Hi all,
As Christmas draws closer, we reflect back on a busy 2016, and some of your efforts in helping to protect your coastline, as well as expressing a big thank you to all our partner organisations helping us plan a sustainable future for the coast. Last month we attended the Forth Estuary Forum Annual Conference in Queensferry (image below) which was centred around a theme of climate change adaptation. It was a great event offering much food for thought about the short and long term measures we can take. Both the Forth Estuary Forum and Tay Estuary Forum will be working more closely together in the months ahead looking at options for marine planning delivery in the South East of Scotland. SNIFFER’s annual conference in the New Year also follows a similar theme of change (details can be found below). Please keep an eye on the website for other events of interest to you.

So until next time, please keep us updated of your news and views,

Very best wishes for the New Year!

Dr Victoria Powell presenting relative sea level change trends in the Forth and Tay Estuaries, at the Forth Estuary Forum Conference, Queensferry, Nov 2016
Number of plastic bags on UK beaches drops by almost half in just one year

Marine charity says 5p has been small price to pay for fewer carriers at the coast

The number of plastic carrier bags found on UK beaches in surveys carried out by the Marine Conservation Society (MCS) has dropped by almost half between 2015 and 2016. This is the lowest number reported in over a decade, and fantastic news for marine wildlife.

The figures are published today in the MCS Great British Beach Clean 2016 report, based on surveys carried out in September 2016. In 2015 there were, on average, 11 plastic bags per 100 metres of coastline cleaned but in 2016 there were just under seven – that’s a decrease of almost 40% and the lowest number in the last ten years.

The charity began calling for action on single use carrier bags in shops back in 2008 and was instrumental in getting a levy introduced in Wales in 2011, Northern Ireland in 2013, Scotland in 2014 and England in October last year.

“In the last decade, our Great British Beach Clean volunteers have found an average of ten single use carrier bags for every 100 metres of coastline cleaned. This year, for the first time since the charges were introduced, we’ve seen a significant drop in the number and that can only be as a result of the 5p charge which is now in place in all the home nations. It vindicates the charge, which we predicted would be good news for the marine environment. Thanks to our thousands of fantastic volunteers who collect beach litter data, we can now see the impact these charges have had,” says Lauren Eyles, MCS Beachwatch Manager.

Beaches in England and Northern Ireland saw the biggest drop in the number of plastic bags found during the September clean up - over half compared with 2015. In Wales, where the charge has been in place for five years, the number – just under four bags for every 100 metres cleaned - is significantly lower than any other year since 2011. In Scotland, volunteers found, on average, one bag fewer over the same distance this year compared with last year. MCS says overall the trend is down and that can only be good news for visitors and wildlife.

MCS says there has been a drop of almost 4% in the number of litter items found on UK beaches between 2015 and 2016 – but with 268,384 individual items of litter collected at 364 events by just under 6,000 volunteers, there’s very little to be cheerful about when it comes to the sheer quantity of litter on our beaches.
Beaches in **Scotland** saw a decrease of 18% in overall litter levels, rubbish in the **North East** dropped by 14% and in the **Channel Islands** by 10%. But there were increases in the amount of beach litter in the **North West** (24%), **Wales** and the **South West** (15%) and in Northern Ireland (9%).

Data collected by Great British Beach Clean volunteers also showed a rise of over 4% in the quantity of drinks containers found on the UK’s beaches – including plastic bottles, bottle tops and aluminium cans. And there was an astonishing rise in the amount of balloon related litter found on UK beaches – a 53.5% increase on 2015. The charity says it’s taking its ‘Don’t Let Go’ campaign to a local level to persuade more councils to ban the release of both balloons and sky lanterns on their land.

Turtles mistake plastic bags and balloons for their jellyfish prey, and the items can block their digestive systems leading to death from starvation. It has recently been shown that some species of seabirds are particularly attracted by the scent of this plastic junk ‘food’.

The charity says the England litter strategy, currently being drafted by Defra, and strategies elsewhere across the UK, must include specific actions to tackle the problems highlighted by the surveys (opposite).

MCS’ beach-cleaning work is supported by players of People’s Postcode Lottery, enabling teams of volunteers to clean up huge swathes of our beaches. Opposite: September clean-up at Ferryden image (c) C A G Lloyd.

---

**Please get involved in the Great British Beach Clean September 15th-18th 2017!**

**Date for the Diary!** Sniffer’s annual Flood Risk Management Conference is the gathering place for Scotland’s flood management community to share knowledge and best practice. The 2017 conference will be held on 7-8 February at Dynamic Earth, Edinburgh.

Under the headline of ‘**Managing flood risk in the context of change**’ the conference will investigate how flood risk management in Scotland is addressing the challenges of creating sustainable, fair and ‘future proof’ flood management solutions.
3. Survey results make spotting marine mammals around Angus’s fantastic coastline easier

The www.marinelifeangus.co.uk website promotes Angus coastal sites and its amazing wildlife. Angus is perfect for land based cetacean watching and the website has hosted a citizen science project recording whales and dolphin sightings since 2011. Sightings of Bottlenose dolphins, Minke whale, Harbour porpoise, Common dolphin and even Humpback whales have been submitted by visitors to the coast at various locations.

This collection of data has allowed for the first time, a greater understanding of how species are using Angus waters, and will aid in future conservation. Highlighting the best spots to enjoy land based watching, another important element of the project will also hopefully diversify the wildlife tourism product in Angus.

Where to Watch?

Records from the public allowed the mapping of areas on the Angus Coast that are sightings Hotspots. Some spots are better for viewing certain species and different behaviours (Fig. 1). Elevated spots on headlands and at river mouths are some of the best areas to watch feeding and socialising behaviours. Angus is home to renowned salmonid rivers such as the Rivers North and South Esk and both river mouths are attractive to foraging bottlenose dolphin in particular.

![Cetacean Sightings Map](image)

Figure 1. Cetacean sightings, feeding and socialising hotspots have been identified on the Angus coast. The occurrence of particular species shown allows land based watchers to identify spots of particular interest to them.
What has been observed?
The data can be broken down and a simple snapshot of behaviours and also human encounters with species can be seen below.

- Most common species recorded, Bottlenose dolphin – 73%
- More sightings submitted from North Angus – 66%
- Most sightings were from 0-100ms from shore – 45%
- Most encounters were approximately 15 mins – 34%
- Most common behaviour was traveling – 48%
- Feeding behaviours more commonly seen near river mouths and bays – 59%
- Most common pod sizes are between 1 & 5 animals – 57%

Tayside Local Biodiversity Action Plan
The results of the survey are submitted to the Tayside Biodiversity Partnership’s “Marine & Coastal Working Group”. Tayside Priority species include Bottlenose dolphin, Harbour porpoise and Minke whale. Working group leader Kelly Ann Dempsey who manages the project said “It is hoped that by raising awareness of cetaceans in Angus waters and learning more about their behaviour we can protect them at a time where Scotland’s coastal waters face big challenges. Understanding how species use the water surrounding our coast also allows us to promote local wildlife tourism opportunities and shows just how accessible our beautiful, varied coast is”.

A small publication “Whale & Dolphin Watching on the Angus Coast” was produced by the group and can be found on the website alongside the submit a sightings page at www.marinelifeangus.co.uk
Please contact info@marinelifeangus.co.uk for more information.

The river basin management plan (RBMP) for the Scotland river basin district was published December 2015. It is made up of the plan document, technical appendices and an online data tool, the Water environment hub, which provides information on current condition and future targets for rivers, lochs, coastal waters and groundwaters. The tool has easy filtering options and the ability to export data, maps and charts.

The RBMP data shows that 162 of Tay’s surface waters are at good or high ecological status, 136 are moderate, 66 poor and 24 bad. The majority of the downgrades are associated with rural diffuse pollution, modification to the physical condition of the water environment, pressures associated with agricultural irrigation and barriers to fish migration. The map below demonstrates the distribution of the pressures impacting the current condition of surface water bodies, there is more information on these waterbodies and protected areas on the Water environment hub.

![Map showing the condition of surface water bodies in 2014.](image)

**Engagement with stakeholders to support delivery of objectives**

The publication of the river basin management plans provides the opportunity to turn the focus onto delivery. Our engagement with external stakeholders will concentrate on:

- Raising awareness of RBMP2 publication – so that people understand the plans, what it means for them and how to access information. This will enable stakeholders to use data relevant to them to inform decisions and take action to improve the water environment.

- Supporting the delivery of actions through partnership working – by creating new structures with delivery partners or making use of existing ones.

- Coordination with other strategic planning processes and funding mechanisms – for example, flood risk management, land use planning, marine planning, forestry and the land use strategy.

To achieve this we intend to create a wider communication network through the already established area advisory group members. We will also move away from formal AAG meetings to having smaller meetings focused on delivery projects.

Please contact [TayAAG@sepa.org.uk](mailto:TayAAG@sepa.org.uk) for further information about how you can become involved.