

Describe the status of funding requests or approvals: **Will get more funds as needed. These cells did not fill without major difficulty and they did not save when I entered values.**

Note that any projects requiring grant funding will need to comply with the RAC process. **But only if the PI is seeking RAC funding.**

IRB (Institutional Review Board) Compliance

IRB Compliance: <http://www.plymouth.edu/office/institutional-review-board/>

- This project DOES NOT require IRB compliance
- This project DOES require IRB compliance (*complete below*)

IRB Approval Status:

IRB Approval Date:

Project Management: Timeline and Milestones

Identify the timeline for the project including start, completion, and major project milestones. A closing report will be required as a part of the project funding process.

Project Start Date: 5/30/2011

Project Complete Date: 8/31/2022

Project Milestone	Milestone Description	Target Completion Date
Report to scientific community 1	Regional wildlife conference in Boston area	April 2013
Showcase of Excellence	PSU venue	April 2014
Report to scientific community 2	Joint meeting of Wilson Ornithological Society and American Field Ornithologists Salve Regina University, Newport RI	8/1/2014
Report to scientific community 3	North American Ornithological Congress VI Washington DC, August 2016	8/16/2020
Manuscript submission	TBD	

Please identify any pre-project education or training for students, faculty, and staff that would be helpful for your project team to have in advance to begin work on a strong footing (e.g., skill training, concepts), and identify any training and education that you are willing to help provide during the preparatory period for the project team before team work formally begins.

Student Education/ Training Requirements: NA