

North East Kent Scientific Coastal Advisory Group

Current Account

A Register of the Distribution, Impact and Control of Selected Non-Native Species within the Inter-Tidal Zone of the North East Kent Marine Protected Areas.

Issue 5: December 2023

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Pacific Oyster reef. Epple Bay, Birchington

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Current Account

1. Introduction

1. Introduction

Aim

The aim of this project is to set up and maintain an ongoing process to record the distribution, impact and control of selected Non Native Species within the inter-tidal zone of the NEKMPA thereby enabling the Management Group to make informed decisions regarding species management.

The Register

The prime function of the register is to provide the NEKMPA Management Group and the MPA officer with a summary of the condition of the NEKMPA inter-tidal zone in terms of the distribution, impact and control of selected Non Native Species. In addition, open access to the register is made available on-line to interested organizations and individuals via the NEKMPA website: www.thanetcoast.org.uk
Contact MPA Officer Tony Child: tony.child@thanet.gov.uk

Register Management

The register is issued and maintained under documentation control by NEKSCAG and is an agenda item included in the Non Native Species section of NEKSCAG meetings. This provides an opportunity to discuss progress, make adjustments to the process and add or remove selected species. The register is managed on behalf of NEKSCAG by Willie McKnight. The process is “future proof” to facilitate the inclusion of additional new arrivals selected by NEKSCAG.

Frequency

To launch the project, Issue 1 of the register contains baseline and control data for 5 Non Native Species selected by Natural England in 2011. These are:

- Pacific Oyster *Magallana gigas*
- Wireweed *Sargassum muticum*
- Carpet Sea Squirt *Didemnum vexillum*
- Chinese Mitten Crab *Eriocheir sinensis*
- Wakame *Undaria pinnatifida*

The register is updated and re-issued annually on the 31st of December. New issues include field data updates and amendments approved by NEKSCAG during the current year. Previous issues are archived on the Thanet Coast Project website to provide access to historic data.

Data

To ensure the integrity of the data, the register is compiled entirely with survey data recorded in compliance with the methodology stated in Natural England’s Non Native Species project which was launched within the NEKMPA in 2011. Field data must therefore be gathered by surveyors who have attended the associated Non Native Species training course. All surveys are conducted using standard approved methodology. Survey data is therefore quantifiable, evidence based and auditable to its source. Control data is sourced from Coastbusters volunteers (Natural England and KWT teams). Observations reported from non-trained sources are filtered initially by the MPA officer. Those considered viable are then raised at NEKSCAG meetings for assessment and possible field survey.

1. Introduction

Summary of field work completed in 2023.

Coastbusters

A total of eight Coastbusters shore events occurred in 2023. One harbour and one shore event scheduled in December were cancelled due to severe weather conditions.

Current Account Section 2: Distribution and Impact by Selected Non-Native Species.

No surveys were completed in 2023. Data in Section 2 of the Current Account are therefore unchanged since 2019. For baseline details see Section 2, Current Account issue 1, 31 December 2019.

Current Account Section 3: Distribution and Impact by NEKMPA Sections.

No surveys were completed in 2023. Data in Section 3 of the Current Account are therefore unchanged since 2019. For baseline details see Section 3, Current Account issue 1, 31 December 2019.

Current Account Section 4: Control of Selected Non-Native Species

Pacific Oyster:

In 2023 34,925 oysters were removed and 88.25 man-hours were spent onsite. There was no health and safety issues. Two chalk reef impacts were recorded. This brings the grand total since 2011 when control measures were launched to 413,471 oysters removed, 1794.45 man-hours onsite, 4 health and safety issues and 66 chalk reef impacts.

Wireweed:

In 2023 no Wireweed control took place due to ongoing issues around waste disposal (TCP, TDC, EA, NE dealing). The grand total remains at 1384.03 kg wet weight removed, 62.5 man-hours on site and no health and safety issues.

Current Account Section 5: Management Group Action Points for Non-Native Species.

A Management Group and a NEKSCAG meeting were held in November 2023. Details of Management Group action points for Non-Native Species can be found in the "Species Management and Control" section of the NEKMPA Management Scheme – Action Plan 2019-2024.

[DRAFT 2019-24 NEKMPA ActionPlan-Updates \(thanetcoast.org.uk\)](https://thanetcoast.org.uk)

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2. Distribution and Impact by Selected Non Native Species



Undaria pinnatifida



Didemnum vexillum



Eriocheir sinensis



Sargassum muticum



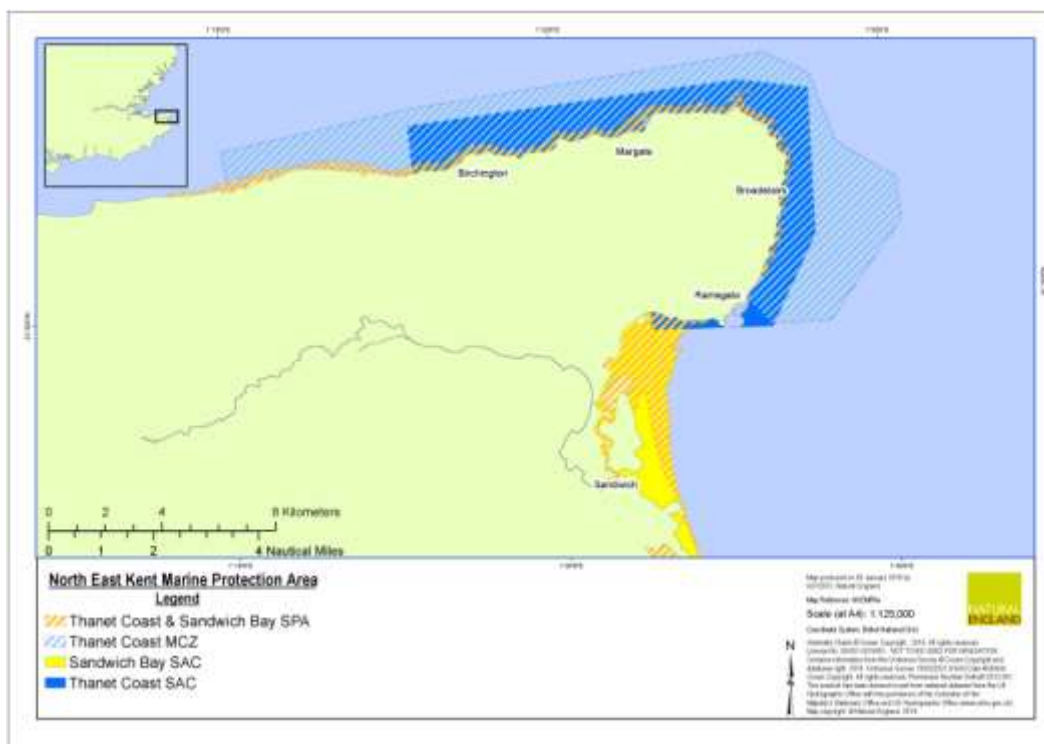
Magallana gigas

Current Account Section 2: Distribution and Impact by Selected Non-Native Species.

No surveys were completed in 2023. Data in Section 2 of this Current Account are therefore unchanged since 2019. For baseline details see Section 2, Current Account Issue 1, 31 December 2019.

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3. Distribution and Impact by NEKMPA Sections



Current Account Section 3: Distribution and Impact by NEKMPA Section.

No surveys were completed in 2023. Data in Section 3 of this Current Account are therefore unchanged since 2019. For baseline details see Section 3, Current Account Issue 1, 31 December 2019 where details of each NEKMPA Section are shown. An example (Section 1) follows on page 3.2 of this document. A similar report is recorded for all 46 NEKMPA sections.

3. Example of Distribution and Impact by NEKMPA Section

using NEKMPA Section 1 baseline data.

Section 1

OS Sheet TR Eastings 13000 to 13999

29 Oct. 2011

Magallana gigas is present across the expanse of the site and continues east into Section 2. Attachment is on flint and drift shells. Oysters are scattered singly or at low density except on concrete spoil and the outflow pipe in the lower shore where peak density reaches 32/m². Scattered spat was seen along the northern edge of the spit. This section is low density but large area.

Didemnum vexillum drift was present at the low water line around the perimeter of Long Rock spit attached to *Plocamium cartilagineum* suggesting source was sub-littoral. Within an 80m stretch I counted 22 drift items. This ranged from small blobs (5mm) up to patches reaching 150mm. Similar drift was present along the strand line on the upper shore. *D.vex* was also present on several submerged and semi-submerged clay boulders along the northern edge of the spit. Peak density was found at the seaward end of a metal outflow pipe (approx. 600mm diameter) in the lower shore zone. Attachment was found on the eastside + westside + underside. In places this formed thin latex like sheets on the vertical faces of timber supports.

Sargassum muticum was found attached to stable flint cobbles along the northern edge of the Long Rock spit. All specimens were < 300mm which may indicate recent settlement. Drift was seen across the section.

Table 3.1 shows Impact Factor scoring for Section 1.

Table 3.1 Impact Factor scoring for Section 1.

Section 1 29.10.11	Peak Density Score	Area Affected Score	Substrate Chalk Score	Substrate Sediment Score	Substrate Flint Score	Substrate Fauna Score	Substrate Algae Score	Substrate Man-made Score	Substrate Native sp Score	Impact Factor
Site 1.1 Mg	8	12	0	0	1	0	0	1	0	22
Site 1.2 Sm	2	8	0	0	1	0	0	0	0	11
Site 1.3 Dv	8	8	0	2	0	0	2	1	8	29
Site 1.4 Dv	1	1	0	0	0	0	2	0	4	8
Site 1.5 Sm	1	1	0	0	1	0	0	0	0	3
Section Total	20	30	0	2	3	0	4	2	12	73

Table 3.2 shows the location of sites within Section 1.

Table 3.2 Location of sites within Section 1.

GPS		Key
Site 1.1: OS TR 13317 67549		Impact Factor
Site 1.2: OS TR 13412 67946		1 - 10
Site 1.3: OS TR 13437 67983		11 - 20
Site 1.4: OS TR 13699 68055		21 - 30
Site 1.5: OS TR 13699 68055		> 30

Figure 3.1 shows an Impact Factor comparison between species within the section.

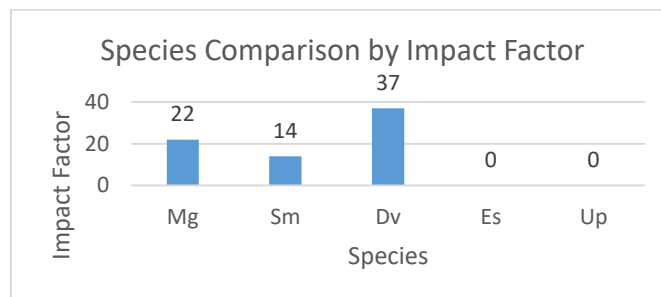


Figure 3.1 Species comparison by Impact Factor

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4. Control of Selected Non Native Species



Magallana gigas control



Sargassum muticum control

4. Control of Selected Non Native Species.

Annual Progress. All Selected Species.

Table 4.1 shows control progress per year / project phase.

Table 4.: Annual Progress

Natural England Team									
Period	Mg (Shore)	Mg (Harbour)	Sm (Kg. Wet Weight)	Dv	Es	Up			
Pilot 23.03.2011 04.02.2012 Phase 5	40196	0							
Trial 06.07.2012 29.06.2013 Phase 6 & 7	35740	0							
Post Trial 20.1.2014 05.03.2014 Phase 7	7153	0							
01.04.2014 31.03.2015 Phase 8	29299	0							
01.04.2015 31.03.2016 Phase 9	59675	0	55.31						
01.04.2016 31.03.2017 Phase 10	29450	0							
01.04.2017 31.03.2018 Phase 11	33067	1259							
01.04.2018 31.03.2019 Phase 12	30960	2926	346.86						
01.04.2019 31.12.2019 Phase 13	23724	968	850.36						
01.01.2020 31.12.2020 Phase 14	28078	0	0						
01.01.2021 31.12.2021 Phase 15	48705	482	131.5						
01.01.2022 31.31.2022 Phase 16	6842	22	0						
01.01.2023 31.31.2023 Phase 17	34925	0	0						
Total	407814	5657	1384.03	0	0	0	0	0	0

KWT Team									
Period	Mg (Shore)	Mg (Harbour)	Sm (Kg. Wet Weight)	Dv	Es	Up			
Pilot 23.03.2011 04.02.2012 Phase 5									
Trial 06.07.2012 29.06.2013 Phase 6 & 7									
Post Trial 20.1.2014 05.03.2014 Phase 7									
01.04.2014 31.03.2015 Phase 8									
01.04.2015 31.03.2016 Phase 9									
01.04.2016 31.03.2017 Phase 10									
01.04.2017 31.03.2018 Phase 11									
01.04.2018 31.03.2019 Phase 12									
01.04.2019 31.12.2019 Phase 13									
01.01.2020 31.12.2020 Phase 14									
01.01.2021 31.12.2021 Phase 15									
01.01.2022 31.31.2022 Phase 16									

4. Control of Selected Non Native Species.

Magallana gigas

Table 4.2 shows *Magallana gigas* control data since Natural England commissioned a control pilot in 2011. This was followed by the launch of Natural England's Coastbusters volunteer team in 2012 and in 2018 KWT launched their Coastbusters team. Oysters removed are counted by individual specimen. Only live, attached, oysters are counted. Changes this year shown in Red.

Table 4.2 *Magallana gigas* control data since control launch in 2011

Natural England Team					KWT Team				
NEKMPA Section	Mg Removed	Mg Manhours	Mg H&S Incidents	Mg Chalk Reef Impacts	NEKMPA Section	Mg Removed	Mg Manhours	Mg H&S Incidents	Mg Chalk Reef Impacts
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				
17					17				
18					18				
18					19				
20					20				
21					21				
22					22				
23					23				
24					24				
25					25				
26	5848	59.5	0	2	26				
27	13195	76.2	0	5	27				
28	3917	80.75	0	3	28				
29					29				
30					30				
31	3140	20	0	1	31				
32	367	4.25	0	8	32				
33	143	4.5	0	0	33				
34 Harbour	5657	93.25	1	0	34 Harbour				
35	318793	1148.5	3	42	35				
36	58077	281.25	0	5	36				
37	4334	26.25	0	0	37				
38					38				
39					39				
40					40				
41					41				
42					42				
43					43				
44					44				
45					45				
46					46				
Total	413471	1794.45	4	66	Total				

4. Control of Selected Non Native Species.

Sargassum muticum

Table 4.3 shows *Sargassum muticum* control data since Natural England commissioned a control pilot in 2011. This was followed by the launch of Natural England's Coastbusters volunteer team in 2012 and in 2018 KWT launched their Coastbusters team. *Sargassum* removed is counted by wet weight (kg). Only live, attached, specimens are counted. Changes this year shown in Red.

Table 4.3 *Sargassum muticum* control data since control launch in 2011.

Natural England Team					KWT Team				
NEKMPA Section	Sm Removed Kg	Sm Manhours	Sm H&S Incidents	Sm Chalk Reef Impacts	NEKMPA Section	Sm Removed Kg	Sm Manhours	Sm H&S Incidents	Sm Chalk Reef Impacts
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16	55.3	7.5	0	0	16				
17					17				
18					18				
19					19				
20					20				
21					21				
22					22				
23					23				
24					24				
25					25				
26					26				
27					27				
28					28				
29					29				
30					30				
31	1197.22	46.5	0	0	31				
32					32				
33					33				
34 Harbour					34 Harbour				
35	131.5	8.5			35				
36					36				
37					37				
38					38				
39					39				
40					40				
41					41				
42					42				
43					43				
44					44				
45					45				
46					46				
Total	1384.02	62.5	0	0	Total				

4. Control of Selected Non Native Species.

Didemnum vexillum

Best practices for *Didemnum vexillum* control have not yet been designed or agreed with Natural England. No control measures have therefore been undertaken. This is reflected in Table 4.4.

Table 4.4 *Didemnum vexillum* control data since control launch in 2011.

Natural England Team					KWT Team				
NEKMPA Section	Dv Removed Kg	Dv Manhours	Dv H&S Incidents	Dv Chalk Reef Impacts	NEKMPA Section	Dv Removed Kg	Dv Manhours	Dv H&S Incidents	Dv Chalk Reef Impacts
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
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26					26				
27					27				
28					28				
29					29				
30					30				
31					31				
32					32				
33					33				
34 Harbour					34 Harbour				
35					35				
36					36				
37					37				
38					38				
39					39				
40					40				
41					41				
42					42				
43					43				
44					44				
45					45				
46					46				
Total					Total				

4. Control of Selected Non Native Species.

Eriocheir sinensis

Best practices for *Eriocheir sinensis* control have not yet been designed or agreed with Natural England. No control measures have therefore been undertaken. This is reflected in Table 4.5.

Table 4.5 *Eriocheir sinensis* control data since control launch in 2011.

Natural England Team					KWT Team				
NEKMPA Section	Es Removed	Es Manhours	Es H&S Incidents	Es Chalk Reef Impacts	NEKMPA Section	Es Removed	Es Manhours	Es H&S Incidents	Es Chalk Reef Impacts
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
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21					21				
22					22				
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25					25				
26					26				
27					27				
28					28				
29					29				
30					30				
31					31				
32					32				
33					33				
34 Harbour					34 Harbour				
35					35				
36					36				
37					37				
38					38				
39					39				
40					40				
41					41				
42					42				
43					43				
44					44				
45					45				
46					46				
Total					Total				

4. Control of Selected Non Native Species.

Undaria pinnatifida

Best practices for *Undaria pinnatifida* control have not yet been designed or agreed with Natural England. No control measures have therefore been undertaken. This is reflected in Table 4.6.

Table 4.6 *Undaria pinnatifida* control data since control launch in 2011

Natural England Team					KWT Team				
NEKMPA Section	Up Removed Kg	Up Manhours	Up H&S Incidents	Up Chalk Reef Impacts	NEKMPA Section	Up Removed Kg	Up Manhours	Up H&S Incidents	Up Chalk Reef Impacts
1					1				
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
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18					18				
18					19				
20					20				
21					21				
22					22				
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25					25				
26					26				
27					27				
28					28				
29					29				
30					30				
31					31				
32					32				
33					33				
34 Harbour					34 Harbour				
35					35				
36					36				
37					37				
38					38				
39					39				
40					40				
41					41				
42					42				
43					43				
44					44				
45					45				
46					46				
Total					Total				

Current Account

5. Management Group Action Points for Non Native Species

A Management Group and a NEKSCAG meeting were held in November 2023. Details of Management Group action points for Non-Native Species can be found in the “Species Management and Control” section of the NEKMPA Management Scheme – Action Plan 2019-2024.

[DRAFT 2019-24 NEKMPA ActionPlan-Updates \(thanetcoast.org.uk\)](https://www.thanetcoast.org.uk)

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Appendix A Description of Selected Non Native Species

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Appendix B Location of NEKMPA Sections

Appendix B. Location of NEKMPA Sections

Table B.1 shows the 1 km boundaries and locations of the 46 NEKMPA inter-tidal sections using Ordnance Survey Eastings and Northings derived from OS Sheet TR.

Table B.1 Boundaries and locations of NEKMPA inter-tidal sections.

Section Number	OS TR Eastings	OS TR Northings	Aspect	Thanet Coast Project Equivalent Section
1	13000 to 13999		N	Section 1: Swalecliffe
2	14000 to 14999		N	Section 1: Swalecliffe
3	15000 to 15999		N	Section 1: Swalecliffe
4	16000 to 16999		N	Excluded from NEKEMS
5	17000 to 17999		N	Excluded from NEKEMS
6	18000 to 18999		N	Section 7: Bishopstone
7	19000 to 19999		N	Section 7: Bishopstone
8	20000 to 20999		N	Section 8A: Reculver West
9	21000 to 21999		N	Section 8B: Reculver East
10	22000 to 22999		N	Section 9A: Reculver to Coldharbour
11	23000 to 23999		N	Section 9A: Reculver to Coldharbour
12	24000 to 24999		N	Section 9A: Reculver to Coldharbour
13	25000 to 25999		N	Section 9B: Coldharbour
14	26000 to 26999		N	Section 9C: Plumpudding
15	27000 to 27999		N	Section 10: Minnis Bay West
16	28000 to 28999		N	Section 11A: Minnis Bay East
17	29000 to 29999		N	Section 11B+11C: Grenham + Beresford
18	30000 to 30999		N	Section 12A: Epple Bay
19	31000 to 31999		N	Section 12B + 13: Epple + Westgate
20	32000 to 32999		N	Section 14+15: Westgate + St Mildreds
21	33000 to 33999		N	Section 16+17: St Mildreds + Westbrook Bay
22	34000 to 34999		N	Section 18+19A: Nayland Rock + Margate Bay
23	35000 to 35999		N	Section 19B+20A: Margate Harbour + Fulsam Rock
24	36000 to 36999		N	Section 20B+20C: Newgate Gap + Walpole Bay
25	37000 to 37999		N	Section 21A: Palm Bay
26	38000 to 38999		N	Section 21B+21C: Foreness Bay/Point & Foreness to Botany
27	39000 to 39999		N	Section 21D+21E: Botany Bay + Whiteness
28		70000 to 70999	E	Section 21F+22A: Kingsgate Bay & Joss Bay
29		69000 to 69999	E	Section 22B: North Foreland
30		68000 to 68999	E	Section 22C+22D: Stone Bay + Broadstairs East Cliff
31		67000 to 67999	E	Section 22E+23A: Viking Bay + Louisa Bay
32		66000 to 66999	E	Section 23B+23C: Dumpton Point + Dumpton Gap
33		65000 to 65999	E	Section 23D+24: Winterstoke + Ramsgate Main Sands
34		64000 to 64999	SE	Section 24+25: Ramsgate Sands & Harbour
35	37000 to 37999		S	Section 26: Western Undercliff
36	36000 to 36999		S	Section 26 and 27: Western Undercliff to Pegwell
37	34500 to 35999		S	Section 28: Pegwell Country Park & Saltmarsh
38		62000 to 62999	E	Section 30A: Sandwich Bay North
39		61000 to 61999	E	Section 30A: Sandwich Bay North
40		60000 to 60999	E	Section 30A: Sandwich Bay North
41		59000 to 59999	E	Section 30B: Sandwich Bay Mid
42		58000 to 58999	E	Section 30B: Sandwich Bay Mid
43		57000 to 57999	E	Section 30B + 30C: Sandwich Bay Mid + Sandwich Bay South
44		56000 to 56999	E	Section 30C: Sandwich Bay South
45		55000 to 55999	E	Section 30C: Sandwich Bay South
46		54000 to 54999	E	Section 30C: Sandwich Bay South