

Snowdrop's Rescue, Rehabilitation, Release and Post Release Monitoring

Rescue

The [British Divers Marine Life Rescue](#)'s (BDMLR) main rescue hotline received a telephone call from a member of the public who was concerned about a seal pup that the caller had come across / seen on the beach at Westward Ho in North Devon. The [BDMLR](#) area coordinator arranged for trained [BDMLR](#) marine mammal medics to observe and check the pup's condition.

The whitecoat seal pup was monitored for approximately 24 hours by [BDMLR](#) medics as she had been seen alone on the beach calling for her mum.

As there was no sign of mum, a decision was made to rescue her as she was underweight at 13kg, malnourished and had a few minor wounds to her flippers.

She was rescued on the 7th of November 2009 and transported by the [BDMLR](#) medics to the [RSPCA](#)'s West Hatch Wildlife Centre in Somerset for care and treatment. The pup was named Snowdrop after [RSPCA](#)'s 'wild flowers and plants' naming theme for the 2009/10 rescue season.

Rehabilitation

For the first 24 hours in the centre, the seal pup was given electrolytes to rehydrate her. As Snowdrop was less than three weeks old and a whitecoat pup, she was tube-fed with liquidised fish (fish soup) and a mixture of glucose and electrolyte solution, which has the texture of a thick milkshake and is the closest we can get to her mother's milk.

The fish soup contains vitamins and minerals, it is rich in protein and is fed directly into the pup's stomach via a tube. On reaching three weeks old, pups are gradually weaned on to whole fish. Often at this stage they have to be force-fed, but eventually the pups associate the fish being offered as the food they are calling out for.

Snowdrop stayed at the [RSPCA](#)'s centre for nearly two months. At that time the centre's outside rehabilitation pool was full, so along with three other rescued seal pups, Scarlet, Deadly Nightshade and Triffid, she was transferred to the [Cornish Seal Sanctuary](#) (CSS) in Gweek on the 20th of December 2009 for their next stage of rehabilitation.

When the pups first arrived at [CSS](#), they were put into the nursery pools to get used to water, gain further body weight and the strength and skills needed to ensure their safety when finally returned to the sea. After a few weeks, Snowdrop was moved into the deep convalescent pool for her final stage of rehabilitation and to learn how to dive.

Pups in the nursery pools and convalescent pools learn how to behave in the wild, interacting with other seals and also competing for their fish, which are all vital skills they will need when they are released back out into the wild.



Snowdrop in the convalescent pool – 25th February 2010

Snowdrop's [RSPCA](#) flipper ID tag number was 80006 (orange). [RSPCA](#) always ID their seals with orange tags with five-digit numbers. This is a small identification tag which is attached to the seal pup's rear flipper, left for a girl, right for a boy.

Rehabilitation is not always easy, some pups come to the [CSS](#) in a very bad way, so to see the transformations some of the pups go through is incredible.

Release

It is always a good day when the animal care team return the rescued seal pups back to the wild where they belong, but at the same time it is a bit emotional saying goodbye after being with them for three months or more.

When a seal pup reaches their ideal target release weight, it is time for them to return to the wild. On the 13th of April 2010, after a final weight check, it was decided the time had come for Snowdrop, along with other rescued seal pups, Angelina Johnson, Dumbledore, Lilly, Pomona Sprout and Petunia, to be returned to the wild. The pups were transferred

from the pool into the back of the [CSS](#)'s seal release trailer and then safely transported to their release location.

The [CSS](#) try to release pups back to a beach on the coast that they were rescued from. Snowdrop was released on the beach near Red River in St Ives Bay along the North Atlantic coast which is about 30 minutes' drive from the [CSS](#) in Gweek.

Post Release Monitoring

Post release monitoring provides information on survivorship, breeding, and lifelong movements. Initially the unique flipper tag helped [Cornwall Seal Group Research Trust \(CSGRT\)](#) build up a photo ID catalogue page of Snowdrop's unique fur pattern which then gets memorised by [CSGRT](#)'s photo ID volunteer teams. Over the years, the number wears off the tag and it becomes hidden as her rear flippers grows bigger, but [CSGRT](#) were able to continue to identify Snowdrop from her fur pattern. Traced rehabbed seals like Snowdrop can be accurately aged and we can learn fine scale data – for example about the individuality of seals in terms of size. Older seals are not always bigger. Snowdrop was 13 years old in November 2022.

By monitoring the behaviour of seals after release back into the wild, the [BDMLR](#), [CSS](#), and [CSGRT](#) can use this information to define the best practice standards and policies for rescue, rehabilitation and release that they can share with the international rescue community.

Find out more by reading our collaborative paper published about this work along with the [RSPCA](#) "Post release monitoring of rehabilitated grey seal pups over large temporal and spatial scales" (<https://doi/10.1111/mms.12885>). Available via this link:

https://drive.google.com/file/d/192Rv95k47Kyb-quko9U-wtDwzO365meP/view?usp=share_link

This data represents a huge team effort of 16 different sites in 8 different areas of Wales and Cornwall, with surveys carried by 30 different volunteers and 2 CASPIP boat survey teams over nearly 12 years since Snowdrop's release from the [CSS](#) in April 2010. In addition, multiple volunteers will have processed the survey photos in order to make all Snowdrop's IDs independently verifiable and scientifically robust. Then this information gets digitised ready for entry into a database (which was also designed and created by expert volunteers).

Seals across the southwest of England are oblivious to how lucky they are having a team of amazing volunteers giving them a voice and being wonderful ambassadors - sharing their stories with planning and policy decision makers, as well as raising public awareness.

For more information about the work of [CSGRT](#)'s multi award winning marine conservation charity visit their [website](#) or [sign up for free newsletters](#) and watch [talks on YouTube](#).



Photo Credit : Sue Sayer – [CSGRT](#) – 5th November 2011

Many seals on [CSGRT's](#) database are identified at multiple sites. [CSGRT](#) volunteer Photo ID Hub teams cover the whole of the southwest from Somerset to Dorset and south Wales.

A year after her release back into the wild, Snowdrop was first re-sighted in the wild hauled out on the 19th of March 2011 at the West Cornwall sensitive seal site. This photo above of Snowdrop was taken on the 5th of November 2011.

The map below shows Snowdrop's sightings in the southwest of England, and even into Wales, over the past 12 years since she was released back out in the wild in 2010.

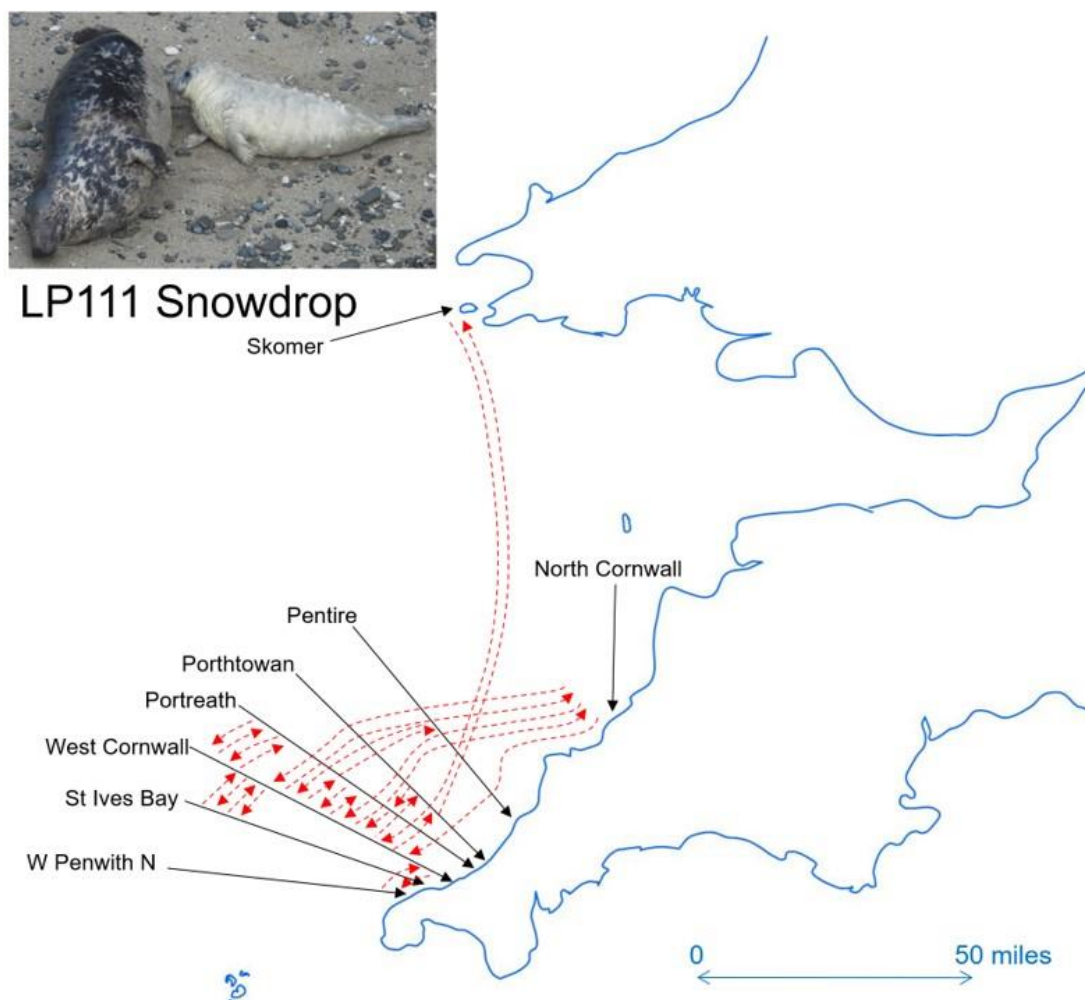




Photo Credit : Sue Sayer – [CSGRT](#) – 18th September 2014

So far, [CSGRT](#) has identified Snowdrop 152 times! Below is Snowdrop's sightings calendar – the numbers represent monthly ID confirmations showing when she was seen in the wild at a number of sites along the coasts of Wales and Cornwall. In total this covers a total area of 5261km², with a perimeter of 378km and a range of at least 87km west to east and 172km south to north.

LP111	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Jan			1	2	1			3	2	4	1	4	18
Feb			1	1		2	1	2	3	1	1	2	15
Mar				1		1			1		3	1	7
Apr			4		1	1		1	1	1	2	1	12
May	1	1	2				1						5
Skomer, Wales	1						1		4				6
North Cornwall	1	1	3	1		1	1						8
Pentire		1							3	3	1	1	9
Porthtowan	1			3			3	2			12		21
Portreath		5	3		2		2	1	3	1	4	3	25
West Cornwall	2						1	1	2	5	2		13
St Ives & St Ives Bay						1	1	2	3	4	2		13
West Penwith North	6	11	12	7	5	5	11	13	23	24	28	7	152

In October 2015 Snowdrop travelled to Skomer in Wales to have her first pup when she was six years old.



Photos Credit : Bee Beuche – [CSGRT](#) – 26th October 2015

At the age of eight, Snowdrop had her second pup, born on the 18th of September 2017 at the West Cornwall mainland beach – her pup was first sighted on the 24th of September 2017. By 5th of October 2017 it was seen again being fed by Snowdrop and was huge!



Photo Credit : Sue Sayer – [CSGRT](#) – 5th October 2017

The photo below of Snowdrop's third pup was taken within a few days of being born on the 24th of September 2018. You can just see the pup's umbilical cord still visible. After 5 days the umbilical cord will become dry and will naturally fall off. Super cute! This pup was successfully weaned and was even photographed fully moulted on 20th October 2018.



Photo Credit : Sue Sayer – [CSGRT](#) – 24th September 2018



Photo Credit : Katie Bellman – [CSGRT](#) – 16th June 2019 at Pentire

Snowdrop was seen a few months later resting at one of her favourite offshore summer haul outs at Pentire on the 16th of June 2019 basking in the summer sun! On the 29th of

December 2019, we did well to spot her as she was lying at the back of the beach sheltering from the winter elements in a cave entrance, but she looked comfortable!

If she had given birth in 2019, looking after her pup in September and October would have been exhausting for Snowdrop. Mums lose a third of their body weight feeding a pup.

Interestingly on the 28th of October 2019, Snowdrop was identified at one of the North Cornwall sites. So, there is a vague possibility that she had a pup somewhere up there.



Photo Credit : Mike Stephens – [CSGRT](#) volunteer – 28th October 2019



Photo Credit : Joyce & Barry Williams – [CSS](#) – [CSGRT](#) – [BDMLR](#) volunteers
– 29th December 2019

In the winter and early spring, seals will spend more time ashore whilst they moult and put their energy into growing a completely new fur coat.



Photo Credit : Sue Sayer – [CSGRT](#) – 14th April 2020

By her next sighting, Snowdrop was looking chunky and likely pregnant. Fat is good and important in the seal world as it increases their chances of survival hugely!

As you can see from the photo below, by 22nd of August 2020 Snowdrop looked very heavily pregnant, although relaxing at the West Cornwall haul-out.



Photo Credit : Sue Sayer and Kate Hockley – [CSGRT](#) – 22nd August 2020

Unfortunately, despite knowing she was pregnant, there were no sighting or photos of Snowdrop or her pup in September or October 2020. We hope all went well.

By the following year, towards the end of August, Snowdrop was seen getting some unwanted attention from an adult male seal approaching her from the sea. All she wanted to do was relax on the rocks as she was very pregnant, so she told him to 'Get lost'.



Photo Credit : Kate Williams – [CSGRT](#) – 24th August 2021 – Portreath

We were delighted when Snowdrop was next seen on the 13th of September 2021. She was feeding her new born pup and on the 27th of September 2021, she was also observed feeding her approximately 10 days old pup. What a delight! Once again her pup was washed out by a spring high tide and big seas from the pupping site to an adjacent beach, but Snowdrop had seen this happen and quickly followed her pup. What a great mum!

Whitecoat pups can swim, but this is a very risky activity as they are not strong enough to withstand wild seas and currents and can easily become separated from their mums.

Here is a [link](#) to watch a short video on [YouTube](#) of Snowdrop feeding her 10 day old pup.



Photo Credit : Sue Sayer – [CSGRT](#) – 13th September 2021

Over the years our records show that Snowdrop had one pup in Wales and three pups in Cornwall. We think she has had at least one more pup, but we know not where!



Photo Credit : Kate Williams – [CSGRT](#) – 5th April 2022 – Portreath

The more recent sighting of Snowdrop was on the 22nd of October 2022 back at the West Cornwall sensitive seal site.

For us it is interesting that in the past three years, since 2020, she has not been seen during the period of May to July inclusive at her usual summer haul out sites.

Snowdrop is such an amazingly well travelled seal, commuting between Pembrokeshire in Wales and West Penwith, stopping off on the way at different haul out sites to rest.

What a wonderful and uplifting story of survival and resilience despite her hard start in life!

Three Seal Seasons – All shifting as a result of “Climate Change”

Sadly seal disturbance is a key issue all year round and this is why:-

Pupping – August to December. Peak October and September. Specific pupping sites become used that are not occupied for the rest of the year (although pups do get born outside of these sites too). Mums and pups are extremely vulnerable to disturbance.

Moulting – November to May. Smaller number of critically important onshore mainland moulting sites. Fewer sites with largest congregations of seals. All seals are super sensitive to heat and energy loss at this time.

Foraging – May to September. Larger number of offshore resting sites with smaller congregations of seals. Heavily pregnant mums and beachmasters need to build up

energy reserves whilst many juveniles are having their first annual moult. [CSGRT](#) think that each seal probably has its own unique combination of different pupping / moulting / foraging sites that it migrates around during the year.

A Seal's annual calendar is divided up into three main seasons a year and all are key to the seal's survival as a species:-

The pupping season – This begins in August and continues until December in Cornwall, although white coated seal pups have been observed in every month of the calendar year. Since the [CSGRT](#)'s first surveys, the pupping season has moved earlier and become shorter, so most pups are now born in September and October. **KEY PRESSURES** – maternally dependent pups may be left by mothers who are too worried to feed their pups so feed times are missed (each feed is approximately 1% of a pup's nutrition). Pupping season overlaps with October half term school holiday, so please be extra careful when out and about in places known for seals.

The moulting season – This overlaps with the pupping season and begins as individual adults finish breeding and continues until May. Females moult first after weaning their pup, followed by males. Juveniles can even be seen moulting in the summer. Seals are at their most physically vulnerable, as they lose and replace all their fur which saps huge amounts of their energy. As they spend more of their time on land growing their fur, with blood closer to their skin surface, they are more vulnerable to cold shock and injuries arising from disturbance flushing them into the sea. **KEY PRESSURES** – this is the time of year with the largest number of seals hauled on mainland beaches. This make disturbance more likely – it only takes one seal to be spooked to cause a domino effect stampede. This seal season overlaps with Christmas, Easter and the Spring half term school holidays and our 'shoulder' tourist seasons. So please be vigilant and give seals space when around coastal seal sites.

An offshore foraging season – Seals feed all year round, but their main period for focusing on food and fattening up is between June and August in readiness for breeding. At this time, the mainland haul-out beaches are used less, in favour of more remote offshore haul outs, which become popular as they are presumably closer to rich foraging grounds. Seals that are distracted from feeding by us may not have the energy reserves required to survive the pupping season and their pups may not survive their first winter. **KEY PRESSURES** – human activity around the coast peaks in the summer and offshore islands are magnetic attractions for our attention and visits. Water activities peak – swimming, diving, snorkelling, paddle sports and boating as well as tourist tripper boats.

This overlaps with the school summer holidays. Please always use accredited Wildlife Safe (WISE scheme) tripper boats and ask what the skipper does to minimise seal disturbance before booking yourself a seat!



Photo Credit : Sue Sayer – [CSGRT](#) – 3rd October 2022

The wonderful news is...Snowdrop is still being ID'd today after 12 amazing years in the wild!!! Healthy and thriving. What a wonderful tribute to the inspiring volunteer [BDMLR](#) rescue teams and the [CSS](#) and [RSPCA](#) Animal Care Teams' wonderful treatment protocols. Without them, [CSGRT](#) volunteers would not be able to enjoy seeing her out in the wild – it is always a treat that makes us smile!

Thank you for caring and helping us to protect our globally rare, UK speciality, wild seals.

Case Study for Snowdrop was produced by Joyce and Barry Williams

Reviewed / Edited by Sue Sayer – CSGRT

Words by Sue Sayer - CSGRT / Joyce Williams CSS & CSGRT volunteer

Websites:

BDMLR <https://bdmlr.org.uk/>

CSGRT <http://www.cornwallsealgroup.co.uk/> and <http://sealresearchtrust.com/>

CSS <https://sealsanctuary.sealifetrust.org/en/> <https://www.sealsanctuary.co.uk/corn1.html>

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