



BIRDS



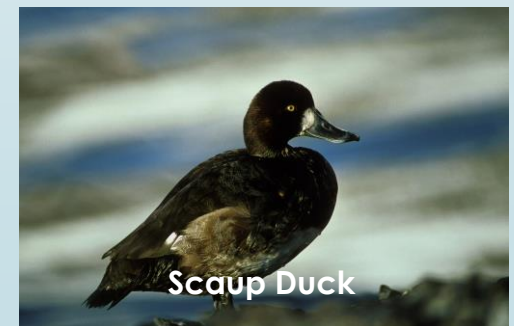
Birds *NEED* the Firth of Forth!



The Firth of Forth is very important to a large number of bird species.



We all know you see different seagulls at the seaside, but there are many more bird species that use the Edinburgh shoreline for breeding, resting and migration.



The area is well protected

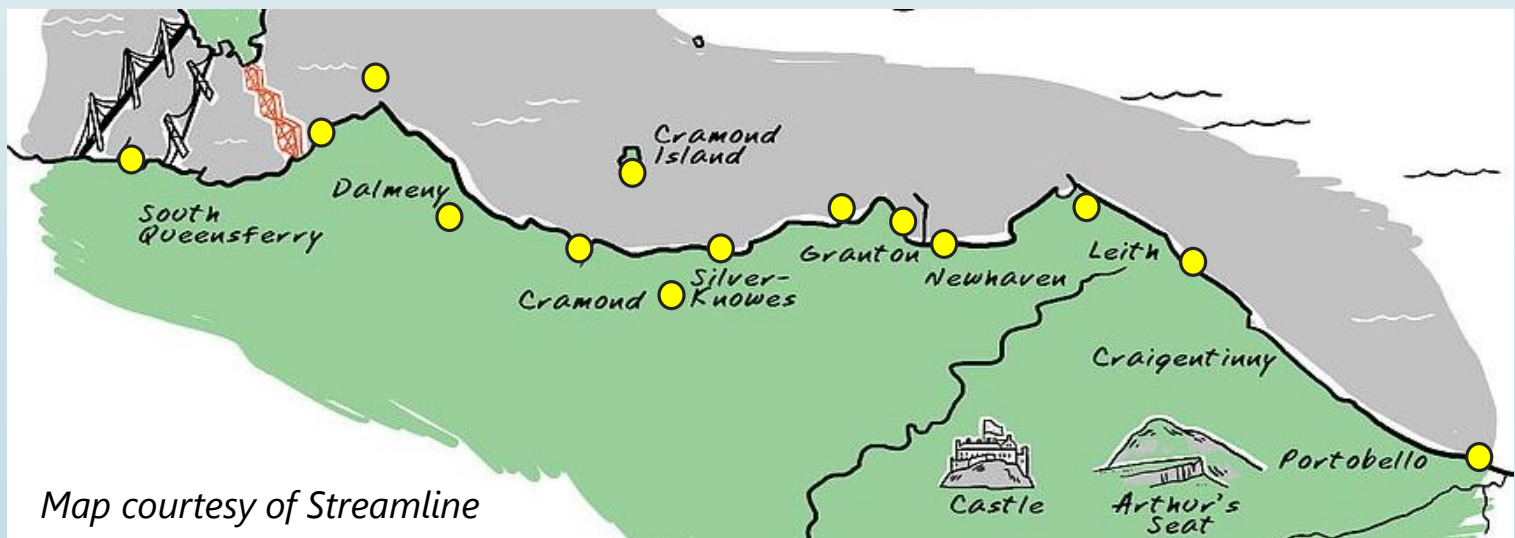
Special Protection Area (SPA)	The Firth of Forth including most of the Edinburgh shoreline is designated as a Special Protection Area (SPA) for internationally important numbers of waterfowl including bar-tailed godwit, plover, knot and eider. This designation excludes small areas to the west of Port Edgar, the western basin of Granton Harbour, Newhaven Harbour and Leith Docks.
Site of Special Scientific Interest (SSSI)	The SPA is underpinned by the Firth of Forth Site of Special Scientific Interest (SSSI), which is of importance for a variety of geological and geomorphological features, coastal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds. These designations reflect the importance of the area, the complex of estuarine habitats and the species which it supports.
The Convention on Wetlands Treaty Area (RAMSAR)	The Firth of Forth is also a RAMSAR site due to the wide range of waterfowl it supports.
Special Area of Conservation (SAC)	The Forth Islands SPA, located at the mouth of the Forth supports internationally important numbers of seabirds, including fulmar, gannet and puffin underpinned by the Isle of May SSSI and SAC (Special Area of Conservation).
Marine Protected Area (MPA)	New Marine Protected Areas (MPAs) are being developed under the Marine (Scotland) Act 2010, with the Firth of Forth Banks Complex, located just off Scottish Territorial Waters, identified with potential for being designated as an MPA.

Identifying Key Sites

Regular counts of waders and wildfowl are carried out by volunteers as part of the Wetland Birds Survey (WeBS) organised by the Wildfowl and Wetlands Trust (WWT) and the British Trust for Ornithology (BTO). Counts are usually made at high tide when birds are massed and easier to count. Surveys have also been undertaken at low tide when most waders are feeding.

A total of 14 key Edinburgh wader sites has been identified including (from West to East):

Port Edgar, Long Craig Pier, Hound Point, Barnbogle Castle, Almond Mouth, Cramond Island, Silverknowes, Silverknowes Golf Course, General's Rock, Granton Harbour, McKelvie Parade, Leith Docks, East Sands of Leith, Joppa



How do waders find their food?



They feed by probing into the mud for worms, bivalve molluscs and other invertebrates which they can't see. As we know from our own Shoreline investigation with Heriot Watt University at Cramond, the intertidal mud supports an enormously abundant, protein-rich food resource.



Redshank

For long-billed shorebirds including godwit, curlew, snipe, redshank, knot or dunlin, vision has little to do with feeding, except for glancing sideways to see if other birds have found some good snacks. These species have high-set eyes to spot predators.



Godwit

Finding food is by feel using their highly specialised bills. These species have tiny sensors called Herbst corpuscles lining their bill tips which detect pressure waves created by solid objects – i.e. FOOD – in wet mud or sand.



Godwit

Waders also have an ability called distal rynchokinesis where the final section of the upper bill can flex upwards independently of the rest of the bill allowing the birds to seize prey items buried in the sand or mud. If you watch them feeding they move steadily forward regularly probing the mud as they feel for the next pressure wave.

Their populations are declining

Throughout the UK the latest data collected by thousands of Wetland Bird Survey (WeBS) volunteers show that populations of the UK's most familiar coastal waders have declined markedly in the last ten years. Dunlin (-52%), Redshank (-40%), Ringed Plover (-38%), Oystercatcher (-34%) and Curlew (-23%) are among the eight most abundant waders on Scottish estuaries in winter, yet the populations of all of them are declining.

Eight waders with falling winter populations in the UK are shown below, with trends in Scotland for comparison:

Species	10-year trend (2001/02-2011/12) (% change) for UK	10-year trend (2001/02-2011/12) (% change) for sites in Scotland
Knot	-7	-11
Bar-tailed	-10	-23
Godwit	-15	-34
Oystercatcher	-17	-23
Curlew	-21	-32
Grey Plover	-23	-52
Dunlin	-26	-40
Redshank	-39	-38
Ringed Plover		

Certain locations which are used consistently are clearly hugely important to these species and require protection or enhancement to avoid disturbance by people, dogs or new development. These can be catastrophic for the birds which rely on these sites. This particularly applies during spring tides when safe space is even more restricted. Disturbance or loss of these key areas can be catastrophic.

Can we help stop the decline?

In recognition of increasing development pressure and changing recreation patterns, a requirement for a comprehensive account of Edinburgh's wader roosts was identified specifically to inform City Planners when evaluating the impact of proposed new developments and change of land use.

Development proposals which potentially impact on the SPA require the submission of an Environmental Statement with detailed information on bird numbers and usage of the site and an assessment of impact.



