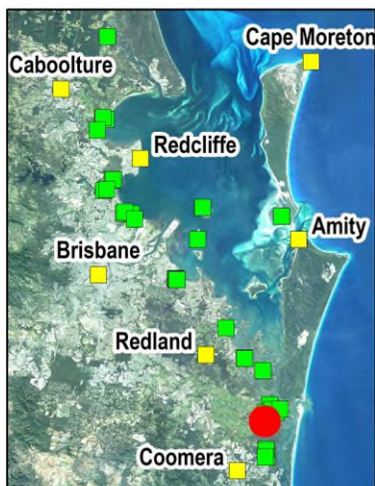
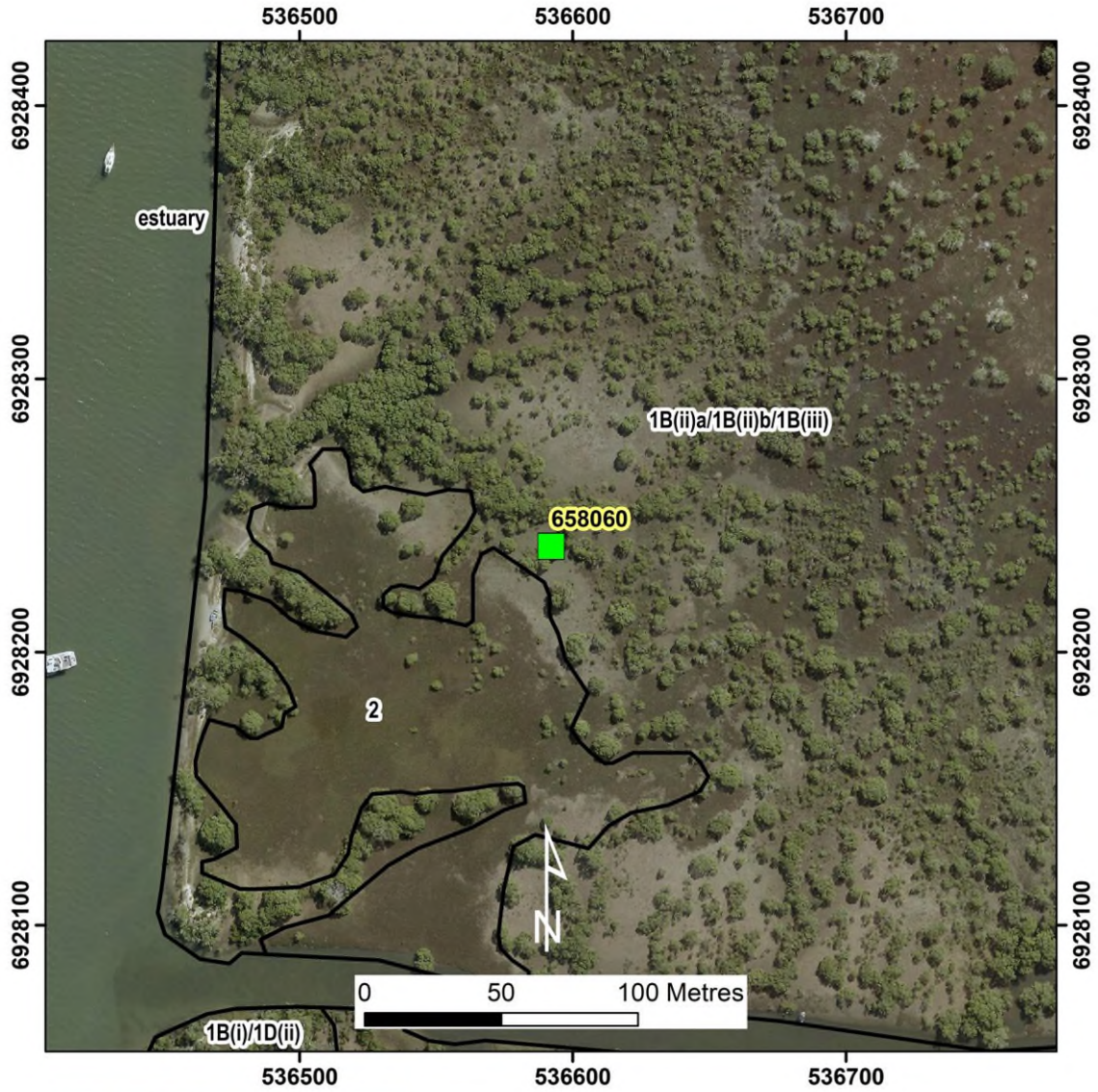


# Kangaroo Island (site ID = 658060) Tall Shrubland



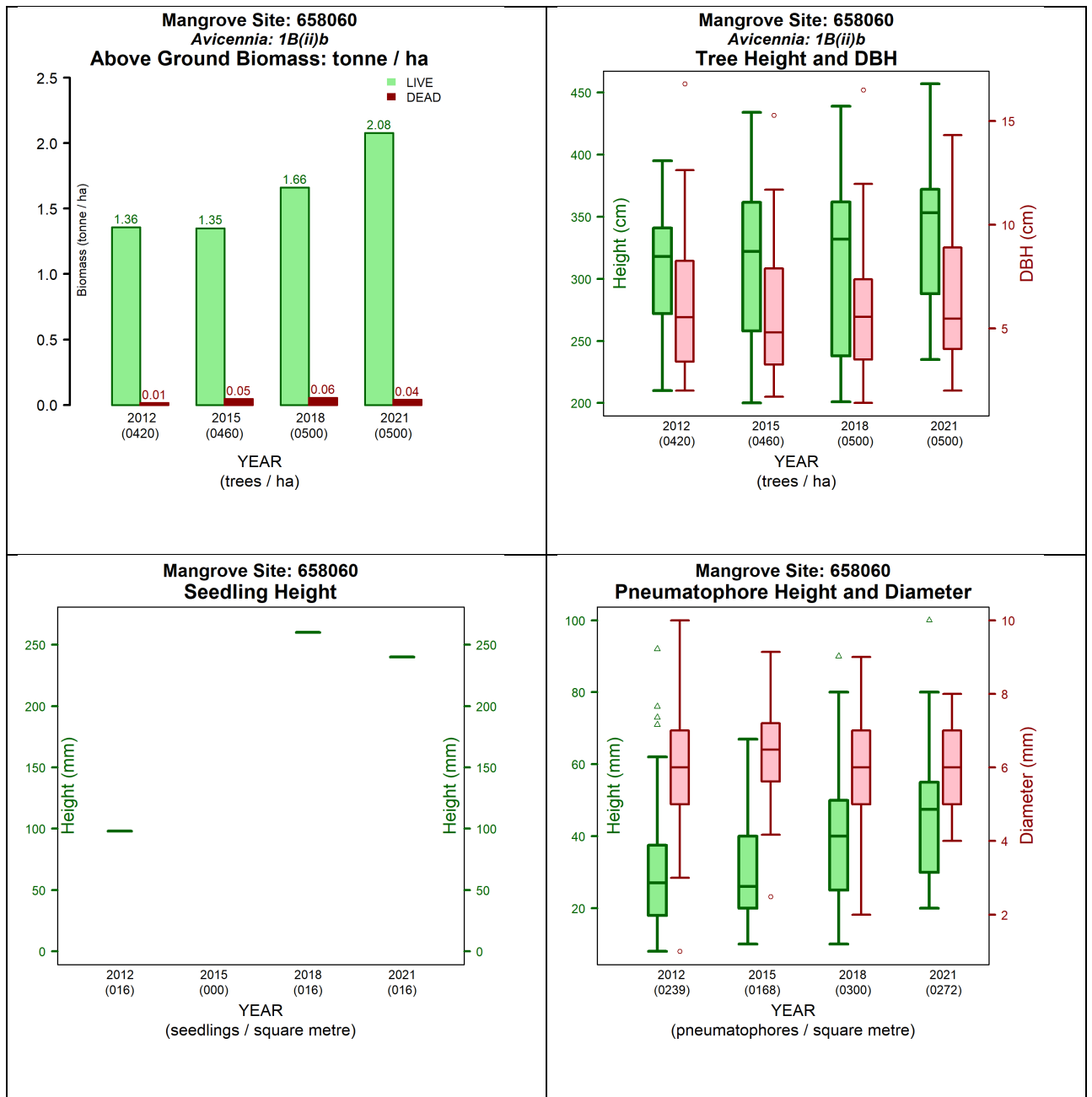


Figure 1. Measurements at site 658060 between 2012 and 2021 (left to right and top to bottom):

- 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.

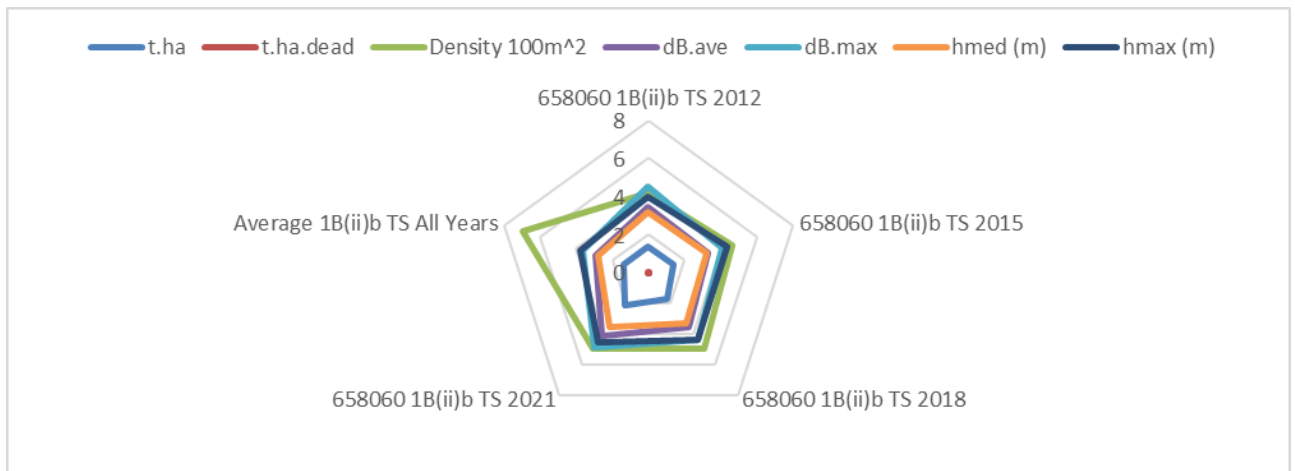


Figure 2. Structural changes over the years for Site 658060 in comparison to average of all sites of vegetation community type 1B(ii)b by structural formations. The graph indices: t.ha is the live biomass (tonnes) in a hectare; t.ha.dead is the dead biomass (tonnes) in a hectare; Density 100m<sup>2</sup> is the number of trees in 100m<sup>2</sup> 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 658060.

Date	16.03.2012	16.03.2015	8.06.2018	6.06.2021
E Spp.				
T1 Spp.				
T1 Med Canopy Height				
T1 Range low				
T1 Range High				
T1 Crown Cover				
T1 Stem Count				
T2 Spp.				
T2 Med Canopy Height				
T2 Range low				
T2 Range high				
T2 Crown Cover				
T2 stem count				
S1 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>Dead Tree</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ;
S1 Med Canopy Height	3.5	3.8	3.8	4.0
S1 Range low	3	3.2	3.2	3.2
S1 Range high	4	4.5	4.5	5.0
S1 Crown Cover	25	25	33	34
S1 stem count	33	32	34	34
S2 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>
S2 Med Canopy Height	1.5	1.5	1.8	1.8

S2 Range low	1	1	1	1
S2 Range high	2	2	2.5	2.5
S2 Crown Cover	5	8	10	10
S2 stem count	12	10	9	9
G Spp.	<i>Avicennia marina</i> subsp. <i>australasica</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Sporobolus virginicus</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Aegiceras corniculatum</i> ; <i>Sporobolus virginicus</i> ; <i>Suaeda arbusculoides</i> <i>Rhizophora stylosa</i>	<i>Avicennia marina</i> subsp. <i>australasica</i> ; <i>Suaeda arbusculoides</i> ; <i>Rhizophora stylosa</i>
G Med Canopy Height	0.2	0.3	0.3	0.4
G Range low	0.2	0.2	0.2	0.2
G Range high	0.2	0.5	0.5	1
G Cover	2	2	3	3
Individual Covers	2	1, 1	1; <1; <1; <1; <1	3; <1; <1

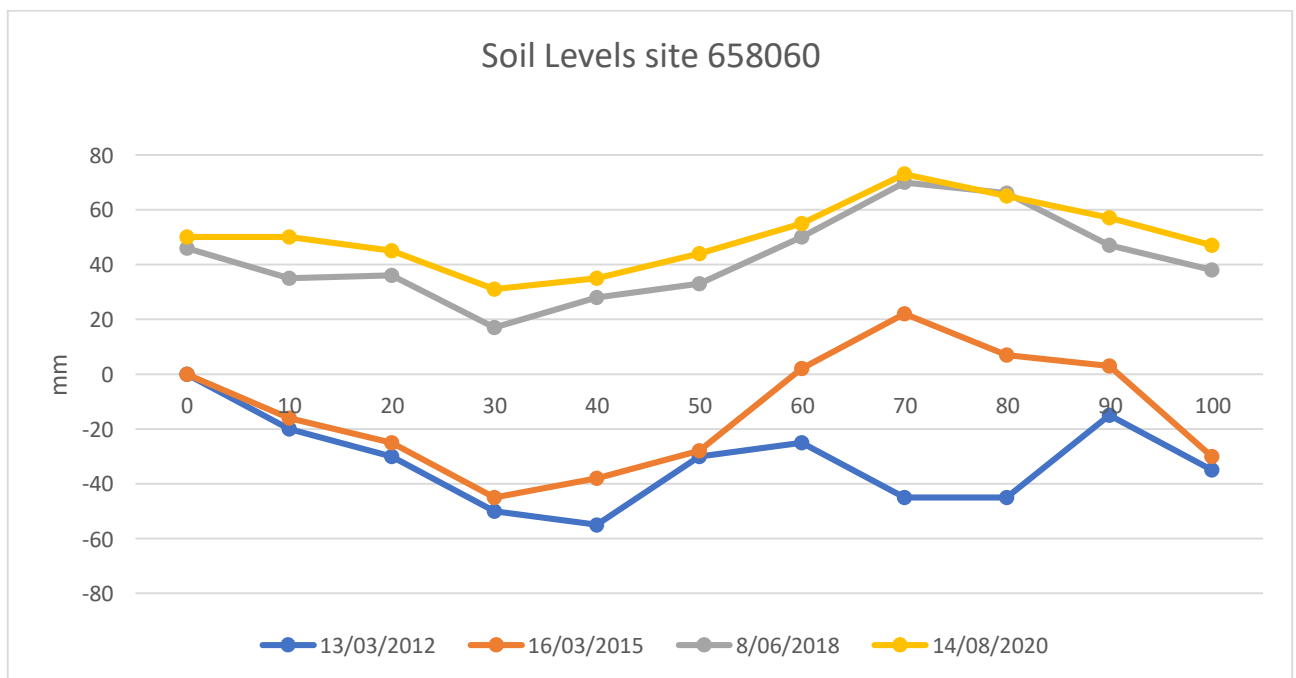


Figure 3. Soil surface elevation measurements (mm) are taken across the QBEIS sites using dumpy level.

### Summary

1. *Avicennia marina* subsp. *australasica* with some dead trees in 2015 and 2018 in S1 and S2. Ground cover has changed to include not only *Avicennia marina* subsp. *australasica* but also *Aegiceras corniculatum*; *Sporobolus virginicus*; *Suaeda arbusculoides* and *Rhizophora stylosa*.
2. S1 and S2 shrub heights increased by 0.3m with stem count stable. Ground cover has only increased slightly in height and cover.



3. Mean tree heights and range has slightly increased. The mean DBH has increased slightly while reducing in range, and densities increased by 19% leading to an increase of 25% in above ground biomass in the site.
4. Increase (from 1.1% in 2012 to 3.2% in 2018) in the proportion of dead to live biomass within the site.
5. Pneumatophore mean height and girth has increased over the years.
6. Seedlings have been recorded only in the 2012 period in the quadrats but are present during all years across the site.
7. Soil max range level increased by 17mm to 67mm with accretion of up to 46mm.
8. Soil levels over the period have accreted.

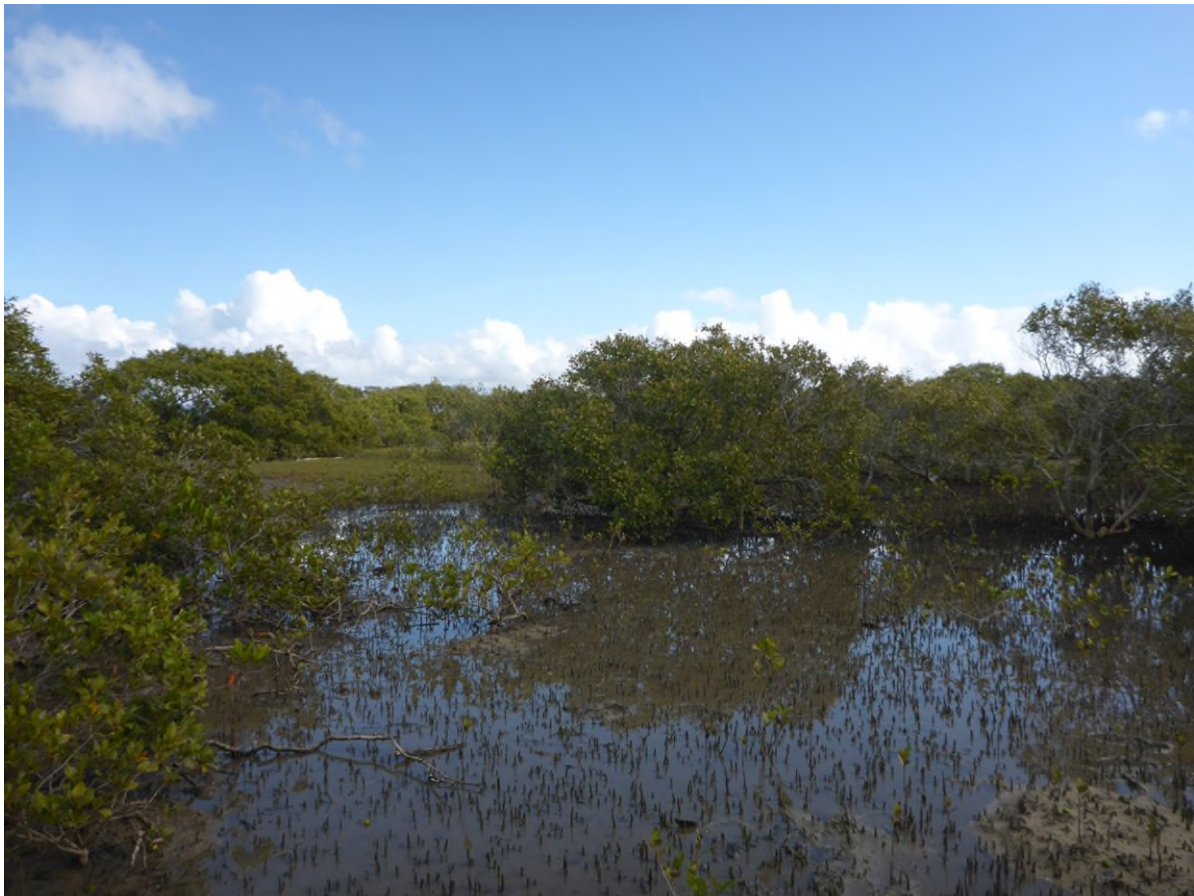


Figure 4. Photograph of Site 658060 *Avicennia marina* subsp. *australasica* community type 1B(ii)b Tall Shrubland.