**08.10.21** EA Marine monitoring officers attended five sites on the shore around the Tees mouth. Dead and dying crabs were observed on four shores (Bran Sands, Redcar, Greatham Creek, Seaton Carew Beach), with no visible impacted animals on the fifth shore (Seaham Harbour).

Only crabs and lobsters were seen to be impacted. All other observed marine organisms were unaffected. Large edible crabs and lobster (dead and dying) were seen – these are not usually observed in the intertidal so considered to indicate weakened/exposed offshore and washed in.

Details can be found at  - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1117459/summary-crab-investigation-08102021.pdf](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F1117459%2Fsummary-crab-investigation-08102021.pdf&data=05%7C01%7Cmichael.oneill%40environment-agency.gov.uk%7C46c29cb91d0d4b898bf708dade7e0b17%7C770a245002274c6290c74e38537f1102%7C0%7C0%7C638066930189924036%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=zCJ1NHTjpxn%2BlcHiZ0IvjB8zXapn0zu8LaQJeOTkcE8%3D&reserved=0)

Environmental samples were taken at Bran Sands - 3 surface sediment scrapes, surface water samples (knee height water), blue mussels (Mytilus edulis), moribund crab samples.

**25.10.21** A significant wash up occurred after stormy weather. EA site visit information (Saltburn, Redcar, Bran Sands, Seaton Carew, Seaham Harbour) is summarised in - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1117460/summary-crab-investigation-25102021.pdf](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F1117460%2Fsummary-crab-investigation-25102021.pdf&data=05%7C01%7Cmichael.oneill%40environment-agency.gov.uk%7C46c29cb91d0d4b898bf708dade7e0b17%7C770a245002274c6290c74e38537f1102%7C0%7C0%7C638066930189924036%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=3mMHimhWJR1KlrfxbtPegU1LYoSnh%2Fa0EJ3d53GqQAY%3D&reserved=0)

The storm had washed up large amount of kelp and old razor shells etc (normal storm washup) but the large numbers of moribund crabs and lobsters were unusual, indicating that the cause of the mortalities was ongoing. Only crabs (green shore, velvet swimming, edible, porcelain), and lobsters were observed as impacted (range of ages classes).

Environmental samples were taken at the sites - In situ meter readings (DO, salinity, temperature), water samples and moribund crabs.

On both shore visits crabs were either dead, or on their backs twitching/ very lethargic with no fight left in them. Photographs and video from shore visits are available.

**08.11.21 –** Northeastern Inshore Fisheries and Conservation Authority’s (NE IFCA) vessel collected water samples (surface and bottom) at Seaton channel, Tees Mouth, Tees Estuary main channel, Seaton Carew, Redcar, and Saltburn. EA collected phytoplankton samples at Runswick Bay, Saltburn and Seaham. Moribund crabs collected at Runswick Bay.

**14.11.21** – The EA’s vessel surveyed, from Flamborough Head up to Tees mouth, to (i) inform if impact has affected the wider subtidal marine biological communities (ii) provide further information on the spatial scale of impact to wider environmental receptors and (iii) to gather further supporting data on the water column. The survey is documented in -

[**https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1117532/NE-crab-incident-vessel-survey-monitoring-report.pdf**](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F1117532%2FNE-crab-incident-vessel-survey-monitoring-report.pdf&data=05%7C01%7Cmichael.oneill%40environment-agency.gov.uk%7C46c29cb91d0d4b898bf708dade7e0b17%7C770a245002274c6290c74e38537f1102%7C0%7C0%7C638066930189924036%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=apLLF%2FNc7sQXzMF9KbAXGop84Dh%2Fqu7Nelj8nikhILo%3D&reserved=0)