

ON ALMOST EVERY DIVE NARC RELEASES ENTANGLED MARINE WILDLIFE



LOST LOBSTER POTS IN SKOMER MARINE NATURE RESERVE



OUR RECORD IS 730 ANGLING WEIGHTS IN 1 DIVE AT STACKPOLE QUAY



THE DIVERSITY OF LITTER IS STAGGERING. WE HAVE EVEN FOUND THE KITCHEN SINK!

NEPTUNE'S ARMY OF RUBBISH CLEANERS

ANNUAL REPORT 2017



Winner of "Most Admired Voluntary Organisation in Wales 2009"



Neptune's Army of Rubbish Cleaners (NARC) is a registered charity, made up of volunteer divers with a passion for keeping the underwater world litter free. Since 2005, the group has carried out 100s of underwater clean-up dives and been involved in a number of educational and awareness raising projects, in an effort to highlight the impacts of marine litter.



litter free













1. INTRODUCTION

This annual report has been produced to provide a progress update on 2017, provide a background to NARC and highlight our work since 2005. The report covers our underwater clean-up events, our efforts in raising awareness of marine litter, other work, and our collaborative future plans. The finance section is included, primarily for our funders but also to demonstrate what can be achieved with modest funding and huge volunteer effort.

1.1 ABOUT US

While the impacts of litter washed up or left on our shoreline can easily be seen, the same cannot be said for marine litter that is below the surface of the ocean. NARC is a voluntary group of divers and non divers with a passion for keeping the underwater environment litter free. Since its inception in 2005 by local diver Dave Kennard and Keep Wales Tidy, the group has carried out 100s of underwater clean-ups and a number of awareness raising events. This makes NARC the longest, most active underwater clean-up group in the UK.

NARC can be found at a number of sites along the coastline throughout the diving season, collecting litter that is often having a negative impact on the habitat and the wildlife it supports. Divers descend in buddy pairs armed with scissors, bags, trays, lifting bags and a great belief in what they are doing. Dives can last almost an hour in which litter is collected, bagged and sent to the surface for retrieval by a support boat.

The diversity of litter found on dives is staggering with mobile phones, shopping trolleys, bicycles, revolving chairs, skate boards, batteries and quite literally the kitchen sink! Litter type is dependant on the diving location and aim e.g. mainly angling litter at popular angling spots, commercial fishing equipment when working with local fishermen and fly tipped litter where there is easy access to estuarine locations.

The impacts upon wildlife are only too apparent with fishing line often cut from spider crabs and lobsters, dog fish released from hooks and lost crab pots ghost fishing. The litter can also be a hazard to divers and other water users. Once retrieved the various items are cleaned, sorted, recorded and recycled where possible.

1.2 THE BENEFITS

The group is doing its best to reduce the amount of litter in the underwater environment. By removing foreign objects from the sea bed NARC helps make the underwater environment a cleaner and

Helping to keep the underwater world litter free since 2005







NARC have carried out
100s of clean-up events
within the
Pembrokeshire Marine
Special Area of
Conservation. We have
worked with angling
coaches to develop
tackle tips leaflets
aimed at reducing tackle
loss

safer place for wildlife and other water users. We believe the following benefit from NARC's actions:

- Marine wildlife less entanglement potential/ decrease in potential ghost fishing from lost commercial fishing gear
- Bathers less sharp and entangling hazards
- Divers less entanglement hazards from lost line, ropes, nets
- Leisure craft users Less chance of entanglement to propellers etc
- Anglers a reduction in seabed litter decreases the chance of further entanglement
- Commercial fisher retrieval of lost gear and less impact upon fishery

It is not only the obvious marine wildlife such as seabirds and seals that benefit from less marine litter. Pink seafans are a warm water soft-coral at the northern limit of their geographical distribution in Pembrokeshire. They grow at less than 5mm per year and can live for over a hundred years. They are specially listed for conservation action in the Wildlife and Countryside Act and the UK Biodiversity Action Plan.

Two of the pictures below show a seafan covered in lost angling line which had been trapped by a discarded soft drink can. The second shows it after fifteen minutes effort to cut it free of lost line.



2. RAISING AWARENESS ABOUT UNDERWATER LITTER

NARC was formed by concerned divers who had become aware of the increasing amount of litter they found underwater and the damage caused to marine habitats and wildlife. Whilst also carrying out underwater clean-up events the group are always looking for proactive ways to limit the amount of marine litter.

Raising awareness of the issue is an important part of the work.

Since its inception NARC has:

- Produced leaflets which are available from most dive centres in Pembrokeshire
- Keeps a project website updated with data, information and news www.narcdiving.org.uk/
- Given multiple educational talks about marine litter to community groups and schools
- Visited Ireland, to promote the idea to Irish dive clubs
- Visited Greece to assist in clean-up dives

- Produced 6 awareness raising videos
- Produced two ground breaking site specific leaflets providing visiting anglers with tackle tips on how to minimise tackle loss and underwater maps
- Assisted the Marine Conservation Society with the "hang on to your tackle campaign" sitting on the working group and providing advice on tackle bin placement
- Linked in with wider initiatives e.g. Ghost Fishing, Plastic Oceans, School projects, World Animal Protection
- Is a working group member of Global Ghost Gear Initiative
- Is a member of a Welsh Government Marine Litter Task Group

The group also uses local and national media to help raise awareness of marine litter and has had coverage on the BBC National UK news at ONE, BBC The One Show, BBC Countryfile, BBC Wild UK, HTV Coast and Country, HTV Welsh News, Newyddion, BBC Wales Today, BBC XRAY, Channel 4 Born to be Wild, BBC Wildlife Detectives and a number of National radio stations and newspapers.

3. RECOGNITION OF NARC'S WORK

In its first year, NARC won the Beach Improvement category and the Peter Cambridge Trophy for voluntary organisations and schools working to improve their local environment in Keep Wales Tidy's Tidy Wales Awards 2006.

In 2009 NARC were voted the "Most Admired Voluntary Organisation in Wales" by the Welsh Council for Voluntary Action. This is one of the most prestigious awards for the voluntary sector.

In 2010 NARC were finalists in the Keep Wales Tidy Awards in the "Long Term Effort" category and in 2012 were chosen as one of 20 National projects to celebrate 20 years of Environment Wales.

Endorsements of NARC's work from NARC supporters

Sue Burton (Pembrokeshire Special Area of Conservation Officer)

"Not only are the members of N.A.R.C. doing their individual bit to help make the marine environment a cleaner and more natural place to be, for themselves and fellow users (divers/fishermen.), but they are also improving the environment for the wildlife. N.A.R.C s activities help to fulfil some of the required actions from the Pembrokeshire Marine S.A.C Management scheme (under refuse and litter, and raising awareness). It is for this reason that the relevant authorities group for the S.A.C. chose to help fund











some of N.A.R.C. s activities in 2007."

Simon Preddy (KEEP WALES TIDY)

"N.A.R.C. has made an invaluable contribution to the Pride in Our Communities project within Pembrokeshire. They have raised the awareness of the problem of fly-tipping around our waterways and undertaken activities to clean up the mess. The divers have willingly and consistently given their time to help improve our local environment."

JIMMY McVEIGH AN TAISCE (Clean coast Officer)

"As part of the Clean Coasts Project David Kennard of N.A.R.C. came over to Ireland to teach Irish divers, including members of the Irish Underwater Councils about how to conduct underwater clean ups. This was a very successful exchange of knowledge and a number of dive groups have undertaken clean ups since N.A.R.C"s visit. Their presentation was very informative and left the Irish divers with the required skills to conduct clean ups of their own. Their enthusiasm for the protection and preservation of the marine environment is infectious."

Kate Lock (Skomer Marine Conservation Zone)

"N.A.R.C volunteers do a superb job of clearing the sea bed of litter including miles of angling line, bucket loads of lead weights and fishing pots. The litter if not cleared and kills and damages marine life. Monofilament line tangles fish and crabs and also cuts into the soft tissue of sponges and corals like the pink sea fan,(a UK protected species). Public awareness of the damage caused by marine litter is needed and N.A.R.C. plays a key role in promoting the awareness through their work. In the Skomer Marine Conservation Zone we are particularly grateful of the efforts of N.A.R.C. where the quantities of lost tackle below popular angling sites is of concern."

Gill Bell (Marine Conservation Society)

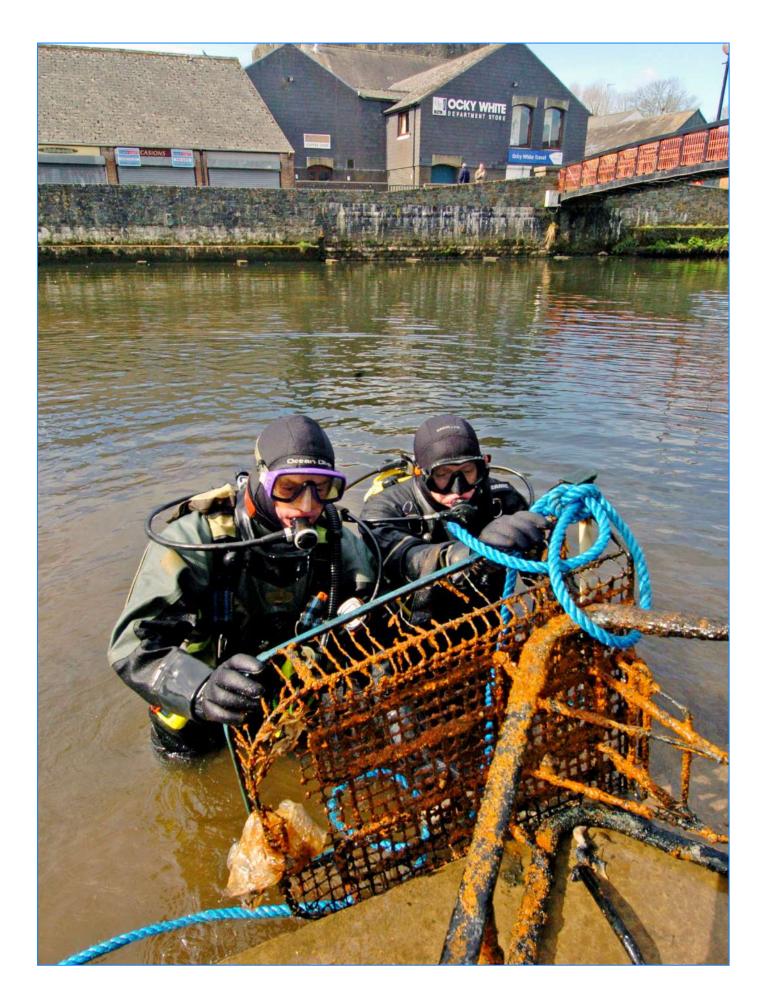
"N.A.R.C. has been very supportive of M.C.S. activities within Wales and in addition to promoting marine conservation, B.A.P. species recording and sustainable fishing through the Good Fish Guide, they have also carried out two underwater clean surveys as part of the M.C.S. Beachwatch 2008 weekend"

Dr Lou Luddington, (Marine Biologist, Marine Conservation Society & NARC Volunteer)

"I find it very distressing seeing litter when I am diving or snorkelling, especially if there is potential for entanglement or damage to marine life. Volunteering with NARC gives me the chance to clear up some of this litter as part of an effective team whilst also raising public awareness of the problem. Part of NARC's role is to highlight this problem and encourage anglers to reduce loss of tackle by using the appropriate lead weights or by switching to biodegradable fishing line and lures. This is a fantastic hands-on project which I am proud to support!"

David Jones, (Pembrokeshire Coastal Forum & NARC Secretary)

"As someone who not only enjoys and appreciates the marine environment in my spare time I'm lucky in that my career involves me in Coastal Zone Management. Marine policy and projects can take a long time to develop, where the outputs and outcomes are often time consuming and difficult. One of the many things I love about volunteering with NARC is that your work is instant, gratifying and really does make a difference. In just one dive you can free entangled wildlife and improve the habitat. I'm really proud of our partnership working, especially with the Pembrokeshire and Welsh Federation of Angling Coaches in producing site specific tackle tips leaflets for anglers."



4. 2017 HIGHLIGHTS

Skomer MCZ May 5th

Our first visit of the year to Skomer Marine Conservation Zone saw us visit the angling ledges of Low Point. **Low Point** - 9 volunteers - 3 meter viz – dive time of 45 mins = 92 lead weights / 147 lures / angling line / 1 bottle.

The second dive of the day was carried out on the Behar wreck after reports from local fishermen of lost pots. **Behar** - 9 volunteers - 3 meter viz - dive time of 45 mins = 6 lost lobster pots / 1 anchor

Hobbs Point May 20th

Out first visit of the year to Hobbs saw us kick things off with a photo and thanks to one of our funders for 2016/17, the Port of Milford Haven. The sun was shinning as NARC volunteer divers covered the area adjacent to the slip and jetty. 3 metre viz allowed us to locate the usual array of litter, much of which you would not expect to find in a Marine SAC.

Hobbs Point – 8 volunteers – 3 meter viz – dive time of 50 mins = 11 lobster pots / 1 whelk pot / 3 rod stands / 1 prawn net / 3 rods / 1 reel / half bag of line / oil filter / 2 bikes / 4 bottles / 1 plate / 1 cup / 4 cans / tiles / 1 mobile phone / 3 tyres / 1 laptop / 1 remote control / 1 mirror / 2 metres of rubber pipe / plastic sheet / 1 alloy wheel / 28 angling weights / 9 lures



Handmarks and Milford Haven June 3rd

It was sunshine and breezy conditions as we left the Mackerel Stage at 0800 with plans to meet up with local fisherman at the Bishops. However an 8 second ground swell put pay to plan A and plan B saw 11 volunteer divers spread out over the Handmarks reef in St Brides Bay. A rather gloomy 2 meter viz and no specific locations saw us return to the boat empty handed. Next up came a number of dives at various locations within the Haven after reports from divers and local fishermen of netting and pots.

Handmarks – 11 volunteers – 2 metre viz – dive time of 40 mins = nothing found.

Dakotion Wreck - 2 volunteers – 2-3 metre viz – dive time of 50 mins = 3 metres of monofilament netting stuck on the wreck with **1 dead dog fish and 1 dead wrasse** / 1 lost pot and 10 metres of rope.

Caroline - 2 volunteers - 2 metre viz - dive time of 40 mins = nothing found. Caroline - 2 volunteers - 2 metre viz - dive time of 60 mins = 1 whelk pot / 1 diver recall signal flare / 6 weights / 20 lures / 2 handfulls of angling line.

Collier - 3 volunteers – 2 metre viz – dive time of 40 mins = 1 handfull of angling line.

Milford Haven June 4th

The second day of diving focussed on working with local commercial fisherman saw us target 4 different sites.

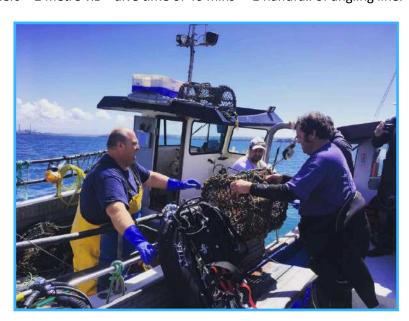
Mid Channel Rocks – 9 volunteers – 2 metre viz – dive time of 40 mins – Released entangled Pink Sea Fan = 9 weights / 1 hook / 1 x of angling line / 1 lost pot /2 metres of rope / 1 piece of electric cable

West Blockhouse - 2 volunteers – 2 metre viz – dive time of 50 mins = 2 weights / 1 x of angling line / 1 piece of metal / 1 spray can.

West of Lindsway Bay - 2 volunteers – 2 metre viz – dive time of 40 mins = 10 lost pots returned to local fisherman.

Behar Wreck - 5 volunteers -2 metre viz - dive time of 40 mins = 1 weight /4 lost pots $/5 \times 10$ metres of rope /20 lures /2 handfulls of angling line.

Collier - 3 volunteers – 2 metre viz – dive time of 40 mins = 1 handfull of angling line.



June 11th

The work of NARC was covered by the BBC series, Countryfile on BBC 1.



Stackpole Quay and Barafundle Ledges July 2nd

Another sunny day was beckoning as we departed the Mackerel Stage at 0800 with plans to target angling litter at our well known sites of Stackpole and Barafundle Ledges. The relatively calm weather saw the viz approaching 5 metres at Barafundle and only 1 angler at the site made the first dive of the day a nice one. Stackpole Quay saw the viz decrease slightly and one buddy pair separate.

Barafundle Ledges - 10 volunteers – 5 metre viz – dive time of 45 mins / Released 1 entangled spider crab = 45 weights / 1 spark plug /85 hooks / quarter sac of line / 2 lures / 6 rod pieces / 1 glass bottle / 3 plastic bottles / 7 cans /2 plastics bits / 1 ash tray / 1 plastic fork / 1 hose pipe piece / 1 rubber pot wrap / 1 disposable BBQ mesh / 1 sock / 1 bandana

Stackpole Quay - 10 volunteers - 3 metre viz - dive time of 50 mins / Released 2 entangled spider crabs, 1 Dog Fish with 2 dead entangled dog fish = 88 weights / 3 spark plugs / 118 hooks / half sac of line / 2 lures / 2 rod pieces / 4 glass bottles / 1 plastic bottle / 1 can / 2 plastic bits / 1 lobster hook / 1 mobile phone / 1 sunglasses / 1 copper pipe / 1 copper nail / 1 electrical cable piece

West Blockhouse and Collier Wreck July 4th

After the previous focus on angling generated litter the aim of the dives in the Haven were for reported lost pots.

West Blockhouse - 2 volunteers — dive time of 45 mins / Released 1 lobster, 4 spider crabs with 2 dead spider crab and 1 dead brown crab = 1 lobster pot

Collier Wreck – 4 volunteers – dive time of 45 mins / Released 3 lobsters, 1 whelk, 1 Ballan Wrasse = 4 lobsters pots and 40 meters of rope.

East Hook July 8th

During a Skomer MCZ fish survey 3 volunteers divers came across a single lobster pot with a detached

rope lying on the seabed. It looked like the pot was being used as a single deployment and not part of a larger string. From the number of dead and trapped shellfish and the amount of shell carcasses and debris underneath the pot it is likely that it had been ghost fishing for sometime.

East Hook - 3 volunteers / Released 12 lobsters, 4 of which were missing legs and claws, 17 spider crab, 1 brown crab / 2 dead lobster and 8 dead spider crab = 1 pot



Milford Haven July 18th

World Animal Protection and HTVs Coast and Country joined 7 NARC volunteers to help raise awareness of the work carried out in the region.

Castle Head West - 2 volunteers - 2 metre viz - dive time of 40 mins/ Released 5 brown crabs = 1 pot

North of Dale Point - 2 volunteers - 1 metre viz - dive time of 30 mins/ Released 1 lobster, 10 spider crabs

= 1 pot

East of Lindsway Bay - 2 volunteers – 4 metre viz – dive time of 40 mins = 1 piece of netting approx 2m2, 20 metres of rope, 2 pieces of metal

Stack Rock West reef - 7 volunteers - 4 metre viz - dive time of 40 mins = Nothing found

Milford Haven July 19th

7 volunteers headed North towards Ramsey to meet up with local fisherman.

Ynys Eilun - 5 volunteers – 3 metre viz – dive time of 45 mins / nothing found.

Stack Rock East -2 volunteers -4 metre viz - dive time of 40 mins / Released 4 brown crab, 5 spider crab, 1 velvet swimming crab, 1 squat lobster, 3 scorpion fish = 3 pots

Great Castle Head/Behar – 7 volunteers – 4 metre viz – dive time of 40 mins / Released 10 lobsters, 3 brown crab, , 2 velvet swimming crab with 1 dead lobster = 9 pots / 1 can / 1 shoe / 4 pieces of rubber / 2 metal bits / grinding disc

July 27th

The work of NARC was covered by the BBC series, Wild UK on BBC 1



August 15th

Coast and Country was broadcast on HTV















Ramsey Island August 31st

8 Volunteers, good weather and viz, dived the Bitches with lots of seals. We met up with local fisherman out on the water who had reported a number of lost pots. Although we managed to find 1 pot we could not locate the lost fleet.

Bitches - 5 volunteers - 5 metre viz - dive time of 45 mins / nothing found

North Ramsey, Bae Ogof Hen - 6 volunteers – 5 metre viz – dive time of 45 mins / = 1 lost pot

Skomer MCZ and the Haven Sept 1st

10 volunteers left Dale for another visit to Skomer MCZ. Good weather combined with good visibility provided an ideal day of diving.

Low Point - 6 volunteers – 4-5 metre viz – dive time of 55 mins / Released 3 entangled spider crabs, 1 Starry Smoothhound, 1 velvet swimming crab. 2 dead spider crabs were also found. = 103 weights / 2 bags of line /185 hooks / 2 lobster pots / 8-9 M of rope / 1 glass bottle / 2 cans /1 pickle jar lid

Wooltack Point - 4 volunteers - 4 metre viz - dive time of 52 mins = 7 weights / 25 hooks / 1 handful of line/ 1 piece of glass/ 1 bottle

Dakotian/ Collier Wreck -6 volunteers -3 metre viz - dive time of 50 mins / Released 1 lobster, 3 brown crab and 1 spider crab =7 pots /24 weights / 30 hooks / quarter of a bag of line /1 anchor chain and rope / 1 anchor piece / 1 piece of copper / 5M of rope / 1x 0.5M rubber / 6x led pipe / aluminium strip / 0.25mS of mesh monofilament / 1 rubber strip

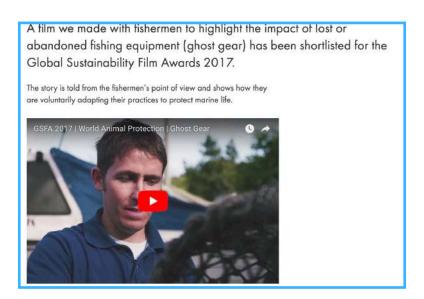
In 2017 NARC located 66 shellfish pots, netting, over 400 weights, 600 hooks and 1000s metres of monofilament line. Wildlife freed included 21 lobster, 18 brown crab, 42 spider crab, 4 other crab species, 6 fish. Entangled wildlife found but deceased included 3 lobster, 13 crab, 2 fish.





4.1 OTHER WORK IN 2017

- Continuous updating of our project website <u>www.narc-cc.org.uk</u> which contains information on the group and recorded 300 hits in one day after the BBC National News coverage.
- Distributed copies of the site specific tackle tips leaflets which have underwater maps and site specific advice for Stackpole and Skomer MNR
- Displayed boards and information at a number of events
- Collected footage at a number of clean-up dive events to produce an educational video on Marine Litter and the work of NARC
- Liaised and provided information to the National Trust, the Crown Estate and the BBC to raise awareness of marine litter
- Joined the International network on ghost fishing, GGGI and became a working group member to exchange knowledge on worldwide solutions
- Made multiple contacts with local fishermen to assist with retrieving lost commercial fishing gear and a collaborative partner in the Pembrokeshire Sustainable Shellfish Pilot Initiative (PSSI) see section 4.1.
- Dived with World Animal Protection on a worldwide ghost fishing project
- Teamed up with Folly Farm and Ysgol Pen-y-Bryn Special School to raise awareness of marine litter
- National coverage to raise awareness of marine litter including working with BBC, HTV,
 Sky, The Times
- Part of film/project that was shortlisted for a global sustainability film awards 2017 https://www.worldanimalprotection.org.uk/news/film-made-fishermen-nominated-global-sustainability-award



The Pembrokeshire Sustainable Shellfish Pilot Initiative (PSSPI)

The Pembrokeshire Sustainable Shellfish Pilot Initiative (PSSPI) is testing voluntary measures to try to improve fishing sustainability within the local potting fleet. It aims to encourage fishermen to incorporate one or more trials within their fishing practices. The pilot allows trialling of gear modifications at no cost to fishermen and incorporation of feedback into final outputs that will be shared widely. Gear modifications being trialled include:

Anti-ghost-fishing mechanisms (ghost fishing can occur when fishing gear has been lost) incorporating various "weak links" into pot hook set-ups and panels. The weak links currently include split rings, ghost buster hog rings, nickel-coated steel wire and potato sack wire ties. More ideas may be tested as the pilot progresses.

Escape panels (to protect juveniles by allowing them to escape the pot). 43mm x 82mm escape hatches are being trialled, some with a degradable "weak link" element to also allow the panel to act as an antighost fishing device. Blank panels are being fitted too just as an anti-ghost-fish device with a degradable element for those who want to retain velvets and/or prawns.

Gear tags (to identify pots in the event that they become lost, enabling them to be easily returned to their rightful owner). These are not connected to effort limitation.

NARC have been happy to build on their existing relations with local fishermen to retrieve lost gear, thereby reducing the potential for ghost fishing.

The initiative seeks to secure environmental improvements that will benefit the Pembrokeshire Marine Special Area of Conservation and help to enhance and maintain the living resource found off the Pembrokeshire coast which fishermen depend on to make a living.

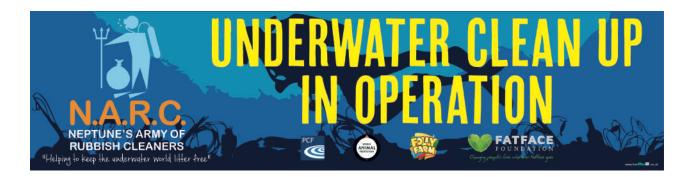




Awareness raising and educational work











5. PROJECT FINANCES

5.1 Income

Funder	Amount
Balance April 2017	£4,017.84
SHLNG	£400.00
Sea Changers	£500.00
Pembrokeshire Coastal Forum/SAC	£1,120.00
The Crown Estate	£7,500.00
World Animal Protection	£4,265.00
Donations	£1,450.10
Total Amount	£15,280.10

5.2 Expenditure

Service	Amount
Boat Hire	£3,880.00
Bank Charges	
Publicity and Marketing	£3,207.00
Equipment and air fills	£3,635.99
Total Amount	£10,722.99
Balance March 2018	£10,252.75

Neptune's Army of Rubbish Cleaners Trustees 2017. Registered charity number: 1174029

Registered address 4 Richmond Crescent, Haverfordwest, Wales, SA61 1EH

NARC trustees for 2017: David Kennard, (Chairman) / David Jones, (Secretary/Fund Raising) Tony Rees

(Retired July 2018) / Ceri Jones, (Safety and Diving Officer) / Meg Pugh (Retired July 2018) / Blaise Bullimore,

(Data Officer) / Andy Davies, (Treasurer).

The NARC constitution can be viewed on the website http://www.narcdiving.org.uk/other-stuff/policies/constitution/ which details how the trustees manage the CIO. Potential trustees can be nominated or self-nominated for a term of 2 years passed by a resolution at a convened trustee meeting.

Annual Report by David Jones

6. PLANS FOR 2018

We hope this report shows our existing sponsors the value of NARC's work and how their contributions are actioned throughout the year.

NARC plans to celebrate its 14th year with a continued programme of clean-up events and to continue our collaboration with local fishermen. There will be an update and reprint of the tackle tips leaflets aimed at being proactive in reducing lost tackle using education.

NARC will continue to be an active member of Global Ghost Gear Initiative exploring solutions for what is a global issue.

Clean-up events	Education and awareness	New schemes
10 events booked with more TBC	Reprint angling tackle tips leaflets and new general leaflet	Update awareness raising videos and increase social media activity
Funded dives to recover lost commercial angling gear	New updated website with images and video rich improvement	Work with other initiatives around the UK. Use Year of the Sea initiative.

7. THANKS AND ACKNOWLEDGEMENTS

The group would like to thank all the sponsors and funders for 2017.

Fat Face Foundation / Port of Milford Haven / World Animal Protection / South Hook / Folly Farm / The Pembrokeshire Sustainable Shellfish Pilot Initiative (PSSPI) and the kind donations from the general public.

NARC would also like to thank Andy Truelove, Brian Dilly, Fenn Duke and all the dive clubs who kindly offer their ribs and divers.

Lastly and most importantly many, many thanks to all the NARC volunteers who freely give up their time for this good cause. Thanks to everyone for another fantastic year!















