

## BIODIVERSITY, FLORA & FAUNA

### Special Areas of Conservation

South Ayrshire has 2 areas which have been designated SAC's under the EU Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna & flora

#### Lendalfoot Hills Complex

Lendalfoot Hills Complex covers 1309.71Ha. It has 6 feature habitats, Base-rich fens; Dry heath; Grasslands on soils rich with heavy metals; species rich grassland with mat-grass in upland areas; Very wet mires often identified by an unstable "quaking" surface and wet Heathland with cross-leaved heath. Unfortunately ALL are in an unfavourable and declining condition.

#### Merrick Kells

The Merrick Kells covers 8698.3 Ha and falls into both the local authority areas of South Ayrshire Council and Dumfries & Galloway. It has 10 feature, 9 habitats and 1 fauna: Acid peat-stained lakes & ponds (favourable/maintained); Acidic scree (favourable / maintained) ; Blanket bog (unfavourable/declining); Clear-water lakes or lochs with aquatic vegetation & poor to moderate nutrient levels (favourable / maintained); Depressions on peat substrate (unfavourable/declining) ; Dry heaths (unfavourable/declining) ; Montane acid grasslands (unfavourable/declining) ; Plants in crevices on acid rocks (favourable / maintained) and Wet heathland with cross-leaved heath (Unfavourable / declining)– mammal is Otter (favourable / maintained).

**SOURCE: Scottish Natural Heritage & South Ayrshire Council**

### Special Protection Areas

South Ayrshire has 2 areas which have been designated SPA's under EU Directive 79/409/EEC on the Conservation of wild birds. SPA's together with SAC's help to make up Scotland's Natura 2000 network

#### Ailsa Craig

The site qualifies under Article 4.2 by supporting 23,000 pairs of gannets Sula bassana (14% of the EC breeding population), up to 1800 lesser black-backed gulls Larus fuscus (over 2% of the British breeding population), and at least 1000 pairs of razorbills Alca torda (1%) as well as a range of other seabirds.

Ailsa Craig is internationally important for its rocky shore and cliff habitats with their associated large concentrations of nesting seabirds mentioned in the citation. The gannetry is one of the largest in Britain and has a particularly long history. Other breeding species include fulmar Fulmarus glacialis, guillemot Uria aalge, raven Corvus corax and twits Carduelis flavirostris, The site breeding peregrine falcon Falco peregrinus.

The Lesser Black-backed gull, Kittiwake & Herring gull are all in unfavourable and declining condition while the Guillemot, Gannet and Breeding seabird assemblage all in a favourable and maintained condition.

#### Glen App & Galloway Moors

The Glen App & Galloway Moors covers 8942.38 Ha and falls into both the local authority areas of South Ayrshire Council and Dumfries & Galloway and qualifies as an SPA under Article 4.1 by regularly supporting a breeding population of European importance of the Annex 1 species hen harrier Circus cyaneus (an average of 10 breeding females annually between 1994 and 1998, 2% of GB). The species is currently in a favourable and maintained condition.

**SOURCE: Scottish Natural Heritage & South Ayrshire Council**

## Site of Special Scientific Interest

South Ayrshire has 34 Sites of Special Scientific Interest either for their geological or biological features. The following are the sites and the citation description of the feature(s) of interest.

### **Ailsa Craig, category B, area = 99.94Ha**

The island of Ailsa Craig lies in the Firth of Clyde, 15km to the west of Girvan. It is nationally important for its geological interest as a plug of microgranite of Palaeogene age (formed between 58 and 60 million years ago), for its large colony of breeding seabirds including a nationally important population of gannets, and for its rare invertebrates.

Ailsa Craig is composed of a distinctive blue-grey alkali-microgranite, characterized by alkali pyroxene and amphibole minerals, particularly aegerine and arfvedsonite. Geochemically, the rock is peralkaline in character, and the site is important as rocks of this composition are relatively rare in the British Tertiary volcanic province.

The rocky shore and cliffs support a large colony (>10,000 pairs) of breeding seabirds including razorbill, guillemot, kittiwake, herring gull and lesser black-backed gull. The gannet colony is of particular importance as Ailsa Craig supports over 10% of the British gannet population.

The insect assemblage within the site includes the nationally rare blowfly (*Calliphora uralensis*) a species associated with the carrion derived from the islands breeding bird colonies. Ailsa Craig is believed to be the most southerly point in the range of this species. The island also supports the nationally scarce ground beetle (*Agonum gracilipe*) on the steep bare scree slopes to the east of the island.

Notified Natural Features are: Geological: Igneous Petrology: Tertiary Igneous

Biological: Birds: Gannet *Morus bassanus*

Biological: Birds: Seabird colony

Biological: Invertebrates: Beetles

Biological: Invertebrates: Flies

Site condition currently reported as favourable / maintained

### **Ballantrae Shingle Beach, category B, area = 34Ha**

The site consists of a complex of active and relict shingle spit features and associated saltmarsh, and fresh brackish water lagoons at the mouth of the River Stinchar. The more stable parts of the shingle are vegetated, a habitat type rare in Britain, and demonstrate a transition from pioneer species through to semi-natural scrub. A wide range of coastal plant species occurs with a notable feature being a large colony of the rare oyster plant *Mertensia maritima*. The site is the best example of its type in south-west Scotland and is of significant physiographical interest in demonstrating active marine erosion, transportation and deposition.

The ornithological importance of the site is related to the fact that it contains one of the few remaining breeding colonies of little tern in the Clyde area. Common and arctic terns also breed.

Site condition currently described as unfavourable / declining for breeding of Little Tern and of the Shingle but favourable / maintained for Saltmarsh

**Craig Wood category B, area = 23.22**

Craig Wood SSSI is an area of upland oak woodland located approximately 1km southeast of Heronsford on the steep south-facing slope of Glen Tig. The Water of Tig flows along the southern boundary of the site. The site comprises a wide range of habitats from acid, sessile oak woodland on dry talus slopes through to base-rich, mixed ash-elm-oak woodland on the riverside flats and lower valley slopes.

The site is one of the best examples of relatively undisturbed semi-natural deciduous woodland in South Ayrshire.

Also of interest, although not a notified feature of the SSSI, is the rich breeding bird assemblage and the occurrence of red squirrel and otter.

Site condition currently reported as favourable / maintained

**Craighead Quarry category B, area = 2.42Ha**

Craighead Quarry comprises two adjacent areas of rock exposures, situated 6km north-east of Girvan. These exposures reveal a structurally complex rock sequence, consisting of conglomerates, limestones and shales unconformably overlying the spilites (lavas) of the pre-Caradoc Ballantrae volcanic basement. The Caradoc Epoch and Ashgill Epoch together spanned the Late Ordovician, a period of time from 461 to 444 million years ago, and the rocks at Craighead Quarry are of middle Caradoc age. These rocks in the Craighead Inlier are of great importance to our understanding of the stratigraphical history of the Girvan area. The sediments are richly fossiliferous, containing the remains of trilobites, brachiopods, gastropods, bivalves, crinoids, corals, graptolites and calcareous algae, many of which have a North American affinity. The site is the source of type material for over 70 fossil species.

Notified Natural Features:- Geological: Stratigraphy: Caradoc-Ashgill

Site condition currently reported as Unfavourable / No change with regard to Caradoc – Ashgill, Stratigraphy while fossils are Favourable / Maintained

**Dundonald Wood category B, area = 36.1Ha**

The most extensive area of deciduous woodland in north Ayrshire, with a range of dry to damp boulder clay soils and their associated plant communities. Elm and ash are the dominant canopy species. There is a well developed structure and a varied ground flora which include paniced sedge *Carex paniculata* and long-leaved dock *Rumex longifolius*.

One nationally rare species of beetle *Coleoptera* occurs, along with a number of other uncommon invertebrates associated with fungi and dead and/or decaying wood.

Description: Biological: Habitat: Woodland & Biological: Species: Invertebrates

Site condition currently reported as Unfavourable / No Change for Upland mixed ash woodland and Favourable / maintained for beetles.

**Girvan to Ballantrae Coast, category G, area = 89.2Ha**

The Ballantrae Complex, of Ordovician age, consists of three belts of pillow lavas and associated sediments, separated from each other by ultramafic intrusive rocks. The Complex shows many of the features of an obducted ophiolite although geochemical studies indicate that the various igneous rocks were generated in a variety of tectonic settings and have since been tectonically juxtaposed. The following localities are of particular importance in understanding the geology of the Complex.

At Bennane Lea the contact between the lavas and associated rocks of the central lava belt and the ultramafic rocks of the southern serpentinite belt is exposed. The succession to the north of the contact is a major volcano-sedimentary sequence belonging to the Balcreuchan Group and includes black radiolarian cherts, conglomerates and greywackes interbedded with the volcanic rocks.

The coastal section between Balcreuchan Port and Port Vad exposes a thick but repeated and structurally imbricated succession of lavas belonging to the Balcreuchan Group of the central lava belt. At Balcreuchan Port aphyric pillow-lavas and breccias are excellently exposed in faulted contact with serpentinites. The lavas are of an island-arc type and contrast with lavas further south along the section which are more diverse in terms of rock-type and are more akin to oceanic island 'hot-spot' basalts. The foreshore and cliff exposures at Games Loup demonstrate the contact between the northern serpentinite belt and the basic lavas of the central lava belt. The harzburgites to the north have been serpentinised and contain pyroxenite segregations. South of the contact the basic lavas of the Balcreuchan Group are sheared and brecciated but there is no evidence of a dynamothermal aureole of the type developed under the serpentinite unit at Knocklaugh. The lavas carry a primitive island arc geochemical signature. The Pinbain Block is the most northerly of the lava belts in the Ballantrae Complex and is well exposed along the coast at Slockenray. In the southern part of this block conglomerates are interbedded with cherts and black shales. The shales show soft-sediment deformation structures and it is thought that the conglomerate bodies, which contain boulders up to several metres in length are olistostromes. The variety of the clasts, representing almost all the known rock-types found in the Complex, shows that the ophiolite was being actively eroded at the time the conglomerates were accumulating. Further north the section exposes spilitic lavas and volcanogenic sediments. The latter show upwards coarsening sequences which record the build up of a hyalotuff delta formed in front of advancing lava flows in shallow water conditions.

Additional interest is displayed by further exposure south of Balcreuchan Port which are of great importance. The faunas recovered from within the Ballantrae Complex here permit an assignment of at least some of the sediments within the complex to the Arenig Series. Several localities contain a variety of graptolite taxa, including the first definite *Tetraraptus approximatus* from Britain. This taxon is characteristic of the lowest "Arenig" faunas in other parts of the world, and its occurrence here with other forms affords a correlation of these rocks with the "Lower Arenig" upper Lancefieldian (La3) – Bendigonian or Chewtonian stages of Australasia. The site is thus of significance in international correlation of Arenig strata.

From Horse Rock south to Kennedy's Pass is a classically important section through the Caradoc and Ashgill succession of the Girvan area, the sedimentary sequence lying unconformably on the Ballantrae volcanic rocks at Kennedy's Pass. The shales, mudstones, and greywackes are fossiliferous, with locally rich faunas of trilobites, brachiopods, and graptolites. This site represents the best section through the structurally complex Ardwell Flags and the lower two subdivisions of the Whitehouse Group in the Girvan area. This site is of key stratigraphical, structural, and sedimentological significance in Ordovician studies.

Woodland Point, to the south of Woodland Bay, includes the type section of the Woodland Formation, twenty one metres thick, which has a rich shelly and graptolite fauna, the former including *Stricklandia* and *Clorinda* brachiopod communities. These strata, of late Rhuddanian *Cyphus* zone age, and their fossil contents are of considerable importance for studies of early Silurian environments and palaeogeography.

Notified Natural Features: Geological: Ordovician Igneous

Site conditions currently described as: Unfavourable / no change

Geological: Arenig  
Geological: Caradoc – Ashgill  
Geological: Llandovery

Favourable / maintained  
Favourable / maintained  
Favourable/ maintained

**Knockdolian Hill category B, area = 64.1Ha**

Knockdolian Hill, lying around 3km north east of Ballantrae, comprises a conical hill that supports subalpine calcareous grassland dominated by sheep's fescue *Festuca ovina*, common bent *Agrostis capillaries* and wild thyme *Thymus praecox*. This site is important, as it is unusual for such a substantial extent of the subalpine calcareous grassland to be found at low altitude.

The subalpine calcareous grassland occurs as part of a mosaic of semi-natural habitats on site. These habitats, which are not part of the notified feature of the site, include upland acid grassland and cliff-ledge plant communities. The grassland's diverse species composition reflects in large part the underlying geology. The site overlies intrusions of serpentinite and other ultrabasic rocks of the Ballantrae complex. These rock types have a restricted distribution nationally.

Notified Natural Features: Biological: Upland habitats: Subalpine calcareous grassland

Site conditions currently described as: Unfavourable / declining for Subalpine calcareous grassland, Calcareous grassland (Upland) and Unfavourable / recovering for Lowland acid grassland, Acid grassland.

**Maidens to Doonfoot, category G&B, area = 224.4Ha**

The foreshore between Bracken Bay and Longhill point shows an unusual Viséan aged (Lower Carboniferous) development of Cementstone facies. These are unconformably overlain by Passage Group sediments and lavas. The Cementstones here are the lateral time equivalents of both the Clyde Plateau Lavas, and of deltaic sediments in Fife. The unique sedimentological interest of the site is complemented by palaeontological finds, including palynomorphs ('spores') for which there is much research potential. A key site for palaeogeographic and facies analysis in Dinantian rocks.

The Heads of Ayr demonstrates with unusual excellence the internal structure of a major volcanic vent of Lower Carboniferous age and its interrelations with the surrounding strata. Both horizontal and vertical sections are well exposed and easily examined. Apart from its obvious educational value, the vent has been found to contain in addition to numerous fragments of volcanic and country rock, rare nodules consisting of an unusual assemblage of rocks characterised by richness in iron and magnesium which has been interpreted as having been derived from levels close to the base of the Earth's crust beneath the Midland Valley. These nodules supply critical evidence as to the nature of the lower crust and the underlying upper mantle beneath Britain during Carboniferous Period – evidence which is of great importance in understanding the volcanic activity which occurred at that time. The site has been studied by geologists since the early days in the development of the science and consequently has historical significance.

From Port Schuchan to Dunure Castle a well-exposed sequence of andesite sheets and minor intercalations of sediment of Lower Devonian age occurs. The margins of the sheets are characterised by pillowed surfaces and complex enclosures of laminated sediment. Sinuous cooling joints are filled with reddened sediment and some

connect with underlying sedimentary enclaves. Elsewhere at the contacts the sediment can be seen to be thixotropically deformed into small lobate folds or fluidised to form structureless sandstone. These features are critical to recent reinterpretations of the sheets, formerly thought to be lava flows, as sills emplaced at shallow depths into unconsolidated wet sediment.

At Culzean harbour a number of andesite sheets are seen emplaced into Lower Devonian sediments. Recent research has demonstrated that the sheets, formerly believed to be lava flows are sills emplaced at shallow depths into wet sediment. This interpretation is supported by the occurrence of lava pillows at both upper and lower surfaces of the sheets and by the presence of peperite (thermally shattered magma) at the contacts. Complex enclosures of sediment between pillows in places retain bedding parallel with the regional dip but immediately adjacent to the pillows a narrow zone of sediment is disturbed and indicates lateral removal of fluidised sediment as magma protruded forth. This exposed site is of national importance.

In addition to the geological importance, sections of the site are also of considerable biological interest. From Barwhin Point to Swallow Craigs a series of cliffs support some of the best coastal deciduous woodland in southern Scotland. The woodland has ash, sycamore, wych elm and aspen, and a distinctive and well developed ground flora including dog's mercury *Mercurialis perennis*, opposite-leaved golden saxifrage *Chrysosplenium oppositifolium*, and good populations of the locally uncommon hart's tongue *Phyllitis scolopendrium* and soft shield-ferns *Polystichum setiferum*. Similar woodland is also found in the north of the site along the Carwinshoch Burn, where it occurs adjoining an extensive area of scrub composed of blackthorn, hawthorn and gorse, supporting good numbers of wrens, dunnocks and willow warblers. Stonechat, a locally declining species, also occurs here.

The friable nature of the cliffs precludes much algal, lichen or spray zone flowering plant development, although the nationally scarce southern polypody *Polypodium cambricum* and local rarities such as rock samphire *Crithmum maritimum* and wood vetch *Vicia sylvatica* are found, along with yellow saxifrage *Saxifraga aizoides* which here, at sea level, is at one of its very few stations in southern Scotland.

Vestigial dune and shingle deposits add variety locally, with marram *Ammophila arenaria*, lyme-grass *Leymus arenaria*, sea radish *Raphanus maritimus* and Scot's lovage *Ligusticum scoticum*. Grassland and bracken *Pteridium aquilinum* have developed on the more exposed cliffs to the north, and small patches of dry heath dominated by heather *Calluna vulgaris* and crowberry *Empetrum nigrum* are found at Barwhin Point in the south.

From the heads of Ayr to Culzean there are several rich intertidal areas, and the cliffs support breeding ravens and one of the few colonies of fulmars in Ayrshire.

The rare cranefly *Orimarga virgo* occurs in seepages and streams at Bracken Bay, and the uncommon grayling butterfly *Hipparchia semele* breeds on dry coastal grassland at Culzean.

Notified Natural Features: Geological: Dinantian  
Geological: Permo-Carboniferous Igneous Province  
Geological: Old Red Sandstone Igneous  
Biological: Habitat: Coastland  
Biological: Habitat: Woodland

Site conditions currently described as: Unfavourable / No change for Upland mixed ash woodland  
Favourable Maintained for Old Red Sandstone Igneous

Favourable Maintained for Lower Carboniferous [Dinantian - Namurian (part)]  
Favourable Maintained for Carboniferous-Permian Igneous  
Unfavourable / No change for Sand dune  
Favourable Maintained for Fly (*Orimarga virgo*)  
Favourable Maintained for Shingle  
Favourable Maintained for Maritime cliff

**Martnaham Loch and Wood NS 393173, category B, area = 65.5Ha**

The loch, which is the most botanically diverse in the district, has extensive emergent reed-swamp dominated by common reed *Phragmites australis* but also including common club-rush *Schoenoplectus lacustris*, bulrush *Typha latifolia*, branched bur-reed *Sparganium erectum* and water-plantain *Alisma plantago-aquatica*. There are, in addition, small areas of *Sphagnum* lawn, poor-fen, willow and alder carr and water lilies *Nuphar lutea* and *Nymphaea alba*. Amongst the more unusual plants are flowering rush *Botomus umbellatus*, trifid bur-marigold *Bidens tripartita* and greater spearwort *Ranunculus lingua*, all of which are rare in Scotland.

Ornithological interest on the loch is also significant with breeding water fowl such as mallard, tufted duck, little grebe and several pairs of great crested grebe. Water rail and grasshopper warbler also breed. In winter the loch is also used by goldeneye, goosander and whooper swan.

Martnaham Wood is one of the largest remaining oak woods in lowland Ayrshire. It is an ancient woodland site which is still dominated by oak and birch with abundant hazel in the understorey. The ground cover is of grasses and typical woodland plants such as sanicle *Sanicula europaea*, bluebell *Hyacinthoides non-scripta* and dog's mercury *Mercurialis perennis*. Marshy areas and large amounts of decaying wood add to the general diversity and there is a wide variety of fungi, mosses and liverworts.

Notified Natural Features : Biological: Habitat: Open Water  
Biological: Habitat: Woodland

Site conditions currently described as unfavourable / no change for both upland oak woodland and Mesotrophic loch

**River Ayr Gorge Failford, category B, area = 57.4Ha**

A dune-bedded Permian sandstone gorge containing one of the best examples of semi-natural deciduous woodland in the district. Over much of the site the woodland is typically of oak with an understorey of holly, birch, rowan and hazel, although in some damper areas nearer the river elm is co-dominant over a less acid and richer ground flora.

The combination of topography and vegetation has produced microclimatic and habitat conditions favourable for a number of uncommon invertebrate species, including some near their climatic limit in western Britain. Within the generally rich invertebrate fauna, spiders *Arachnida* and beetles *Coleoptera* are particularly important, with one nationally rare species of the latter group having been recorded.

Notified Natural Features: Biological: Habitat: Woodland  
Biological: Species: Invertebrates

Site conditions currently described as unfavourable / no change for upland oak woodland while beetles are in a favourable / maintained condition.

**South Threave, category G, area = 1.42Ha**

The Starfish Bed of the Ashgill Drummuck Group of the Girvan area is of great paleontological and stratigraphical interest. A shelly fauna of echinoderms, brachiopods and trilobites has been collected from this, the only outcrop, and the bed is the source of much type material. South Threave is the type-locality for several cystoid, asteroid and echinoid species, and has also yielded holothurians. The well-preserved echinoderm material has been of particular interest in the study of the early representatives of this important extant phylum.

Notified Natural Feature: Geological: Ordovician

Site conditions currently described as unfavourable / declining for caradoc-ashgill, stratigraphy

**Troon Golf Links & Foreshore, category B, area = 149.6Ha**

The fixed sand dunes and the dune grassland and scrub of the adjacent golf course are botanically rich and diverse, and are the best example of this habitat type in the country. The sandy beach and rocky outcrops, some of which form islands at high tide, are of significance for the numbers of passage/wintering wildfowl and waders, particularly curlew. Meikle Craigs is an important gull roost and moulting area for eider.

Notified Natural Feature: Biological: Habitat: Coastland

Site conditions currently described as unfavourable / no change for sand dunes

**Turnberry Dunes, category B, area = 77.7Ha**

The site contains an extensive, unbroken sandy beach backed by a large foredune ridge which becomes narrower and higher towards the north and rises to over 14m in places. Its importance for insect conservation is related to the quality of the beach and dune habitats and the occurrence of rare and uncommon beetles *Coleoptera*, including a number of species for which the site is the most northerly known station in Britain.

Notified Natural Features Biological: Species: Invertebrates

Site conditions currently described as favourable / maintained for beetles

**Auchalton, category B, area = 5.2Ha**

Auchalton, lying approximately 2.5 km south of Crosshill, comprises an area of dry and wet grassland on the site of a former lime works. The base-rich soil supports dry grassland plant communities that are species rich and are the best example of their type in the local area. A number of locally rare plant species occur, including early marsh orchid *Dactylorhiza incarnata*, as well as nationally vulnerable species, including field gentian *Gentianella campestris* and frog orchid *Coeloglossum viride*

Notified Natural Features: Biological: Lowland grassland: Lowland neutral grassland

Site conditions currently described as unfavourable / declining for lowland neutral grassland

**Merrick / Kells, category G&B, area = 8924.8Ha**

Merrick-Kells is the most extensive upland area in Galloway unaffected by afforestation. It contains the most important and varied system of patterned blanket mire in Britain and the only example of upland vegetation in South Scotland currently unmodified by grazing and burning. The variety of granite, sedimentary rocks and morainic deposits provide a high diversity of habitats which, with the extremely humid oceanic climate, support a number of higher plant species and bryophytes not normally found south of the Highland Boundary Fault. These include a rare hawkweed *Hieracium holosericeum*, downy willow *Salix lapponum*, alpine saw-wort *Saussurea alpina*, purple saxifrage *Saxifraga oppositifolia* and the localised liverworts, *Pleurozia purpurea* and *Campylopus setifolius*.

The site encompasses the Silver Flowe, the most southerly development of characteristic oceanic blanket mire vegetation with *Rhacomitrium* hummock facies and the best example of aligned hummock-hollow systems in Britain. The mire is the site for a number of important studies of mire hydrology.

The uplands, and their associated moorland lochs, are important for their upland breeding birds, particularly raptors and waders, the rare azure hawk dragonfly *Aeshna caerulea* and a notable beetle *Coleoptera*, while the mire system also contains a number of rare or local spiders *Aranea* and beetles.

Within the site lie two end-moraine complexes, a rare landform in the Southern Uplands. The Tauchers, in particular, are unique in terms of their size and multiple form. The moraines may provide information critical in deducing the climatic conditions during the Loch Lomond Re-advance and together with the sediments of Loch Dungeon provide important evidence of the Flandrian vegetational history of SW Scotland. Loch Dungeon also has some of the best fossil pine remains in SW Scotland. Additionally, Craignaw is geomorphologically interesting for its extent of bare granite and its summit of unfissured granite pavements with numerous perched blocks, and as the catchment area for the mire system.

Notified Natural Features: Biological: Habitat: Peatland  
Biological: Habitat: Upland  
Biological: Species: Birds  
Geological: Quaternary

Site conditions currently described as favourable / maintained for Breeding bird assemblage, Quaternary of Scotland, Caledonian Igneous, Beetles, Blue Aeshna dragonfly (*Aeshna caerulea*), Upland assemblage and unfavourable / declining for blanket bog.

**Feoch Meadows, category B, area = 82.8Ha**

The complex of grassland types at Feoch Meadows incorporates species-rich neutral grassland and a variety of communities associated with the uplands and the lowland/upland fringe. Taken together these characteristics make this one of the finest grasslands in Ayrshire.

Along the Feoch Burn are a number of free-draining banks supporting unimproved neutral grassland. These are interspersed with flushes, drainage lines from the fields above and low-lying marshy areas. Species present include a number of plants which are otherwise uncommon or rare in the county, for example, spignel *Meum athamanticum*, whorled caraway *Carum verticillatum*, field gentian *Gentianella campestris*, greater and lesser butterfly-orchids *Platanthera chlorantha* and *P.bifolia*, small-white orchid *Pseudorchis albida*, adder's tongue *Ophioglossum vulgatum* and moonwort *Botrychium lunaria*. In the wettest of the marshy patches are stands of

marsh cinquefoil *Potentilla palustris*, and in places a poor fen type of vegetation with bogbean *Menyanthes trifoliata* prominent.

Along the burn are deeper pools with yellow water lily *Nuphar lutea* and alternate water-milfoil *Myriophyllum alterniflorum*. In some sections the burn runs through small gorges which support locally scarce plants such as globeflower *Trollius europaeus* and creeping willow *Salix repens* in the damper zones, and mountain everlasting *Antennaria dioica* on dry rock faces.

The flatter fields above the stream are a mosaic of dry and wet acid grassland, flush and patches of bog vegetation. The drier areas of mat-grass *Nardus stricta*, bents *Agrostis* spp and fescues *Festuca* spp also show local abundance of mountain pansy *Viola lutea*, as well as more typical herbs such as pignut *Conopodium majus* and yarrow *Achillea millefolium*. Wetter grasslands dominated by purple moor-grass *Molinia caerulea* and rushes *Juncus* spp also have good quantities of herbs, for example, marsh violet *Viola palustris* and cuckooflower *Cardamine pratensis*. The bog vegetation is mainly of heather *Calluna vulgaris*, hare's-tail cottongrass *Eriophorum vaginatum* and deergrass *Trichophorum cespitosum* over an active *Sphagnum* carpet. However, sundews *Drosera* spp, bog asphodel *Narthecium ossifragum* and heath spotted-orchid *Dactylorhiza ericetorum* are frequent. These more open grasslands provide breeding habitat for some waders – curlew, lapwing and snipe have bred successfully.

Notified Natural Features: Biological: Habitat: Grassland

Site conditions currently described as unfavourable / no change for Lowland neutral grassland and Fen meadow

**Blair Farm, category G, area = 0.31Ha**

This small site, located approximately 5 kilometres east of the village of Dailly, is the type locality of the Llandovery (Lower Silurian) age Blair Formation. It also shows the base of the Knockgardner Formation above.

The site is important because it yields the well-preserved fossil remains of microscopic fossils known as **acritarchs**, which were planktonic algae. Heating of the rocks has elsewhere in the region destroyed the acritarchs and low thermal maturation here, makes it possible to collect a well preserved acritarch flora. This is not normally possible in rocks of this age in Scotland. These horizons also yield common *crenulata* zone graptolites, fossils of extinct marine creatures.

Notified Natural Features: Geological: Stratigraphy: Llandovery

Site conditions currently described as favourable / maintained for Llandovery, stratigraphy

**Afton Lodge, category G, area = 2.8Ha**

Afton Lodge, lying 2 km south-west of Tarbolton, is an important Quaternary site representing the “high-level shellbeds” of Ayrshire. These fossiliferous marine sediments, which occur at around 85m above present sea level, have generated considerable scientific interest concerning their age, origin and possible relationships with several other contentious shelly deposits in Scotland. It is unclear whether they occur in situ and reflect a former high stand in sea level or were transported onshore from the bed of the sea to their present position by ice. The locality is of considerable interest in demonstrating both the stratigraphy and sedimentology of the deposits and their fossil shell and microfauna contents. It is a site with considerable research potential for elucidating a long-standing problem in Scottish Quaternary studies, one that has significant bearing on interpretations of former sea levels.

Notified Natural Features: Geological: Quaternary geology and geomorphology: Quaternary of Scotland

Site conditions currently described as favourable / maintained for Quaternary of Scotland

**Roughneuk Quarry, category G, area = 0.33Ha**

Roughneuk quarry, lying 4 km north of Dailly, shows the rocks of the Llandovery Mulloch Hill Formation. This formation, of Rhuddanian age (around 440 – 437 million years ago), contains a diverse shelly macrofauna, of greater diversity than most early Llandovery sites in Britain, including a common *Cryptothyrella* brachiopod community. This is an important site

Notified Natural Features: Geological Stratigraphy: Llandovery

Site conditions currently described as favourable / maintained for Llandovery, stratigraphy

**Byne Hill, category G, area = 8.62Ha**

The site is located approximately 3km south of Girvan and comprises the summit and south-eastern slopes of Byne Hill. Byne Hill is one of four SSSIs forming the Ballantrae Complex, which is of Ordovician age (approximately 480 million years ago) and consists of three belts of pillow lavas and associated sediments, separated from each other by ultramafic intrusive rocks. The Complex shows many of the features of an obducted ophiolite although geochemical studies indicate that the various igneous rocks were generated in a variety of tectonic settings and have since been tectonically juxtaposed.

At Byne Hill serpentinites of the northern serpentinite belt of the Ballantrae Complex are intruded by a large plutonic complex. The steep south-east facing slope of the hill exposes a variety of rock-types ranging from gabbro at the lower levels through diorite to trondjemite higher on the hill. The diorites are thought to be hybrid rocks formed by reaction between a trondjemite melt and the crystalline gabbro into which it was emplaced. Alternatively they may be related through fractional crystallisation. The rocks of the Byne Hill intrusion are comparable to those developed in magma chambers within oceanic crust. The Ballantrae Complex provides one of a few rare examples of ocean crust from the floor of the Iapetus Ocean and thus plays a crucial part in the reconstruction of Scottish geological history. Byne Hill provides a piece of vital evidence in the interpretation of the complex.

Notified Natural Features: Geological: Igneous Petrology: Ordovician Igneous

Site conditions currently described as favourable / maintained for Igneous Petrology: Ordovician Igneous

**Knockgardener, category G, area = 0.29Ha**

This locality shows the best and most fossiliferous exposure of the Knockgardener Formation, which consists of thinly bedded, grey-green turbidites. This is the only lithological unit in the Girvan area which has yielded fossils of probable Wenlock age. A vital locality for the determination of probable Wenlock age rocks in the Girvan district and thus the distribution of Silurian strata in Scotland.

Notified Natural Features: Geological: Silurian

Site conditions currently described as favourable / maintained for Wenlock, stratigraphy

**Laggan Burn, category G, area = 2.56Ha**

Laggan Burn, lying approximately 3.5km southeast of Girvan, is a key palaeontological site in the Balclatchie (Caradoc) succession of the Girvan area. The Caradoc Epoch and Ashgill Epoch together spanned a period of time from 458 to 444 million years ago, during the Late Ordovician. The mudstones and calcareous nodules contain, in particular, a rich and well-preserved graptolite fauna of great importance in the understanding of the zoology of the extinct group. The site has also yielded conodonts and brachiopods.

Notified Natural Features: Geological: Stratigraphy: Caradoc-Ashgill

Site conditions currently described as favourable / maintained for caradoc-ashgill, stratigraphy

**Knockormal, category G, area = 5.44Ha**

Knockormal, lying less than 3km from Colmonell, illustrates the Ballantrae Complex, of Ordovician age (around 500 to 470 million years ago), which consists of three belts of pillow lavas and associated sediments, separated from each other by ultramafic intrusive rocks.

The Complex shows many of the features of an obducted ophiolite although geochemical studies indicate that the various igneous rocks were generated in a variety of tectonic settings and have since been tectonically juxtaposed.

The vicinity of Knockormal Farm is famous for problematical occurrences of glaucophane-schists and metapyroxenites. The formation of glaucophane-schists is thought to require a high pressure regime. Such rocks are normally associated with a subduction setting and are difficult to accommodate in the accepted obduction-dominated interpretation of the Ballantrae Complex. Mineral chemical studies on the garnet pyroxenite at Knockormal suggests it may have originated in the lower crust. These problematical occurrences provide important constraints on plate tectonic interpretations of the Ballantrae Complex.

Notified Natural Features: Geological, Igneous Petrology: Ordovician Igneous

Site conditions currently described as favorable maintained for Igneous Petrology: Ordovician Igneous

**Stairhill, category G, area = 0.84Ha**

A thin shale band intercalated between lavas of the Mauchline Volcanic Group yields an unusual fossil flora of probable late Stephanian age. The occurrence here of *Odontopteris subcrenulata* (Rost), and two *Pecopteris* species of a typically Stephanian aspect are of particular interest. It is the only recorded example of a flora of this age in Britain, comparable assemblages being only known from the small intra-montane basins in the Massif Central of France (eg. Decazeville, St Etienne Blanzly) and in the Lorraine – Saar – Saale trough. A site of national importance for understanding the floral changes which were occurring in the late Carboniferous and early Permian.

Notified Natural Features: Geological, Palaeozoic Palaeobotany

Site conditions currently described as favorable / maintained for Palaeozoic Palaeobotany

**Millenderdale, category G, area = 1.32Ha**

Millenderdale comprises two adjacent areas of rock outcrops some seven kilometres south of the town of Girvan. These outcrops reveal geological processes occurring during the Ordovician period.

The sites contains the Ballantrae Complex, of Ordovician age, which consists of three belts of pillow lavas and associated sediments, separated from each other by ultramafic intrusive rocks. The Complex shows many of the features of an obducted ophiolite although geochemical studies indicate that the various igneous rocks were generated in a variety of tectonic settings and have since been tectonically juxtaposed.

Beerbachite dykes intruded into foliated gabbro can be seen exposed in a series of small knolls 500m to the east of Millenderdale Farm. Although the dykes usually cross-cut the foliation, in places the foliation swings into parallelism with the dykes suggesting that the gabbros were still hot and plastic at the time of dyke injection. The exposures have been interpreted as a sheeted dyke complex although the proportion of dykes to gabbro is much lower than that found in more recent ophiolite complexes. For this reason the precise significance of Millenderdale dykes remains open to debate.

Notified Natural Features: Geological, Ordovician igneous: Igneous petrology

Site conditions currently described as favorable / maintained for Ordovician igneous: Igneous petrology

**Sgavoch, category G, area = 6.12Ha**

Sgavoch lying approximately 2km south of Ballantrae illustrates the Ballantrae Complex, of Ordovician age (from 510 to 435 million years ago), which consists of three belts of pillow lavas and associated sediments, separated from each other by ultramafic intrusive rocks. The Complex shows many of the features of an obducted ophiolite although geochemical studies indicated that the various igneous rocks were generated in a variety of tectonic settings and have since been tectonically juxtaposed.

Coastal outcrops between Sgavoch Rock and Downan Point provide a section through part of the southern lava belt of the Complex. The lavas of the Downan Point Lava Formation are an essentially uninterrupted series of pillowed tholeiitic flows with only minor sedimentary intercalations. Faunal and radiometric evidence indicate a Llandeilo age for the lavas, suggesting that they are younger than the bulk of Ballantrae Complex which is Arenig in age. Geochemical analysis indicates an ocean-island origin for the lavas and thus they may represent the oldest accreted terrain within the Southern Uplands which was scraped off the subducting Iapetus Ocean.

Notified Natural Features: Geological: Igneous petrology: Ordovician Igneous

Site conditions currently described as favorable / maintained for Igneous petrology: Ordovician Igneous

**Penwhapple Burn, category G, area = 28.7Ha**

This site best demonstrates the rocks and palaeontology of the Silurian strata of the Girvan area. Its long dip-section shows Llandoverly strata resting on the Ashgill Shalloch Formation. These strata contain graptolite and shelly faunas, and common trace fossil assemblages. This is a key regional site for studies of stratigraphy, palaeoecology and fossil faunas in the Lower Silurian.

Notified Natural Features: Geological: Llandoverly

Site conditions currently described as favorable / maintained for Llandoverly

**Pinbain Burn to Cairn Hill, category G&B, area = 522.38Ha**

Pinbain Burn to Cairn Hill SSSI is an area of upland some three kilometres south of Girvan in South Ayrshire. The natural features include geological exposures as well as a variety of upland and freshwater habitats whose diverse species composition reflects in large part the underlying geology.

The site lies on serpentinite and other ultrabasic rocks of the Ballantrae Complex, an association of rock type with a restricted distribution nationally. This is a large area, covering wide ranges of slope, aspect, elevation, hydrology and pedology, and in Britain there are few such sites where uninterrupted topographical sequences of vegetation over serpentinite can be seen.

The Ballantrae Complex, of Ordovician age (approximately 480 million years ago), consists of three belts of pillow lavas and associated sediments, separated from each other by ultramafic intrusive rocks. The Complex shows many of the features of an obducted ophiolite although geochemical studies indicate that the various igneous rocks were generated in a variety of tectonic settings and have since been tectonically juxtaposed. The small river valley and hillside exposures to the west and north west of Knocklaugh Farm expose a fifty-metre-thick sequence of metabasic rocks. Black shales and sheared spilitic lavas occur at low levels in the sequence, these pass upwards through banded epidote schists and amphibolites to garnet metapyroxenites which in turn underlie a large serpentinite body. The igneous sequence shows increasing metamorphic grade with height and is interpreted as an inverted dynamo-thermal aureole developed at the base of a serpentinite nappe during obduction.

On the wide plateau to the east of Grey and Fell hills a distinctive base-rich mire community has developed, containing purple moor-grass *Molinia caerulea*, mat-grass *Nardus stricta*, and a high proportion of sedges including carnation sedge *Carex panicea*, tawny sedge *C. hostiana*, flea sedge *C. pulicaris* and star sedge *C. echinata*, with herbs such as bog asphodel *Narthecium ossifragum*. Along old drainage lines, and in natural soakways where base-rich flushing is more pronounced, the vegetation is dominated by black bog-rush *Schoenus nigricans*, with common butterwort *Pinguicula vulgaris*, few-flowered spike-rush *Eleocharis quinqueflora*, long-stalked yellow-sedge *C. lepidocarpa* and the uncommon broad-leaved cottongrass *Eriophorum latifolium*. In natural depressions along the foot of Grey and Fell Hills rainwater run-off is ponded up in basin mires supporting bottle sedge *C. rostrata*, bogbean *Menyanthes trifoliata*, and bog pondweed *Potamogeton polygonifolius*, with the moss *Sphagnum subnitens* and stonewort *Chara globularis*.

Dry acid grassland of fescues *Festuca spp.*, bents *Agrostis spp.* and wavy hair-grass *Deschampsia flexuosa*, with dry heath of heather and bell heather *Erica cinerea*, occurs on the granite slopes of Grey Hill. On south-facing slopes over serpentinite large areas of fine species-rich grassland include the colourful herbs thyme, common rock-rose *Helianthemum nummularium*, kidney vetch *Anthyllis vulneraria*, lady's bedstraw *Galium verum* and bird's-foot-trefoil *Lotus corniculatus*. The locally uncommon juniper *Juniperus communis* and the nationally scarce plants spring sandwort *Minuartia verna* and alpine penny-cress *Thlaspi alpestre* occur where the underlying serpentinite is close to or outcrops from the soil surface.

Loch Lochton is a rare example of a natural water body on serpentinite. Both white *Nymphaea alba* and yellow *Nuphar lutea* water lilies are present, and the loch is surrounded by an excellent undisturbed transition fen with marsh cinquefoil *Potentilla palustris*, greater and lesser tussock sedges *Carex paniculata*, *C. diandra* and the hybrid between them *C. x beckmanii* at its only known Scottish location.

Notified Natural Features: Geological: Igneous petrology: Ordovician igneous

Biological: Non-montane rock habitats: Calaminarian grassland & serpentine heath  
Biological: Upland habitats: Subalpine acid grassland  
Biological: Upland habitats: Upland assemblage  
Biological: Freshwater habitats: Base-rich loch

Site conditions currently described as favorable / maintained for upland assemblage, Ordovician Igneous, Base-rich loch while Calaminarian grassland & serpentine heath & Subalpine acid grassland are both unfavourable / no change

**Turnberry Lighthouse to Port Murray, category G, area = 24.41Ha**

From Turnberry Lighthouse to Port Murray a thick sequence of up to thirty basic andesite sheets, often strongly plagiophyric and ranging from two to twenty-five metres in thickness, are in places separated by siltstones and sandstones of Lower Devonian age (approximately 410 million years ago). The site has been historically important in the study of the Devonian lavas of Scotland and is notable for fine exposures illustrating the internal variation in the andesite sheets and the nature of their contacts. The latter are characterised by pillow structures, peperites (thermally shattered magma), and complex enclosures and veins of sediment. Recent research has demonstrated that the sheets, formerly thought to be subaerial lava flows, are sills emplaced at shallow depths into unconsolidated wet sediment.

Notified Natural Features: Geological: Igneous petrology: Old Red Sandstone Igneous

Site conditions currently described as favorable / maintained for Old Red Sandstone Igneous

**Aldons Hill, category B, area = 235.6Ha**

The site lies on serpentinite and associated ultrabasic/basic rocks of the Ballantrae Complex, an association of rock types with a restricted distribution nationally. This is one of a range of upland sites which demonstrates the variety and extent of vegetation on basic rocks, and it forms part of a national series of sites on igneous rock types.

The area is topographically and geologically complex, composed of pillow lavas and igneous dykes, with raised knolls separated by hollows and valleys of lower-lying ground, all superimposed on the larger landforms of Fell and Aldons Hills. This complexity gives rise to a vegetation mosaic in which communities indicative of different soil chemistries and water regimes are closely juxtaposed.

On rocky knolls on Aldons Hill there is extensive dry heath of heather *Calluna vulgaris* and bell heather *Erica cinerea*, with scattered patches of bracken *Pteridium aquilinum* on steeper slopes. Where ground water collects in sumps and soakways throughout this area a complex of mire communities has developed. Wet heath of deergrass *Trichophorum cespitosum*, cross-leaved heath *Erica tetralix* and purple moor-grass *Molinia caerulea*, with common sedge *Carex nigra* and flea sedge *C. pulicaris* is widespread, with rushes *Juncus* spp and bog myrtle *Myrica gale* abundant locally. Ground water running off base-rich basalt and gabbro supports a more varied mire type with dioecious sedge *Carex dioica*, common butterwort *Pinguicula vulgaris* and grass-of-Parnassus *Parnassia palustris*, and is often dominated by black bog-rush *Schoenus nigricans*. In base-poor areas water collects in acidophilous basin-mires dominated by bog-mosses *Sphagnum* spp, with common cottongrass *Eriophorum*

*angustifolium* and bog asphodel *Narthecium ossifragum*.

The slopes of Fell Hill support a fine base-rich grassland of fescues *Festuca* spp and bents *Agrostis* spp. Other species present include heath-grass *Danthonia decumbens*, crested hair-grass *Koeleria macrantha*, wild thyme *Thymus praecox*, harebell *Campanula rotundifolia*, beautiful St. John's Wort *Hypericum pulchrum*, lady's bedstraw *Galium verum* and sea plantain *Plantago maritima*. On lower-lying ground this grades into marshy vegetation with the tall herbs meadowsweet *Filipendula ulmaria*, common valerian *Valeriana officinalis* and sneezewort *Achillea ptarmica*, and locally dominated by tufted hair-grass *Deschampsia cespitosa*. To the west of Fell Hill the land has received agricultural treatments, and is generally less species-rich.

Notified Natural Features: Biological: Grassland  
Biological: Heathland  
Biological: Upland

Site conditions currently described as unfavorable / declining for subalpine calcareous grassland, Calcareous grassland (Upland); unfavourable / no change for subalpine wet heath, Dwarf shrub heath (Upland) & subalpine dry heath Dwarf shrub heath (Upland); favourable / maintained for Upland assemblage, mosaic

#### **Knockdaw Hill, category B, area = 387.33**

Knockdaw Hill SSSI is an area of upland some ten kilometres south of Girvan in South Ayrshire. The natural features include a variety of upland habitats whose diverse species composition reflects in large part the underlying geology. The SSSI overlies intrusions of serpentinite and other ultrabasic rocks of the Ballantrae Complex. These rock types have a restricted distribution nationally. The site demonstrates an important part of the range of variation in serpentinite vegetation in Britain, providing a valuable contrast with upland serpentinite sites in north east Scotland and lowland serpentinite sites in south west England.

On steep well-drained soils dry grassland of fescues *Festuca* spp. and bents *Agrostis* spp. occurs in both base-poor and base-rich variants. On relatively base-poor spilitic lavas heath bedstraw *Galium saxatile* and tormentil *Potentilla erecta* are the commonest associated species. Over serpentinite, where base enrichment is pronounced, species present include common rock-rose *Helianthemum nummularium*, mouse-ear hawkweed *Hieracium pilosella*, wild thyme *Thymus polytrichus* and lady's bedstraw *Galium verum*, with fairy flax *Linum catharticum* and sea plantain *Plantago maritima*. On the southern slopes of Knockdaw Hill heather *Calluna vulgaris* and bell heather *Erica cinerea*, dominate the herb-rich dry heath which also includes the locally uncommon northern bedstraw *Galium boreale* and meadow oat-grass *Avenula pratensis*, with dropwort *Filipendula vulgaris* at its only west of Scotland locality.

South and east of Knockdaw Hill wet heath of purple moor-grass *Molinia caerulea* and cross-leaved heath *Erica tetralix* is enriched with sedges *Carex* spp. and black bog-rush *Schoenus nigricans* where ground water reaches the surface. On higher ground deeper peats isolate the vegetation from the underlying geology, giving a hydrologically controlled vegetation patterning between the above community and a base-poor one in which deergrass *Trichophorum cespitosum* and heath rush *Juncus squarrosus* predominate.

Base-rich soakways draining the west side of Knockdaw Hill support broad-leaved cottongrass *Eriophorum latifolium* and the nationally scarce lesser tussock-sedge *Carex diandra*. These feed a basin mire comprising a floating raft of bottle sedge *Carex rostrata* and bryophytes with some colonisation by grey willow *Salix cinerea*. Bog-myrtle *Myrica gale* occupies flush vegetation surrounding this basin and along the Garna burn.

A varied sequence of mire types occupies another sump on Craig Hill, where in addition to species-rich communities, common reed *Phragmites communis* and bog-

mosses *Sphagnum spp.* dominate locally.

Notified Natural Features: Biological: Upland habitats: Subalpine calcareous grassland

Biological: Upland habitats: Subalpine dry heath

Biological: Upland habitats: Subalpine wet heath

Biological: Upland habitats: Alkaline fen

Biological: Upland habitats: Upland assemblage

Site conditions currently described as unfavourable / declining for: subalpine calcareous grassland, Calcareous grassland (Upland); Alkaline fen, Fen, marsh and swamp (Upland); Subalpine wet heath, Dwarf shrub heath (Upland); Subalpine dry heath, Dwarf shrub heath (Upland) & Favourable / Maintained for Upland assemblage, Mosaic

**Littleton & Balhamie Hills, category B, area = 242.47Ha**

Littleton and Balhamie Hills is a predominantly upland area two kilometres south of the town of Lendalfoot. The site lies on serpentinite and other ultrabasic rocks of the Ballantrae Complex, and supports a variety of upland and fen habitats whose diverse species composition reflects in large part the underlying geology. It provides a valuable contrast with upland serpentinite sites in north east Scotland and lowland serpentinite sites in south west England.

On better drained soils, especially on south-facing slopes, a fine base-rich turf of fescue *Festuca spp.* and bents *Agrostis spp.* occurs with common milkwort *Polygala vulgaris*, mouse-ear hawkweed *Hieracium pilosella*, wild thyme *Thymus praecox*, common knapweed *Centaurea nigra*, lady's bedstraw *Galium verum* and northern bedstraw *G. boreale*. Flushed areas here support common centaury *Centaureum erythraea* and bog pimpernel *Anagallis tenella*.

Flushes elsewhere on sloping ground support alkaline fen vegetation with dense growths of black bog-rush *Schoenus nigricans*, as well as common butterwort *Pinguicula vulgaris* and early marsh-orchid *Dactylorhiza incarnata*. Rapid erosion at some springlines gives rise to well-developed communities of few-flowered spike-rush *Eleocharis quinqueflora* and bog pondweed *Potamogeton polygonifolius* in open gravelly runnels within the flush.

A distinctive feature of the site is the extensive basin fen below Lochton Hill, with bottle sedge *Carex rostrata*, bogbean *Menyanthes trifoliata* and marsh cinquefoil *Potentilla palustris* as well as bog sedge *Carex limosa* and lesser tussock-sedge *C. diandra*. Other species include marsh-marigold *Caltha palustris* and water horsetail *Equisetum fluviatile*, with lesser spearwort *Ranunculus flammula* and ragged-robin *Lychnis flos-cuculi*. In base-rich flushes feeding a smaller basin fen between Moak C102037 1 of 2

and Knockormal Hills, broad-leaved cottongrass *Eriophorum latifolium* grows with grass-of-Parnassus *Parnassia palustris* and a variety of calcicolous mosses.

The calcareous grassland and fens occur within a mosaic of semi-natural upland habitats that also includes areas of dry heath, wet heath and acid grassland, although these are not notified natural features of the site.

Notified Natural Features: Biological: Upland habitats: Subalpine calcareous grassland

Biological: Upland habitats: Alkaline fen

Biological: Fens: Basin fen

Site conditions currently described as Unfavorable / no change for Basin fen, Fen, marsh and swamp (Wetland); Subalpine calcareous grassland, Calcareous grassland (Upland); Alkaline fen, Fen, marsh and swamp (Upland) and favourable / maintained for Upland assemblage, Mosaic

**Bennane Head Grassland, category Barea = 70.86Ha**

Bennane Head Grasslands SSSI comprises three neighbouring areas of grassland near the coast three kilometres south of Lendalfoot. The site, like other nearby grasslands, is associated with the ultrabasic rocks of the Ballantrae Complex, but is distinctive in lying over neutral soils. Such lowland neutral grassland is of restricted distribution in Scotland and the examples within the SSSI are of particular interest for their diversity of flowering plant species, including the only Scottish population of green-winged orchid *Orchis morio*.

The most widespread community within the site is mesotrophic grassland dominated by sheep's fescue *Festuca ovina*, with sweet vernal-grass *Anthoxanthum odoratum*, crested dog's tail *Cynosurus cristatus*, heath-grass *Danthonia decumbens* and crested hair-grass *Koeleria macrantha*. Herbs present include common bird's-foot trefoil *Lotus corniculatus*, devil's-bit scabious *Succisa pratensis*, common knapweed *Centaurea nigra*, eyebright *Euphrasia* agg. and selfheal *Prunella vulgaris*. This type of grassland is scarce in Scotland and has declined markedly across the UK due largely to agricultural intensification. The Bennane Head Grasslands are of further interest on account of their outlying location and the maritime influence apparent in the presence of species such as spring squill *Scilla verna* and sea plantain *Plantago maritima*, the latter abundant here but not known to occur in this community elsewhere in Britain.

On Bennane Hill small rocky knolls, which have escaped agricultural improvement, also support meadow saxifrage *Saxifraga granulata*, knotted clover *Trifolium striatum* and heath pearlwort *Sagina subulata*. Elsewhere, pockets of a more base-rich turf include wild thyme *Thymus praecox* and lady's bedstraw *Galium verum*. By Bennane Burn there are fine examples of species-rich unimproved neutral grassland supporting common restharrow *Ononis repens*, kidney vetch *Anthyllis vulneraria* and burnet-saxifrage *Pimpinella saxifraga*.

At Troax farm the neutral grasslands contain fragrant orchid *Gymnadenia conopsea*, field gentian *Gentianella campestris* and frog orchid *Coeloglossum viride*. Springs on east-facing slopes emerge at the contact with underlying serpentinite rock. Where one such spring emerges, whorl-grass *Catabrosa aquatica* and small sweetgrass *Glyceria declinata* grow in waterlogged soils, with the flushed slopes below supporting a sedge-rich sward with abundant grass-of-Parnassus *Parnassia palustris*. On south-facing slopes base-enrichment is more pronounced, with flushes of black bog-rush *Schoenus nigricans* and long-stalked yellow-sedge *Carex lepidocarpa* linking the neutral grassland with base-rich fen of common sedge *C. nigra*, common cottongrass *Eriophorum angustifolium* and marsh pennywort *Hydrocotyle vulgaris*. Also found here are bog pimpinella *Anagallis tenella* and knotted pearlwort *Sagina nodosa*. Stands of lesser pond-sedge *Carex acutiformis* are present along the Balcreuchan burn.

The site is particularly notable for supporting the only Scottish population of green-winged orchid *Orchis morio*. The species occurs in several distinct sub-populations across the three separate areas comprising the SSSI.

Notified Natural Features: Biological: Lowland grassland: Lowland neutral grassland  
Biological: Vascular plants: Green-winged orchid (*Orchis morio*)

Site conditions currently described as unfavourable / Declining for Lowland neutral grassland, Neutral grassland and favourable / maintained for vascular plant assemblage, vascular plants.

### **Glen App & Galloway Moors, area = 8942.98Ha**

Glen App and Galloway Moors SSSI consists of three adjacent upland areas to the north of Castle Kennedy and south of Ballantrae. These areas, which comprise a mosaic of blanket bog, wet/dry heath and acid grassland habitats used by a variety of upland moorland breeding birds, are effectively split by the A77 trunk road and a large expanse of commercial forestry which extends eastwards from the A77 to the eastern boundary of the SSSI.

Amongst the moorland birds present is the hen harrier *Circus cyaneus*, a species listed in Annex I of the EC Birds Directive, and for which the SSSI is of national and European importance by virtue of regularly supporting 2% of the Great Britain breeding population.

Notified Natural Features: Biological: Species: Birds

Site conditions currently described as favourable / maintained for Hen Harrier breeding

**SOURCE: Scottish Natural Heritage & South Ayrshire Council**

## **Scottish Wildlife Trust – Wildlife Sites**

Within the South Ayrshire Council boundaries there are 4 confirmed wildlife sites and 109 provisional wildlife sites. These sites are a material consideration in relation to planning application submissions. Below is further detail of the confirmed sites.

### **Pow Mill Wood, Prestwick**

Pow Mill Wood is a small site with average habitat diversity but with higher than average species diversity. The site contains locally rare habitats and nationally rare species as well as locally uncommon species. Despite past human disturbance the site is mainly natural in substance.

### **Doonfoot & Cunning Park, Ayr**

A coastline with sand dunes and rocky headlands of high ornithological, botanical and marine biological interest. In addition, the open fields and marsh at Greenan and Cunning Park support significant numbers of wintering birds, while the small island below the Doonfoot weir contains species-rich marsh and woodland communities.

### **Rozelle, Ayr**

An educationally-valuable site, containing unusual plants and a wide range of breeding birds; possibly threatened by over-use by popular recreation.

### **Alloway Railway Track**

Wildlife Site 76 consists mainly of a long stretch of dismantled railway line which is now a partially natural habitat. The woodland and hedgerows of the dismantled railway track together with the adjacent long-established mixed plantation form an important corridor that benefits wildlife including birds, red squirrels and butterflies.

**SOURCE: Scottish Wildlife Trust**

## **Ornithological Sites of Local Interest**

### **Rozelle and Belleisle Parks, Ayr**

Wide variety of habitat: open grassland (two golf courses in Belleisle); coniferous, deciduous and mixed woodland; pond in Rozelle and Slaphouse Burn through both.

Over 110 species recorded. Rozelle is best for woodland species: spotted flycatcher, great spotted

woodpecker, sparrowhawk, goldcrest, warblers, tits and other garden birds. Belleisle has a large rookery and breeding stock dove, tawny owl, blackcap, chiffchaff among

others. Both parks attract winter flocks of finches and thrushes.

### **Doonfoot and Greenan Shore**

Prime site for waders, gulls and waterfowl. 32 species of wader recorded from late July to April/May; over 1000 curlew on a night roost. High numbers of golden plover, lapwing (autumn/winter); possible sanderling, little stint, curlew sandpiper, greenshank.

Nationally important goldeneye flock and c.400 moulting eider in season. Many species on passage: wigeon, pintail, common scoter, scaup, pochard, tufted duck, grebes and divers. Thousands of gulls roost in autumn/winter: records of glaucous, Iceland, little, Mediterranean, ring-billed. Winter finch and bunting flocks in marram grass and on foreshore.

Byway along N bank of R Doon links to Belleisle and Rozelle Parks: possible kingfisher, dipper, grey heron along the way; also otter. Or continue N along the promenade for stonechat, skylark, finches or S by the cycle way into pasture and hedgerow habitat and join the Doonfoot/Alloway old railway path.

### **Doonfoot to Alloway Old Railway**

Good shelter belt along embankments/cuttings by garden, hedgerow, woodland and farmland with at least 35 species regularly seen over 10 years: finches, tits, thrushes, warblers, crows, robin, wren, dunnock, grey/pied wagtail, spotted flycatcher, lesser whitethroat: goosander, dipper from bridge over R Doon.

### **Ayr Harbour and the Auld Brig**

Harbour: cormorant shag, breeding black guillemot. Best in winter/migration: purple sandpiper on rocks; scaup, goldeneye, long-tailed duck offshore; red breasted merganser, red-throated diver, gannet, guillemot, razorbill, Manx shearwater (strong onshore winds).

Auld Brig: good for gulls (occasional Iceland and glaucous gull) and large flock of mute swan, occasional whooper.

### **Newton-upon-Ayr Shore**

Good mixture of rock, shingle and sandy beach attractive to birds especially in winter/migration season. Species on record include glaucous gull, long-tailed duck, Arctic, common and sandwich tern, scaup, goldeneye, Slavonian, little and red-necked grebe, razorbill, little auk, black guillemot, black redstart, snow bunting, peregrine.

### **Auchincruive Trails**

The Three Green Knights and Waggonway trails can be combined into a 5km walk through diverse habitat very typical of lowland Ayrshire: riverside, mixed woodland, open grass and pasture. Cross bridge, follow green signs left up river bank then red signs for a round trip. River: goosander, dipper, grey heron, grey/pied wagtail, possible kingfisher. Woodland: finches, tits, thrushes, treecreeper, goldcrest, great spotted woodpecker, jay, seasonal warblers, spotted flycatcher. Farmland: starling, rook, carrion crow, jay. Field and hedgerow species, seasonal swallow, swift, house and sand martin. Raptors: sparrowhawk, kestrel, buzzard.

### **Pow Burn and Prestwick Bay**

Sand and gravel shoreline; small saltmarsh and tidal mudflats; sheltered inner estuary; wild grassed dunes with golf course close by. Over 130 species recorded, mostly spring or autumn passage. Notable for estuarial and grassland species but anything possible following a storm. Kingfisher regular. Passage species have included: spotted redshank, greenshank, little egret, spoonbill, surf scoter, Brent goose. Marram grass and golf course good for wintering finches, buntings, occasional short-eared owl.

### **Troon and Barassie Shore**

N Sands: major Ayrshire wader and gull site. Huge gull roosts here and on Meikle Craigs (S Sands); Iceland, glaucous and Mediterranean gulls regular in winter. Large

autumn build up of waders: oystercatcher, dunlin, redshank, ringed and golden plover (Stinking Rocks), some wintering sanderling; records of buff-breasted and white-rumped sandpiper, American golden plover. Harbour: active fishing fleet attracts gulls, black guillemot, eider, red-breasted merganser. Headland: good sea-watching: gannet, Manx shearwater, storm and Leach's petrel.

#### **Fullarton Woods, Troon**

Reasonably wide variety of common resident and migrant woodland species including: great spotted woodpecker, blackcap, willow warbler, chiffchaff, spotted flycatcher and many others. Rich in bird song in spring. Green woodpecker also possible. Fields to north towards Loans flood in winter. Good for greylag geese, roosting waders and ducks.

#### **Lady Isle**

Huge lesser black-backed and herring gull colony. Also greater black-backed gull, eider, cormorant, shag, oystercatcher. Wintering purple sandpiper, dunlin, turnstone. Divers and auks.

#### **River Ayr Gorge, Failford**

Sandstone river gorge flanked by rich, well-established deciduous and coniferous woodland with network of paths for circuitous walks of 1-3 hours duration. Breeding great spotted woodpecker, kingfisher, redstart, garden warbler, blackcap, wood warbler, pied flycatcher, jay and many others. Rich in bird song in spring. Buzzard, sparrowhawk present. Recent nuthatch record.

#### **Lady Hunter Blair's Walk, Straiton**

Good for jay, kestrel, siskin, redpoll.

#### **Blairquhan Estate, Straiton**

Buzzard, tree pipit, redstart, garden and wood warbler, blackcap, pied flycatcher, dipper.

#### **Loch Bradan Waterworks Road, Straiton**

Good for dipper, grey wagtail, siskin, crossbill, spring migrants

#### **Stinchar Bridge, Straiton**

Good for meadow pipit, bullfinch, song thrush, buzzard; also siskin, crossbill, black grouse.

#### **Forest Drive, Straiton**

goosander, tufted duck, little grebe, snipe, common sandpiper; wheatear, stonechat; coal tit, goldcrest, finches including crossbill, redpoll, siskin; buzzard, kestrel, barn owl.

#### **Cornish Hill, Straiton**

Moorland: red grouse, black grouse, wheatear, Where to Watch Birds in South Ayrshire 31 stonechat, meadow pipit; skylark, buzzard, kestrel, merlin. Loch: common sandpiper, goosander, tufted duck, little grebe. Woodland: goldcrest, coal tit, crossbill, finches, thrushes, dunnock.

#### **Shalloch on Minnoch**

Mostly rough, open country. Expect: buzzard, merlin, red grouse, black grouse, golden plover, curlew, wheatear, raven. Occasional dotterel on passage.

### **Culzean Country Park**

Combination of 50% mixed mature woodland, 22% farmland, ponds and 5km of coastline results in a healthy bird list of 110-120 species annually of which around 50 breed. Woodland: wide range of breeding warblers; also great spotted woodpecker, kestrel, sparrowhawk, tawny and barn owl, stock dove and finches; large mixed flocks of wintering tits; occasional woodcock. Buildings: swift, swallow, house martin. Coast: raven, fulmar, Where to Watch Birds in South Ayrshire 32 peregrine. Pond: little grebe, water rail, tufted duck all year; wintering pochard, goldeneye and others. Large grey heron roost in nearby field.

### **Maidens Harbour and Shore**

The rocky shore, tidal harbour and sandy beach backed by marram grass together attract a wide range of passage and wintering species, notably waders: redshank, dun/in, golden plover, eider, shelduck. On occasion: curlew sandpiper, water pipit, Brent goose. Divers and grebes.

### **Turnberry Point**

Excellent sea-watching: shearwaters, petrels, scoters, divers, grebes, skuas on passage; gannet, auks, gulls. Foreshore good for wide variety of migrant waders: records of whiterumped and pectoral sandpiper and grey phalarope. Track-side grass and scrub for: wheatear, whitethroat, stonechat, twite, warblers, pipits.

### **Blairbowie Farm Pool**

Prime passage/winter site for geese, ducks and waders: greylag, pink-foot, barnacle goose, whooper swan; mallard, wigeon, teal; ruff, black-tailed godwit, whimbrel, snipe. Where to Watch Birds in South Ayrshire 33 Records of green/wood and pectoral sandpiper, Bewick's swan, Brent goose, hobby. Large roosts of curlew. Breeding lapwing.

### **Heart Loch**

Attractive to wetland breeders and passage migrants: little grebe, water rail, grasshopper and sedge warbler, reed bunting. Records of green sandpiper and marsh harrier.

### **Laggan Loch, Girvan**

Coast: gannet, terns, gulls, waders. Woodland: wren, goldcrest, blackbird, song thrush. Open country: buzzard, raven, kestrel, rook, carrion crow, meadow pipit, skylark, wheatear, linnet and sedge, grasshopper and willow warbler. Hedgerow: robin, long-tailed tit, whitethroat.

### **Ailsa Craig**

RSPB reserve. Major gannet colony. Also lesser/great black-backed/herring gull and kittiwake, fulmar, guillemot, black guillemot, razorbill, shag and puffin. Rarities: Alpine swift, bluethroat, woodchat and red-backed shrike.

### **Dipple Shore**

Dipple burn attracts offshore seabirds: all three divers (mainly red-throated), eider, goldeneye, scaup, common scoter, long-tailed duck. Shingle shoreline has mainly oystercatcher and redshank. Nearby fields and scrub can contain large flocks of twite. Rarities: surf scoter, black redstart, water pipit.

### **Devil's Trail, Barr**

On migration flight path. Wide range of species according to season and habitat: tits, finches include siskin, tree pipit, redstart, chiffchaff, wood warbler, pied and spotted flycatcher, great spotted woodpecker, crossbill, buzzard, kestrel, peregrine, raven and many others.

### **Dailly, Lower Girvan Valley**

Wide variety of habitat, extremely rich birdlife: river with reed-fringed ox-bows; mixed, mainly pastoral farmland; manicured golf course; mature broad-leafed woodland.

Valley floor: breeding grasshopper and sedge warbler, reed bunting, common sandpiper, Where to Watch Birds in South Ayrshire 35 kingfisher, dipper, grey wagtail. Barn owl, buzzard and raven often seen. Woodland: good summer populations: great spotted woodpecker, redstart, blackcap, chiffchaff, garden and wood warbler, pied and spotted flycatcher, jay, sparrowhawk. Rarities: honey buzzard, osprey, hobby.

#### **Ballantrae Shore**

Breeding little, Arctic and common tern (please avoid the colony). Also oystercatcher, ringed plover, common sandpiper, sand martin, mute swan, greylag goose. Good seawatching: gannet, Manx shearwater. Migration stopover: osprey, little ringed plover, wood sandpiper, black tern. Some 77 species regularly seen over 10 years.

#### **Knockdolian Hill**

Oak woodland is scarce in Ayrshire. Extensive breeding community: tree pipit, redstart, wood and willow warbler, chiffchaff, pied flycatcher. Valley floor: breeding common sandpiper, grey wagtail, dipper, occasionally kingfisher, goosander, red-breasted merganser. Raptors include: buzzard, kestrel, sparrowhawk, hen harrier. Some 55 species regularly seen over 10 years. Records of osprey, green woodpecker and waxwing.

#### **Glen App and Drumlamford Lochs**

Glen App: hillsides of moorland and coniferous or broad-leaf woodland; deep scrub and sea views at coastal CP. Sea birds: red-throated diver, black guillemot, fulmar. Raptors: buzzard, kestrel, peregrine, sparrowhawk. Migrants include various thrushes, pipits, warblers in scrub and woodland. Drumlamford lochs: 5 upland lochs with reed beds and surroundings of Scots Pine, broadleaf woodland and moorland. Wide range of species can be seen across the two locations. River and loch: dipper, grey and pied wagtail, tufted duck, greylag goose, grey heron. Moorland and scrub: wheatear, stonechat, whinchat. Woodland: crossbill, willow tit, tree pipit, willow warbler, chiffchaff, siskin, sparrowhawk, buzzard, raven.

**SOURCE: Ayrshire Branch of Scottish Ornithologists' Club - Birdwatching in Ayrshire & Arran**

### **Woodland**

South Ayrshire has a total woodland area of 33980Ha which includes 1570Ha of Broadleaf, 14770 of Coniferous and 9610 of young trees: -

**SOURCE: East Ayrshire Woodlands**

### **Country Park**

Culzean Castle and Country Park covers some 600 acres a mixture of woodland, parkland, formal gardens and coastline all providing a range of habitat for flora and fauna , currently owned and managed by the National Trust for Scotland

**SOURCE: National Trust for Scotland**

### **Forest Park**

The area designated in 1947 as the Galloway Forest Park is one of the extensively forested locations in Scotland, ranging from Loch Doon in the North down to

Gatehouse of Fleet and east to west from Loch Ken to Barr. The Park covers some 368 square Km and is not only important in terms of its timber production but also for the space that it provides to the general public for recreational pursuits . It also provides important habitat for key species such as Red Squirrel, Red Deer, Wild Goat, Otter, Golden Eagle, Red Kite, Buzzards, Barn Owls and other raptors together with the elusive Crossbills

**SOURCE: Forestry Commission**

## **Tree Protection Orders**

### **1. CONFIRMED TREE PRESERVATION ORDERS - KYLE AND CARRICK DISTRICT COUNCIL**

<b>NO.</b>	<b>LOCATION</b>	<b>TOWN</b>	<b>DATE OF CONFIRMATION</b>
6	Piersland	<b>TROON</b>	11.1.78
7	Big Wood	<b>TURNBERRY</b>	8.6.78
11	Longhill Avenue	<b>AYR</b>	30.6.81
12	Treetops and Dunchattan	<b>TROON</b>	Early 1980
15	Bellevue Road	<b>PRESTWICK</b>	30.6.81
22	The Mote, Dumfries Park	<b>AYR</b>	27.3.85
23	Drumley House School.	<b>MOSSBLOWN</b>	8.2.84
24	Ayr Riding Stables, Hillfoot Road	<b>AYR</b>	24.8.84
25	Southwoods	<b>TROON</b>	12.9.84
28	Darley Woods	<b>TROON</b>	16.7.86
30	Castlehill Estate	<b>AYR</b>	25.1.90
31	Ardmillan Estate	<b>GIRVAN</b>	5.10.88
32	Dalblair Road	<b>AYR</b>	5.10.88
37	Craigend Road (Warrix and Landale)	<b>TROON</b>	25.11.91
39	Kilnford Drive	<b>DUNDONALD</b>	30.3.93
40	Elmbank Street / Tam's Brig	<b>AYR</b>	30.3.93
41	Stonefield Park	<b>AYR</b>	30.3.93
42	Greenan	<b>AYR</b>	1.7.93
43	Alloway and Greenfield Avenue	<b>AYR</b>	16.12.93
44	Longbank Road	<b>AYR</b>	28.7.94
46	Kirkmichael House	<b>KIRKMICHAEL</b>	15.12.94
47	Craigowan, Brewlands Road	<b>SYMINGTON</b>	9.3.95
49	Powmill Road, Pow Burn	<b>PRESTWICK</b>	15.12.94
50	Hole Road	<b>COYLTON</b>	18.5.95
51	Backlochans	<b>ANNBANK</b>	23.5.96

**2. CONFIRMED TREE PRESERVATION ORDERS - SOUTH AYRSHIRE COUNCIL**

<b>NO.</b>	<b>LOCATION</b>	<b>TOWN</b>	<b>DATE OF CONFIRMATION</b>
1/97	Seafield House	AYR	21.10.97
1/98	6, Racecourse View	AYR	10.6.98
3/98	Coodham Estate near	SYMINGTON	17.2.99
1/00	P owwill	PRESTWICK	6.6.00
1/01	Monkton Road	PRESTWICK	13.08.01
2/01	Slaphouse Burn Gorge, Maybole Road	AYR	26.07.01
3/01	Main Street	PRESTWICK	10.10.01
4/01	36 Maybole Road	AYR	20.02.02
5/01	Kirkport	TARBOLTON	13.02.02
6/01	Old Manse, Tarbolton Road	MONKTON	30.01.02
7/01	Carlton Motel, Ayr Road	PRESTWICK	23.01.02
8/01	Monkton Road (Three areas)	PRESTWICK	20.02.02
2/0	22, Symington Road South	SYMINGTON	10.01.02
3/02	38, Monkton Road	PRESTWICK	20.02.02
5/02	Colliers Oak..	DAILLY	05.08.03
2/03	Northcote	TURNBERRY	02.09.03
3,2003	MainStreet .	Straiton	10.02.04
4,2003	1a, Hunters Avenue	Ayr.	10.02.04
5,2003	59-61 Maybole Road..	Ayr	.10.02.04
1,2004.	48 Kilmarnock Road/Whiteside Drive	Monkton	06.04.04
2,2004	11, Southwood Road	Troon	17.04.04
3,2004	Doonbank Cottage	.Ayr	.08.04.04
1,2007	Castlehill Road/Inverkar Road	Ayr	03.04.07
2,2007	Redbrae, Maybole	Maybole	03.04.08

**SOURCE: South Ayrshire Council**

**Local Authority Green SpaceGreen Space**

South Ayrshire Council currently maintains 1924.19 Ha of greenspace, this includes estate gardens, parks, golf courses, sports pitches public open space, allotments, cemeteries and woodland all of which provides a vast range of habitats for flora and fauna.

**SOURCE:South Ayrshire Council**

## CULTURAL HERITAGE

### Archaeological Recorded Sites

There are 2653 recorded archaeological sites within South Ayrshire. This record that could be just about anything from a coin or piece of pottery to a fort or castle.

### Archaeological Trigger Zones

There are 1291 Archaeological trigger area /zones are areas within South Ayrshire. These are areas/zones where sensitive archaeological remains are known or suspect to survive. As such when any planning proposal or enquiry involving ground disturbance falls within an area/zone consultation with the West of Scotland Archaeological Service should take place.

**SOURCE: West of Scotland Archaeological Service & South Ayrshire Council**

### Scheduled Ancient Monuments

South Ayrshire Council currently has 94 scheduled monuments as designated by Historic Monuments. The definition of a scheduled monument is “a monument of national importance that Scottish Ministers have given legal protection under the Ancient Monuments and Archaeological Areas Act 1979”. South Ayrshire scheduled monuments can be divided into the following categories:-

#### **Prehistoric Ritual & Funerary – No. 14**

This category can include cairns – chambered, long & ring ; barrows – chambered & long ; mounds; ring enclosures; henges; stone circles, rows & standing stones; cup – marked stones.

Bain’s Hill, Maidens, Standing Stone

Bencallen Hill, Chambered Cairn

Blarbuie, stone

Finnarts Bridge, Cairn

Garleffin, Standing Stones and Mesolithic Settlement

Glaisnock, ring-ditch

Lyonston, standing stone

Ballmalloch, Chambered Cairn

Blarbuie, Cairn

Enterkine, Barrow

Gallow Hill, Settlement & Ring –ditch Girvan Mains

Girvan Mains, Roman Camps, linier cropmarker & enclosure

Kennel Mount, cairn

Mote Hill, barrow

#### **Prehistoric Domestic & Defensive – No. 32**

This category includes forts, duns, brochs, galleried dwellings, souterrains, houses, hut circles, homesteads, settlements, enclosures, palisade enclosures, crannogs, field systems, cairnfields and cultivated terraces.

Balchriston Crossing, dun

Balig, earthworks

Balig, enclosure  
Carleton Mains, enclosure  
Craigie, fort  
Dow Hill, fort  
Dowhill Mount, dun & earthworks  
Duniewick Camp, dun  
Gallow Hill, settlement & ring ditch  
Garleffin, standing stones & Mesolithic settlements  
Highpark, enclosure  
Houdston Hill, enclosure  
Kemp Law, fort  
Knockdon, enclosure  
Mote Knowe, dun  
Shalloch Hill, palisade enclosure  
Wardlaw Hill, earthworks

Cairnhill, palisade enclosure & timber house  
Craighead Hill, dun  
Craigmuir Mote, dun  
Dowan's Hill, dun  
Dunduff, fort  
Finnart's Hill, enclosure  
Girvan Mains  
Heads of Ayr, fort  
Hollowshean Camp, fort  
Howmoor Quarry, dun  
Kildoon, fort  
Maxwellston Hill, fort  
Nethermuir, homestead & enclosure  
Shields, enclosure  
Wasdlaw Hill, earthworks

**Roman – No. 1**

This category includes roads, civil settlements and military works

Girvan Mains, Roman Camp, linear cropmarkings and enclosure

**Crosses & Carved Stones No. – 2**

This category includes crosses – cross slabs, market crosses, cross-incised stones; stones with Pictish symbols, inscribed stones; tombstones and some misc. sculptured stones

Prestwick, market cross

Wallace's Stone, cross-incised stone

**Ecclesiastical No. 9**

This category includes churches, chapels, monasteries, nunneries, priories, burial grounds and burial enclosures. NB churches currently still used as places of worship are excluded from the scope of the schedule

Alloway Kirk

Barnweill Church

Crossraguel Abby

Kennedy Monument

Maybole Collegiate Church

Old Dailly Church

Old Kirkcudbright, church & graveyard, Kirk Holm Prestwick,  
The Lady Chapel, Kilkerran

Old Parish Church

**Secular No. 35**

This category includes non-prehistoric works which are military or defensive e.g. forts, castles, mottes; works which are domesticated e.g. houses, settlements, earthworks, homestead moats, towers & bastles and a range of other works such as barracks, artillery mounds, 20<sup>th</sup> century wartime defences roads, bridges, tollbooths, dovecotes, Martello towers, prisons, hospitals and sundials. It also includes wrecks.

Alloway motte  
Ayr Fort Gate  
Ayr Fort Wall  
Brigend Castle  
Camregan Castle  
Craigie Castle  
Crosbie House  
Culzean Coves, caves  
Dinvin, motte  
Dundonald Castle  
Greenan Castle  
Helenton Mote, motte  
Kirkhill Castle  
Knockinculloch, enclosures  
Mote Knowe, motte  
Old Dailly Church  
Thomaston Castle  
Whiteside, enclosure

Ardstincher Castle  
Ayr Fort Wall  
Barnweill, homestead moat  
Camp Castle  
Carleton, motte  
Craigneil Castle  
Culzean Castle, battery  
Dalquharran Castle  
Drummochreen, house  
Dunure Castle & dovecot  
Hallyards, farmstead  
Katie Gray's Rock, settlement  
Knockdolian Castle  
Lindston, moat  
Munteoch, settlement & field systems  
Tarbolton, motte  
Turnberry Castle

**Industrial – No.1**

This category includes canals & associated structures; mills, pottery kilns; engine houses, engines and railway stations. It can include iron bridges, roads and milestones; monuments characteristic of the industrial revolution. It also includes earlier sites representing the processing & manufacturing side of medieval life e.g. salt pans, early mines.

Monkton, windmill

**SOURCE: Historic Scotland – A List of Scheduled Monuments, Properties in Care & Protected Wrecks in Scotland 2002**

## Conservation Areas

South Ayrshire has a number of areas that, due to their architectural or historic merit, are considered worthy of preservation and enhancement for future generations continued enjoyment. These areas are afforded protection through designation, (awarded by the local authority as required by S.61 of the Planning (Listed Buildings & Conservation Areas) (Scotland) Act 1997), as conservation areas by the Council. A total of 21 such areas are currently designated, 5 of which are deemed to be of outstanding status by the Scottish Government. Additional influence on development is afforded in these areas through the use of Article 4 directions that enable the Council to guide development in respect of works that would not normally require planning permission

### Conservation Areas Designated

Alloway	Ayr (central)*	Ayr II
Ballantrae I	Ballantrae II	Barr
Kirkmichael	Colmonell	Crosshill
Dundonald	Dunure*	Straiton*
Troon	Southwood, Troon	Kirkoswald
Maybole*	Monkton	St Quivox
Symington	Burns Monument *	Girvan

- Denotes Outstanding Status

## Listed Buildings

South Ayrshire has 938 (as of June 2008) buildings which are listed by Historic Scotland as being of special architectural or historic interest. Historic Scotland states that for the purposes of designation the interest of the building must be 'special'. Designation of a property must satisfy set criteria which are used to distinguish this significance.

The criteria by which the Scottish Ministers define the necessary quality and character under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 are broadly: Age and Rarity; Architectural Interest; and Close Historical Association.

Approximately half of all of the listed buildings and structures are located within the urban area of Ayr, reflecting its historic role as a county town. However, the process of listing buildings recognises the historical and architectural importance of smaller, or more simple buildings, both within, and outwith settlements. This means that small rural cottages, farm buildings and traditional agricultural or industrial properties may also be afforded status and protection.

The Listed Buildings in South Ayrshire are broken into 3 categories:

### Category A – No.75

These buildings are recognised as being of national or international importance either for their architectural or historic value, or fine little altered examples of some particular period style or building.

**Category B- No. 450**

These buildings are recognised as being of regional or of more than local importance, or major examples of some particular period style or building

**Category C(S) – No.413**

These buildings are recognised as being of local importance, lesser examples of any period, style or building, as originally constructed or altered; and simple, traditional buildings which group well with others

**SOURCE: Historic Scotland & South Ayrshire Council**

## **Gardens & Designed Landscapes**

South Ayrshire has 8 Historic Gardens & Designed Landscapes as at Nov. 2003

Auchincruive	Glenapp
Bargany	Kilkerran (Barclanachan)
Blairquhan	Rozelle (La Rochelle)
Carnell (Cairnhill)	Culzean Castle

These gardens are often, though not exclusively, large designed gardens and landscapes formed as a setting for important buildings, or for recreation. Many of the buildings for which these landscapes were formed are afforded statutory protection, although the landscapes themselves had no specific protection. Scottish Natural Heritage together with Historic Scotland identify the eight locations above as sites of conservation value. The Garden History Society has identified a further 31 sites, which although of importance, do not remain in their original form.

**SOURCE : South Ayrshire Council**

## Human Health

### Life Expectancy

Life expectancy in South Ayrshire is slightly higher than the national average with Females living to be 80.6yrs of age and males 75.7yrs of age

**SOURCE: General Register Office for Scotland for years 2005-07**

### Healthy Life Expectancy

While life expectancy is increasing healthy life expectancy (no. Of years of good health that people can enjoy) is not increasing as fast. As such those over 60 are likely to spend more years in poor health and requiring more care and support in the future. Therefore encouraging and enabling people to keep fit and healthy is beneficial for all – increasing peoples general health and reducing requirement of health service and associated health providers.

**SOURCE: South Ayrshire Council – Single Outcome Agreement for South Ayrshire**

### Age & General Health Age 16-74

Within South Ayrshire the general health of the population is broken down as follows :

16-34 (total no. 23726)	Good & fairly good health = 96.1%
	Not good health = 3.9%
35-49 (total no. 24486)	Good & fairly good health = 92.09%
	Not good health = 7.1%
50- to Pensionable Age (total no. 18757)	Good & fairly good health = 85.4%
	Not good health = 14.6%
Pensionable Age – 74 (total no. 14934)	Good & fairly good health = 83.4%
	Not good health = 16.6%

Below is a table from [www.scrol.gov.uk](http://www.scrol.gov.uk) which provides a breakdown of age & general health age 16-74 South Ayrshire residents by ward as per the 2001 census

Ward	All people	16-34	Good and fairly good health	Not good health	35-49	Good and fairly good health	Not good health	50 – Pensionable Age	Good and fairly good health	Not good health	Pensionable Age – 74	Good and fairly good health	Not good health
Annbank Mossblown St Quivox	2951	945	916	29	866	733	93	639	505	134	501	381	120
Ayr Belmont	81903	23726	22802	924	24486	22550	1936	18757	16029	2728	14934	12462	2472
Ayr Central	2569	930	879	51	605	533	72	499	370	129	535	409	126
Ayr Craigie	2585	856	817	39	707	621	86	554	549	95	468	370	98
Ayr Doonfoot and Seafield	2713	492	477	15	761	731	30	818	767	51	642	573	69
Ayr Forehill	2466	700	680	20	722	650	72	537	451	86	507	405	102
Ayr Fort	2103	516	494	22	559	527	32	558	518	40	470	419	51
Ayr Lochside	2777	1034	942	92	774	656	118	517	372	145	452	344	108
Ayr Masonhill	2995	774	761	13	1053	1011	42	709	648	61	459	401	58
Ayr Newton	2818	879	847	32	888	824	64	585	409	95	466	381	85
Ayr Old Belmont	2624	562	549	13	801	767	34	676	610	66	585	515	70
Ayr Rozelle	2677	507	496	11	770	747	23	786	734	52	614	563	51
Ayr Whitletts	2655	950	890	60	818	690	128	500	371	129	387	286	101
Coylton and Minishant	2875	836	807	29	971	896	75	611	517	94	457	379	78
Dundonald and Loans	2572	685	646	39	759	708	51	683	586	97	445	372	73
Girvan Ailsa	2499	661	624	37	655	602	53	615	518	97	568	472	96
Girvan Glendoune	2656	877	835	42	735	647	88	565	457	108	479	380	99
North Carrick and Maybole East	2760	887	854	33	843	773	70	593	471	122	437	354	83
North Carrick and Maybole West	2960	833	807	26	919	847	72	728	637	91	480	390	90
Prestwick Kingcase	2625	672	653	19	780	733	47	609	524	85	564	478	86
Prestwick St Cuthbert's and Monkton	2641	649	636	13	816	764	52	614	536	78	562	492	70
Prestwick St Nicholas'	2915	1059	1024	35	964	907	57	506	428	78	386	318	68
Prestwick St Ninian's	2595	649	629	20	831	781	50	609	547	62	506	450	56
Prestwick Toll	2686	833	800	33	769	701	68	533	414	119	551	454	97

South Carrick	3017	765	735	30	903	846	57	784	687	97	565	486	79
Tarbolton Symington Craigie	3148	947	918	29	963	891	72	748	641	107	490	408	82
Troon East	2809	822	794	28	863	812	51	731	648	83	393	334	59
Troon North	2877	823	808	15	1001	956	45	693	626	97	360	304	56
Troon South	2374	543	523	20	718	680	38	601	554	47	512	460	52
Troon West	2917	976	936	40	805	712	93	611	518	93	525	426	99

General health refers to health over the 12 months prior to Census day (29<sup>th</sup> April 2001)

**SOURCE: Scotland Census 2001**

## Limiting Long Term Illness

Within South Ayrshire 21.2% of the population suffer from a long term illness :

Below is a table from [www.scrol.gov.uk](http://www.scrol.gov.uk) which provides a breakdown of longterm illness into South Ayrshire Wards as per the 2001 census.

### Geographical level : Census Standard Wards

	ALL PEOPLE	With a limiting long-term illness	Without a limiting long-term illness
SUMMARY	112097	23748	88349
Annbank Mossblown St Quivox	3922	905	3017
Ayr Belmont	3984	864	3120
Ayr Central	3403	1050	2353
Ayr Craigie	3562	870	2692
Ayr Doonfoot and Seafield	3737	746	2991
Ayr Forehill	3465	883	2582
Ayr Fort	3061	839	2222

Ayr Lochside	3848	932	2916
Ayr Masonhill	3999	562	3437
Ayr Newton	3665	741	2924
Ayr Old Belmont	3571	705	2866
Ayr Rozelle	3568	556	3012
Ayr Whitletts	3765	981	2784
Coylton and Minishant	3935	781	3154
Dundonald and Loans	3497	667	2830
Girvan Ailsa	3531	892	2639
Girvan Glendoune	3622	796	2826
North Carrick and Maybole East	3827	796	3031
North Carrick and Maybole West	4025	813	3212
Prestwick Kingcase	3692	771	2921
Prestwick St Cuthbert's and Monkton	3572	745	2827
Prestwick St Nicholas'	3987	665	3322
Prestwick St Ninian's	3630	721	2909
Prestwick Toll	3733	987	2746
South Carrick	4105	877	3228
Tarbolton Symington Craigie	4223	875	3348
Troon East	3826	606	3220
Troon North	3858	504	3354

Troon South	3482	733	2749
Troon West	4002	885	3117

NB. Limiting long-term illness covers any long-term illness, health problem or disability which limits daily activities or work a person can do.

**SOURCE: Scotland Census 2001**

### Over 60's Requiring some form of care

From 2002 -2020 the number of people , 60 and over, expected to require some form of care either at home or in an institutional setting is likely to increase by 25% to 16,500 people..

**SOURCE: South Ayrshire Council – Single Outcome Agreement for South Ayrshire**

### Areas of Health Concern

The following, in 2003, were areas of concern:-

- Alcohol – related hospital admissions 16.5% above national average
- Deaths attributed to smoking 42.5% above national average
- Hospital admissions due to suicide or deliberate self-harm 25% above Scottish average
- Diabetes hospital admissions 21% above national average
- Use of antidepressants 14% above Scottish Average

**SOURCE: 2003 - South Ayrshire Council – Single Outcome Agreement for South Ayrshire**

## Material Assets

### National Cycle Routes

The National Cycle Route 7 runs from Barassie in the north to the southern boundary near Rowantree Toll and covers a total length of **60 km**. 47 Km of this route is on public roads and is indicated by sign only while 13Km is dedicated cycle path/lane or combined cyclepath /footway .

**SOURCE: South Ayrshire Council**

### Cycle Routes & Km of Cycle Track

Below is a breakdown of routes that are nominated for cycling in some way or another within South Ayrshire.

#### National Byway Route – 125km

The National Byway is a cycle route scheme that is signed only and utilises existing unclassified minor roads. There are no dedicated cycle paths or cycle lane/foot paths.

The National Byway covers some 125km and in some areas is on the National Cycle Route.

#### Ayr-Auchincruive Route. – 7km

This is a short local route running from Ayr to the grounds of the Agricultural college at Auchincruive and covers a distance of 7 km. This route is nearly all on minor roads and is indicated by sign only.

#### Bus/Taxi/Cycle lanes.

These extend to some 3 km in the transport corridors, (Whitletts and Prestwick)

**SOURCE: South Ayrshire Council**

### Rights of Way (claimed)

Within South Ayrshire there are 38 claimed rights of way.

Kilwhannel, 3km east of Ballantrae to Berneraird... length 3.5Km

A714 Corwar Mains road end to east of Loch Nevan ...length 3km

Feoch Bank Wood to B734 Alton Alban, 1km south of Barr ...length 14.5Km

Black Claunchie to 1km south of Cairnfore Hill...length 7Km

Fardin to Barr...length 9Km

South end of Girvan to west of Barr...length 9Km

East of Dalieburgh Hill to south of Straiton...length 9.5Km

Annbank Bridge to Springs Road... length 1Km

South tip of Loch Bradan to Loch Riecawr...length 3Km

Knockdon to north west of Black Loch...length 2Km

Straiton to Boundary SCD13...length 3.5Km

A719 at end of farm drive to Burton to A77 at Maybole Road, Ayr, close to junction with A79...length 3.5Km

NS 350 185 A77, north of junction to NS 360 188 A713 at Hospital...length 1.2Km

Shavin' Brae to NS 362 204 UCR, at corner...length 0.6Km

Woodfield, between Ayr & Prestwick to Bentfield, between Ayr & Prestwick...length 1Km

Craigpark Avenue, Prestwick to Mansfield Road, Prestwick...length 0.1Km

Mossbank, North end of golf course to A77 - Highfield/ East Sanquhar Farm road end...length 1.3Km

NS 432 226 Boundary SCD56 to NS 437 235 Stair, B730...length 1.4Km

B744 Annbank to B742 at Gadgirth Bridge...length 0.7Km

NS 422 224 UCR 1.5km east of Annbank to NS 425 223 Boundary SCD54...length 0.3Km

NS 418 230 SKC8, by River Ayr, upstream of Annbank to NS 429 233 SKC18...length 1.3Km

B742, bridge S of Annbank to SKC18 1km west of Stair...length 1.7Km

NS 408 229 SKC19, Annbank to NS 411 233 B742 south of Annbank...length 0.6Km

B744 north end of Annbank to B742 east of Annbank...length 0.3Km

B743 south west of Mossblown to B744 Annbank...length 1.7Km

Auchincruive Walk (Oswald's Trail)...length 2.5Km

The Miners Walk...length1.4Km

Troon Wrack Road...length2.4Km

Heads of Ayr...length1Km

Old Loans Road...length0.25Km

B730 entrance to Dankeith to Symington...length2.25Km

Parkmill Road, Tarbolton to B743 at Railway Bridge near Failford...length1.75Km

Orangefield Drive, Prestwick to Monkton Rd.,Prestwick...length0.5Km

Hielandman's Path...length 0.25Km

Sandy Tunnel...length0.5Km

NX 334 861 Boundary at Ford on River Cree DW36 to NX 334 863 SKC4...length0.1Km

Blackford Crescent, opposite Nos 52 / 54 to Shawfarm Road, Prestwick...length 10m

**SOURCE: Catalogue of Rights of Way (CROW Register) & South Ayrshire Council**

## **Km of Managed Path Networks**

Within South Ayrshire there are 239Km of managed paths, this is all paths and tracks signposted or way marked and are for non- motorised access. These paths could be a simple earth/ grass track or beach route to a more formal constructed track / road.

**SOURCE: South Ayrshire Council**