

Stands: Parcel 6 Plot 4 **Growth Dominance Coefficient** Four Phases Location: 43.043926, -76.597426 **Current Stands Condition:** Tree Species Quantity Growth Dominance Coefficient (GDC) is an indicator Phase 1: Null Growth Dominance (Early development) Resource competition is low and total stand growth is proportioncomparing the contribution to the stand growth be-This stand consists of tween larger and smaller trees. Fraxinus ate to its mass. Phase 4 41 trees, among which 27 trees are in fair/good It is defined as positive when larger trees in the stand Phase 2: Positive Growth Dominance Phase 3 Larger trees gain dominance, increase their use of resources, and display proportionally greater growth than smaller growing conditions. Over half of them are Ash trees. trees, and negative when smaller trees display greater suppress the growth of smaller trees. growth than larger trees. The age class of the cur-Phase 3: Null Growth Dominance Phase 1 rent stand is diversified, It can be used to assess the efficacy of thinning treat-Larger trees grow more slowly due to one or more factors. Quercus ments designed to reduce the source competition beranging from 2.4 - 56 years Phase 2 Phase 4: Negative Growth Dominance (Reverse growth dominance) tween trees and promote high levels of productivity. old. According to the Smaller trees contribute more to the total stand growth. Growth Dominance Coef-12.8 y ficient, the stand is in the Total fourth phase -- the reverse growth dominance -small trees--large trees where smaller trees con-Cumulative stem mass (%) tribute more to the total DBH stand growth. neutral Tree Trunk Matrix Cumulative stem mass (%) Phase 1 & 3 Phase 2 Cumulative stem mass (%)

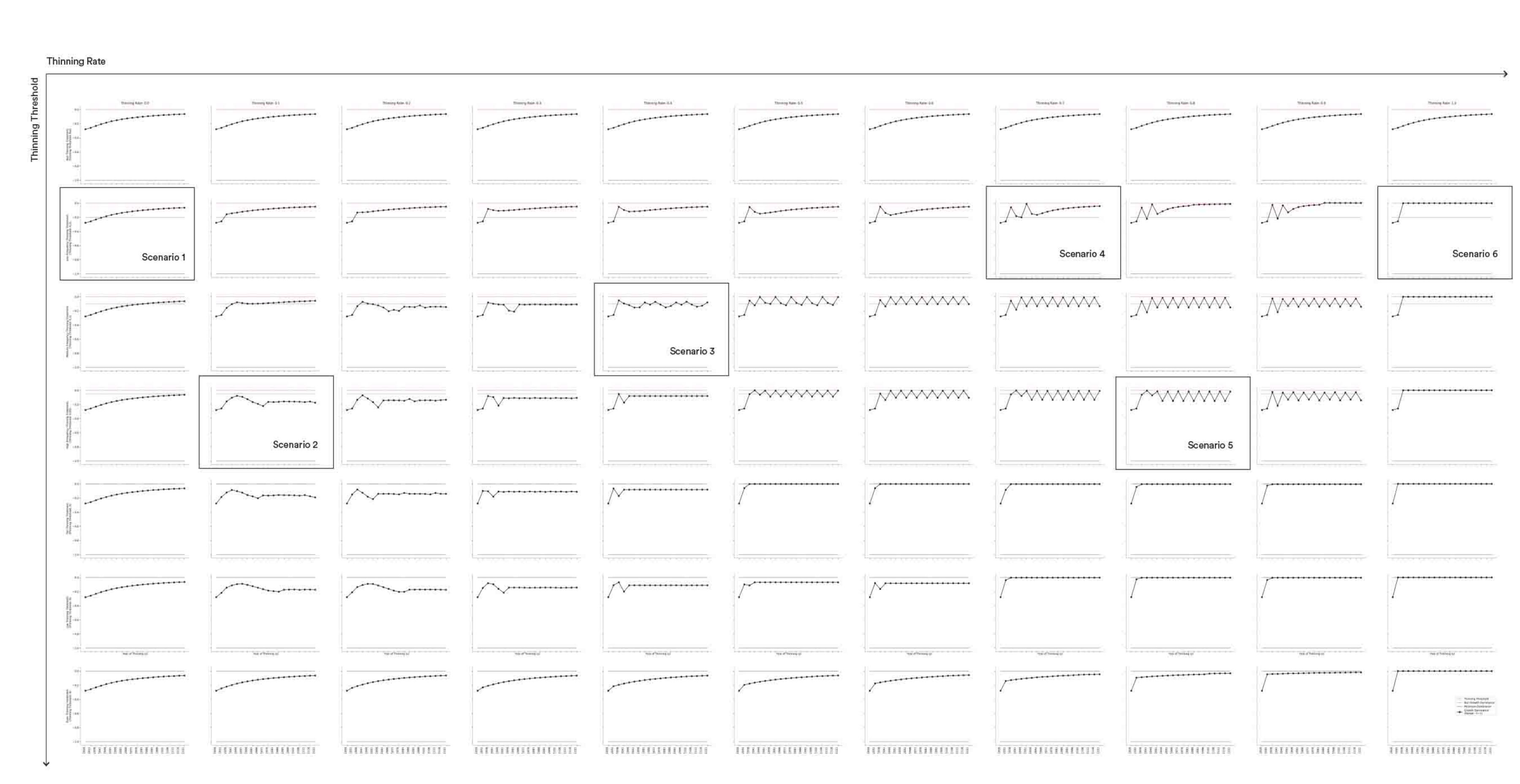
Scenario 1 Stands with no thinning treatments Thinning Rate: 0 Thinning Threshold: 0.2 Scenario 2 Stands with low frequency thinning treatments Thinning Rate: 0.1 Thinnind Threshold: 0.05

Scenario 3
Stands with medium frequency thinning treatments
Thinning Rate: 0.4
Thinnind Threshold: 0.1

Scenario 4
Stands with high frequency thinning treatments
Thinning Rate: 0.7
Thinnind Threshold: 0.2

Scenario 5 Stands with harsh thinning treatments Thinning Rate: 0.8 Thinnind Threshold: 0.05

Scenario 6
Stands with clear-cut thinning treatments
Thinning Rate: 1
Thinnind Threshold: 0.2



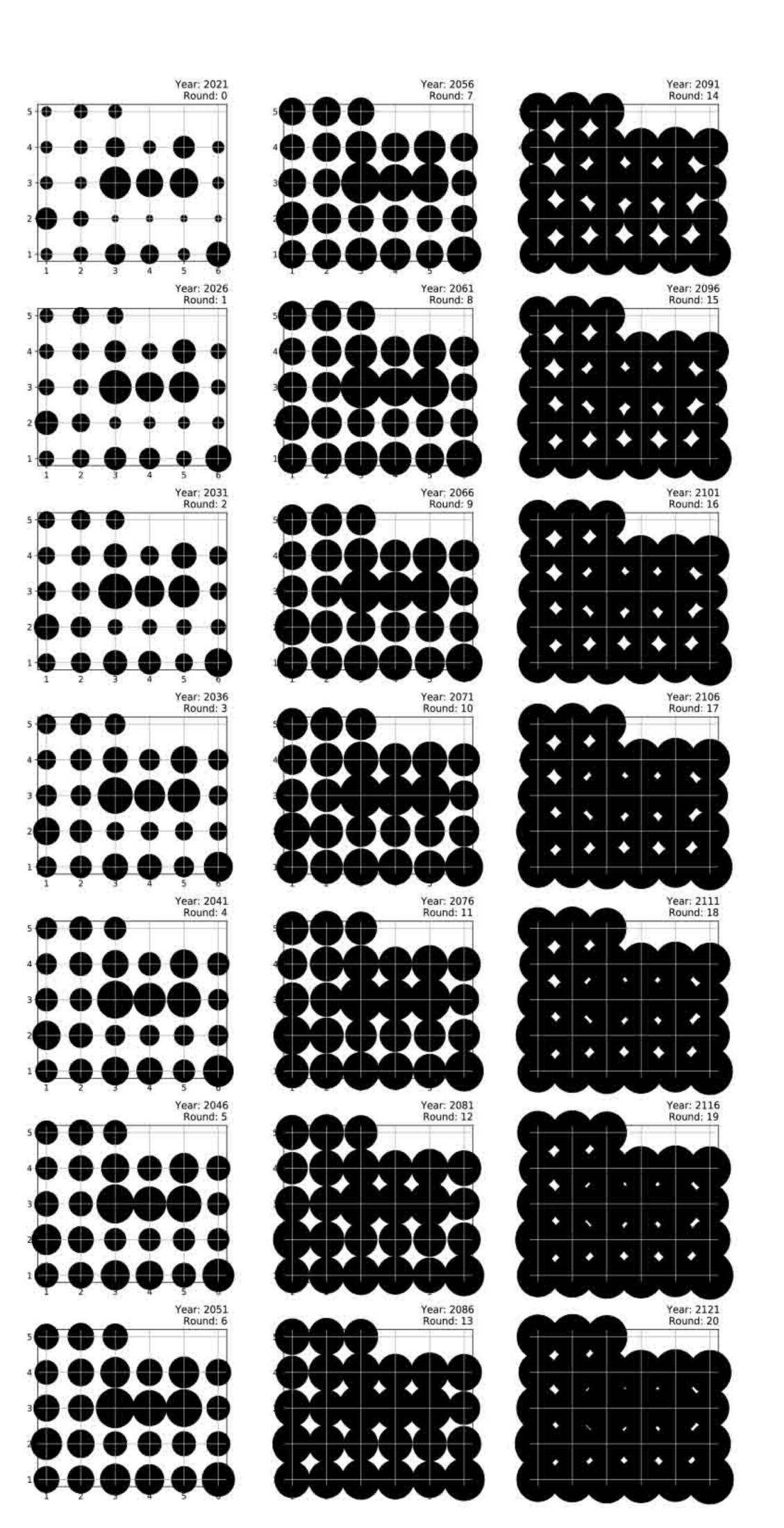
Tree Matrix from 2021 to 2121 (Thinning Rate: 0.1, Thinning Threshold: 0.05)

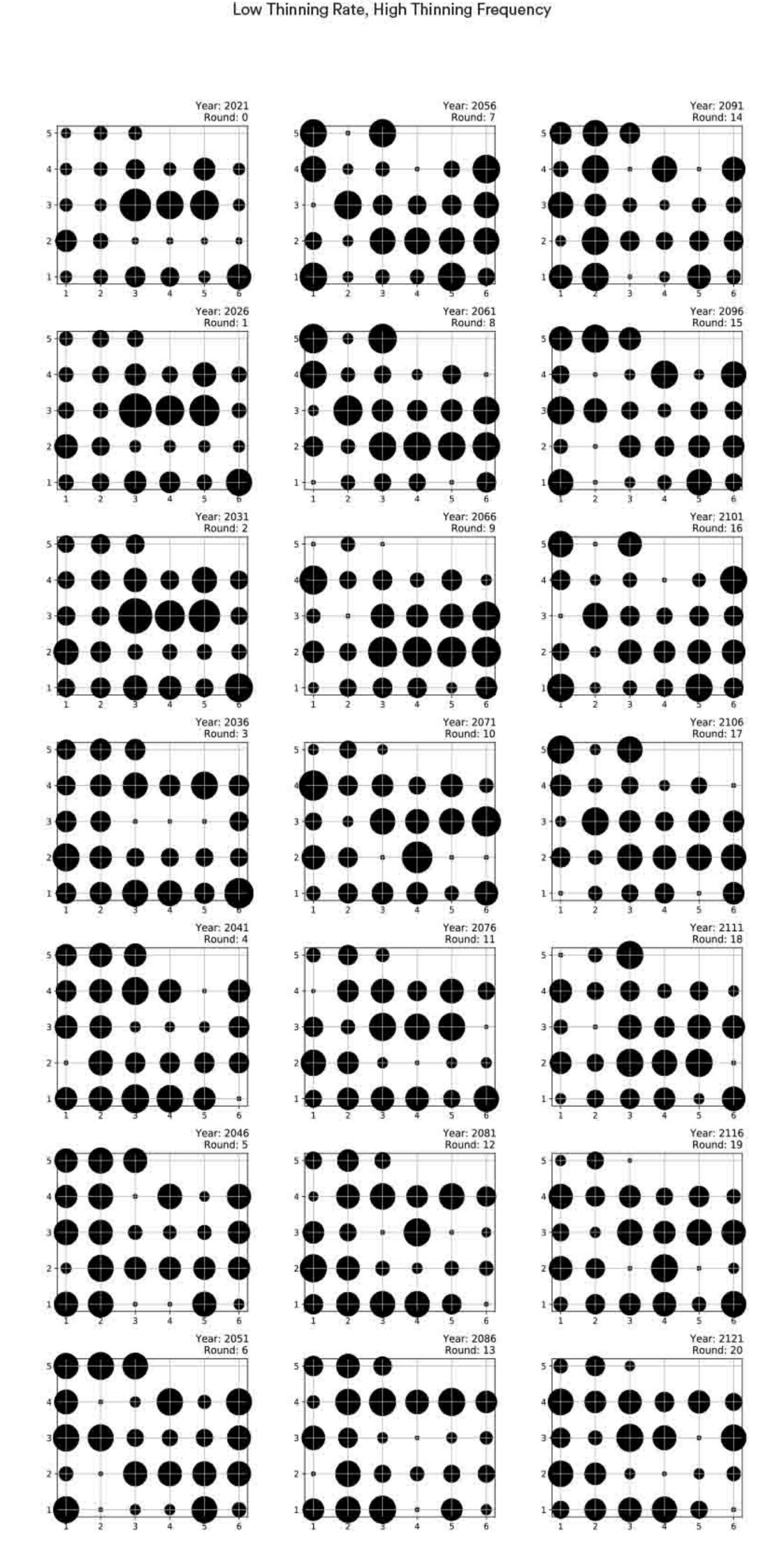
Scenario 2

Tree Matrix from 2021 to 2121 (Thinning Rate: 0.4, Thinning Threshold: 0.1)

Scenario 3 Medium Thinning Rate, Medium Thinning Frequency

Scenario 1 No Human Intervention





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Scenario 4

High Thinning Rate, Low Thinning Frequency

Tree Matrix from 2021 to

Tree Matrix from 2021 to 2121
(Thinning Rate: 0.8, Thinning Threshold: 0.05)

Tree Matrix from 2021 to 2121
(Thinning Rate: 0.8, Thinning Threshold: 0.05)

Scenario 6

Clear Cut

Scenario 5 High Thinning Rate, High Thinning Frequency

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Scenario 1

No Human Intervention

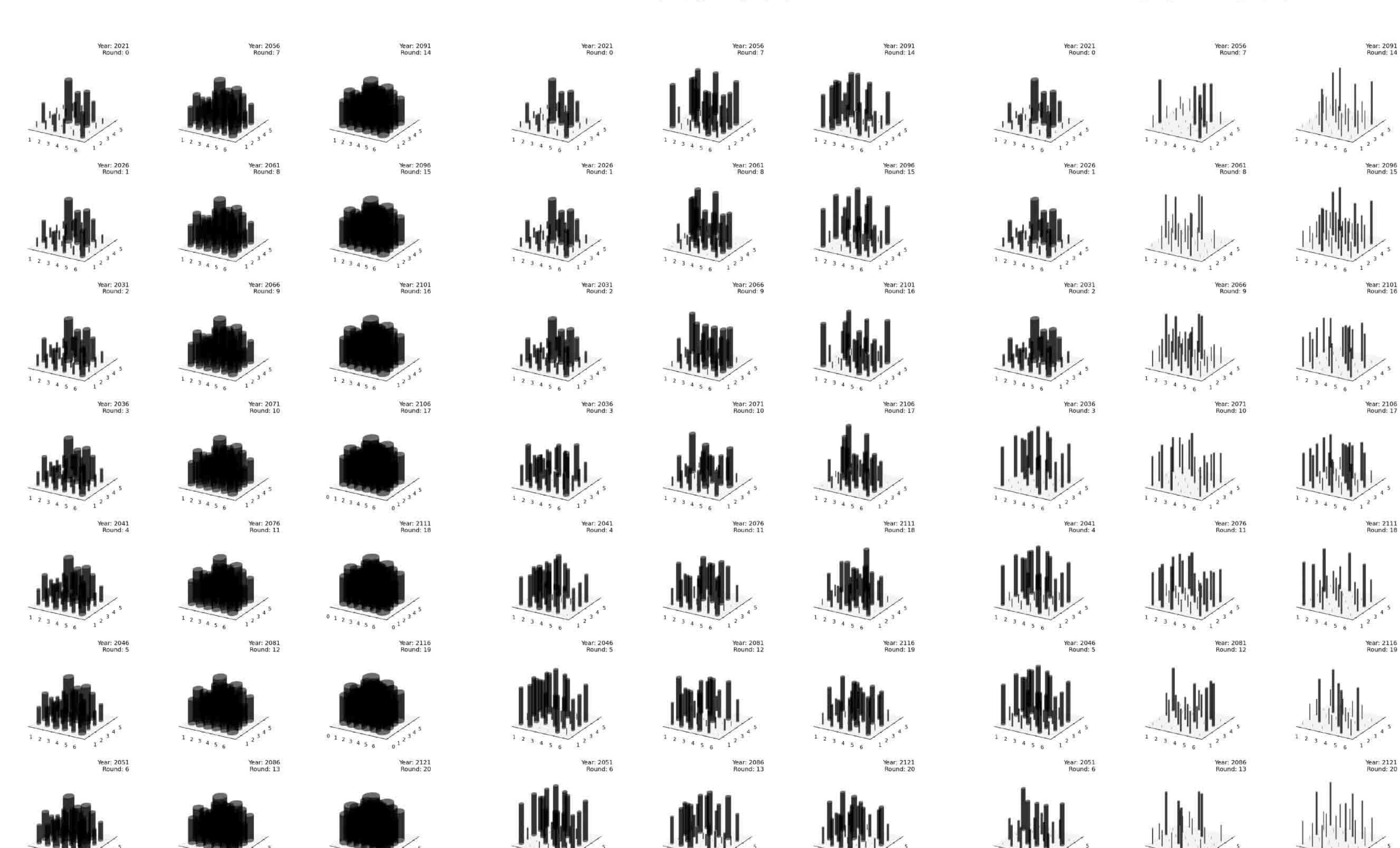
(Thinning Rate: 0.1, Thinning The Shout: 0.05)

Tree Trunks from 2021 to 2121 (Thinning Rate: 0.4, Thinning Threshold: 0.1)

Scenario 3

Medium Thinning Rate, Medium Thinning Frequency

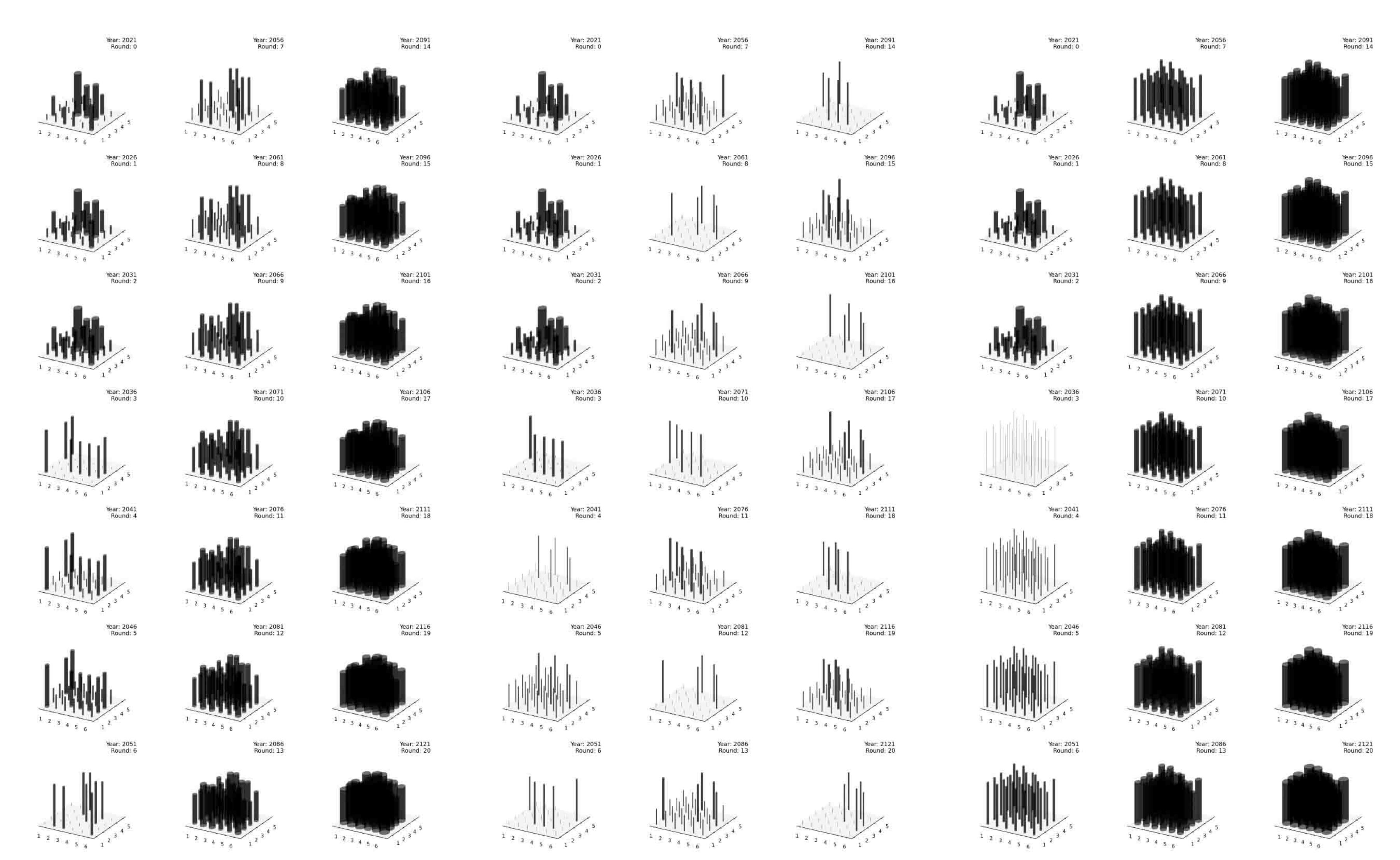
Scenario 2 Low Thinning Rate, High Thinning Frequency

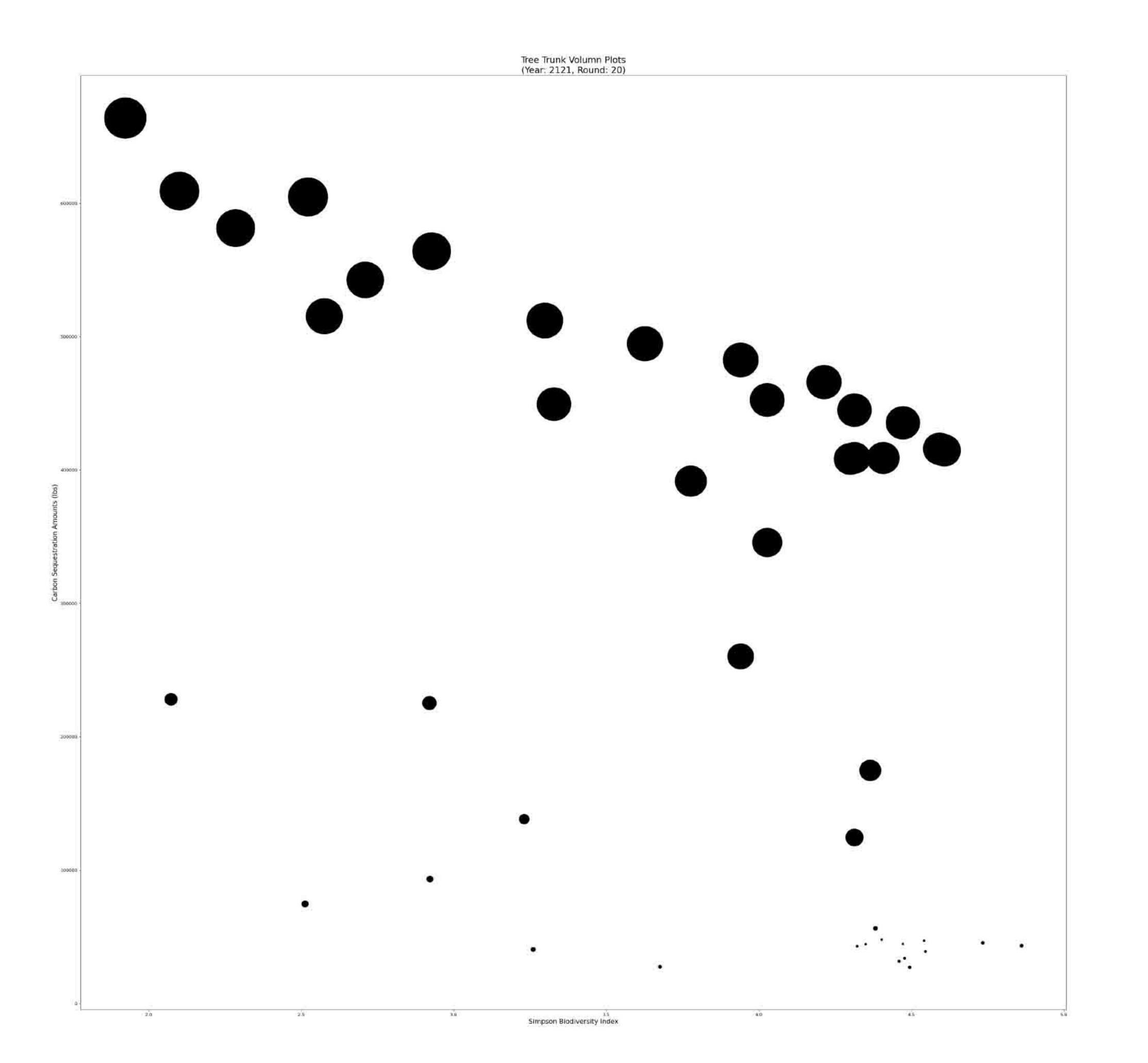


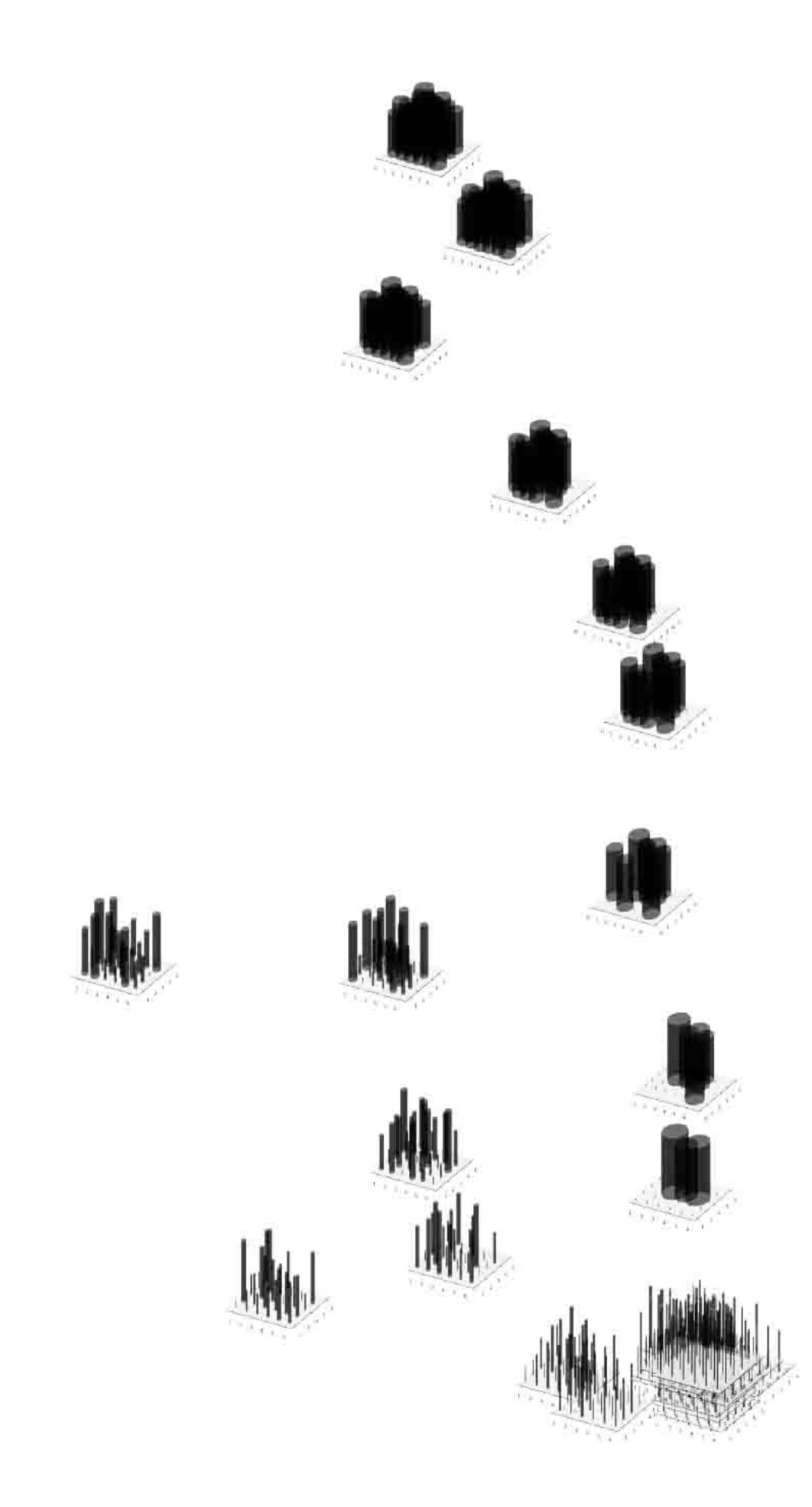
Scenario 4 High Thinning Rate, Low Thinning Frequency

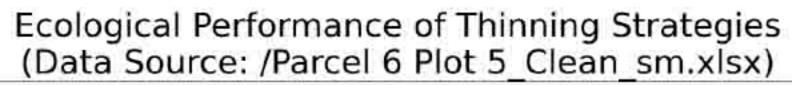
Scenario 5 High Thinning Rate, High Thinning Frequency

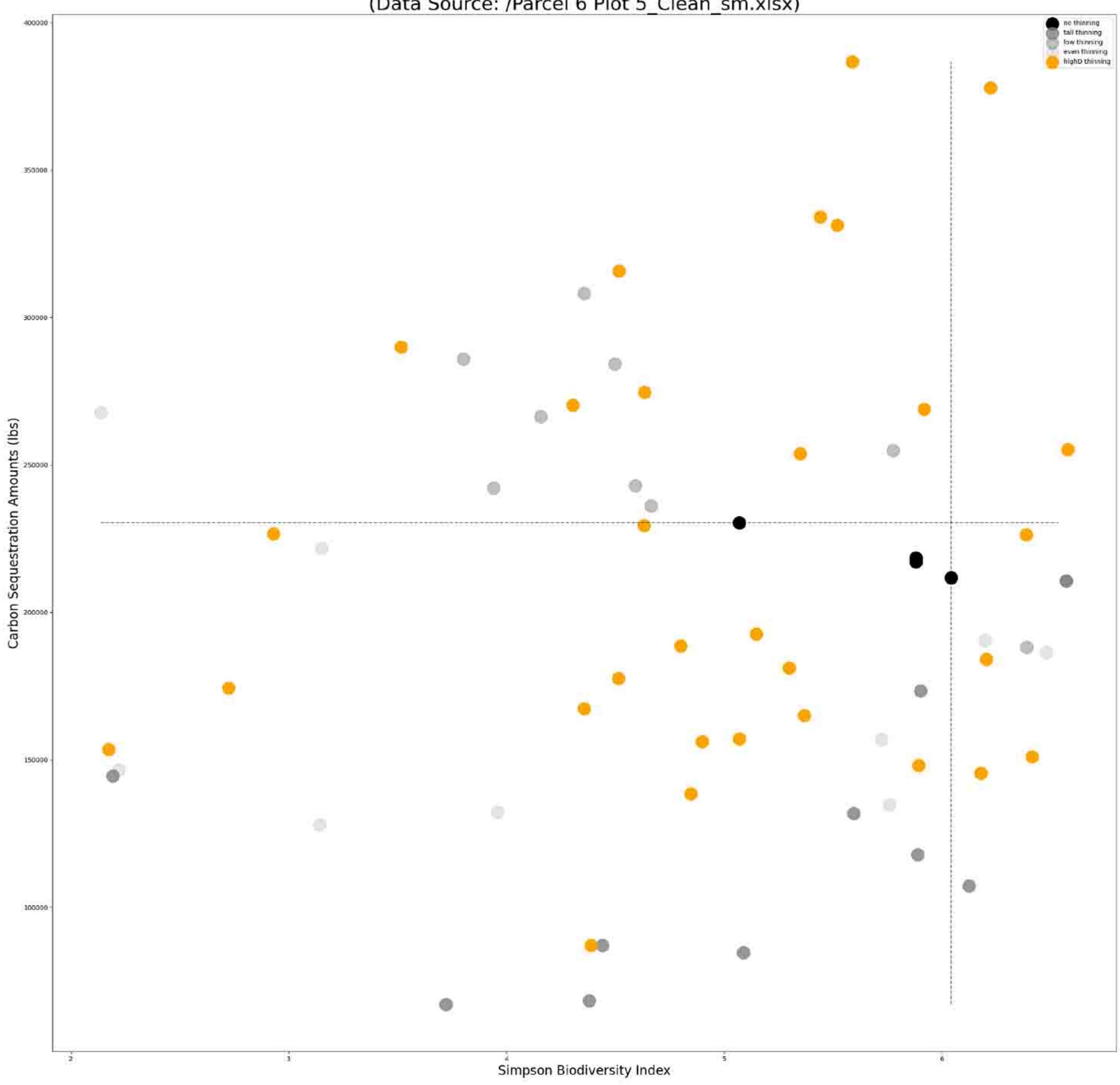
Scenario 6 Clear Cut

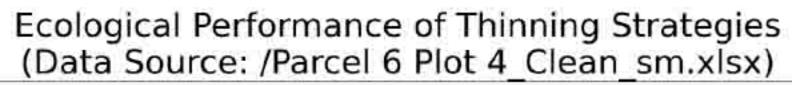


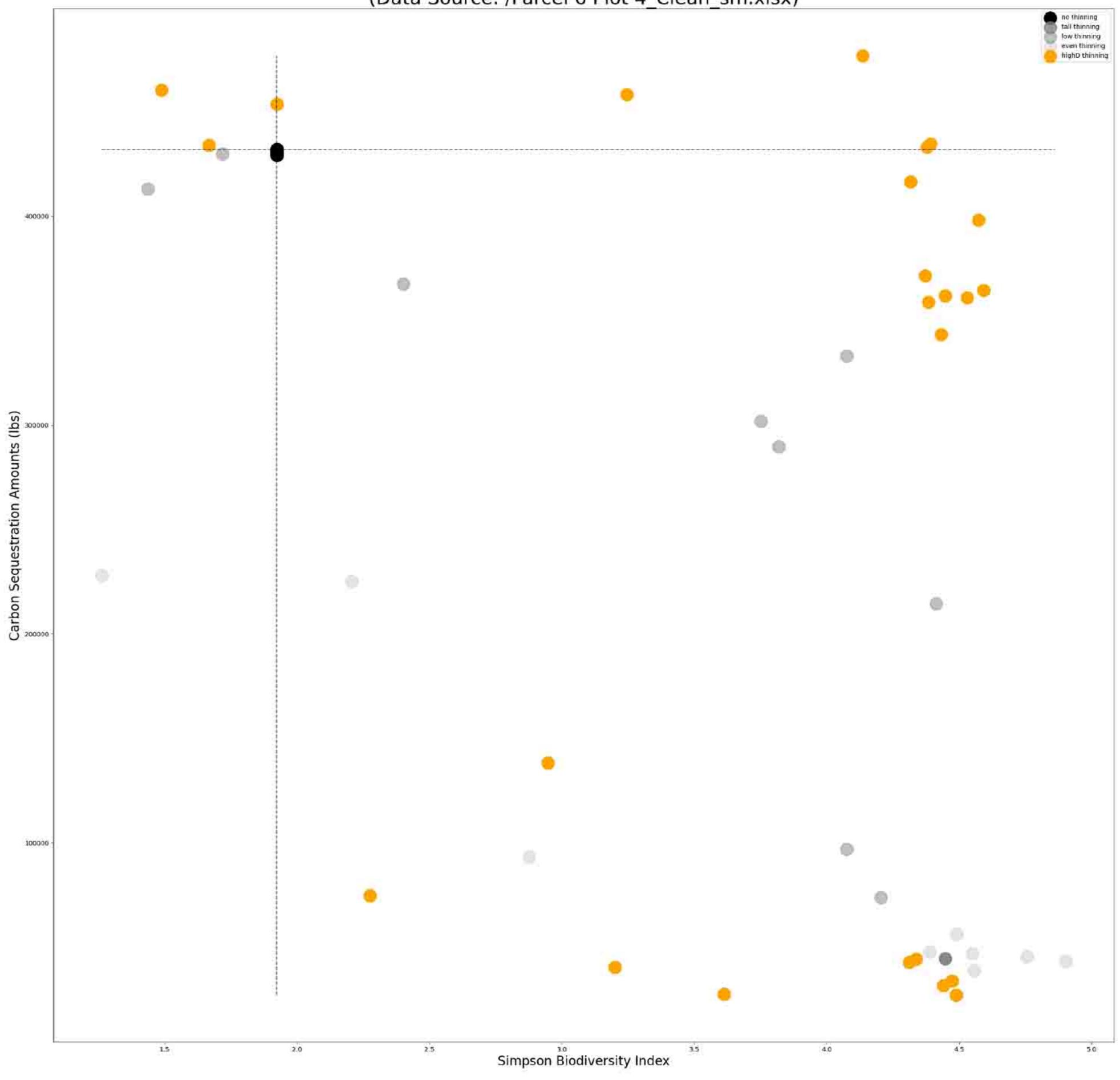


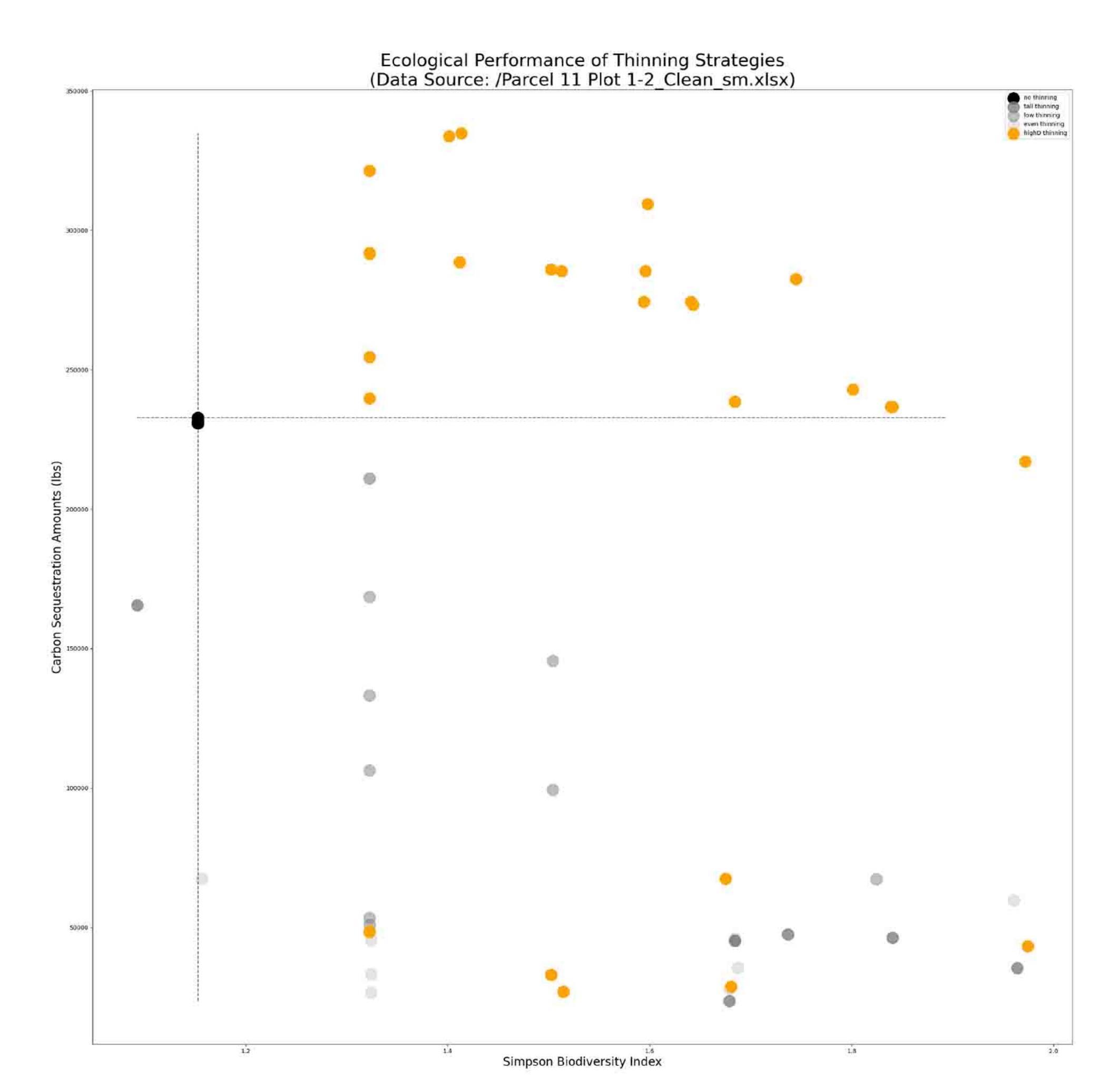


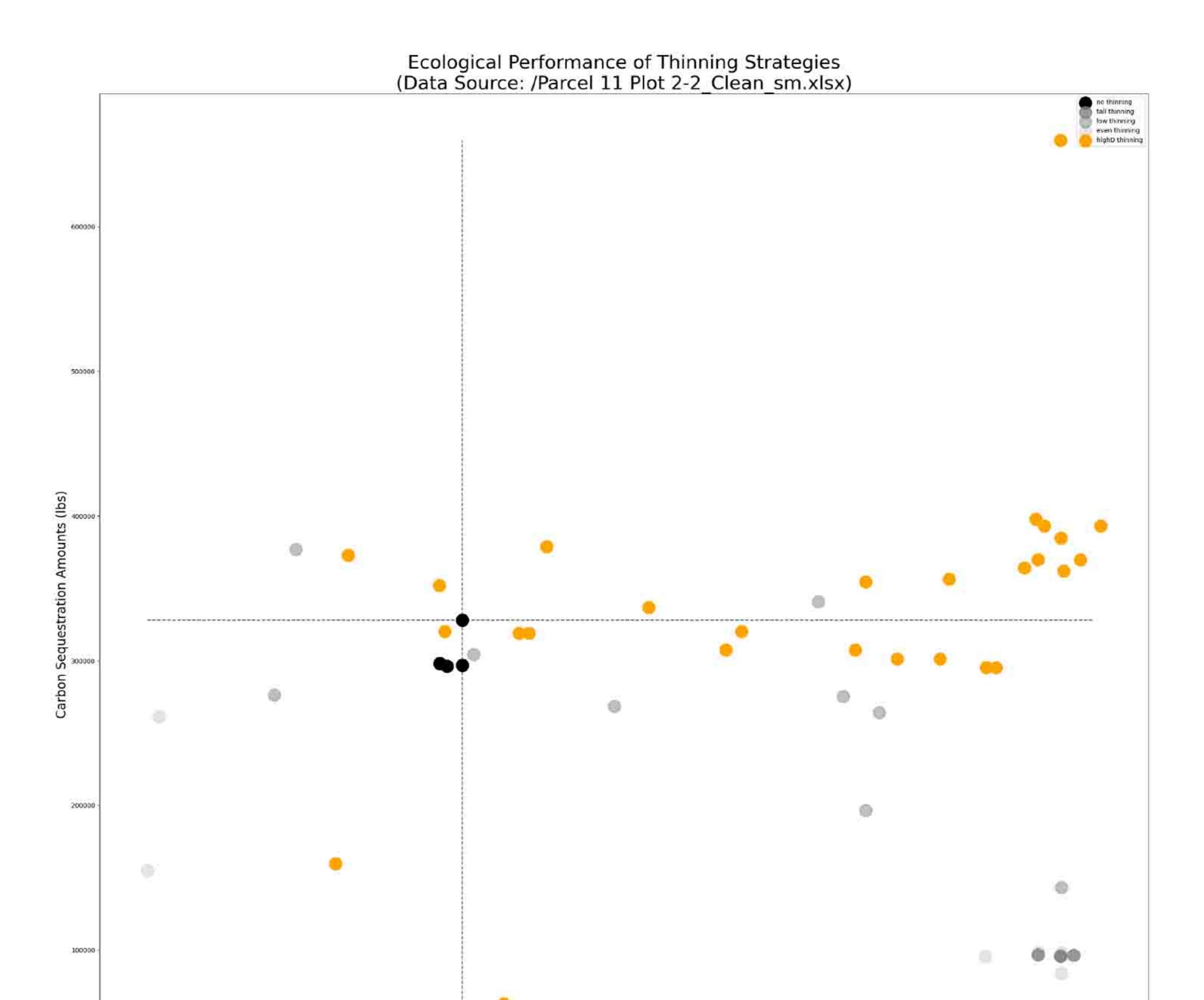




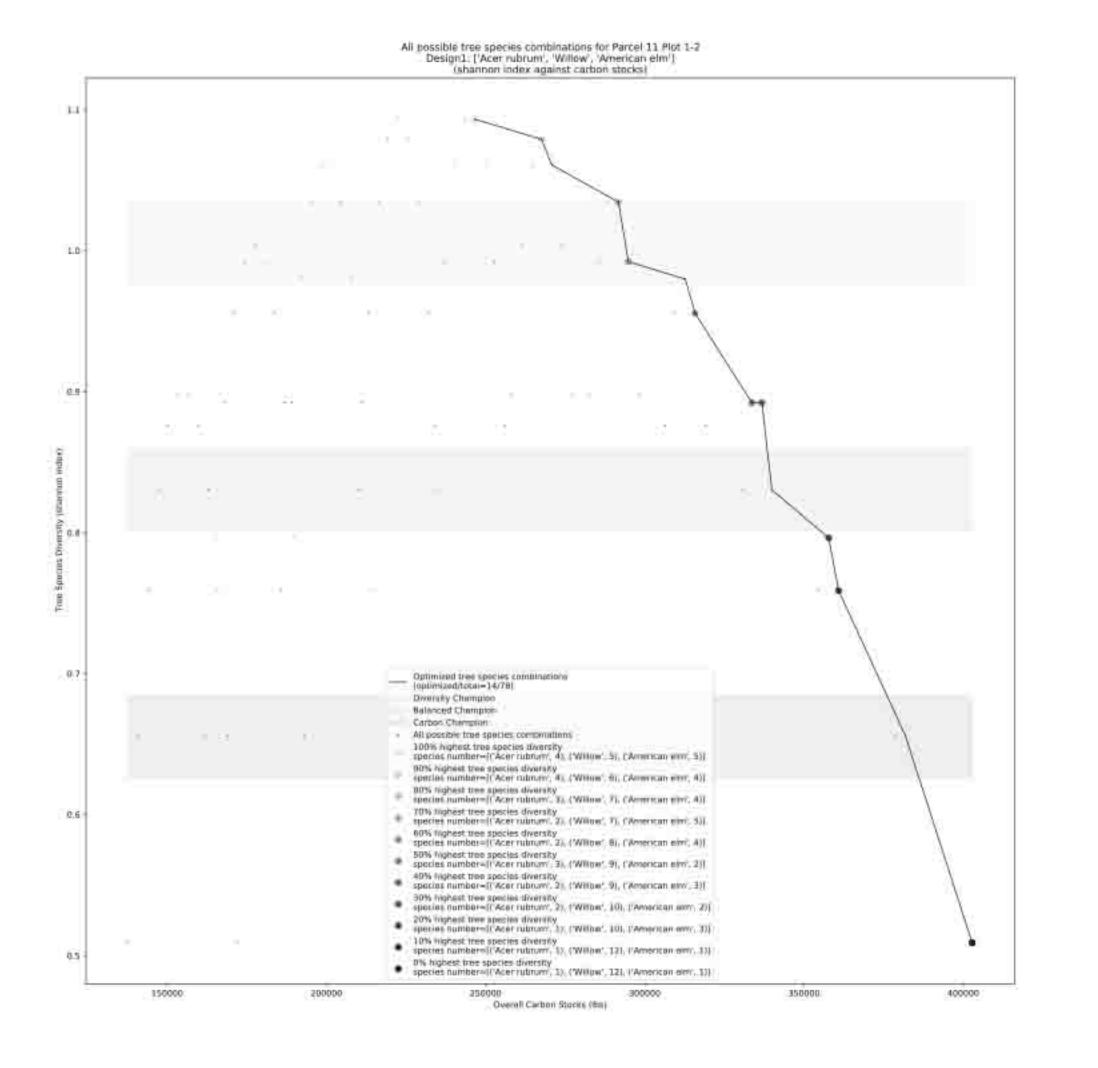


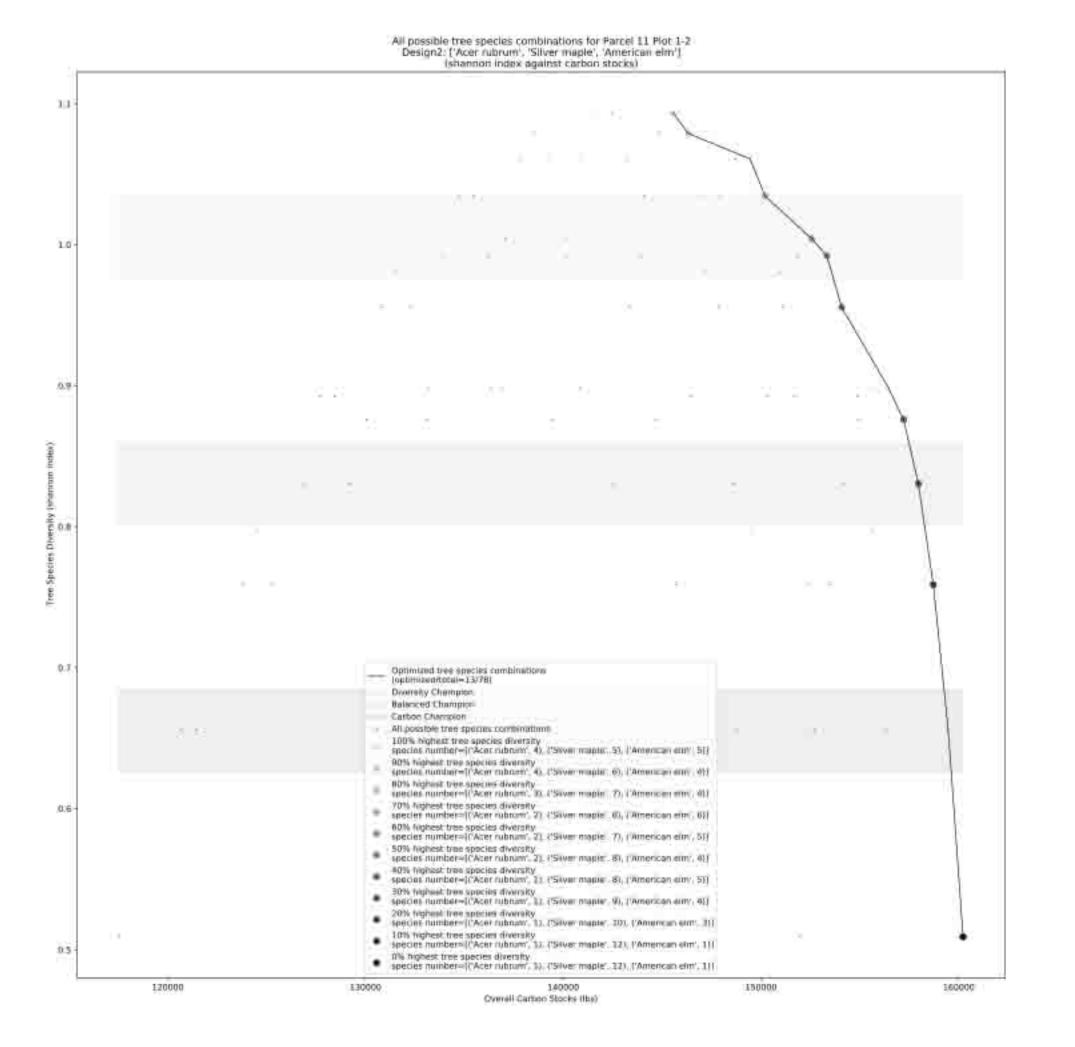


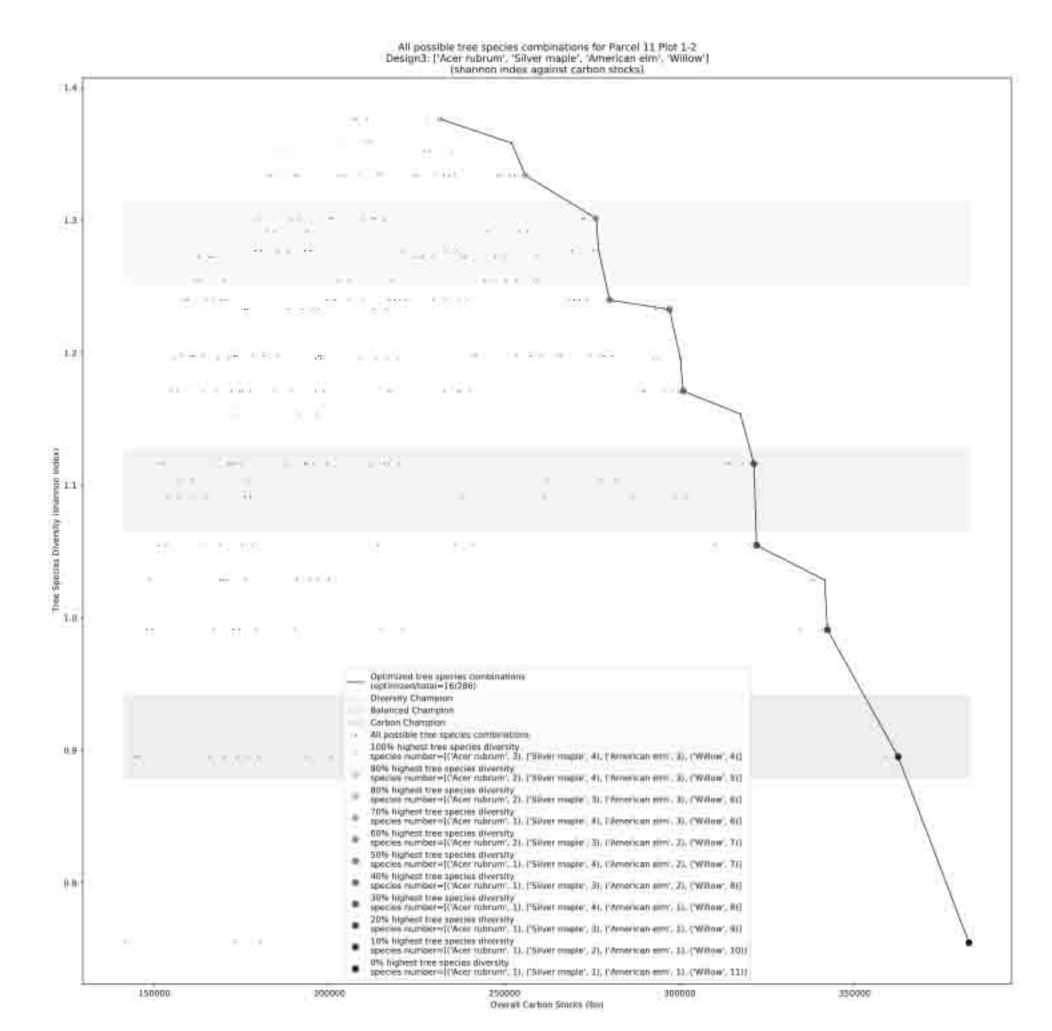


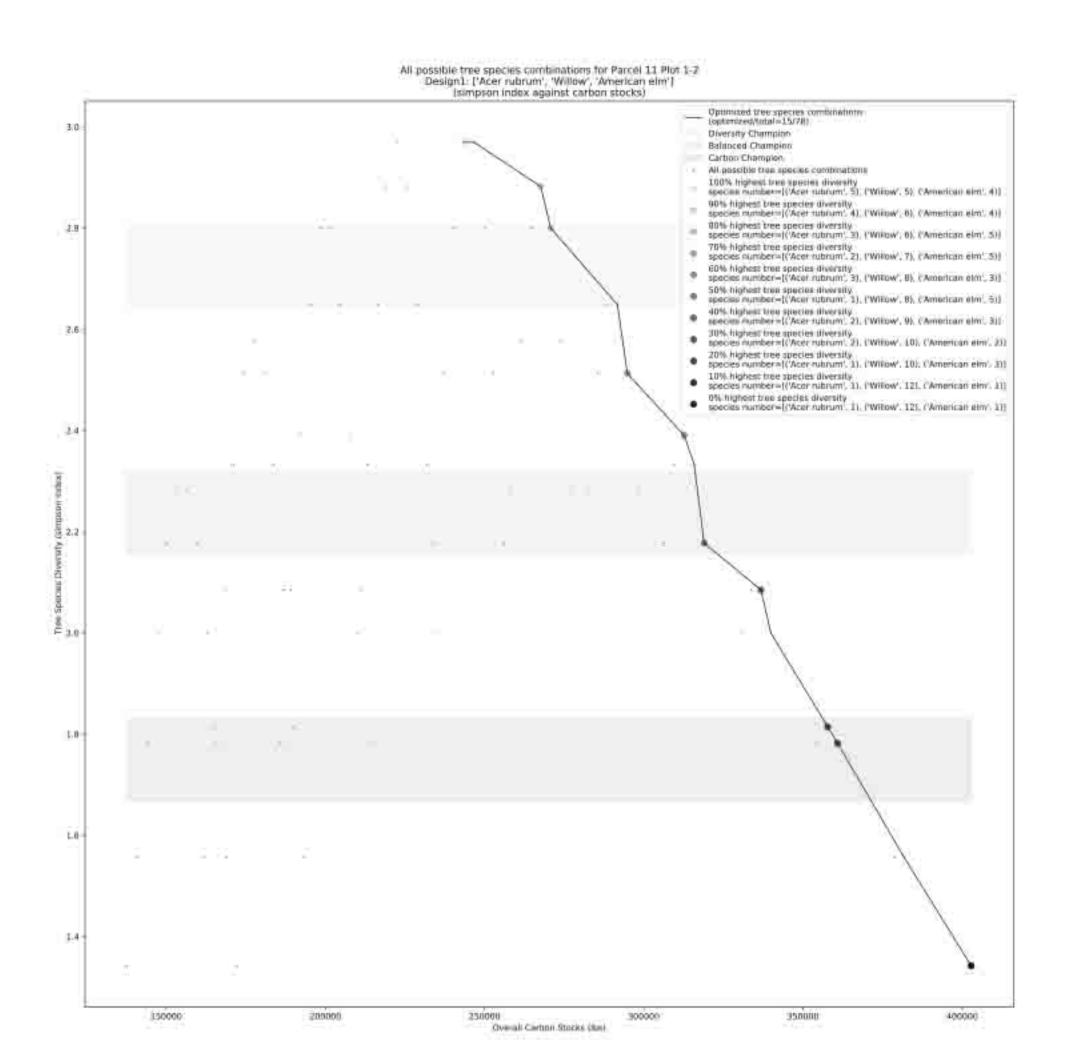


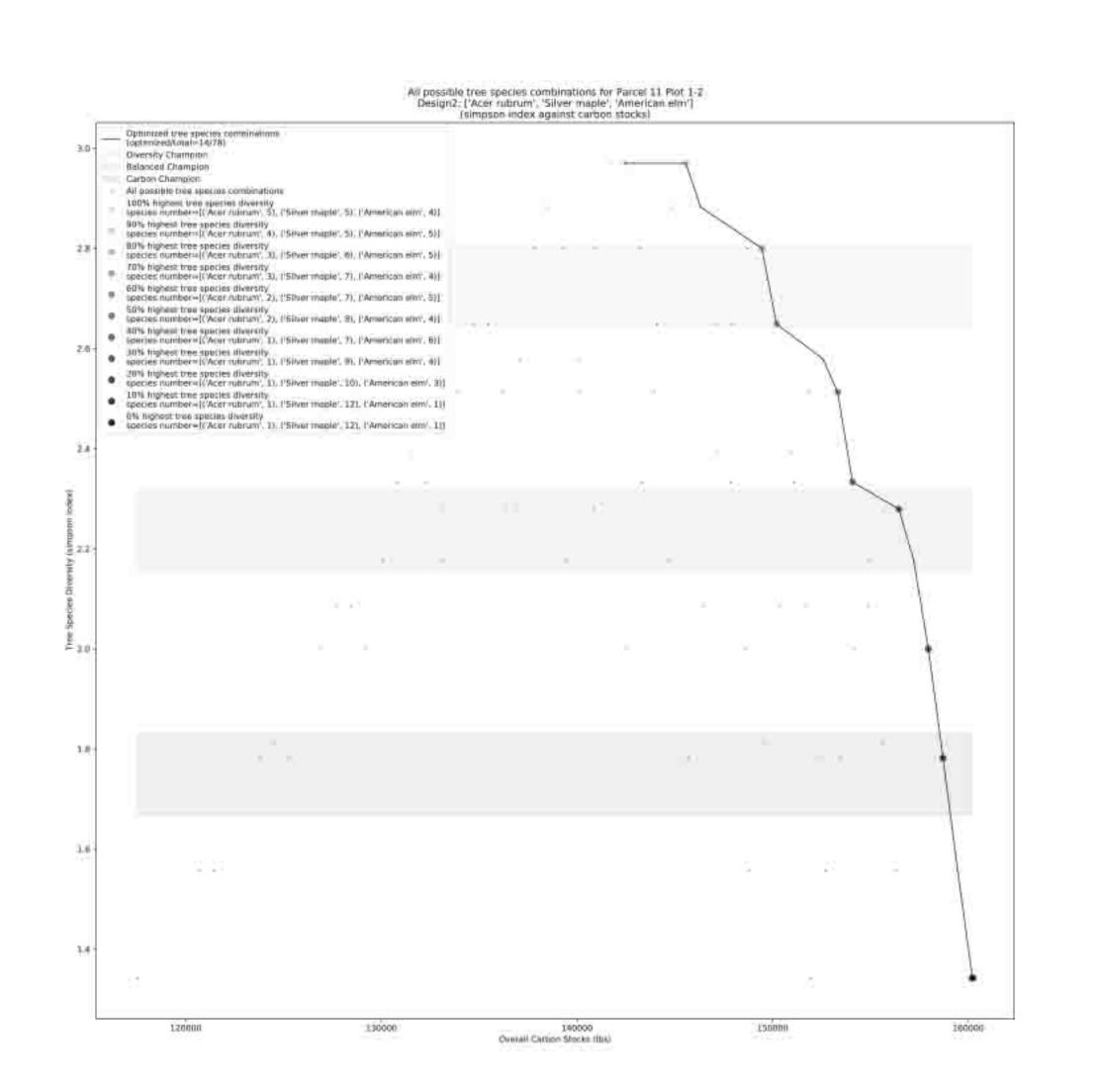
Simpson Biodiversity Index

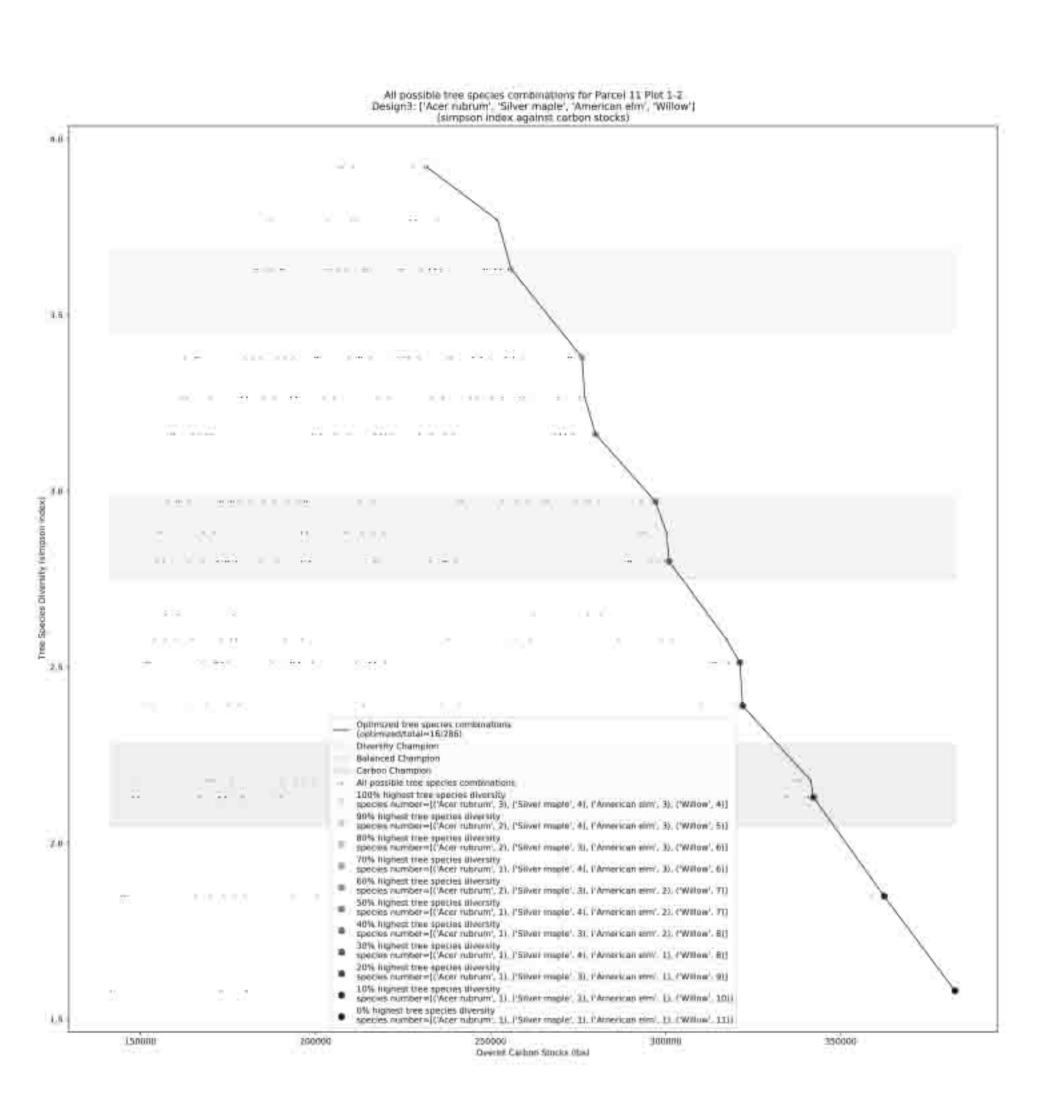


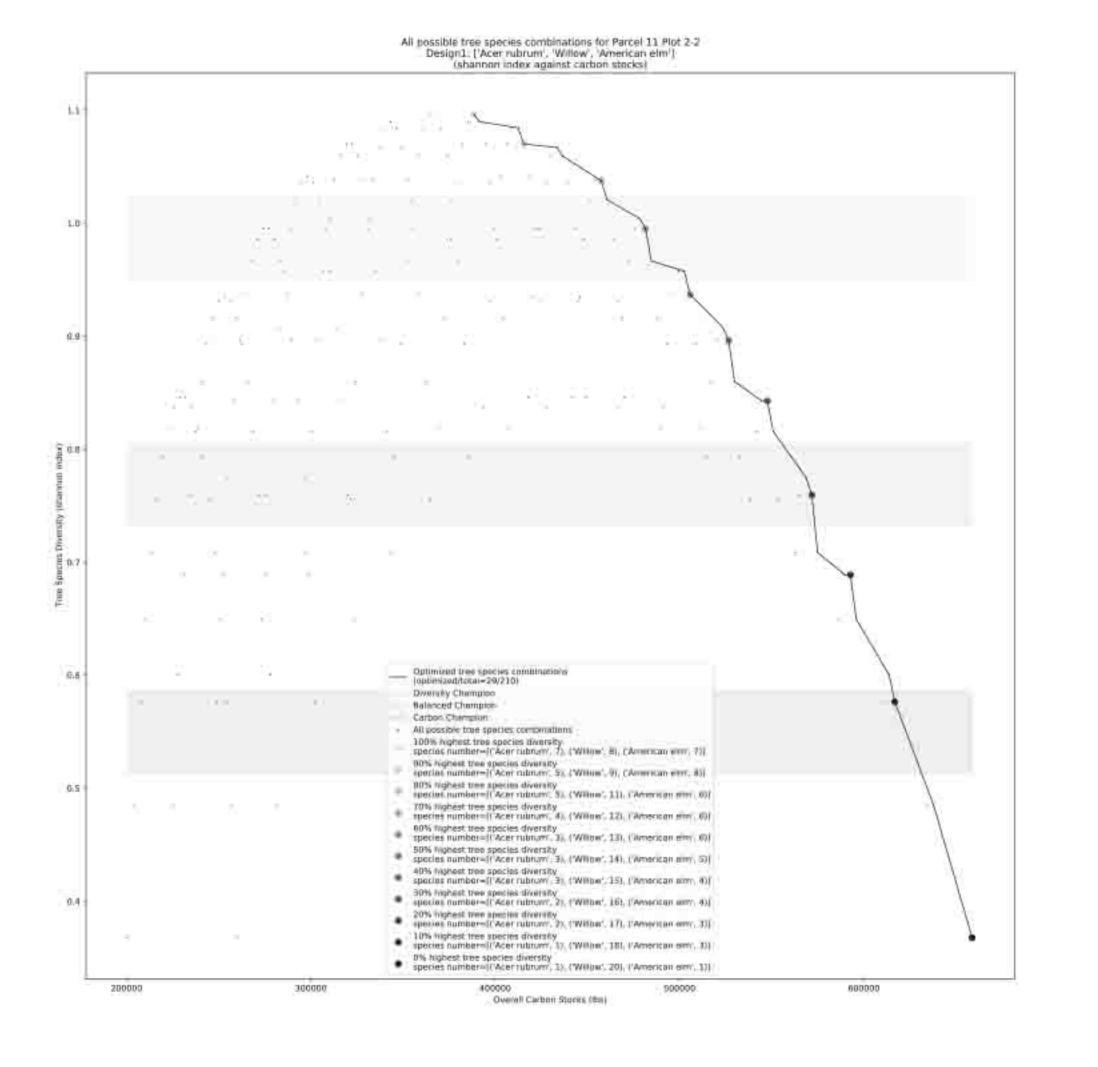


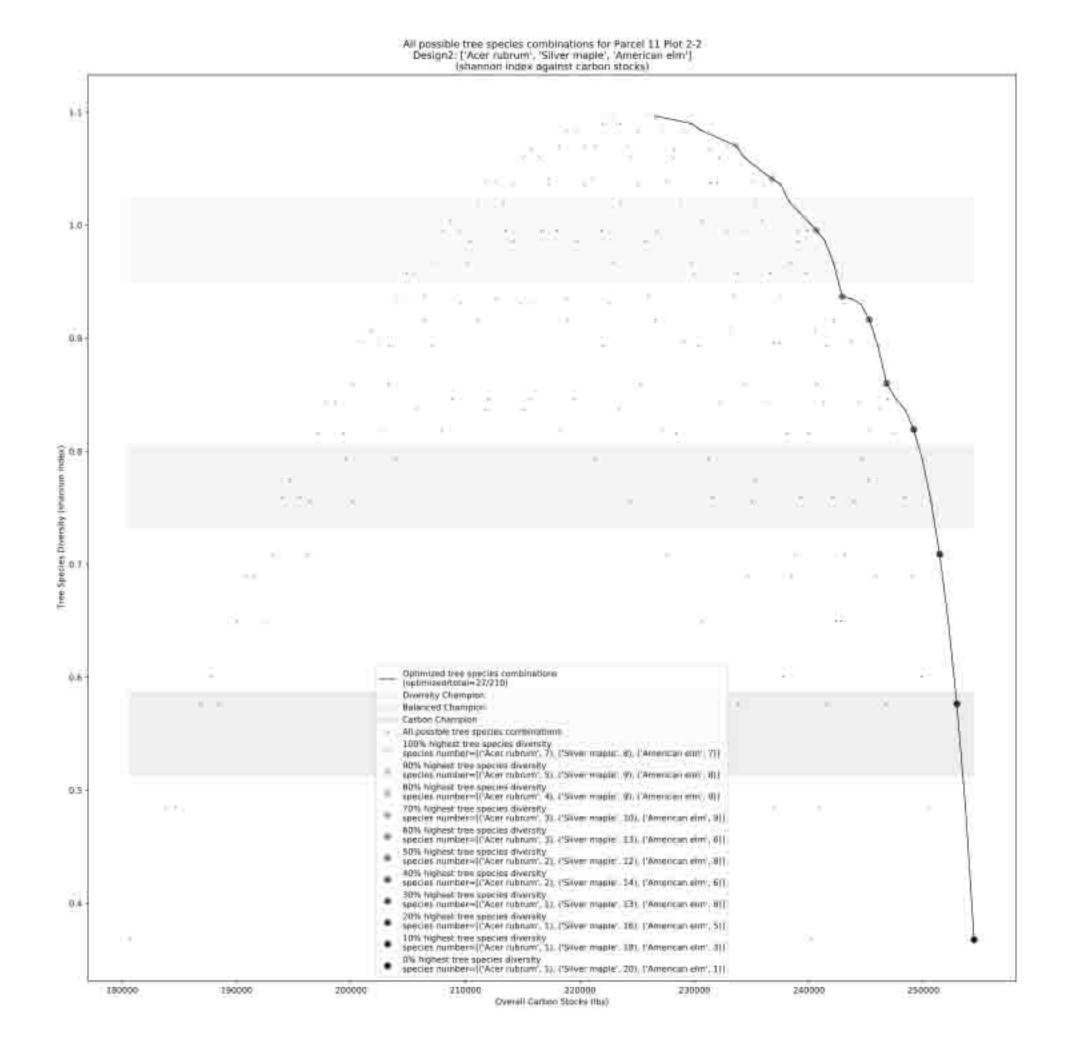


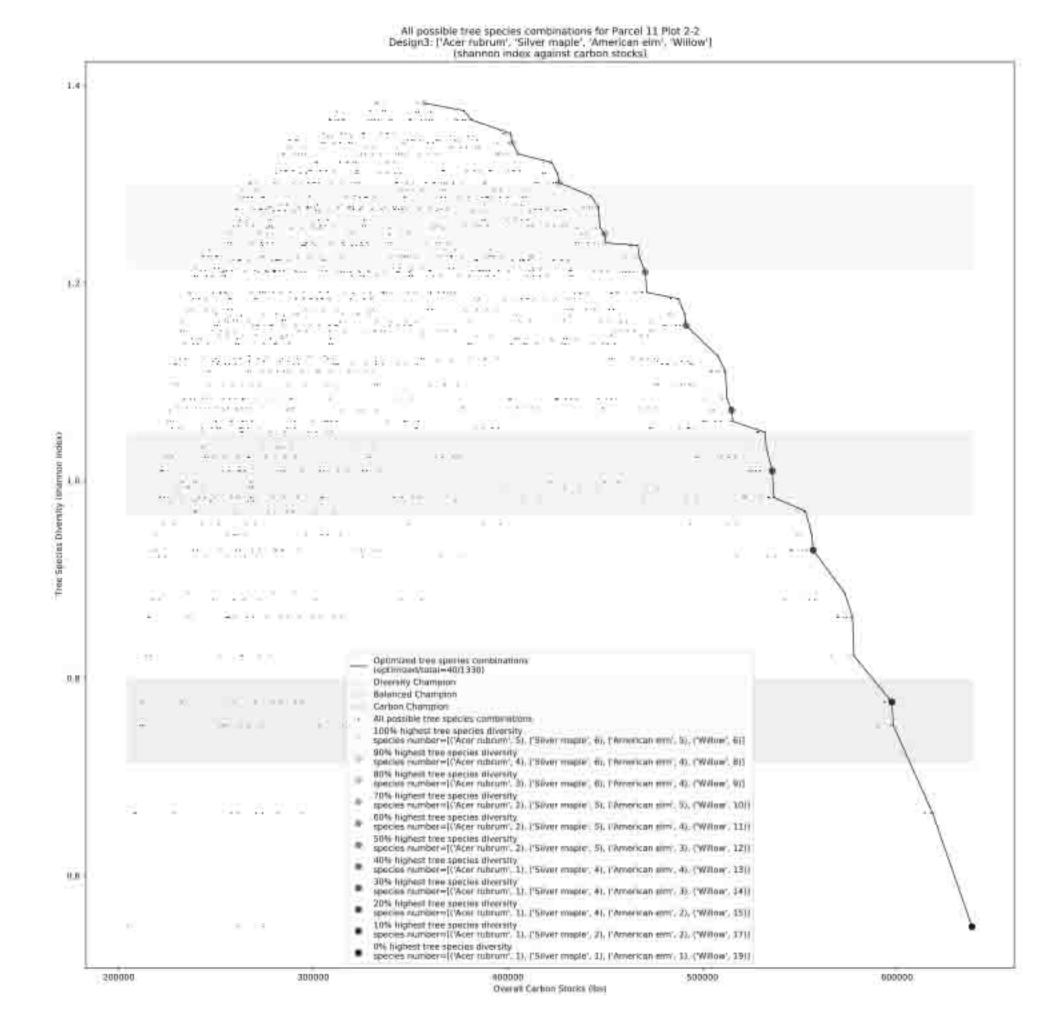


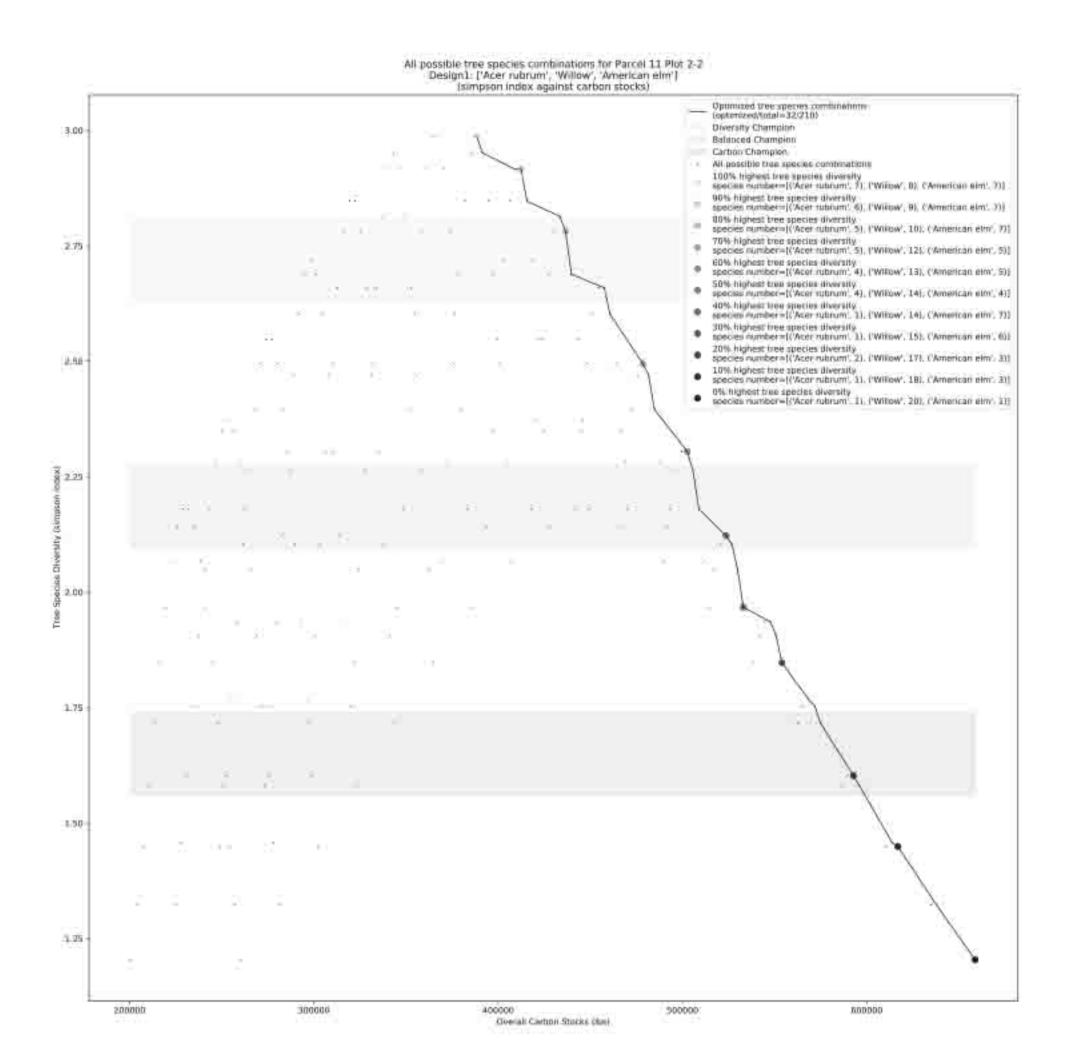


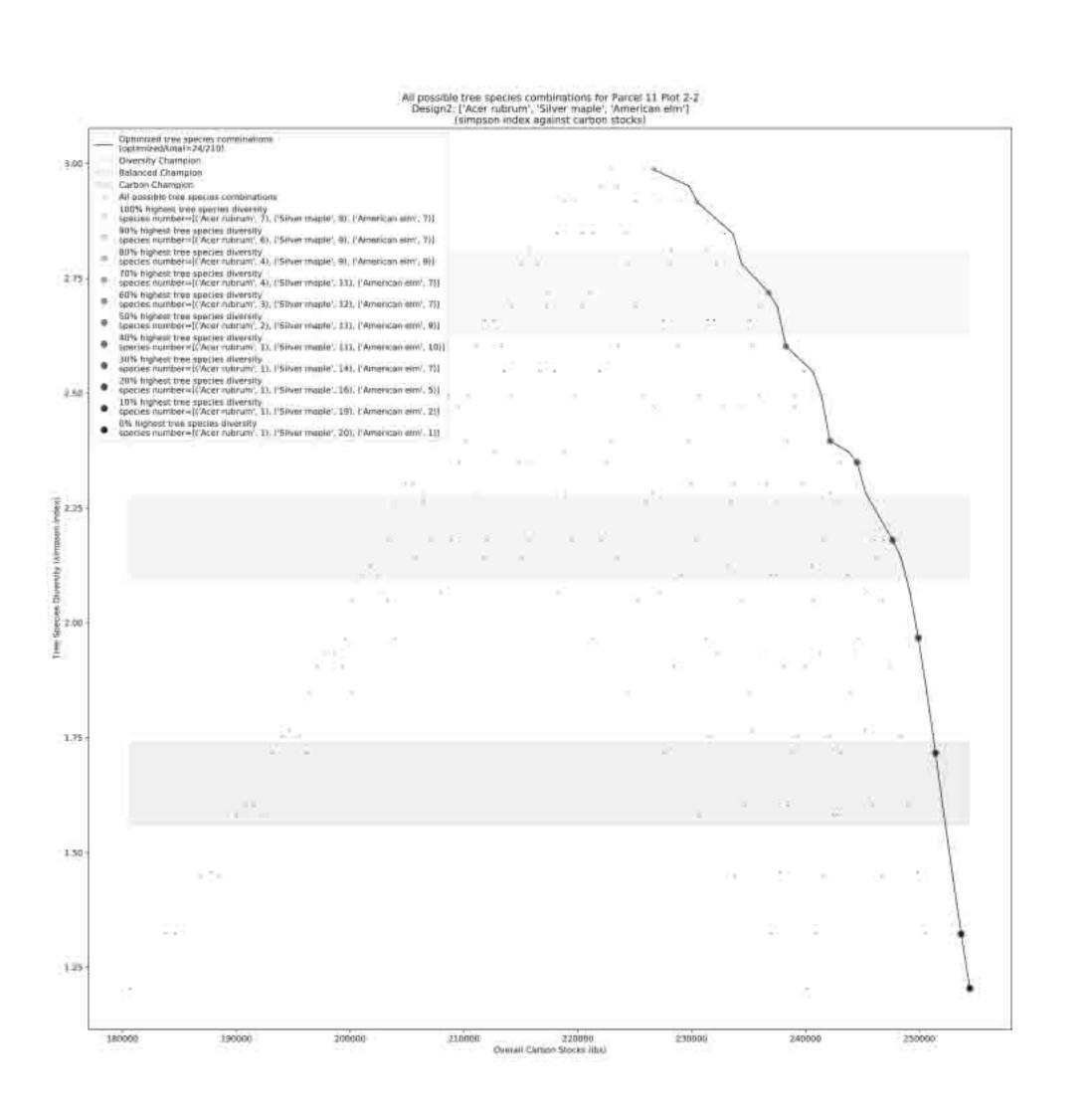


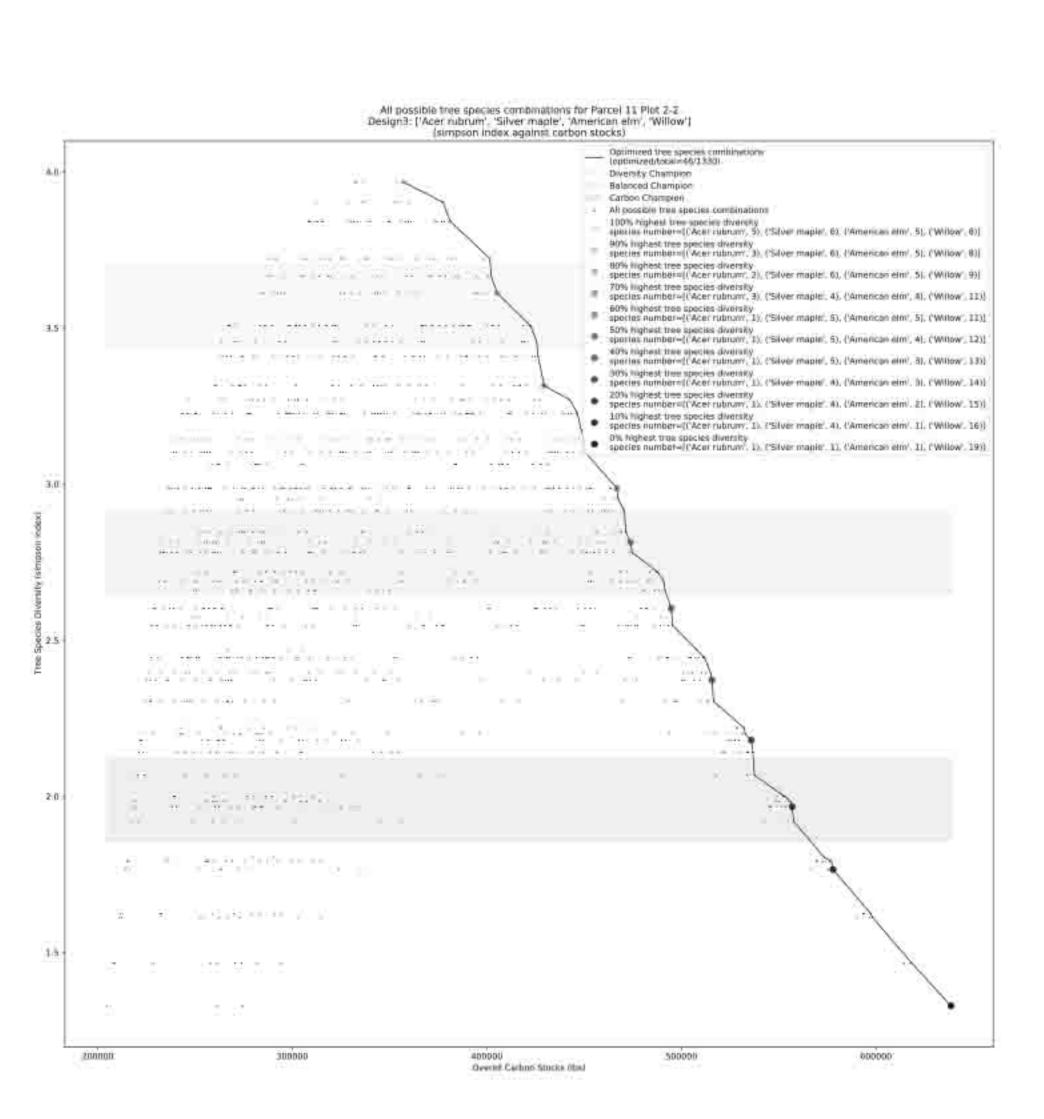












Red maple

silver maple

Red maple

silver maple

willow

American Elm

American Elm