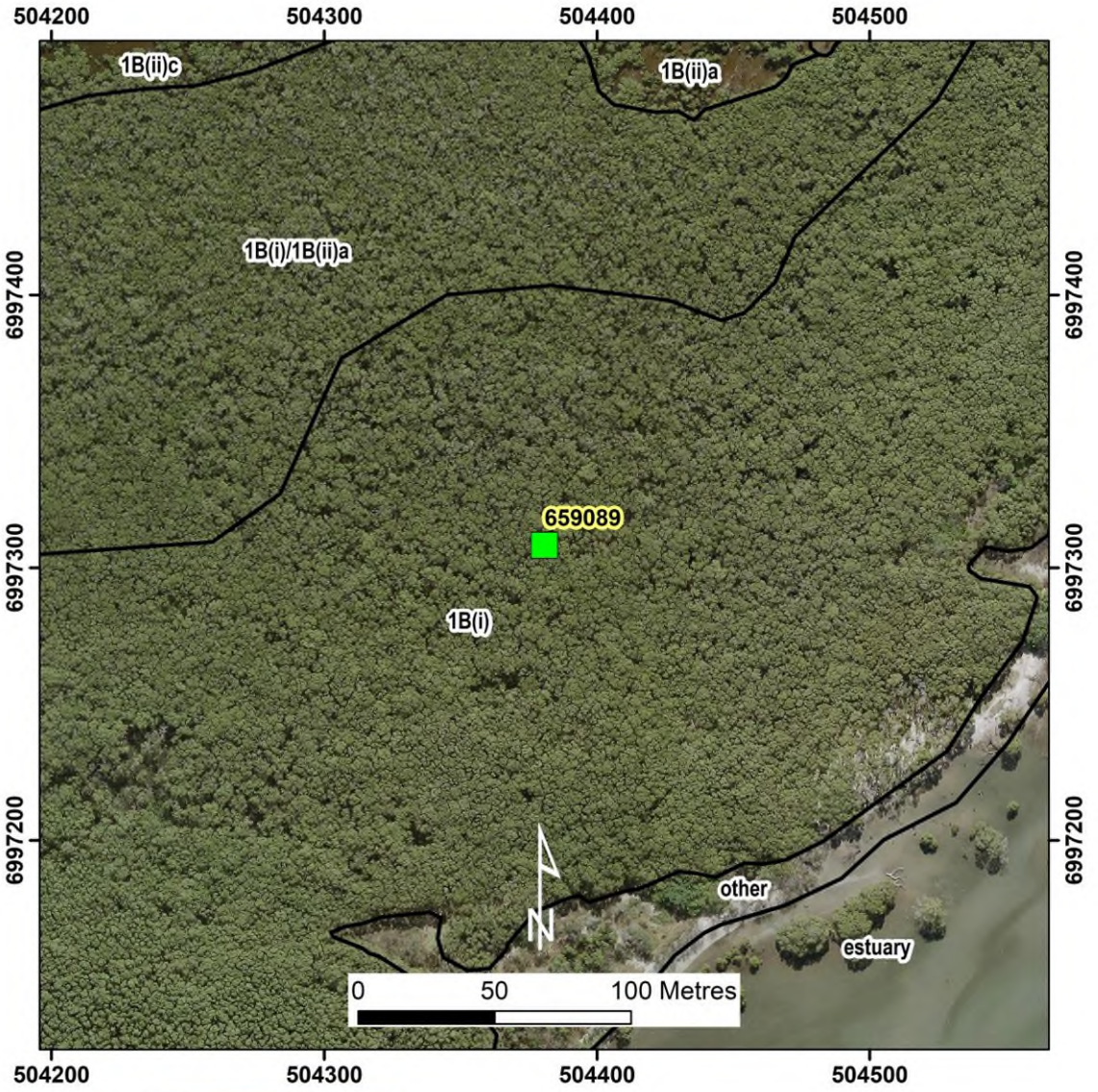
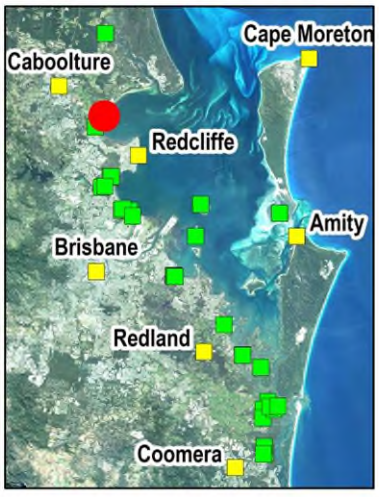
Beachmere Caboolture (site ID = 659089) Low Closed Forest





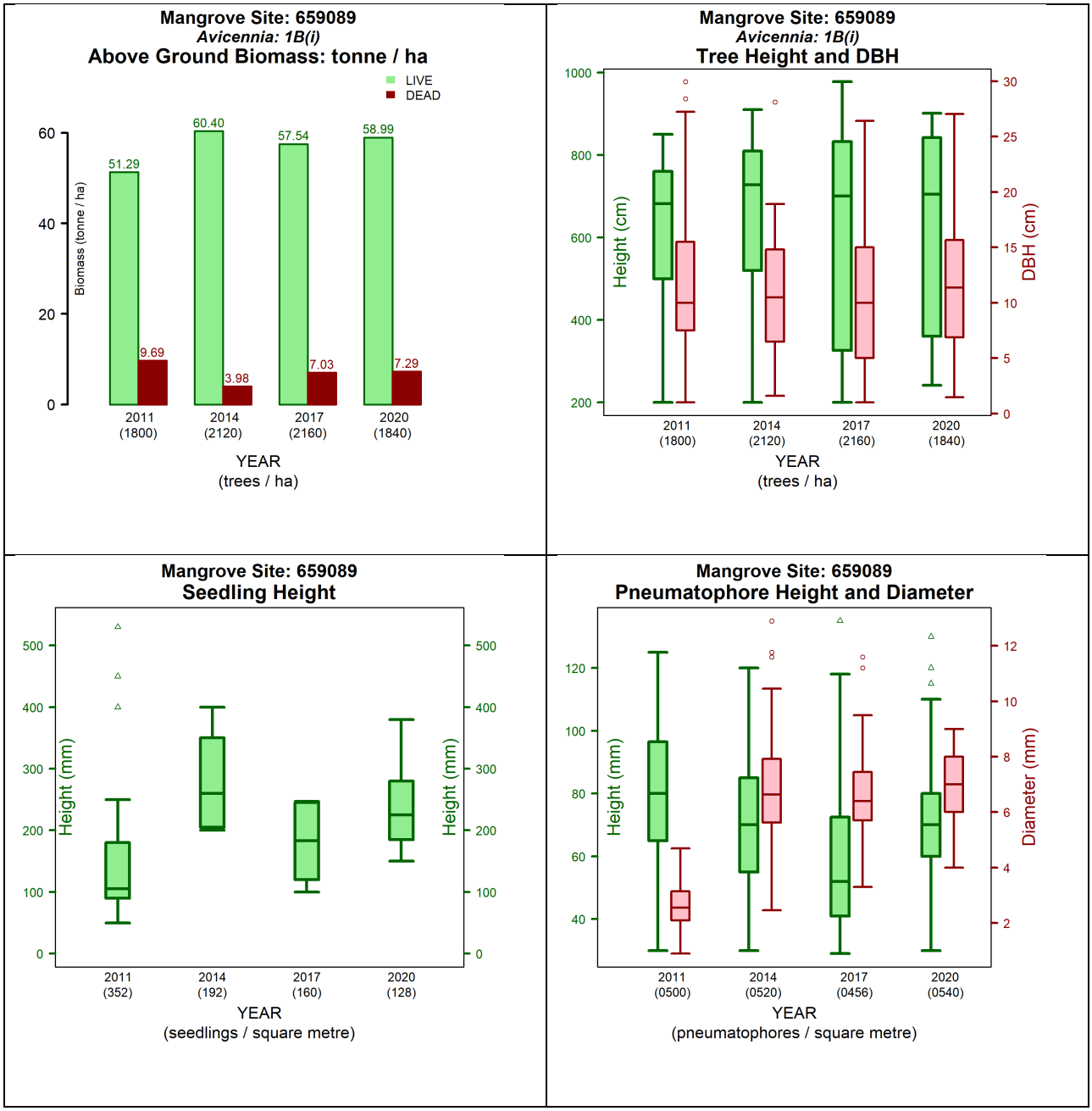


Figure 1. Measurements at site 659089 between 2011 and 2020 (left to right and top to bottom):

- **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.**

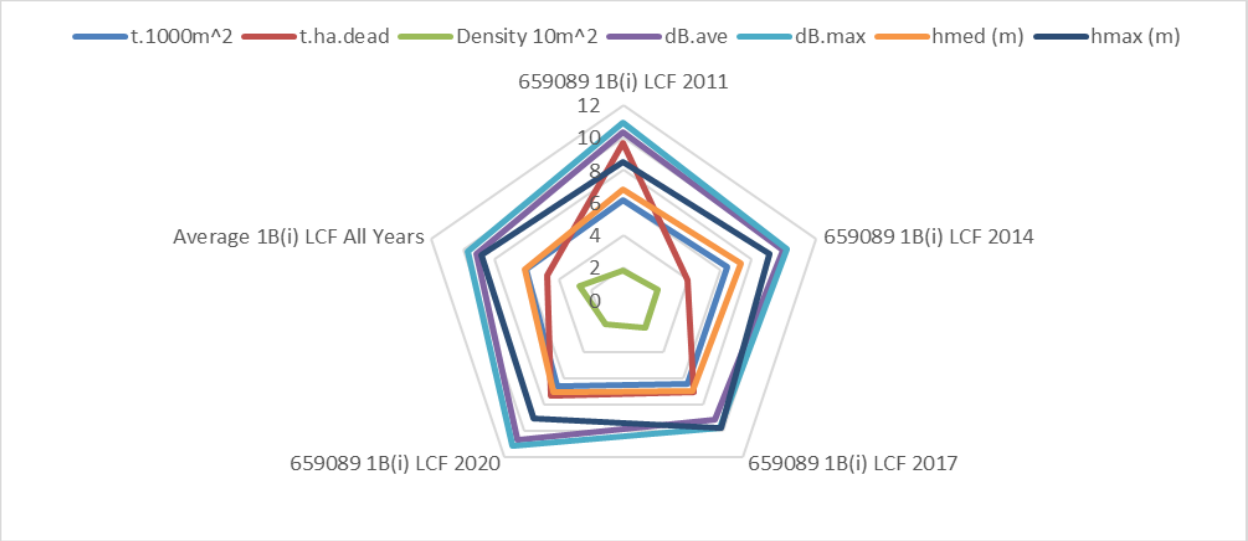


Figure 2. Structural changes over the years for Site 659089 in comparison to average of all sites of vegetation community type 1B(i) by structural formations. The graph indices: t.1000m^2 is the tonne of live biomass (tonnes) in 1000m square; t.ha.dead is the dead biomass (tonnes) in a hectare; Density 10m^2 is the number of trees in 10m square; dB.ave is the average diameter at breast height in centimetres ; dB.maxis 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 659089

Date	09.09.2011	21.07.2014	04.08.2017	28.08.2020
E Spp.				
T1 Spp.	*Avicennia marina* subsp. *australasica*	*Avicennia marina* subsp. *australasica; Dead Tree*	*Avicennia marina* subsp. *australasica; Dead Tree*	*Avicennia marina* subsp. *australasica; Dead Tree*
T1 Med Canopy Height	8	8.5	8.5	8.5
T1 Range low	7	8	8	8
T1 Range High	9	9	9	9
T1 Crown Cover	95	90	90	92
T1 Stem Count	97	70; 9	70, 11	58, 12
T2 Spp.				
T2 Med Canopy Height				
T2 Range low				
T2 Range high				
T2 Crown Cover				
T2 stem count				
S1 Spp.	*Avicennia marina* subsp. *australasica; Ceriops australis*	*Ceriops australis; Avicennia marina* subsp. *australasica; Dead tree*	*Ceriops australis; Avicennia marina* subsp. *australasica; Dead tree*	*Ceriops australis; Avicennia marina* subsp. *australasica; Dead tree*
S1 Med Canopy Height	1.5	1.8	2.1	2.5
S1 Range low	1.5	1.5	2	2
S1 Range high	2	2	2.5	3.5
S1 Crown Cover	4	5	5	5
S1 stem count	9, 8	14; +, 4	6, 6, 2	10 8, 4

S2 Spp.			*Ceriops australis; Aegiceras corniculatum; dead Ceriops*	*Ceriops australis; Avicennia marina* subsp. *australasica*
S2 Med Canopy Height			1.5	1.0
S2 Range low			1	0.5
S2 Range high			2	1.5
S2 Crown Cover			1	1
S2 stem count			10, 5, 3	11, 8
G Spp.	*Avicennia marina* subsp. *australasica*	*Avicennia marina* subsp. *australasica; Ceriops australis; Suaeda arbusculoides*	*Avicennia marina* subsp. *australasica; Ceriops australis; Suaeda arbusculoides*	*Avicennia marina* subsp. *australasica; Ceriops australis; Suaeda arbusculoides*
G Med Canopy Height	0.3	0.3	0.3	0.3
G Range low	0.2	0.2	0.2	0.1
G Range high	0.4	0.5	0.5	0.5
G Cover	20	10	10	10
Individual Covers	20	10; 0.1; 0.1	10; +; +	10; +; +

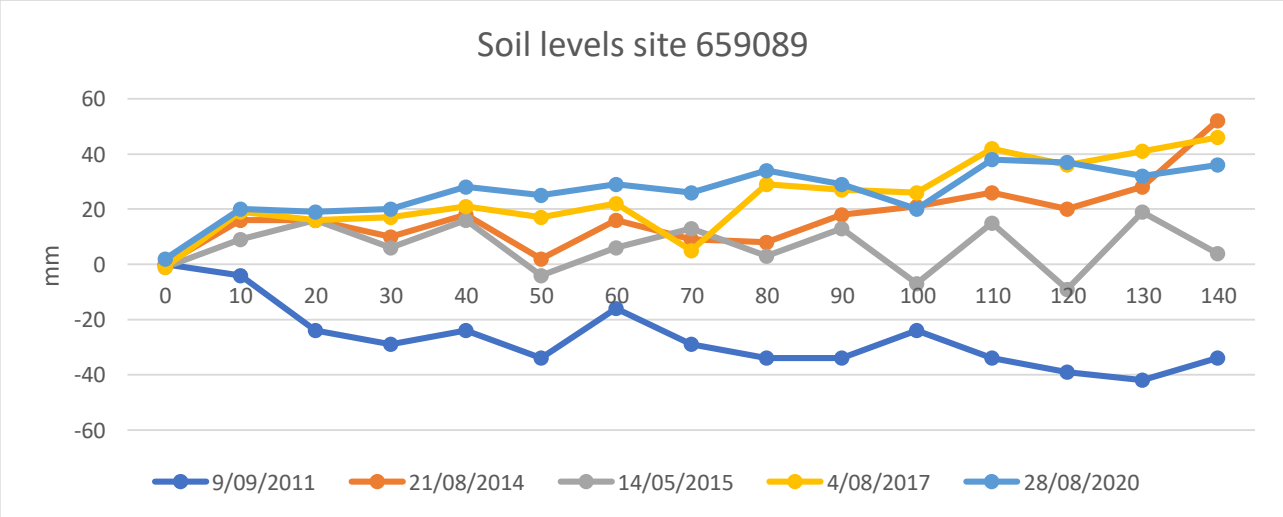


Figure 3. Soil surface elevation measurements (mm) are taken across the QBEIS sites using dumpy level.

Summary

1. Stable species composition in T1 over the years with only an increase of *Ceriops australis* and dead trees of *Avicennia marina* subsp. *australasica*; in S1 an introduction of *Ceriops australis* and *Suaeda arbusculoides* in the G layer. These species composition changes are likely due to an increase in soil elevation.

2. Increase in T1 height (0.5m) and slight increase in S1 height and cover.

3. Mean tree heights and DBH are stable over the years, while there is a decrease in tree density, overall resulting in a slight increase in site above ground biomass

4. Fluctuation (15.3% - 6.2% - 10.9%) in the proportion of dead to live biomass.

5. Pneumatophores mean height has been reduced over the years- potentially reflecting lower inundation levels.

6. Seedling fluctuation in density and height over the years.

7. Soli levels have accreted over the period.

Figure 4. Photograph of Site 659089 *Avicennia marina* subsp. *australasica* community type 1B(i) Low Closed Forest.