



# Winter welcome

THE SIGHTS AND SOUNDS OF THE SOLWAY FIRTH'S BARNACLE GEESE ARE AN UNFORGETTABLE WILDLIFE EXPERIENCE. AND THE STORY OF THEIR SUCCESS IS EQUALLY STIRRING, WRITES **TOM LANGLANDS** 

PHOTOGRAPHY: TOM LANGLANDS

**I**t is a cold, crisp winter day. Over the still water and glistening mudflats of the Solway estuary the snow-capped hills of the Lake District blush pink in the early morning light. To the west, Criffell pushes through brushstrokes of low-lying mist while the panorama extends northwards and eastwards until the distant horizon undulates with the hills around Moffat, Eskdalemuir and Langholm. From my elevated position within a tower on the Wildfowl and Wetland Trust reserve at Caerlaverock it is the vastness of the scene, sparkling in its crust of frost, that impresses me.

Out on the estuary, thousands of geese have been roosting overnight. Gradually the rising sun ignites the wet sands, warming the cool blues and greys until they burn orange and red, scattering the birds like glowing embers high into the sky. Now they head towards me, wave upon wave of cackling, yapping geese. Some streak past my vantage point, providing a wonderful view of flapping wings and honking beaks as they search out feeding grounds inland. Others have spotted the thawing fields below the tower and spiral around for another look. More geese are drawn into the vortex until the sky is a giant spinning wheel of birds. Bending and tipping their wings they spill air, descending in ever decreasing circles until they reach the ground.

**Remarkable**

They are beautifully striped in black, white and grey and, once landed, call to mind a herd of miniature zebras as they graze their way across the Solway plain. These are barnacle geese and they have flown 1,800 miles from their summer breeding grounds on the Svalbard archipelago, high in the Arctic Circle, to winter in this corner of Scotland. It is an incredible journey and an amazing story of survival.

All the barnacle geese that spend the winter in the UK and Ireland come from Greenland or Svalbard, half-way between Norway and the North Pole. All the Greenland birds migrate to Ireland or the Hebrides, with Islay hosting the largest single population. The 30,000-35,000 barnacle geese that visit the Solway Firth come from Svalbard and although the smallest of the world's barnacle populations, they still account for 20-30 per cent of the total UK number. This is remarkable, for in the years immediately following the Second World War only about 300 barnacle geese were found around Caerlaverock.

Barnacle geese, so named because they were once thought to emerge from barnacles on driftwood, eat grass and other moist green shoots.

As grazing birds, they need to feed continuously throughout winter in order to lay down sufficient fat reserves for the long return journey to the Svalbard summer breeding grounds. They may even need to rely further on these reserves, depending on conditions when they arrive there. During the Second World War the Solway area was used by the military for the production, and testing, of explosives. Additionally, wildfowlers, fishers, farmers and conservationists used the area. Demands on the land were uncontrolled and the wildlife was continually disturbed. Fewer birds survived to make the return journey to Svalbard and consequently, fewer were born. The population plummeted.



“BENDING AND TIPPING THEIR WINGS, THE GEESE SPILL AIR, DESCENDING IN EVER DECREASING CIRCLES UNTIL THEY REACH THE GROUND”





The great naturalist Peter Scott, who founded the Wildfowl and Wetland Trust in 1946, was a regular visitor to the Caerlaverock area. He worked with the landowner, the Duke of Norfolk, and others to establish clearly defined zones, founded on good conservation principles, for the disparate interests of all those who used the area. The result was the founding of the Caerlaverock National Nature Reserve in 1957 and subsequently, the Trust's Caerlaverock Wetland Centre in 1970.

#### Increase

Barnacle geese are a maritime species, spending the night on the estuarine waters or mudflats. They leave their roost sites at dawn, only moving inland short distances to find suitable grazing. This can put them into conflict with local farmers. The species is protected throughout its range, and Scottish Natural Heritage operates a goose management scheme, whereby farmers can be paid to retain grazing and not disturb the geese. The Caerlaverock area now provides the birds with undisturbed grazing and enhanced natural

habitats. The benefit is a massive increase in the barnacle goose population as well as an improved environment for the greylag and pinkfooted geese and other wildfowl that migrate here.

The study of barnacle geese is one of the longest running of any migratory bird species with the first birds ringed by the Trust in the early 1960s. International monitoring of ring numbers provided early evidence of the different populations and their respective breeding grounds.

Almost all of the Svalbard population spends the summer months on the western island of Spitsbergen, benefiting from the currents of the Gulf Stream. As the arctic winter descends in September and October the geese begin their long journey south. Most will pause on Bear Island, mid-way to Norway. From there they continue south onto the Norwegian coastline before making the final haul across the North Sea, appearing at Caerlaverock from early October. Here they remain until April or May. This is longer than most goose species and reduces their summer breeding season to four months.



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Above: the sight of the barnacle geese in flight is spectacular. Left and previous page: ground around Caerlaverock provides the geese with superb grazing

**D** Brian Morrell is centre manager at Caerlaverock and I ask him why the birds make this epic journey, rather than breeding in Scotland in less harsh conditions. He explains that the remoteness and isolation of the breeding grounds gives new birds better odds of survival. There is simply too much activity around the Solway to make the geese feel comfortable or safe.

Morrell, who has followed the geese to Svalbard four times, says: "Fitness, fat reserves and timing of the journey are all key to successful breeding."

#### Advances

He adds that in recent years technological advances have allowed some birds to be fitted with satellite tracking devices and this has revealed more about migration routes and journey times.

It is now known that many birds leaving Caerlaverock in spring pause at the top of Norway until conditions enable them to push straight for Svalbard. Others delay their departure by about two weeks and endeavour to minimise their stopover in Norway. Morrell notes that one goose, named Braveheart by local schoolchildren, made the entire journey in a single non-stop flight of 48 hours. Sadly, not all journeys end successfully and on each leg of the migration one bird in 20 may perish.





Once in Svalbard, it is a race against time with new arrivals hurriedly seeking suitable nest sites. These fall into two distinct groups – island and cliff sites. Morrell has witnessed both and says the reasons why some birds choose one type of site over the other are not yet understood. Within a week of arriving, and once a nest has been prepared from vegetation and down, the female lays her clutch of between three and five eggs and incubates them for 24 to 25 days. During this time the male stands guard to protect the eggs from predators such as skuas, gulls and arctic foxes. But there is a new and more worrying threat.

As the geese arrive, the polar bears, which also frequent these parts, should be following the colder weather north, searching out seal and other animals. Over the last decade, warming seas and thinning ice have trapped polar bears on the islands in the summer months. To avoid starvation, the bears are turning to the eggs and young of breeding birds, including barnacle geese. A mother bear and cub can quickly consume hundreds of eggs and yet still be unlikely to gain enough nourishment to survive. In these circumstances the cliff breeders fare better.

## “ONE BIRD MADE THE ENTIRE SPRING JOURNEY FROM CAERLAVEROCK TO SVALBARD IN 48 HOURS”

Once hatched, the immediate priority is to get the goslings to feeding grounds. For cliff breeders this involves a dangerous first flight, with youngsters bouncing over hard rocks, entrusting their survival to a thick coat of down. For some it proves inadequate and arctic foxes scavenge among the dead and injured. Island breeders face an icy swim across the sea. In either case the priority is to lead the chicks to grazing areas, which must be near to lakes for protection from predators. Those that survive these early weeks will fledge in another 40 to 45 days and, led by their parents, will make their first winter migration to the Solway Firth three to four months after hatching.

### Stunning

As the geese arrive in winter, Caerlaverock comes alive, offering an amazing insight into the world of these Arctic travellers. The site has four towers, three of which are combined with large observation hides, providing stunning views across the landscape, and a further three large hides offer vantage points at ground or water level. Most days there are guides in the hides, and expert advice is readily available. The barnacle geese are generally found between dawn and dusk on surrounding fields and wetlands with frequent “lifts” of geese providing an additional sight and sound spectacular. A reasonable pair of binoculars will enhance

Above: Brian Morrell with a barnacle goose chick in Svalbard. Left: whooper swans are among the other birds that spend the winter on the Caerlaverock reserve

the experience, although screened-approach pathways, with their many two-person vantage hides, mean the naked eye is often enough.

The reserve also offers a monthly dawn flight experience,

allowing visitors to see at first hand the spectacular rise of the geese from their overnight roost sites.

In addition to the barnacle geese, the reserve is also winter home to many other migratory birds, including 200–300 Icelandic whooper swans, some of which will take advantage of a twice-daily feed in front of the new Peter Scott Observatory. Opened in October this year, it enables visitors to get within a few metres of the birds.

Winter is here, and there are few places to match the magic of Caerlaverock. ■

## Visiting Caerlaverock



Caerlaverock is the most northerly of the nine wetland centres cared for by the Wildfowl and Wetland Trust, and the only one in Scotland.

The reserve, covering more than 600 hectares, is nine miles south-east of Dumfries, and can be reached from the town on Stagecoach bus D6A. It opened in 1970 and welcomes visitors every day except Christmas Day. At a special event on 1 January you can compete in the Ne'erday Bird Race, starting at 10am. See how many species you can spot – can you beat the warden? £5/£10 – call number below for more details.

Guests can stay on the reserve at Eastpark farmhouse, which has an observation tower and badger feeding station, two family bedrooms, two double bedrooms and one twin bedroom. The house, which has a lounge, kitchen and laundry, is pictured above right, with the new Peter Scott Observatory to the left.

There is a café selling light meals and snacks and a shop selling wildlife books and gifts.

after the 2pm swan feed, staff levels permitting.

Access for disabled people is good, with level paths, no gates, no steps to ground floors of hides, and a wheelchair available.

Wildlife on the reserve includes the rare tadpole shrimp, which is a 200-million-year-old species, one of the earth's oldest. The shrimps, discovered at Caerlaverock in 2004, had been thought to exist in only one place in the UK, a pond in Hampshire.

Osprey can be seen on the reserve from early April to September, and six chicks have fledged since 2006.

Caerlaverock Castle, a 13th-century triangular castle with a moat, pictured below, is three miles away and is open all year. It is cared for by Historic Scotland and has an adventure park and nature trail.

WWT Caerlaverock Wetland Centre, Eastpark Farm, Caerlaverock, Dumfries-shire DG1 4RS, tel 01387 770200. For more information see [www.wwt.org.uk](http://www.wwt.org.uk)

A guided walk is held every day

