

Dense-flowered Cordgrass *Spartina densiflora* Removal 9th Season Denman Island

The most significant foreshore and salt marsh salt sites of Denman Island, colonized by the invasive marine grass *Spartina densiflora*, were walked in October 2021. The total number of *S. densiflora* plant bunches¹ (hereafter referred to as ‘plants’) removed was 19. One more than the number removed in the fall of 2020. A couple of plants had 1-3 seed heads with a partial loss of a few seeds, but no significant seed formation had occurred on these relatively small plants. Also, as found previously at this time of year, two plants were in flower.

Fall removals, from the approximately 13 kilometres of foreshore walked, reflected the majority of *Spartina densiflora* growth for the current growing season. Seaweed and log debris on the shorelines was quite limited this fall. Thus, this count is expected to be close to the total number of *Spartina* bunches removed this 2021-22 season. Nevertheless, in the spring of 2022, all suitable habitats along Denman’s shoreline will be checked.

No *Spartina patens* was identified during the 2021 fall survey.

This season’s results continue to demonstrate the overall success of the manual removal method for controlling *Spartina densiflora*. Unfortunately, very low numbers of *Spartina densiflora* are continuing to re-seed along Denman’s shoreline. While persistence of the 10s of 1000’s of seeds shed from the original plants removed in 2013-2015 has not resulted in an extensive and continuous shoreline re-growth, the ongoing growth of new plants may result from:

- a few of the masses of old seeds persisting,
- occasional seed shed from the few fall seed heads on Denman plants prior to removal,
- other shoreline sites with plants shedding seed near Denman,
- unknown seed importation arriving from infected areas with boats, ocean-equipment/products,
- Seed arriving from southern source areas with ocean currents.

As yet the actual seed source(s) for the few re-seeding plants continues to be unknown, but yearly re-seeding is likely to persist in the expanding/ and supportive foreshore habitats in this area.

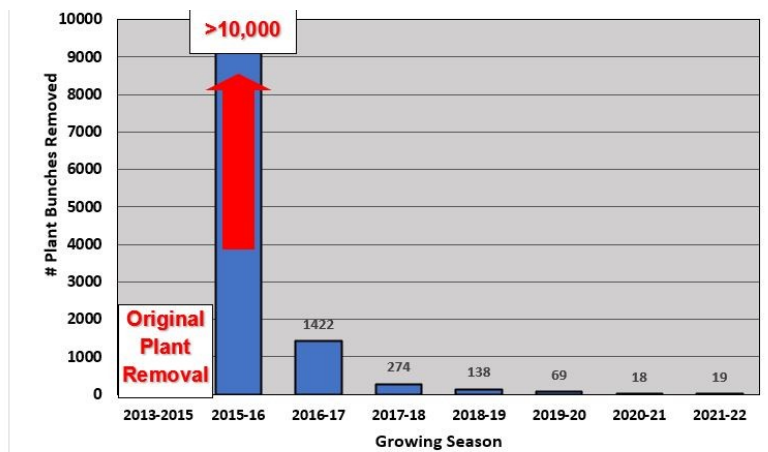


Figure 1. Summary of *Spartina densiflora* removals Fall 2013 to Fall 2021 on Denman Island.

¹ *Spartina densiflora* is a ‘bunch’ grass. The seeds tend to root together creating clumps or bunches of shoots that appear to be one plant but can often be separated into several individual plants. Thus, the general term ‘plant bunch’ is actually a more accurate term to use for these ‘removals’. On Denman they are classed by size based on the number of major stems.

The following map shows the number of spartina plant bunches removed from major sites within the Denman shoreline-areas designated by the Spartina Working Group (SWG). The legend gives the SWG area name and the number used in the table below. Below this is a map showing the shoreline areas walked and then a table giving the number and sizes of plants at the various sites.

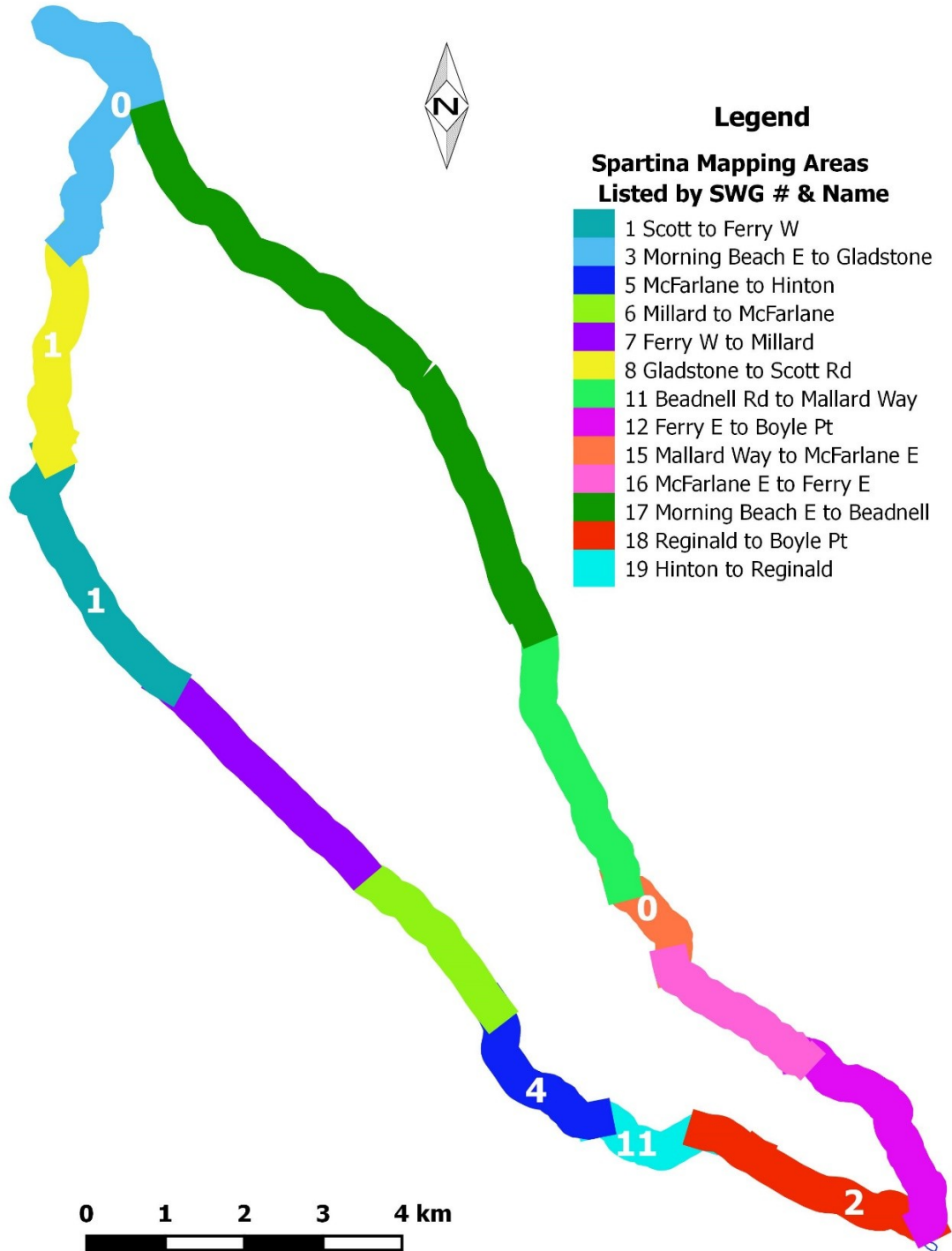


Figure 2. Number of *Spartina densiflora* bunches removed from major sites in SWG areas along the Denman Island foreshore in October 2021.

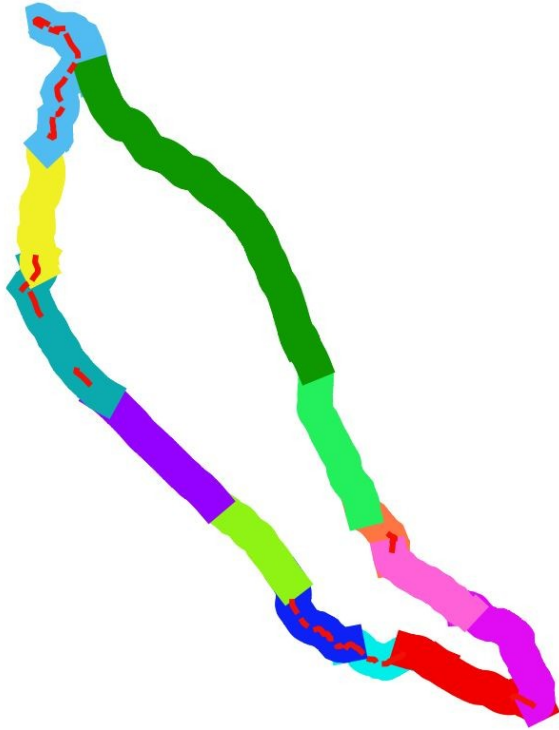


Figure 3. Major foreshore sites and large salt marshes checked by walking in October 2021.

Table 1. Fall (October 2021) *Spartina densiflora* removal data for Denman Island.

Number and Size of *Spartina densiflora* plant bunches removed

PLANT SIZE: M > 10 stems, S 5-10 stems, T <5 stems

AREA Number	Total Removals / Area	Site	Number & Size of Removals	Total removed/ Site	Comments
3	0	Komas	Oct	0	
8	1	Sh's	Oct 22 S 1	1	<i>with seed head</i>
1	1	Beacon	Oct 21 S 1	1	
5	4	2nd Pt N Hinton	Oct 13 S 2 T 1	3	<i>1 with seed head</i>
		1st Pt N Hinton	Oct 13 S 1	1	
19	11	Inter Valens	Oct 11 M 2 S 3	5	<i>2 with seed heads, 1 flowers</i>
		Valens S	Oct 13 S 1	1	
		SB mid	Oct 11 S 1	1	<i>with flowers</i>
		Sa N side	Oct 9 S 3	3	
		Fishing pools	earlier M 1	1	
18	2	Boyle Bay	Oct 6 M 1 S 1	2	
15	0	McFarlane Area	Oct	0	
TOTAL				19	