Solent News

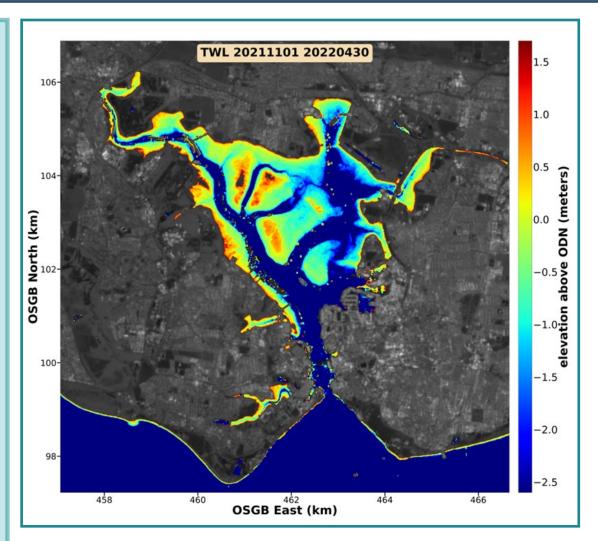
The newsletter of the Solent Forum

Issue 54: Summer 2023

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Enhancing our Ability to Monitor Intertidal Dynamics

A new method for monitoring intertidal topography is under development, led by researchers at the National Oceanography Centre. They are working in partnership with the Channel Coastal Observatory, the Environment Agency and a small group of representatives from regional monitoring programmes including the Manhood Peninsula Partnership. The method uses satellite data from European Space Agency Sentinel missions, in combination with accurate information on sea levels to derive intertidal topographic elevations.

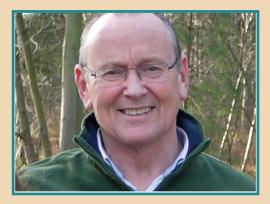
The team have been carrying out validation studies, using Portsmouth Harbour as one of the case study locations, to understand the limitations and accuracy of the method. The satellite driven approach produces a composite picture of intertidal topography, based on a time series of optical and radar images over a number of months, coupled with water level information from tide gauges or models.

The team are currently writing up the research for publication, and they continue to explore detailed aspects of this method. This includes work to understand the influence of increasing the accuracy of water level inputs (local spatial variability), as well as exploring options for presenting the results and developing quality related metrics that aid interpretation and support appropriate use.

The image above shows Portsmouth Harbour intertidal topography mapped using the EO-TWL processor using Sentinel 1 SAR images acquired between January 2021 and April 2022, in combination with water levels from the Portsmouth NTSLF tide gauge.

News from the Forum

Chairman's Column



Peter Barham

Environmental issues remain very high on the marine and coastal agenda, with constant reference for the need to combat climate change and move to net zero, this is all affecting the way that the sea and coast will be managed in the future. This is highlighted by the article on the marine heatwave which made headlines on national news.

As I have said before in Solent Forum meetings and in this column, everyone agrees that nature recovery must be an intrinsic aspect of any work as we also have a biodiversity crisis. It is clear from many actions being taken by Government and others that this is the case and I must admit to being optimistic that we are at least seeing actions which will work towards addressing the energy and environmental crises.

As I have also said. I feel that the Solent Forum will have a large role to play in determining what environmental targets are needed locally. By working with others we can advise industry where effort on restoration and 'net gain' could be best spent to make a meaningful contribution to conservation and recovery.

Work is also underway by Government, its agencies and organisations, like The Crown Estate, to look at how all this should fit into marine planning, so that we have clear direction over what the future should look like and how it should be achieved. Again, as this work develops, I think it will be essential that Solent Forum and our members have a role in ensuring that there is comprehensive local input.

All of this means that Karen and Kate remain exceptionally busy as always, and I am sure that I speak on behalf of us

all that we are so grateful for their efforts and for the outputs they achieve. They never cease to amaze me.

They do have some help at present as Katinka Klein has joined as our summer placement student from the University of Portsmouth. She will be working on a whole variety of core and project work, and has already been assisting with our biosecurity workshops and annual horizon planning. I hope she will get to meet many of you in her work.

Solent Plastics Pollution Hub Review

We have now been running our Solent Plastics Pollution (SPP) hub for one year and we have just produced our first annual report in infographic format that summarises our work.

SOLENT PLASTICS POLLUTION HUB OUR FIRST YEAR - 2022/23

What is the hub?

Web resources and a Facebook page to share information on litter picking, plastics and litter around the Solent. Launched Feb 2022.

Solent Community Groups

There are 21 fabulous active litter picking groups w know about around the Solent. Check yours is included in our <u>group directory</u> and if not please send us details.





Litter picking events

This year we recorded 64 litter picking events around the Solent. Please share your events with us via our Facebook page or email solentforum@hants.gov.uk.

Keep in the know

We posted 312 times on our <u>Facebook page</u> ths year. Follow our <u>page</u> to keep in the know about the latest news on plastics and litter and what is happening in the Solent.





Staying informed Over 1500 people used our <u>web resources</u> to find out about

groups in the Solent, find information on litter picking and discover local Solent initiatives.

Find out more & have you say Tell us what you think about the hub we would love to know via tacebook.com/solentpphub/ or

solentforum.org/services/Current_Projects/Solent_Plastics_Hub

Web resources: Solent Forum - Solent Plastics Pollution Hub Facebook page: Solent Plastics Pollution hub.

News from the Forum

Marine Invasive Species and Biosecurity Planning

The Solent Forum have been working with Natural England and APEM Ltd to develop resources on marine invasive species and biosecurity planning in the Solent. Six workshops have been held to obtain stakeholder input, three in person ones in March and three online in June. We are currently writing up the findings of the second workshops. We will then be refining the material for launch at the Solent Forum meeting on 11 October. There are three main sections to these online resources:

- Marine invasive species
- Biosecurity Pathways
- Biosecurity actions

The resources will be designed to raise awareness amongst users in the Solent about the impacts of marine invasives and how they can implement simple actions to help reduce some of the risks.

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Marine Biological Association <u>Identification Guide for</u> <u>Selected Marine Non-Native Species</u>.

Natural Environment Group

Each year the Forum's Natural Environment Group (NEG) awards up to £4,000 in grants to projects that seek to improve environmental outcomes in the Solent. Projects on-going include:

- Recording Snipe on coastal sites using a thermal imager
- Equipment to capture Snipe at Lymington/ Keyhaven
- It's the water quality, stupid! Identifying the risks to support successful restoration in the Solent

NEG is also taking forward its Solent Bird Sensitivity and Activity Mapping Project under Blue Marine's Solent Seascapes Project. The Forum chairs the Seascapes Recovery Plan Working Group who are leading on this work; ABPmer has been commissioned to produce this mapping for the Solent.

The group will next meet on 1 November, please contact <u>Karen McHugh</u> for more details.

Bursary & Student Placement

One of the aims of the Solent Forum is to further the research knowledge and evidence base of the Solent. To assist this aim, the Forum has a <u>bursary Scheme</u> where funding of up to £300 per project is available to help support dissertations undertaken by both undergraduate and graduate students. The award is named in honour of Professor Mike Clark, the second chairman of the Forum. As part of the award, the winners also have an opportunity to give a short presentation at a Solent Forum meeting and have their research publicised to the Solent's coastal community.

For 2023, we have made two awards:

- Henry Obanya (PhD) UoP Microplastics in Langstone Effects of Tire Rubber Particles and Derived Contaminants in Aquatic Ecosystem.
- Daniel Romero (MSci) UoS Evaluating the Effects of Eco-Moorings on Seagrass in Studland Bay: A Comparative Analysis of Pre- and Post-Installation Data (2021-2023). This project also includes seagrass surveys at Calshot.

We also welcome Katinka Klein from the University of Portsmouth as our summer placement student. She will be working with us over the next few months on a whole range of work that the Solent Forum undertakes. She is undertaking research for us, has helped with recent workshops and will be shadowing us for both online and in person meetings.

Coastal Change

Saltmarsh Restoration BuDs Trial in West Itchenor

CHaPRoN, working in partnership with Land & Water, Earth Change and ABPmer, successfully trialled a novel Saltmarsh Restoration Drag Box (SRDB) technique to restore saltmarsh with bottom placed materials at West Itchenor. It was undertaken to:

- Restore and enhance an area of saltmarsh that had been lost in Chichester Harbour
- Test a new approach to beneficially use dredged sediment to restore saltmarsh, designed by Land & Water Services Ltd – SRDB
- Capture the nutrient absorption of the new saltmarsh



Upper shore before recharge. © ABPmer

During the trial, a total of 1,532 m³ of sediment was deposited at the site. The sediment was transferred by drag box and stabilised relatively quickly. It dried out, consolidated and did not get washed away or impacted by tides or weather conditions. The stabilisation was verified by on site observations and a Light Detection and Ranging (LiDAR) survey which mapped the morphology of the shoreline following the restoration. This showed that much of the placed sediment is now set and is largely at elevations which should be suitable for marsh plant colonisation. The areas above 1.4m OD are suitable for spartina to start to colonise. The total area is approximately 0.25 ha.

Overall, the trial proved that this approach is technically viable. Monitoring of the project will now continue to understand how the area performs. This will include the stability of the recharge sediment and its ecological development, together with wider monitoring requirements. To help boost engagement and support CHaPRoN have created project information signage along the footpath.

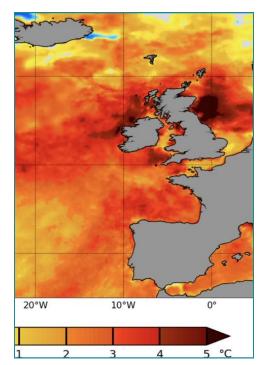
Marine Heatwave Around the British Coast

Record-breaking high sea surface temperatures are being felt around the UK, the Atlantic Ocean and in oceans across the globe. The fast heating of the sea surface is being measured at the <u>Porcupine Abyssal Plain Sustained Observatory</u>. This open-ocean observatory in the northeast Atlantic Ocean is operated by the National Oceanography Centre (NOC), in collaboration with the Met Office. The mean June sea surface temperature in 2023 (16.52°C) was more than 1.6°C above the mean between 1982 and 2011 (14.86°C).

Scientists have warned that events like this can harm aquatic life that is not used to such high temperatures, potentially causing algal blooms and mass die-offs of some species.

Warming oceans can also make waters more acidic and drive a decrease in oxygen levels in the water.

Compared to 1982–1998, the annual number of marine heatwaves increased around the British Isles by an average of four events per year in the period 2000–2016. Larger increases of up to six additional events per year occurred to the north of the British Isles. Smaller changes occurred to the south of the region.



Water Quality

How to Tell the Difference Between Algae and Sewage when at the Coast

The Environment Agency have prepared guidance about how to tell the difference between algal blooms and sewage at the coast: Key differences are:

- Algal blooms generally occur between April and August.
- Long lines of algal foam can often be seen off headlands lying parallel to the coast.
- In rough conditions thick mats of foam may be created on the shoreline by wave action.
- Stormwater overflows tend to cause a grey discolouration of the water and often have an origin such as a pipe or outfall, where the discolouration is strongest.



The breakdown of an algal bloom at Keyhaven © Environment Agency

- Sewage discharges can contain fats and oils causing waves to flatten around it and sometimes attract seabird flocks.
- You can't tell if an algal bloom in the sea, lake or river is toxic just by looking at it, so it's safest to assume it is and avoid contact with the water or algae.

If you are concerned that what you see is not algae and is some other kind of pollution, please phone the Environment Agency hotline on 0800 807060 and avoid the water.

Southern Water Work to Reduce Storm Overflows

Work is underway to reduce storm overflows around the Solent via Southern Water's Clean Rivers and Seas Task Force. After successes in Pathfinder schemes, the company is investing in a multi-million-pound two-year programme (up to £50m investment before March 2025 with £10m already committed to the Isle of Wight).

The aim is to reduce the amount of surface and groundwater entering sewers, which is being exacerbated by climate change and urbanisation (more hard surfaces for water to runoff rather than green spaces to soak it up). Slowing the flow and diverting rainwater helps prevent overflows and encourages water to enter natural aquifers/extraction points quicker, important in water stressed areas.

Work to optimise the existing network includes fixing misconnections, and 'greening' communities by installing raingarden planters, introducing swales, and embarking upon new wetland schemes.

In Appley on the Isle of Wight, the site released 136 times in 2020 and 108 times in 2021 into the River Medina. Southern Water are working with the Environment Agency to increase the pumping station capacity by 2.5 times to reduce the CSO overflows to around 30 a year.



Work being undertaken at Appley. © Southern Water

Fisheries & Aquaculture

Solent Seaweed Farming

University of Portsmouth scientists, working on restoring areas of the Solent, have begun growing seaweed in Langstone Harbour to test its environmental and commercial benefits.

They want to see if sugar kelp (Saccharina latissima) can be successfully farmed inshore, while also improving water quality. The species, commonly used in Japanese cooking or added to food and cosmetics because of its thickening and gelling qualities, is generally grown offshore as it's easier for suppliers to find space.

Seaweed can remove nutrients, high nutrient levels in coastal areas such as the Solent result in the excessive growth of green algae on intertidal mudflats, saltmarshes and seagrass meadows.



Image © University of Portsmouth

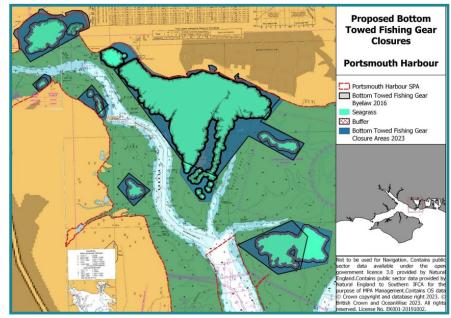
The study is part of the Rapid Reduction of Nutrients in Transitional Waters (RaNTrans) project, which is exploring how nature-based approaches can improve and protect marine ecosystems. The project team comprises nine partners from across the UK and France, who are testing a variety of methods to improve water quality from culturing oysters to mechanically removing green algal mats. The Solent team will also examine whether the seaweed provides food and shelter for many species.

Bottom Towed Fishing Gear Byelaw, 2023

Southern IFCA are holding a <u>Formal</u> <u>Consultation</u> on their Bottom Towed Fishing Gear Byelaw 2023.

Bottom towed fishing gears, or mobile demersal gears such as otter trawls or shellfish dredges, have been used by fishers for generations in the coastal waters of the Solent. In certain areas these techniques have the potential to adversely affect sensitive habitats and species. The Southern IFCA has a duty to manage fisheries within MPAs, ensuring that designated features and supporting habitats are not adversely affected and that Conservation Objectives of the sites are furthered.

This byelaw seeks to prohibit the use of



bottom towed fishing gear for the exploitation of sea fisheries resources in areas of the Southern IFCA District, in order to protect designated features and supporting habitats within Marine Conservation Zones and within or adjacent to European Marine Sites. The byelaw also requires a vessel carrying bottom towed fishing gear while transiting through a prohibited area, to have that gear inboard and above the sea.

Ports & Marine Industries

Freeport Customs Site at Portsmouth Port

Portsmouth can now operate as a fully functioning Freeport, following approval for a customs site at Portsmouth International Port, complementing the tax site at Portsmouth City Council's Dunsbury Park business development park.

Portsmouth met HMRC's designation order conditions, which means Freeport customs site activities can be carried out within a specified area at the port. The port's customs site will be run by cargo terminal operator Portico Shipping Ltd.

Authorised businesses will be able to import certain goods to the port's customs site with simplified customs documentation, and without paying tariffs. Authorised businesses operating inside the customs site can store or manufacture goods using imported raw materials. By doing this, they can add value before exporting them again and, where certain conditions are met, they don't need to pay import duties. Domestic goods can also be held in the customs site and used in any processing activity.



Portsmouth International Port. © Portsmouth Port

Marine Data Management Workshops 2023

The Marine Environmental Data and Information Network (MEDIN) and OceanWise have announced course dates for their popular free online workshop: Marine Data Management, Governance and the MEDIN toolset.

The courses will take place on the following dates:

- 4th 8th of September 2023 (registration open: <u>https://</u> <u>classroom.oceanteacher.org/course/view.php?id=943</u>, enrolment key: Medin943)
- 13th 17th November 2023

The course takes place over five days with live lessons in the morning and independent learning in the afternoons, which can be completed flexibly around other work commitments.

It is suitable for anyone responsible for collecting or managing marine environmental data in the public sector, industry, education or research. Familiarity with different marine data types, and how data is acquired and used, would be helpful but is not essential. Prior knowledge or practical experience of data management is not required. See the <u>MEDIN website</u> for more information.

Condor Ferries New Deal at Portsmouth

Portsmouth International Port and Condor Ferries have agreed a new long-term deal until 2033.



Portsmouth is a critical shipping

route for Channel Islands' trade. With sailings 364 days per year, carrying predominantly freight, there are regular exports of cars, building materials, food and drink supplies, clothing and utilities. Ninety five percent of everything consumed on the Channel Islands comes through Portsmouth. This longterm agreement provides certainty for vital freight and passenger services.

Condor has a mixed fleet of conventional and high speed ships which carry hundreds of thousands of passengers, 200,000 freight vehicles and 65,000 trailers each year between the UK, Guernsey, Jersey and the French ports of St Malo and Cherbourg.

FCERM

Hurst Spit to Lymington Strategy

The Environment Agency, in partnership with New Forest District Council, Hampshire County Council, Natural England and JBA Consulting are exploring a sustainable future for the coastal frontage between Hurst Spit and the town of Lymington in relation to all sources of flooding, and coastal erosion risk management. It will focus on the next 100 years to 2124.

The Hurst Spit to Lymington Strategy will assess the pressures facing this coastline now and in the future, and consider how best to respond to these challenges. The aim is to have a completed Strategy by the end of 2024.

A key objective of a Strategy is to recommend high level options to manage flood and erosion risk which are sustainable in the long term and a clear

programme of projects that can be delivered on the ground. The implementation of these projects will be dependent on available funding from government and external investment sources.

Maintaining the coastline as it is now is unlikely to be sustainable as climate change, rising sea levels and heavier rainfall threaten this coastline. The impacts on Hurst Castle in February 2021, were a timely reminder of the challenges.



Aerial view of Hurst Castle © Andrew Colenutt

Langstone Mill Pond Sea Defences

Havant Borough Council has endorsed and is seeking funding to undertake a Chichester Harbour Environment and Investment Adaption Plan. This will set out a plan for the future management of Chichester harbour focussing on environmental improvements and reversing the damage that historic sea defences and inappropriate coastal management have on the harbour environment. They are bidding to the Environment Agency for the required funding.

condition The of the sea defences near Langstone Mill Pond continue to be monitored since initial inspections in July 2021. In March 2022, following winter storms, an approximate thirty metre long section of brick seawall collapsed. Havant Borough Council are liaising with Hampshire County Council, Countryside Services Team on the safety of the public footpath that runs along the top of the defences. There are three main areas of damage at Langstone Mill Pond to Wade Lane; Coastal Partners continue to monitor this damage closely and frequently.



Damaged seawall © Coastal Partners

Watersports

Watersports Advice from Bird Aware Solent

New guidance from Bird Aware Solent features a unique online map which pinpoints wildlife-friendly routes for kayakers and stand-up-paddle boarders. It also shows windsurfers and kite surfers where to launch and land to minimise disturbance to birds and their fragile habitats.

Handy tips on amenities such as parking and toilets also feature on the map, with clickable icons revealing descriptions of each launch point. Photographs and relevant advice for each location are included such as required permits, tides and picnic spots.

The map is accompanied by specific behavioural guidance that paddle and wind sports enthusiasts can adopt in order to reduce disturbance, such as keeping a low profile on a paddleboard when near wildlife by kneeling rather than standing up.

The interactive map and downloadable guides can be found on the <u>Bird Aware</u> <u>Solent website</u>.



National Watersports Participation Survey 2022

The latest national <u>Watersports Participation Survey</u> includes these key findings for watersports participation in the UK.

- Following on from the pandemic, the huge growth in casual participation rates (defined as 1-2 times) has not died down. As seen in 2021, regular participation (defined as 3 or more times) has remained steady, with some activities experiencing moderate growth. Notable is the growth in regular participation for coastal activities and the continued growth of regular participants in paddlesports and manual activities.
- Coastal activities, which generally require little or no specialist training or equipment are done the most frequently, and show an increase in participation 13+ times.
- Those in the AB socio-economic group are more likely to have participated across all activity groups. They make up the largest proportion of participants in the sailing category.
- A greater proportion of sailing activities are performed at the coast than was the case in 2021. Other sports are fairly consistent; most participation is at the coast, except for Paddlesports, which are more often done inland.
- Paddle boarding shows all age groups being likely to have started the sport within the past 5 years.
- First time ownership is highest for paddleboards, personal watercraft and canoes/ kayaks.
- Signs at the beach/coast is still the preferred method for receiving safety information with a gradual increase in preference for media campaigns.
- Anglers and sailors have the most barriers to accessing the water. Access and the cost of access were barriers and parking.

Research and Planning Watersports Participation Survey 2022 04 April 2023

Conservation

Princess Eugenie Lends Royal Support to Solent Seascapes

In her capacity as a Blue Marine Foundation Ambassador, Her Royal Highness Princess Eugenie made a visit to the Solent Seascape Project. The project has taken significant steps recently, with work to restore saltmarsh in Chichester harbour underway and oyster restoration on a substantial scale forming a new reef in the River Hamble.

The Princess accompanied the Solent team to the University of Portsmouth's Institute of Marine Sciences to make biosecurity checks on native oysters being prepared for introduction in Langstone Harbour. These crucial nurseries dotted around the Solent's marinas will help to repopulate the newly created oyster beds in Langstone Harbour and the River Hamble, by producing

millions of offspring that can settle and grow on their new homes. The team also monitors the biodiversity around the nurseries which act as hotspots for species including critically endangered European eel, seahorses, and seabass.

The Princess also took a boat trip to help the team lower new nurseries against a pontoon in Langstone Harbour. Restoring oyster beds is vitally important due to their value to local fishermen, but also the many ecosystem services that a healthy oyster population provides such as water filtration, protecting our coastline from erosion and creating habitat for marine biodiversity.

The Solent Seascape Project is a multi-million-pound initiative to restore marine habitats across the Solent region. This five-year partnership, funded by the Endangered Landscapes Programme, aims to restore seagrass, saltmarsh, oysters and seabird nesting habitat in the Solent.



HRH Princess Eugenie inspects a native oyster at the Institute of Marine Science with Blue Marine Foundation's Dr Luke Helmer. Credit: Matt Jarvis, Blue Marine Foundation.

Return of the Tern Project at Chichester Harbour

The 18 month 'Return of the Tern Project' was a partnership between the Friends of Chichester and Chichester Harbour Conservancy, in response to <u>Natural England's SSSI Condition</u> <u>Review</u> which found the harbours designated bird features in "Unfavourable declining" condition. It was funded by the Green Recovery Challenge Fund in 2021.

The leading aspect of the project was to restore naturally occurring habitat for Terns in Chichester Harbour. Stakes Island, south of Cobnor Point, was identified as a site for shingle recharge habitat restoration works, to prevent nests being washed away on a high spring tide. The bank was raised by one metre, using over 500 tonnes of shingle.



Baby tern on raft. © Chichester Harbour Conservancy

The project commissioned five new purpose-built Tern rafts to be used in

the Harbour. Their debut last year saw 54 common tern chicks fledge and, after an initial survey this year, 88 tern eggs are waiting to hatch later this summer. The project also run small fish surveys in partnership with Sussex IFCA, to further understand the food source available to the terns.

Educating young people was also a key focus of the project, utilising the Chichester Harbour Conservancy Education Centre. The project's success has been captured in a <u>video</u> produced by local company, Millstream Productions.

Coastal Recreation

King Charles III England Coast Path

To celebrate the coronation of His Majesty King Charles III, the England Coast Path has been renamed the 'King Charles III England Coast Path', leaving a lasting legacy to be enjoyed by walkers around the entire English coastline.

It will be the longest managed coastal path in the world. It will go all the way around the coast of England and will be around 2,700 miles long when it is complete. In the Solent the Calshot to Gosport and Gosport to Portsmouth sections are currently open.

To celebrate the opening of the King Charles III England Coast Path events are taking place across the country during 2023.

Shoreham-by-Sea (8) ISLE WIGHT Stretch Names Stretch Progress Highcliffe to Calshot England Coast Path and associ access rights now open (2) Calshot to Gosport 3 Isle of Wight - East Cowes to Wootton Bridge Approved in whole but not yet open, establishment works (4) Isle of Wight - Wootton Bridge to the Medina planned or in progress (5) Gosport to Portsmouth Approved in part but not yet OPORTS PORTS PO open, establishment works South Hayling Island to East Head planned or in progress for approved lengths (8) East Head to Shoreham Proposals published but not yet determined 2.5 5 10 Kilometres Proposals in development Other County & Unitary Boundaries Image © Natural England

WEST SUSSEX

Coastal and Marine Wildlife Code

In May the government launched England's first-ever national <u>Marine and Coastal Wildlife Code</u>, which offers advice and guidance to help people visit the coast responsibly. Developed in collaboration with organisations including Whale and Dolphin Conservation, the RSPB, Shark Trust and Cornwall Seal Group Research Trust, the Marine and Coastal Wildlife Code includes

advice for those walking along the coast or taking part in water-based activities such as kayaking, paddleboarding or jet skiing.

The code includes information on:

- Be aware of how you could disturb wildlife
- Recognise when you are disturbing marine wildlife
- Act responsibly around wildlife at the coast
- Use boats, jet skis and other vessels responsibly
- Enjoy water activities without harming wildlife
- Plan your visit to the coast
- Report a wildlife crime
- Report an injured, distressed or dead animal
- Get training in how to avoid marine wildlife disturbance

In addition, Shaun the Sheep has been revealed as the new champion of Natural England's Countryside Code, which includes the coast. The popular animated character encourages children and young people to "respect, protect and enjoy" the countryside. It follows research from Natural England's Children's People and Nature Survey which revealed that eighty percent of children and young people agreed that looking after the environment was important to them, and eighty three percent said they wanted to do more to look after nature and wildlife.



Shaun's Countryside Code for the great outdoors. Created by Aardman.

Harbours & Business

Wightlink hosts Marine Scientist Researching Solent Cuttlefish

Wightlink has teamed up with marine scientists from the University of Portsmouth to find out more about cuttlefish that live in and around Ryde Pier and its FastCat terminal in Portsmouth Harbour.

University of Portsmouth postgraduate researcher, Emma Chappell, has installed strands of rope, weighted down by breeze blocks, into the seawater beneath the port structures and hopes cuttlefish will be encouraged to lay their eggs on the ropes. She is visiting the sites monthly throughout summer to check on the six nurseries.

Cuttlefish are part of the same family of marine invertebrates as squid and octopuses and can change colour and texture to escape predators or attract mates. Their chalky internal shells can often be found washed up on beaches and are often used in budgie cages, as a calcium-rich dietary supplement for the birds.

Emma notes that Cuttlefish are an iconic and important species in the Solent. Despite this, they don't receive as much protection as other commercially valuable species found in the Channel and coastal stocks are exploited, often by offshore trawlers. In 2018, this was the fifth most valuable fishery in England, worth £14.9 million.

She hopes her research will help increase knowledge about cuttlefish egg-laying behaviour on artificial structures, which could be helpful in decision-making about the management of cuttlefish in our waters.



University of Portsmouth marine scientist Emma Chappell and Wightlink colleagues prepare to deploy the cuttlefish nurseries. © Wightlink

Lloyd's Register Publish Survey on Barriers to Maritime Decarbonisation

Low maturity and uncertainty of available solutions are among the top barriers to shipping's decarbonisation, according to a <u>Lloyd's List survey</u> in collaboration with classification society Lloyd's Register. The findings of the survey confirm that parts of the industry are not ready to invest in alternative fuels or technologies viewed as immature. Regulatory uncertainty around greenhouse gas emissions reductions is also creating further reluctance among companies to invest in new technologies.

New Pilot Vessels Named

ABP's Port of Southampton has officially named its two brand-new pilot vessels, Majestic and Mary Rose. The ceremony took place at the ABP Pilot Station at Endeavour Quay, Gosport and the vessels were named and blessed in a traditional ceremony by the Sailors' Society's Port Chaplin.

Majestic and Mary Rose are the final two of three new launches for ABP's Southampton region and three of nine across ABP's ports, representing a total investment of around £9m. Each vessel delivers an approximate forty percent fuel saving through an innovative forward 'beak' and double chine hull design that enables the vessel to cut through the waves.

The vessels are constructed in Great Yarmouth, Norfolk, by Goodchild Marine. Majestic and Mary Rose will join Mayflower (the first of the new vessels named last year) at the ABP Pilot Station in Gosport. The Pilot Vessels safely transport Southampton Marine Pilots to and from ships entering and leaving the port.



Photo © ABP Southampton

More News

Chessel Bay Beach Clean

Chessel Bay is a thin strip of native UK woodland based on the banks of the Itchen Estuary, Southampton. It's location, on the outside bend of a large meander in the river, means that it collects a large amount of debris; both natural and man made including pre-production pellet pollution from plastic manufacturers on the River Itchen.

Throughout January to April, <u>The Nurdle team</u> cleaned up Chessel Bay nature reserve for five days at a time, with its custom made equipment and a fantastic group of volunteers. They removed up to 1200 litres of nurdles each day.

While it is impossible to remove every single pellet, over ninety percent of the pollution was removed in some areas of the bay. Southampton University is doing ongoing research on plant regrowth rates in the areas where plastic was removed. The Nurdle team are planning to return again in early Spring 2024.

A workshop was also held in May on Preventing Plastic Pollution in the Itchen Estuary, organised in partnership by the Environment Agency, Southampton City Council, Wessex Rivers Trust, Natural England and the University of Southampton.



Photo © The Nurdle Team

Armada Maps National Treasures Exhibition

The Armada Maps National Treasures exhibition is an opportunity to view the ten incredibly rare maps that chart the defeat of the Spanish Armada in August 1588. All ten maps are on display to the public by the National Museum of the Royal Navy, for the first time in their history until 8th August 2023 at Portsmouth Historic Dockyard.

Following guidance from world-leading conservation experts and The National Archives, the maps can only be displayed for 45 days due to their fragile nature and the dangers of exposure to light. The exhibition also explores the build up to the Armada campaign and includes an extremely rare map from May 1588 of the Spanish Armada outside Lisbon.

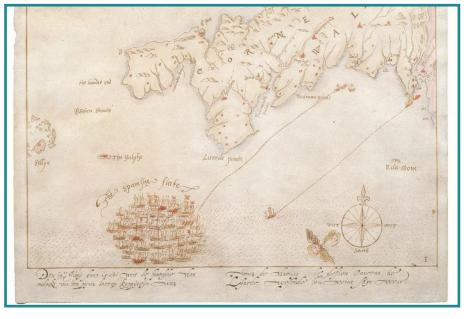


Photo © National Museum of the Royal Navy

The ongoing story of the Armada and its resonance throughout history is also unpacked, through later representations of the maps, especially those by engraver John Pine. Visitors can digitally engage with the maps through an on-gallery touchscreen and animation created specifically for the exhibition.

Entrance to The Armada Maps National Treasure exhibition is included with a valid ticket to the National Museum of the Royal Navy.

More News

Protecting Wildlife on the Defence Training Estate

The South East Defence Training Estate hosted 'Coast and Country Canines' at Browndown on the Hampshire coast in May, supported by colleagues in the DIO Access and Recreation Advisory and ecology teams. Throughout the day, Coast and Country Canines and DIO staff greeted dog owners and members of the public and shared advice. There was lots of positive discussions about how to keep safe and prevent disturbance to birds and other wildlife that rely on the site's beach habitat.

A military presence has been at Browndown since 1852, when gun batteries were built on shore to defend the western approach

to Portsmouth Harbour. Nowadays, training takes place on Browndown Beach, which, at over a mile long, is ideal for carrying out a variety of amphibious operations and training exercises both day and night.

People are asked to keep their dogs under control when on MOD land, as sudden noises from military training can scare them. Browndown provides vital habitats for coastal birds, so it's important that dogs are kept on leads during the bird nesting season which runs from 1st March to 31st August.

The shoreline is important for roosting migratory birds such as ringed plover, dunlin and sanderling. Over the last few years, DIO teams have been working alongside Bird Aware Solent to increase awareness of the importance of the shingle high tide zone for birds, by undertaking monitoring surveys and installing signage.



Coast and Country Canines was established by Birds Aware Solent to promote safe, wildlife aware dog walking [Crown Copyright / MOD 2023]

Solent Seagrass Symposium

The first Solent Seagrass Symposium was held in April, hosted by Cowes Yacht Haven. Many of the people working on seagrass restoration and research across the Solent, local businesses and interested people came together for an evening of talks and discussion.

Talks were given by Dr Ian Boyd (ARC) on the Isle of Wight UNESCO World Biosphere Reserve, Dr Tim Ferrero (Hampshire & Isle of Wight Wildlife Trust) on restoring the smaller seagrass species *Zostera noltii*, Amelia Newman (Ocean Conservation Trust) on the ReMEDIES seagrass restoration project, and Dr Richard Unsworth (Project Seagrass) on the larger species *Zostera marina* restoration research and the Seagrass Spotter app, a citizen science programme to help build knowledge of seagrass extent globally. Several local organisations also show-



cased their work to support seagrass, with vibrant displays of photography, art and seagrass lino-printing.

- Information on <u>Seagrass Ocean Rescue project</u>
- Information on <u>Solent Seagrass Restoration project</u> and volunteering opportunities





QR code to sign up to the volunteer database

News & Snippets

Glass Reinforced Plastics Research at Chichester Harbour

A collaborative community project, steered by the University of Brighton, is researching littering from fibreglass boats in poor repair. Initial research has indicated that, as these boats shed glass reinforced plastic microfibres (GRPS) into the water environments, these embed themselves into the soft

tissue of plants and animals, including humans. Over time these microfibres disrupt trophic relationships, as small animals are pin-cushioned and killed; this impacts successive food chains across aquatic networks disrupting the life cycle of larger animals such as fish and sea birds.

Working with members of the public, the project aims to collect physical data on GRP pollution through onsite water samples along with photos and geolocations of end-of-life boats within Chichester Harbour. The first stage of the project has been to share skills around how to document end-of-life fibreglass boats through photo mapping and blogging and to learn how to undertake water quality sampling. Workshops held in April 2023 helped to train interested volunteers in these different citizen science activities.

All data collected will be stored and made publicly available on an open access database as part of a coproduction approach which supports co-collaboration between the University and the public.



Fibreglass marine debris at Chidham Point, Chichester, April 2023 (Photo: D Redstone)

Snippets

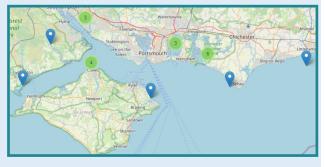
- During March, 468 tons of gravel mixed with cockleshell was laid on the seabed at the Swanwick Bend in the River Hamble to form the foundation of an oyster reef by Blue Marine. The reef covers an area of 0.24ha.
- The <u>Studland Bay Marine Partnership</u> brings together those with an interest in the future of Studland Bay and it has produced a draft 10-year management strategy for the Bay, a moorings plan, and future governance options.
- In June, the government launched a six-week consultation on expanding its targets to tackle sewage across all coasts, estuaries, bathing waters and marine protected sites. The consultation asks about expanding the targets in the Storm Overflows Discharge Reduction Plan to cover coastal and estuarine waters, developing an ecological standard for coastal and estuarine waters and whether any further areas should be added to the current list of high priority sites listed in the plan.
- After the completion of legal challenges, Bembridge Harbour Authority will now commence construction of their new admin and facilities complex which will be completed by Easter 2024. This will include dredging the visitors' pontoon and fairway this autumn and continuing their on-going entrance channel widening, dredging and future <u>investment programmes</u>.
- <u>Catchwise</u> is a ground-truthing survey of recreational sea angling taking place across England and Wales in 2023 and 2024. Substance, the Angling Trust and Cefas have partnered to deliver it.

Solent News

Solent Seascape Restoration Inventory

The Solent to Sussex Bay Seascape Restoration Inventory is the first publicly accessible inventory of seascape restoration activities covering the Solent to Sussex Bay region. It has been compiled by the University of Portsmouth in collaboration with the Solent Forum and the Sussex Marine and Coastal Forum to provide interested stakeholders with the key information needed to engage with all restoration practitioners and researchers in the Solent to Sussex Bay area.

It is composed of two parts: 1) An inventory of planned, in progress and completed applied restoration and research projects across the region to help interested stakeholders understand how their work aligns with other projects in the area; and 2) A directory of organisations and individuals actively involved in seascape restoration including a brief outline of their research and/or practical focus. This will help interested stakeholders to identify potential project partners for future collaboration.



The Solent Forum

Since 1992, the Solent Forum has provided a platform to deliver Integrated Coastal Zone Management in the Solent sub-region of the southeast. It operates at a strategic coastal management level, providing a network for closer working relationships, information dissemination and discussion of topical coastal issues. The Solent Forum members meet twice a year and will next meet on 11 October 2023 in Southampton.

Solent News is prepared and edited by the Solent Forum Officers. It is a biannual publication and issue 55 will be produced in winter 2023/4. To find out more about the publication, how to submit articles or be included on the mailing list, please visit http://www.solentforum.org/publications/solent_news/.

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The following organisations steer the work of the Solent Forum.





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