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Thanet Coast Turnstone (*Arenaria interpres*) Monitoring

January – February 2018



Turnstone at Sandwich Bay by Margaret Smith

A Report to Natural England / Thanet Coast Project (Thanet Council)

by

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On behalf of

Sandwich Bay Bird Observatory Trust (SBBOT)

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1 Summary

The population of Turnstones within the Thanet and Sandwich Bay SPA in six surveys between 2001 and 2010 was found to vary between 1,087 and 1,335, with a mean of 1,227. This represented a relatively small variation from the average of no more than 11%. Against this background, a co-ordinated count of only 620 in the 2013 survey gave significant cause for concern, particularly as numbers were found to be reduced in almost all sections of the coast.

It was recommended that further co-ordinated counts of the coast be undertaken in winter 2013/14 to establish the accuracy of the 2013 result. It was also suggested that attention should be directed at establishing that all roost sites and areas used for feeding at high tide were being monitored, in case some birds using previously unused sites were missed during the 2013 count. However, totals of 583 and 664 in the two co-ordinated counts in 2013/14 confirmed that numbers had indeed declined seriously.

In 2015 and 2016 recorders were asked to do two co-ordinated counts around the coast at high tide in January and February. Only partial coverage was achieved in the first visit of 2015 but in the second a total of 527 Turnstones was recorded. In 2016 counts of 445 and 537 were produced respectively, with an average of 491. These represent a further reduction in numbers using this part of the coast in winter

Following this continued downward trend another round of co-ordinated counts were repeated on Saturday 20th January 2018 and Saturday 17th February 2018. A total of 574 Turnstones were counted on the first date and 498 on the second, with an average of 536. This first count is slightly higher than recent years but unfortunately the second shows a reversal back to a lower figure.

An additional 22nd section, from Whitstable Harbour to Seasalter, was also counted in 2018. An additional 78 birds were counted in this sector on the first count but only one on the second count. The addition of birds from this new section produced a total of 652 Turnstones on the first date and 499 on the second, with an average of 576.

2 Summary of Methods

2.1 Co-ordinated Turnstone counts

Co-ordinated Turnstone counts were undertaken during high tide on Saturday 20th January 2018 and Saturday 17th February 2018. As with previous surveys, the coastline was divided into 21 sections of approximately 2km length (see Appendix 1). Each section was assigned to 1 or 2 volunteers, recruited from the Thanet Coast Project (North East Kent Marine Protected Area) volunteers, and Sandwich Bay Bird Observatory.

With the continued decline of Turnstone in the area it was postulated that more birds could be wintering further west along the north Kent coast. With this in mind an additional 22nd section was counted. This survey section extended from just outside Whitstable Harbour to Saxon Shore Way (approximately in line with The Sportsman pub), Seasalter (a map of which attached).



Surveyors were again instructed to walk the whole length of their allocated stretch of coastline, commencing half an hour before high tide and counting Turnstones occurring in that section until half hour after high tide. Volunteers were asked to be aware of 'hidden' roosts on moored boats offshore, to ensure that double-counting was kept to a minimum, and to be strict with recording birds along boundary edges between sectors. With this last point in mind observers were also asked to keep note of Turnstones seen leaving or entering the sector, and to record their number, their direction of travel, and the time.

3 Results

3.1 Co-ordinated Turnstone counts

This winter started off in predominantly mild conditions. An average temperature of 8°C in January set the tone for much of the month though the weather was frequently windy with heavy spells of rain. February was calm but a lot cooler however with an average temperature of 5°C and recurrent frosts.

Results of the co-ordinated Turnstone counts are summarised below in Table 1.

Table 1. Results of the co-ordinated Turnstone counts on Saturday 20th January 2018 and Saturday 17th February 2018 and comparison with results from February 2001, March 2002, March 2003, March 2006, February 2008, February 2010, February 2013, January and March 2014, January and February 2015, and January and February 2016.

	SECTOR																						TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
2018	0	13	16	1	22	0	58	13	20	5	0	0	86	18	0	25	10	3	25	168	91	78	652
	0	3	8	0	20	17	31	30	31	2	0	0	56	30	5	25	1	21	5	162	51	1	499
2016	0	14	8	5	16	34	25	15	22	16	0	48	3	101	0	0	8	5	21	67	37		445
	0	34	12	2	16	5	125	0	27	16	0	8	0	92	10	3	0	9	18	120	40		537
2015	37	21	18	3	6	18	18	47	19	9	3	18	26	0	0	18	15	16	37		44		373 *
	0	28	10	2	17	6	21	15	29	8	0	21	72	7	7	0	0	42	180	55			527
2014	0	25	11	2	5	11	34	3	14	10	1	148	1	0	0	16	4	25	19	112	142		583
	0	88	9	2	18	7	32	6	19	0		110	10	23	6	0	17	22	42	106	147		664
2013	43	70	11	6	21	9	20	22	59	1	15	13	32	19	6	2	52	38	31	97	53		620
2010	0	927	0	2	16	14	0	0	0	0	37	12	0	21	0	8	13	0	8	187	2		1247
2008	0	117	13	14	62	56	177	20	47	41	6	83	20	22	20	17	16	47	32	168	109		1087
2006	133	67	24	0	17	53	120	56	36	2	8	62	102	125	40	4	0	33	61	108	284		1335
2003	171	11	3	0	31	157	37	0	53	74	0	65	19	278	39	82	0	70	0	136	35		1261
2002	165	2	0	0	0	131	38	2	28	6	56	0	100	309	76	14	0	4	26	225	19		1201
2001	66	14	0	7	12	79	41	18	86	51	5	93	19	366	28	103	33	50	2	4	154		1231

*Sectors holding 10% or more are highlighted in yellow; those with 20% or more are highlighted in orange. * The asterisk in 2015 indicates that coverage was incomplete.*

The increasingly westerly distribution of Turnstones around the Thanet coast was again evident in both counts, with no sector to the east of Minnis Bay holding 10% or more. Sectors such as Minnis Bay, Hampton to Long Rock, and Long Rock to Whitstable continue to be epicentres of Turnstone activity. These three sectors accounted for 53%



(345) and 54% (269) of all Turnstones in each co-ordinated count. The new sector towards Seasalter showed the highest degree of variability of any sector with a high count of 78 on the first count but only one on the second. This sudden decrease was not accounted for by increases in neighbouring sectors to the east. It can therefore be assumed that Turnstones moved westwards, perhaps just outside the sector boundaries. Still, the original count of 78 is above the 10% threshold for the whole survey area. In light of this potential it should be included in future surveys. It was remarked though that the new survey section is too long, at almost four miles, making it difficult to be counted within the allotted time period. The Turnstones are not distributed evenly along this route but located in distinct hotspots, particularly close to Whitstable harbour and in front of the beach huts below Valkyrie Ave. It seems logical that this sector be broken up into further sub-sectors in the future.

Counts in 2018 continue to be significantly lower than those from 2010 by approximately 50%. The January 2018 count is the second highest since then (only 664 in 2014 is higher) whilst the average 2018 count of 576 is 17.3% higher than the 2016 average of 491. However, taking into account the additional survey sector in 2018 it is typical compared to recent counts. Overall, counts have become increasingly consistent in the last five surveys. A plateau of roughly 500-600 birds seems to have been reached.

Figure 1. Turnstone distribution within the Thanet and Sandwich Bay SPA in five study years 2001-2008.

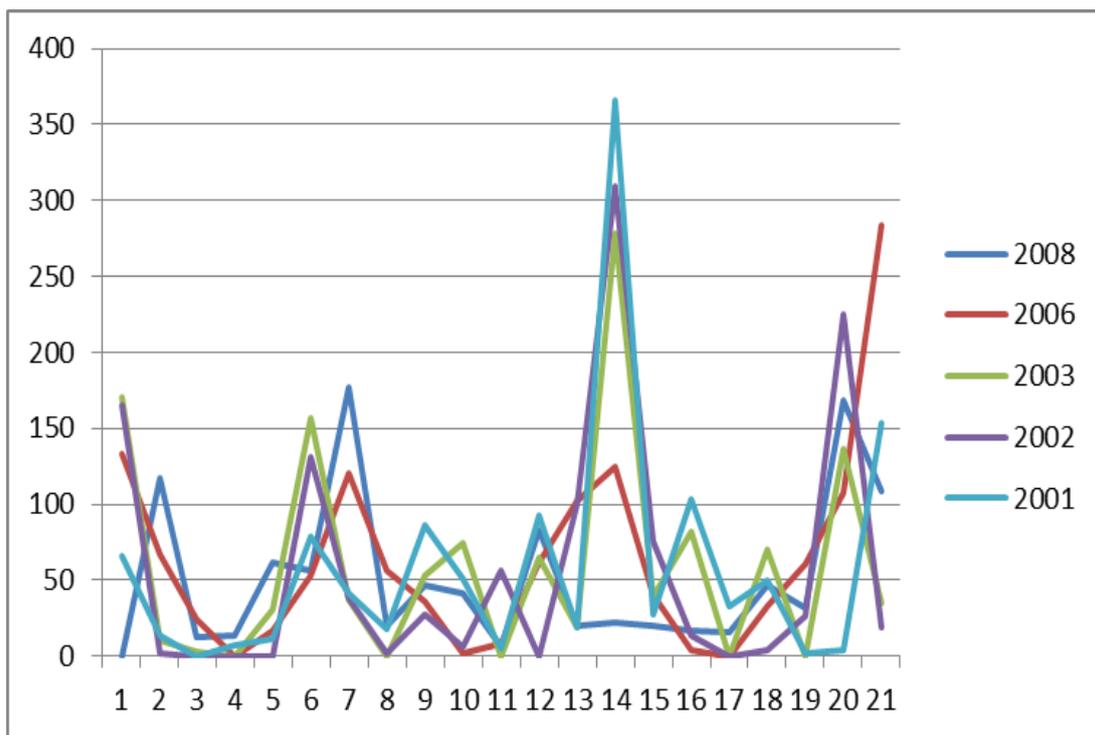
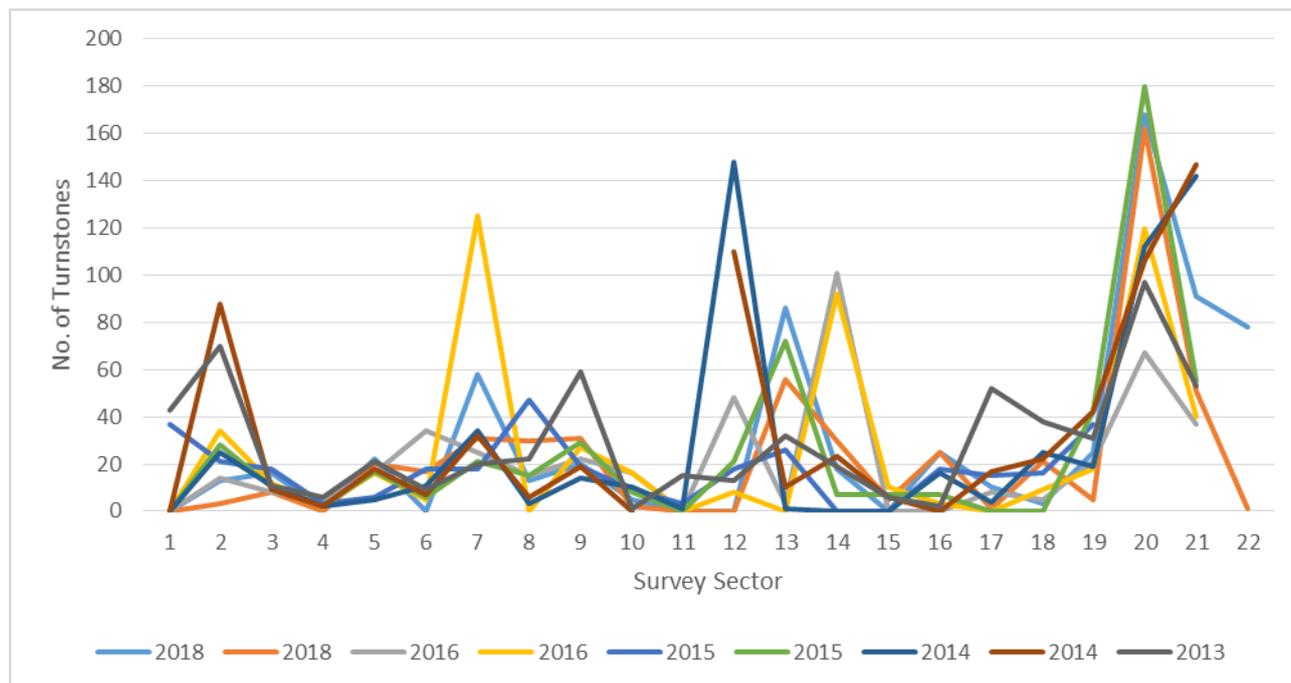


Figure 2. Turnstone distribution within the Thanet and Sandwich Bay SPA 2013 - 18



4 Discussion

4.1 Current Thanet Turnstone population and distribution

In 2013 the population of Turnstones within the Thanet and Sandwich Bay SPA was found to be significantly lower than the totals that were evident in the six surveys carried out between 2001 and 2010. Despite concerns that some birds may have been missed in the 2013 survey, results from the co-ordinated counts in 2014, 2015, and 2016, supported by a programme of roost site monitoring, confirmed that the apparent decrease was genuine and possibly continuing. This conclusion is supported by the results of the two co-ordinated counts carried out in January and February 2018. Results confirm that the population has stabilised at these more recent lower levels.

The reasons for the fall to lower numbers that first became apparent in 2013 are no clearer than when the decline was first noted. Weather still does not appear to be a major factor: recent surveys took place during one winter that was very cold (2012/13) and four that were very mild (2013-16) with no notable differences in Turnstone numbers. However, it should be noted the 2010 survey recorded 927 Turnstones in one section (Pegwell) during fierce northerly winds. This gives anecdotal evidence that the far eastern Thanet coast (beyond Ramsgate) acts as a refuge during these poor weather conditions but the western Thanet coast is prime feeding habitat at all other times. This could be explored further but suggests movements involved in this instance are more to do with localised escapism rather than declines at a Thanet population level. On a related note though, as recently as September 2011 up to 500 Turnstones roosted in the new Seasalter survey sector (Kent Ornithological Society). In past years there would be 100 or more roosting on a moored oyster boat just offshore (per Mike Gould, 2018). This boat has now moved into the harbour and the population in the area has increasingly declined (pers. comm Mike Gould,



2018). These two above points suggests that safety at high tide could be a decisive factor affecting the Turnstone wintering population.

Related closely to high tide safety are the continued high levels of disturbance along the Thanet coast. This survey did not focus on disturbance monitoring but many surveyors commented on the clear differences in disturbance between the January and February counts in 2018. The weather on Saturday 20th January 2018 was cold, overcast, and accompanied by heavy rain at times. Saturday 17th February 2018 was sunny, calm, and relatively warm. Surveyors noted increased walkers, particularly dog-walkers and dogs off the lead, along the coastline on the second coordinated count in February 2018. Even a low-flying motorised hand-glider was watched as it flew through at least seven survey sections during the peak survey time. This increased disturbance goes some way to explaining the decrease (from 574 to 498) in Turnstone totals between the two co-ordinated counts in 2018.

The high incidence of dogs off leads continues to be the main cause of Turnstone disturbance in Thanet and is likely to be a significant factor in the decline of the wintering Turnstone population of the Thanet and Sandwich Bay SPA. The recently imposed Public Spaces Protection Order 2017 (which runs for three years from 25th October 2017) is perhaps a good start in trying to handle the dog disturbance issues in Thanet. Fixed Penalty Notices can be given by an authorised officer of Thanet District Council to the person in charge of a dog if they fail to keep it on a lead in certain areas, or if they take their dog onto any land detailed in Schedule 3 as a Dog Exclusion Area. These measures are a step in the right direction but have their downfalls. There is a lack of authorised officers of Thanet District Council in most of these areas to enforce these issues. Additionally, a few sites have only 'Seasonal Exclusion' (such as between the hours of 10am to 6pm from 1st May to 30th September), and the number of Dog Exclusion Areas is relatively low. Replacing the seasonal restrictions with year-round restrictions, expanding the numbers of Dog Exclusion Areas to cover more Turnstone roost sites and expanding the duration of the Order to cover more than three years should be the current priorities.

However, there is data to suggest that the declining numbers in Thanet is not just caused by disturbance. Other environmental factors such as changing sewage treatment and disposal practices, increased coastal development and changes in invertebrate communities may all have impacted at the local level but, as previously noted, there has been a national decline in winter Turnstone numbers. The approximate 50% decline on a local level mirrors the trend seen in a national context. The UK wintering population has decreased by 47% since 1989 and 24% between 2004 and 2014 (SUKB, RSPB, 2017). The NEWS estimate for Turnstone in 2015-16 was 32% lower than in 2006/07– a loss of 12,000 birds (SUKB, RSPB, 2017). There is no doubt disturbance is a national concern and not just a Thanet issue but something else is clearly happening on a larger scale. These local co-ordinated counts around the UK allow us to rule out changes in the birds' wintering areas i.e. from the South-East to the North-East. However with so much of Europe under-surveyed it remains to be seen if these observed changes are due to international shifts at a population level. This ties in closely with international climatic changes, such as earlier egg-laying dates in the Arctic and/or declines in breeding productivity (Hoye et al, 2007), but are beyond the scope of this project.

For the future, a review of the decline in waste discard associated with Thanet fishing communities could explain some local declines in Turnstone numbers. There should be increased public awareness of issues regarding Turnstone disturbance, particularly with



dogs off the lead, and similarly to coastal development projects. It may be beneficial to research the possible changes in invertebrate communities at feeding sites, especially if linked in at a national level. Sutherland (2015) stated “The presence of the seaweed providing feeding opportunity during the high tide period was undoubtedly one of the main attractions” when referring to Turnstone density. With this in mind coastal exclusion zones, specifically those with high levels of seaweed at high tide, would provide safety and feeding opportunities for this declining species.

Acknowledgements

The following people and organisations deserve special thanks for their considerable assistance in undertaking and helping to organise this survey, principally as volunteer surveyors for the co-ordinated counts:

- Volunteer surveyors from among the NEKMPA Coastal Wardens/Guardians (Thanet Coast Project / Thanet District Council).
- Thanet Coast Project (North East Kent Marine Protected Area) Officer Tony Child.
- Sandwich Bay Bird Observatory Trust volunteer surveyors.

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[https://www.thanet.gov.uk/your-services/dogs-and-dog-wardens/public-spaces-protection-order-\(pspo\)/public-spaces-protection-order-\(pspo\)/](https://www.thanet.gov.uk/your-services/dogs-and-dog-wardens/public-spaces-protection-order-(pspo)/public-spaces-protection-order-(pspo)/)



Appendix 1 - Details of co-ordinated wader count sectors.

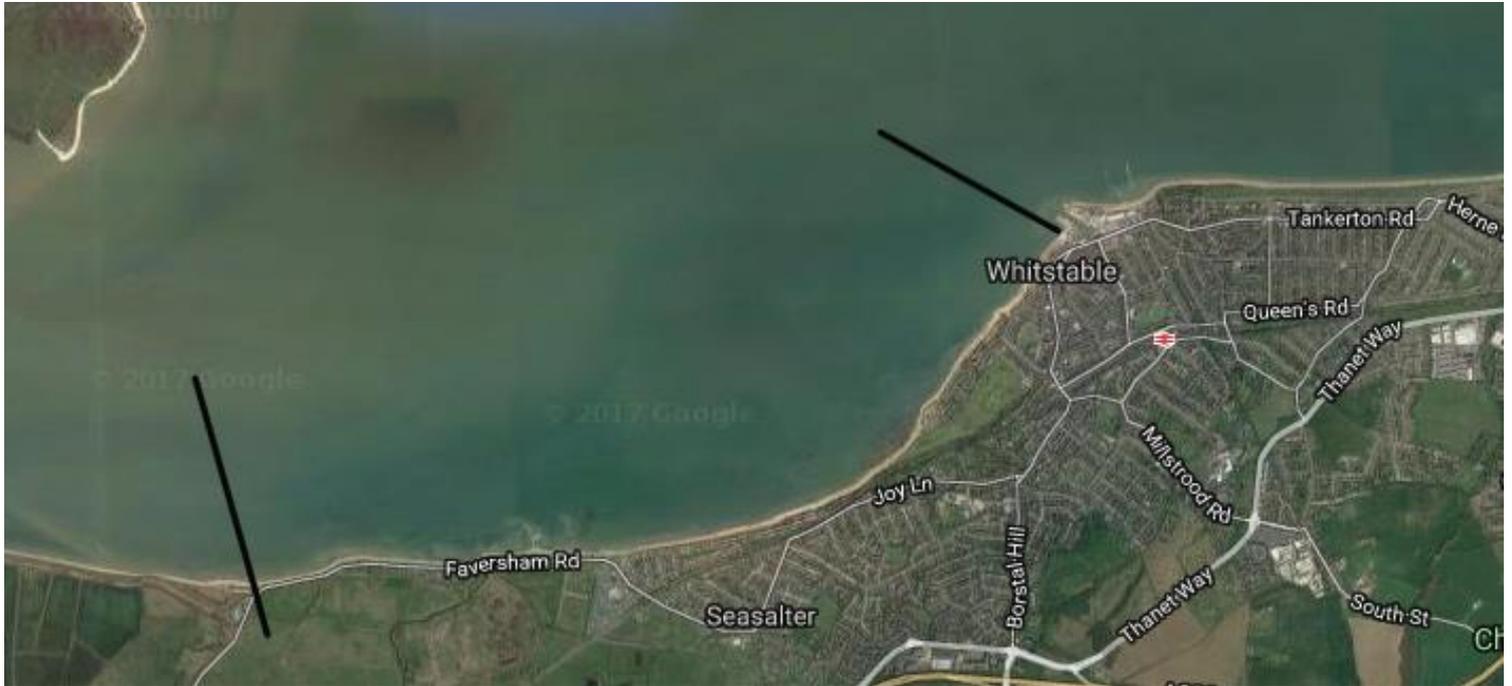
Sector #	Sector	From	To
1	Pegwell Bay	TR342628: South end of Pegwell Bay Nature Reserve, where coastal path turns sharply north along bay	TR354644: Opposite old hoverport road, west of Little Cliffsend Farm
2	Pegwell – West Cliff	TR354644: Opposite old hoverport road, west of Little Cliffsend Farm	TR377642: Western limit of Ramsgate Harbour, eastern limit of West Cliff
3	Ramsgate (harbour & beach)	TR377642: Western limit of Ramsgate Harbour, eastern limit of West Cliff	TR392655: By large groin at north end of Ramsgate main beach
4	Dumpton / Dumpton Bay	TR392655: By large groyne at north end of Ramsgate main beach	TR398673: South end of Louisa Bay south of Viking Bay
5	Broadstairs	TR398673: South end of Louisa Bay south of Viking Bay	TR401694: South of Joss Bay & North Foreland Lighthouse, opposite Convent
6	North Foreland / Kingsgate Bay	TR401694: South of Joss Bay & North Foreland Lighthouse, opposite Convent	TR393711: Botany Bay, by public toilet block
7	Botany Bay – Palm Bay	TR393711: Botany Bay, by public toilet block	TR372715: Bathing Pool / Jet Ski hire
8	Margate east	TR372715: Bathing Pool / Jet Ski hire	TR354712: Main Pier at Margate Harbour
9	Margate (Westbrook Bay & Margate Bay)	TR354712: Main Pier at Margate Harbour	TR335705: Small slipway at west end of Westbrook Bay, east of 'Sunken Gardens' by shelter
10	St Mildred's Bay	TR335705: Small slipway at west end of Westbrook Bay, east of 'Sunken Gardens' by shelter	TR321705: Westgate Pavilion ('Ledge Point' on O/S map)
11	Westgate Bay	TR321705: Westgate Pavilion ('Ledge Point' on O/S map)	TR308699 Eastern limit of Epple Bay
12	Grenham Bay / Birchington	TR308699: Eastern limit of Epple Bay	TR291701: Western limit of Grenham Bay
13	Minnis Bay	TR291701: Western limit of Grenham Bay	TR273694: Western end of small groins at 'Plum pudding Island', opposite mussel bed & public path leading south
14	Plum pudding Island – Cold Harbour	TR273694: Western end of small groins at 'Plum pudding Island', opposite mussel bed & public path leading south	TR252694: Cold Harbour, opposite mussel beds & lagoons
15	Cold Harbour – Reculver east	TR252694: Cold Harbour, opposite mussel beds & lagoons	TR230694: Western end of shellfish hatchery
16	Reculver west	TR230694: Western end of shellfish hatchery	TR211687: Car park near 'Bishopstone Manor'
17	Herne Bay east ('Beltinge Cliff')	TR211687: Car park near 'Bishopstone Manor'	TR191685: Half-way along cliff, opposite 'Wantsum Walk' on O/S map
18	Herne Bay	TR191685: Half-way along cliff, opposite 'Wantsum Walk' on O/S map	TR172683: Herne Bay Pier
19	Hampton / Hampton Pier	TR172683: Herne Bay Pier	TR157679: Small slipway to west of Hampton Pier
20	Long Rock (Swalecliff) – Hampton	TR157679: Small slipway to west of Hampton Pier	TR137678: Long Rock, opposite sand spit
21	Whitstable / Tankerton	TR137678: Long Rock, opposite sand spit	TR108670: Whitstable Harbour
22	Whitstable - Seasalter	TR108670: Whitstable Harbour	TR062647: Saxon Shore Way



Appendix 2 - Seasalter survey sector.

Turnstone Count Sector 22

Map Notes: Whitstable Harbour to Seasalter



March 2018

