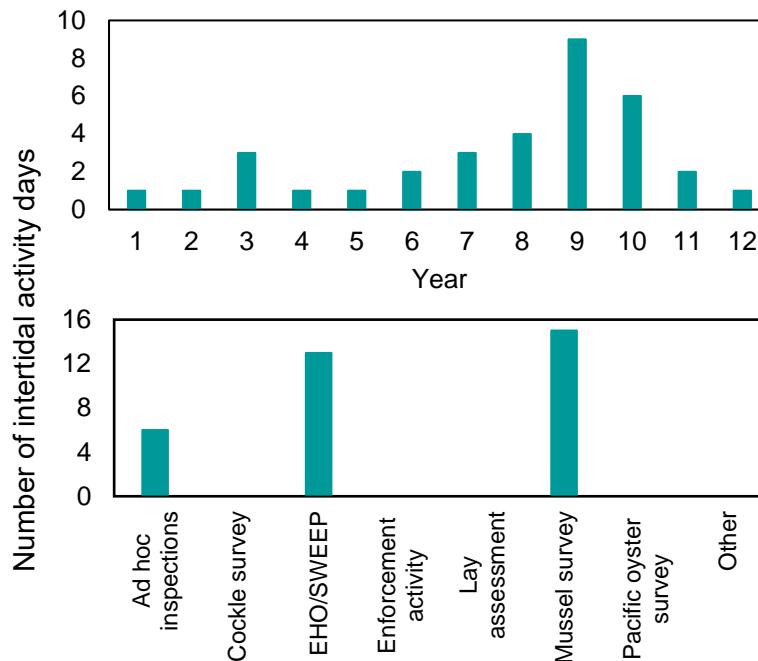


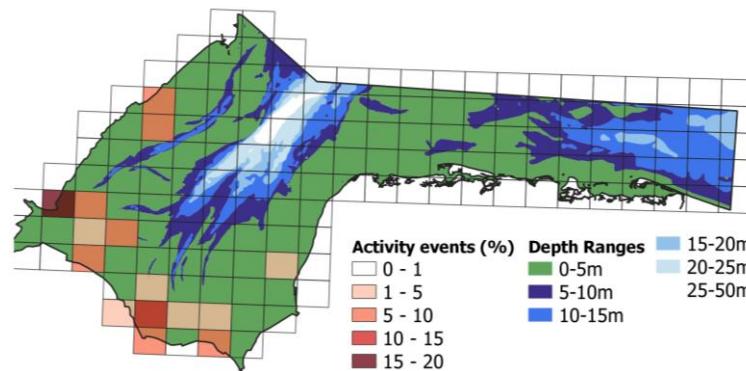
Each year Eastern IFCA conduct a number of on foot surveys in The Wash intertidal zone during low-tide. These include annual Wash Fishery Order (WFO) mussel and cockle surveys, monthly Environmental Health Office (EHO) and shellfish productivity (SWEEP) sample collection and enforcement activities and inspections, among others. To ensure these activities do not have an adverse effect on site integrity a Habitats Regulations Assessment (HRA) was completed in June 2018 and a five-year assent for all intertidal activities carried out within The Wash and North Norfolk Coast SAC was successfully sought. As part of this assent, Eastern IFCA monitor disturbance (defined as a reaction to officer presence) caused to birds and seals from activities to ensure the requirements of the HRA are met. This report presents the findings from the monitoring completed during 2020.

#### Summary of intertidal activities

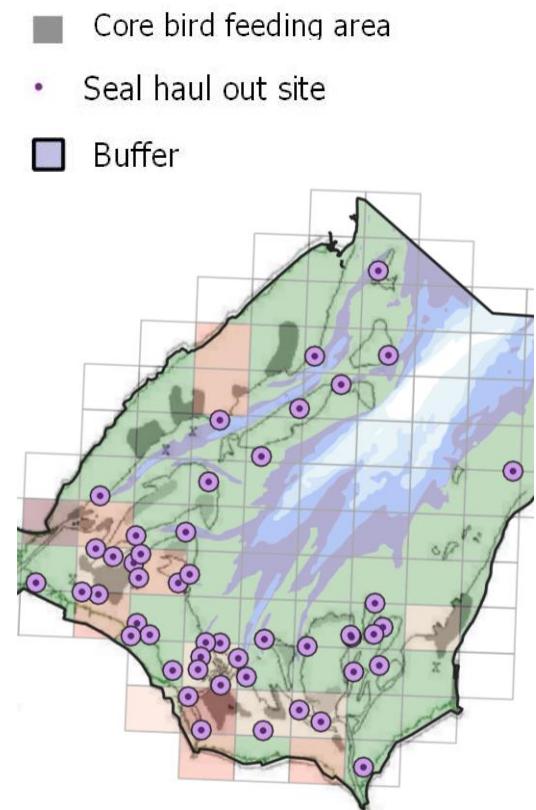
- A total of 34 intertidal survey days completed, this is within the 122 days/year consented.
- The lower number of activities completed in 2020 is a result of the Covid-19 restrictions and changes in the way some monthly EHO/DSP and SWEEP samples have been collected.
- 28 of the 34 survey days had monitoring forms completed (82%) so findings must be considered with this in mind.
- The number of surveys completed per month ranged from 1 to 9, with an average of 3 per month (Figure 1). The highest number of surveys were completed in September (9) as a result of the annual WFO mussel surveys.
- The annual WFO mussel surveys (15 days) and monthly EHO/DSP and SWEEP (13 days) surveys contributed to 82% of all intertidal surveys in 2020 (Figure 1).
- The intertidal beds which received the most activity were: Black Buoy and Breast sand (Figure 2) (>30% of activities).
- For the 28 days that forms were completed there were a total of 34 activity events (one activity event for every grid cell walked in) (Figure 2).



**Figure 1:** Total number of intertidal survey days conducted by EIFCA in 2020 by month (top) and by type (bottom).



**Figure 2:** Chart showing the percentage of activity events in each grid cell within The Wash and North Norfolk Coast SAC from forms completed in 2020. Forms represent 82% of intertidal activity days.



**Figure 3:** Chart showing seal haul out sites (with 600m buffer) and core bird feeding areas overlaid with areas of intertidal activity.

These core areas are particularly important to birds and seals and so it is important to ensure disturbance here is minimal. Areas of high activity overlap with seal haul out sites and core bird feeding areas occur at Roger and Toft sands, Breast sand and IWMK.

Seals		Distance	
Occasions encountered = 2 (6%)	Disturbed = 2 (100%)	<20m	0
		20-100m	1
		100-200m	1
		200-300m	0
		300+m	0
	Not disturbed = 0 (0%)	<20m	0
		20-100m	0
		100-200m	0
		200-300m	0
		300+m	0
Occasions not encountered = 32 (94%)			

**Table 1:** Of the 34 activity events, seals were only encountered on 2 occasions, this is an encounter rate of 6%. Of these 2 occasions, seals were disturbed both times and at distances between 20 - 200m. These disturbance events occurred on Scotsman's Sled and West Mare Tail during mussel surveys. Notes taken during the surveys indicate that when seals were encountered and disturbed, whilst some moved into the water, others stayed hauled out on bank.

Where possible and when safe to do so, officers keep a minimum distance of 100m from hauled out seals, however due to weather and tidal conditions, health and safety measures and the nature of some surveys, on some occasions this is not always possible.

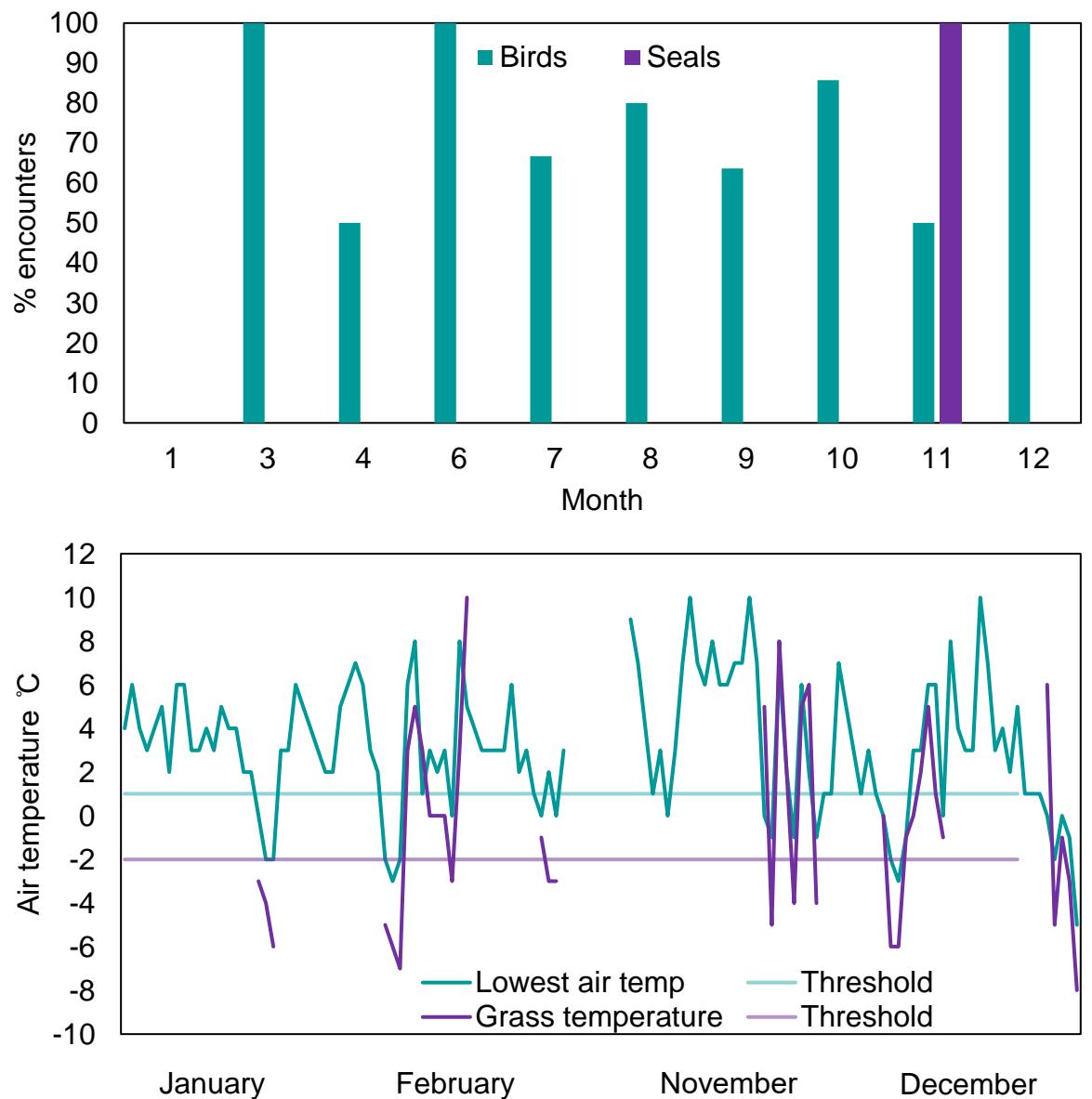


Birds		Distance	
Occasions encountered = 24 (71%)	Disturbed = 12 (50%)	<20m	0
		20-100m	10
		100-200m	1
		200-300m	0
		300+m	1
	Not disturbed = 12 (50%)	<20m	0
		20-100m	10
		100-200m	1
		200-300m	0
		300+m	1
Occasions not encountered = 10 (29%)			

**Table 2:** Birds were encountered 24 times during the 34 activity events and were disturbed at a rate of 71%. Whilst the majority of disturbance events occurred when officers were between 20 and 100m from the birds, many encounters at this distance did not result in a disturbance response. Notes taken during surveys identify that Oystercatchers were recorded as species that were disturbed on several occasions. Other species recorded as disturbed were unidentified and recorded as wading birds.

Where possible and safe to do so, officers avoid major aggregations of wading birds, staying at a distance of 300m away, however, due to the nature of surveys, weather and tidal conditions and health and safety measures, on some occasions this is not always possible. Observations of disturbance showed that when disturbed birds tended to take flight and re-settle nearby.

**Figure 4:** Percentage of activity events where seals and birds were encountered by month (Top). No activity events were recorded during February and May. Seals were only encountered in November during the mussel surveys. Changes in the way monthly EHO/DSP sample collections have been completed this year mean fewer activities have occurred in areas close to seal haul out sites. For birds the encounter rates of 100% occurred during the December, March and June, however, it is important to note that during these months only one activity event occurred. Whilst wading birds, utilise The Wash all year round, generally the highest numbers are known to occur during the winter months when an abundance of migratory waders overwinter in The Wash. During these cold months, when birds have increased energy requirements, there were no periods of severe weather conditions (defined as seven consecutive days of specified temperatures using criteria specified by the JNCC) that resulted in the temporary suspension of activities (Bottom) to protect them from the increased risk of disturbance.



**Summary of findings** During 2020 the level of visual disturbance to birds and seals caused by Eastern IFCA intertidal activities was low. This is because of the low number of intertidal activities conducted (much lower than that consented), but also because of the nature of surveys and the mitigation measure in place to ensure disturbance is minimal.

The completion rate of forms (82%) was much higher than that in 2019 (58%), a reflection of the efforts made by officers to improve monitoring. To fully understand the level and effect of disturbance caused by activities and improve the accuracy of findings achieving a completion rate of 100% should be worked towards.

