BIRD SPECIES DIVERSITY AT LONG TERM FOREST RESTORATION PLOTS IN NORTHERN THAILAND

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INTRODUCTION

Chiang Mai University's Forest Restoration Research Unit (FORRU-CMU) had applied the Framework Species Method in Northern Thailand for over 30 years. Birds served as key mobile links for seed dispersal and pest control, but the timeframes and requirements for habitat-specialist birds to return to restored forests had remained unclear. Bird surveys were conducted in restoration plots at Ban Mae Sa Mai, Doi Suthep–Pui National Park, and were compared among different restored plots, a control plot, and nearby natural forest.

OBJECTIVES

- ·To determine the effectiveness of Framework Species Method (FSM) in bringing back bird species diversity by direct observation
- ·To assess the ecological roles of birds in the trophic levels and seeing how it can be related into diversity

METHODOLOGY

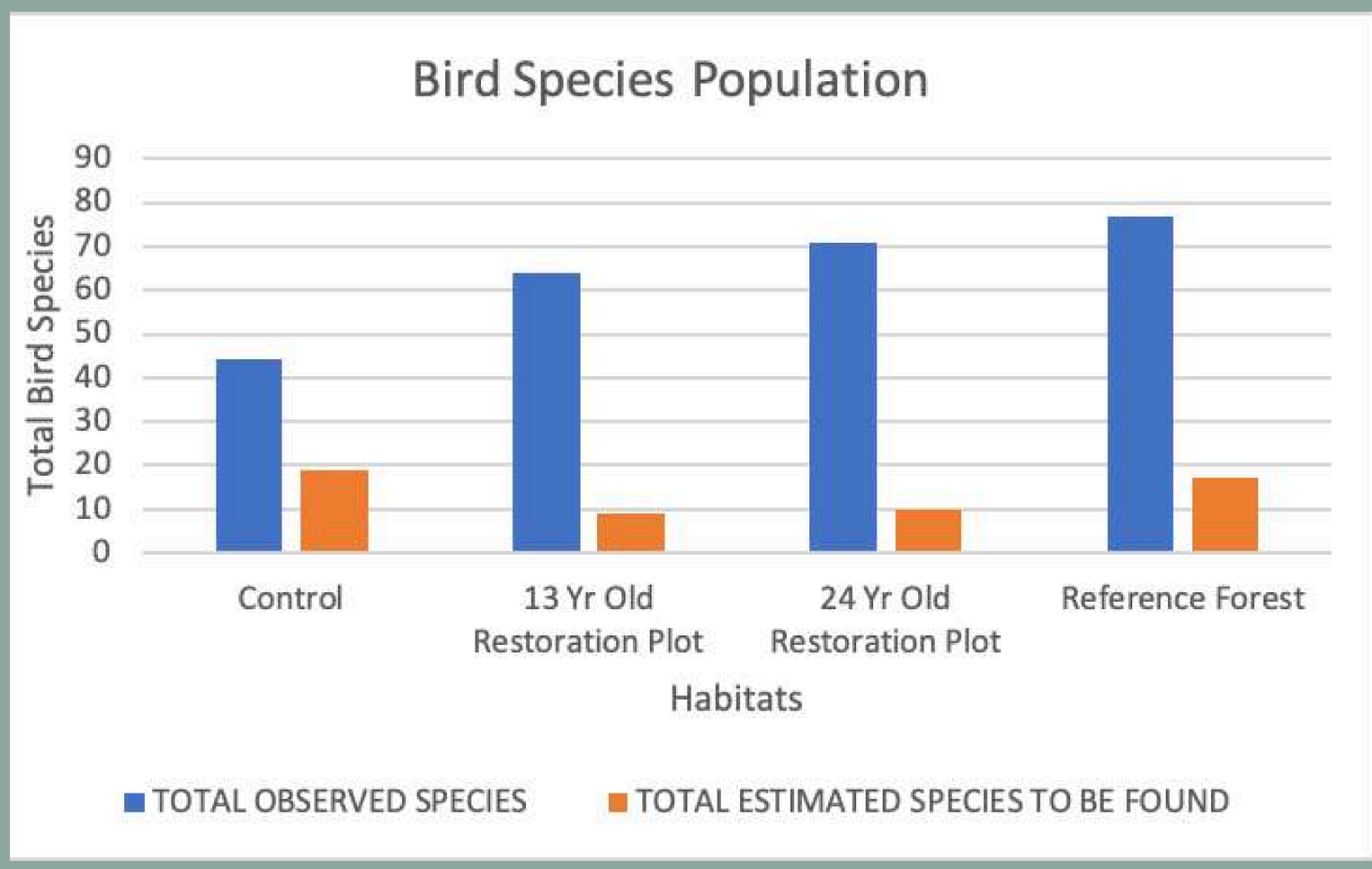


Bird watching was conducted 4 times for 3 hours before sunset and 3 hours after sunrise from May to November 2024 along with the time of observation, using the transect survey method. Data analysis using Mackinnon bird species list method, Sorensen Index, Mann-Whitney U Test, Bird diet types



Blue Pitta @12-13 Y Old(didn't record during observation)

RESULTS AND DISCUSSION



- A total of 147 bird species (including unidentified 17 species) was observed.
- Bird species recorded in all four habitats – 12 species
- Species unique to each habitats – 17 in Control plot, 15 in 12-13 Y Old, 20 in 24 Y-Old, 32 for Reference Forest



Sooty-headed Bulbul (recorded in all habitats)



4 Mrs. Hume's Pheasant and 1 Silver Pheasant @24 Y Old Plot (didn't record during observation)

- Forest restoration increased the species richness of birds at the landscape level.
- For forest restoration, frugivorous and omnivorous birds are most important because they can disperse seeds into the restored areas. Bulbuls were probably the most important group of birds because they were represented by many species (13) and occurred at high population densities.
- This study showed that restoration by planting framework tree species increased bird species richness at the landscape level, and attracted several bird species which could disperse seeds into planted area and help accelerate forest regeneration.

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