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 2: 31 December 2020 Willie McKnight



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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. Re-issues include new field data and amendments approved by NEKSCAG during the current year. Previous issues are archived on the 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 it's 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 raised at NEKSCAG for assessment and possible field survey.

1. Introduction

Summary of field work completed in 2020.

Field work was severely disrupted in 2020 due to restrictions imposed by the Government to impede the spread of the Covid-19 virus.

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

No surveys were completed in 2020. Data in Section 2 of the Current Account are therefore unchanged from 2019. See Section 2, Current Account issue 1, 31 December 2019, for details.

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

No surveys were completed in 2020. Data in Section 3 of the Current Account are therefore unchanged from 2019. See Section 3, Current Account issue 1, 31 December 2019, for details.

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

The volunteer team removed 7168 oysters from Section 35 (32 manhours) between January and March after which government restrictions prevented further team work. However, individual site visits were made between September and December by Willie McKnight and Laura Whitfield resulting in 82 oysters removed from Section 33 (0.5 manhours), 16,552 oysters removed from Section 35 (21 manhours) and 4276 oysters removed Section 36 (11 manhours).

- A total of 28,078 oysters were removed from the Shore sections (64.5 manhours).
- No oyster control took place at Ramsgate Harbour (Section 34) due to government restrictions.
- No Sargassum muticum control took place within the NEKMPA due to government restrictions.

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

There were no Management Group or NEKSCAG meetings during 2020 due to Government Covid restrictions. All action points are carried over. Data in Section 5 of the Current Account are therefore unchanged from 2019. See Section 5, Current Account issue 1, 31 December 2019, for details.

Current Account Distribution and Impact by Selected Non Native Species

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

No surveys were completed in 2020. Data in Section 2 of the Current Account are therefore unchanged from 2019. See Section 2, Current Account issue 1, 31 December 2019, for details.

3. Distribution and Impact by NEKMPA Section

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

No surveys were completed in 2020. Data in Section 3 of the Current Account are therefore unchanged from 2019. See Section 3, Current Account issue 1, 31 December 2019, for details.

4. Control of Selected Non Native Species

Annual Progress

Table 4.1 shows control progress per year / project phase.

Table 4.1: Annual Progress

				Nati	ural England 1 T	eam				
Period	Mg (Shore)	Mg (Harbour)	Sm (Kg. Wet Weight)	Dv	Es	Up				
Pilot 23.03.2011 04.02.2012	40196	0								
Phase 5 Trial 06.07.2012 29.06.2013	35740	0								
Phase 6 & 7 Post Trial 201.2014		_								
05.03.2014 Phase 7 01.04.2014	7153	0								
31.03.2015 Phase 8 01.04.2015	29299	0								
31.03.2016 Phase 9 01.04.2016	59675	0	55.31							
31.03.2017 Phase 10 01.04.2017	29450	0								
31.03.2018 Phase 11 01.04.2018	33067	1259								
31.03 2019 Phase 1.2 01.04.2019	30960	2926	346.86							
31.12.2019 Phase 13 01.01.2020	23724	968	850.36							
31.12.2020 Phase 14 01.01.2021	28078	0	0							
31.12.2021 Phase 15 01.01.2022										
31.31.2022 Phase 16 Total	31 73 42	5153	1252.53	0	0	0	0	0	0	0
1001	317342	3133	1232.33							
	Mg	Mg	Sm		KWT Team		1			
Period Pilot	(Shore)	(Harbour)	(Kg. Wet Weight)	Dv	Es	Up				
23.03.2011 04.02.2012 Phase 5										
Trial 06.07.2012 29.06.2013										
Phase 6 & 7 Post Trial 201.2014										
05.03.2014 Phase 7 01.04.2014 31.03.2015										
9hase 8 01.04.2015 31.03.2016										
9 01.04.2016 21.03.2017										
Phese 10 01.04.2017 31.03.2018										
Phese 11 01.04.2018 31.03.2019										
91.03.2019 Phase 1.2 01.04.2019 31.12.2019										
9hase 13 01.01.2020 31.12.2020										
91.12.2020 Phase 14 01.01.2021 31.12.2021										
91.32.2021 Phase 15 01.01.2022 31.31.2022 Phase										
16 Total	0	0	0	0	0	0	0	0	0	0

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

		lat	ole 4.2 Magali	ana gigas co	ntrol data since	control launch	in 2011		
	Natu	ral 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	M; Chalk I Impa
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		3	28				
29					29				
30					30				
31	2944	18	0	1	31				
32	47	2.75		7	32				
33	225			0	33				
34 Harbour	5153			0	34 Harbou	ır			
35	236157	942.75		38	35				
36	51222	246.25		5	36				
37	3787	23.25		0	37				
38				_	38				
39					39				
40					40				
41					41				
42					42				
43					43				
44					44				
45					45				
46					46				
Total	322495	1543.2	3	61					

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.

					I	of data since control faunch 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						
18						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						35						
36						36						
37						37						
38						38						
39						39						
40						40						
41						41						
42						42						
43						43						
44						44						
45						45						
46						46						
Total	1252.52	54	0	0		Total						

Didemnum vexillum

Best practices for *Didemnum vexillum* control have not 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.

NEMPA Pemoved Kg Nemoved				_		ı							
Netron N		Natural England Team					KWT Team						
1 1 2 3 3 4 4 4 4 5 5 6 6 6 6 7 7 7 7 7 9					Chalk Reef						Chalk Reef		
S	1						1						
S													
4													
5 6 6 6 7 7 8 8 9													
6													
7													
6													
9													
10 10 11 11 12 12 13 13 13 14 14 15 15 16 16 17 17 18 19 19 19 19 19 19 19													
11													
12													
13 14 15 15 16 16 17 17 18 18 18 19 19 19 19 19													
14 15 15 15 16 16 17 17 17 18 18 18 18 19 10 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
15 16 16 16 17 17 18 18 13 19 20 21 21 21 22 22 23 23 24 24 25 25 26 26 27 27 28 29 30 30 31 31 32 32 33 33 34 Harbour 34 Harbour 35 36 37 36 37 37 38 39 39 39 39 39 40 40 41 41 42 42 43 43 44 44 45 46													
16													
17													
18 19 20 20 21 21 22 21 23 23 24 24 25 25 26 26 27 28 29 29 30 31 31 31 32 32 33 33 34 Harbour 34 Harbour 35 36 36 36 37 37 39 39 40 40 41 41 42 42 43 43 44 44 45 46													
18 19 20 21 21 21 22 23 23 24 24 24 25 26 26 27 28 29 30 30 30 31 31 31 32 32 32 33 34 Harbour 34 Harbour 36 36 36 37 37 37 38 39 39 40 40 40 41 41 42 43 43 43 44 44 44 45 45 45													
20 21 21 21 22 22 23 23 24 24 25 25 26 26 27 28 29 29 30 30 31 31 32 32 33 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													
21 22 23 24 25 25 26 26 27 27 28 29 30 30 31 31 32 32 33 33 34 Harbour 34 Harbour 35 36 37 37 38 39 40 40 41 41 42 43 44 44 45 45 46 46													
22 23 24 25 26 27 28 29 30 31 31 32 33 34 Harbour 35 36 37 38 39 40 41 42 43 44 45 46													
23													
24 25 26 26 27 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													
25													
26 26 27 28 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 46													
27													
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													
30 31 31 32 32 32 33 33 33													
31 31 31 32 33 33 33 33 34 Harbour 34 Harbour 34 Harbour 34 Harbour 35 35 35 36 37 37 37 37 38 38 38 39 40 40 40 40 41 41 41 41 42 42 42 43 43 43 43 44 44 44 44 44 45 45 46 46													
32 33 33 33 33 33 33 33 33 33 33 33 33 3													
33 33 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													
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													
35 35 36 36 37 37 38 38 39 39 40 40 41 41 42 42 43 43 44 44 45 45 46 46													
36 36 37 37 38 38 39 39 40 40 41 41 42 42 43 43 44 44 45 45 46 46													
37 37 38 38 39 39 40 40 41 41 42 42 43 43 44 44 45 45 46 46													
38 38 39 39 40 40 41 41 42 42 43 43 44 44 45 45 46 46													
39													
40 40 41 41 42 42 43 43 44 44 45 45 46 46													
41 41 42 42 43 43 44 44 45 45 46 46													
42 42 43 43 44 44 45 45 46 46													
43 43 44 44 45 45 46 46 46 46 48 48 48 48 48 48 48 48 48 48 48 48 48													
44 44 45 45 46 46													
45 46 46 46													
46 46													
	Total						Total						

Eriocheir sinensis

Best practices for *Eriocheir sinensis* control have not 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					88						
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					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						

Undaria pinnatifida

Best practices for *Undaria pinnatifida* control have not 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

	Bl-4		.				10ACT T				
	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						
15					15						
16					16						
17					17						
18					18						
18					19						
20					20						
21					21						
22					22						
23					23						
24					24						
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						

5. Summary of Management Group Action Points for Non Native Species

Current Account Section 5: Summary of Management Group Action Points for Non-Native Species. There were no Management Group or NEKSCAG meetings during 2020 due to Government Covid restrictions. All action points are carried over. Data in Section 5 of the Current Account are therefore unchanged from 2019. See Section 5, Current Account issue 1, 31 December 2019, for details.

Appendix A Description of Selected Non Native Species

Appendix A. Description of Selected Non Native Species

Table A.1 lists the species currently included in the register and shows, per species, if an Identification Sheet is available to view and download from the GB NON NATIVE SPECIES SECRETARIAT website: http://www.nonnativespecies.org/home/index.cfm

Follow links Homepage/Species Information/Species ID Sheets.

Table A.1. Species currently included in the Current Account register.

Common Name	Scientific Name	Date added to Register	Identification Sheet Available
Pacific Oyster	Magallana gigas	August 2011	No (see note 1)
Wireweed	Sargassum muticum	August 2011	Yes
Carpet Sea Squirt	Didemnum vexillum	August 2011	Yes
Chinese Mitten Crab	Eriocheir sinensis	August 2011	Yes
Wakame	Undaria pinnatifida	August 2011	Yes
Note 1: ID sheet not available but a	in information sheet can be accessed via ht	tp://www.nonnativespec	cies.org/factsheet/factsheet.cfm?speciesId=101

Appendix B Location of NEKMPA Sections

Appendix B. Location of NEKMPA Sections

Table B.1 shows the location and boundaries of the 46 NEKMPA Sections using Ordnance Survey Eastings and Northings derived from OS Sheet TR.

Table B.1 Location and boundaries of NEKMPA Sections

Section Number	OS TR Eastings	OS TR Northings	Aspect	TCP Equivalent Section
1	13000 to 13999		N	Section 1: Swalecliffe
2	14000 to 14999		N	Section 1: Swalecliffe
3	15000 to 15999		Ν	Section 1: Swalecliffe
4	16000 to 16999		Ν	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		Ν	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	Е	Section 21F+22A: Kingsgate Bay & Joss Bay
29		69000 to 69999	Е	Section 22B: North Foreland
30		68000 to 68999	Е	Section 22C+22D: Stone Bay + Broadstairs East Cliff
31		67000 to 67999	Е	Section 22E+23A: Viking Bay + Louisa Bay
32		66000 to 66999	Е	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		63000 to 64999	5	Section 26: Western Undercliff
36		63000 to 64999	E	Section 26 and 27: Western Undercliff to Pegwell
37		63000 to 64999	E	Section 28: Pegwell Country Park & Saltmarsh
38		62000 to 62999	Е	Section 30A: Sandwich Bay North
39		61000 to 61999	E	Section 30A: Sandwich Bay North
40		60000 to 69999	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	Е	Section 30B + 30C: Sandwich Bay Mid + Sandwich Bay South
44		56000 to 56999	Е	Section 30C: Sandwich Bay South
45		55000 to 55999	Е	Section 30C: Sandwich Bay South
46		54000 to 54999	E	Section 30C: Sandwich Bay South