

January Storms and MSC Napoli impacting on Chesil Beach (mainly Abbotsbury to Portland) and Seabirds

**A Report by Don Moxom, Warden, Chesil Bank and the Fleet Nature Reserve
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Introduction

On Thursday, 18th January, a severe storm (originating from the European windstorm 'Kyrill') hit the English Channel, with 40ft seas and wind speeds up to 70 mph. The 62,000 tonne MSC Napoli, 40 miles south of Lizard Point, suffered severe damage to her hull with a flooded engine room and a cracked hull. The crew of 26 was rescued from the lifeboat by helicopters from RNAS Culdrose on abandoning the ship.

On Friday, 19th, the ship was taken undertow by two French tugs. It was decided to tow the vessel to Portland some 140 miles away. As the Napoli progressed along the Channel however, its list increased and with strong winds forecast refuge was taken in Lyme Bay.

The deteriorating condition of the ship raised doubts as to its ability to withstand the journey to Portland and the decision was taken on Saturday 20th Jan, to deliberately ground the ship at Branscombe in East Devon about 1 mile off the coast. The location was selected on 'minimising the impact of any spillage and enabling salvage work to remove the vessel and cargo to take place.

The MSC Napoli was carrying 41,773 metric tons of cargo of which 1,684 tons were considered as dangerous, mainly retail perfumes and agricultural chemicals. The cargo was in 2,394 containers.

On grounding 103 containers were lost overboard, the whereabouts of only 76 being known, as was an estimated 50 tonnes of heavy fuel oil from the damaged engine room. The oil formed a slick approximately 8km long, 5km wide and was driven by a force 5 wind from the west.

Weather conditions remained unfavourable for almost a week after the ship was beached, and it was feared that an amount of the 3,500 tons of oil on board could be lost. Thankfully it was not, and most helpfully, the wind dramatically decreased and moved offshore for several weeks. The slick moved out to sea, quickly dispersing naturally and with the aid of detergent that could be safely applied in deeper water (oil treated with detergent breaks down and sinks but can still be damaging to shallow water and coastal environments). The long, painstaking and massive job of removing the oil and containers could get underway successfully.

To date, the Napoli is still at Branscombe, but rid of its oil and burden. The beaches have been cleared of debris and look good although some oil has seeped into sub surfaces. No

signs of dead and dying birds exist, and locally auks are back breeding on the cliffs, but an impact was made on the populations that breed around the northern coasts of Britain and Ireland and winter in Lyme Bay, and this has yet to be fully assessed.

Napoli impact

Winds and currents dispersed the oil and an array of items from tens of broken containers. The extent of their distribution to the east depended on the nature of the weight and floating capacity of the item concerned. Heavier items came ashore at Branscombe, and lighter debris, notably packets of 'Dance' biscuits, travelled as far as Abbotsbury.



Left and middle photos: a thin line of oil and debris (mainly completely oiled packets of biscuits at Burton Bradstock). Right: At Abbotsbury there's no oil and the biscuit packets are less oiled

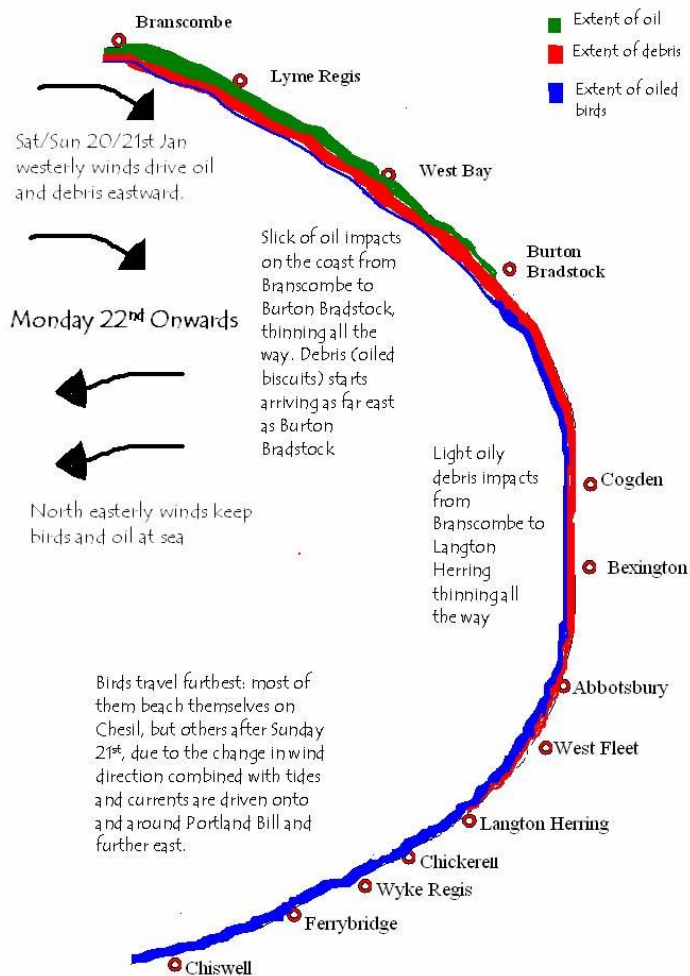
The first signs of impact reaching the reserve were two oiled sea birds coming ashore at Abbotsbury on Sunday afternoon, 21st January, and oil could be smelt in the air at Abbotsbury in the evening. The main deposit of debris, oil and oiled birds reached Chesil some time that night.

Oil from the slick that reached the beaches thinned eastwards in a similar manner to the debris. A continuous line of oil about a metre wide was noticeable at Burton Bradstock but only scattered spots were recorded between Abbotsbury and Langton Herring.

The distribution of oiled seabirds was different to the oil and oily debris. Abbotsbury was the area which saw the end of the litter and oil but the beginning of the birds that increased in number towards Ferrybridge and Chiswell. The oil that issued from the Napoli after it was beached could not, it is believed, have affected those that were beached on Chesil. Such a quantity of auks in such a small area close to the shore is never seen. Whilst the buoyancy of the birds, the currents and a natural reluctance of the birds themselves to be beached (whilst they still had the ability) may have kept them at sea, it is difficult to understand why most were not beached further to the west.

It is understood that oil was spilt from the vessel when it was damaged at sea and during its subsequent towing. It is possible that birds could have been affected by oil trailed from the boat throughout its journey. The density of so many birds initially coming ashore in such a relatively small area tends to suggest however that most birds were oiled in the

latter stages of the Napoli's journey, possibly when it was turned towards Branscombe, in an area which due to the prevailing winds and tides would have taken them directly on to Chesil. Birds found on rocks around Portland and as far east as Swanage at the weekend may have been individuals oiled in the same slick but being more to the south were driven by the currents rounding Portland rather than waves pounding on to the beach.



Clearing up the debris and dealing with wildlife casualties

Monday, 22nd January, saw the beginning of a massive clear up. Locally washed up containers and their spilled contents attracted hundreds of people claiming wreck and added enormously to the workload of the authorities involved in attempting to manage the Napoli, contain the spilt oil and clear up the beach.



Left: The RSPCA and helpers set up base at the Chesil Centre. Right: a badly oiled guillemot

With relatively little debris on Chesil, resources were focussed on the oiled seabirds, which would have been the priority in any case. The RSPCA quickly arrived on force in the car park on Portland Beach Road. RSPCA staff determined, mainly by weight, which birds could be effectively treated and having administered the appropriate ‘first aid’ sent them to their West Hatch facilities for cleaning and recuperation.

Over the next five days oiled birds collected in cold, windy weather, mainly from Abbotsbury to Portland by staff members and volunteers from the RSPB, Dorset Wildlife Trust, Natural England, the National Trust, Abbotsbury Swannery, Kingston Maurward College, Royal Engineers Training Area and the Chesil Bank and the Fleet Nature Reserve. Boats were supplied by the army and the reserve for the workforce to cross the 8 mile long Fleet Lagoon at three different points. Birds beached on Portland and to the east were mainly collected by the British Divers Marine Society. By the end of Monday, 250 live, oiled birds, mainly guillemots, had been caught and handed in to the RSPCA. By the weekend 760 live birds had been received from Chesil.



Crossing the West Fleet

Apart from the birds there were reports of dead dolphins being washed up but it is not clear that these casualties could be attributed to the Napoli. Reports of hundreds of dead fish were unfounded.

As previously mentioned, litter was relatively light on Chesil but nevertheless it took days of toil, particularly from the National Trust, Dorset County Council and the

Kingston Maurward students, to clear the beaches at Burton Bradstock, Cogden, Bexington and Abbotsbury.

Measuring the impact on the seabirds

Best estimates of affected seabirds have yet to be produced. It has been considered that a minimum of 900 live birds have been collected from the Dorset coast. At least 400 dead birds were reported on Chesil in the Beached Bird Survey carried out on 27th January.

Exactly how many birds were affected will never be known. Undoubtedly some dead and dying birds never reached the shores, particularly from the end of the month when the wind moved to the north and off shore. One estimate suggested that for every bird beached at least four birds would be lost at sea, but sporadic searches on Chesil to date have not revealed any more corpses.

Staff from the Reserve and the RSPB, and volunteers from the Fleet's wildfowlers collected the dead birds, the majority of which were sent to CEFAS, Weymouth, to be frozen and temporarily stored. JNCC is arranging for these birds to be analysed for their cause of death and to provide a range of biometric information, and which possibly will enable their breeding grounds to be identified. From information gained by ringed birds, it is likely that the auks are of Irish, North Welsh and Scottish origins.

Figures from West Hatch show that over a thousand birds were handled (997 guillemots, 50 razorbills, four shags, four great northern divers and one gannet) of which 50 died en route and a further 550 birds had to be put to sleep, mainly as too much oil had been ingested. This nevertheless left a very commendable total of 400 birds to be released - at first the centre manager thought that only 50 would survive. Some birds needed care for two months.

Past information on the survival rates of released birds is little but is estimated to be poor, probably less than 5%. However treatment techniques continue to improve and it is considered that a much higher percentage of these birds should survive.

Given that the wintering guillemot population for the western end of Lyme bay is approximately 20,000 (Lyme Bay Environment Survey), it could be assumed that the number might be doubled for the whole of Lyme Bay and that 40,000 birds were vulnerable. The incident may therefore have impacted on approximately 5% of the population. We know however that auks are very long lived – one razorbill caught in this incident was ringed as a one year old at Bardsey Island, N Wales, in 1981 – and providing that their breeding productivity can be sustained and no further losses from severe storms and oiling occur for some while populations should recover. Levels of local populations breeding on the west Portland cliffs now seem to be much as usual, but maybe they were never involved?

The storms and the birds

It is possible that the Napoli may not be blamed for all of the seabird mortality. Data collected on dead birds surveyed in the Chesil sector of the Beached Bird Survey conducted on 27th Jan, revealed that 216 of the 270 total collected showed no signs of oiling. Perhaps it is possible that birds may ingest sufficient oil to kill them without any external evidence of them having been oiled. We know birds can perish from inclement weather.

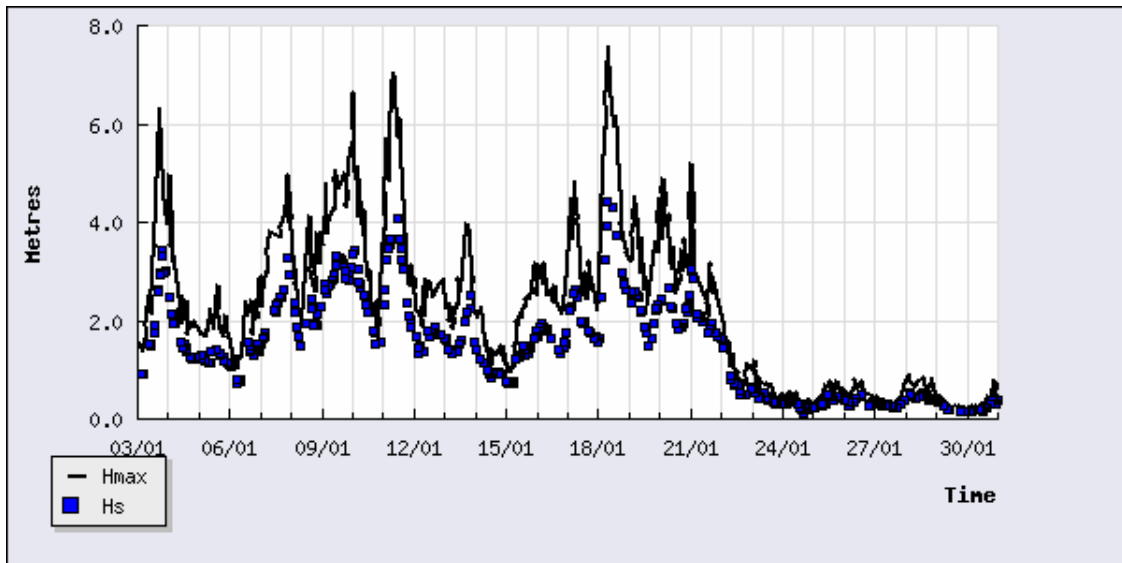
The graph below shows wave heights as recorded in West Bay for January, and gives an excellent representation of the weather with which the ship and the birds had to wrestle. Leading up to 22nd Jan wave heights above 2m were recorded every day, above 4 metres on 9 occasions and above 6 metres on 4 occasions. This must have made feeding conditions for the Guillemots and Razorbills, the main sufferers, very difficult indeed. Once bodyweights drop below a certain threshold birds may die of hypothermia.

It is interesting that the proportion of live guillemots to razorbills was 20 to 1 compared with almost equal quantities of beached dead birds.

Most of the dead birds were taken to the CEFAS labs in Weymouth to be frozen and at some later stage analyzed for data relevant to the oiling, and biometric information. Of the 96 razorbills in the survey only 14 were oiled. Razorbills appear either to have been less affected by the oil than guillemots or more affected by the storms.



An obviously oiled casualty and a much cleaner one that probably succumbed to the storms



Wave heights in Lyme Bay (From Channel Coast Observatory website)

Management of the incident

As has been mentioned, the overall response to dealing with the birds and the debris was immediate and effective. Those with some professional involvement worked well alongside volunteers. On the ground it is considered that the organisation of the workforce operating from direct access points at Abbotsbury and Ferrybridge and indirectly across the Fleet at Wyke Regis, Chickerell, Langton Herring and at the West Fleet, was effective even though quite a number of organisations were involved and no formal management structure existed. It is accepted though that the willingness of those involved was excellent, the objectives were obvious and some of the complications being experienced on other stretches of the coast did not exist.

Although not directly involved with the clearance of oil and oily debris from Cogden to Abbotsbury, it appeared that the organizational responsibilities were proactively undertaken and discharged by DCC and the NT. From Abbotsbury to Portland where the essential problem revolved around oiled birds, the conservation bodies more or less assumed the managing role and local authority involvement was less. The establishment of a management base at Ferrybridge facilitated this. The RSPCA were central to the birds, the Chesil Reserve Office nearby and access for all was straightforward.

Not unnaturally the media were attracted to the obvious presence of the RSPCA and the RSPB and spokesmen for these societies supplied accurate information as far as they could on what was happening locally. However some of the media reports were not at all accurate especially initially when no one on this site was able to furnish reliable information on the bigger picture.

The quality of information being collected and imparted may have been better. It is accepted some dead birds were hardly recognisable, that some helpers would not necessarily have had the knowledge to identify birds by species. After all the overall aim was to get live birds back for treatment as soon as possible. Notwithstanding, more notes may have been taken. The consequence of this was that numbers of birds collected dead or alive, their condition, species and location was not always positively known. Some data sets will always be rather lacking, although it is possible that when official reports are published which will include data on dead birds that were bagged before being described, a better overall picture will be seen.

Public interest in the incident and their concern was good. Members of the public were calling in to offer help as soon as the scale of the impact on the birds was known. Local people in the Weymouth and Portland area in response to an appeal on the radio, generously donated towels and sheets to help clean the oiled birds.

An invitation was received from Southwell Primary School Portland for a group of children to be briefed on the incident. With the information they were given and that from the Internet, Thomas Louch, Blaize Stewkesbury, Vanessa Warren, Victoria Latimer, Lee-Ann Waterhouse, Amber Barnicoat, Ashleigh Porter, Rachel Day, Molly-Jo Gordon, Jake Ryan, Shannon Parsons, Sophie Allen, Megan Bargery and Arrun Jung produced remarkable illustrated stories.

Some concluding comments and questions

Questions have been asked and are still being asked about the condition of the Napoli and its handling at sea by the French and English Authorities. Could and should the incident have been prevented?

Prior to the incident the weather was extremely wild. Might it have made a significant and direct contribution to Razorbill mortality?

After the beaching of the Napoli, the weather as the graph reflects (and this continued until February 8th), calmed dramatically. Most importantly this permitted the painstaking removal of the ship's oil and the first of the remaining containers.

To date all containers have been removed and the vessel is secure. This remarkable work has been achieved with very little further impact.

It is hoped that the auk wintering populations will not be permanently affected, and that data collected on the casualties will contribute to the conservation of these birds in the future.

The authorities and landowners of this area acknowledge that containers could have come ashore on Chesil and recognised the possible need to deny access to members of the public to prevent looting. Thankfully, apart from a single container that was quickly and easily removed from the beach at Burton Bradstock, none did.

It is understood that it was planned to deal with containers landing on Chesil opposite the Fleet from the sea. Whilst it is accepted that today's landing craft may have superb capabilities one wonders about the particular conditions on Chesil relating to working from the sea. Would a beach based back up facility be required? Under current arrangements, The Fire Brigade deal with toxic materials landing on Chesil. Perhaps this scenario could be investigated and emergency plans reviewed?

There is a plan for dealing with oil washed up on Chesil, which essentially states that it should be left to degrade naturally. If the oily debris landed on Chesil between Abbotsbury and Portland as it did at Cogden, what would have happened?

Beached live and dead casualties were successfully gathered. Information gathered on dead birds could have been better.

Care and treatment for the affected birds, immediately on site and subsequently at West Hatch, were excellent.

That the birds, both dead and alive, were collected so efficiently was due in part to the experience, plans and partnerships that have been built up over the years in dealing with beached litter. The oil and seabird-monitoring programme that was introduced when the initial problems were dealt with seemed to offer something to build on.

Plans were made for dealing with the public in the event of containers landing on Chesil and attracting looters. These too may be embodied in a document, which possibly should be developed – to look at a more comprehensively range of marine incidents that could occur on the coast.