

# ALTCAR TRAINING CAMP



A unique wildlife habitat on the Sefton Coast





# FOREWORD

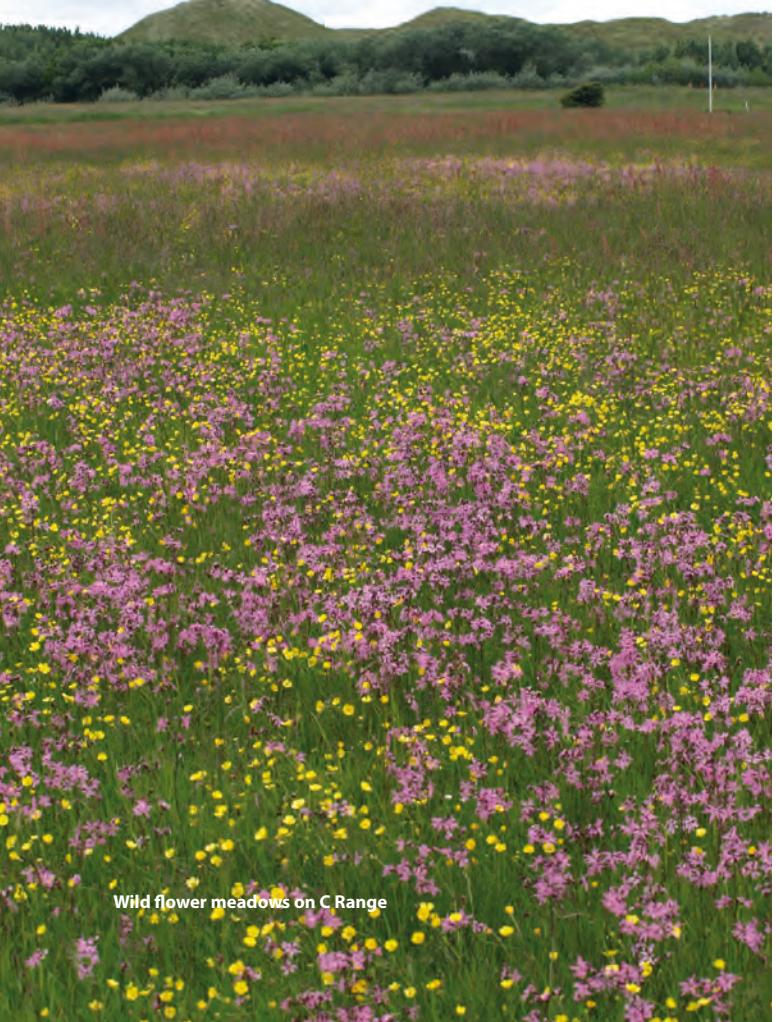
Altcar Training Camp is owned and managed by the Reserve Forces and Cadets Association for the North West of England and the Isle of Man as one of the UK's premier facilities for small arms marksmanship training.

In any year over thirty five thousand soldiers learn their rifle skills at Altcar before being deployed to military activity throughout the world.

Altcar Training Camp is also part of the Sefton Coast, a wild stretch of beaches, dunes and woodlands lying between Liverpool and Southport. This is the largest dune system in England and an area of immense biodiversity value, home to many rare species and

unique habitats. As part of this coast Altcar is a genuine sanctuary for nature, the foreshore danger area giving protection to thousands of passage and over-wintering birds, the dunes a home to internationally protected species such as the Sand Lizard and Natterjack Toad and the more recent woodland plantations harbouring the nationally rare Red Squirrel.

Since 1977, a Conservation Advisory Group has supported the management of the Altcar estate, giving advice to ensure that nature conservation sits alongside military training. The Altcar Training Camp lies partly within the Sefton Coast Special Area of Conservation, the highest European nature conservation designation.



Wild flower meadows on C Range

It also lies within an area of high cultural and historic value and in recent years there has been increasing interest in the landscape of the Sefton Coast and how this can be protected.

One of the key aspects of the work of the Conservation Advisory Group is the voluntary and partnership approach which is supported by RFCA. For example, careful management practice by the RFCA with the help of the Conservation Advisory Group has created fields of rare orchids and provided homes for Brown Hares, bats and owls. The Conservation Advisory Group is largely made up of volunteers who offer their expertise for the benefit of the area. Their contributions are acknowledged through the publication of this booklet.

The booklet is also published to mark the 150th anniversary of the establishment of the Altcar Rifle Range in 1860 and I hope that you will enjoy reading about the history and wildlife of this wonderful area.

All donations received through the distribution of the booklet will be given to the Help for Heroes campaign.

*John Houston*

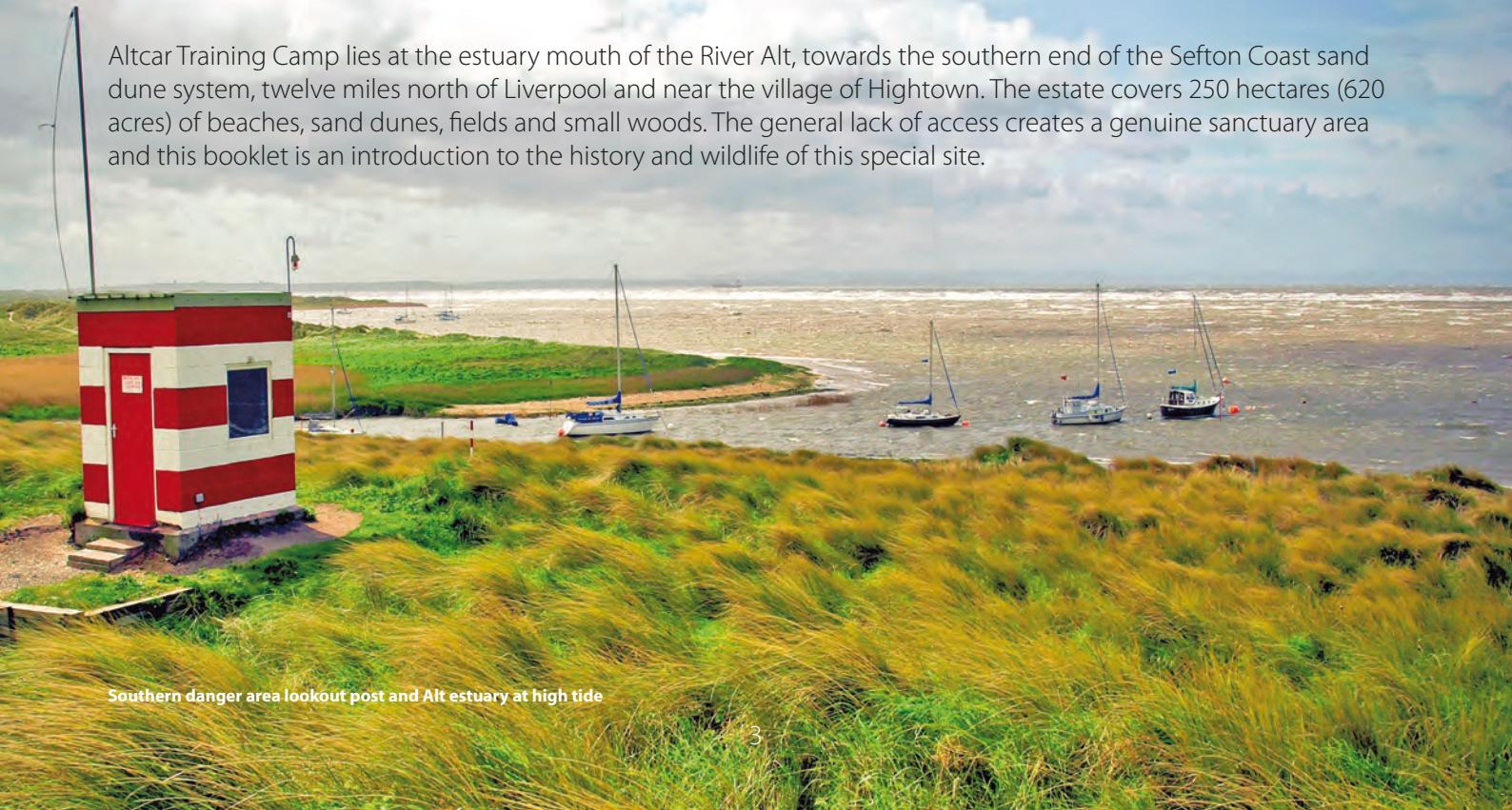
Chairman  
Conservation Advisory Group



# ALTCAR TRAINING CAMP

## ITS HISTORY & WILDLIFE

Altcar Training Camp lies at the estuary mouth of the River Alt, towards the southern end of the Sefton Coast sand dune system, twelve miles north of Liverpool and near the village of Hightown. The estate covers 250 hectares (620 acres) of beaches, sand dunes, fields and small woods. The general lack of access creates a genuine sanctuary area and this booklet is an introduction to the history and wildlife of this special site.



Southern danger area lookout post and Alt estuary at high tide



Excavation of early Neolithic wooden trackway at Altmouth by National Museums Liverpool

The earliest evidence for human activity in the area comes from flint tools of the Mesolithic era (middle Stone Age: 5,000 – 9,000 years ago) recovered from the mosslands fringing the river Alt. The people were hunter-gatherers who would have come seasonally from higher land to the east, crossing the moss to take advantage of the rich harvest of fish, shellfish and seabirds on the coast. Animal and human footprints have been discovered on the shore around Formby Point and a wooden track-way, running across what would have been a marshy landscape towards the sea, has been found on the beach at Hightown.

During the Bronze Age, around 1,500 – 2,000 years ago, people began to cultivate the mosslands; evidence for this has been found in pollen grains preserved in peat at Little Crosby. However, documentary evidence for people living in the area comes from no earlier than the early 13th century. By 1265 – 1293 the monks of Stanlow Abbey (subsequently Whalley Abbey) had established a grange on land granted to them by William Blundell of Ince Blundell. They were allowed to build a watermill on the Alt and were given pasture for their sheep and cattle, oxen and plough horses on land that had been ditched and drained.



Late Mesolithic (5000 year old) sediment exposed at Formby Point

This estate remained with Whalley Abbey until 1537 when the monastery was dissolved by Henry VIII. The king granted Alt Grange to Thomas Holt in 1543 but

within months the Molyneux family of Sefton had bought the property. A branch of the family continued to live there and in 1769 the Grange was leased to Thomas Seel, a relative by marriage. At that time the Alt floodgates were almost due north of the farm buildings and west of the landmark (the site of the later lighthouse) built fifty years earlier, in 1721.

The Grange was leased out. Between 1841 and 1851 it was probably Margaret Westhead who was living there, farming 200 acres and employing twelve labourers and four boys. At the same time, another property at Altcar was occupied by a fisherman, Joseph Formby, and his family. By 1861, when the Rifle Range was being established, the number of families living in the area had increased and, it seems, new accommodation had been built near the Grange. The estate, now of 500 acres was managed by Stodart Robert Clarke.

By 1871, and for the following 30 years, Thomas Rushton and his family lived Alt Grange. His farm covered 230 acres, confirming that the 500 acres of Mr Clarke's tenure ten years earlier had included that on the west bank of the Alt which by then formed the Altcar Rifle Range.

# THE BUILDINGS AT ALT GRANGE



Depth of the wall as seen from above

2007 archaeology survey team from King George V College, Southport

At Alt Grange the buildings stand on a low sandy 'island' bounded on the north and west by the meandering Alt and the open sea and with drained mosslands to the east and south. The low-lying lands were subject to flooding and in 1589 a Duchy of Lancaster Commission enquired into the danger of 'the breakinge oute of the sea banckes called Altemouthe'. It was recommended that the banks should be strengthened by building a stone wall 10 feet high and nearly two-thirds of a mile long at a cost of £600. It is, perhaps the remains of this wall, or of its successor built in the late 18th century as part of the flood prevention measures following the Alt Drainage Act of 1779, that have been discovered a short distance to the west of Grange Farm house. A substantial sandstone revetment, 1.65m wide, rises to a height of 1.2m and runs on a north-south orientation for over 50m. Sandstone flags slope down away from the base of the wall. It was, perhaps, some of this revetment that was exposed and dismantled in 1908–1909 when stonework 230 feet long and 6 feet high was removed during dredging 'below Alt Grange'.

The present Grange Farm house dates from 1795 and it presumably replaced an earlier dwelling. The only surviving evidence for earlier buildings can today be seen in the sandstone foundations of the massive barn, now a Grade II listed building, which stands to the east of the farmhouse. Perhaps originally timber-framed, the barn had probably been rebuilt using hand-made bricks after the estate passed to the Molyneux family in the 16th century. Its large central doorways either side of the threshing floor would have allowed carts to pass easily from one side of the barn to the other. The upper floor would have been used for storage though it has been claimed that there is some evidence of a first floor or 'solar' that could have been used as domestic offices or for sleeping.

The remote position of the Grange also made it an ideal landing place for smuggled goods. In the early 18th century, the diaries of Nicholas Blundell of Little Crosby hint at concealment of brandy and wine in the houses of local people including Mr Molyneux of the Grange!



Original sandstone foundations of present-day barn

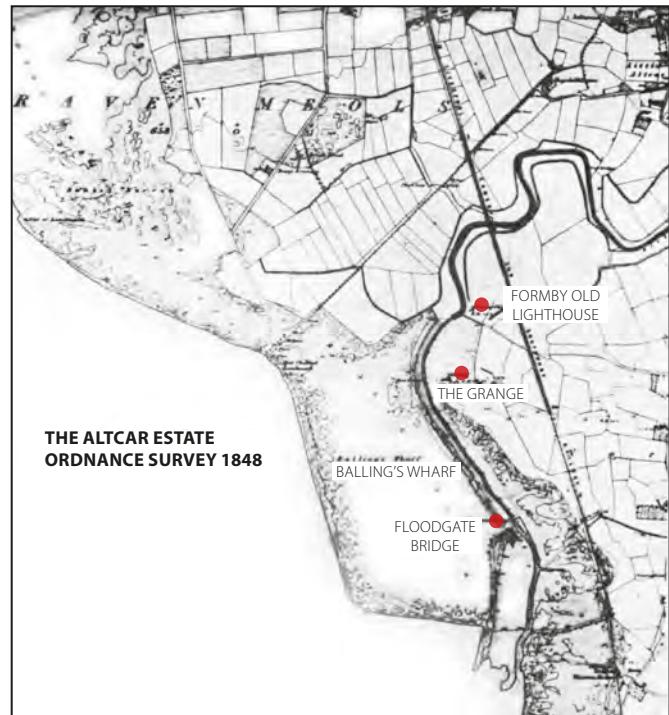


The Grange has also had a long association with Catholicism. During periods of persecution in the 16th and 17th centuries it was used as a chapel. Secret masses were held and there are stories of covert landings and embarkations by Roman Catholic priests and Royalist and Irish sympathisers. In the barn, on

either side of the south door, niches in the stonework may have been used as stoups for holy water. Another explanation is that these recesses were a safe place to rest tallow candles or lanterns. In the early 20th century a silver chalice and a metal plaque depicting The Last Supper were discovered.

# THE RIFLE RANGE AT BALLING'S WHARF

The Rifle Range on the west bank of the Alt was established in 1860 on land known as Balling's Wharf which had developed on the seaward side of the river as sandy spits accumulated and gradually filled a lagoon. The process can be traced on navigation charts and maps dating from the early 18th century and the rate of accumulation probably increased after 1779 when Commissioners were appointed in an attempt to resolve the problems of flooding in the Alt valley by embanking the river, draining the marshes and bringing the land into cultivation. Mr Gilbert, builder of the Bridgewater Canal, was drafted in as an adviser. The problem of sand drifting southwards from Formby Point and blocking the river was solved by planting bundles of gorse to trap the sand and by the planting of 'starr grass' (the local name for Marram grass). The process was more or less complete by 1848–9 when the first large scale Ordnance Survey map was published. By 1855, 150 acres had been won from the sand flats and this was leased as grazing land.



In 1859 Britain was once again threatened by invasion by France. In response the War Office encouraged the formation of local volunteer artillery and rifle corps. One of these groups, the 5th Lancashire Rifle Volunteer Corps was established by Lieutenant-



Lieutenant-Colonel Robert Gladstone

Colonel Robert Gladstone and in his search for a suitable training area he was invited by the Alt Commissioners to consider the land at Balling's Wharf. The tenant, Mr Clarke, who had found the land poor for grazing, was happy to oblige in setting up the a rifle range and the lease was arranged with the landlord, William Molyneux, the fourth Earl of Sefton.

The reclaimed land was uneven, waterlogged and access was difficult. To make it suitable as a rifle range it was partially levelled and drained. On 28 July 1860 one target of 1100 yards was available and the first shot was fired by the Earl, Lord Sefton.

The range was first used in earnest on the 20th October 1860, for the Grand Lancashire Rifle Contest. To assist with the development of the ranges Lord Sefton allowed access across the Alt floodgates and the Altcar Range Halt was constructed (the remains can still be seen from the coastal footpath on the estate boundary). In 1861 the census return notes that Henry Swift, a railway labourer, was living 'near the Grange' with his family.

Further land was rented from Lord Sefton in February 1862, to provide a rifle range for all Liverpool volunteer units. The 1871 Census shows that 23 newcomers were living in four properties on the 'Altcar Rifle Range'. An Irishman, Joseph North, lived with his family at the Superintendent's House. The 'Canteen' was occupied by the housekeeper, barmaid and a general servant and a Coast Brigade Bombardier and three Royal Artillery Gunners were living in the 'Bombardier's Hut'.

In 1885 Lord Sefton made an agreement with the Secretary of State for War for the use of the range by the Regular Army and the Militia but ensured that its use was subject to accommodating the volunteers, it being for their 'special use'. The census return for 1891 shows Colonel Robert S. Shinkivin, an Irishman commanding the Mersey T.V. Brigade living at 'The Shanty' with his family and two servants.

The river was crossed at two points. At Floodgates Bridge a group of buildings, probably including the canteen, lay at the south end of a tramway that ran northwards to a second crossing point near the Grange. East of the river, and almost directly in line with Floodgates Bridge was the Altcar Rifle Range Halt. The rented land west of the River Alt and that between the River Alt and the railway were sold by the Earl of Sefton to the West Lancashire Territorial Association in 1912 for £88,301. The following year 500 acres of foreshore was purchased from Mr F N Blundell of Little Crosby to provide a suitable danger area.

When the Altcar Rifle Range estate was purchased it included 500 acres of farmland, a pair of semi-detached farm workers cottages, Grange Farm House and the disused lighthouse and cottage.



Formby old lighthouse

The 150 acres west of the River Alt had already been converted to ranges, a further 125 acres between the river and the railway had been gradually developed as a camp and the remaining area was leased to a local farmer until 1992 when it was developed as a 'dry' training area (a training area using no live ammunition).

Marksmanship practice is carried out by both soldiers and civilians. During the First World War two hatted camps, 'A' and 'B' camps were built for the Command Musketry School. Between the Wars, 'B' camp was used for weekend training by the West Lancashire Territorial Army Units.

There are a variety of ranges, the most modern of which use electronic targets. There is an interesting collection of rifle club-houses, several dating from the late 19th century and including colonial-style verandas and stained glass windows. The Forbes Hut originally used by the Liverpool Scottish Regiment can be identified by the Thistle and Cross of St Andrew depicted in stained glass.

The drainage work of the adjacent moss lands continued throughout the 19th and 20th centuries; a pumping station was installed and the river was



Canalised section of the river Alt

canalised and embanked, and feeder ditches were dug. In this way the moss lands were drained and converted into a productive agricultural area.

As the military estate developed, a variety of mainly brick buildings have been constructed, dating back to 1865. Four modern bridges span the River Alt including two Bailey bridges. A tree planting programme which started in 1938 was completed in 2011.

Originally, the Altcar Range Committee was responsible for both the ranges and the camp. However, in 1966 the camp was handed over to the Regular Army HQ North West District and in 1970 it was re-named Altcar Training Camp. However, under a further reorganisation in 1999 the Camp and Training Areas were returned to NWRFCA.

# LANDSCAPE & WILDLIFE



Altcar dune ridges, covered with Marram grass, looking north

Due to its wide range of habitats and relative lack of disturbance, the Altcar Training Camp is particularly rich in wildlife. It forms part of the Sefton Coast sand-dune system, the largest in England and one of the most important dune areas in Europe.

The foreshore and dune area is of international importance and is protected as part of the Sefton Coast Site of Special Scientific Interest (SSSI). The meadows, ponds and woods which make up the remainder of the estate are listed as a Site of Local Biological Interest by Sefton Council.



Breeding habitat for Natterjack Toad

# FORESHORE

The Alt Estuary foreshore is part of a series of internationally important estuaries in northwest England for migrating waterfowl, most of which breed in the high Arctic and spend the winter on our mild shores feeding on worms, molluscs and shrimps. 50,000 birds are regularly present, with numbers of Knot, Bar-tailed Godwit, Grey Plover, Sanderling, Redshank and Pink-footed Goose being particularly notable. Since 1969, they have been counted each month by volunteers as part of the nationally co-ordinated Wetland Bird Survey. The large flocks at Altcar are best seen between autumn and spring on a rising tide from the shore at Hightown or Ravenmeols.



# THE RIVER ALT ESTUARY

The River Alt rises in Huyton, twelve miles from the pumping station at Altcar. There are over 75km of rivers streams and brooks in its catchment and water quality has improved dramatically in recent years thanks to remedial works carried out by United Utilities. Coarse fish can now be found in most of the river system. Originally, the Alt ran out to sea 1km north of its present position but it was diverted south by land reclamation and siltation from the late 18th century onwards.



Where the river emerges from the sand-dunes at Hightown, an interesting area of salt-marsh has formed, including such plants as Glasswort, Common Saltmarsh-grass, Sea Plantain and Sea Aster. The salt-marsh is backed by a large reed-bed. From here, there is a wonderful panorama to the south towards Liverpool and Wirral, while on a clear day you can see the coast of north Wales and the mountains of Snowdonia.



Saltmarsh at Hightown



Glasswort (left) (*Salicornia dolichostachya*) and Glasswort (right) (*Salicornia ramosissima*)



Formby channel roost

# FLORA & FAUNA

The dunes at Altcar continue to build out seawards by trapping sand and developing vegetation. At the top of the beach annual strandline vegetation develops and, by late summer, this includes plants such as Sea Rocket, Prickly Saltwort and Spear-leaved Orache. On warm summer nights Natterjack Toads can be found hunting for invertebrates in the strandline debris.



Female Natterjack Toad (*Epidalea calamita*)



Prickly Saltwort (*Salsola kali*)



Sea Rocket (*Cakile maritima*)



Sea Holly (*Eryngium maritimum*)



Male Sand Lizard (*Lacerta agilis*)

Blown sand builds up around any solid objects on the standline, from seaweed to drift wood. As the sand piles up, dune grasses such as Sand Couch and the exotic-looking Lyme-grass are able to gain a foothold and trap more sand around their shoots.

Beyond this pioneer zone, the main dune-building grass, Marram, dominates the mobile-dune stage. It can grow up through as much as a metre of sand a year, helping to bind the sand with a network of roots and underground stems. In gaps between the Marram tussocks, drought resistant Sea Holly and Sea Spurge can be found.

Natterjack Toads inhabit the mobile-dunes, burrowing into the sand to escape the heat of the day and emerging at night to feed on invertebrates. Their tracks can sometimes be seen on damp sand. Shallow breeding-pools have been dug on the dry training-area. Another great rarity, the Sand Lizard, also occurs in the mobile-dunes, but in very small numbers; the males are larger and greener than the Common Lizard which is more often seen on the estate.

On warm summer days the nationally rare, predatory Northern Dune Tiger Beetle may be seen on sandy tracks. When disturbed it flies a short distance or runs away at speed. Another scarce insect, the Grayling butterfly, is found in this habitat during July and August.

Further inland, the dunes become progressively more stabilised by a complete cover of vegetation. Because of the presence of sea-shell fragments in the sand, lime-loving plants, including Carline Thistle and Common Centaury are frequent, as are members of the pea family, such as Common Bird's-foot-trefoil and Common Restharrow. Bee and Pyramidal Orchids can also be found. Lime is good for snails, so Banded and Garden Snails thrive here. This habitat is also rich in other invertebrates, such as the scarce Grass Eggar moth and the Common Blue, Meadow Brown and Gatekeeper butterflies.

Damp valleys between dune ridges are known as slacks. They support many special plants, including the rare Dune Helleborine, Grass of Parnassus and the Early Marsh-orchid. The slack surface is often covered by a low-growing shrub, Creeping Willow, which can interbreed with other willows to produce rare hybrids, several of which have been recorded on the estate.



Grayling Butterfly (*Hipparchia semele*)



Northern Dune Tiger Beetles (*Cicindela hybrida*)



Early Forget-me-not (*Myosotis ramosissima*)



Dune Fescue (*Vulpia fasciculata*)

In early summer, the flowers of tiny spring annuals will be found in bare, sandy patches. They include Common Cornsalad, Early Forget-me-not, Sand Cat's-tail and Dune Fescue.

In some places, the sward is cropped short by Rabbits, helping a wider range of plants to grow. However, Rabbits are not always welcome on the ranges and have been controlled since 1921. By the 1930s, they had reached pest proportions but outbreaks of myxomatosis since the late 1950s have greatly reduced their numbers. Foxes and Stoats patrol the dunes helping to keep the Rabbits in check.



Sand Cat's-tail (*Phleum arenarium*)



The dry training area at the northern end of the estate consists of fixed-dunes and wetlands left behind following large-scale sand extraction after World War II. Traditionally, this has been the best place at Altcar for breeding Natterjack Toads, some pools being formed when a flood defence bank was constructed in 1970. Other scrapes were dug in the late 1970s, and although these were initially very successful, in recent years Common Toads have colonised the ponds replacing the Natterjack Toads which cannot compete with the commoner species. New, shallow, scrapes were excavated in 2005 and in 2011 five new pools were created as part of the Million Ponds Project.

The oldest dunes on the estate are close to the railway and south of the St Georges Centre. They were formed over 200 years ago and there has been time for rain to wash out most of the lime, making the soil acid. This encourages different plants to grow here, including the delicate Harebell and fragrant Wild Thyme.

Skylarks and Meadow Pipits can usually be seen among the dunes. In spring, bird numbers are swelled by summer visitors, such as Whitethroats and

Sedge and Willow Warblers which nest in scrubby areas. Grasshopper Warblers, Grey Partridges and Stonechats also breed sparingly. Bad weather can lead to spectacular 'falls' of birds during migration. Ringing studies, started in 1983, have clarified the movements of some Altcar breeders, such as a Sedge Warbler, originally ringed at a winter home in Senegal, West Africa. A male Blackcap was caught at Icklesham, Sussex on autumn passage between breeding seasons at Altcar. A wind-drifted Asian Yellow-browed Warbler has also been caught. In early 2011 the ringing total stands at 4652 birds of 61 species. Valuable information on annual survival rates has also been produced from the many birds re-trapped subsequently. Currently the bird list for the estate and foreshore stands at a remarkable 162 species, 56 of which breed here.

The large dry training area on former farmland has been diversified in recent years through extensive mixed tree-planting. This should improve its wildlife value, providing more bird nest sites, as well as tall grassland for hunting Barn Owls.



Small woods and gardens are scattered across the estate and most of the common woodland birds can be seen, as well as Tawny Owl and Great Spotted Woodpecker. Nest-boxes made by range staff have been erected for owls and kestrels. Bats patrol the woodland edges on mild evenings. Red Squirrels are resident on the estate and are frequently seen in pine plantations and gardens. Numbers are likely to increase as the new plantations mature and food becomes more abundant. The Altcar Training Camp is part of the Sefton Coast Red Squirrel Refuge, one of several refuges set up across northern England to help conserve the species.



Several of the grassland rifle ranges support spectacular displays of wild flowers. These areas were originally the coastal marshland resulting from land reclamation in the 19th century, and although now partially drained they remain damp in places. In May and June the ranges are covered in a pink haze of orchids and Ragged Robin, with scattered yellow patches of Cowslips.

Most remarkable is the population of up to 20,000 Green-winged Orchids, the largest assemblage of this declining species in the northwest of England. Flowering a little later are thousands of marsh-orchids, including several different species and hybrids. Other notable meadow species are Adder's-tongue fern, Common Twayblade and Quaking-grass. To maintain this unique plant community, the best areas are not mown until mid July, ensuring that seed is set every year.

Green-winged Orchid (*Anacamptis morio*)

# MANAGEMENT THROUGH PARTNERSHIPS

The Ministry of Defence's estate management policy brings together the Altcar Training Camp Conservation Advisory Group, RFCA and other military interests, the statutory nature conservation body Natural England, the local authority Sefton Council, local voluntary conservation bodies such as the Lancashire Wildlife Trust and other nature and archaeology experts.

As part of the Ministry of Defence's national responsibilities for nature a management plan has been prepared for the Site of Special Scientific Interest. The Conservation Advisory Group has helped to put this into practice by establishing a mowing regime for the dune grassland, controlling the spread of invasive scrub and



excavating new pools. The military exercises in the dry training area are no threat and actually help to maintain areas of open sand which is a vital habitat for many of the rare dune species.

Elsewhere on the estate members of the Group and other specialists have helped with species surveys, monitoring red squirrel numbers, bird ringing, wildfowl counts and orchid counts. All the information is given to biological record centres and the Group also maintains a site dossier.

A popular programme of guided walks is organised by the Group each year to show local societies, parish councils and interested members of the public some of the natural wonders of the Altcar Training Camp.

The Reserve Forces and Cadets Association at Altcar is a key member of the Sefton Coast Partnership which brings together all the major land-owners, managers and users of the coast in a voluntary partnership to co-ordinate the management of the coastline. All the woodland work at Altcar, for example, is part of the Sefton Coast Forest Plan.



Dr Phil Smith leads a guided wildflower walk for a U3A group

Due to the hazardous nature of the military activities the Altcar Training Camp is strictly closed to the public. However, through the Conservation Advisory Group the RFCA wish to encourage visits of an educational nature, by societies and by specialists who can assist with the nature conservation management.

In the first instance enquiries should be addressed to:

The Commandant  
Altcar Rifle Range, Hightown, Merseyside, L38 8AF.  
Tel: 0151 929 2601

# ACKNOWLEDGEMENTS



The publication of this booklet has involved many people. Current and recent members of the Conservation Advisory Group include: Major (Retd.) Bill Hunter MBE BEM (Camp Commandant), Captain (Retd.) Brian Cobley (42 (NW) Brigade), Major (Retd.) Doug Farrington (Past Chairman), John Houston, Ian Wolfenden, Steve Cross, Dr Phil Smith MBE, Christine Bennett, Dr Jen Lewis, Tony Duckels, Fiona Whitfield, Paul Corner, Dr Paul Thomas, Dave Mercer, Alice Kimpton and Defence Estates conservation staff.

Assistance with conservation work and the management of the estate is acknowledged from HQ 42 (North West) Brigade, Lancashire Wildlife Trust, Red Squirrels Northern England, Sefton Coast and Countryside Service, Mersey Forest, Natural England, Amphibian and Reptile Conservation.

The RFCA also acknowledge the generous support from the Biffa / Million Ponds Project for pond creation.

Further reading: Altcar: The Story of a Rifle Range by A.L.M. Cook (1989), Published by TAVRA.

This booklet compiled and published 2011 by Altcar Training Camp Conservation Advisory Group  
with kind permission of Colonel G.J.O Wells-Cole OBE DL, Chief Executive of NW RFCA.

Text: Original 1997 text updated by Dr Jen Lewis and Dr Phil Smith

Design: Reynold Lang.

Photography: John Houston (pages Cover, 1, 2, 3, 5, 7, 12, 13, 15, 17, 20, 22, 23),  
Dr Phil Smith (pages 16, 17, 18, 19, 20), Ian Wolfenden (pages 14, 21),  
Dr Jen Lewis (page 6), Tony Duckels (pages 8, 2-bottom),  
Dave Hardaker (page 18-bottom), Reynold Lang (pages 24, 25),  
Ron Cowell (page 4).

Major (Retd.) Bill Hunter MBE BEM  
(Camp Commandant)



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Production Number 20110404\_Altcar Training Centre Ecology Booklet 2011