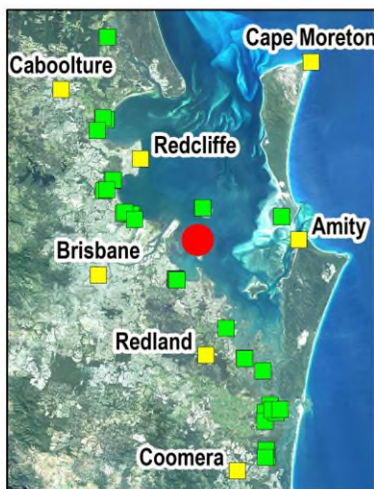
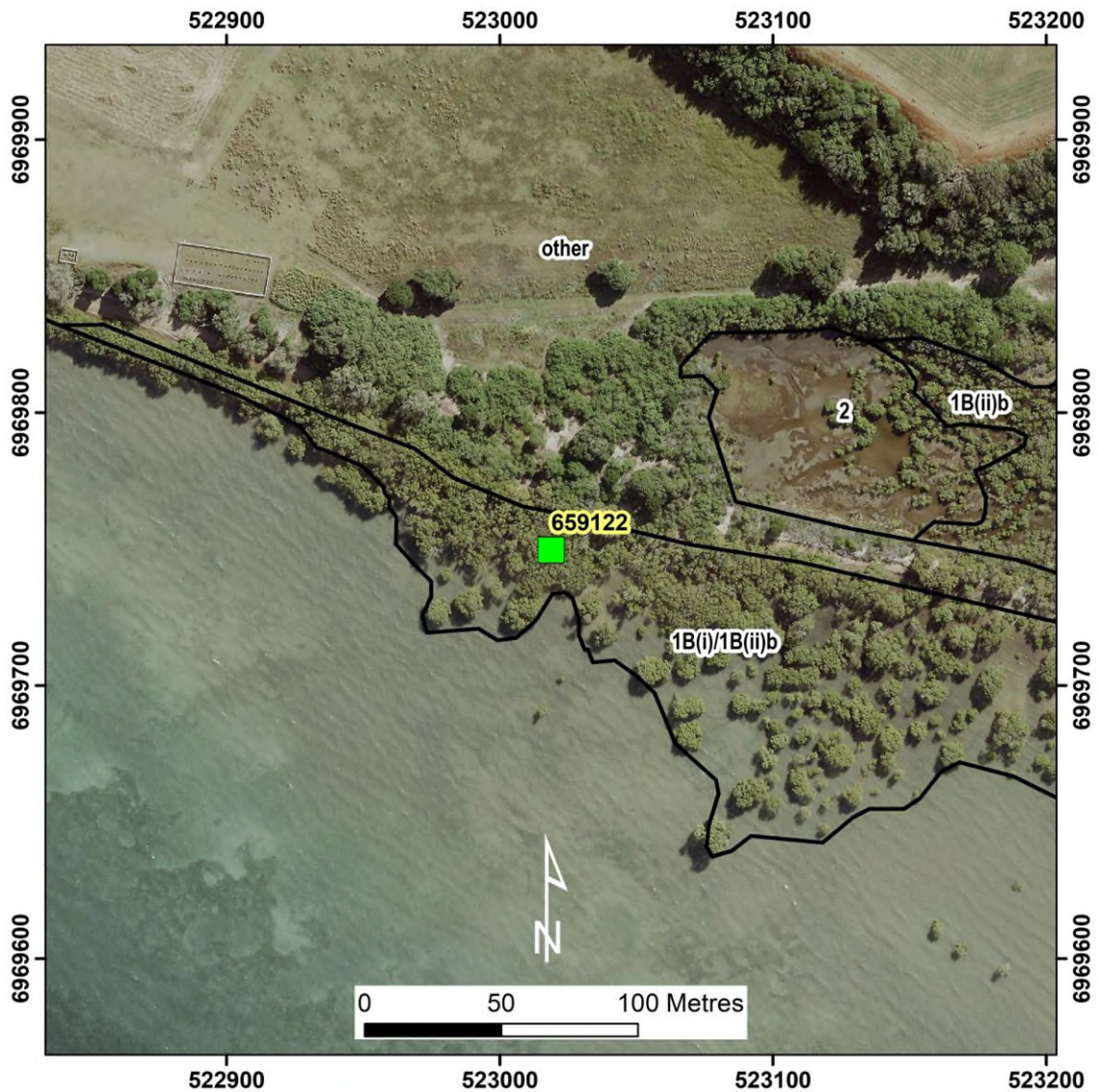


## St Helena (site ID = 659122) Low Open Forest



St Helena (site ID = 659122)



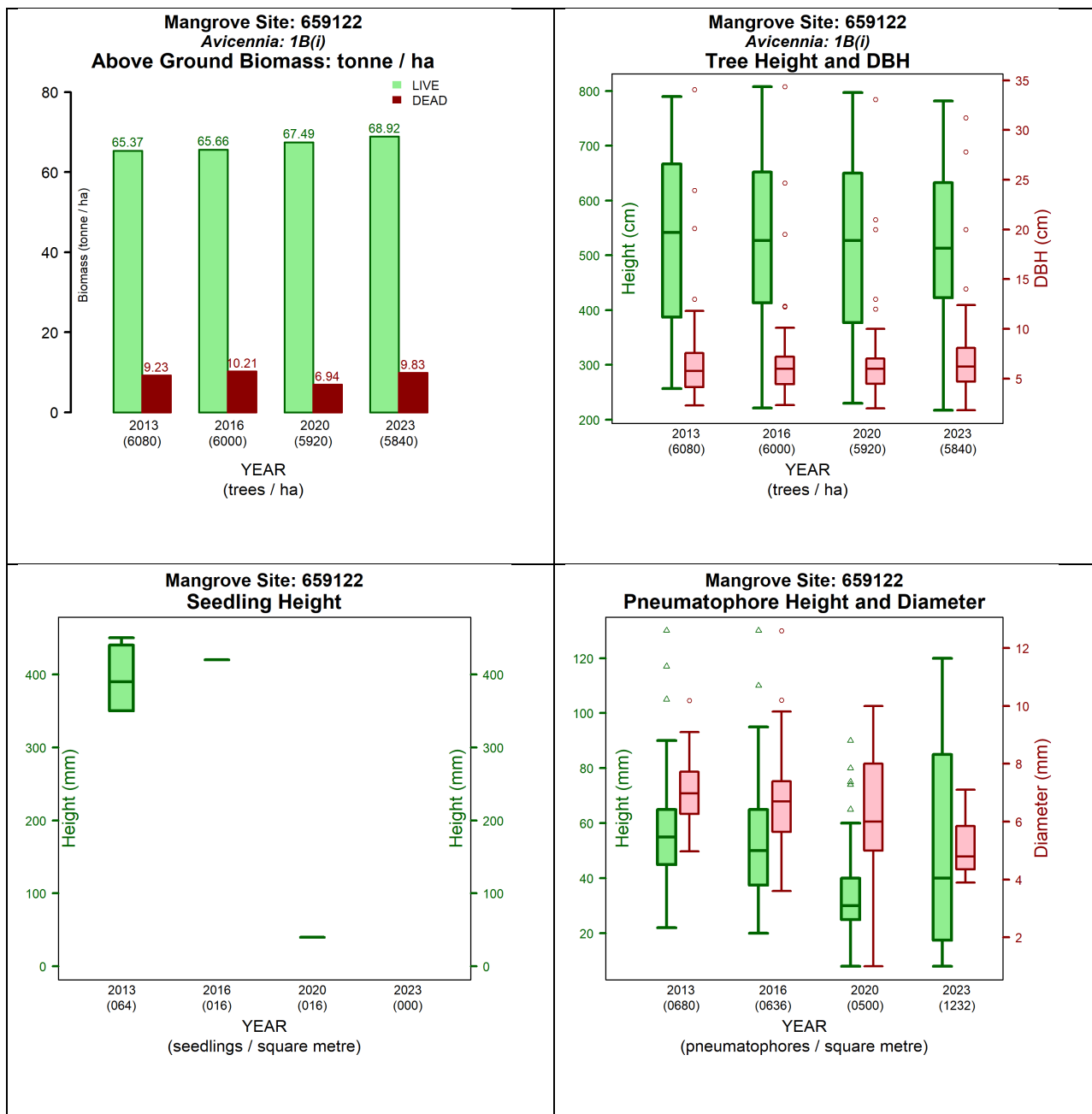


Figure 1. Measurements at site 659122 between 2013 and 2023 (left to right and top to bottom):

- Above ground biomass and density temporal assessment
- Tree height, diameter at breast height (DBH) and stem density temporal assessment
- Pneumatophores height, diameter, and density temporal assessment
- Seedling height and density temporal assessment.

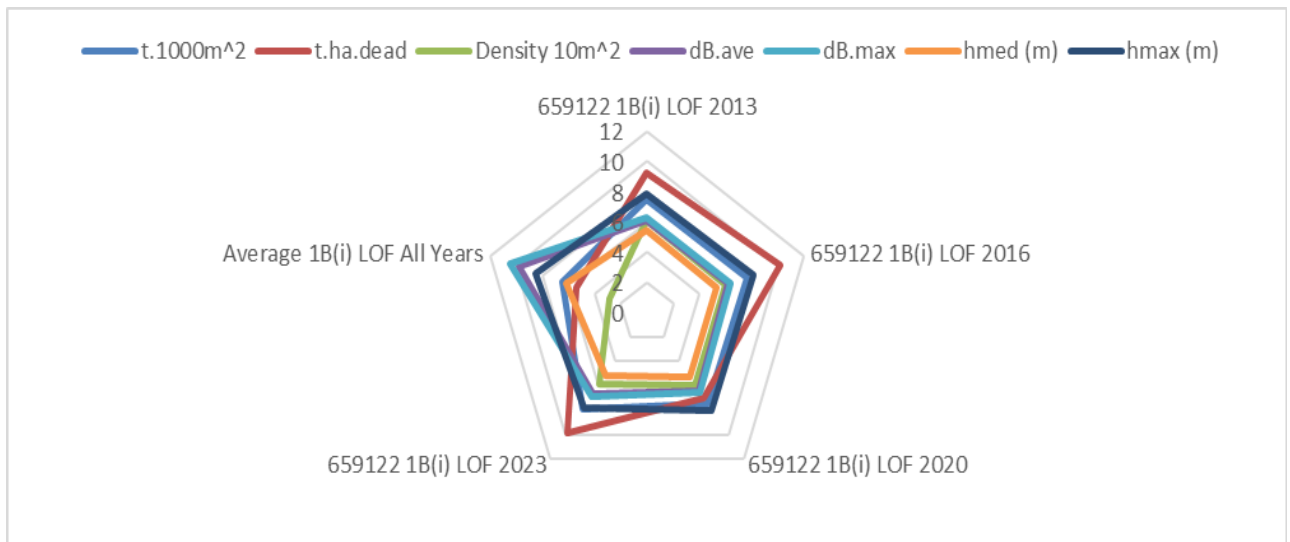


Figure 2. Structural changes over the years for Site 659122 in comparison to average of all sites of vegetation community type 1B(i) by structural formations. The graph indices: t.1000m<sup>2</sup> is the tonne of live biomass (tonnes) in 1000m square; t.ha.dead is the dead biomass (tonnes) in a hectare; Density 10m<sup>2</sup> is the number of trees in 10m square; dB.ave is the average diameter at breast height in centimetres; dB.max is the maximum diameter at breast height in centimetres; hmed (m) is the median tree height (meters); hmax (m) is the maximum tree height (meters).

Table 1. Queensland Biodiversity Ecological Information System (QBEIS) temporal assessment for site 659122.

Date	31.10.2013	11.11.2016	5.03.2020	29.04.2023
E Spp.				
T1 Spp.	<i>Avicennia marina</i> subsp. <i>australasica</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Dead tree</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Dead tree</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Dead tree</i>
T1 Med Canopy Height	7	7	7	7
T1 Range low	6	6	6	6
T1 Range High	8	8	8	8
T1 Crown Cover	65	69	80	74
T1 Stem Count	92	73; 2	77; 2	76, 3
T2 Spp.	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>dead tree</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>dead tree</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Rhizophora stylosa</i> ; <i>dead tree</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>dead tree</i>
T2 Med Canopy Height	5	5.5	3.5	3.5
T2 Range low	4	4	3	3
T2 Range high	6	6	4	4
T2 Crown Cover	10	10	5	5
T2 stem count	30; 1	32; 1	28; 1; 1	27; 1
S1 Spp.	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Rhizophora stylosa</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Rhizophora stylosa</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Rhizophora stylosa</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Rhizophora stylosa</i>

S1 Med Canopy Height	3	3.5	1.5	1.5
S1 Range low	2	2	1	1
S1 Range high	4	4	2	2
S1 Crown Cover	5	10	10	10
S1 stem count	5; +	10; +	32; 1	34; 1
S2 Spp.				
S2 Med Canopy Height				
S2 Range low				
S2 Range high				
S2 Crown Cover				
S2 stem count				
G Spp.	<i>Avicennia marina</i> subsp. <i>australasica</i>	<i>Avicennia marina</i> subsp. <i>australasica</i>	<i>Avicennia marina</i> subsp. <i>australasica</i>	<i>Avicennia marina</i> subsp. <i>australasica</i>
G Med Canopy Height	0.75	0.8	1	1
G Range low	0.5	0.5	0.5	0.5
G Range high	1	1	1	1.2
G Cover	10	12	5	5
Individual Covers	10	12	5	5

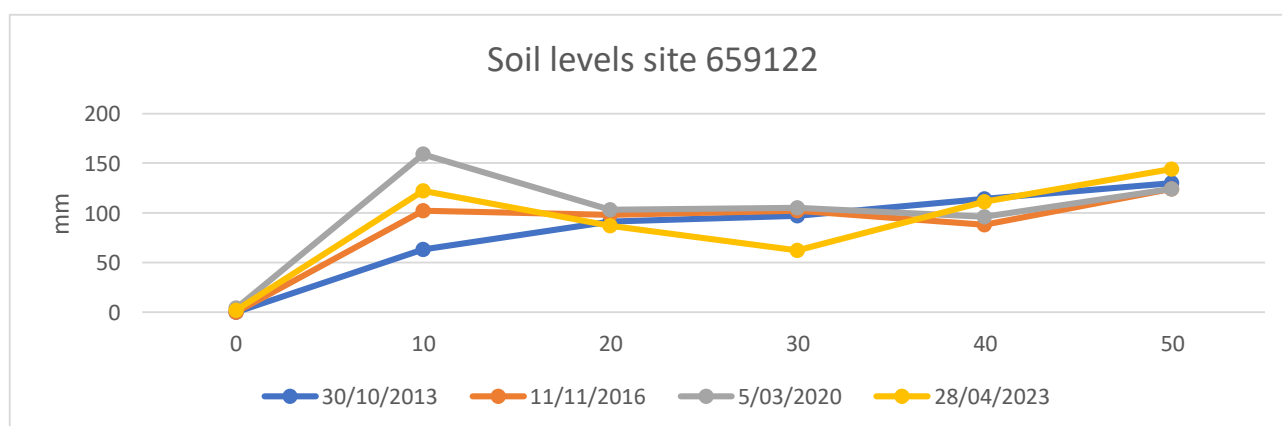


Figure 3. Soil surface elevation measurements (mm) are taken across the QBEIS sites using dumpy level.

### Summary

1. Stable species composition in T1, while T2 have recorded occurrences of *Rhizophora stylosa*.
2. Stable T1 tree heights, but reduction in T2 and S1 tree heights by up to 1.5m.
3. Stable mean tree heights and mean DBH while densities have slightly reduced, the above ground biomass in the site is stable.
4. Reduction (from 12.4% in 2013 to 9.3% in 2020) of the proportion of dead to live biomass within the site.
5. Pneumatophores mean height was reduced but the range has widened.
6. Seedlings reducing in density and height over the years.

7. Soil height maximum range level has increased by 25mm to 155mm with accretion of up to 5mm.

8. Soil levels have accreted over the period.



Figure 4. Photograph of Site 659122 *Avicennia marina* subsp. *australasica* community type 1B(i) Low Open Forest.