Seagrass Loss in Horseshoe Cove

Horseshoe Cove and Suwannee Sound Workshop.
March 10, 2021

Paul Carlson, Laura Yarbro, and many others!

Seagrass Assessment and Restoration Team 2019

https://myfwc.com/research/habitat/seagrasses/projects/active/simm/

Florida Fish and Wildlife Conservation Commission

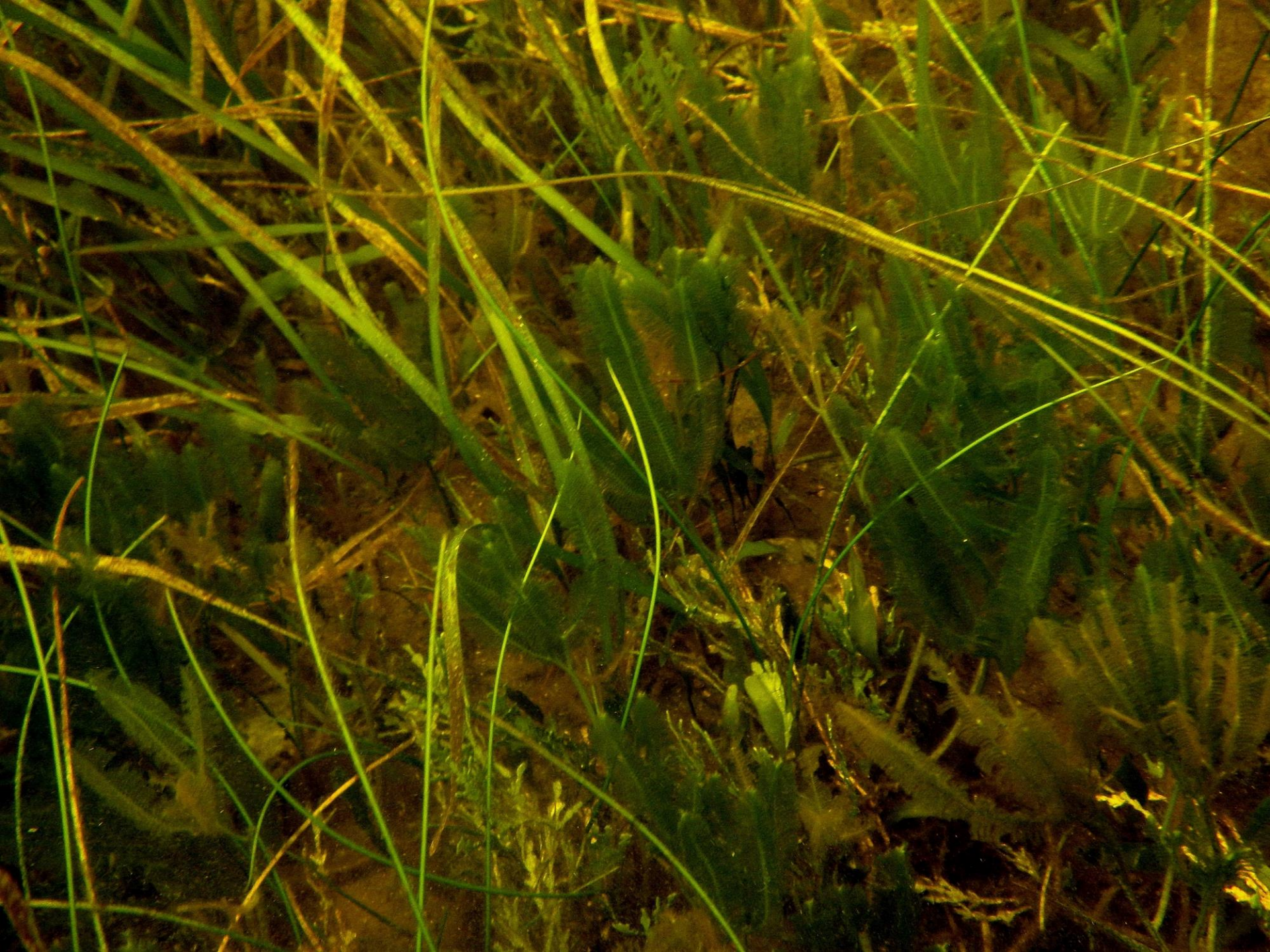
Site Search

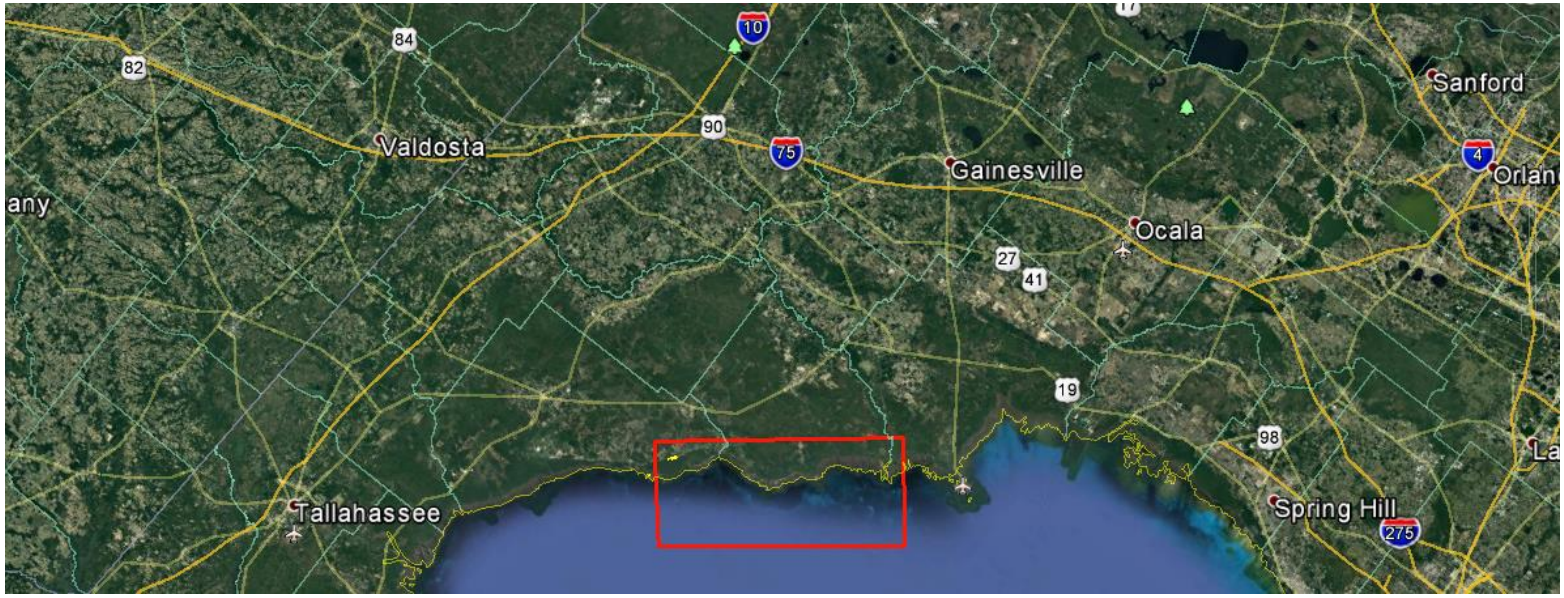
Home › FWRI › Habitat Research › Seagrasses › Seagrass Projects › Active Projects › Seagrass Integrated Mapping and Monitoring Program

Seagrass Integrated Mapping and Monitoring Program

Florida seagrass beds are extremely valuable marine habitats. Many economically important fish and shellfish species depend on seagrass beds for critical stages of their life history. Seagrasses provide food and shelter for endangered mammals and turtles and play a role in nutrient cycles, sediment stabilization, coastal biodiversity, and the global carbon cycle. Seagrasses cover nearly 2.5 million acres of shallow sediments near Florida's coastline and in its estuaries and bays. An additional 2 million acres likely exist offshore in deeper waters in the Big Bend region and off the southwest Florida coast.

During the 20th century, seagrasses experienced large declines in acreage, as well as changes in species and in the density and size of beds. Recognizing the value of seagrass beds spurred agencies and governments, from local to federal, to restore and protect this resource. The FWC's Fish and Wildlife Research Institute developed the Seagrass Integrated Mapping and Monitoring (SIMM) program to protect and manage seagrasses in Florida by providing a collaborative resource for seagrass mapping, monitoring, and data sharing. The SIMM program works with scientists statewide to facilitate and coordinate mapping and monitoring of seagrasses and to report findings and assessments of seagrass health online. A statewide report and chapters on each estuary or coastal region are in an easy-to-read format that provides scientists, resource managers, legislators, and other stakeholders a summary of the status of seagrasses in Florida. Given the budget problems that many agencies face, the program also works to leverage resources and to decrease and share costs of seagrass mapping and monitoring.





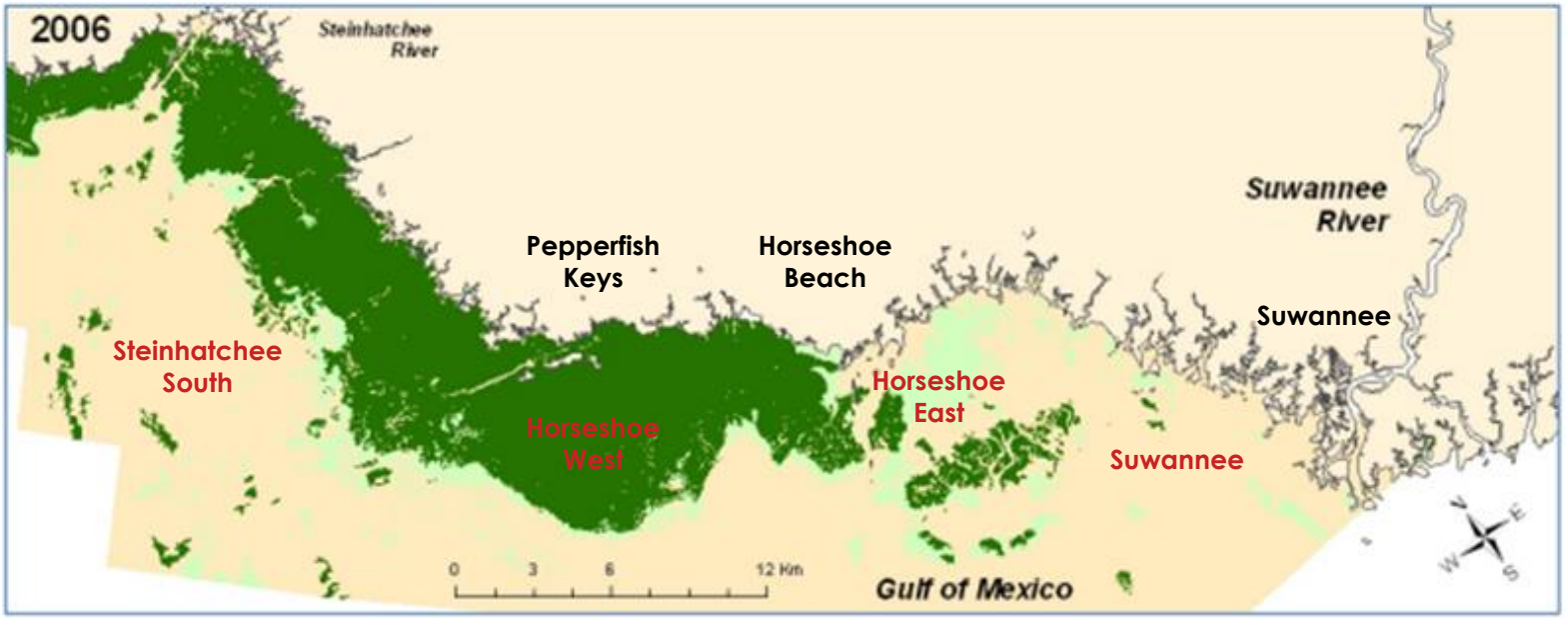
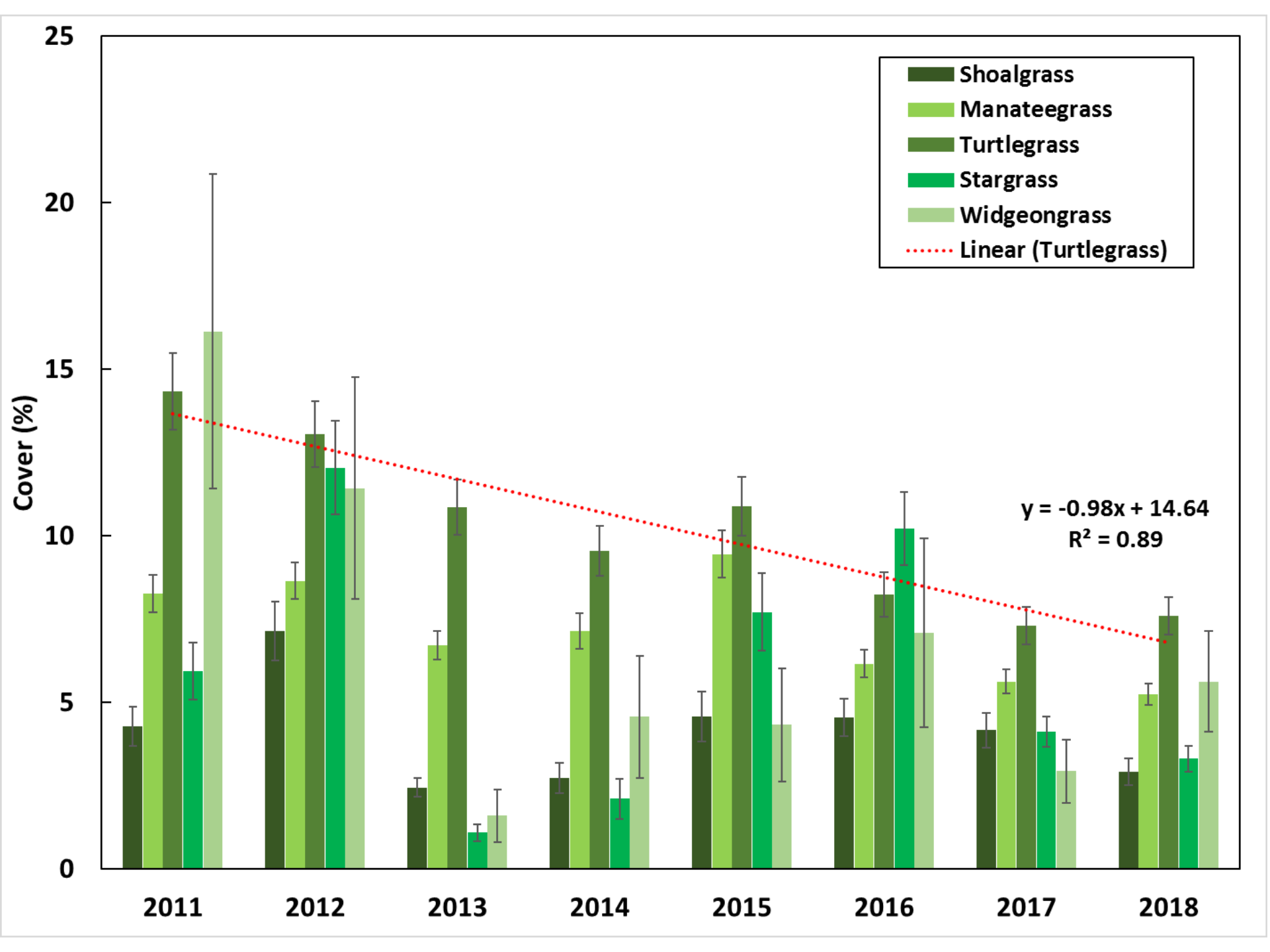
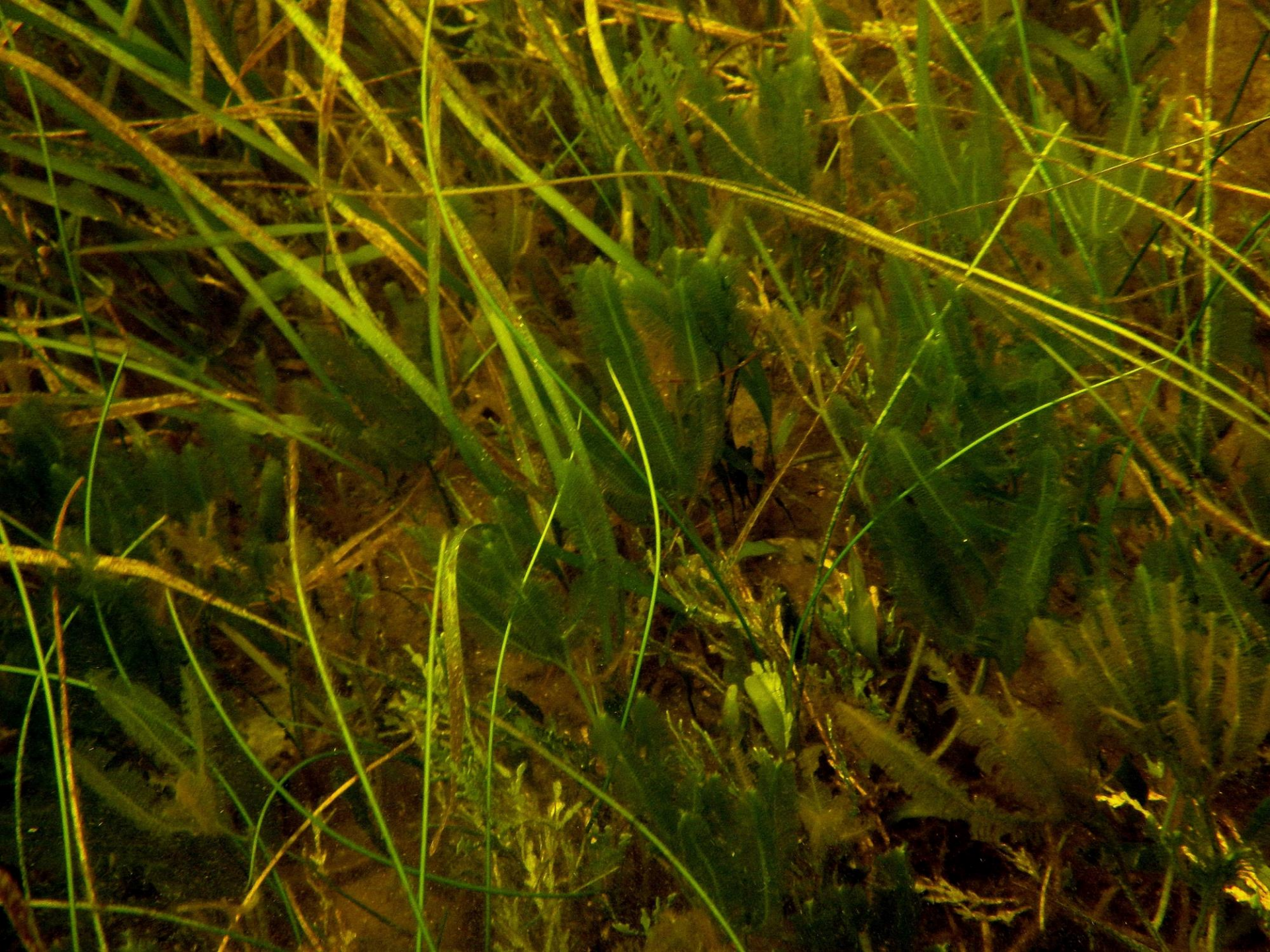


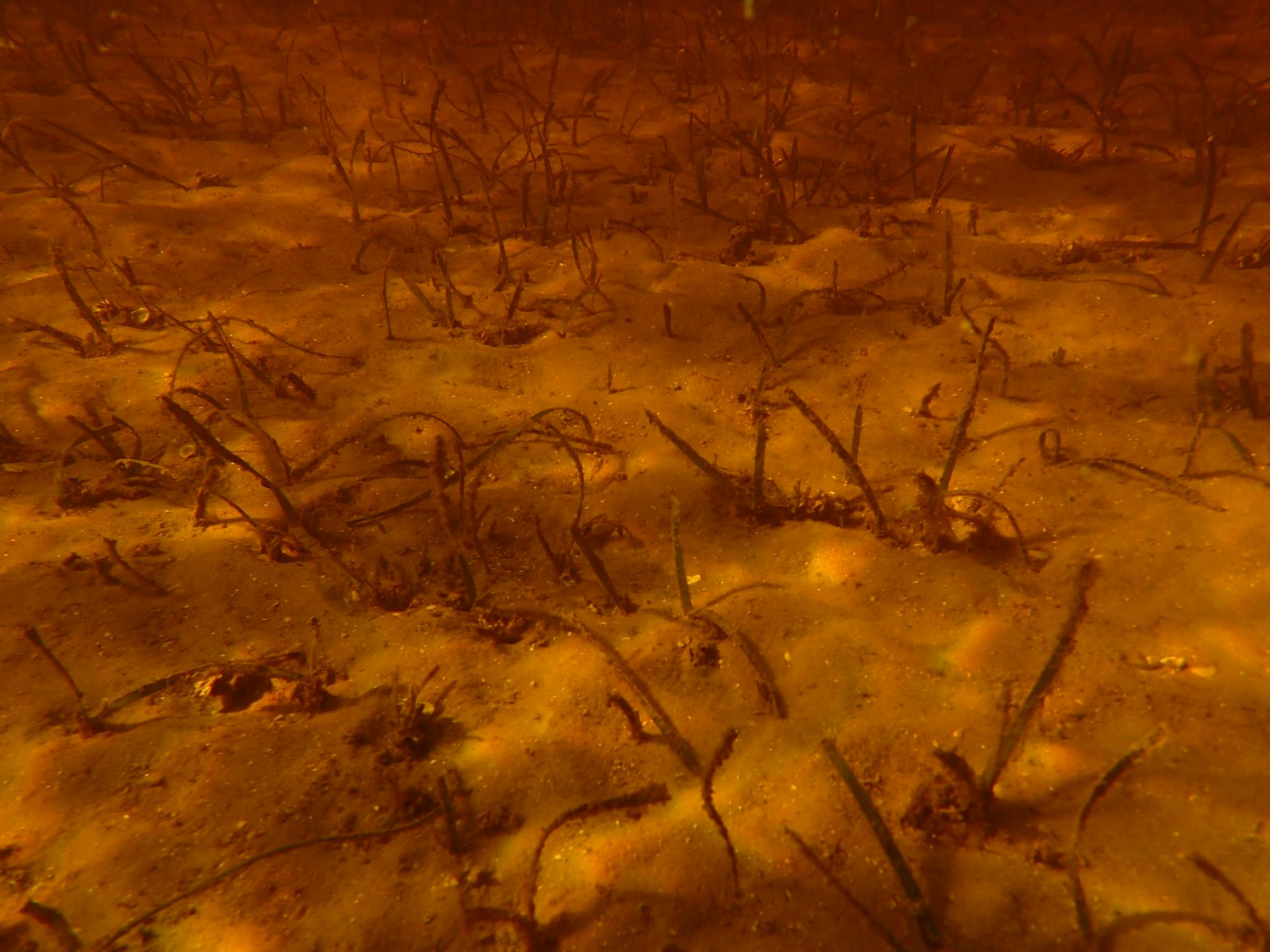
Figure 1 *Seagrass acreage in the southern Big Bend in 2006. Continuous seagrass beds are shown in dark green; patchy beds are shown in light green.*

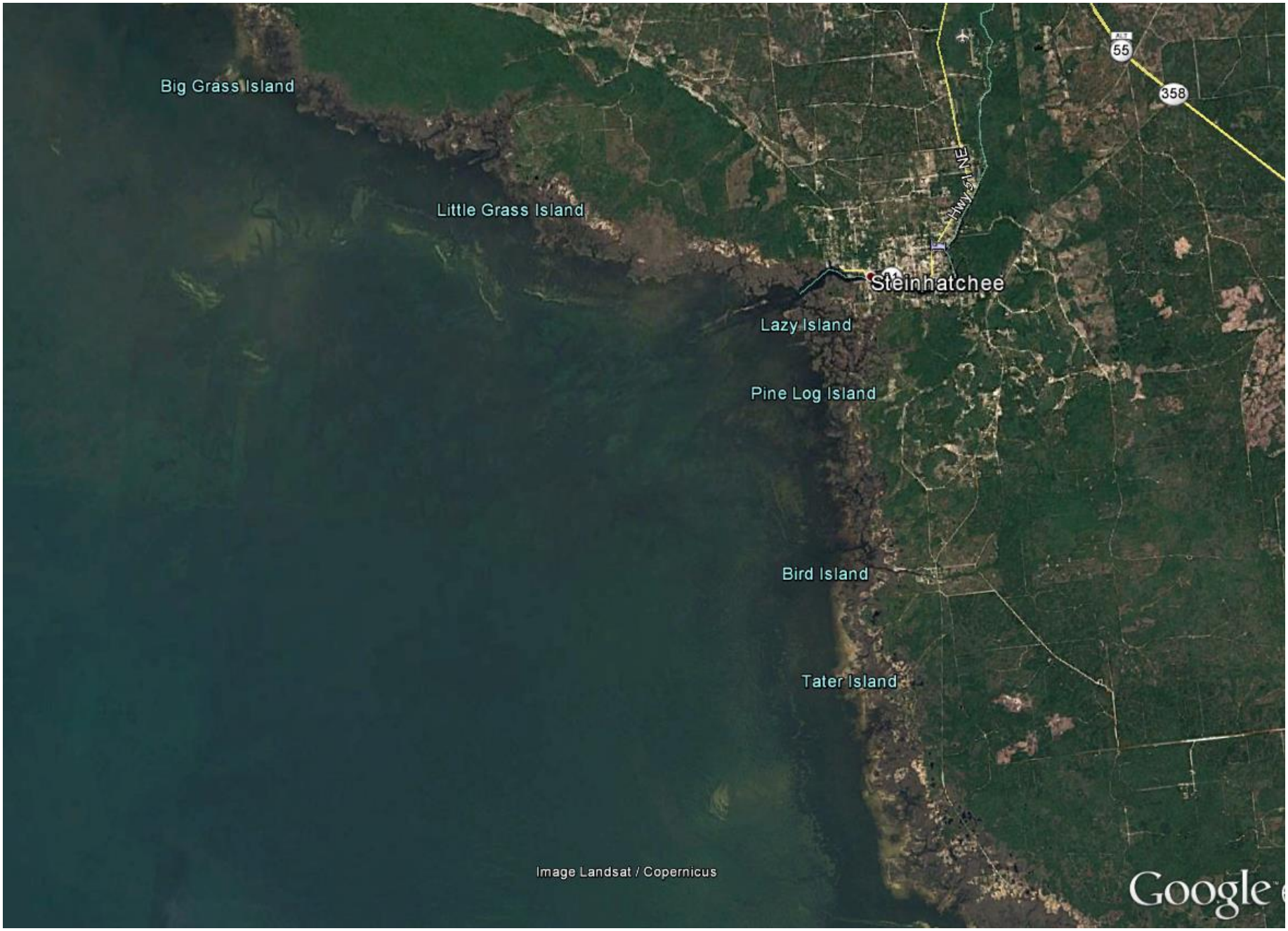
Seagrass Cover Change (km2), Southern Big Bend Region, 2006-2015.

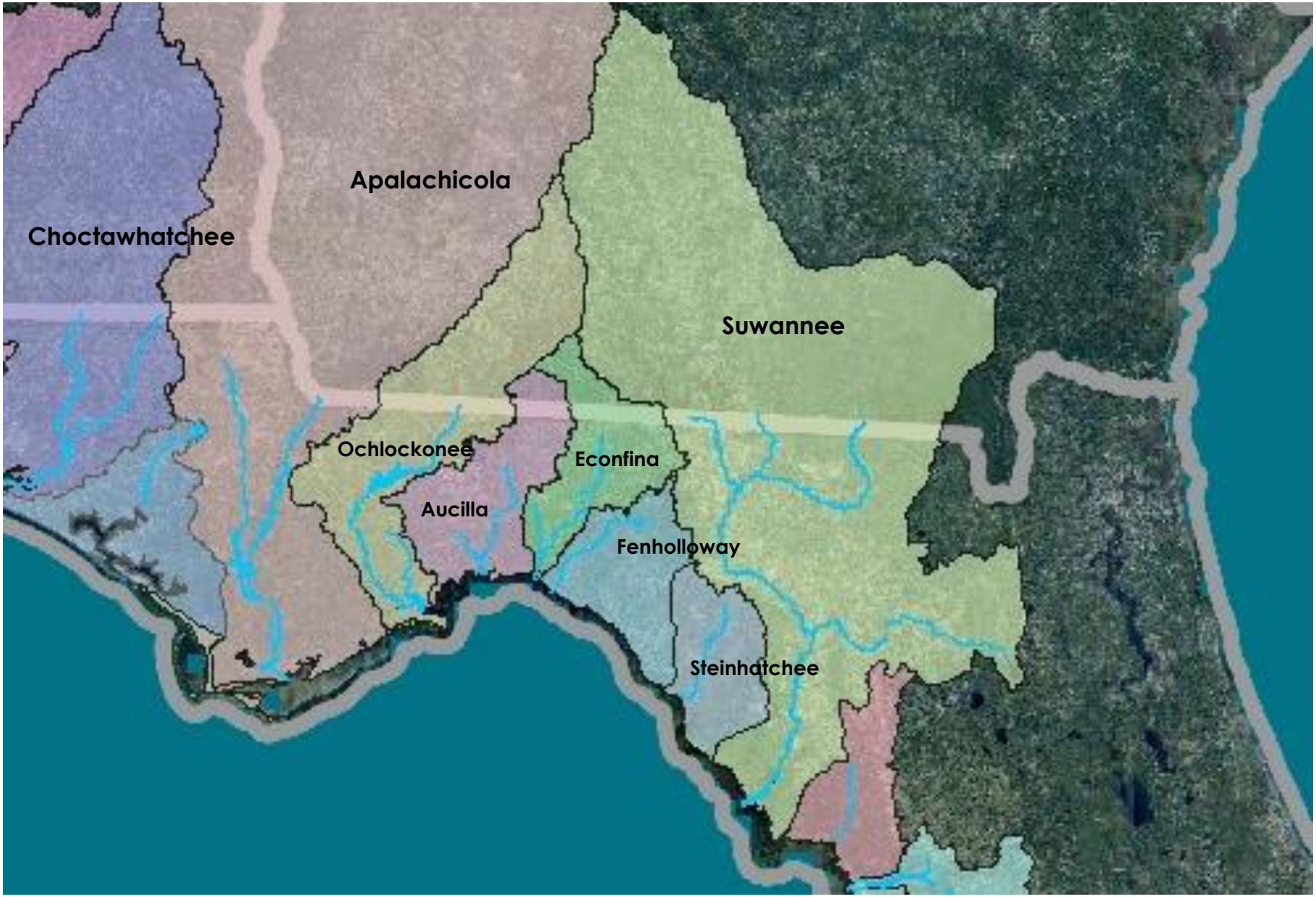
		2006	2011	2015	2015-2006
Steinhatchee South	Continuous	15.3	9.4	7.3	**-8.0**
	Patchy	5.4	8.8	8.1	2.7
	Total	**20.7**	**18.1**	**15.5**	**-5.2**
Horseshoe West	Continuous	97.1	87.0	74.9	**-22.1**
	Patchy	12.2	33.4	28.6	16.4
	Total	**109.3**	**120.5**	**103.6**	**-5.7**
Horseshoe East	Continuous	12.2	31.2	12.3	0.1
	Patchy	16.3	15.9	8.5	-7.7
	Total	**28.5**	**47.0**	**20.8**	**-7.6**
Suwannee	Continuous	0.5	3.6	0.6	0.1
	Patchy	2.6	4.4	5.8	3.3
	Total	**3.1**	**8.1**	**6.4**	**3.3**
	All Regions	**Total Loss (km2)**			**-15.3**
		Fragmentation (km2)			**-29.9**


25
20
15
10
5
0
Cover (%)
2011
2012
2013
2014
2015
2016
2017
2018
Shoalgrass
Manateegrass
Turtlegrass
Stargrass
Widgeongrass
Linear (Turtlegrass)
y = -0.98x + 14.64
R² = 0.89






Big Grass Island
Little Grass Island
Steinhatchee
Lazy Island
Pine Log Island
Bird Island
Tater Island
Image Landsat / Copernicus
Google


Choctawhatchee
Apalachicola
Suwannee
Ochlockonee
Econfina
Aucilla
Fenholloway
Steinhatchee