

North East Kent Scientific Coastal Advisory Group



Natural England

NEKEMS/NEKMPA

Non Native Species Project

2007 - 2018



2007

KWT report an alarming spread of wild Pacific Oysters within the NEKEMS.

In response NE commission a project to establish a baseline for PO:

- distribution
- abundance
- impact on native species & habitats
- attachment substrates

Baseline Distribution 2007 - 2008

N ↑

Oyster
Farms

Excluded

Oyster
Hatchery

NEKMPA Boundary
OS TR 132 674

North East Kent

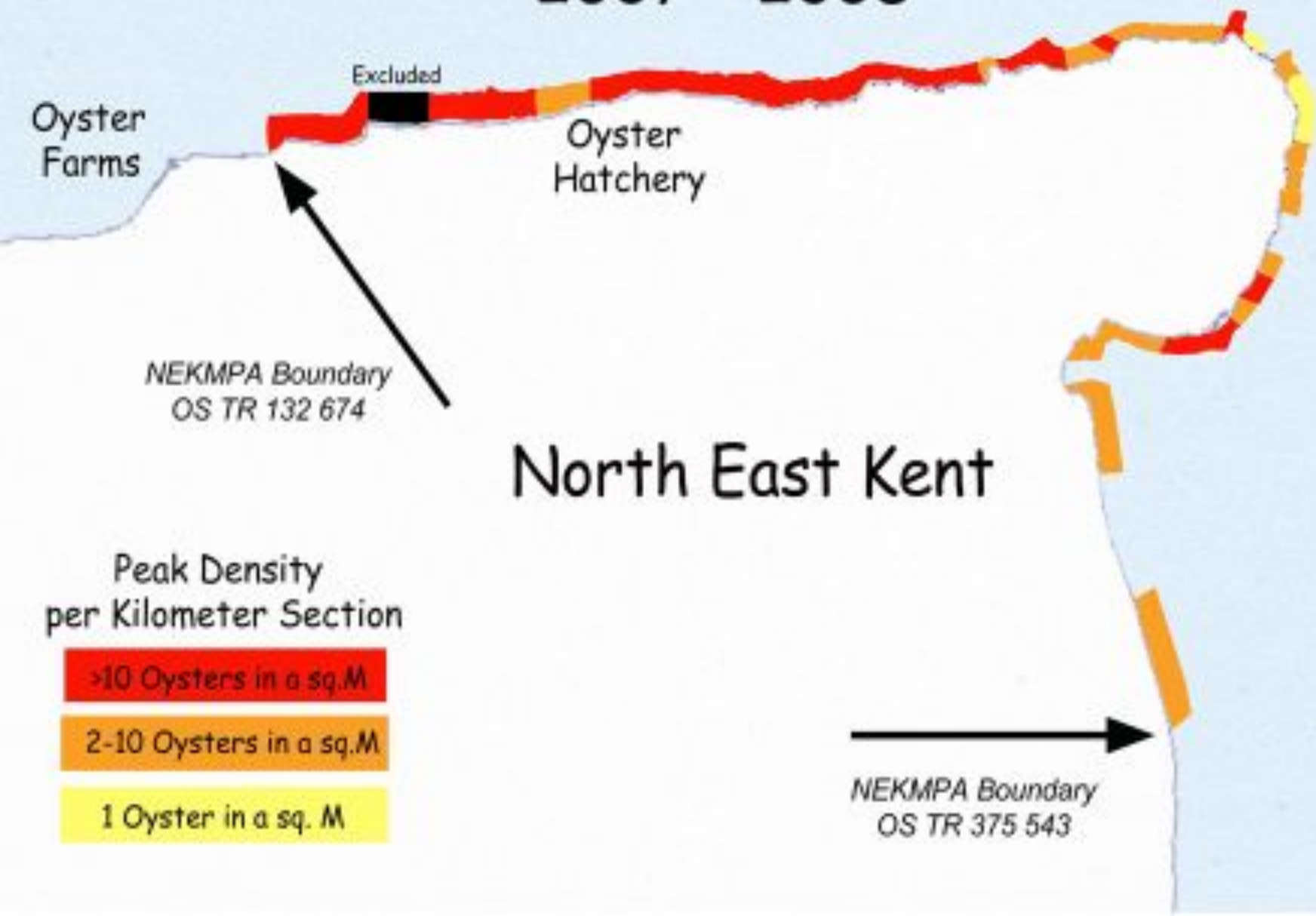
Peak Density
per Kilometer Section

>10 Oysters in a sq.M

2-10 Oysters in a sq.M

1 Oyster in a sq. M

NEKMPA Boundary
OS TR 375 543





PO Distribution Section 18 Epple Bay

Impact: Native Species



Mytilus edulis



Sabellaria spinulosa



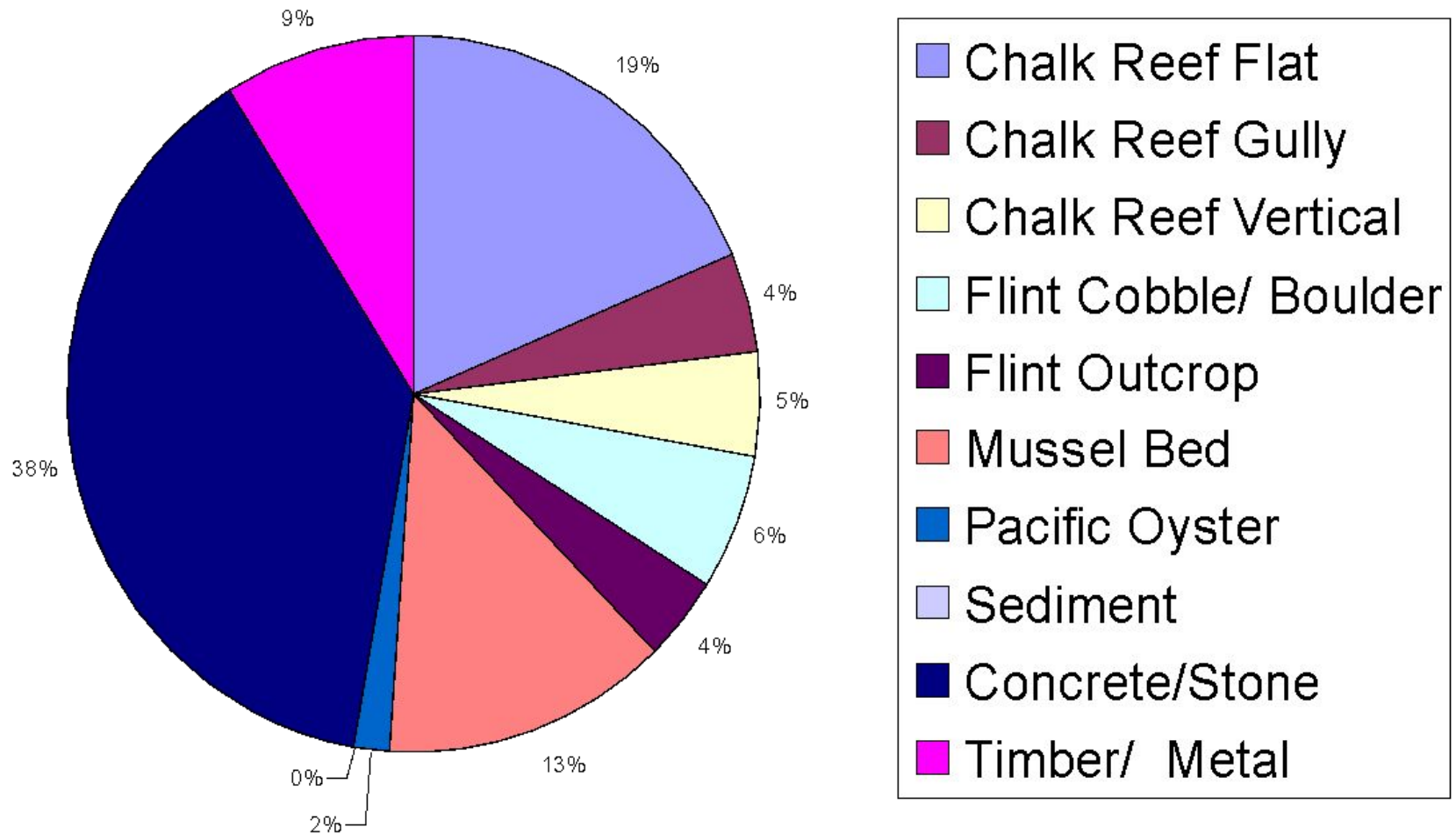
Lanice conchilega



Littorina littorea

Substrate Types with Oysters Attached

Source: 66 Pacific oyster sites.





Impact: Infrastructure

Impact: Shore Users



Ouch!



Institute of Marine Resources
& Ecosystem Studies
Isle of Texel Wadden Sea
Netherlands



2011: NE Select Additional Target Species

Wireweed

*Sargassum
muticum*



Carpet Sea Squirt

*Didemnum
vexillum*



Wakame

*Udaria
pinnatifida*



Chinese Mitten Crab

*Eriocheir
sinensis*



Pom-pom Weed

*Caulacanthus
okamurae*



Survey Results

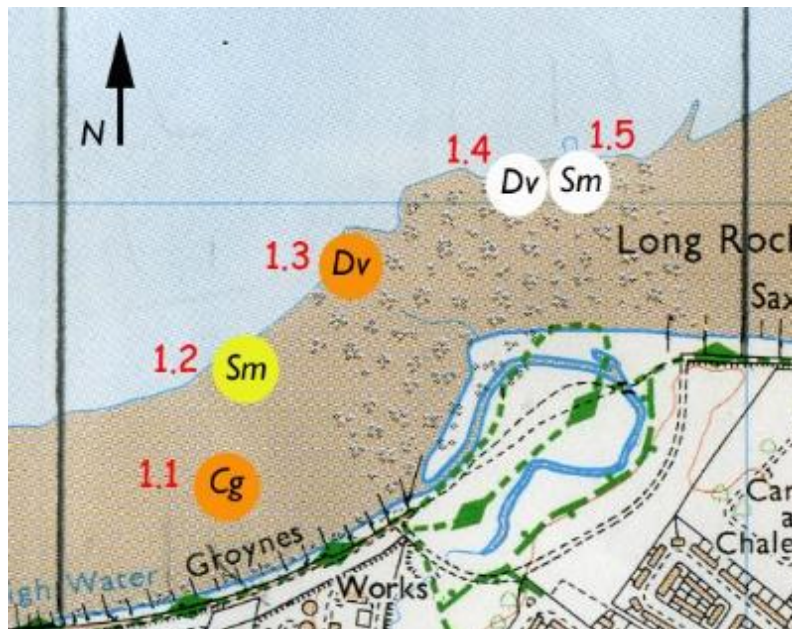
Number of sites recorded across 46 NEKEMS sections.

Pacific Oyster	Wireweed	Carpet Sea Squirt	Chinese Mitten Crab	Wakame	Pom-pom Weed
93	21	16	1	1	19

- Opportunity to compare impact per species.
- Species and sites scored and ranked by “Impact Factor”.
- Impact Factor = Area + Abundance + Species affected + Substrate type.

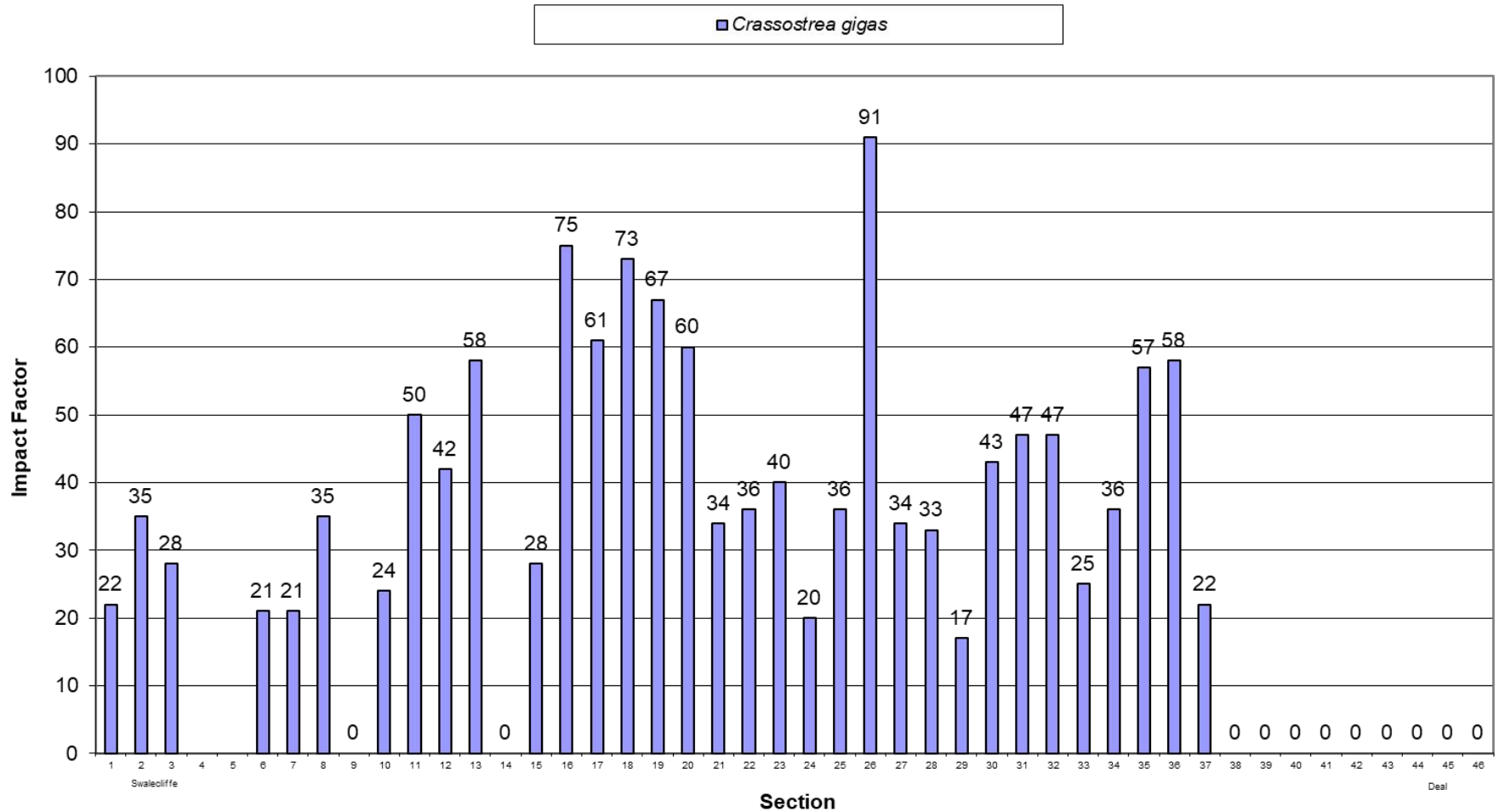
Example of Survey Results: Section 1 Swalecliffe

Section 1 Baseline 29.10.11		Peak Density Score	Surface Area Score	Substrate RE Score	Substrate SE Score	Substrate FL Score	Substrate FA Score	Substrate AL Score	Substrate MM Score	Species Affected Score	Impact Factor
Site 1	Cg	8	12	0	0	1	0	0	1	0	22
Site 2	Sm	2	8	0	0	1	0	0	0	0	11
Site 3	Dv	8	8	0	2	0	0	2	1	8	29
Site 4	Dv	1	1	0	0	0	0	2	0	4	8
Site 5	Sm	1	1	0	0	1	0	0	0	0	3
Section Total		20	30	0	2	3	0	4	2	12	73



Impact Factor
1 - 10
11 - 20
21 - 30
> 30

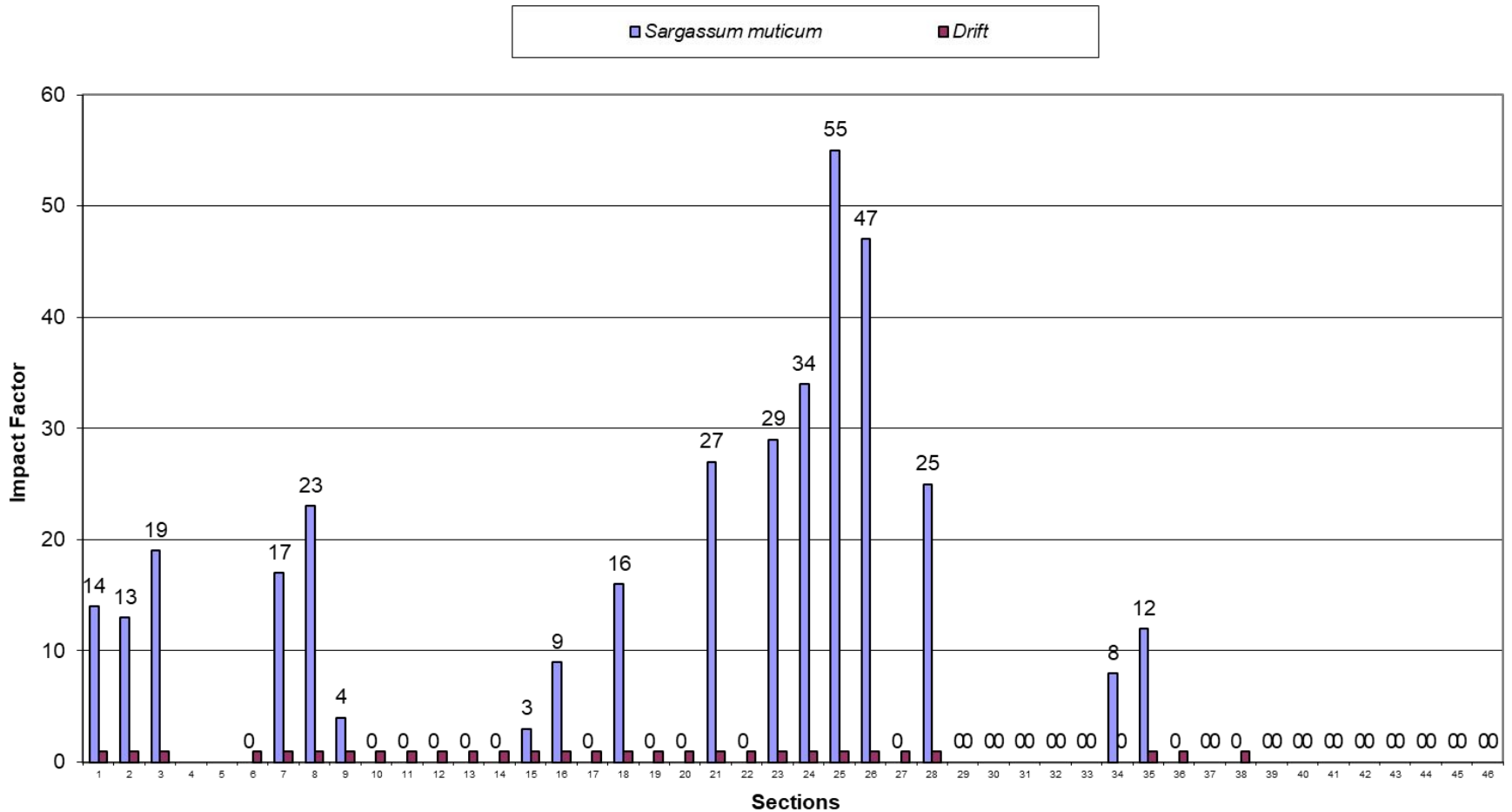
Pacific Oyster Distribution 2013 by Impact Factor per NEKEMS Section



Wireweed Distribution 2013

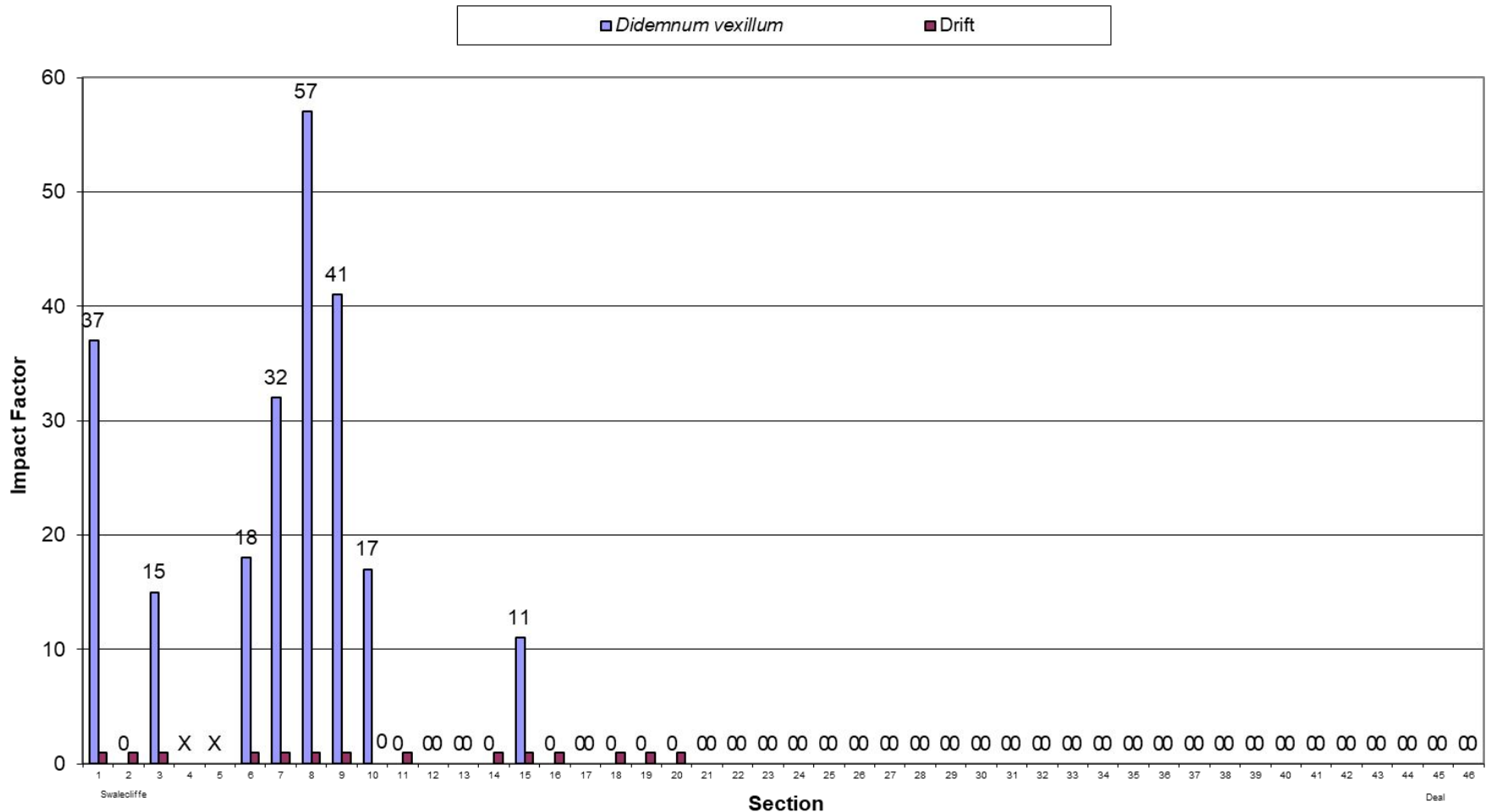
by Impact Factor per NEKEMS Section

NEKMPA: Impact Factor - *Sargassum muticum*

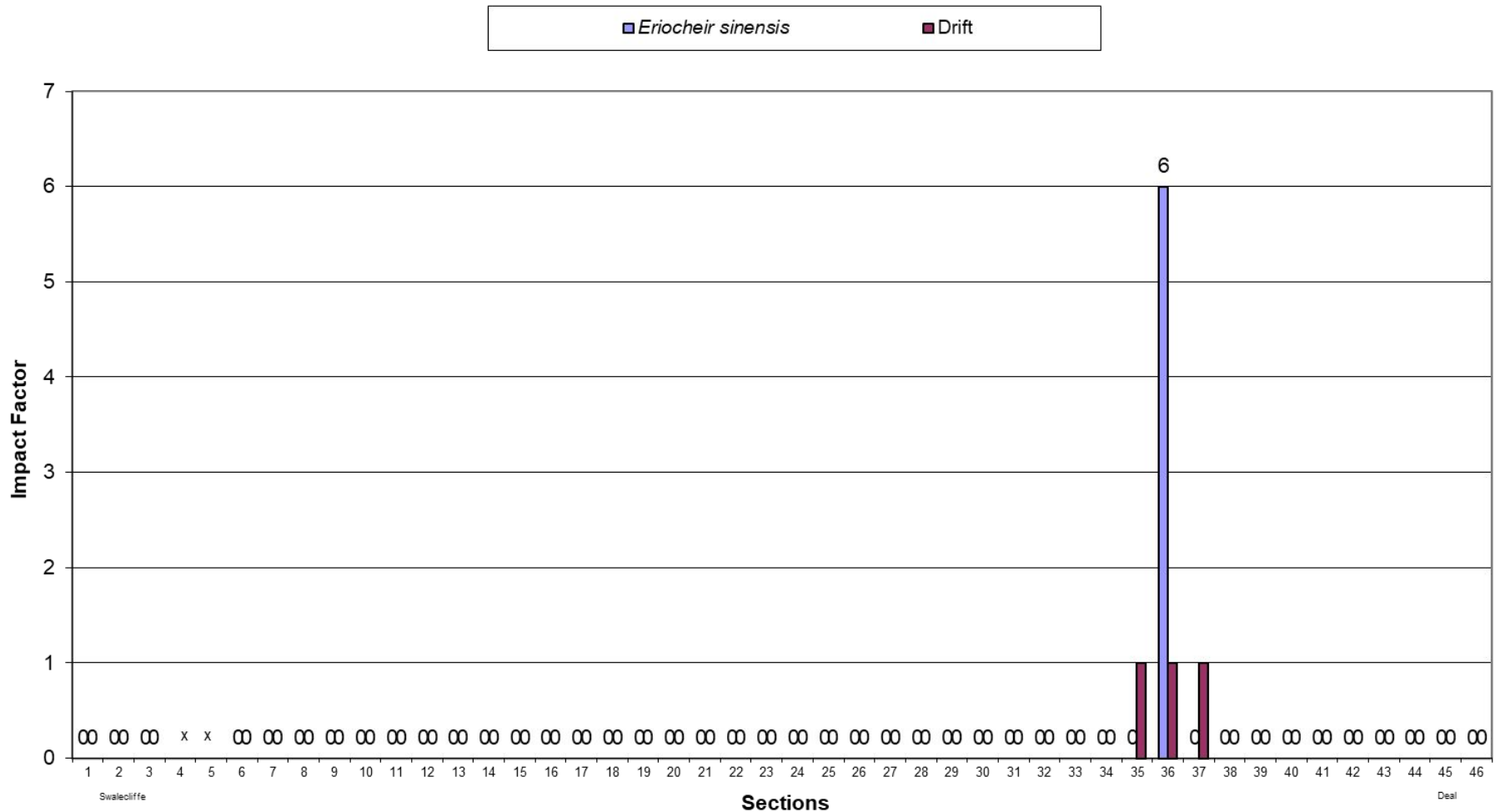


Carpet Sea Squirt Distribution 2013

by Impact Factor per NEKEMS Section

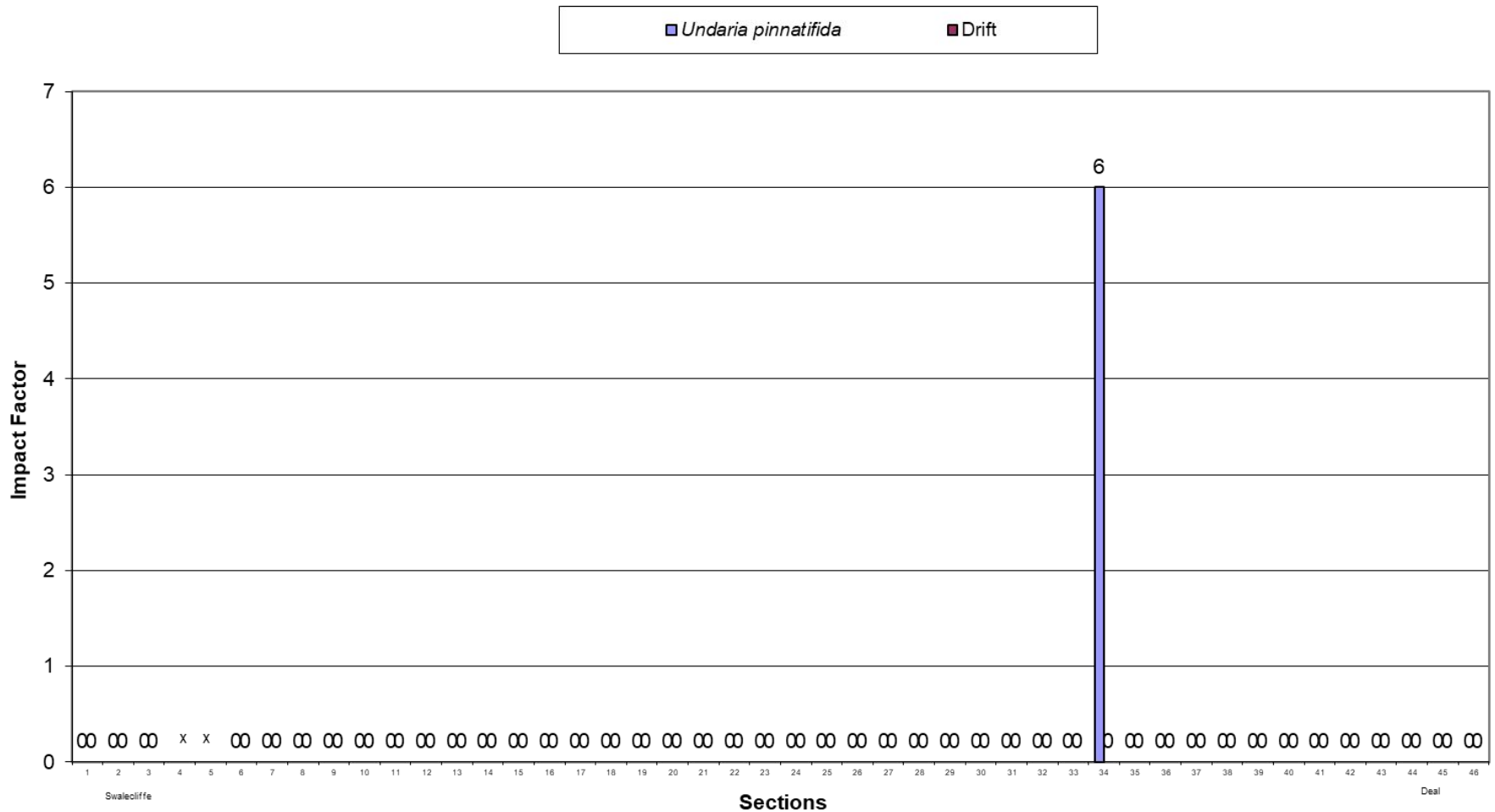


Chinese Mitten Crab Distribution 2013 by Impact Factor per NEKEMS Section



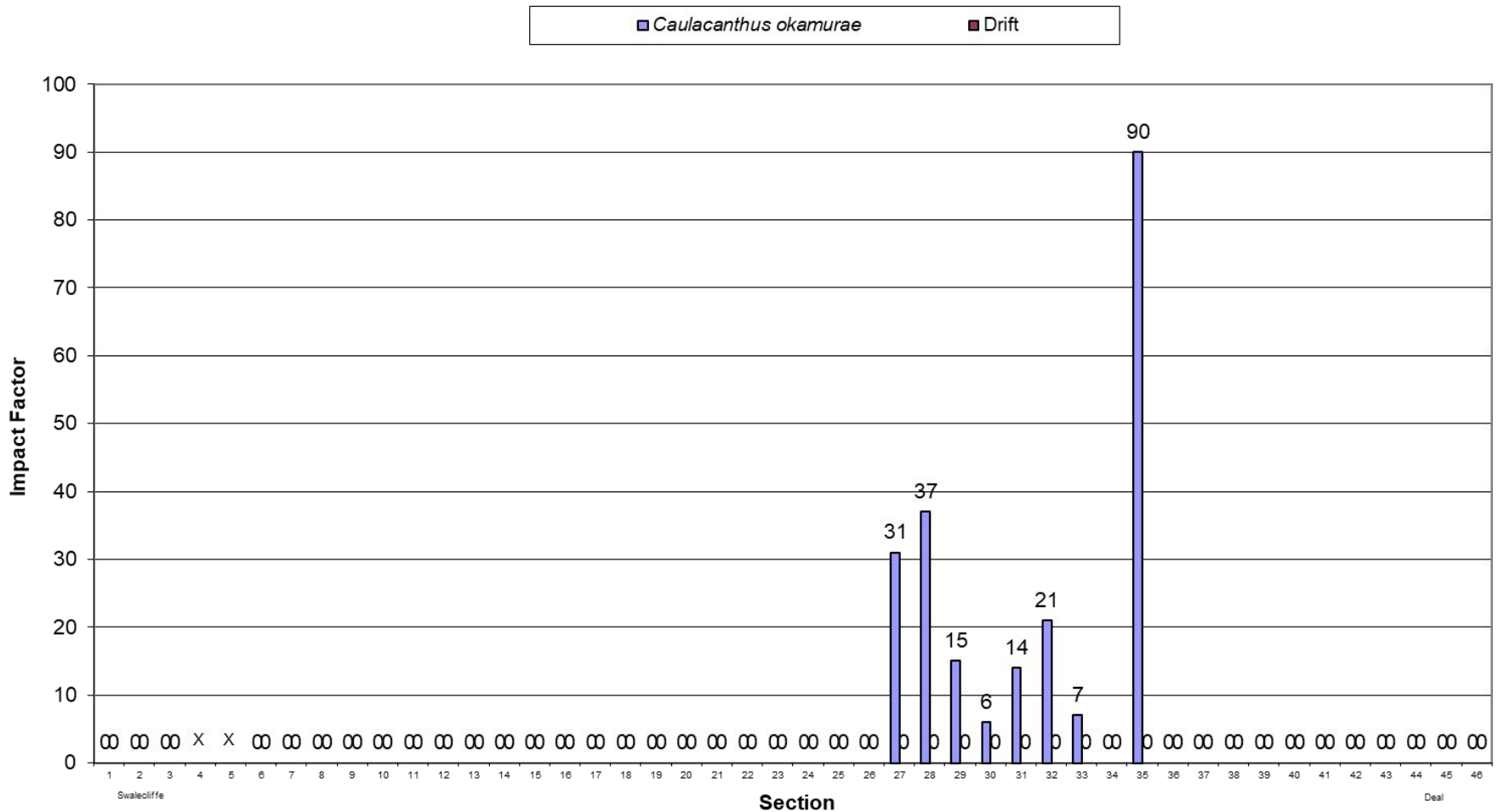
Wakame Distribution 2013

by Impact Factor per NEKEMS Section



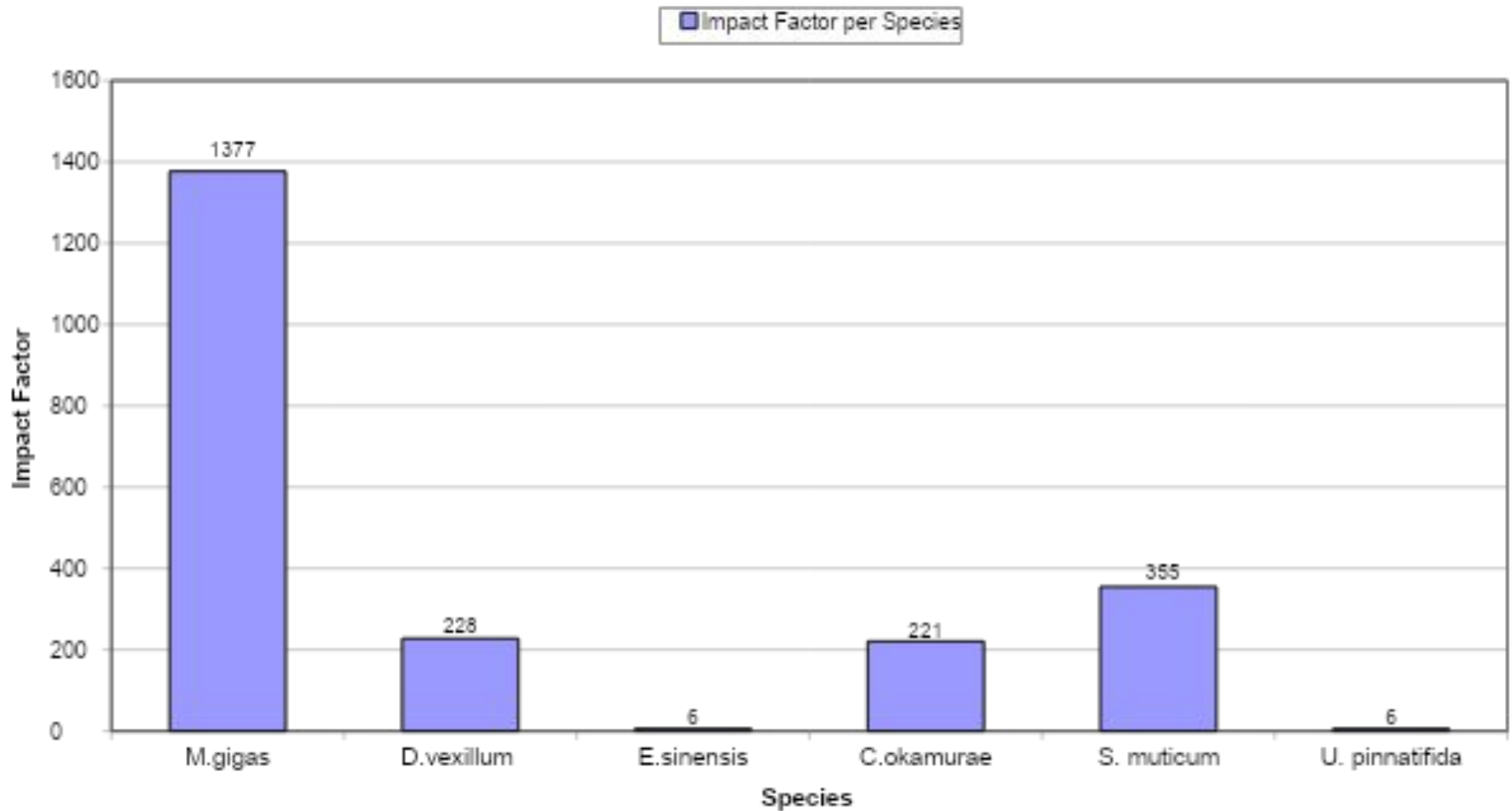
Pom-pom Weed Distribution 2013

by Impact Factor per NEKEMS Section



Impact Factor by Species 2013

(all NEKEMS sections)

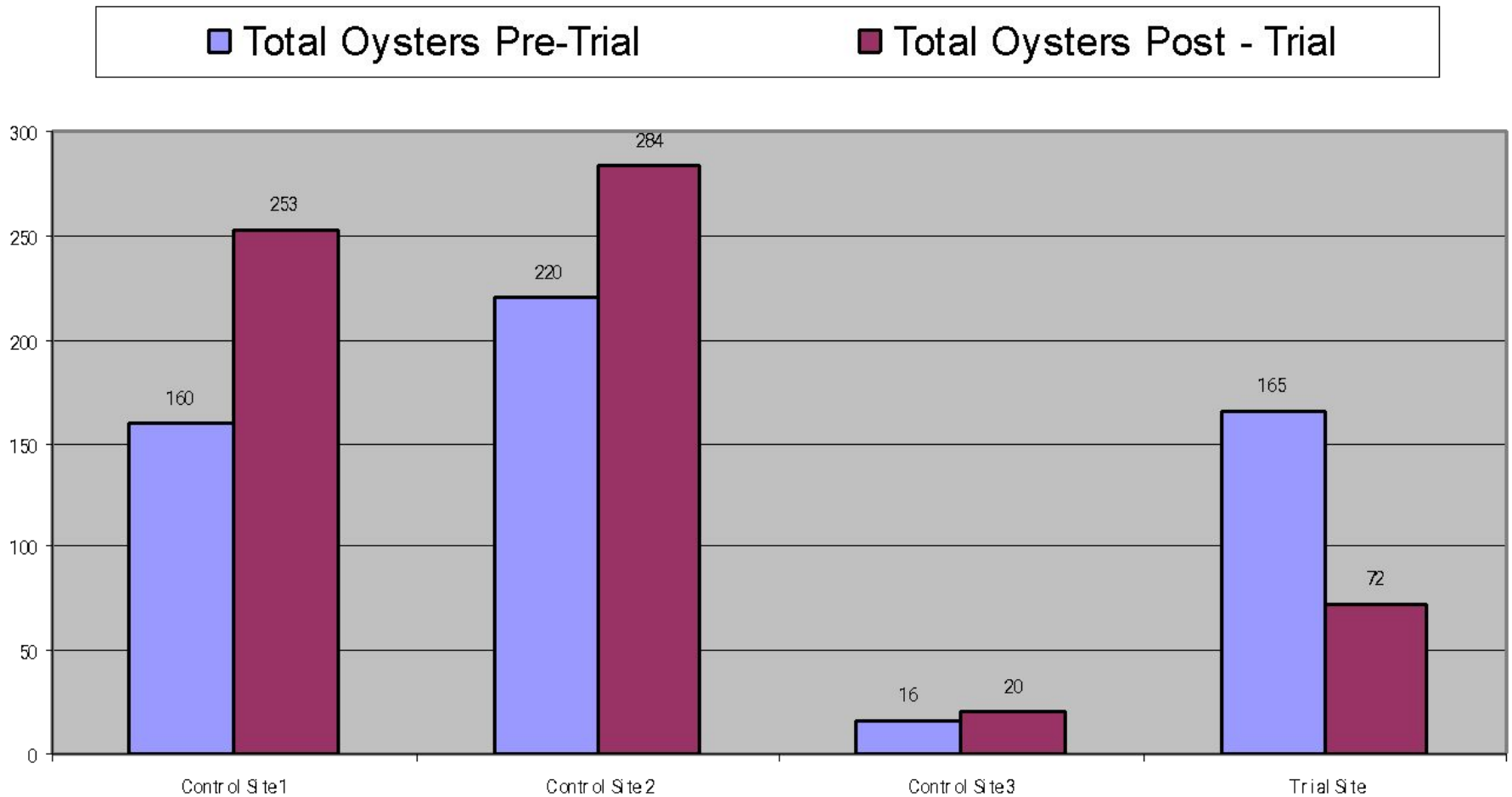


Coastbusters Launch 2012



Trial Results 2013

Transects (1000 m²)



2017

PO Control
Ramsgate Harbour
in conjunction with
TDC Harbour Staff



2018

Wireweed Control
Best Practices
agreed with NE



Coastbusters Data 2012 - 2022

Parameter	Pacific Oyster	Wireweed
Total Removed	378,546	1384.03 Kg Wet Weight
Manhours Onsite	1706.2	62.5
Chalk Reef Impacts	64	0
Health & Safety Incidents	4	0



Thank You!

“ We shall fight them on
the beaches”

