

# Port St Mary Ledges & Kallow Point Area of Special Scientific Interest (ASSI)

## Designation Documents

Please note:

- Notification as an ASSI confers no public right of entry to any land without the permission of the landowner.
- The citations and lists of operations requiring the Department of Environment, Food and Agriculture's consent may be subject to minor editorial changes and should not be assumed to be an exact facsimile of the original legal document.

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**Isle of Man  
Government**

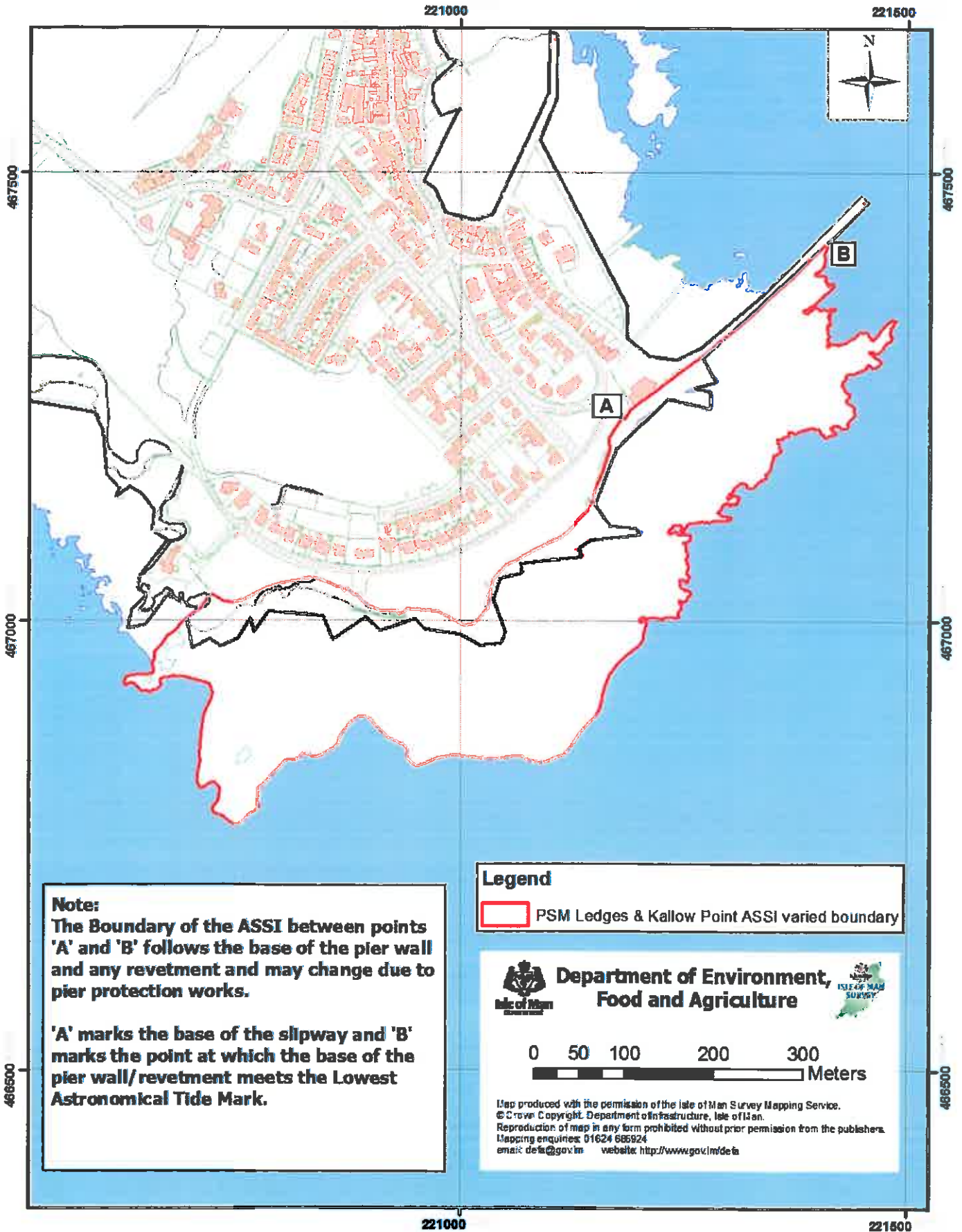
*Reiltys Ellan Vannin*

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# Port St Mary Ledges & Kallow Point ASSI

Designated: 1st November 2010  
Varied and confirmed: 28th April 2011

Area: 14.79 hectares (= 36.55 acres)  
National Grid Reference (centroid): SC 211 669



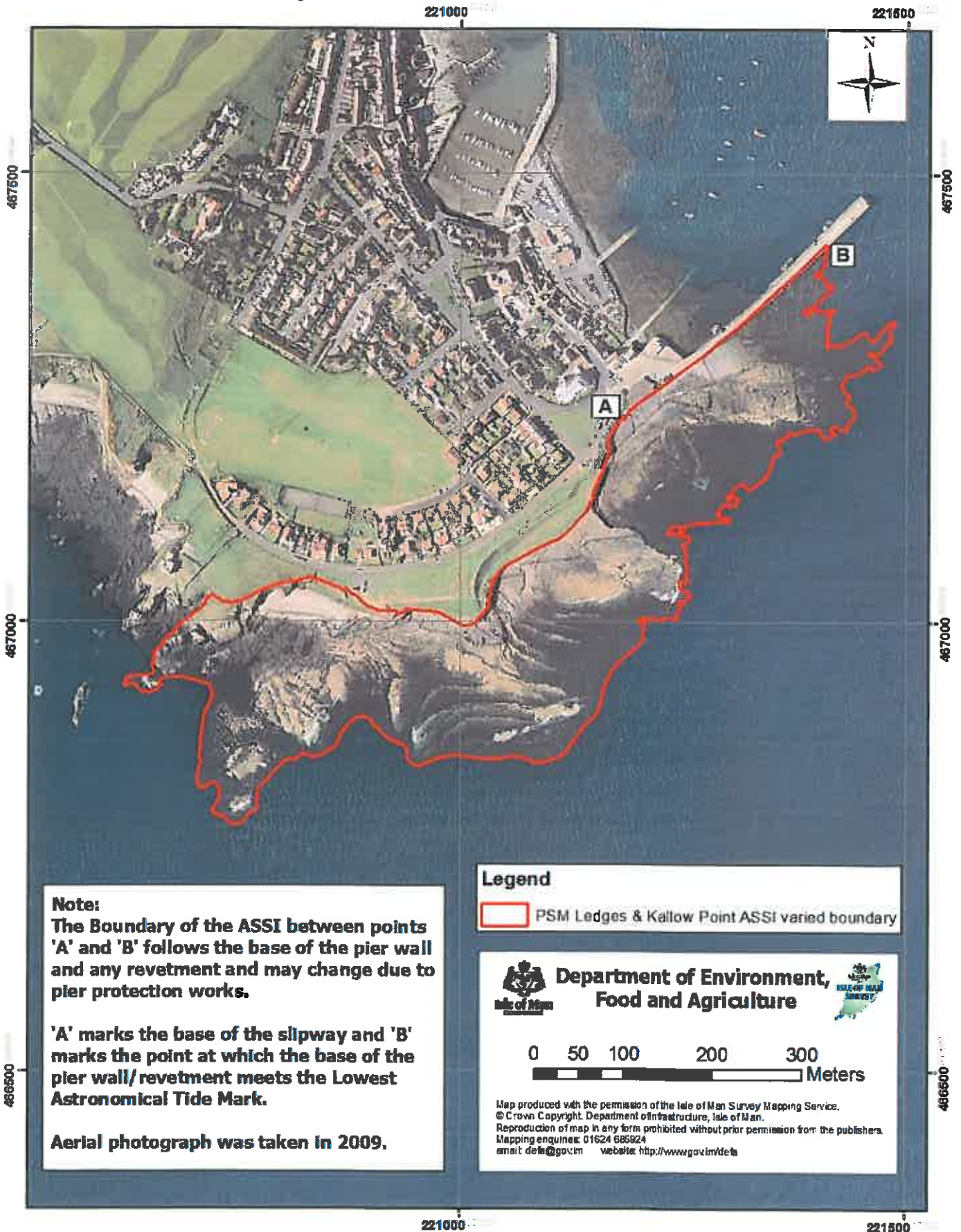
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## NOTIFICATION OF AN AREA OF SPECIAL SCIENTIFIC INTEREST Appendix I

**Site name:** Port St Mary Ledges & Kallow Point

**Status :** Area of Special Scientific Interest (ASSI) notified under Section 27 of the Wildlife Act 1990.

**Area:** Isle of Man

**Parish:** Rushen

**Planning Authority:** Department of Infrastructure

**Local authority:** Port St Mary Commissioners

**Ordnance Survey Sheet:** 1:50,000 OS Landranger Map No.95 and 1:10,560 sheets SC 26NW

**National Grid Reference (centroid):** SC211669 **Area:** 14.79ha (36.55 acres)

– based on position of Lowest Astronomical Tide boundary – see Map

**Date notified:** 1<sup>st</sup> November 2010

**Date confirmed:** 28<sup>th</sup> April 2011

**Date of last revision:** N/A

### Purpose

The purpose of this designation is to formalise the protection of an area which is important for its matrix of maritime habitats, principally its intertidal limestone ledges featuring distinctive zonation from the eulittoral zone to the sublittoral zone, vegetated shingle, hard cliff and coastal grassland habitats. The site also hosts a number of important breeding and visiting bird species.

### Description and reasons for notification:

Port St Mary Ledges & Kallow Point ASSI consists predominantly of low, rocky, carboniferous limestone coastline with an associated patchwork of vegetation communities comprising vegetated shingle, hard cliff and coastal grassland. The aspect is predominantly south-facing, and this factor, coupled with the varied nature of the terrain, has led to ideal conditions for a mix of sun and shelter-loving plants and invertebrates alongside species which can tolerate very exposed coastal conditions. The combination of limestone geology and varied terrain make this an important and irreplaceable location for Manx coastal biodiversity, a fact that has been acknowledged by generations of marine biologists from the Port Erin Marine Laboratory who have conducted research on the site for over 70 years. The site is internationally recognised by the scientific community and research on the site has been published in nearly 100 peer-reviewed scientific publications.

Bird species known to breed on Port St Mary ledges and Kallow Point include herring gull *Larus argentatus*, oystercatcher *Haematopus ostralegus*, rock pipit *Anthus petrosus* and ringed plover *Charadrius hiaticula*\*. In addition there are many birds that use the site for feeding and/or roosting, they include black guillemot *Ceppus grylle*, chough *Pyrhocorax pyrrhocorax*\*, cormorant *Phalacrocorax carbo*, dunlin *Calidris alpina*, eider *Somateria mollissima*, fulmar *Fulmarus glacialis*, house sparrow *Passer domesticus*\*, knot *Calidris canuta*, merlin *Falco columbarius*, purple sandpiper *Calidris maritima*, redshank *Tringa tetanus*, shag *Phalacrocorax aristotelis*\*, shelduck *Tadorna tadorna*, snipe *Gallinago gallinago*, song thrush *Turdus philomelos*\*, starling *Sturnus vulgaris*\*, stonechat *Saxicola torquata*, turnstone *Arenaria interpres*, wheatear *Oenanthe oenanthe* and whimbrel *Numenius phaeopus*.

Five of the species recorded on the area are on the RSPB Red List of Birds of Conservation Concern and 34 of the remaining species are on the Amber List, hence this is an important site for birds which are threatened in the wider geographical context.

The Port St Mary ledges are categorised as Moderately Exposed Rock with a wide variety of associated biotope categories. To the West of the site, there is an area of shingle and a promenade wall which has unvegetated sections and other areas densely covered by the lichen *Verrucaria maura*.

Drainage holes in the wall input freshwater into this section and in those areas the green algae *Enteromorpha intestinalis* is present. There is an extensive area of shingle approaching the landward end of the outer harbour and further areas of *Enteromorpha* corresponding with other freshwater inputs. The habitat on the seaward side of the outer harbour is dominated by dense serrated wrack *Fucus serratus*.

The ledge formation provides a wide range of intertidal habitats including open expanses of freely draining rock, pock-marked areas retaining water, boulder fields and variety of rock pools and deep varied crevices.

On the mid-shore to the west of the site the dominant species is bladder wrack *Fucus vesiculosus* with limpets *Patella vulgata*, barnacles *Semibalanus balanoides* and abundant grazing snails (littorinids). There are also a number of pools characterised by the coralline algae *Corallina officinalis*, with a number of other species of green, brown and red seaweeds, littorinids and the top shell *Gibbula cineraria*. There are also some small patches of the red seaweed *Osmundea pinnatifida* and *Gelidium pusillum*, a scarce biotope in the Isle of Man and also in the UK. Towards the East of the site the shore is dominated by a series of ledges of around 0.5m high, vegetated mainly by serrated wrack *Fucus serratus* with other algae species and barnacles.

The lower shore ledges are dominated by the brown algae thongweed *Himantalia elongata* and various red algae species with a carpet of the coralline algae *Corallina officinalis* and encrusting coralline algae *Lithothamnion*. To the west of the site there is a small patch of dulse (*Palmaria palmata*) on very exposed rock, an uncommon biotope in the Isle of Man and the UK. At the bottom of the shore and moving into the sublittoral zone a wide zone of kelp *Laminaria digitata* dominates with diverse fauna including the painted top shell *Calliostoma zizyphinum*. The crevices in the limestone ledges are highly diverse and are home to a wide variety of sponges species.

The site is recognised as one of the best rocky shores in the British Isles for marine ecological studies. It has been extensively studied by scientists over the past century and it has also been selected as a monitoring site for a British Isles-wide project assessing the impact of climate change on coastal habitats. One of the reasons this site was chosen for this important study was the good historical baseline of the site. Internationally renowned scientists are using the site to detect changes in species composition as a result of climate change, assisting the Isle of Man in understanding and adapting to the effects of climate change. For example, in 2004 Kallow Point was the first Manx site where the southern barnacle *Chthamalus stellatus* was recorded. Kallow Point is also a good site to monitor the loss of cooler water species, for example the tortoiseshell limpet, *Tectura testudinalis*.

Port St Mary ledges are one of only two intertidal limestone ledges still remaining intact on the Isle of Man, following the loss of a significant proportion of the Island's most diverse intertidal site as a result of the construction of the Ronaldsway runway extension. Limestone ledges form a very small proportion of the Island's total intertidal area and are thus of particular interest. The intertidal communities associated with limestone ledges are also significantly different from those associated with the predominant Manx slate shores. The other remaining limestone ledges site is at Scarlett. This site is much more diverse than Port St Mary ledges but is subject to less wave action and therefore significantly different in terms of intertidal communities.

The upper (northerly) edge of the site comprises terrestrial habitats that grade from vegetated shingle to hard cliff and coastal grassland, predominantly on the western end of the site. The vegetated shingle is not particularly diverse, with a colourful array of ruderal and coastal plants such as sea mayweed *Tripleurospermum maritimum*, smooth sowthistle *Sonchus oleraceus*, cleavers *Galium aparine*, curled dock *Rumex crispus*, common scurvy-grass *Cochlearia officinalis*. Low-growing blackthorn *Prunus spinosa* and elder *Sambucus nigra* grow on the most stabilised and landward shingle. Many of these plants produce abundant seed and attract insects, both of which provide valuable food for birds.

The hard cliffs are sparsely vegetated with common scurvy-grass *Cochlearia officinalis*, rock sea-spurrey *Spergularia rupicola* and sea spleenwort *Asplenium marinum*. The coastal grassland is

particularly species-rich, being dominated by red fescue *Festuca rubra* and containing vernal species such as spring squill *Scilla verna*, lesser celandine *Ranunculus ficaria* and bluebell *Hyacinthoides non-scripta*. Many meadow species are common, such as lady's bedstraw *Galium verum*, hawkbit *Leontodon spp*, common cat's-ear *Hypochaeris radicata*, common bird's-foot trefoil *Lotus corniculatus*, wild carrot *Daucus carota*, dandelion *Taraxacum agg.*, glaucous sedge *Carex flacca*, cock's-foot *Dactylis glomerata*, common ragwort (cushag) *Senecio jacobaea*, common knapweed *Centaurea nigra*, bulbous buttercup *Ranunculus bulbosus*, wild thyme *Thymus polytrichus* and yarrow *Achillea millefolium*, in conjunction with salt-tolerant plants including buck's-horn plantain *Plantago coronopus*, thrift *Armeria maritima* and sea campion *Silene uniflora*. Unimproved grassland of this level of diversity is a rare and vulnerable habitat on the Isle of Man, hence this site is of importance for the conservation of these species, which form a distinctive element of the Manx landscape and support a wide range of associated birds and invertebrates.

\* = Protected under Schedule 1 of the Wildlife Act 1990

\*\* = Protected under Schedule 7 of the Wildlife Act 1990

### **Other information:**

#### ***Geology***

The rocks at Kallow Point present useful exposures of the Carboniferous Limestone which in the Isle of Man is limited to the area around Castletown and along the coast between Langness and Port St Mary.

At Kallow Point itself, near horizontal beds of the Knock Rushen Formation consist of thick, fine-grained carbonate mud, containing fossils of corals, brachiopods, bryozoa and crinoids. The fossilised remains of animal burrows contribute to evidence that this was once the floor of a tropical sea at a time (350 to 300 million years ago) when the deposits that now make up the Isle of Man were situated near the equator. Ancient ripple marks and overturned brachiopods indicate deposition in a lagoon.

The Knock Rushen Formation is faulted against Manx Group rocks (Ordovician; Manx Group) on both sides of the Kallow Point peninsula and is thus an outlier of Carboniferous rock on the western side of Bay Ny Carrickey. The Formation re-appears on the other side of the Bay slightly to the east of Kentraugh.

An additional feature of interest is the hummocky surface of the limestone below the sea wall, indicating the beginnings of nodule formation. The limestone was extensively quarried for building stone and for supplying limekilns on the site.

The Derbyhaven area has been substantially covered by the recent runway extension. The Scarlett area is subjected to considerably less wave action than Port St Mary Ledges, and so the two areas are complementary as special intertidal sites worthy of protection.

#### ***Boundary***

The boundary of the site has been set at Lowest Astronomical Tide.

**Site Name: Port St Mary Ledges and Kallow Point**Operations likely to damage the special interest of the site

<u>Standard reference number†</u>	<u>Type of operation</u>
1	Cultivation including ploughing, rotovating, harrowing and reseeded
2	Grazing where already damaging, the introduction of grazing and changes in grazing regime (including type of stock or intensity or seasonal pattern of grazing and cessation of grazing).
3	Stock feeding, where already damaging, the introduction of stock feeding and changes in stock feeding practice.
4	Mowing or other methods of cutting where they are already damaging, changes in mowing or cutting regime (including conversion from hay making to silage or cessation of mowing).
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weedkillers).
7	Dumping, spreading or discharge of any materials.
8	Burning, lighting of fires and changes in frequency or pattern of burning, where applicable.
9	The release into the site of any wild, feral or domestic animals *, plant or seed.
10	The killing or removal of any wild animal *, including pest control
11	The destruction, displacement, removal or cutting of any plant or plant remains, including herb, dead or decaying wood, moss, lichen, fungus, leaf mould or turf.
12	The introduction of tree and /or woodland management and changes in tree and/ or woodland management.
13	Drainage (including moor-gripping, the use of mole, tile, tunnel or other artificial drains).
14	The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).
15	Infilling of ditches, dykes, drains, ponds, pools, marshes or pits.
16	Coastal fishing or fisheries management and seafood or marine life collection, where already damaging, the introduction of coastal fishing and changes in coastal fishing practices or fisheries management and seafood or marine life collection, including the use of traps and fish cages.
17	Reclamation of land from sea, estuary or marsh.
18	Bait digging on inter-tidal areas.
19	Erection of sea defences or coastal protection works, including cliff or land-slip drainage or stabilisation measures.

20	Extraction of minerals including peat, shingle, sand and gravel, topsoil, subsoil, chalk, lime, limestone pavement, shells and spoil.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials.
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
24	Modification of natural or man-made features (including cave entrances), clearance of boulders, large stones, loose rock or scree and bettering, buttressing or grading rock faces and cuttings, in-filling of pits, and quarries.
25	Removal of geological specimens, including rock samples, minerals and fossils.
26	Use of vehicles or craft likely to damage or disturb features of interest,
27	Recreational or other activities likely to damage features of interest or soil, fauna and flora (excluding walking, with or without dogs).
28	Introduction of game or waterfowl management and changes in game or waterfowl management and hunting practices.

† Note: each type of operation has a standard reference number; for each site, only those operations which are relevant to the site will be listed, hence there may be gaps in the numbering for some sites.

\* "animal" includes any mammal, amphibian, reptile, bird, fish or invertebrate.