

## Supplementary Online Material

### Megaherbivores may impact expansion of invasive seagrass in the Caribbean

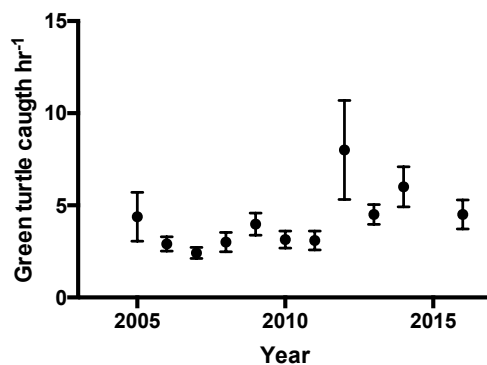
#### Running head: megaherbivores and invasive seagrass expansion

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**Table S1.** An index for green turtle abundance between 2005-2016 in Lac Bay, Bonaire, Dutch Caribbean, collected by Sea Turtle Conservation Bonaire. Catch per unit effort (CPUE) data was collected from annual reports (Sea Turtle Conservation Bonaire 2012, 2016) and presented with permission of the authors. Turtles were captured using nets for monitoring of somatic growths. Linear regression of the average number of turtles caught in nets did not show a significant increase over the years ( $p = 0.112$ ,  $F = 3.1$ ). The increase over time can account for 17.35% of the variation in turtle abundances.

Year	Total capture time (hours)	Turtles caught (average nr indiv hr <sup>-1</sup> )	Stdev	SEM	Comments	Reference
2003	17.9	0.88*	0.8	0.2		2012 STCB Research & Monitoring Report
2005	8.9	4.4	4.0	1.3		2012 STCB Research & Monitoring Report
2006	32.9	2.9	2.3	0.4		2012 STCB Research & Monitoring Report
2007	30.0	2.4	1.7	0.3		2012 STCB Research & Monitoring Report
2008	24.8	3.0	2.7	0.5		2012 STCB Research & Monitoring Report
2009	32.0	4.0	3.4	0.6		2012 STCB Research & Monitoring Report
2010	39.0	3.1	2.9	0.5		2012 STCB Research & Monitoring Report
2011	26.8	3.1	2.7	0.5		2012 STCB Research & Monitoring Report
2012	24.1	8.0	13.2	2.7		2012 STCB Research & Monitoring Report
2013		4.5	3.0	0.5	estimated from figure	2016 STCB Research & Monitoring Report
2014		6.0	6.0	1.1	estimated from figure	2016 STCB Research & Monitoring Report
2015		NA	NA			2016 STCB Research & Monitoring Report
2016	32.0	4.5	4.5	0.8		2016 STCB Research & Monitoring Report

\*excluded from analysis as it was a first time measurement, and method and location differed



**Figure S1.** An index for green turtle abundance between 2005-2016 in Lac Bay

It should be noted that the CPUE estimates are not corrected for detection probability and therefore represent an “index” that accounts for effort. An investigation into the relation between CPUE and abundance (density, and population size within the Lac system) and on trend in abundance (i.e., change through time) is needed (F.F. Rivera-Milan and M. Nava, STCB, unpublished data).

#### References

- Sea Turtle Conservation Bonaire, 2012. Research and Monitoring of Bonaire’s Sea Turtles: 2012 Technical Report. Sea Turtle Conservation Bonaire, Kralendijk, Bonaire. 49 pp.
- Sea Turtle Conservation Bonaire, 2016. Research and Monitoring of Bonaire’s Sea Turtles: 2016 Technical Report. Sea Turtle Conservation Bonaire, Kralendijk, Bonaire. 27 pp.