

# tidelines

Issue 59 Winter 2023

newsletter of the Solway Firth Partnership



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# Convenor's Column

**Rupert Shaw MBE MA, SFP Convenor**

As the leaves yellow and the winds gather; autumn's promise of a winter to come, finds me torn between reminiscing about our summer gone by and pondering on projects to fill the short days to come. So, you now know how this frontispiece to Tidelines might scatter attention on issues unconnected!

Dr Ann Lingard has been an exceptional Trustee Director for the Partnership and starting with this printed acknowledgement of her valuable contribution to our work is important. Ann's shore walks have inspired many (including me) as has her book, *The Fresh and the Salt*, which has revealed to a wider audience the interest and excitement to be found on closer inspection, of what can seem an ever-changing Solway vista. Ann's planned relocation to be nearer children and grandchildren means that we are looking for a Cumbrian Solway side resident to join our board in 2024. Is that you? Do you have a knowledge and passion for those coastal issues that would benefit from the Partnership's involvement. Have you board experience elsewhere, can you commit to in person meetings and an annual site visit and AGM, are you already representing a Solway community or local project on the English side? Please do get in touch.

A highlight of recent political engagement and advocacy was a most excellent presentation and beach walk by our staff team, for Mairi McAllan MSP Cabinet Secretary for Transport, Net Zero and Just Transition who was joined by Emma Harper MSP on a recent visit to Kirkcudbright. I'm confident from discussion on the day that the Partnership is considered something of a template and exemplar



Rupert Shaw MBE MA

for coastal coordination. It was of note that the need to loiter at the Dhoon/Doon public lavatories to read our information board seemed to set a happy and engaged tone for the seaweed sampling that followed. You can read more about the visit on pages 20-21.

Have you tasted any of our seaweed samples this year courtesy of Clair, Nic and Morag? Can you sex a crab? I learn so much on days out with the staff and it's always fun. Do keep an eye out for our events on the coast by you.

After the disruption and uncertainty of the last couple of years 2023 has indicated that many of the flagship coastal events of the Solway are here to stay. Maryport's Festival of the Sea and Stranraer's Oyster Festival reveal opportunities to build events of national significance. We can all be encouraged by the prospect, seeing how Wigtown's Book Festival has developed to this point in its 25th year. This summer's beach cleans and our ongoing engagements on a smaller scale continue to be popular and perhaps a distraction from the otherwise difficult domestic and international issues dominating at present.

An ongoing issue that I wish to reinforce is the need for appropriate measures of biosecurity if you are a domestic bird or fowl owner. Here by Kirkcudbright at present the Avian Influenza (AI) signs are out and residents have received formal letters of guidance, please comply. We are unlikely to see an end to AI in the wild bird population anytime soon, but we might be able to remove reservoirs of infection here on the Solway by completing suggested actions.

Attending The Galloway Glens Scheme final event in Castle Douglas reminded me of the passion, commitment, and desire to make things better amongst so many of our resident readers who volunteer. So let me reinforce my regular message that even if you pick up a single litter item whilst walking the dog or buy a lottery ticket (Yes, the Galloway Glens £6million came from The National Lottery Heritage Fund), the cumulative effect is transformative. So don't think I'm concerned, or I do understand that not everyone has the privilege of available time to help. If you do have the time and are looking to contribute in any form or want to know about our activities as they happen, please make sure you have signed up to our e-newsletter from SFP website <https://www.solwayfirthpartnership.co.uk/> and follow us on social media for notice of this winter's events. In which vein please come to our AGM which returns to the Halston Hotel, Carlisle on the 17th November for the first time since 2018 and is followed by the SFP / Solway AONB Joint Solway Conference. I look forward to seeing you there for what promises to be a great event.

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**Photo Credits:** Front Cover: Seaweeds in rockpool, Nic Coombey, Solway Firth Partnership (SFP)

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Roman Camp at the Discovery Weekend

# Solway Coast Discovery Weekend



Discovery Weekend beach games



Discovery Weekend organisational team

On Saturday 8th and Sunday 9th July, the AONB staff team and partners joined up with Natural England to run a weekend of coastal discovery for the public along the stretch of coast between Allonby and Crosscanonby Carr. Part of the national celebration of the King Charles III England Coast Path, the aim of the event was to invite people of all ages to enjoy and explore the coast and, more importantly, to get out and about along the path to have fun, discover new things and enjoy the outdoors.

Blue Dial Farm and Caravan Park was the base for activities, with a whole range of partners running information stands and activities. Activities also took part on the shore and the beach and along the path to Milefortlet 21. People were able to drop in and take part in

wildlife spotting, beach mindfulness, photography, Roman re-enactment, rockpooling, seaweed admiring, beach games, storytelling and Tikes Hikes for adults with young children, amongst others.

A particular highlight was an art installation called "Beach of Dreams", consisting of hundreds of coastal inspired flags fluttering in the breeze – a real spectacle on our beautiful stretch of coastline.

On the Saturday afternoon we were lucky enough to have an official visit from the Right Honourable Lord Blencathra, member of the House of Lords and Deputy Chair of Natural England. Lord Blencathra thoroughly enjoyed the afternoon, chatting to everyone and discussing all aspects of the Solway Coast, its landscape,





Top: Lord Blencathra and Cllr Tony Markley talk to Natural England, above: Discovery Weekend welcome tent

seascape, wildlife and history.

A community procession around Allonby took place on the Sunday afternoon, the culmination of a schools project celebrating the fishing heritage of the coastline, part of the run up to the event, and was followed with a community picnic.

A huge thanks is due to our wonderful volunteers, staff team, partners, Natural England, and the Hetherington family of Blue Dial Farm for all their hard work – without which the event would not have been as successful.

Allonby flags



New path at Milefortlet 21

## Access for all at Milefortlet 21

Thanks to a grant from Defra as part of the Government's Access for All programme in Protected Landscapes, the AONB team, working with the landowner and a local contractor, have created a new accessible footpath on the route of an existing permissive path to a key historic monument and coastal viewpoint. The work improved an existing path that was previously not accessible to wheelchairs, trampers and people with mobility issues, creating a new wide, smooth surfaced path free from gates. Some additional sections of path ensured that the path links up with the existing coastal cycle route, to easily link up with parking, toilet and refreshment stops. This allows visitors with a range of abilities to explore the whole stretch of coastline, stopping off with businesses in Allonby and Maryport as well as those in between.

The path is a farmland walk along a gentle uphill gradient with beautiful views along the coastline of Allonby Bay. At the top is Milefortlet 21, one of a series of Roman defences along the coast and part of the Frontiers of the Roman Empire World Heritage Site. Originally, the Romans constructed a series of milefortlets all along the line of Hadrian's Wall and the Cumbrian coast interspersed with small towers. On the coast, they were not connected by a continuous stone or turf wall as defences were further east towards Northumberland. The sea provided an effective enough natural barrier to keep any invaders at bay.

This raised point in the landscape is called "Swarthy Hill" and is also known as "Bluebell Hill" after the impressive display of bluebells in spring. It's also a good vantage point to view another historic monument on the shoreline – the 17th century saltpans, part of a coastal industry long gone. Read more about salt making on pages 18-19.

To find out more about the Romans in Cumbria, pop along to the Senhouse Roman Museum in Maryport or Tullie House in Carlisle. You may also like to explore the nearby nature reserve of Crosscanonby Carr, near the start of the new path, which is a lovely place to sit quietly and listen to the sounds of wildlife while resting and enjoying the tranquillity of the Solway Coast.



Canary-shouldered thorn

## Marvellous Moths

Earlier this year, the AONB team were contacted by local moth expert Rob Pickett, keen to carry out some moth trapping and recording on some of our coastal sites in the AONB. We were very happy for this to take place as we do not have much information about the diversity and species of moths on our sites so were interested to know what he might find.

Suffice to say, Rob has made several visits over the summer, making some very interesting records, so we thought you might like to see some of them.

Rob has made several visits to Mawbray Banks, an important dune heathland between Silloth and Allonby and part of the Silloth Dunes and Mawbray Banks Site of Special

Scientific Interest (SSSI). Some highlights of his finds were:

**Brown-veined wainscot:** this has only been recorded in Cumbria once before, on Walney Island in 2010, so this record from Mawbray is very nearly the most northerly record for the UK (the first Scottish record was in Dumfries and Galloway in 2021). Rob found two of them on his survey night. This moth larvae feeds on common reed.

**Scrobipalpa samadensis:** a coastal micro moth that hasn't been recorded in Cumbria since the 1980s, though it is a rather drab looking species and inevitably overlooked. The larvae feed on buck's-horn plantain and sea plantain. Rob found three of them on his survey night but spotted several more outside the trap that appeared to be the same species.

**Sand dart:** a sand dune specialist with very few records in Cumbria, most of these are in the south of the county.

**Satin wave:** Much more common in the south of the UK where they are more widespread, but in the north this species tends to be coastal – there are few records in Cumbria.



Brown-veined wainscot



Sand dart



Satin wave



Scrobipalpa samadensis





Hedge rustic



Scarce footman

**Hedge rustic, straw underwing and scarce footman:** commoner species nationally, but these are ones that are usually rarer in North Cumbria.

We are pretty excited that Rob has found a good diversity of species – and some that are real specialists of their habitat and as a result quite scarce. We often talk about managing this site for key flagship protected species such as the natterjack toad, but it just shows how important it is to ensure that the site is managed effectively as a sand dune grassland, supporting all species that depend on this very special habitat.

A massive thanks to Rob for his recording activities and for sending us pictures and records, as well as allowing us to share his information and images. It just shows how important the recording of species is to understanding what is actually happening in nature – and keeping future generations of wildlife experts going in Cumbria!



Sophie and Graeme on Mawbray Banks



Anna plug planting with volunteers for Get Cumbria Buzzing

## New faces in the AONB

In March this year, the AONB staff team were sad to say goodbye to Anna Pollard, who we've been working with for the past four years. The good news is that Anna, our former AONB Projects Officer, left us to take up an exciting new role as Nature Recovery Network Manager for Natural England, so our paths do cross every now and again!

Anna managed several projects within the AONB including our partnership work in the Get Cumbria Buzzing, Planting for Pollinators and Dynamic Dunescape projects. She carried out a project improving biodiversity in Crosscanonby Carr by rerouting the watercourse and restoring the meadow and managed the construction of our new access for all path up to Milefortlet 21. She led the volunteer team, carrying our fortnightly work parties on a range of conservation tasks along the coast. We wish her all the best in her new role.

Although sad to lose Anna we were delighted to welcome Sophie Badrick to the role of AONB Officer in mid-September. Sophie comes to us with a wealth of experience, having worked in nature conservation in Cumbria for a number of years, most recently with Cumbria Wildlife Trust on the Planting for Pollinators Project helping restore pollinator habitats across Cumbria, and before that with the National Trust on the West Coast of Cumbria – so the Solway isn't completely new to her!

Sophie is getting out and about, visiting all the sites the AONB manages and is involved with, so please say hello if you see her.

Relatively new to the team is Graeme Westmorland who joined us in September 2021 as our Farming Officer. Graeme manages the Farming in Protected Landscapes Programme (FiPL), a Defra initiative which awards grants to farmers and landowners who want to carry out projects that improve the landscape of the AONB, with benefits to biodiversity, climate change mitigation, the cultural landscape and access and engagement. Graeme has a background in dairy farming in North Cumbria and understands many of the issues that farmers face today. He is also passionate about wildlife and extending his knowledge of the species and habitats on the Solway and beyond.



Seaweeds in rockpool

# The Big Seaweed Search

**S**eaweeds with an amazing range of colour, texture, shape and size lurk beneath the waves on our shores. Often overlooked and under recorded, a national community science project was developed in 2009 called the Big Seaweed Search. The project aims to encourage people to gather records on the distribution of target species that were chosen because they are good indicator species – their presence, absence or abundance reflecting a specific environmental factor.

Despite much of the outer Solway coast having suitable rocky shores, very few records have been gathered by the project. To encourage participation Solway Firth Partnership is building on the work established by the Natural History Museum and Marine Conservation Society. A handy pocket-sized ring bound booklet has been published to help people identify seaweeds when they visit the beach.

The project targets species that can be divided into three groups: **Seaweeds affected by sea temperature rise** include dabberlocks, sugar kelp, serrated wrack, bladder wrack, knotted wrack, spiral wrack, channelled wrack and thongweed; **Invasive seaweeds** include wireweed, wakame and harpoon weed; **Seaweeds sensitive to ocean acidification** include many varieties of calcified crusts and coral weeds.

The records of these seaweeds can be submitted directly to the Big Seaweed Search but you will need to remember to download the Big Seaweed Search guide and recording form, and take a pencil and camera or smart phone out with you. You can do the survey at any time of year and as many times as you like but remember you will need to visit the beach at low tide when the seaweeds are exposed!

Sugar kelp



Coral weed



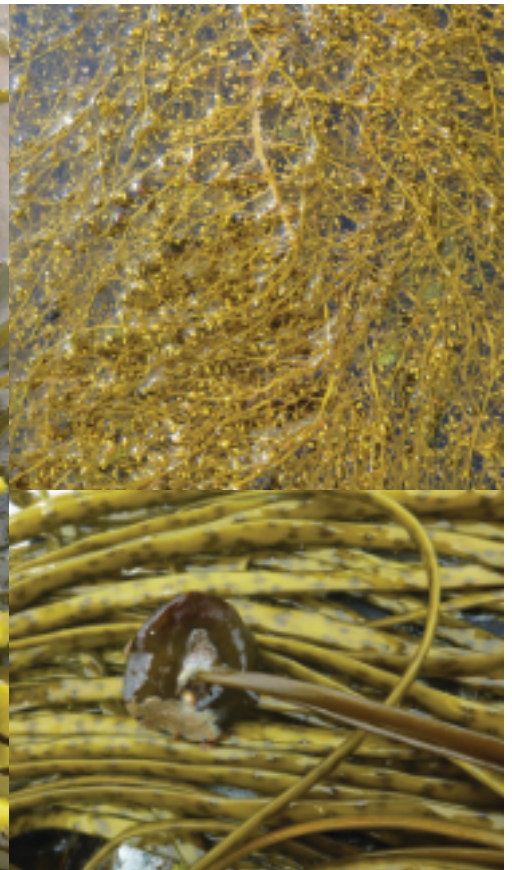
Coral weed and calcified crust







Serrated wrack



Top: Wire weed, above: Thongweed

## Galloway Seaweed Search

A community science project to record seaweeds growing on the Galloway shore has been given a boost with funds from Kilgallioch Wind Farm Community Fund, administered by Foundation Scotland, and Dumfries and Galloway Council. The Galloway Seaweed Search project will celebrate the incredible variety of coastline and help people discover the hidden world of rocky shores.

A particular focus is planned to take a closer look at seaweed growing in the west of Dumfries and Galloway. To encourage a greater participation in coastal wildlife recording Solway Firth Partnership will organise a series of guided walks and training sessions to reveal the importance of seaweeds and provide the skills to record this underappreciated plant and other seashore wildlife. Records of rocky shore wildlife will be submitted to South West Scotland Environmental Information Centre where the data will be publicly available.

Galloway Seaweed Search will enable people curious about seashore wildlife to discover the special habitats created by seaweeds and the coastal creatures that live in them. The activities will also reveal the cultural heritage of seaweed as a source of food and traditional industries. Identification booklets and a travelling exhibition will help people learn more about rocky shore and seaweeds and be amazed by our coast.

Download the seaweed guide at <https://www.solwayfirthpartnership.co.uk/environment/galloway-seaweed-search/>

If you would like take part in a seaweed session please contact [nic@solwayfirthpartnership.co.uk](mailto:nic@solwayfirthpartnership.co.uk)



Wakame

## Student Seaweed Survey

Eben Le Vin, a 4th year student at SRUC Barony, is carrying out research for his honours project to investigate the extent of invasive species along the Solway Firth. Eben joined Solway Firth Partnership on a visit to monitor marine invasive non-native species at Stranraer and Portpatrick. He will focus on species of seaweed and present his research through Geographic Information Systems (GIS) which will allow data to be seen on a map of the Solway Firth.



# Introducing Cumbria's People and Nature Network

We are excited to introduce you to the newly evolved Cumbria People and Nature Network

Sitting within the wider framework of the Cumbria Local Nature Partnership the network has been made possible with the support of a steering group of a whole multitude of organisations across Cumbria, from various sectors. These people have come together over the last twelve months, united under a common goal of bringing this to fruition and with a common belief in what the network is trying to achieve.

The aim of the network is to create a forum for everyone in Cumbria that brings people of all backgrounds and cultures together; to build relationships and partnerships, share learning and work collaboratively to help more people connect with, benefit from and take action for nature across Cumbria.

With a geographical scope across the whole county of Cumbria, it is open to all and is comprised of those who are involved or have an interest in inspiring, engaging and connecting people to the natural world around us, and all the benefits that it brings. Network members share a common desire to bring about change and improve opportunities for Cumbria's communities and residents to be able to connect with nature; to improve access to local greenspace and the relationship people have with the natural world around them.

Joining forces and linking up to make this happen can only be a good thing. The more connected, the more joined up we can be, the better; the more we can achieve.





Silloth Waterfront

It's all about creating a space for people to share information, knowledge, resources and opportunities; avoiding duplication; developing relationships and partnerships. It's about creating a forum for those who want to make change to connect with those who can support and empower community led action. Sometimes it's just as simple as knowing that each other exist and understanding and knowing what each other do and how we might be able to support each other.

It's also about using the voice of the network to contribute to, inform and influence strategy and policy making around our people with a nature agenda in Cumbria, ensuring integration of the crucially important component of people and access to / engagement with natural space into the work of both the Local Nature Recovery Strategy (LNRS) and other strategies in Cumbria.

We now have a network membership of over a hundred and growing, consisting of groups, organisations and individuals. With a virtual launch event attended by nearly 90 people and a face to face launch event that took place at the end of September the network continues to grow in momentum.

### Would you like to be part of a network that is looking to bring together our communication across Cumbria?

A network that is looking to connect the dots, improve our ability to connect with one another and work together to bring about an uplift in opportunities for people across our county to connect with nature and natural greenspace. If so, we would love to welcome you.

To find out more or join the network, please contact **[claire.green@naturalengland.org.uk](mailto:claire.green@naturalengland.org.uk)**

*Claire Green, Inclusion Senior Advisor for Natural England in Cumbria and chair of the new Cumbria People and Nature Network*



Networking at the Launch Event

Partners at Launch of Cumbria Nature and People Network







Micro plastics on the shore

# MORE Positive Action for a Cleaner Solway



Scottish Government  
Riaghaltas na h-Alba  
gov.scot



Barlocco Bay

**W**inter flooding and storms bring all kinds of floating plastic waste to the Solway shore and removing debris from the strandline on a beach makes the greatest impact because this is where the highest concentration of plastic per square metre accumulates. The shoreline is a dynamic habitat that is home to diverse wildlife and beach cleaning prevents plastics from breaking up and entering or re-entering the marine environment.

In recent years Solway Firth Partnership has monitored the efforts and results of beach cleans by volunteer groups. Our research shows that beach cleans make a positive improvement to the environment and that group activities have health and well-being benefits for participants. We also believe that publicity about beach cleans can help change individual behaviour and that participation in clean-up activities helps improve understanding of plastic pollution particularly when young people are involved. There is no better way to see the “plastic litter problem” than stooping down to pick it up from the strandline.

Removing plastics from a beach feels good but given the volume of plastic currently in the ocean and more entering each year, the impact of individual beach cleaners to the environment is often questioned. The greatest impact would





Gathering larger items at Barlocco Bay

be to stop plastic entering the sea in the first place by reducing our reliance on single use plastics. Recent research in Norway has shown that beach cleans make a significant positive impact on the reduction of micro plastics by removing larger items before they break down into smaller particles that are difficult to remove and pose the greatest danger to wildlife.

Although we lack the data we have anecdotal evidence to show that the many individual beach cleaners make an important contribution to the removal of plastic litter on our shores. The More Positive Action for a Cleaner Solway Project would like to hear from you if you regularly remove plastic from the shore – for example on your daily dog walk – so that we

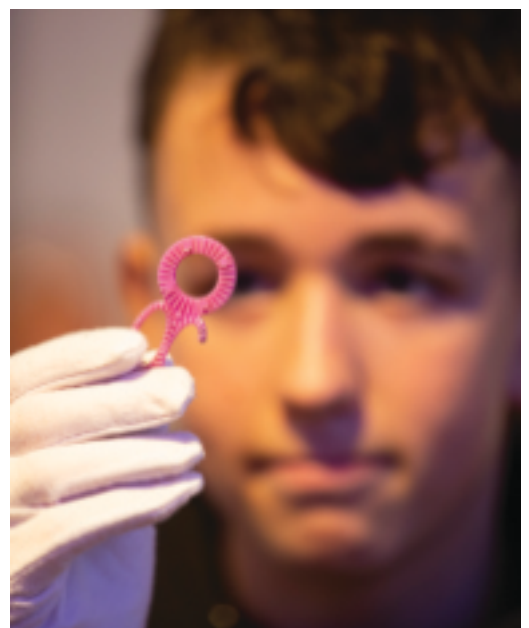
can attempt to measure the impact individuals are making. Please tell us about the beach cleaning you undertake as an individual or casual group and if you can provide information on how often debris is removed and how much you collect that would add greatly to our understanding of the effort required to keep our coastline cleaner.

We would like to know who beach cleaners are but understand if you want to remain anonymous because the most important thing is for us to get a better understanding of the impact individuals are making to make the coast a better place for people and nature.

## Solway Hoard on tour and learning resources

Solway Firth Partnership is working with partners to bring marine environmental issues to the attention of local communities. We provide beach cleaning equipment and learning resources for schools, colleges and youth organisations including a Solway Sea Chest resource box and activity booklet designed to be used by primary school and early senior school age pupils.

A new literacy activities booklet has been developed with Waste Stories to explore the issue of plastic pollution inspired by the Solway Hoard from the Plastic Age exhibition. Created by Museums of the FutureNow the Solway Hoard exhibition is touring Dumfries and Galloway and will be at the Devil's Porridge Museum, Easttriggs until 11th December 2023 and at the Creative Stranraer Hub in 2024. Contact us at [projects@solwayfirthpartnership.co.uk](mailto:projects@solwayfirthpartnership.co.uk) to request a Sea Chest or find out more.







Barnacle geese



Barnacle geese grazing

# Wild Goose Festival

The 2023 Wild Goose Festival that ran for eleven days at the end of October provided an opportunity to celebrate the arrival of geese that overwinter on the Solway.

Activities ranged from interactive storytelling to nature walks and lectures to creative workshops for all ages.

The festival included an immersive Wild Goose Festival Hub located in the Loreburn Centre on the High Street of Dumfries. The interactive space hosted a special youth engagement programme as well as an introduction to geese facts, including where they migrate from, how heavy they are and the noises they make. Panels were produced to help identify the five geese species: pale-bellied brent, greylag, Greenland white-fronted, barnacle and pink-footed. The panels explained what the geese eat, the habitats they prefer to visit and the ecosystem services that they provide.

Geese are sociable herbivores and can often be seen grazing in fields but also spend a lot of time on merse / salt marsh where they work together, some acting as lookouts while the rest feed before moving on to a new location. In this way they can act as “ecosystem engineers” by dispersing seeds of a large variety of plants in their droppings. The seed spreading occurs mostly on their daily movements to and from feeding places on the Solway but will also take place at stopping places on their long migrations during spring and autumn to and from Iceland or Norway. It is thought that geese may play an important role during climate change by transporting plants to alternative habitats.

The Wild Goose Festival was managed by The Stove Network and the goose panels were supported by Dumfries and Galloway Council.

Dumfries  
& Galloway



**WILD  
GOOSE  
FESTIVAL**  
NATURE · CREATIVITY · PLACE



# Stronger Seagrass

## Pale-bellied brent geese

*Branta bernicla*

Eat seagrass revealed at low tide

Intertidal seagrass beds grow stronger when grazed by geese.



### Ecosystem services provided by seagrass

-  Improved water quality
-  Enhanced biodiversity
-  Carbon sink
-  Flood defence
-  Sediment stabilisation
-  Acidification buffer

# Saltmarsh Spreaders

## Pink-footed geese

*Anser brachyrhynchus*

Eat saltmarsh plants

These geese are 'eco engineers' spreading seeds of saltmarsh wildflowers wherever they poo.



### Ecosystem services provided by saltmarsh

-  Improved water quality
-  Enhanced biodiversity
-  Carbon sink
-  Flood defence
-  Food production
-  Recreation & well-being

# Safer Saltmarsh

## Barnacle geese

*Branta leucopsis*

Eat saltmarsh plants

Feeding on saltmarsh and roosting on adjacent mudflats makes it difficult for foxes to sneak up and eat them.



### Ecosystem services provided by saltmarsh

-  Improved water quality
-  Enhanced biodiversity
-  Carbon sink
-  Flood defence
-  Food production
-  Recreation & well-being

# Stay out of sight

## Greenland white-fronted geese

*Anser albifrons*

Eat grass and lochside plants

Rushes hide the geese so are an attractive place for these secretive birds to feed.



### Ecosystem services provided by rushy fields

-  Improved water quality
-  Enhanced biodiversity
-  Carbon sink
-  Food production

# Sociable Survivor

## Greylag geese



*Anser anser*

Graze on grass in fields and wetlands

Gathering together allows some birds to look out for danger while the rest of the flock feed.



### Ecosystem services provided by grassland

-  Food production
-  Recreation & well-being



# The Solway Coast and Marine Pilot Project (SCAMPP) Starting Soon!

Seagrass in Kirkcudbright Bay



**D**umfries and Galloway has more than 200 miles of coastline, varying from the mud flats of the inner Solway to the rocky shore of the western Rhins. The Solway Marine Region also officially includes the shallow Loch Ryan. The Solway Firth is one of the largest and least industrialised estuaries in Europe, with a diverse marine ecosystem. The whole of the inner firth on both sides of the border has been designated as a Special Protection Area (SPA) and Special Area of Conservation (SAC).

In 2020 officers from Dumfries and Galloway Council (DGC), Scottish Borders Council and South of Scotland Enterprise (SOSE) were asked to put forward potential projects for the Borderlands Inclusive Growth Deal Natural Capital Programme. During work on the early stages of the Regional Land Use Pilot, it became evident, given D&G's extensive coastline and relationship with the Solway, that the coast and marine environment deserved more attention and investigation, and so DGC proposed a Marine pilot as one of the 6 projects which make up the Natural Capital programme.

The initial proposal for the Solway Coast and Marine Pilot Project (SCAMPP) emphasised the link between the health of our marine natural capital and sustainable economic benefits. It was clear that additional research and development was needed to build a viable project. Solway Firth Partnership, in partnership with DGC, and with funding from SOSE and Crown Estate Scotland has spent the last two years gathering baseline data on the Solway, making contacts with academics and increasing our knowledge of the sector. Our focus species / habitats on the Solway are saltmarsh, seagrass and native oysters. So far, we have carried out seagrass surveys, saltmarsh opportunity mapping, native oyster surveys of Loch Ryan and





Loch Ryan, home to native oysters and seagrass

hydrodynamic assessments of the Solway coast using Mini Buoy monitors.

The SCAMPP pilot project will be funded solely through the Borderlands Inclusive Growth Deal and aims to develop innovative techniques and utilise new technologies to help restore and expand coastal, intertidal and marine habitats which will support key economic fishery species, improve water quality, and coastal tourism locations, contributing to climate mitigation, adaptation & carbon sequestration.

The project will look at innovation in restoring, reinforcing, or expanding existing natural capital assets in the Solway Firth and create a base and centre of expertise for ongoing restoration work in the Solway through the development of a Marine Research Centre in Stranraer. There are some tried and tested approaches to expanding our focus species / habitats (saltmarsh, seagrass, native oysters) but the Solway provides a unique opportunity to help pave the way for trialling and testing innovative, cost-effective approaches. The Solway



Top: Seagrass, above: native oysters

has the last wild native oyster fishery, understudied and under mapped areas of seagrass, *Zostera noltii* and *Zostera marina* (including an intertidal *Zostera marina* that is believe to be a genetic unique strain) and large expanses of saltmarsh providing the ideal areas for expansion research to measure outcomes.

We are currently in the process of agreeing the Business Justification Case and hope to start the pilot project in early 2024 and run until 2030 with Borderlands funding from the Scottish and UK Governments

If you are interested in keeping up-to-date on news about the SCAMP Project, sign up to the SFP enewsletter from our homepage at <https://www.solwayfirthpartnership.co.uk/>

Saltmarsh, Cree estuary



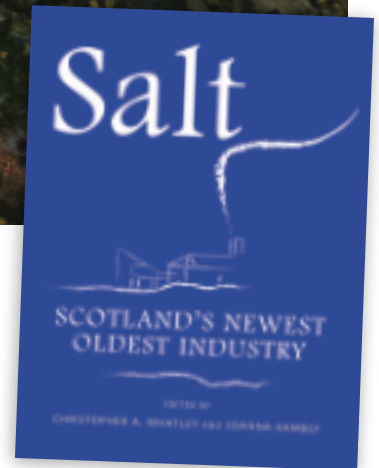




Salt pan bucket pot, Rascarrel Bay

# Salt

## Scotland's Newest Oldest Industry



Salt, Scotland's Newest Oldest Industry, edited by Christopher A Whatley and Joanna Hambly (above), is available from Birlinn Publishers for £20. <https://birlinn.co.uk/product/salt/>

**T**he recently published book *Salt* celebrates both the history and the recent revival of the salt industry. The manufacture of salt from sea water in Scotland declined as imported salt became affordable but has now been revived to produce a sought-after product.

Sea salt manufacturing is one of Scotland's oldest industries, dating to the eleventh century if not earlier. Salt pans were once a common sight along the coastline and are reflected in many of Scotland's placenames. The industry was a high-status activity, with the monarch initially owning salt pans. Salt manufacture was later organised by abbeys and then landowners that had access to the sea and a nearby supply of fuel.

The salt industry in south-west Scotland is explored in the *Salt on the Solway* chapter by John Pickin and Nic Coombey. Compared to other parts of the country, salt production here was a small scale, rural affair. A brief review of the evidence for medieval salt making is followed by an examination of the evidence of post medieval salt production. Salt was still being produced by sand washing or sleeching in the Annan area during the early 19th century and this has left an archaeological landscape which is unique in Scotland. Further west on the Solway are a number 17th and 18th century salt works including a remarkable group of well-preserved sites in the Rhinns of Galloway. At these sites salt was produced by direct boiling using peat as the only fuel. Most of the Solway works were established by local estates to meet local market needs although there is some evidence for clandestine salt production, perhaps linked to smuggling with Ireland and the Isle of Man.



# Salt in Cumbria

By Andrew Fielding

The sites of small salt works can be found from the head of the Solway in the north all the way down to Millom in the south. Each has its own story, feeding into the development and evolution of the wider narrative of the country's salt heritage. From the 11th century salt works were developed here by different abbeys using local fuels such as peat and wood but also adopting the early use of coal found around St Bees.

On the north coast there were a number of 'saltcotes' around Newton Marsh and Moricambe Bay where circular pits collected sea water and held it until the next high tide. All these sites have now been absorbed into the salt marsh but residual remains were located by a recent Solway Wetlands Survey undertaken by Heritage Grampus for the AONB.

The best-preserved example of a salt works of the 17th – 18th century on the Solway Coast is at Crossscanonby, which was described in Issue 50 of Tidelines in 2019. Built by Richard Barwise around 1633 it passed into the Lamplugh family using small coals as fuel, extracted from coal mines found in the Ellen valley. The works was split into two halves by the construction of the coast road (B5300) separating the cottages from the kinch pit and brine pit and later, in the early 1900s, a caravan site grew around the site until coastal erosion forced its closure in the 1970s. In 1998 the Solway Coast AONB and Cumbria County Council initiated the positioning of rock filled gabions to protect the scheduled monument from destruction, but following recent large storms additional rock protection has been added to preserve the coast road from on-going erosion on its south side, thereby preventing the sea from encroaching behind the site.

Location of Crossscanonby salt works



Salt works kinch pit, Crossscanonby

Whilst the Crossscanonby salt works is threatened by coastal erosion, further north at Silloth the remains of the Leesbank salt works is buried beneath sand dunes. Operating as a salt refinery in the 1860s it imported rock salt from Carrickfergus in Ireland. The rock salt was dissolved in sea water to make a strong brine using a process similar to that used by Sir Christopher Lowther at his Whitehaven Pier Salt Works built in the 1630s where he used imported bay salt.

Perhaps we can anticipate a new sea-salt works on the Solway at some time in the future that can build on our old salt heritage in the same way that Chris Whatley and Jo Hambley describe the revival of Scottish salt making in their new book.





SFP Team and Emma Harper MSP with Mairi McAllan at Doon Beach

# Net Zero Secretary, Mairi McAllan MSP visits Kirkcudbright

**Net Zero Secretary, Mairi McAllan MSP**

Scotland seas are well-known for their rich diversity of marine life and vibrant coastlines. Our marine nature is integral to Scottish heritage, and it has a vital role to play in addressing the climate and nature crises. It also represents the very assets on which Scotland's marine industries are built and plays an equally important role in creating jobs that enable people to build lives, livelihoods and families in coastal and island communities. The coastlines and seas around the Solway Firth, in particular, demonstrate how Scotland's diverse marine environment provides a range of benefits from supporting nature and conservation to providing food and generating energy.

As part of a series of recent engagements with coastal communities this summer, I had the pleasure of meeting with the Solway Firth Partnership (SFP). The meeting was held at The Johnston community hub in Kirkcudbright on the 16th of August and was an opportunity for the Scottish Government to learn about local issues in relation to Scotland's seas.

Clair McFarlan, SFP Partnership Manager, Nic Coombey, SFP Project Officer and Morag Walker, SFP Project Assistant, provided a presentation setting out the history of the partnership and recent successes including the Positive Action for a Cleaner Solway project, which saw over 21 miles of beach cleaned. This project was supported by the Scottish Government's Marine Fund Scotland. The SFP team also shared details of new initiatives and projects including the Solway Hoard exhibition at Gracefield Arts Centre and the Solway Coast and Marine Pilot Project, which forms part of the Borderlands Inclusive Growth Deal. Rupert Shaw, Convenor of the Solway Firth Partnership, shared his reflections on how local communities can successfully work in partnership, and across borders, to achieve positive outcomes for both the environment and the local economy. Together, the group discussed how and where Scottish Government support can best enable community-led marine protection.

After the presentations, the party relocated to the Doon to

Relaxing on Doon Beach





experience first-hand the beauty of the Solway coastline. The blue skies and sunshine had also enticed out several families who were enjoying the beach and swimming in the sea. Nic Coombey from SFP provided a short lesson in Scottish seaweed including where to find different species on the shore, and how seaweed is used by various industries.

Following the meeting with the Solway Firth Partnership, I met with West Coast Sea Products for a tour around their processing plant. This family run business is significant employer in Kirkcudbright. The day ended back at The Johnston where I hosted a roundtable meeting with local fishing representatives and environmental groups to hear their views on marine protection initiatives and the challenges arising from the growing demands for space in our seas.

I would like to thank Rupert and all the SFP team for their invitation to Kirkcudbright and for sharing with me the work of Solway Firth Partnership. I remain committed to enhancing protection of Scotland's marine environment and doing so in partnership with local communities to maximise opportunities from our seas and our people. The approach taken by the Solway Firth Partnership is a fantastic example of what can be achieved through shared stewardship.

It is clear that there is growing interest and support for community-led initiatives to enhance local marine protection and support sustainable local marine sectors. Scotland has projects spanning its entire geography from the Demonstration and Research Marine Protected Area in Fair Isle to the Argyll Hope Spot. Work is currently underway to update Scotland's National Marine Plan to reflect the significant challenges and



Doon Beach Interpretation Panel

opportunities for today. Through marine planning, the Scottish Government will work with all sectors to manage the increased competition for our shared marine space, supporting our commitments to net zero, protection of the marine environment, energy, and food security, and for thriving communities. To sign up to the Scottish Government mailing list to receive updates on National Marine Plan development please visit: <https://consult.gov.scot/marine-scotland/af63ba81/>

Nic showing Mairi McAllan seaweeds



Doon Beach







Portling

Below: Largest cockle sampled

# Surveys of the Solway Cockle Stocks and Re-laying Trials

A locally based fisheries research company has teamed up with Scottish Government (SG) Marine Directorate, the University of Glasgow and a shellfish processing company (based in Leigh-on-Sea) to undertake the first stock assessment survey of the cockles in the Solway, since 2013. Seascope Fisheries Research successfully applied to the Defra Fisheries Industry Science Partnership (FISP) fund to physically undertake these surveys and provide the data to SG Marine Directorate so that they can calculate the size of the stocks in the various banks. The Solway cockles are considered a “data deficient shellfish stock” due to the lack of recent survey data and it is hoped that by conducting these surveys, government scientists will be able to assess the health and size of the cockle stocks in the Solway.

In addition, SeaScope will undertake investigations into the effects of moving cockles from high density areas into lower density areas to see if growth rates of these cockles are changed. University of Glasgow students, based at the Dumfries campus under the guidance of Dr Steven Gillespie, will also be given the opportunity to undertake supervised experiments and projects with cockles and improve their practical surveying experience.

The surveys began on the 19th July 2023 in Fleet Bay and were finally completed on the 25th August 2023 in Wigtown Bay. Sampling was undertaken in Wigtown Bay, Fleet Bay, Auchencairn Bay, Orchardton Bay, Rough Firth and Glen Isle,

Barnhourie Bank near Mersehead, Arbigland Bank, Carsethorn Bank and North Bank near Caerlaverock. Each bank was divided into a grid with varying numbers of sampling strata and two sample locations were selected randomly within each stratum. A total of 687 samples were taken. All data from this first survey is now with SG Marine Directorate for analysis and will be reported later in the year.

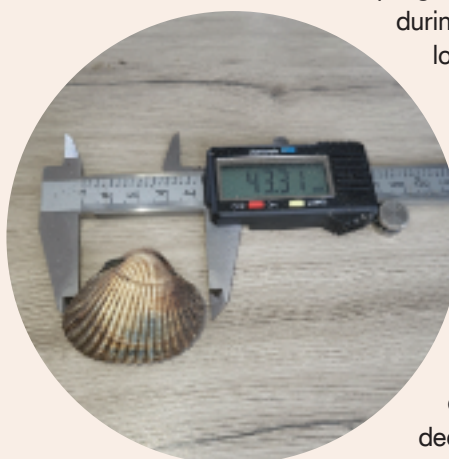
The majority of sampling was undertaken on foot and sampling staff walked several hundred kilometres each during the survey. However, the beautiful coastal locations made these mammoth efforts

worthwhile, well mostly anyway. On two occasions quad bike ATVs were used but only where access was by a public slipway or road and where no sensitive merse would be traversed and where it was deemed safe to do so.

A small inflatable boat was also used at Carsethorn to access an isolated bank.

Samples were taken using a 0.1m<sup>2</sup> quadrat with samplers digging down to 10cm deep into the sand, the sand was then sieved, and all bivalves retained in a labelled bag. All

bivalve species were retained and taken ashore for processing. Cockles (*Cerastoderma edule*) were counted, measured, weighed and aged, whilst other bivalve species were counted and weighed only. Aging of cockles is done by counting the thick rings laid down in their shells during winter. The number of cockles found in each sample ranged considerably, from 0 cockles per quadrat in some sample locations to several hundred cockles per quadrat in others.







Small Cockles



Waiting for the tide at Carsethorn

After processing the samples were returned to the sea.

Undertaking sampling in the intertidal area is complicated and potentially dangerous. Permission to conduct our sampling required permission from all landowners where we were accessing via their land, Crown Estates Scotland, NatureScot, RSPB, Dumfries and Galloway Council, and SG Marine Directorate. In addition, we notified SG Marine Directorate Compliance of all sampling activities so that they could deal with any reports of mistaken illegal fishing activity. We also reported to Belfast Coastguard when and where we were sampling in case the public reported us as being stranded on the shore. This may sound like overkill but twice

the general public contacted the Coastguard, and they were obliged to investigate. That said, having the security of the Coastguard knowing when and where we were entering and leaving a dangerous environment, was very reassuring.

We would like to thank all landowners and organisations who have been involved with the survey so far, and the locals we have encountered, who have been supportive of the need to gather scientific data and have provided local knowledge of the banks and safest access routes.

The next plans for the project are to begin the re-laying trial and student projects in late autumn 2023 and to undertake the second stock assessment survey in July/August 2024.

Between Sampling Stations, Fleet Bay



Cockle samples







Aerial View of Allonby Village

# Allonby Bay Highly Protected Marine Area

Flying over Allonby Bay



Allonby Bay is an inshore Highly Protected Marine Area (HPMA) situated in the Irish Sea. Designated on 14 June 2023, it covers the southern region at the mouth of the Solway Firth and extends approximately 5.6km seaward from the shoreline between Maryport and Mawbray.

The HPMA is within both the Allonby Bay Marine Conservation Zone (MCZ) and the Solway Firth Special Protection Area (SPA).

## Why the Site is Designated

The Allonby Bay HPMA has been designated to protect the entire marine ecosystem within its boundary. As such, this ecosystem is the protected feature of the site.

Allonby Bay consists of a mix of habitats which are subject to dramatic currents and tides. The seabed here consists of a range of rocky habitats and sediment dominated habitats.

The nutrient-rich sediments, dense mussel beds and intertidal rocky habitats in this area attract large densities of shore birds including curlew and oystercatcher. The biodiverse subtidal habitats provide a food source for fish species, such as flat fish, and nursery areas for other species. In turn, these fish species attract diving, foraging seabirds including guillemots, gannets and razorbills.

The bay has one of the best examples of honeycomb worm reefs in the UK. This worm creates a complex sediment network of tubes attached to rock, providing vital habitat for a range of species including crabs and molluscs.

Allonby Bay's habitats and species provide many ecosystem services. The area contains 13km<sup>2</sup> (47% of the HPMA) of 'blue carbon' habitats which capture and store carbon and includes intertidal sand, muddy sand and subtidal sands. Furthermore, the extensive honeycomb reefs and blue mussel beds can provide both water purification and important coastal erosion protection.





Views across to Criffel from Allonby Bay

- The conservation objective of Allonby Bay HPMA is to:
- achieve full recovery of the protected feature, including its structure and functions, its qualities and the composition of its characteristic biological communities present within the Allonby Bay Highly Protected Marine Area, to a natural state,
  - prevent further degradation and damage to the protected feature, subject to natural change.

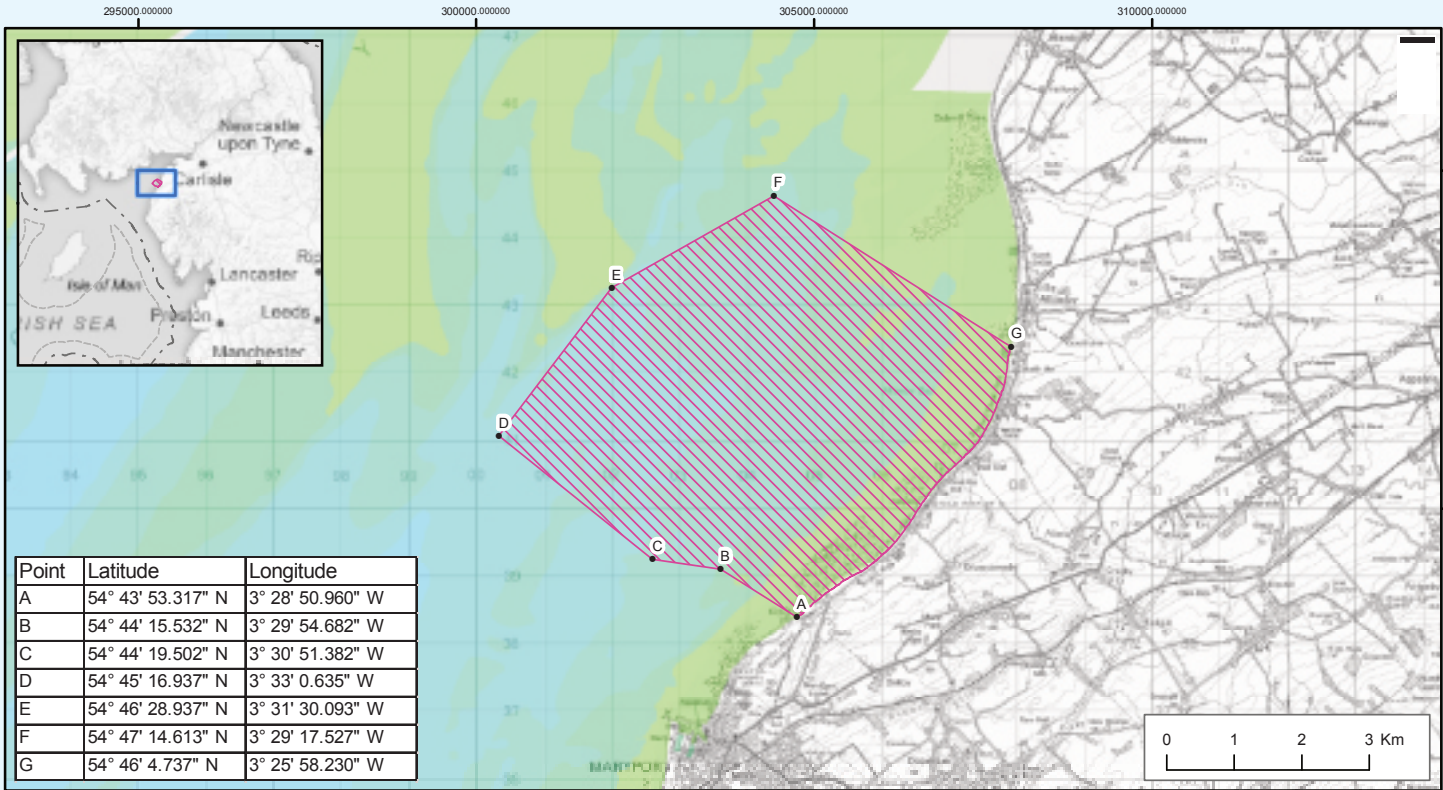
How the Site is to be Managed

HPMAs take a ‘whole site approach’, therefore the entire marine ecosystem within the HPMA boundary is designated for protection. The government’s vision for HPMAs is that these will be areas of the sea that allow the protection and recovery of marine ecosystems by prohibiting extractive, destructive and depositional uses and allowing only nondamaging levels of other activities to the extent permitted by international law.

A public consultation on the Prohibition of Fishing Activity in Allonby Bay HPMA took place in August to September this year. The results of the consultation will inform the future fishery management of the site. Management can take several different forms, including use of the existing planning and licensing regimes, specific byelaws and orders. Public consultation will be carried out as required for permanent byelaws and orders.

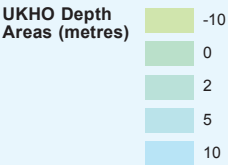
Regulators, including the Marine Management Organisation (MMO) and Inshore Fisheries and Conservation Authorities (IFCAs), will aim to introduce necessary management measures in due course.

For more information about the Allonby Bay HPMA, visit <https://www.gov.uk/government/publications/highly-protected-marine-areas-allonby-bay>



Allonby Bay Highly Protected Marine Area

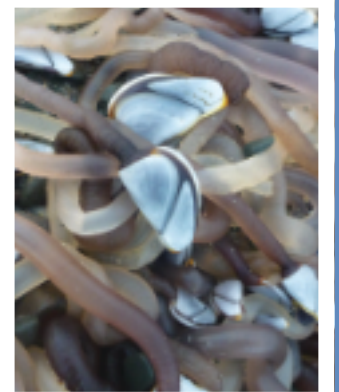
- HPMA boundary
- HPMA coordinates
- 6Nm Limit
- 12nm Territorial seas limit



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Map Projection: British National Grid Boundary Coordinates Projection: WGS84

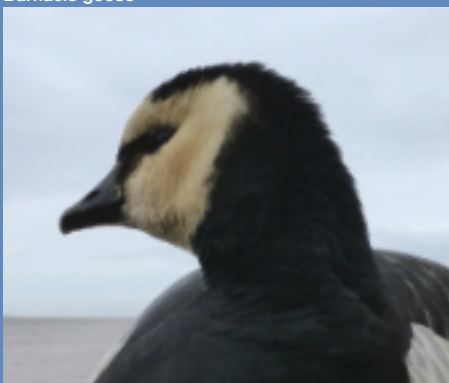




Common goose barnacles washed up on the Solway shore

# Mistaken Identity

Barnacle goose



Common goose barnacles are sometimes found washed up on our shores after winter storms and are evidence of floating debris that has journeyed great distances from warmer oceans. A type of crustacean, they have long black stalks and smooth grey-white plates covering their head. They feed using feathery fronds (called cirri) which comb through the water to filter out tiny food particles.

In 12th century Scotland it was thought that the goose barnacle resembled the head of a goose. The migration of geese to breeding grounds in the far north was not understood and so it was assumed that barnacle geese developed from goose barnacles attached to branches that had fallen into the sea. This medieval misunderstanding meant that the barnacle goose was classified as a fish and could be eaten on the many religious days when meat could not be consumed!



# SFP Accounts to March 2023

Clair McFarlan: Partnership Manager, Solway Firth Partnership

Solway Firth Partnership aims to undertake activities in line with our mission statement: **To support a vibrant and sustainable local economy while respecting, protecting and celebrating the distinctive character, heritage and natural features of our marine and coastal area.**

Our accounts for the financial year ending 31 March 2023 show a total income (Restricted & Unrestricted) of £223,906 (£248,036 in 2021/22). During the year SFP generated an Unrestricted surplus of £19,996 (£43,361 in 2022/22). At the end of the year, Unrestricted Reserves stand at £144,348.

## Projects that continued to run (or ran) throughout this financial year included:

- the Rhins Coast Path Activity Programme including producing Rhins guides and an exhibition at Logan Botanic Garden, taking guided walks and supporting the Wild Goose Festival
- the Kirkcudbright Bay Views Project and Bioblitz at Doon Bay (part of the Galloway Glens Landscape Partnership Scheme)
- Solway Coast and Marine Pilot Project Development
- Positive Action for a Cleaner Solway Project
- Making More of the Coast, Rotary Club funded marine litter project; and
- CLEARCoasts Project.

## Projects completed this year include:

- the Positive Action for a Cleaner Solway Project which ran from September 2022 to March 2023, funded through Marine Fund Scotland; and
- the CLEARCoasts Project (Phase 1) funded by the Environment Agency's 3Cs (Championing Coastal Coordination) Fund.

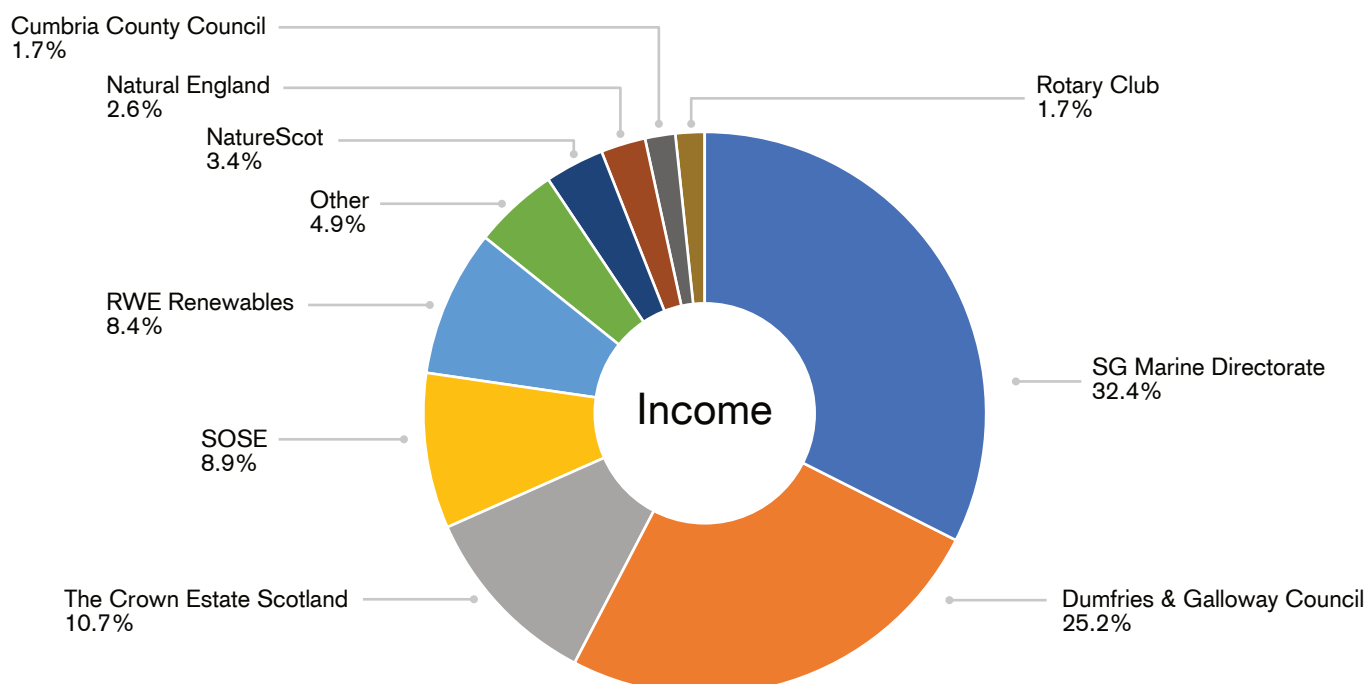
All the outputs from these projects are available on the SFP website  
[www.solwayfirthpartnership.co.uk](http://www.solwayfirthpartnership.co.uk)

Our thanks go to the staff team who have worked hard to make the projects a success during this busy year.

We are very grateful to all the organisations that have provided funding in the last financial year: Scottish Government Marine Directorate, RWE, Cumbria County Council, Allerdale Borough Council, Carlisle City Council, Natural England, Dumfries and Galloway Council, Marine Fund Scotland (through SG Marine Directorate), Kilgallioch Wind Farm, South of Scotland Enterprise, Crown Estate Scotland, the Rotary Club (various clubs) and Environment Agency.

We would also like to thank all the people who have given in-kind support in many ways, thereby enabling our core activities to continue as well as allowing a wide range of projects to go ahead. We appreciate that Solway Firth Partnership relies on the goodwill and expertise of many people and organisations in order to be able to carry out the work we do.

Our full accounts for the last financial year are available on our website:  
[www.solwayfirthpartnership.co.uk](http://www.solwayfirthpartnership.co.uk)





# Solway Firth Partnership

For further information, to submit an article or to join the SFP mailing list please contact:

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t: 07462 664384 e: [info@solwayfirthpartnership.co.uk](mailto:info@solwayfirthpartnership.co.uk) [www.solwayfirthpartnership.co.uk](http://www.solwayfirthpartnership.co.uk)

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