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MILFORD HAVEN WATERWAY  
ENVIRONMENTAL SURVEILLANCE GROUP

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GRŴP CADW GOLWG AMGYLCHEDDOL  
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**ROCKY SHORE SURVEILLANCE 2013**

**REPORT TO**

**MILFORD HAVEN WATERWAY**

**ENVIRONMENTAL SURVEILLANCE GROUP**

**FROM THE FIELD STUDIES COUNCIL**

**DALE FORT FIELD CENTRE**

Dr. S.L. Morrell, The Field Studies Council at Dale Fort Field Centre

March 2014

## Executive Summary

Six rocky shores within the Milford Haven Waterway were surveyed by staff from The Field Studies Council on behalf of The Milford Haven Waterway Environmental Surveillance Group. Field surveys were carried out between 25th July and 6th of September 2013. These repeated the work carried out by The Marine Biological Association of the UK in 2010 and used the same methodology.

The results were analysed and compared with the results of the 2010 investigation. There were several key differences:

Over three times the number of algal species were found at Dale Point than in the 2010 survey.

At Gelliswick high frequencies of *Melarhapha neritoides* were found. The introduced red alga *Caulacanthus okamurae* was also found. Neither of these species were reported in 2010.

The non-native sea squirt *Corella eumyota* was not found in either the 1m<sup>2</sup> frequency quadrats or in the MarClim SACFOR survey at Gelliswick. This species was reported as being present in high densities on the underside of cobbles in 2010.

At Llanreath one live *Mytilus edulis* was found. The 2010 survey reported them to be Super-abundant.

The 2010 survey reported large numbers of the non-native sea squirt *Corella eumyota* on the lower shore at Llanreath. This survey found one lower shore specimen.

At Cosheston Folly seven lower shore algal species were found that were not listed in the 2011 report.

At Great Castle Head a large population of the introduced brown alga *Sargassum muticum* was found. This was not reported by the 2010 survey.

At Sawdern Point twice as many species of algae were found as the 2010 survey.

The barnacle *Perforatus perforatus* was found at Dale Point, Great Castle Head and Sawdern Point. The 2010 survey found it only at Dale Point.

Limpet density decreased with shelter. The 2010 survey did not find this pattern.

With the exception of Llanreath, all the sites were in as good as or better condition compared to the 2010 survey.

Recommendations, made include annual surveys, some changes in methodology and consistency in personnel.

## Crynodeb Gweithredol

Gwnaed arolwg o chwech o'r traethau creigiog o fewn Dyfrffordd Aberdaugleddau gan staff o'r Cyngor Astudiaethau Maes, ar ran Grŵp Goruchwylio Amgylcheddol Dyfrffordd Aberdaugleddau. Cynhaliwyd astudiaethau maes rhwng 25 Gorffennaf a 6 Medi 2013. Roedd y rhain yn ail-wneud y gwaith a wnaed gan Gymdeithas Bioleg Forol y DU yn 2010 gan ddefnyddio'r un fethodoleg.

Dadansoddwyd y canlyniadau a chymharwyd hwy â chanlyniadau ymchwiliad 2010. Roedd nifer o wahaniaethau allweddol:

Yn Dale Point, canfuwyd dros dair gwaith y nifer o rywogaethau algaidd a ganfuwyd yn arolwg 2010.

Yn Gelliswick canfuwyd amlerau uchel o'r gwichiad bychan *Melarhappe neritoides*. Canfuwyd yr alga coch estron *Caulacanthus okamurae* yn ogystal. Nid adroddwyd am y naill na'r llall o'r rhywogaethau hyn yn 2010.

Ni chanfuwyd y chwistrell fôr anffodorol *Corella eumyota*, yn y cwadradau amllder 1m<sup>2</sup> nac ychwaith yn arolwg SACFOR MarClim yn Gelliswick. Adroddwyd bod dwyseddau uchel o'r rhywogaeth hon yn bresennol ar arwynebau isaf cerrig crynion yn 2010.

Yn Llanreath canfuwyd un gragen las *Mytilus edulis* yn fyw. Yn arolwg 2010 adroddwyd bod yn "dra niferus" (sef y categori digonedd uchaf)

Roedd arolwg 2010 yn adrodd bod niferoedd mawr o'r chwistrell fôr anffodorol *Corella eumyota* yn bresennol ar y traeth isaf yn Llanreath. Un sbesimen a ganfuwyd ar y traeth isaf yn yr arolwg hwn.

Yn Cosheston Folly canfuwyd saith o rywogaethau algaidd traeth isaf nad oeddent wedi eu rhestru yn adroddiad 2011.

Yn Great Castle Head canfuwyd poblogaeth helaeth o'r alga brown *Sargassum muticum*. Nid adroddwyd am hwn yn arolwg 2010.

Yn Sawdern Point canfuwyd dwywaith y nifer o rywogaethau o algâu a ganfuwyd yn arolwg 2010.

Canfuwyd y gragen long *Perforatus perforatus* yn Dale Point, Great Castle Head a Sawdern Point. Canfuwyd hi yn Dale Point yn unig yn arolwg 2010.

Roedd amllder llygaid meheryn yn lleihau wrth i'r cysgod gynyddu. Ni chanfuwyd y patrwm hwn yn arolwg 2010.

Ac eithrio Llanreath, roedd y safleoedd i gyd mewn cystal cyflwr neu well, o gymharu ag arolwg 2010.

Roedd yr argymhellion a wnaed yn cynnwys cynnal arolygon blynyddol, rhai newidiadau mewn methodoleg a chysondeb o ran personél.