

Eighth Report

Great Angus Beach Clean

Spring 2023

The Great Angus Beach Clean 24th March - 2nd April 2023

Wherever you are you can help remove litter from our rivers and beaches to protect and clean our seas. Take responsibility for your own safety. Use local bins. Leave bags above the high tide mark between Carnoustie and Arbroath for the ATV (angusisace@gmail.com)

Make a Difference - Every Action Counts - Just do it.



**PROTECTING AND CONSERVING THE
ANGUS COAST**

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1. INTRODUCTION

The eighth Great Angus Beach Clean was planned to coincide with Scotland's Spring Clean in 2023. More than two tonnes of litter was collected which brings the amount collected over five years to almost 15,000 tonnes. This is the final Great Angus Beach Clean Report as the event will become the Great East Coast Beach Clean from September 2023. Communities both north and south of Angus have indicated that they would like to become involved and the new name will encourage more communities to work together across the entire east coast.

1.1 Litter Pickers, Citizen Scientists and Citizen Investigators

The main aim of the Great Angus Beach Clean has been to work collaboratively with individuals, groups and organisations right across the Angus community to remove as much litter as possible both upstream and on our beaches. Also, to raise awareness about litter types and prevent it from reaching the sea. Increasingly, volunteers are finding it necessary to not only survey what is found but also to investigate the source. The role of litter picker has evolved to not only citizen scientist but to citizen investigator. Only by developing this role have volunteers been able to raise awareness, influence policy, change behaviours and ensure environmental standards are upheld. Since 2019 ACE has;

1. Investigated the source of clothing and other items fly-tipped in the Elliot Burn. They were removed from a 'Cash for Kids' clothing bank in Arbroath. Angus Council Waste Management services supported ACE by encouraging farmers to provide additional information and support to seasonal workers.
2. Investigated the escape of hazardous materials from the Dowrie Works, a historic waste site bordering the beach at Elliot. This work is ongoing.
3. Investigated the dumping of food waste in territorial waters off the Angus Coast. The Royal Navy agree that we have gathered enough circumstantial evidence to prove it was dumped by US war ships during exercise Ragner Viking in 2021. We have subsequently campaigned for a change in the MARPOL regulations to make it a Duty and not simply an Obligation for the military not to dump waste in territorial waters during peace time.
4. Work is ongoing with Marine Scotland/Scottish Government to try and address several issues in relation to more sustainable fishing and the circular design of fishing gear. Also to find solutions for the recycling/disposal of end of life gear. Fishing gear can not currently be recycled due to the complex mix of non-recyclable materials they are made from. Neither can it be burned in 'Waste To Energy' units. This is an urgent and pressing problem for all Scottish Local Authorities who pay for it to be transported and buried in Scotland's few remaining landfill sites which close in 2025. Most people are of the view that it is not acceptable for Scotlands Industrial Fishing Gear waste to be sent to England or abroad to be buried.
5. Investigated the dumping of 800 tonnes of demolition waste on NCN1 in September 2022
6. Volunteers have commenced work in 2023 to identify the source of litter on Monifieth/Barry Buddon beach.

1.2 Volume of Marine Litter

The table on the right highlights the volume of litter which has been removed during Great Angus Beach Cleans held since April 2019. It does not include the vast amount of marine litter which is picked up by individuals and groups who undertake beach cleans on a regular basis throughout the rest of the year.

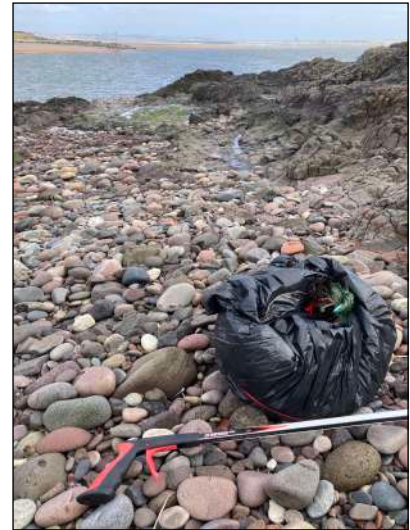
May 2019	3000 kgs
Sept 2019	1225 kgs
Feb 2020	2100kgs
Sept 2020	714 kgs
May - June 2021	1303 kgs
Sept 2021	1166kgs
April 2022	712kgs
September 2022	360.5kgs
Dec 2022 - Feb 2023	2100kgs
Spring 2023	2188.5kgs
TOTAL	14,869 kgs

2. WHO TOOK PART AND WHERE?

More than 195 people took part in the Great Angus Beach Clean which this year ran over two weekends between the 24th March and 2nd April 2023. A second beach clean at BarryBuddon/ Monifieth took place on 8th April.

Ferryden

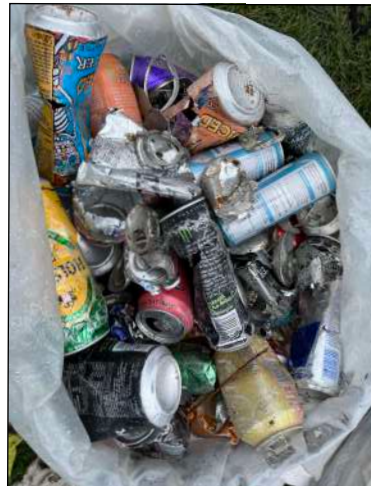
In Ferryden on the 25th March volunteers from Marine life Angus collected a bag of mixed marine litter weighing 2kgs. As you can see from the contents in the photo opposite the litter comprised of mainly plastics including cable ties and fishing rope/line.



Victoria Park - Arbroath

Twelve Arbroath Beach Clean Up volunteers lifted 46kgs at Victoria Park. This beach is impacted by litter blown from the long promenade in addition to litter being washed in by the tide. Volunteers also litter picked the entire roadway to try and prevent further cans, bottles and food packaging from blowing onto the beach.

Photo images - Mysha.



West Sands - Arbroath

An all day clean up event was organised by Friockheim Park in their village on Saturday 25th March. The aim of the event was to remove land litter and prevent it escaping into drains and waterways. More than 80% of litter originates from land so people are encouraged to pick up as much as possible wherever they are. Twenty four volunteers picked up a huge 73kgs of litter.

A further all day event event was organised by James Anderson at West Links on 1 April. This provided both a litter hub and a centre to raise awareness about littering. Mysha set up an educational display including a chair which she has made out of face masks. Thirty four people including families, local businesses and politicians came together and removed a massive 1237kgs of litter. The youngest participant was six years

old and the oldest 68. Much of the litter weight came from creels and fishing ropes which were removed from the gabion boulders on West Sands.



Thanks to
Waste uplift by
Binn Group
and
Angus Council.

Refreshments
supplied by;
Morrisons, Asda
Co-op
Bookers
Red Bull



Inchcape Park - Arbroath

Marine Litter Champions, Ladyloan Primary school cleaned their beach at Inchcape Park and collected a huge 100kgs. Primary one pupils did a marine dance with Lauren Smith from 'Turning the Plastic Tide' before going out with their litter pickers to see what they could find. The children quickly learned about litter types as the beach was covered in a wide range of plastics, metal, polystyrene and foam.

Also dug out of the sand was a wheelchair and fishing gear. A full chemical toilet which had been dumped by a motorhome was also found on the grassy area at the beach front.



Photos above and left courtesy of Steve Brown, DC Thomson.

Photos below - ACE



Elliot - Arbroath

MP Dave Doogan and Cllr Serena Crowdy (Marine Litter and Habitat Champion) cleaned the beach between Hatton and Elliot making use of the ATV to collect heavy items. Some creels, rope and plastic required digging out with spades as they were partly buried by heavy sand. The beach nearer Elliot was far cleaner than in previous years due to the work of individual volunteers over the winter months. More than 2 Tonnes of fishing gear was uplifted between 1st December 2022 and Feb 2023. Nevertheless, Dave and Serena uplifted 43 kgs of marine litter. This comprised of fishing gear, plastics and vast amounts of polystyrene from fish boxes.



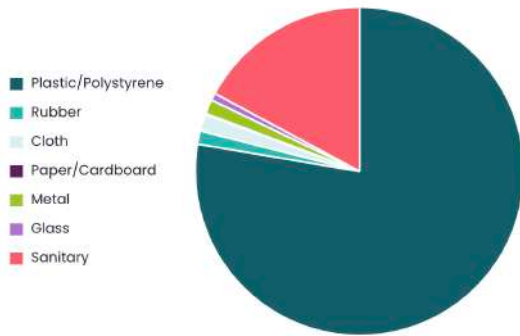
Susan Spink and Mysha have both been out nearly every day all over the winter collecting vast amounts of marine litter from the beach and surrounds at Elliot. Here are some of their photos.



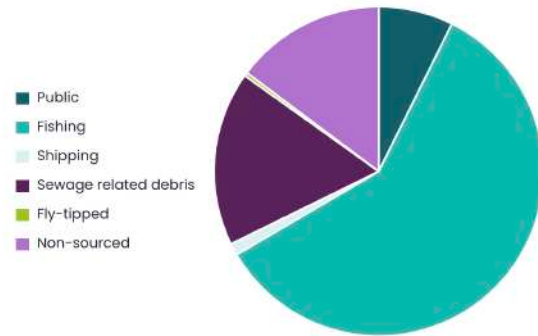
East Haven

In East Haven twenty three volunteers collected 60kgs from the 100m survey area of the beach. This area of the beach had not been cleaned for approximately a fortnight to enable a survey to be undertaken for the Marine Conservation Society. The charts below highlight the type of materials found and the likely source (MCS).

Materials collected



Sources



Carnoustie

Carnoustie Community Council led on a beach clean which saw nine volunteers collect 41.5kgs litter from the beach. In addition, this large as yet unknown object with the number 8B washed in on the tide weighing approximately 90kgs.



Barry Buddon

Monifieth Eco Force and Monifieth Rotary worked in partnership with Landmarc to carry out a beach clean at Barry Buddon on 1st April. Landmarc agree a non firing date when vehicles can be brought on site to bring volunteers closer to the remote beach. They also provide a safety debrief along with tractor and trailer support. Both Monifieth Rotary and Eco Force volunteers have become familiar with the amount of litter washed up on this beach over the last five to ten years. However, it is on an industrial scale not seen anywhere else in Angus other than beaches where fishing gear is a problem.

The tide line is full of glass and plastic bottles many of which are very old. Old medical dispensing bottles, Sewage Related Debris, old small children's toys and millions of pieces of polystyrene. Larger items included a full sized memorial bench, a couple of industrial sized plastic water units, gas bottles, oil bungs, two fire extinguishers and piping. Landmarc staff said that in recent weeks a full prosthetic limb has been found complete with shoe. Plastic bottles were also seen caught up in reeds at the mouth of the Barry Burn.



As it was impossible to remove all the waste during the first beach clean on 1st April a further clean was held on 8th April and the ATV with trailer brought down from East Haven. A call was put out to volunteers across Angus to help clean what can only be described as a catastrophic amount of waste which presented a real danger to wildlife and the marine environment.



Volunteers came from Arbroath, East Haven, Forfar, Monifieth and Carnoustie to support an additional beach clean. In total over the two weekends thirty seven volunteers committed 84 hours cleaning just a few hundred meters of beach. Almost 3,000 bottles and masses of small polystyrene pieces were packed in to 87 bags of waste. The large items were of such a weight and volume that it wasn't possible to accurately weigh everything. However, the total waste filled three Angus Council bin lorries.

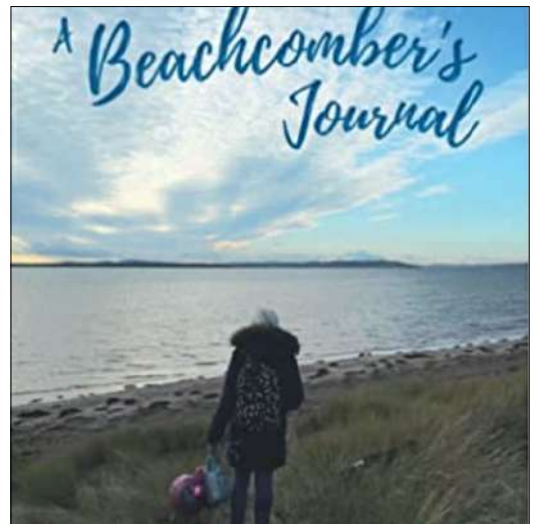
Above; Vast amounts of plastic and polystyrene

Below Left: Richard Higgins and Don, (DOI) delivered a safety brief about what **not** to pick up on the beach



Where does the Waste on Monifieth / Barry Buddon beach originate from?

As mentioned above, the amount and composition of waste found is not seen on other Angus beaches. There are also a large number of glass bottles and other old artefacts. Even during over the two weekends it was possible to identify several bottles aged over 50 years. Seonaid McGurk (Monifieth EcoForce) has written a book detailing a large number of historic items found in this location. She has been able to date many of them back to the early and mid 20th century which makes one suspect that they may be originating from an old landfill site which is now being eroded. Seonaid's book actually provides an important evidence base about the nature and type of waste found on this beach and may provide clues as to where it is coming from.



It is imperative that the source of the waste is identified and that any eroded historical site is secured. Apart from anything else it is neither practicable or feasible for volunteers to pick up this volume of waste indefinitely. Could it be coming from the old landfill site at Invergowrie or is there another explanation? We will pursue this over the coming year. Despite everything which was collected over the two weekends there is still a lot to pick up as can be seen from the photograph on the left.

Right:
Seonaid has picked up 100 cigarette lighters from the location between January and March 2023.



Left: Found by a volunteer on Saturday 8th April. Typical of the type of children's toy found at the site.

Seonaid found it was commissioned by Pepsi Cola as part of a set of 8 to commemorate the 1964 Tokyo Olympic Games.



Monifieth

Monifieth Eco Force led on the Monifieth beach clean which ran concurrently with the one at Barry Buddon. Fifteen people came along and removed 8 bags of litter from the beach and one car wheel. Amongst the litter was a huge number of cotton buds. Sadly these items can be found in large numbers on Monifieth beach almost everyday. A number of reports have been submitted to both SEPA and Scottish Water to encourage them to identify the source. Although they are found very close to the Monifieth Combined Sewage Overflow (CSO) there seems to be a view that they do not originate from there. Instead, officials believe that they may be washed in from CSOs in either Fife or Dundee.



Cotton buds picked up on Monifieth beach .

If laid out they would stretch for more than 171 metres.

Photo Seonaid.



ALL-TERRAIN VEHICLE

Volunteer Named Drivers from East Haven took the All-Terrain Vehicle back and forth along the beach between Carnoustie and Arbroath several times over the Great ABC. They brought back bags which people had filled and left above the high tide mark. Also heavy creels, rope and tyres which could not be carried back to base.

The ATV and a trailer was also taken to Barry Buddon for the first time on the 8th April as it would not have been possible to carry out the second clean without it.



3. Issues arising out of the September 22 Great Angus Beach Clean

4.1 Environmental Incident on NCN1

During weekend of the Great Angus Beach clean on 17th/18th September 2022 members of the public raised alarm about waste material on NCN1 at Elliot Links which lies in close proximity to the SSSI. It was reported that large amounts of glass and plastic including plumbing parts, toilet seats, plastic buckets and industrial gloves were strewn across the area. A few volunteers entered the site to try and remove as much of this material as possible. However, we asked them to stop as there were concerns about members of the public entering what was a construction site at the time. We also had concerns that they were removing potential evidence from the site.

Angus Council was contacted at the earliest opportunity to advise that the aggregate installed on the path by construction workers did not appear to meet the quality standard for recycled aggregate. Photographic and video evidence was presented to illustrate the type of items found. We suggested that there may have been a problem screening materials. We were advised that our concerns were misplaced and that the materials were from inert sources and met standards for the production of recycled aggregate. As this appeared not to be the case we asked SEPA to become involved. We also began to carry out our own investigations.

SEPA were subsequently reassured by Angus Council that the aggregate had come from inert sources and met specification standards. However, community volunteers were so convinced that both the Council and SEPA had got it wrong we felt an obligation to continue to pursue the case and submit more evidence. The only motivation was to ensure that environmental standards were being met and to prevent environmental harm.

Eventually in November 2022 SEPA agreed that there was a problem. However, by the time they realised what had happened 800 tonnes of demolition waste had been compressed onto NCN1 and the path sealed. As the material did not meet the standards for the production of recycled aggregate it is officially classed as waste.

This case provides further example of why it has become necessary for volunteers to develop their role to ensure that environmental standards are met. We want all organisations, businesses and public bodies to be accountable and responsible for ensuring that they comply with Scotland's strategic approach to environmental policy.

Environmental Standards Scotland have provided further support and advice on this case. SEPA is now working with the company who sold the demolition waste as recycled aggregate to ensure that standards are met in the future.



This was the source of the demolition waste

The Human Hands Which Drop the Waste

The children of Ladyloan Primary school took part in an activity following the September 2022 beach clean in partnership with the V&A museum in Dundee.

They were asked to select the litter item which most closely represents the litter found on their beach at Inchcape Park.

The children selected the blue industrial glove and wrote a little paragraph about it.

Ladyloan Primary School is sometimes described as the school next to the sea. Arbroath harbour can be seen from the windows of the school. The children love the beach and they want it to be clean and free from litter to protect both wildlife and humans. They are concerned about fish and birds eating small plastics. Over the last four years the children have removed over 200kgs of marine litter from the beach. The children have selected this blue glove to represent the huge amount of fishing related litter found in the sea off the Angus coast. It also symbolises the human hands which drop waste both onshore and at sea.



Fishermen have explained that they thought the gloves were biodegradable. Consequently, each fisherman discards one pair of gloves over the side of the boat every two days. A conservative estimate indicates that at least 11,000 gloves end up in the sea every year in Angus.

The fishermen are very keen to change this practice now they appreciate the environmental impact of discarding gloves in this way. They have pledged to take their waste back to the harbour.

This is a great outcome for the children of Ladyloan Primary school. No wonder they have been nominated the status of School Marine Litter Champions in Angus. They have demonstrated that you are never too young to make a difference in the world.

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ACE represents a network of individuals, organisations, groups, businesses and schools across Angus who want to conserve and protect the environment not just for today but for the future. We link with thousands of other people across Scotland who share our vision and recognise that clean, green environments are not only good for health and well-being but good for business and tourism too.

We care passionately about biodiversity and the natural environment. We recognise that change starts at an individual level and that we all need to play our part in helping to make the world a better place.



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