

University of Groningen

Thresholds and shifts

van Wesenbeeck, Bregje Karien

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2007

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

van Wesenbeeck, B. K. (2007). Thresholds and shifts: Consequences of habitat modification in salt-marsh pioneer zones. University of Groningen and Netherlands Institute for Ecology (NIOO-KNAW).

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Thresholds and shifts:
consequences of habitat modification
in salt-marsh pioneer zones

Lay-out and figures: Dick Visser

Cover: Remment ter Hofstede

Printed by: Van Denderen b.v., Groningen

ISBN: 978-90-367-3088-4

ISBN digitale versie: 978-90-367-3089-1

RIJKSUNIVERSITEIT GRONINGEN

Thresholds and shifts:
consequences of habitat modification
in salt-marsh pioneer zones

PROEFSCHRIFT

ter verkrijging van het doctoraat in de
Wiskunde en Natuurwetenschappen
aan de Rijksuniversiteit Groningen
op gezag van de
Rector Magnificus, dr. F. Zwarts,
in het openbaar te verdedigen op
vrijdag 6 juli 2007
om 16:15 uur

door

Bregje Karien van Wesenbeeck

geboren op 18 februari 1976
te 's-Gravenhage

Promotores: Prof. dr. J.P. Bakker
Prof. dr. P.M.J. Herman
Prof. dr. M.D. Bertness

Copromotor: Dr. T.J. Bouma

Beoordelingscommissie: Prof. dr. H. Olf
Prof. dr. M. Scheffer
Prof. dr. B.R. Silliman

Contents

Chapter 1	General introduction	7
Chapter 2	Does scale-dependent feedback explain spatial complexity in salt-marsh ecosystems?	17
Chapter 3	Biomechanical warfare in ecology; negative interactions between species by habitat modification	31
Chapter 4	Negative species interactions through ecosystem engineering	51
Chapter 5	Potential for sudden shifts in transient systems; distinguishing between local and landscape-scale processes	63
Chapter 6	Distinct habitat types arise along a continuous hydrodynamic stress gradient due to the interplay of competition and facilitation	79
Chapter 7	Synthesis	95
	References	105
	Summary	117
	Samenvatting	121
	Dankwoord	125

