


Mowing Cattail Cover to Increase Aquatic Vegetation Diversity on the Coeur D'Alene River Floodplain in Cataldo, Idaho

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Mowing Cattail Cover to Increase Aquatic Vegetation Diversity on the Coeur D'Alene River Floodplain in Cataldo, Idaho

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Mentor: Rebecca Brown

Introduction

Typha latifolia is a native species of cattail found in wetlands across North America. It form dense monocultures, outcompeting other aquatic plants (Bansal *et al* 2019, Hellsten *et al* 1997, Hood 2013, Lishawa *et al* 2019, Molnár *et al* 2019).

Objectives

Our objectives are to test whether aquatic boat mowing can reduce cattail cover, improving species diversity and cover of submerged aquatic vegetation beyond one year. Here, we present baseline data collected in October of 2022. Mowing will take place in Fall of 2023.

Site

Schlepp Easement is a restored wetland located in the CDA River Floodplain near Cataldo, Idaho. The site has been restored to protect it from heavy metal pollution from mining sites near Kellogg, Idaho, where the Bunker Hill EPA Superfund Site is located.



Figure 1: Map of the Schlepp Easement, with labeled blocks. Lines depict tracked locations of previous mowing in summer 2022.



Typha latifolia outcompetes other aquatic plants, dominating its ecosystem.

Left unchecked, it can **threaten** wetland **biodiversity**.

Here's our solution.

Acknowledgements

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Methods

- Baseline data collected Oct. 2022, experiment will take place in Fall 2023
- Three 400 x 100 m blocks measured, with four mowing treatments (0x, 1x, 2x, 3x) per block.
- 20 m line transect surveys; water depth and aquatic vegetation recorded.
- Block 3 mowed once in 2022; other blocks unmowed prior to experiment

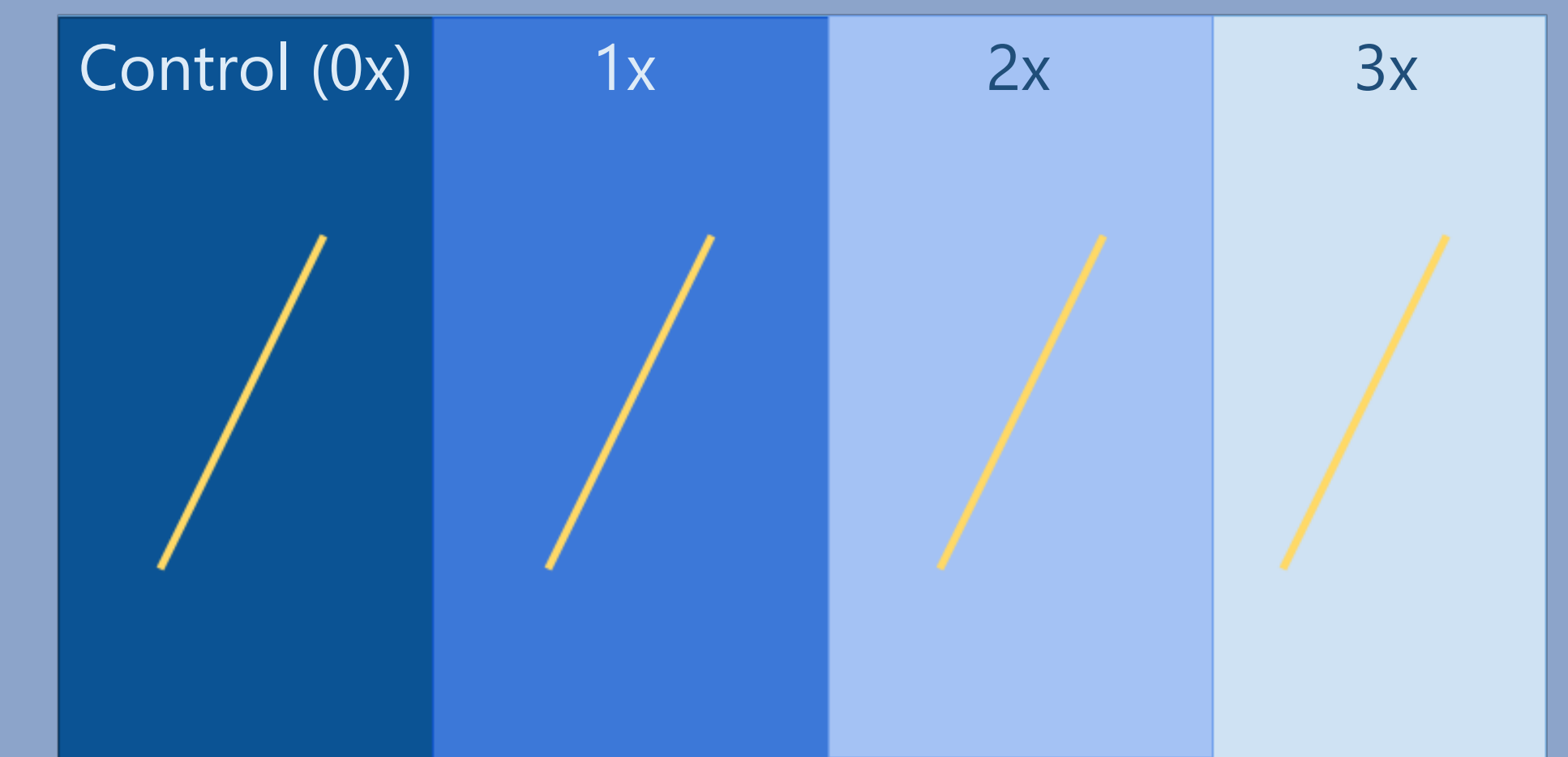


Figure 2. Diagram of a 400 x 100 m block, with labeled mowing treatments. 20 m transects for repeat surveys are marked with a yellow line.

Results

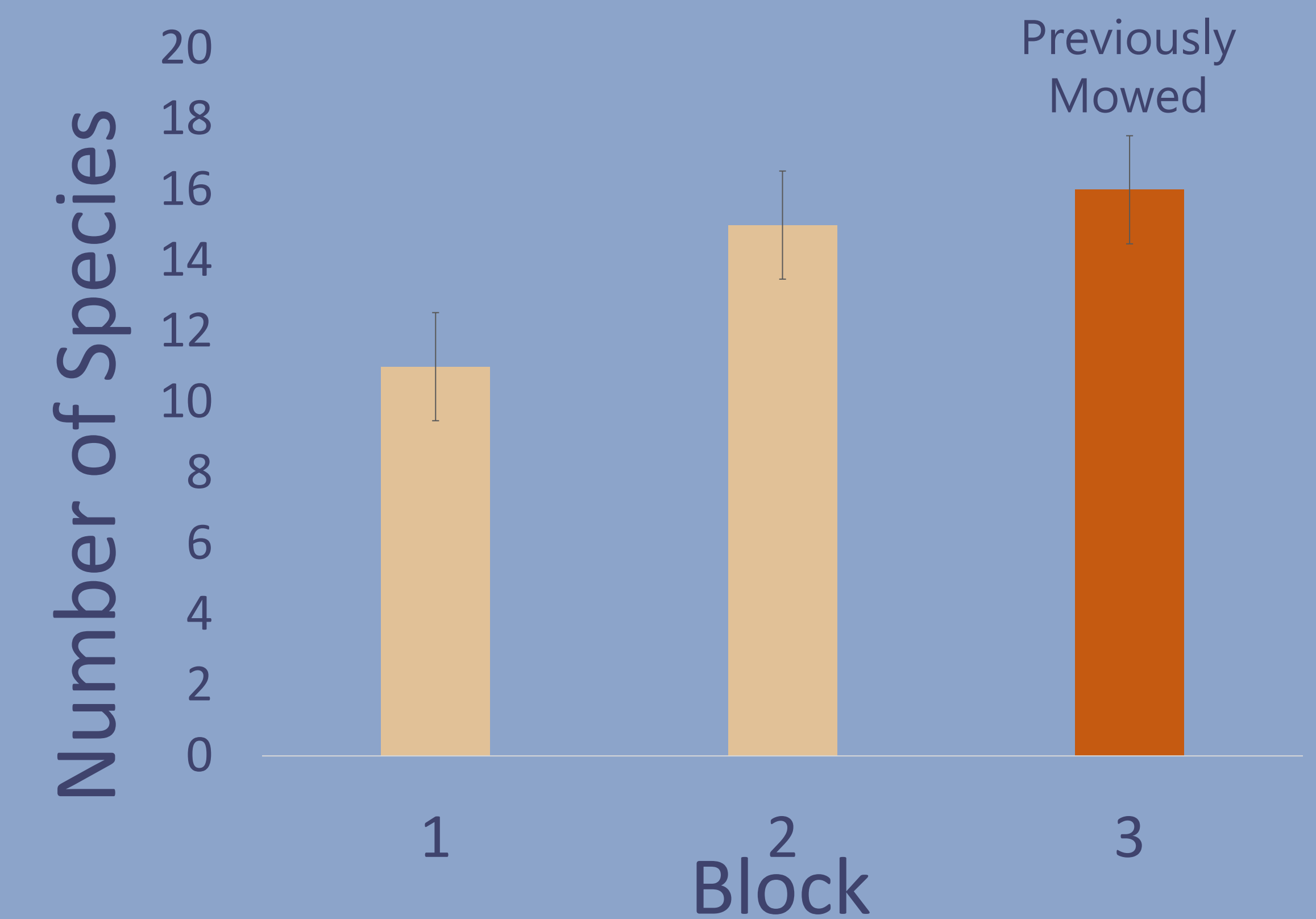


Figure 3: Baseline showing number of plant species per block.

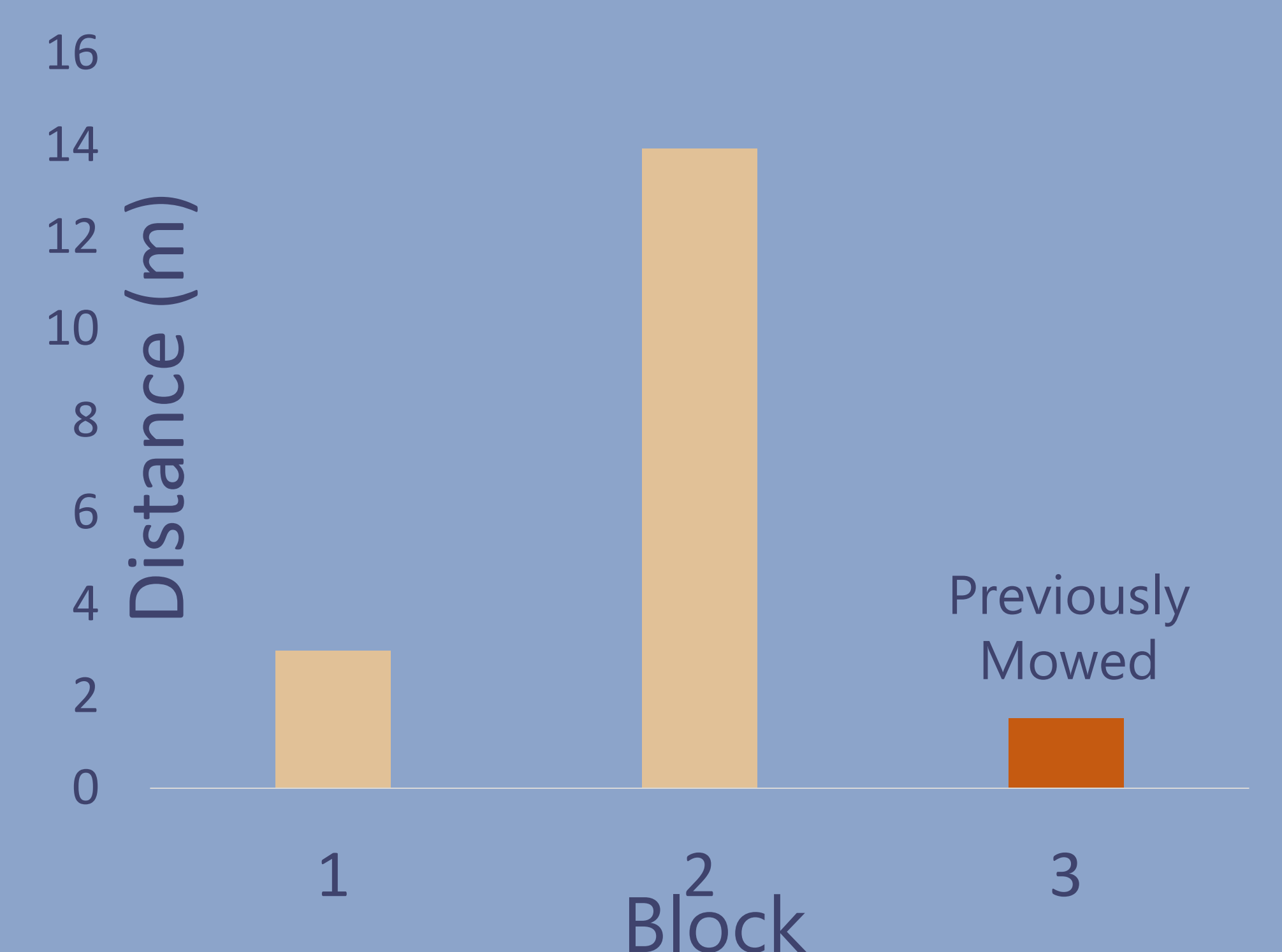


Figure 4: Avg. length of transect covered by *T. latifolia*.