

Schull Harbour Development, Schull, Co. Cork: report on bird survey carried out on 14th December 2012

Introduction

Schull Harbour is situated on the southern shore of the Mizen Peninsula, and faces onto Roaringwater Bay. It is a relatively enclosed water body, but because of its south facing position it is exposed to rough seas when winds blow from the south or southwest. The wider Roaringwater Bay and its islands are designated as a candidate Special Area of Conservation (site code 00101). An *Appropriate Assessment and Natura 2000 Statement* has already been completed (Moore Group Environmental Services 2011).

The pier area at Schull caters for a wide range of marine related enterprises ranging from fishing trawlers to island ferries and leisure boating activities. It is considered unable to cope with the current level of usage, hence the proposal for an improved range of facilities. The proposed facilities include the building of a rubble mound breakwater (270m long), the positioning of floating mooring pontoons along the sheltered side (northern) of the breakwater and the existing pier and the raising of the storm wall on the existing pier. It is also proposed to reclaim 0.55 ha of foreshore between the existing pier and the land to the north of it for a car park and marine facilities. Finally, a 235 berth marina with access platform, gangway and floating breakwaters will be sited to the south of the reclaimed land (i.e. north of the pier and proposed breakwater). A more detailed account of the proposed works can be found in the report by Cronin Millar Consulting Engineers (2011).

Background to this study

No archival data was available on the birds using the area around the existing pier or in the vicinity of the proposed works (BirdWatch Ireland & National Parks and Wildlife Service, letter dated 23rd August 2012, Reference MS 51/8/1291 Vol.2). This study, carried out over one day in December aimed to gather some data on the birds using the area concerned.

Methods and study area

On 14th December 2012 a survey of the birds in the area of the proposed development was carried out. Three counts of the birds of the area were carried out across a six-hour period. On

the day of the count the tide was low at Schull at approximately 11.33 (calculated from the *South of Ireland Tide Tables for 2012* (Union Chandlery Ltd. 2012)). The first count represents the two-hour period immediately before low tide (Table 1), the second represents the two-hour period immediately after low tide (Table 2) and the third the two-hour period between two hours and four hours after low tide (Table 3). This is deemed to give a reasonable representation of the birds using the development area, and the area immediately adjacent to the development area across the low tide period during winter.

Surveying conditions on the day were very good with bright sunny weather and with winds ranging from calm to a very light breeze. The sea conditions were also very good with calm conditions within the Schull Harbour area. However, the weather during the previous night included heavy rain and strong winds from a southerly direction. Weather conditions are deemed not to have affected the survey in any way.

No activities were observed within the study area that would have seriously affected the counts on the day. Some repair work to a trawler appeared to be going on at the pier, and one or two small boats were occasionally seen to be moving about in the harbour, and in the mid-afternoon four yachts were on the water in the mid to outer part of the harbour. Nothing was observed on land that could be deemed to be a disturbance factor.

There was no fishing activity evident in the harbour, and certainly no unloading of fishing boats at the pier. Such activity (if it were happening) could have increased the numbers of the different gull species in the pier area.

The habitat within the development zone mainly consists of marine waters. The shoreline is steep and mainly rocky with only a narrow zone of substrate of perhaps up to 50 m in places exposed at low tide. On the day of the survey spring tides were occurring, so the extent of exposed shoreline between the high and low water mark was at its greatest. Most of the exposed shore is rocky in nature, with only very small areas of coarse sand and gravel seen to be exposed at low tide. No mud substrate was evident anywhere. Seaweeds, mussels and periwinkles were exposed at low tide, and some Herring Gulls and a few Oystercatchers were seen feed in the intertidal zone.

The bird counts were carried out from the public walking path above the shore. Using the pier as a central point, it was possible to walk approximately 500 m in either direction and, therefore, cover the entire area of the proposed development with some overlap into areas outside the development zone. The observer repeatedly walked slowly from the pier to the north and then south during the entire study period. In each table (Tables 1, 2 & 3) the totals given are the maximum numbers for each species recorded within the study area during the two-hour period concerned. Two areas of the marine and shoreline were counted separately.

First, the inner zone, defined here as the area north of the existing pier, and extending at least 300 m eastwards from the tip of the pier. This zone (inner zone) covers the entire area of the proposed development, including the area of the breakwater. The outer zone refers to the area south of the pier extending into the harbour in an eastwards direction for at least 300 m and southwards towards the mouth of the harbour for at least 500 m (Tables 1, 2 & 3).

No special attention was given to birds on the land, although all species were recorded when encountered (Table 4). Evidence for the presence of mammals was also noted.

Results

During three separate two-hour surveys carried out over one day, a total of only nine shorebird species were recorded using the shoreline or marine area. In addition, six landbird species were also recorded using the shoreline. All species were present in quite low numbers, apart from the gull species, especially Black-headed and Herring Gulls. Only two wader species were recorded, Oystercatcher and Turnstone, and again only in very low numbers (less than ten on every occasion). Grey Herons were present during each survey, with six roosting on the northern shore of the inner zone during the third survey. The landbird species were mainly of the crow family, with a single Grey Wagtail and two Rock Pipits recorded (Tables 1, 2 & 3).

The number of individual birds present within the study area was very similar during the first and third counts (113 *versus* 117), but was lower during the second count (86). This difference was mainly caused by fewer Black-headed Gulls being present during the second count. During this count many Black-headed Gulls had obviously moved out of the study area, and a flock could be seen near the eastern shore of the harbour (Tables 1, 2 & 3). There was no evidence that any of the gulls were feeding in nearby fields.

The inner zone held the most birds during all counts, peaking at 104 and 109 individuals during the first and third counts respectively. A peak of 18 individuals was recorded in the outer zone during the second count (Tables 1, 2 & 3).

A total of 20 landbird species was recorded during the surveys of the shoreline. These are shown in Table 4, and notes on mammals are given in Appendix 1.

Discussion and conclusion

This site held very few species and numbers (on this particular day). It is unlikely if the diversity of shorebirds at this site would be greatly different at anytime, possibly apart from occasions

when fish catches are being landed. On such occasions I would expect more gulls, both in terms of numbers and diversity of species. Scavenging gulls have the capacity to exploit short-term food resources such as during fish landing operations.

The proposed development works are highly unlikely to impact negatively on gulls using the area. Gulls are quite well adapted to foraging in close proximity to humans, and the continued use of the pier as a fish landing station will provide them with a food resource into the future. The breakwater and marina pontoons may even become roost sites for them, once built.

Only two wader species were recorded, Oystercatcher and Turnstone, and both in very low numbers. The shoreline is quite unsuitable for large numbers of waders as it is rocky in nature, with no mud or sand substrates on which such species could feed, even at low water during spring tides, when the greatest amount of shoreline is exposed, as was the case during this survey. The two species present probably will continue to use the area in low numbers, even after the development is complete. Oystercatchers, Turnstones and Purple Sandpipers (the latter not recorded here during this survey) frequently use such areas as piers and jetties as feeding and roosting areas. The rubble mound breakwater could become an alternative feeding site for Oystercatchers after the inevitable loss of some of the shoreline during the reclamation works. Turnstones often feed on piers, often on fish scraps (personal observations elsewhere). Turnstones and Purple Sandpipers often use breakwater structures elsewhere similar to the one proposed here as both feeding and roosting sites (personal observations, Dunmore East).

Two of the six roosting Grey Herons were actually outside the proposed development area, but were within the study area. Grey Herons have a habit of roosting in sheltered and sunny areas during daytime, and these roosting areas may change depending on the wind direction. It is likely that Grey Herons in this area have a number of sites for roosting in different weather conditions, but long-term local knowledge would be required for this. If not molested, Grey Herons are tolerant of people in close proximity to them.

Crows and some other passerines (such as Pied and Grey Wagtails) often use the shoreline as short-term feeding areas, usually between half ebb and half flood. These landbird species are generally supplementing their diet by feeding on the shore when it is exposed, rather than this being a vital foraging area for them. It is true that coastal-living Hooded Crows obtain a large proportion of their diet on the shore, but it is also true to say that considerable feeding opportunities will continue to exist in this area after the development is completed.

Rock Pipits are typically confined to the coast in Ireland, and they obtain all their food there, as well as nesting in cliff or shoreline vegetation. However, the proposed development might remove, at most, one nesting territory. It is even possible that Rock Pipits will continue to use

the area, even nesting there, as they are known also to nest in walls, often in or near locations well used by humans (personal observations).

In conclusion, given the low numbers and low diversity of species recorded using the site, I believe that the proposed development will have little impact on the species concerned. While some shoreline habitat as it is today will disappear, alternative feeding and roosting areas will be provided (unwittingly) by the construction of the rubble mound breakwater.

References

Cronin Millar Consulting Engineers. 2011. *Harbour Development Foreshore Design Report 2011*.

Moore Group Environmental Services. 2011. *Appropriate Assessment and Natura 2000 Statement*.

Union Chandlery Ltd. 2012. *South of Ireland Tide Tables for 2012*. Union Chandlery Ltd.

Table 1. Counts of birds using the 'inner zone' and 'outer zone' during the two-hour period leading up to Low Tide (09.33 to 11.33) at Schull Harbour on 14th December 2012.

Species	Count	Comments
Great Northern Diver	1	Outer zone, foraging
Shag	1	Outer zone, roosting on rock close to shore
Grey Heron	1	Inner zone, foraging
Oystercatcher	5	Four inner zone, one outer zone, foraging
Black-headed Gull	51	Inner zone, mostly foraging
Common Gull	2	Inner zone, foraging
Herring Gull	32	28 inner zone, four outer zone, mostly foraging
Great Black-backed Gull	1	Inner zone, foraging
Magpie	2	Inner zone, foraging
Hooded Crow	13	11 inner zone, two outer zone, foraging
Rook	1	Inner zone, foraging
Jackdaw	3	Inner zone, foraging

Table 2. Counts of birds using the 'inner zone' and 'outer zone' during the two-hour period following Low Tide (11.33 to 13.33) at Schull Harbour on 14th December 2012.

Species	Count	Comments
Grey Heron	2	Inner zone, roosting

Oystercatcher	6	Four inner zone, two outer zone, foraging
Black-headed Gull	15	13 inner zone, two outer zone, mostly foraging
Common Gull	1	Inner zone, foraging
Herring Gull	34	27 inner zone, seven outer zone, mostly foraging
Great Black-backed Gull	1	Inner zone, foraging
Magpie	2	Inner zone, foraging
Hooded Crow	8	Six inner zone, two outer zone, foraging
Rook	6	One inner zone, five outer zone, foraging
Jackdaw	10	Inner zone, foraging
Rock Pipit	1	Inner zone, foraging

Table 3. Counts of birds using the 'inner zone' and 'outer zone' during the two-hour period between two and four hours after Low Tide (13.33 to 15.33) at Schull Harbour on 14th December 2012.

Species	Count	Comments
Grey Heron	6	Inner zone, roosting
Oystercatcher	4	One inner zone, three outer zone, three roosting
Turnstone	8	Inner zone, foraging
Black-headed Gull	58	Inner zone, mostly roosting
Common Gull	4	Inner zone, three foraging, one roosting
Herring Gull	27	26 inner zone, two outer zone, mostly roosting
Hooded Crow	6	4 inner zone, two outer zone, foraging
Grey Wagtail	1	Inner zone, foraging
Rock Pipit	2	One inner zone, one outer zone, foraging

Table 4. Landbirds recorded adjacent to development site in gardens, fields and shrubbery at Schull Harbour on 14th December 2012.

Species	Comments
Sparrowhawk	Female, chased by two Hooded Crows
Collared Dove	One near car park
Blackbird	About 20 foraging in lawns
Song Thrush	Two + foraging in lawns, song heard
Robin	Several, including song
Dunnock	Several
Wren	Several
Goldcrest	Two in tall trees near inshore rescue building
Blue Tit	Heard in distance
Magpie	Several
Hooded Crow	Several

Rook	Several
Jackdaw	Several
Starling	Several
House Sparrow	Several
Grey Wagtail	One heard several times near stream
Pied Wagtail	Two near pier, one near sailing centre
Meadow Pipit	One near car park
Chaffinch	Several
Greenfinch	Four near inshore rescue building

Appendix 1. Mammals observed at Schull Harbour on 14th December 2012.

Grey Seal: One Grey Seal was seen close to the shore near the sailing centre, and another was seen far out in the bay (beyond the study site). Both were seen during the third and final survey as the tide was rising strongly. These seals may have been coming into the area in the current of the rising tide, possibly having spent the low tide period further out and away from the shore and the study area.

Otter: No evidence of Otter was found (although looked for about stream discharges near pier and at southern edge of site), but this could be due to the high spate in the streams after heavy rain overnight, and also due to the very high spring tides which would have washed away any evidence (droppings and other sign).

Patrick Smiddy

18th December 2012

