

Seals SW

Annual Report 2022

Seal Research Trust's 'Seals SW' Annual Report

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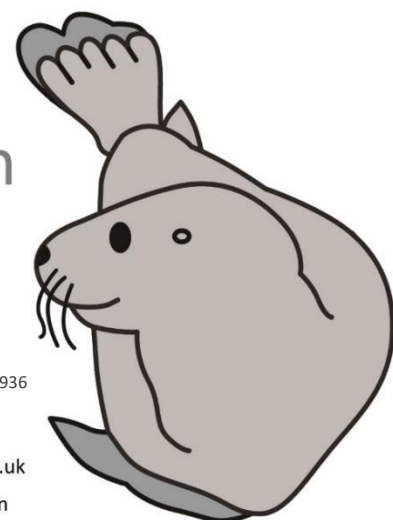
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Seal
Research
Trust

Registered charity number:1162936

www.cornwallsealgroup.co.uk

www.sealresearchtrust.com



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Summary

2022 proved another transformational year for SRT, which ended with 1.3fte Marine Rangers – Lauren McGregor and Sarah Millward supporting the rest of our volunteer team. Kate Williams coordinated our amazing Photo ID volunteer teams across the southwest and beyond. In 2022, we completed **632 activities for 27,857 beneficiaries**. This included 51 talks and 26 workshops with Sue delivering her first workshop in Asia. Key events included Operation Seabird Days, the SW Marine Ecosystems Conference, 2 ‘Discovering UK Seals’ and writing and ‘Ecology and Conservation’ course. Thanks to Charlotte and Terry Carne we returned to face to face events (12). Sue ran online education for all ages from reception/primary/secondary (9) up to university groups. We ran 19 SRT Boat Photo ID Project Surveys. We had 308 meetings with politicians, TV presenters/researchers, statutory agencies, businesses, artists and other charities. 30 reports written by the team shared the important seal data collected by our volunteers, along with 12 Seals SW Sessions (monthly online meetings), 11 Seals SW Newsletters and 4 Wild Seal Supporter/Adoption Updates. New resources included stickers, posters, graphics, the ‘Lizard Seal Pack’ and a ‘good neighbours’ toolkit. Seals featured in 39 media outputs on TV, radio and in the press (local and national).

Partner projects with the Brigstow Institute (Bristol and Southampton Universities) saw us successfully complete a ‘Space for Seals’ project and the University of Bristol project began our ‘Deep Learning Computer Vision’ work. The Debs Foundation funded ground-breaking PCB analysis of 7 adult male seal samples from the Cornwall Marine Pathology Team, finding 6 to have PCB levels above the low threshold for toxic effects and 3 above the high threshold, showing more research is urgently needed to discover its immunosuppression and reproductive effects on seals. We printed 22,000 more Seal Alliance ‘Watching Seals Well’ leaflets and 25 more ‘Give Seals Space’ signs for national distribution. Sue and Dan Jarvis are Wildlife Safe Scheme Steering Group members and delivered a Standard and Adventure course for 44 participants. We got some great feedback from our many and varied events.

Seal data from 4718 discrete surveys (13 every day) was collected by 263 different volunteers at 362 locations. An average of 10 seals were recorded per survey with a max of 519 seals on 1 survey (down from 557). 70% of seals were adults of which 56% were males. White coated pups were recorded 530 times at 40 locations (including 46 sightings at 15 south coast sites). Pups were 1% of all seals recorded. There were 29 Common seal sightings (down from 85 in 2021) with the 2nd successfully weaned Common pup recorded. We processed 121,756 photos for 12,107 seal IDs, 87% of which were re-IDs (Max 150 IDs in 1 survey). 7 seals we first met in 2000 were still alive in 2022 with 3765 unique seal IDs in total. We recorded 181 tagged seals and 124 entangled seals with an emerging issue of hooked seals. 1393 seals were seriously disturbed in 223 incidents (max 272 caused by a 7 min hail storm).

SRT submitted 29 **public consultations** and **campaigned with the Seal Alliance** to get seal disturbance made illegal and flying rings replaced with solid discs. We partnered with governing bodies to share our key messaging and provided expert input for multiple statutory agencies. Our incredible volunteers took lots of effective practical conservation actions with landowners, local groups, statutory agencies, authors and NGOs to make our sensitive seal sites safer for seals. It has been an utterly fabulous year for us all and an epic team effort.

Seal Research Trust (SRT) est. Cornwall 2000

Annual Report 2022

Funders

Our ambition is to transform SRT into a self-financing charity, funding our low overheads from **corporate and private donations**, through our **Wild Seal Supporter and Adoption Scheme**, **volunteer fundraising efforts** and with **profits from our online shop**. Whilst we still benefitted from a substantial donation from the **Seal Protection Action Group**, our biggest donation in 2022 came from proactive fundraising activities led by the **Carbis Bay Estate**. Other corporate donations were gratefully received from the **Animal Friends, Aspects Holidays, Bowgie Inn, Hairstory, LUSH Cosmetics, Mungo Lils on the Hill, Ourselves** (a 1% for the Planet partner) and **Smartie Lids on the Beach**. We were delighted when the **Humane Society International** contacted us to fund some rescue, rehab and release case studies and our film about climate change increasing the number of seals in need of rescue. The charter and administration costs for two of our Marine Life and Human Activity Boat Surveys were funded by **Polzeath Voluntary Marine Group** and **Our Only World**. Thank you to the **Brigstow Institute at Bristol University** who funded our 'Space for Seals' project. In addition, we were fortunate to receive lots of smaller donations from members of the public, our volunteers and supporters without whom we could not operate effectively. Thank you to Hayley Mitchell who joined as our **Seal Supporter Coordinator** and who ran three **Jumblebee fundraising auctions** for seals in April, August and December 2022. It was a great team effort – thank you! As a highly agile, thrifty and economical charity, Rangers continue to be our charity's main outgoing alongside boat charters and some modest IT hardware/software application costs.



SRT2022 Funders

People

Patron, Marine Rangers and Science Advisor

2022 proved to be another transformational year for SRT. **Gillian Burke** (Springwatch) continues to be our charity **Patron** and we were delighted to host a field visit catch up with Gillian in November. We began with 4 paid rangers at the start of 2022, but as Marion Beaulieu, our long term **Amazement and Discovery Ranger**, departed with substantial notice and Katie Bellman, our **Research Ranger**, and Charlie Gill, our **Marine Stories Ranger**, both moved onto full time positions, our charity Trustees took the opportunity to plan a substantial restructuring programme to ensure our charity was focused on delivering our mission and core purposes going forward. Tash Murch supported our team as our **Marine Stories Ranger** for a lot of the year until she too secured a full time job. We continued to learn from our **Retail Ranger** Emily Williams' experience as she returned from maternity leave for a few weeks, before she was head hunted for a more lucrative position. By the end of 2021, it had become apparent that we were in need of administrative support, so after a recruitment process at the end of 2021, we were delighted to contract Lauren McGregor as our first **Activities and Administration Ranger** as ongoing support. Lauren (aka Loz) has been a fabulous addition to our long-term Ranger Team turning her hand to almost anything from our IT Network, managing our online shop and scheduling our social media to supporting events with resource preparation and a million and one other tasks in between. Throughout 2022, Sarah Millward continued as our ongoing and long-term **Sanctuaries at Sea Ranger**. So, we ended 2022 with Sarah and Lauren in their 1.3 full time equivalent roles. We were very grateful that Polly Ford joined us as our **Retail Ranger** at short notice for a short period before Christmas to help us fulfil the influx of shop orders we received. Rebecca Allen continues to be our volunteer **Science Advisor** helping us with numerous data analyses during the year. We are thankful and glad these wonderful ladies plan to stay with us for the long term as our awesome core team.

We faced a few **health challenges in 2022**. Our Founder and Director Sue Sayer had a takotsubo post-menopausal stress heart attack during an entangled seal rescue on 25/04/22. After 10 days in hospital her heart, arteries and ejection fraction were all deemed healthy and normal. Huge thanks from Sue to the rest of SRT's Ranger and Volunteer team for rallying round during this time to seamlessly sustain our seal conservation activities! The team also pulled together in response to circumstances for Sarah, our Sanctuaries at Sea Ranger, and after our Activities and Administration Ranger, Lauren, was diagnosed with breast cancer. We are delighted that Sarah is now fully recovered, and, after Lauren's successful operation and radiotherapy treatment, she has been able to re-join the team in a managed return to work from home and then in the office. Thank you once again to everyone for ensuring that these times did not impact our data or important conservation work.

Hubs

In 2022 SRT restructured our work into **45 Photo ID Catalogues**, despite adding a few new ones across the southwest from **South Wales to Hampshire**. The catalogues are run by dedicated volunteers led by our amazing **Photo ID Hub Coordinator** Kate Williams. These teams communicate with each other through our **Facebook Workplace Platform** (free for

charities). This allows us to share new seal IDs, so we can make matches between the different Photo ID catalogues. We also share engagement wording, approach and tone to help us with effective conservation actions which avoids us all duplicating effort by reinventing wheels.

Volunteers

Our charity continues to exist and function effectively thanks to the generous, ongoing and long term contributions made by **multiple hub, administrative and specialist key volunteers**. We are hugely grateful to every single one of our amazing volunteers who are too numerous to name individually. Between them our volunteers:

- Survey from land and sea
- Process photos into survey albums
- Make IDs, confirm IDs and manage Photo ID catalogues
- Digitise and analyse data
- Report write
- Act as eyes and ears for change around their patch of coast
- Champion seals with the public by being ambassadors for the species
- Inspire others with their ongoing energy and enthusiasm
- Help upskill and empower others through training or shared resources
- Fundraise or support our charity financially
- Advocate for seals at a huge variety of public, private and voluntary meetings
- Arrange and deliver numerous events at varying venues
- Take conservation actions to make the coast safer for seals.



Looe volunteer survey team

Charity Achievements and Activities

In total our extensive SRT team organised, delivered and participated in **632 activities** in 2022 to give seals a voice and share key conservation messages with a much wider audience by delivering more events online than ever before.

Summary

We even improved on 2021 as SRT's 2022 activities at least doubled our **reach**. Whilst most activities were based in **Cornwall**, we spread our influence further online with **201 UK** and **38 global events!**

In 2022, our **activity beneficiaries** totalled an impressive **27,857 people**. This included **3,568 0 to 16 year olds** (up from 132 in 2021); **1,145 17 to 24 year olds** (up from 375 in 2021) and **23,144 25+ year olds** (up from 12,749 in 2021). This is a massive achievement considering our Ranger team has shrunk by half. This shows just how much our volunteer team have stepped up, been empowered and taken on the role of public engagement. It has been wonderful to see key volunteers thrive, stepping out of their comfort zone to be wonderful ambassadors and advocates for the seals they love so much. Thank you to each and every one of them!

Our **social media** engagement also expanded in 2022 with at least one post a day across all four of our online platforms:

- **Facebook** followers 8,182 (up from 7,647 in 2021); reach 386,230; best post 23,327 reach
- **Instagram** followers 5,817 (up from 5,393 in 2021); reach 137,812; best post 8,586 reach
- **Twitter** followers 1,683 (up from 1,386 in 2021)
- **Linkedin** followers 653 (up from 0 in 2021).

By the end of 2022 we had gained **1,909 more followers**.

Increasing social media and YouTube channel engagement will be a key target for 2023.

SRT Activities in 2022 included:

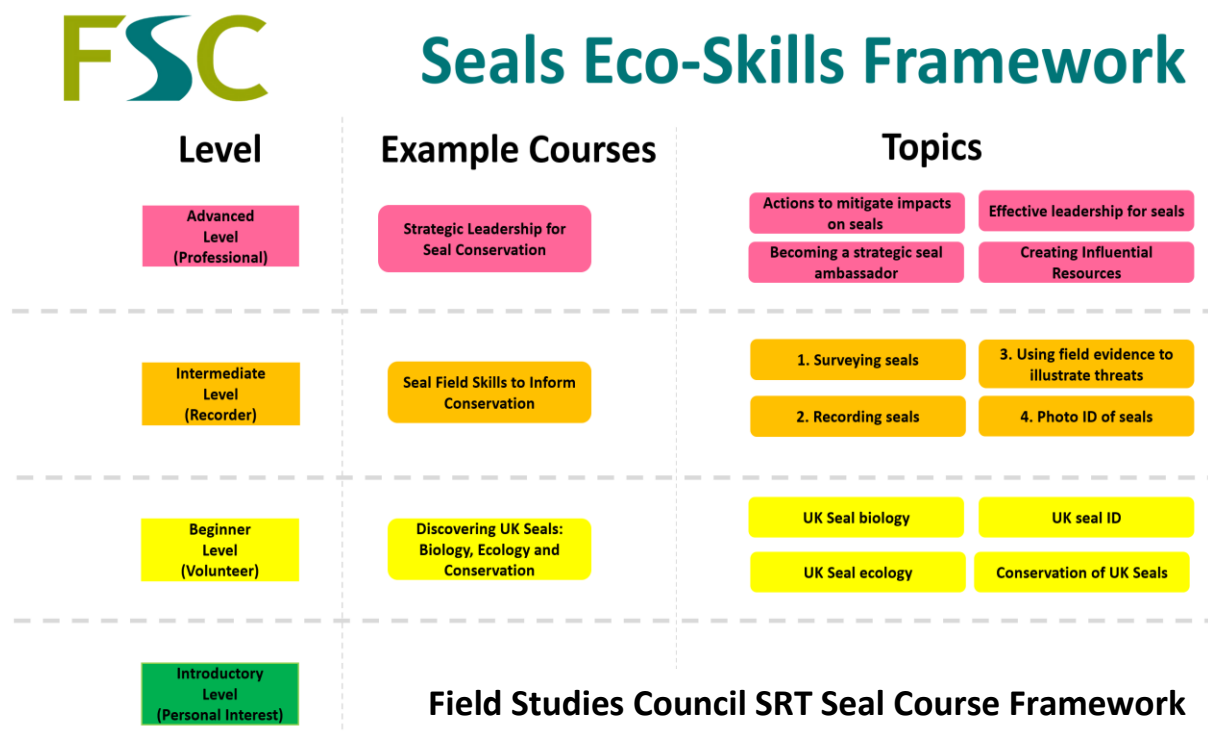
Talks: 51 (almost 1 a week)

We organised and delivered **51 talks** for a wide range of different audiences. A highlight for 2022 saw Sue Sayer deliver **our first talk in Asia** where we were invited to present on behalf of the [Global Ghost Gear Initiative for their workshop at the 7th International Marine Debris Conference](#). Needless to say this proved to be a rather late online session in the early hours of the morning! After this, Sue was invited to repeat her presentation for the global **Pinniped Entanglement Group organised from the US**. At both these events, Sue summarised SRT's long term lost fishing gear/entanglement research along with a summary of our most recent 2021 entanglement data. We were honoured to be invited by Nika Strok Underwood to deliver two online talks for [Teens and Friends United](#) (a nature based charitable organisation in Austria) that got major coverage, as well as providing input at Nika's nature group at Minerva Virtual Academy later in the year. We provided seal expertise input for various statutory agencies including **DEFRA**, the **Marine Mammal Disturbance Partnership**, the **Seal Network UK**, the **Welsh Rural Crime Police Conference** and **Cornwall Council's Fisheries Stakeholder Group**. As ever, SRT volunteers also gave talks at other high profile events in the UK such as the two major Seal Alliance events (our [Seal Masterclass](#) and [SharePoint Sessions](#)) and regionally at the [South West Marine Ecosystems Seal Webinar](#), as well as for the [RENEW Parliament Conference](#) and the **YourShore Conference**, both in Cornwall. A key development in 2022, saw volunteers Charlotte and Terry Carne become our **Events Coordinators** to help

organise and deliver talks for SRT, in partnership with our ever wonderful volunteer speaker Rob Wells. Between them they delivered a number of face to face talks for groups such as the **Tregony over 50's Club, Falmouth Hotel, St Austell Young at Heart, Kenwyn Nursing Home and Looe Heritage Centre**, along with an exciting visit to talk on **Lundy Island** for the Landmark Trust. Sue continued to deliver online talks for groups nationally and regionally including the **Abingdon Naturalist Society, Tiverton Mid Devon Wildlife, Manx Wildlife Trust and Exeter University EcoSoc**. Whilst we cannot take any credit for these, we were delighted that Gareth Richards from the **Gower Seal Group** (who is also a valued SRT volunteer) delivered numerous talks on his patch for a range of audiences. These have not been included in our totals.

Workshops/Training: 26 (1 a fortnight)

We were very excited in 2022 to partner up with the **Field Studies Council (FSC)** to create a new course for their **online Ecoskills programme**. Sue's first job at 18 was working as a cleaner to the FSC in Somerset, so this felt like going back to her roots! Sue wrote and resourced the course '**Discovering UK Seals**' ready for its first run through in June and got off to a flying start thanks to a group booking by Friends of Horsey Seals. It then re-ran in August with a group booking for Norfolk Seal Group. Participants spent a minimum of 2 to 3 hours a week online with a weekly zoom session with Sue and the courses lasted 4 weeks each, covering **Biology, Ecology, Species ID and Conservation**. So far we've had **101 course participants** add to their knowledge base about seals. Sue thoroughly enjoyed delivering these courses and cannot thank the FSC's Bek Trehern enough for inviting and supporting us to run this Ecoskills course.



SRT were also invited by the **Cornwall Marine Network's Cornwall Marine Academy (CMA)** to design, write and resource an **Ecology and Conservation Course** for the 'Not in Education and Training' cohort of students. Sue enjoyed writing this for the team supported by Ranger

Tash. CMA's project lead Joe's feedback was glowing: *'I think it's brilliant! Very engaging with a lot of useful and relevant activities, whilst hitting the assessment criteria. The course can be both delivered online and face to face and easily adapted, which I like. Thank you!'*

Our **ongoing, free, on demand, online volunteer training** continued to be popular with **25 new sign ups** in 2022. As ever, we continued to deliver online PID sessions for Hubs requesting support and skills training or in field training by our volunteer team across a range of survey sites. Huge thanks to all our volunteers who have spread the word so effectively and recruited new Hub team members. You are a wonderful asset to our seal team!

Sue had the idea in 2022 to start delivering free **Seal Masterclasses** for individuals or teams in a range of organisations and ran the first one in November with the **Marine Management Organisation**. British Divers Marine Life Rescue also partnered with us as we hosted two **Vet Interns on a field visit to West Cornwall** for them to learn about all things wild sealy! We were especially proud that one of them was Jas Gregory, who had helped her father Martin write the seal reports for Looe Island for many years before even starting her Vet Training in Bristol. We continued our ongoing delivery of Higher Education Workshops for degree and masters students running sessions for **Cornwall College Newquay and Plymouth University**.

Our team upskilled too as we celebrated **Sarah Millward completing her 'Principles of Team Leading Level 2 Qualification'**. Sue learned from courses on **'Perfectionism', 'Building an Online Presence' and 'Effective Time Management'**. She also shared her learning on how to be a Productivity Ninja, putting her new skills into practice managing emails to keep her inbox clear and understanding the purpose/processes needed to run effective meetings. We still run **Crowdfunder training** about how to run a successful campaign. This was shared with **Newquay Wild Activities**.

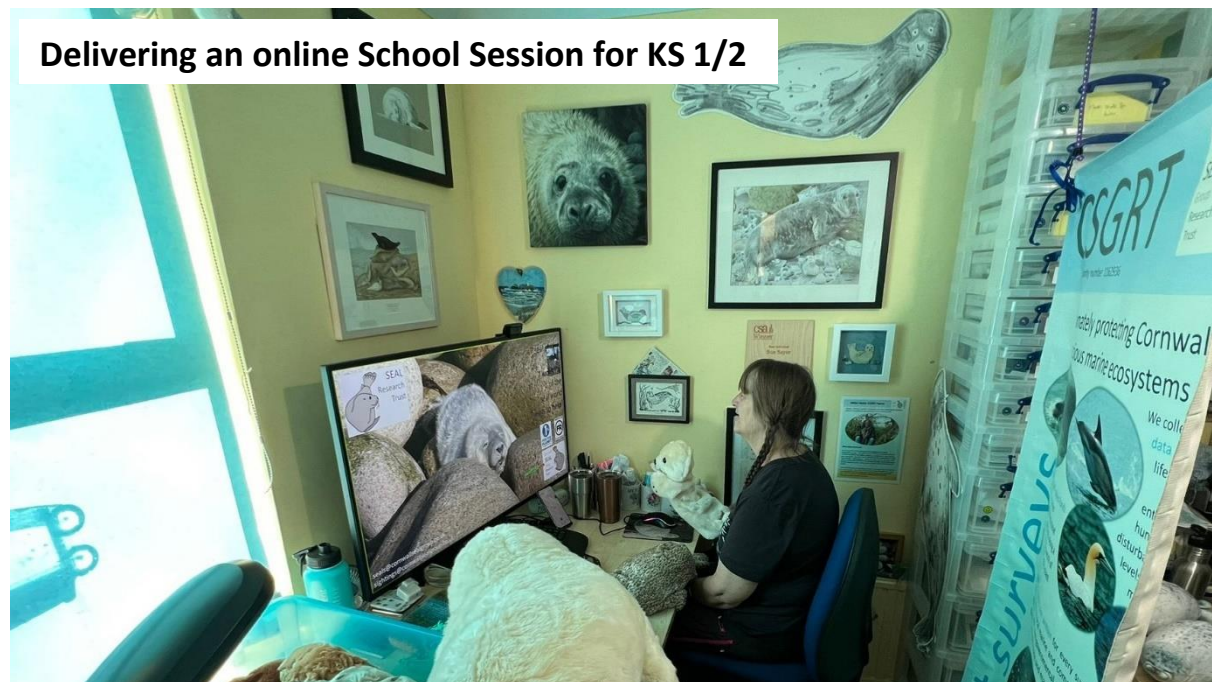


Stalls/Events: 12

Thanks to Charlotte and Terry Carne taking on their volunteer Event Coordinator roles, supported by Ranger Lauren, SRT were able to take part in more face to face public events in 2022. Between them they orchestrated a wonderful team of volunteers to attend events at the **Cornish Seal Sanctuary, St Piran's Day, Operation Seabird's launch** at Godrevy and then later in the year at **Looe, Mount's Bay Marine Group's event at Gwennap, ASDA Bodmin's charity stall, Eden's Freshers Fayre and the Screech Owl Sanctuary's Open Day**. It is funny how the world works, as Charlotte has since secured herself a fab job working at the Screech Owl Sanctuary. Congratulations! Charlotte still volunteers with us running events – win win! By far the most innovative event for us was sending **Gracie the grey seal, made out of lost fishing gear by Emily Barker, to Wadebridge** to appear in a shop window along with a display about marine plastics by **Michelle Costello from Smartie Lids on the beach**.

Field Engagement: 152 (plus frequent conversations held by Claire the Looe Island Warden)

Whilst out surveying, our enthusiastic volunteers frequently engage face-to-face with members of the public. These opportunities help to win hearts and minds to our shared seal conservation cause. People love hearing about the seals they are watching and celebrity seal stories. We began formally recording this in 2022 and in total, **29 of our inspiring volunteers** had conversations with **3,811 members of the public**. Thank you everyone for spreading the word at a time and in a place where people are interested and eager to learn.



Delivering an online School Session for KS 1/2

School Sessions: 9

Educating the next generation in all things 'seals and marine conservation' is key. Ranger Emily Williams and Vice Chair Kate Hockley delivered two face to face sessions for **Penpol School**, whilst Sue addressed **Trevithick School** pupils during a chance encounter up on the cliffs at West Cornwall. Despite lacking Ranger capacity, volunteers Emma Wright and Sue Sayer delivered more school input in 2022. Emma ran face to face sessions with **Nansledan**

School and the **1st Newquay Beaver Group**, whilst Sue covered the online school sessions for **Sennen** and **Roskear School** in Cornwall, as well as **Lawn Primary School in Swindon** and **Oatlands School in Harrogate**. Do tell your local school that we can do online talks for them!

Photo ID Project (PIP) organised day long surveys: 19

We were delighted to complete **10 day-long, systematic, boat-based Photo ID transect surveys** (CASPIP, STAPIP and POLPIP) along a 115km stretch of the north Cornish coast involving a total of **110 volunteers**. We also successfully completed **9 Looe Island Photo ID Project (LISPIP)** surveys undertaken by **76 volunteers**.



Hardy volunteer boat survey team

Meetings: 308

These multiple and varied meetings involved lots of us and a huge range of people from all walks of life, including **Politicians** (George Eustice) and **Statutory agencies** (Cornwall Inshore Fisheries and Conservation Authority, Cornwall Marine Liaison Group, DEFRA, Devon and Cornwall Police, Natural England, Marine Management Organisation, Marine Mammal Disturbance Partnership, Marine Partnership Against Wildlife Crime, N. Yorkshire Police, Operation Seabird, Operation Seabird Cymru, Seal Network UK, South West Coast Path Association and Wildlife LINK). We partnered with several **Higher Education institutes** (Cornwall College Newquay, University of Bristol, University of Exeter, Oxford University, Plymouth University and the University of Southampton); **Students** (Alex, Ellie, Freya, Laura, Matilda and Rebecca); **Businesses** (Angling Trust, APEM, Attic Design and Print, Bowgie Inn, Carbis Bay Estate, Cornwall FLOW, Cornwall Marine Network/Academy, Crown Estate, FlowmoCo, MacSalvors, MDL Marinas, Microsoft, Primary PC, Sealife Conservation Tours and Total Training) and **Artists** (Chapel Street Gallery, Cornish Jewellery Company, Elspeth Stevenson, Emily Barker, Lindsey Keates, Lucy Leach, Mungo Lils on the Hill, Rosie Sherwood, Rosalyn Cook, Smartie Lids on the Beach and Tormark Press), as well as numerous **Charitable organisations** (Angel Bay Seal Group, BDMLR, Clean Ocean Sailing, Cornish Seal Sanctuary,

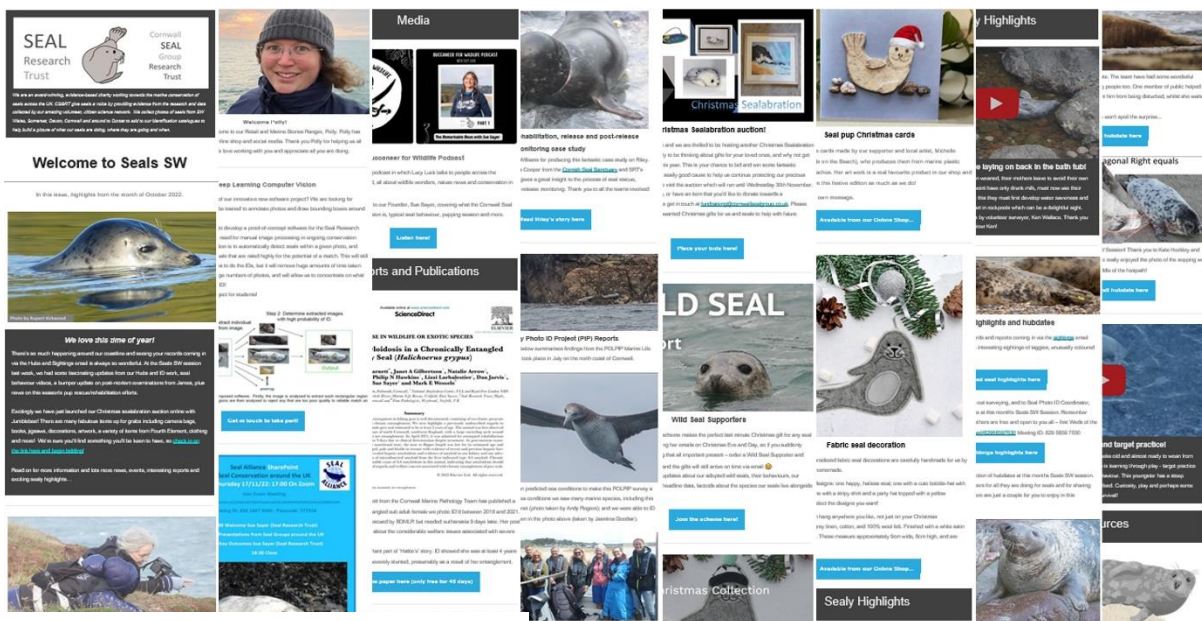
Cornwall Marine and Coastal Code Group, Cornwall and Devon Wildlife Trusts, Field Studies Council, Global Ghost Gear Initiative, Hayle Towans Partnership, Marine Animal Rescue Coalition, National Trust, N. Devon Marine Nature Recovery Plan, Pinniped Entanglement Group, RNLI, RSPB, RSPCA, Seal Alliance member groups, SW Marine Ecosystems, Teens and Friend United, Wight Biodiversity and the Wildlife Safe Scheme).

Reports: 30

Our amazing team collated data to write reports including **6 CASPIP reports** (2 of which were catch ups from the previous year) by Sarah Millward; **4 STAPIP reports** (1 caught up from 2021) by Mike Taylor; **4 POLPIP reports** (including 1 from 2021) by Sarah Millward and **9 LISPIP reports** by Martin Gregory. In addition, we published our **SRT Annual report for 2021** along with the **SW Marine Ecosystems Report on Seals for 2021**, both written by Sue Sayer; a **People Protecting Precious Places** report by Katie Bellman, as well as a **Green Recovery Challenge Fund project evaluation report** written and submitted by Sue Sayer. We also finally completed an **evaluation report for the LUSH Cosmetics funding** we received for the boat PIP surveys. Dr Mel Broadhurst (our Channel Isles volunteer) compiled our **2021 Census report** and, in addition, Mairi Young prepared a **summary for the North Cornwall Hub for 2020** and Catrin Ferguson wrote a **summary for the North Devon Hub for 2020**. Thank you ladies!

Seal SW Session: 12, Seal SW Newsletters: 11 and Wild Seal Supporter Updates: 4

Sue continues to deliver our monthly online **Seal SW Session for up to 50 people**, although Dan Jarvis ably stepped in to deliver the presentation Sue prepared from hospital for the May meeting. Our monthly presentations are a vital archive of all our charity's ongoing key activities. Ranger Sarah compiled and circulated **11 Seal SW Newsletters**. Our circulation list grew by 237 during 2022 to **1,027 subscribers**. Director Sue wrote **4 Wild Seal Supporter and Adoption Scheme Updates** which went to **179 recipients (up from 126 at the start of the year)**, which summarise exclusive information about our adopted seals each quarter.



Seals SW Newsletter example

Resources: 5

The wonderfully active and ambitious Lizard Seal Hub planned, designed and funded a brand new **Lizard Seal Pack and Stickers** that can be purchased from Mungo Lils on the Hill for a minimum donation of £2. Volunteer Cliff Davies from the Looe Marine Conservation Group and our Looe PID Hub lead designed **Watercraft Stickers** outlining best practice around seals (see page 27). Volunteer Aidan Botha created a **wonderful poster and social media graphic** for our Flying Rings campaign (see page 27). In March the wonderful **Behaviour Change Cornwall** created some clear and attractive graphics for our **Give Seals Space** campaign, which have proved extremely popular and been used by lots of other organisations. A **'Good neighbours' toolkit** was also developed as part of our 'Space for Seals' project (see page 13).

Media Coverage: 39

Our media coverage was extensive and began early in 2022, as **BBC Radio Cornwall** covered **Sue's 60th birthday fundraiser** that eventually generated an incredible £1,486. Thank you to everyone who donated so generously. Other coverage included: The **Seal Alliance Open Letter to the UK Government** calling for seal disturbance to be made illegal (as with whales and dolphins) which was covered by **BBC Spotlight** featuring Sue, Tash Murch and Billy Nason, as well as being run by **Pirate FM**. In February Sue was **Julia Skentelbery's Big Guest on BBC Radio Cornwall**. They also publicised our **St Ives Bay Stakeholder Group meeting**. Our **Annual Report** was shared by **Cornwall Marine Network, BBC Radio Cornwall and Bodmin College**. In July we had two requests from the **BBC Natural History Unit** for expert input into **Planet Earth III** and **Wild Scandinavia**. **BBC Radio Cornwall** again covered the release of the **SW Marine Ecosystems report** focusing on our input on seals.



Our partners at the **Pinniped Entanglement Group** continue to cover our stories **tracking entangled seal wounds** over the long term and **Wild Roseland** wrote an article about **Watching Seals Well** whilst **Bob Bate from Islands Radio** wanted his listeners to hear all about our collaborative efforts in the **Give Seals Space** campaign. By October Sue Sayer recorded her first ever **Podcast**, which turned into two, presented by **Lucy Luck from Buccaneer for**

Wildlife. Later that month we were contacted by **Keep Britain Tidy** and their **Ocean Recovery Project** who wanted to feature our work on the **impacts of lost fishing gear on seals**. This led to national coverage on the **BBC News** as well as regional coverage by **BBC Spotlight**. Not surprisingly, as soon as the press release embargo was lifted about **Sue's MBE**, she was asked for interviews by **BBC Spotlight**, **the Packet** and **West Briton Newspapers** and **Pirate FM**.

Brigstow Institute Seedcorn Fund: Space for Seals Project

In 2022, thanks to an application by **Leah Trigg at the University of Bristol**, we gained modest funding to explore the **relationship between seals and people**. We aimed to promote ethical relationships focusing on care and responsibility. We wanted to identify novel and engaging methods of communication and intervention. The delivery team included **Leah, Emma Rowe and Paul Hurley from Southampton University** and we enlisted a student **Beca Phillips**. Between March and June, the project delivered **two free workshops for stakeholders** at the **Carbis Bay Hotel** to explore and understand our varied and different perspectives of seals and the sea. The project team took part in **public tripper boat visits** to the key sensitive seal sites to experience first-hand public interactions with, and responses to, seals. Beca conducted a **literature review** about seal and human interactions and **interviewed members of the public** at two contrasting sites on either side of the Bay – in the town of St Ives and on the wild headland at Godrevy. The workshop saw participants engaging in a sensory way with their environment as they approached the sea, followed by a creative activity of building a life-sized seal on the beach before releasing it back into the ocean. This was followed by an exploration of the issues, thoughts and relationships we all have with our wider environment. Key outcomes from the project were two-fold...SRT were able to develop a **manifesto for seals**...a list of things seals need from us. This flipped perspective (from what we need to give seals) is transformational and forms a solid focus for all our conservation work going forward.



A second outcome was the idea that seals need us to be **good neighbours**. Workshop participants delved deeper into the concept of good neighbours and in doing so, the idea of a tangible asset emerged from the project.


A fabulous artist **Sam Church** was enlisted to create a series of six cartoon like images around the concept of nuisance neighbours, illustrating what some of our human relationships are like with seals currently, with a take home ask of being a good neighbour. SRT have rarely used humour as part of our messaging, so this was an exciting development to potentially engage new audiences as a direct result of the project. Sam kindly worked the graphics into two formats – a **poster**, alongside **six individual standalone social media graphics**, forming our **‘Good neighbours’ tool kit** illustrating the following desired behaviours to help seals:

- It is a good idea to NOT stop and stare
- Keep quiet around seals
- Give seals more space
- Mums/pups can easily be scared by us
- It is best to stay off beaches used by seals
- Never feed wild seals.

For us the **‘Space for Seals’ project revolutionised our thinking and perspectives about stakeholder interactions with seals** in the wild that has fundamentally shifted our messaging and broadened our understanding of what effective communication looks like.

Deep Learning Computer Vision Project

2022 saw us team up with **Seb East from the University of Bristol** to develop a long term, three-phase project aimed at the development of **bespoke automated photo ID software** for SRT. Phase 1 saw us recruit volunteers to **point count** and **draw bounding polygons around seals in 1000 survey photos**. We are excited to see where this project will lead but phase 1 has the potential to **auto extract seal images** from our survey photos, potentially saving albumising volunteers lots of hours of manual processing at some of the larger seal sites!



Seal Annotation Project Website

Welcome to the page for annotation project. This project, including links to be used to make the

- Background
- How to Download the
- Using The VIA Tool
- Demonstrations of It
- Contribution Process

Background

Historically, the process of seal annotation is a challenging task, even a computer vision expert can achieve remarkable results.




Figure 1: Images are of seals in the water.

How to

The images have been shared on a file-sharing site. Each batch file contains:

- Approximately 20 images
- A .html file that lists the images
- An 'attributes.json' file

Links for the files are:

- 1-250
- 251-500
- 501-750
- 751-1008

https://luff.bris.ac.uk/

Test batch content: https://luff.bris.ac.uk/

If you copy and paste the links, the files are only a few weeks old. You only need to do this once. Each of the photos has enough hard disk space.

Video Explanation

Using The Tool

The tool that will be referred to here as 'VIA' is a good idea to use that you would like.

Opening VIA


You do not need to download the tool, just click on it. Although you need to be connected to the internet. Make sure to open the tool to avoid some issues.

Demonstrating Annotation

Each photo needs to be annotated with a point and a bounding polygon. These two annotations are shown in the image below.


Point Count

The point count annotation process involves clicking on the seal and assigning a point count.



Bounding Polygon

The second annotation process involves drawing a polygon around the seal within each image. This demonstrates how the tool works.



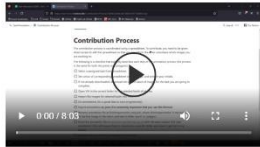
Contribution Process

The contribution process is coordinated using a spreadsheet. To contribute, you need to be given direct access to edit the spreadsheet so that you can inform the other volunteers which images you are working on.

The following is a checklist that explicitly describes each step of the annotation process (the process is the same for both the points and polygons):

- Select unassigned task from spreadsheet.
- Set colour of corresponding spreadsheet cell to orange, and write in your initials.
- ADD TO THIS THAT VOLUNTEERS SHOULD ALSO PUT THEIR NAME AND DATE BEFORE RELEASING**
- If not already downloaded, download the correct batch of images for the task you are going to complete.
- Open VIA in the correct folder for the selected batch of photos.
- Import the images for selected batch into VIA.
- Do annotations (it's a good idea to save progressively).
- Export annotations as .json (it is extremely important that you use this format).
- Rename annotation file as `firstimagenum,task.json`, where 'firstimagenum' is the number of the first image in the batch, and task is either 'point' or 'polygon'.
- Email the annotation file to sebastian.east@bristol.ac.uk with the exact subject line 'seal annotation' (this will ensure that it's sorted into a specific folder and doesn't get lost in my inbox).
- Change the color of the spreadsheet cell to green.

Video Demonstration



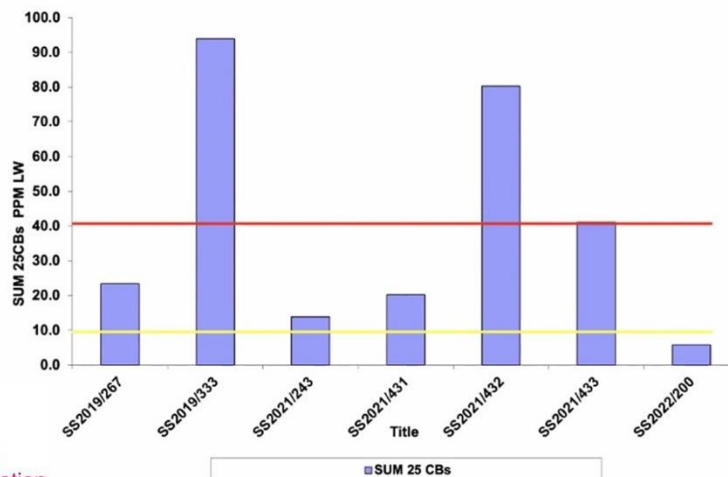
The Debs Foundation PCB Project

Early in 2022, we were approached by **David Gittison from the Debs Foundation** about a potential seal project they might like to fund. We immediately contacted our partners at **British Divers Marine Life Rescue (BDMLR)** and the **Cornwall Marine Pathology Team** about the possibility of asking the Debs Foundation to fund **seal sample analysis for PCBs**. They said yes! **Vet pathologist James Barnett** partnered with the **Cetacean Strandings Investigation Programme (CSIP)** to get 7 samples taken from dead adult male seals in Cornwall sent off to **CEFAS** for PCB analysis. The results showed what we had long theorised as **6 of the 7 seals sampled had PCB levels above the low threshold for toxic effects** and **3 had PCB levels above the high threshold for toxic effects**. This suggests that these seals might have had **reduced reproductivity** and be **potentially immuno suppressed**. The results surprised CSIP who are now looking for funding to progress this work further. Watch this space.



The Debs Foundation PCB results

Adult male grey seal data (Cornwall)



The Debs Foundation

• Kannan, K. (2000) Toxicity Reference Values for the Toxic Effects of Polychlorinated Biphenyls to Aquatic Mammals. *Human and Ecological Risk Assessment: An International Journal* 6 (1): 181–201.



People Protecting Precious Places Project Follow Up

In 2022, thanks to funding from the **Seal Protection Action Group**, SRT printed another **22,000 Watching Seals Well leaflets**, bringing the overall total to **86,000 leaflets** that have been distributed nationwide. An additional **25 laminated metal Give Seals Space signs** were also requested by groups across Wales and the SW, bringing the total number of signs distributed to over **130**. We also freely shared the printable artwork so people and organisations could print, erect or distribute themselves as well, so we really have no idea exactly how many signs are actually up around the UK. This campaign has been hugely successful and will surely have made a **substantial contribution to mitigating seal disturbance nationally**.

Wildlife Safe (WiSe) Courses

SRT's Sue Sayer helped to deliver the **seal and seabird** input during **two Wildlife Safe Scheme (WiSe) online courses** in 2022 – for the **Standard Boat Operator** course and the newer **Adventure** course. The **SW Standard Boat** online course over 2 nights finished on 17/03/22

with **14 attendees**, whilst the **Adventure** course (also over 2 nights on 24/03/22) was undertaken by **30 participants**. Sue and Dan from SRT's steering group are key members of the **WiSe Steering Group** and course deliverers.

Feedback about SRT Activities (don't just take our word for it!)

We always do our best to present exciting, interesting and informative input about seals in a multiplicity of ways. We deliver this to a huge variety of different audiences ranging from statutory agency consultations to schools. This is all aimed at promoting peoples' understanding about, and appreciation of, our heritage seals and their precious marine habitat. **We always ask for honest feedback from participants and organisers** about what went well and what we need to improve on. Our delivery team got some lovely feedback in 2022, some of which is listed below:

- *I loved your presentation at the Fisheries meeting, although actually I suppose loved is not the correct word, more that I found it hugely informative and interesting*
- *We included reference to your two publicly available disturbance reports. Thank you for all you do to collect the data and compile the reports, they are vital evidence in consultations like this (Natural England)*
- *I ordered the cuddly seal for my friend's 5yr old daughter for her birthday and she LOVES it! To the point that it's carefully wrapped in a mermaid towel and she asks her Mum to seal babysit if she has to leave him!*
- *This is an official mega THANK YOU for creating the fab presentation for Saturday's conference in amongst everything else you have going on! It was wonderful and, once again, showed how important people's sightings and data are to pull together stories about a species ecology that we otherwise would not be learning about*
- *A fantastic talk. Educational and very engaging with a powerful message about disturbance*
- *What a pleasure it was to listen to you last night and watch your presentation. I think the combination of real-life stories of individual seals linked to real science was especially appealing. Of course, overlaid by the threats to these species and the precautions we should all make if we want to see them - you put this aspect over so well without leaving us with a feeling that we were being lectured, as so often happens. You really seemed to be enjoying giving the talk, which came over very clearly*
- *I've just had a minute to watch your Waterbear film loved it! Beautifully succinct but gets across everything needed*
- *Thank you so much for taking time out of your day to speak with us. The children said they really enjoyed it & learned a lot from it*
- *Your passion and knowledge shone through as ever but it was also great to hear an overview of all the progress you have influenced and directly made. Just wanted to say what a fantastic webinar that was this afternoon, you were absolutely brilliant!*
- *It was an amazing webinar! So happy to hear from so many passionate people - makes me very proud to be a part of all this*

- *Just wanted to say I can't thank you and Colin enough for allowing me onto the WISE course. Really enjoyed it, learnt loads, took 6 pages of notes and the time just flew by*
- *I am so glad that I am participating on this WISE course. Loved it....and the panellists are just great*
- *Thank you so much for an excellent WISE course, I will be recommending it to as many organisations as I can in our area*
- *Thanks for letting me join today, Sue. I always learn more every time! Love it!*
- *When I was accessing your resources, I noticed your link to the recorded SWME 2022 Seal Webinar - I just watched itfantastic by the way (as always)*
- *Thank you again for such an inspiring talk at our last meeting. More than 50 people attended the zoom for your presentation*
- *Great to meet you this morning and for loaning your binoculars. The kids really appreciated the photo you sent of the seal called 'Turtle' that we all saw*
- *Thank you so much for attending our careers fair. I know that the children really appreciated everyone who came in - as do I. There was a buzz about the school with children before and after the event and many felt inspired by things they had seen*
- *Thank you for the latest WSS updates - lots to read and inwardly digest! Thanks to all your team and volunteers for all they do to help protect these lovely animals and for all the research they contribute to*
- *I just wanted to say how much I enjoyed your talk the other evening on zoom. I'm not sure if it was recorded but there was so much in there that I would like to listen to it all over again!*
- *Thank you so much for your enthusiasm and passion - you made the FSC content so interesting. My first time doing a course and my first time using Zoom, so I was a bit nervous about feeling 'put on the spot' as I'm not too confident (flashback to school days!) but that certainly was not the case, as you were so friendly and welcoming*
- *Thank you so much for today and the attachments and info. I learnt a lot with you today and am inspired to learn more*
- *It was a pleasure to have you today, the children really enjoyed it and cannot wait to try some of the activities!*
- *Thank you again for the lovely talk and introducing TAFU to the world of seals! I learnt so much more and really enjoyed listening to your presentation and all the information*
- *I have already recommended the FSC course and will do so to whoever listens*
- *Thank you so much for my recent order. It's for my son's 13th birthday and he's absolutely loved seals since seeing them on Springwatch and reading Sue Sayer's book. I'm really impressed with all the info contained in the order which will really please my son who aims to be a marine biologist one day. He asked for something seal related for his birthday on condition that it helped towards seal rescue and care so this is perfect, thank you!*
- *Guys, no joke, the Seal Alliance Masterclass was the best/most complete seal talk I've attended! Touched every topic / incredible data*
- *Thank you for the PEG presentation Sue. Important info to spread around!*
- *Thanks again for your presentation at the RENEW Conference! It went down very well yesterday and provoked a lot of discussion. I had several people come up to me and make*

very positive comments on your talk and saying that they didn't realise the impact of disturbance, the point you made about seals travelling so far to find a new haul-out made a particular impact

- *I can't thank you enough for today. The children were absolutely buzzing and didn't stop talking about it all day. It was perfectly pitched and I think the children could have sat and listened to you all day! I will definitely be recommending you to all my colleagues*
- *Just wanted to say a huge thank you for last night. I really enjoyed it and learnt a lot. I already have two volunteers who are going to help format the seal photos for us*
- *Sue – gold nugget tips about Crowdfunding and thank you for recording it! Just watched it – so much useful info in there.*
- *Really enjoyed The Remarkable Ruen podcast episodes*
- *That was such a useful meeting last Thursday and I really enjoyed it. Thank you so much for all your hard work organising and presenting it. Thanks very much to all the presenters too. I've forwarded on the YouTube link to all my local contacts, plus some others who are interested in seal welfare*
- *I just wanted to say thank you so much for yesterday. It was wonderful to meet you and learn from you, excited to work together in the future!*
- *Really valuable insight for students. In the past it has encouraged them to get involved, fundraise, focus their own research etc*
- *This is the first time we have had a talk with Sue, but it was informative and child friendly. The children were engaged with every aspect of the session. They could recall the important information from the session. We have taught the children the implications of using plastic and littering, but the talk has put the issues to the forefront of their minds. I haven't seen them more excited! The photos and videos were amazing and the children now want to search for seals and their unique patterns! The children loved the seals and were astonished to see the consequence of a plastic frisbee and the impacts on this on the poor seal. The information was child friendly. They are now clued up on all things seals.*

We still to collect Survey Monkey responses about our input. This is people's feedback to:

Talks online

- The majority of participants (71%) started the session knowing little about seals and by the end the same proportion of people said they know a lot about seals
- Before the talk only 29% of participants thought seals were very interesting and this rose to 86% by the end of the session
- The majority of participants (86%) started the session knowing little or nothing about SRT and by the end of the input the same proportion of people said they knew a lot or a moderate amount about SRT
- Everyone (100%) found the talks very informative and enjoyed them; everyone (100%) reported being inspired to do something by the talks and thought it was a session worth doing again.

Wild Seal Supporter and Adoption Packs

- 100% of respondents thought the process of joining the scheme was good or excellent

- 83% thought the pack was very good value
- 83% said they learned a lot from their Welcome Pack and the same proportion said they learned a lot from their Seasonal Updates and rated the content excellent
- 100% would recommend the WWS Scheme to friends and family.

Comments included:

- *Great pictures, with plenty of assurance as to how they were obtained. Lots of information on recent activity, reports on particular animals or sites*
- *It's absolutely brilliant*
- *Content is clearly developed with care and love*
- *Incredibly educational.*

Seal Data Outputs (reports included above)

Surveys and Volunteers

In 2022 we received records from **263 different volunteers**, from which we were able to process **4,718 discrete surveys** (an average of **13 site specific surveys each and every day**) from **362 different locations**. Our Sanctuaries at Sea Ranger, Sarah, coordinated our **quarterly SW Seal Census** of which all four were completed in January, April, July and October. Thank you to all our amazing volunteers who took part and made these possible.

Age and Sex Classes

On average 9.8 seals were recorded across our 4,718 surveys, ranging from a minimum of no seals observed to a **maximum of 519 seals** counted during a single survey (**down from 557 in 2021**). Of seals that we were able to classify according to their age, **70% were adults and 30% juveniles, moulted pups or white coated pups**. Only adults can be reliably sexed, so of all adults that we could confidently sex **56% were males and 44% females**, which is the exact same proportion as recorded in 2021.



Grey Seal Pups

White-coated maternally dependent grey seal pups (WCPs) were recorded on **530 occasions at 40 different locations** around the southwest. This included **46 sightings** of white-coated seal pups recorded at **15 different sites** on the south coast of Cornwall and Devon. White-coated pups represented just over **1% of all seals** observed. The maximum number of white-coated pups recorded at a single site was 17 at North Cornwall East. 5 or more seal pups were recorded 23 times at 7 different pupping sites at **West Cornwall East** and at 3 sites in the **North Cornwall complex**. **LP316 Lucky bunting** a seal rescued in 2016 had her third pup, again at a safe and remote site away from human activity. Our world record breaking seal mum **S112 Ghost** had her **19th pup in 20 years**, thank goodness, returning to her normal pupping site having breached her site fidelity tradition in 2021. **90% of the pups were born on north coast sites with 10% on the south coast.**

Common Seals and Common Seal Pups

Our observations included **29 common seal sightings** (down from 85 in 2021). Most were single individuals up to a **maximum of 3 individuals seen on the 09/01/22 in South Devon**. Common seals were recorded at **12 different locations** all at south coast locations, as well as in South Devon. Most notable in 2022 was the exciting record of Cornwall's **second successfully weaned common seal pup observed with its mother Serena**. In 2021 Serena was the first common seal to successfully wean a pup in Cornwall since our records began. Again we worked closely with local operators to avoid anything being posted about this second historic pup online. Thank you to them for their wonderful cooperation!



Serena's second successfully weaned pup by Rupert Kirkwood

Photos, Albums and Identifications

Our PID Hubs continue to be highly productive, processing an incredible **121,756 photos** (103,900 taken in 2022 and 17,856 taken in previous years) in 2022 into **2,206 survey albums** (2,031 from 2022 and 175 from previous years). This enabled SRT to generate a total of **12,107**

seal identifications of which **87% were re-identifications** (which is surprisingly consistent compared to 87% in 2021 and 86% in 2020). This included our new maximum of **150 different individual seal identifications in a single survey** (8 more than our previous total in 2021) that were confirmed by two experienced volunteers. Over 100 different seals were identified on 4 separate surveys all at the West Cornwall site. Of all the seals re-identified, **7 were seals we first added to our catalogues back in 2000** (4 males S6/S7/S11/DP2 and 3 females S3/S4/S5) and **4 were seals that were first identified in 2001** (all females S16/S26/S31/S32).

In total **3,765 unique seals** were identified in 2022. **9 seals from 4 sites were identified 20 or more times** and most of these were from the **Lizard, Roseland and North Devon**, as a reflection of the extremely frequent survey effort at these sites (all are surveyed on multiple days every week) and utterly incredible ID processing hubs. Well done everyone!

We continue to partner with the **Cornwall Wildlife Trust Marine Strandings Network** and in 2022 two adult females – **Black Wall and Tulip** were both identified from their carcasses. **Black Wall** had been recorded since 2006, so it had been interesting for us to see from our ID photographs how the wound she developed on her back had progressed over time, before healing. She was also post mortemed, with findings that suggest she could potentially have been live bycaught. **Tulip** was a celebrity seal having been first identified by us in 2002. She was likely nearly 30 years old, which is the average life expectancy for a female grey seal, and we celebrated the contribution she made to informing our knowledge of grey seal behavioural science. Having lost her own pup (on Ramsey Island or somewhere nearby), Tulip had the instinct to nurse and wean another pup separated from its mother in a storm on the island of Skomer (having never been identified there before!). Incredibly our last live sighting of Tulip was towards the end of January when she looked fit and healthy and by 09/02/2022 she was dead – just goes to show looks can be deceiving. Two additional dead tagged ex-rescue, rehab and released seals were also identified as **Whipcord and Jurgen**.



In 2022, we had an extraordinary seal visitor. Seal ‘number 75’ a female moulted pup who was rescued near Biarritz, rehabilitated by **Biarritz Aquarium** and released there on the

12/05/22. By 08/06/22 she was swimming in **Mounts Bay** where she was photographed by our intrepid volunteer Andrea Hunt. **75 had swum an incredible 800km in less than a month.**

Seals from Cornwall have now been linked to the Isle of Man (**450km north**), Northwest Wales, Southeast Ireland, Southwest and South Wales, the Isles of Scilly, Northwest France, Northern France, Southern France (**800km south**), North and South Devon, Dorset, Belgium and Holland (**650km east**).

Ex-rescued, Rehabilitated and Released Seals

SRT 2022 data included **807 sightings of 181 different rear flipper tagged, rehabilitated seals** (around **2% of all seals observed**) from all around our southwest coast. Most of our tagged seals would have been released in **North Devon** or from the **northwest/southwest Cornish coast** but there were three notable exceptions. '75' (see above) and 'Christine' were released in **France** and 'Crater' who was finally tracked down by our Roseland Hub Coordinator Kerstin Hartmann as having been released from **Courtown in SE Ireland**. He had 17 IDs on the Roseland in 2022.



A maximum of **13 different ex-rehabilitated** seals were recorded on one survey on 11/02/22 at West Cornwall by Sue Sayer and Kate Hockley. In 2022, 10 or more ex-rehabilitated seals were recorded in the same survey on 4 occasions – all at West Cornwall.

SRT continue to use the confidential GoogleSheet created by Paul Oaten from **RSPCA West Hatch Wildlife Hospital** that logs all seal admissions and, in 2022, Katherine Thomas from the **Cornish Seal Sanctuary** has continued to deliver regular and excellent input at our monthly Seals SW Sessions. We are hugely grateful to **British Divers Marine Life Rescue** who of course undertake the majority of seal pup rescues and then triage and treat most of the seals rescued at their **Seal Pup Hospital** before they are transported elsewhere for longer term rehabilitation.

Entangled Seals

To balance our resightings of rescued, rehabilitated and released seals, which reflect a positive intervention by people, were our observations of seals that have experienced entanglement at some point in their lives. SRT record entangled seals as currently entangled or as ex entangled – the latter based on evidence of a healed wound and no visible entangling material. This can be harder to judge than might be imagined. Seals having experienced or still experiencing entanglement were recorded **860 times** during **419 surveys up to a maximum of 23 different individuals in a single survey** – recorded on 13/01/22 at West Cornwall by Sue Sayer and Kate Hockley. **10 or more different entangled seals were recorded 12 times, all at West Cornwall** during the year. This is the highest number of entangled seals recorded in a single survey since our records began. In total **124 unique entangled seals were identified** from our catalogues (down from our all-time high of 134 in 2021).

A new entanglement issue that emerged in late 2021 continued to be observed in 2022 – that of seals being **hooked in line** mostly from our local sustainable inshore mackerel fishery. In 2022, **24 different seals were recorded as hooked**, ranging from apparently single hooked adult seals to moulted pups in need of rescue. One pup subsequently was found to have **22 hooks removed by BDMLR**. We know from our long-term seal data that peak seal numbers have shifted earlier from March/April to December/January. In contrast, we have been told that the mackerel fishery has moved later in the year, from starting in the summer to **commencing in November**. This has created a **temporal and spatial overlap between the mackerel fishery and peak seal numbers** that never used to occur. This has presumably caused this **new and emerging issue**.

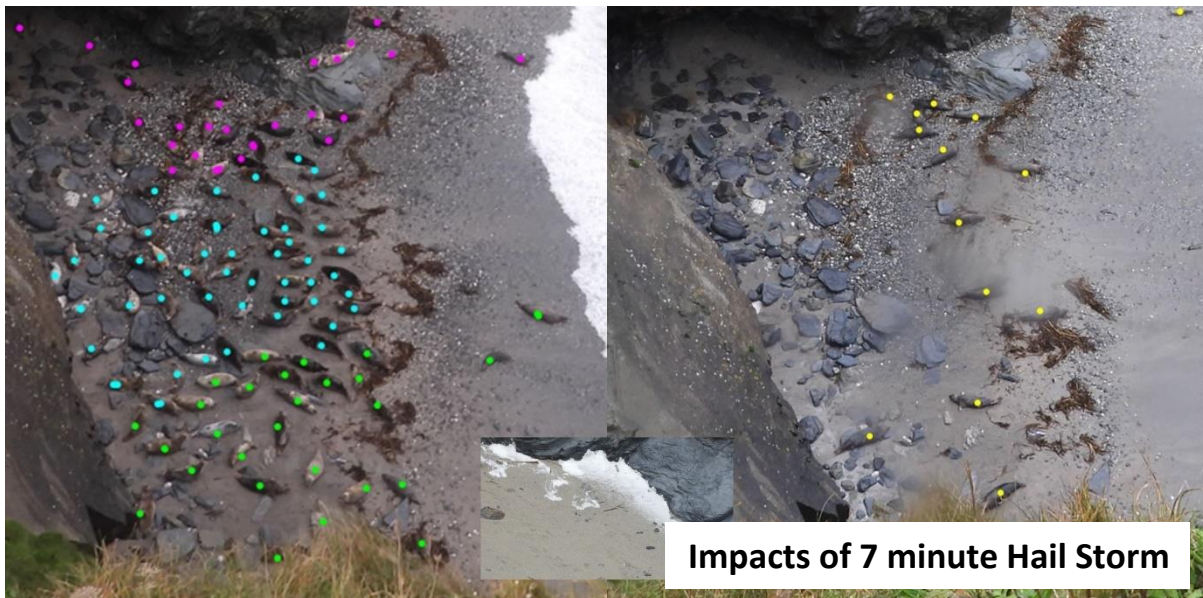


SRT continue to share data and entangled seal experiences as members of the **Clean Catch UK National Steering Group** of which Sue and Dan Jarvis are members.

Bycatch includes the live entangled animals described above, who have most likely interacted with lost fishing gear. It also refers to dead seals accidentally caught up in live operational fishing gear. We were shocked to discover from the 2020 Special Committee on Seals report that **85% of all UK seal bycatch occurred in our southwest region** (ICES area VII).

Disturbance

From our routine data (not effort corrected) serious level 3 disturbance is described as seals leaving the land by tombstoning or in a stampede and entering the sea; crash diving at sea; displacement from sea areas where humans were present or seals being fed. There were **223 serious disturbance incidents**. In total **level 3 disturbance affected a shocking total of 1,393 seals in 2022**, from a minimum of 1 seal in one incident to an horrific **maximum of 272 seals on 17/11/22** at West Cornwall stampeding into the sea in a single incident. This was caused by a **7 minute hail storm**. The month before **37 out of 70 seals** had been seriously disturbed at West Cornwall during two back-to-back **hammering rain showers**, so it seems **climate change induced extreme weather events are adding to our already high levels of seal disturbance**.




20 or more seals were seriously disturbed stampeding into the sea on **14 different occasions** at **4 different sensitive seals sites in North Cornwall, Pentire and West Cornwall**. At the **North Cornwall sites 66 seals** were recorded stampeding on 20/03/22 by Malcolm Baker, whilst at **Pentire 24 seals** stampeded into the sea on 08/10/22 recorded by Andy Rogers.

Where possible disturbance incidents are now routinely followed up by members of our newly formed volunteer **Conservation Team**. Case studies of disturbance and data continue to be shared with various statutory agencies including the **Cornwall Inshore Fisheries and Conservation Authority, Natural England, Operation Seabird** and **DEFRA**. In 2022 Natural England provided a specific email address for SRT to report serious disturbance incidents within designated Sites of Special Scientific Interest. This ensured audit trails and case studies could be built up as intelligence and evidence for potential action. In November 2022, the **Marine Management Organisation Marine Spatial Planning Team** requested SRT

disturbance data as part of their **SW Marine Plan Evaluation**. SRT's collated data from **2014 to 2021** showed an increase in serious seal disturbance incidents from **123 to 306** and seals seriously disturbed increased from **999 to 1,673**.

Whilst disturbance case studies are routinely shared in the majority of talks delivered by SRT, specific disturbance data has been presented to a variety of organisations including the **Cornwall Marine and Coastal Code Group**, **RENEW Parliament Conference**, **Plymouth University**, **The Welsh Police Mammals and EPS Wildlife Crime Group**, various governing bodies such as **British Canoeing** and **Kernow Hang Gliding and Paragliding Association**, as well as enforcement agencies such as **Natural England**, **Marine Partnership Against Wildlife Crime and Wildlife LINK**. We have also been collaborating with **Whale and Dolphin Conservation** to help them set up an effective and complementary disturbance recording system for their Shorewatch volunteer team.



Seal Disturbance Factsheet

for Guides, Leaders and Coaches

What is meant by seal disturbance?

Disturbance can take many forms and is not always easy to spot. In most cases, disturbance to seals is caused when you are too close, too visible and too loud. With time spent near or in the ocean, there comes a responsibility to respectfully share this habitat to allow for positive encounters with these wild animals.

The effects of disturbance are often invisible but are always a waste of energy for seals. Some of the physiological impacts of disturbance include increased stress and cortisol levels, a rapid heartbeat, increased breathing rate, coldwater shock, cracked ribs, damaged and ripped out claws, open wounds, and longterm impacts on unborn and new-born pups as well as moulted pups who are still teaching themselves to hunt. Seals can be inquisitive, please don't take advantage. Do not seek encounters with seals. If by chance you come across one at sea, stay clam and keep moving. If a seal attempts to get on your board, stay relaxed and gently use your paddle to prevent this from happening; the seal should move off on its own. If a seal is following you, keep moving. They are incredibly curious animals but will quickly lose interest if you do not engage with them.

The following signals indicate a seal is aware of your presence and is at risk of being disturbed:


Vigilance - If a seal has noticed you, its fight or flight response has been activated, and its stress levels have already gone up. Whilst this may seem minimal, seals have been known to stay alert for up to an hour after being disturbed, meaning energy is being wasted instead of reserved.

Stampeding - If seals rush quickly into the sea, a serious disturbance event has occurred, which can lead to severe injury and pup abandonment.

Tombstoning - If a seal is well above the water line and feels threatened, it may throw itself from a great height into the water. This is extremely dangerous for both seals and people and can result in broken jaws and ribs, which can be fatal.

Flipper splashing and vocalisation - This is a seal's way of telling you that you are too close, and it is feeling threatened.

Crash diving - A seal may immediately undertake a crash dive if suddenly distracted whilst feeding in the water. This is a common sign of distress that can alter their oxygen levels, as they will not be fully prepared for the dive, and their heart will be racing. Swimming seals mustn't be disturbed, as this can cause them to stop feeding, impacting their energy supply.



British Canoeing Seal Factsheet



If you spot any of these behavioural reactions, slowly and quietly back away to avoid increasing the chances of disturbing them further. Allow seals the space they need within their habitat.

Some seals will show signs of habituation, whereby they have become used to the presence of people and do not demonstrate a natural, cautious response to their presence. However, this does not mean that they are immune to the impacts of disturbance. Some seals will not react to a single paddle boarder, but after their third or fourth encounter with human activities, they will start to show signs that they are not fully relaxed. This is known as sensitisation, where the seal responds to cumulative activity rather than a single event.

Impacts of seal disturbance

Pregnant and pupping females: Common seals will have their pups in the summer months, and grey seals are heavily pregnant (they pup in autumn). This coincides with many coastal areas being at their busiest. Rushing over sharp rocks can have severe long-term impacts on unborn pups that are not immediately visible.

Pups: Mothers who waste energy fleeing from disturbance cannot pass on the nutrients their young need, and therefore the chances of pups making it through their first winter are drastically reduced.

Juveniles: With fewer fat reserves, they must conserve energy whenever they can. Younger seals are usually more skittish and don't have the spare energy to waste when fleeing from people.

Dominant beachmaster males: These males feed heavily in the summer, enabling them to fast for up to three months in the autumn. They do this to protect their pupping females without starving; however, disturbance compromises their energy levels and impacts their chances of survival.



As part of our awareness raising work in 2022, SRT wrote **4 letters to our newly created Marine Operators mailing list**. Each championed and clarified best practice around seals around the southwest.

Policy and Conservation Actions

Consultations: 29

SRT used data from our amazing volunteer citizen science network to submit evidence to **29 policy and planning consultations**. These varied hugely from issue based requests for

information (**MMO SW Marine Spatial Plan Monitoring, Joint Fisheries Statement, North Devon Marine Nature Recovery Plan, Cornwall AONB Landscape Review, Cornwall Climate Emergency DPD Hearings, Strategy for Cornwall's Historic Environment, DEFRA Operations, GGGI Annual Impact, Fishing Impacts in MPAs, Durham University on Charities, FSC Environmental Policies, People and Nature and N Tyneside Council Public Space Order**) to species input (**the UK Government's EFRA Committee**), as well as activity based evidence (**Ceredigion Marine Code**) and developments near seal sites in the UK and beyond (**Pacific Grove Tin Cannery Hotel, Cornish Lithium, Looe Flood Defence Scheme, Dean Quarry Holiday Homes, Seismic testing for radioactive waste disposal site, Crown Estate Offshore Wind, Northumberland Campsite, Dogs on Beaches in Cornwall, White Cross Offshore Wind**), not to mention multiple requests for identifying marine priorities (**DEFRA Marine Recovery Plan, DEFRA Environmental Targets, DEFRA HMPAs, DEFRA Net Gain, Wales Rural Strategy Consultation Empowering Local Communities**). This is the hardest and most mundane aspect of our charity's work but it is undoubtedly the most important thing we do. It means all the data and expertise created by our huge volunteer team effort is communicated through the proper channels, where it counts, making a difference in planning and policy at a national and international level. All this is done monthly at our Steering Group Meetings.

Legislation

SRT continue to use our unique disturbance dataset to campaign to **get seal disturbance made an offence** (as it is with whales and dolphins), either by **adding seals to the Wildlife and Countryside Act** or by adding the word **'disturbance'** to the **Conservation of Seals Act**. The **Joint Nature Conservation Committee** have already made the former a recommendation but this has yet to be ratified by government. So, we continue to raise awareness everywhere on this issue. See more below.



Campaigns

SRT had two key campaign topics for 2022: **Disturbance and Flying Rings**.

We continued to raise awareness about **seal disturbance** sharing case studies and information about impacts on seals in pretty much every presentation we delivered. In a concerted campaign with the **Seal Alliance**, the following key actions were taken to make **seal disturbance illegal** as it is with whales and dolphins. SRT and the Seal Alliance reprinted 25 **Give Seals Space signs** and 22,000 **Watching Seals Well leaflets**. In February SRT drafted an **Open Letter**, which was approved by the Seal Alliance and **signed by 34 organisations and personalities**. It was sent to Government, which gained a lot of media attention nationally through our partner Seal Alliance Groups and in the southwest. This was followed by SRT drafting a **10 Minute 'Seal Protection' Rule Bill**, which was used as a basis for a presentation by **MP for Chatham and Aylesford Tracey Crouch** on 06/02/22 in Westminster. She and Mary Tester from the **Thames Seal Watch** were delighted when this passed to a second reading.

SRT worked with the **Marine Mammal Disturbance Partnership** led by **Natural England's** Ophelie Humphrey and Claire Ludgate. Despite this group working towards paddle sports stickers, these have yet to be finalised, so SRT collaborated with volunteer **Cliff Davies from Looe Marine Conservation Group** to get **2000 paddle sports stickers** of our own designed and printed. This was followed by another **1000 customised stickers for Gower Seal Group** and **1000 customised stickers for The Seal Project in South Devon**. Thanks to all our amazing volunteers who got these distributed around everywhere so quickly.



We were excited and delighted when **Devon and Cornwall Police and the Marine Management Organisation** launched **Operation Seabird** in April at three sites across the southwest including at West Cornwall. This **landmark national project** has built substantially stronger and closer connections between statutory agencies and NGOs to raise awareness with businesses and the public about the sensitivities of the coastline and how simple changes can reduce the pressure faced by our unique wildlife.

Natural England continue to explore the possibilities for **Photo ID** to provide the evidence needed to **apply functional linkage to existing designated SSSIs and SACs** where seals are a monitored feature. They are also exploring the possibility of a **new SSSI** for offshore islands.

SRT launched their **Flying Ring** campaign spearheaded by Jenny Hobson from **Friends of Horsey Seals (FOHS)**. Volunteer graphic designer Aidan Botha designed **two flying rings**

posters with a matching **social media graphic** to go in the **FOHS's leaflet**. These were used to illustrate our call to action on this issue. **Standard letters** outlining the issue were customised for numerous different audiences to go with the posters and volunteers signed up to distribute them around the county. They approached **pet shops, vets, harbour authorities, local beach goods shops, supermarkets, national retailers, holiday letting agencies, schools, holiday parks, RNLI and NCI stations, national wholesalers and manufacturers**. We cannot thank volunteer Peter Perkins enough for single handedly ensuring pretty much all the Cornish Supermarkets and Vet Practices received this information with lots of positive results and feedback.

By the end of the year, we were celebrating the wider team effort made by **Friends of Horsey Seals, Gower Seal Group and SRT that saw flying rings being taken off the shelves at Tesco, Pets at Home and CVS Vets** along with **numerous small local outlets and retailers**, making our coastline safer for seals and other marine life.

Practical Conservation Actions

We worked with a range of partners to make the southwest a safer place for seals. Examples of the kinds of action taken included:

- Evidence was sent to the **St Ives, Newquay and Looe Harbour Masters** to enable action whenever our volunteers, or the public, recorded **tripper boat passengers feeding seals**.
- Work with **Newquay Marine Group** to engage with the **Rockall Expedition** who set up a **camping pod on Goose Rock** disturbing sea birds and seals. The visit was cut shorter than the team had originally planned.
- Hub engagement with the **Mevagissey Harbour Master** to discuss effective ways to share **best practice with boat owners and operators**.
- We engaged with **Falmouth Harbour Commissioners** when a seal began repeatedly **hauling out on a pontoon near their refuelling station**.
- Work with the **National Trust** and the **West Penwith North Hub** team to **use trail cameras to monitor seal disturbance** caused by clifftop activity. We then met with the Penwith National Trust team to explore the possibilities of **path closure and signage**.
- **Author Jo Mosley** asked for our advice about the wording for a '**being environmentally thoughtful and responsible**' section in her new book **Stand Up Paddleboarding in Great Britain**.
- Devon Wildlife Trust accepted the **criteria for the designation of County Wildlife Sites for seals** which can now be recommended during their next annual site review.
- Consulted with **Natural England** and the **Southwest Coast Path** team to devise **wildlife best practice key messaging for waymarker posts** – these were put up in 2022.
- The **Pentire, Roseland, Rumps and North Devon Hub** teams wrote **letters to operators** thanking them for their good practice and/or suggesting where appropriate other positive actions they could take to **minimise seal disturbance**.
- Gathering evidence of **fishing activity too close to sensitive seal sites** for the **Cornwall Inshore Fisheries and Conservation Authority** conservation team to action.

- The **North Cornwall Hub** team wrote to **Natural England** to provide evidence about **disturbance incidents affecting seals in the SSSI**.
- SRT contacted the **Ministry of Defence about low flying chinook helicopters at North and West Cornwall** with very positive results and we used the opportunity to remind flight crews about the **voluntary no fly zones over our sensitive seal sites**.
- We used **time lapse photography** to demonstrate to members of the public and statutory agencies just **how busy our sensitive seal sites get in terms of human activity in the summer**. One site had **powered crafts every 5.5 minutes** and another had **paddle crafts every 2 minutes**.
- We worked with **The Seal Project** to evidence and report the **feeding of seals by a fisher in Brixham Harbour**.
- We responded by **sending out information to numerous requests for advice and guidance for wild swimmers** when they are approached by seals around our coast.
- **BDMLR** led on the **compilation of an Open Letter to the Norwegian Government** about their **killing of Freya – an out of habitat walrus**.
- The **West Cornwall Hub** team continue to report **drone incidents to the National Trust** team for them to action with the pilots. Many pilots didn't realise that they needed a licence to fly on National Trust land. When told, they would pack up willingly and quickly.
- Thanks to swift action by the **Lizard Hub**, we were able to contact **Natural England** about the **coastpath remedial work** above a beach where a pup had been born. The work was postponed until the pup had weaned.
- The **Roseland National Trust** team put up sensitive site signs (not mentioning seals) aimed at encouraging people to stay on the coast path to reduce disturbance.
- The **North Cornwall National Trust** team erected an **awesome fence and accompanying signage** in collaboration with the **Pentire Hub** aimed at **reducing cliff top disturbance**. This proved effective for the majority of people who respected the messaging provided.



- The **Roseland Hub** team followed up **numerous land and sea based disturbance incidents** throughout the year by contacting the people causing the disturbance directly or indirectly via support from the local harbour authorities in Falmouth.
- **Dartmouth harbour** created and posted a webpage about the grey seal pupping season.
- **Multiple websites removed the specific names of sensitive seals sites** after SRT volunteers alerted the page admins to the risks this created for our seals.
- A partnership between the **National Trust, a Nudist Group, BDMLR and SRT** gave a **mum and pup the space needed** for the pup to successfully wean on an accessible public beach. BDMLR/SRT volunteer monitors enabled a south coast pup to wean successfully.



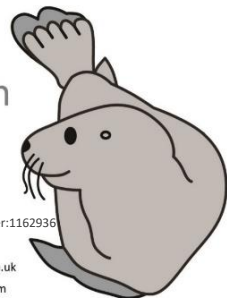
- **Natural England** put up **pupping signs at West Lizard** again this year once our volunteers alerted them to the presence of pups.
- **Lost fishing gear removals** from multiple beaches in many hub areas making them safer for all marine life. Special thanks to the **Roseland Hub** who engaged partners **Clean Ocean Sailing** to remove an entire gill net tier from rocks next to the haul out beach.
- Work with the **National Trust to display signs to manage people** around vulnerable moulted seal pups with requests for **temporary, voluntary beach closures**.
- Advice with **The Seal Project** was given to **MDL Marinas** about how to make their **new breakwater more seal friendly**.

Conclusion

It has been **another utterly incredible year for seal research, engagement and, ultimately, conservation**. Despite a smaller core Ranger team, our expanding volunteer conservation team have made this **our best year ever in terms of public engagement and positive interventions and actions**. Our ongoing, extensive survey effort provides masses of evidence for us to collate to tell everyone the stories that our seals are bringing to us on shore about the changing state of our seas. **Another epic team effort! Thank you!**

Let sleeping seals lie 😊

Seal
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