

Research

By Helen Boland & Ricky Whelan

Watching terns at Dublin Port colony in summer 2018. Photo: Helen Boland

Amazing terns in Dublin Port

Nesting Common and Arctic Tern numbers occur in internationally important numbers in Dublin Port. Dublin Bay Birds Project team members **Helen Boland** and **Ricky Whelan** report.

Every summer, hundreds of small seabirds nest on man-made structures in Dublin Port near the mouth of the River Liffey. They are Common and Arctic Terns and they have been coming to Dublin Port to breed every summer since at least 1949, from wintering grounds in Africa (Common Terns) and possibly from as far away as Antarctica (Arctic Terns).

Most people are probably not aware that these seabirds are industriously incubating eggs and raising chicks on man-made islands in the middle of the port, with enormous cruise ships and commercial vessels passing to and fro all day long.

The **Dublin Bay Birds Project**, funded by **Dublin Port Company** and managed by **BirdWatch Ireland**, has been carrying out a programme of monitoring of this tern colony each summer since 2013. This follows on from research that the late **Oscar Merne** of the National Parks and Wildlife Service had been conducting since 1994 with BirdWatch Ireland's **Stephen Newton**, who remains an integral part of our tern work.

The 2018 season was marked by the highest number of breeding pairs of terns ever recorded in Dublin Port – almost 600 nests were counted during the main census in June. Numbers breeding in the port have certainly increased since 61 pairs of Common Terns and 30 pairs of Arctic Terns were recorded in 1984, during that year's all-Ireland tern survey (Whilde, 1985).*

Since 1994, the terns have nested mainly on two permanent structures in the Liffey channel that have acted as mooring points for boats, one owned by **Dublin Port Company**, the other by the **Electricity Supply Board (ESB)**. These structures are located along the river relatively close to the well-known – and hard to miss – Poolbeg chimneys. In fact, such are the numbers of terns using the ESB-owned structure that it has been included as part of the **South Dublin Bay and Tolka Estuary Special Protection Area (SPA)**, designated under the EU Birds Directive. This structure has undergone impressive and significant upgrading works in recent years, with all improvements made with the terns in mind, including predation prevention measures, and all coordinated and financed by the **ESB**.

In addition to the two permanent mooring structures used by the terns, and in response to the increasing numbers nesting on them, two additional structures, in this case pontoons, have been introduced to the port area, organised and financed by **Dublin Port Company**. One was floated in the Tolka estuary in 2013; the other is located in the Liffey channel about 150 metres from the Great South Wall.

Not only are there four structures now available to the terns for nesting on, but they have been specially modified to accommodate them. The surface of each structure is flat but has a layer of gravel or shingle – the terns' preferred nesting substrate. Barriers have been installed around the perimeter of each platform to prevent chicks from falling into the water, and three of the four platforms are subdivided into compartments. This allows the Dublin Bay Birds Project team to gather data in each compartment without chicks moving too far from their nest site while their parents are in the air due to the brief intrusion.

In addition, chick shelters have been installed on all structures so the chicks have some protection from harsh weather, when needed.

So how are the terns doing?

The purpose of the monitoring is to assess the breeding success of the terns each year. The terns occur in internationally important numbers, and regular monitoring is the best way to detect any changes or issues that may affect them. We visit each structure by boat and carry out a nest census, counting the numbers of nests and eggs (our nest census activities are carried out under license from the National Parks and Wildlife Service). This lets us know not only how many breeding

* **Whilde A, 1985.** The 1984 All-Ireland Tern Survey. *Irish Birds* 3: 1-32.

Terns nesting on mooring structure with special compartments to facilitate monitoring and minimise disturbance. Photo: Helen Boland

pairs of terns there are, but also how many chicks could potentially fledge by the end of the season.

On subsequent visits we assess any mortality of chicks, whether natural or due to predation, to help determine productivity. Unfortunately, though lots of clutches are laid, it doesn't mean all chicks fledge successfully. Once we have alighted on a structure we exercise great care because the eggs are simply laid on the thin shingle layer, in small scrapes (see photo).

Post-breeding gatherings

After the breeding season, the terns put on another truly remarkable display, this time including not just Common and Arctic Terns from Dublin Port but also Roseate and Sandwich Terns from other colonies on the east coast and further afield. Enormous numbers congregate at dusk in south Dublin Bay to roost at night. They are gathering in post-breeding flocks in advance of their migration to the African wintering grounds.

The Dublin Bay Birds Project has been carrying out autumn dusk surveys of this phenomenon each year since 2013, once again continuing the notable work carried out by Oscar Merne. In autumn 2016, a huge count of 17,440 terns was recorded on Sandymount Strand. In August 2018, a slightly less impressive – yet still extraordinary relative to other places – count of 6,700 terns was made.

We also carry out a programme of fitting inscribed metal rings to the legs of tern chicks, again under license from the National Parks and Wildlife Service, another thing that Oscar Merne had initiated in Dublin Port.



Tern nest with three eggs at Dublin Port colony in summer 2018. Photo: Ricky Whelan

Do look for our colour rings

In 2015, we added another element to the project, fitting Common and Arctic Terns with **colour rings** so that their movements could be tracked. We fit colour rings to chicks at the nest but also to fully-grown birds during the pre-migration congregations. The programme of ringing has revealed some interesting results, with reported observations of our colour-ringed terns in Namibia and Gambia in Africa in winter and in Spain, Wales and Scotland on passage or during subsequent breeding seasons.

Due to the dynamic nature of the port, the constant threat and realisation of avian and mammalian predation, and the relatively recent deployment of the two additional nesting pontoons, continued monitoring of the Dublin Port tern colonies is needed to see how our 'sea swallows' fare over the

coming years in Ireland's capital city.

We are thankful to **Dublin Port Company** for their continued support to enable this to happen. We think Oscar would approve of how we have continued the work he initiated.

➔ Our thanks to the ESB, in particular to Mark Byrne, for facilitating access. We are grateful to Jimmy Murray for providing a boat and pilot for our use. Thanks also to David Tierney of the National Parks and Wildlife Service for support during the 2018 season. And thanks to Tara Adcock, Niamh Fitzgerald, Brian Burke and Richard Nairn for assistance. Special thanks to Stephen Newton for his ringing and general expertise. ■



Cape Clear bird course an eye-opener for many

Every September, BirdWatch Ireland holds a relaxed and entertaining field course at its Cape Clear Bird Observatory on beautiful Cape Clear Island off Baltimore, west Cork. It opens participants eyes to wild nature in ways they don't expect.

The "Songbirds to Seabirds" five-day course held annually at Cape Clear Bird Observatory, on Cape Clear Island in west Cork, in September was once again well attended. BirdWatch Ireland's course presenter **Dick Coombes** introduced an enthusiastic group of participants to the island's birds, the art of seawatching, bird identification and the history and ongoing work of the observatory.

Steve Wing, our Cape Clear Wildlife Officer, demonstrated how the daily log of bird sightings is kept and he gave everyone a chance to see birds in close-up during his bird-ringing sessions.

While there were not too many migrants about on the island during this year's course, everyone got to see the impressive movements of Gannets and Manx Shearwaters passing the island's headlands and some managed to pick out the odd Sooty Shearwater and Great Skua, scarce enough at the best of times. One participant wrote: "The course on Cape Clear was truly life-enhancing. Suddenly all of the brown blurs in hedgerows I'd always taken for granted were given names and destinations and personalities."

➔ If you would like to attend next year's course, please see our website ■



Course participants outside the Observatory. Photo: Dick Coombes