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# ← ☆ aA ↓ Grey Herons nesting among Bulrush

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# Abstract

Grey Herons *Ardea cinerea* typically nest colonially in trees, although groundlevel nesting is known from across the species' range, primarily within beds of Common Reed *Phragmites australis.* A heronry of between six and ten nests in a bed of Bulrush *Typha latifolia* in Cheshire, active from 2013 onwards, is one of extremely few examples of a colony documented in such

#### habitat.

Cheshire & Wirral has long been Britain's most prolific area for Grey Herons *Ardea cinerea* – the area has extensive lowlands with several rivers and many natural waterbodies, ideal for feeding and breeding. Several of Britain's largest heronries are in Cheshire & Wirral or nearby counties. Apparently occupied nests (AONs) have been counted in the area for the national Heronries Census, run by the BTO, every year since 1928; these data have also been used for local records. Most current heronries in Cheshire & Wirral have been counted annually for many years (e.g. Norman 2008, Martin & Norman 2010) with a mean of 20 colonies surveyed in the period 2011–19, averaging 440 AONs. Nevertheless, there may be heronries that have newly started or have been overlooked. While searching for possible heronries in April 2013, DN was surprised to come across a previously unknown colony of six to eight Grey Heron nests in a bed of Bulrush *Typha latifolia*, 3 km from the Mersey Estuary in a private industrial area. The water in the area around the Bulrush bed was about 1.2 m deep.

Although Grey Heron colonies are most often in trees and bushes, nest placement on or near the ground has been documented from a range of different sites, including beaches, lake islands, derelict buildings, cliff ledges and reedbeds (Lowe 1954; Voisin 1991). Nests are typically made of twigs and branches, though in areas where trees are scarce, nest material may include herbaceous plants and grasses, as on Russian sea islets (Litvinenko 1982), or fronds of seagrass *Zostera*, as in Mauritania (Hancock & Kushlan 1984). All the nests at the Cheshire site were constructed of sticks (plate 319).



**319.** Grey Heron *Ardea cinerea* nest with five eggs in Bulrush *Typha latifolia* bed, Cheshire, May 2013.

The BTO Heronries Census does not record the type of vegetation in which nests are placed, nor the nest material, but it is clear that nesting on or near the ground is relatively unusual in Britain. Historical examples in England include in beds of Common Reed *Phragmites australis* at Littlesea, Dorset; at Aqualate Mere, Staffordshire; at Dungeness, Kent, where Grey Herons nested alongside Black-headed Gulls *Chroicocephalus ridibundus*; and at Wicken Fen, Cambridgeshire (Ticehurst 1907; Lowe 1954). Some nests in the heronry at Marsworth Reservoir in Hertfordshire were noted in a reedbed there from 1956 until 1984, after which all nests were in the trees (Smith *et al.* 1993). There are several other published references to reedbed nests, such as 'the nests are built with reeds, rushes and other marsh vegetation' (Voisin 1991) and 'reed-bed nests made of reeds' (Ferguson-Lees *et al.* 2011).

Ground-nesting appears to be more usual at some Scottish heronries. For

example, on the largely treeless islands of Colonsay and Oronsay in Argyll, nests are found in reedbeds (Garden 1958). Jardine *et al.* (2010) noted that such nests were made with stems of Common Reed. Additional groundnesting colonies are mentioned by Forrester *et al.* (2007), and the heronry at Duddingston Loch in Lothian held many reedbed nests during the 1980s (Gronlund 2012).

Elsewhere across Eurasia, many instances of nesting among reeds have been documented, at localities extending from the Netherlands and Germany eastwards to Anatolia and Siberia (Lowe 1954; Creutz 1981; Kaminski 2005). Creutz (1981) described nesting in reeds as dominant in western Siberia and almost the norm in the south of the former USSR. This habitat is frequently used for nesting in continental Europe by Great White Egret *A. alba*, Purple Heron *A. purpurea*, Night Heron *Nycticorax nycticorax* and Eurasian Spoonbill *Platalea leucorodia*. The reedbed nests of these species are typically about midway between the top of the reeds and the water below them and are constructed in a similar way, with the tops of the dead reeds snapped over to form an initial framework to support the nest, which is then built with (stick-like) dead reed stems (the most readily available suitable material) atop.

Nesting among Bulrush has been reported on only a few instances and, in each case, the colony appears to have been short-lived. Creutz (1981) reported that, in 1968, 61 Grey Heron nests were found among Bulrush at Rambower See, northeastern Germany. These birds Bulrush came from a nearby heronry in trees that had been destroyed by logging in 1963 and, from 1974, they returned to nesting in a pine stand. A nest, perhaps built on a disused nest of Mute Swans *Cygnus olor,* was found among Bulrush near Svitavy in the Czech Repubic in 2011 (Kadava *et al.* 2015). Nearby, at TemnHk, near LHskovice, nests were found among Bulrush during 2002–12, after which all nests confirmed at the site were in trees. The nests that had been among Bulrush were built on broken tops of these plants using sticks from deciduous trees, with only limited use of Bulrush as nest material (Kadava *et al.* 2015). A pair that nested in a marsh near North Berwick, Lothian, in 2020 and in 2022 built their nest among Bulrush (John Hunt pers. comm.).



**320.** Grey Heron nest with three chicks in Reedmace bed, Cheshire & Wirral, May 2013.

In contrast to beds of Common Reed, which form a dense area of vegetation with a solid or near-solid base, beds of Bulrush create a floating mat. The two plant species, when growing extensively, produce habitats that are quite different in form and structure. Perhaps most significant are the structural properties of the dead vegetation they produce. Whereas Common Reed produces vertical straw-like stems that are long and, when dead, strong and stiff (stick-like), Bulrush is low-growing with soft, broad, flat leaves that are not stick-like when dead and are unsuitable for the construction of heron nests. It is perhaps not surprising, therefore, that, unlike the case in some reedbed colonies, the herons in Cheshire constructed their nests using sticks carried in from nearby bushes and trees. The dense and tangled structure of floating Bulrush provided a solid foundation, capable of supporting the herons' large nests over water and relatively safe from mammalian land predators.

On 4th May 2013, RPC waded across to the Bulrush bed at the Cheshire site and photographed seven nests. A return visit on 26th May 2013 found that all eggs had hatched and that every nest had chicks from one to two weeks old (plate 320). These were rather late dates compared to other heronries in Cheshire, perhaps suggesting that the Bulrush colony had only recently become established.

We have continued to monitor the colony annually for the BTO Heronries Census. The easiest, and most accurate, way to count the nests has been by using a drone, with AH taking responsibility for doing so, having secured all necessary licences and access permissions. Plate 321 shows the heronry in 2020, with seven nests marked.



The resolution of the drone, and the tolerance of the adult breeding birds, is sufficient to allow detailed recording, including of eggs hatching (plate 322).



322. Drone image of a Grey Heron nest in a bed of Greater Reedmace, Cheshire & Wirral, March 2020. One egg is beginning to hatch (lower right), with the chickBЂ™s egg-tooth visible.

The Cheshire colony has now existed for ten years, from 2013 to 2022, with little change in the number of nests, which have varied from six to ten AONs in that period. We have not closely followed the outcome of most nests but, despite its unusual location, this heronry certainly appears to be successful; there has been no evidence of predation, chicks have been recorded as fledging from many of the nests (plate 323) and the colony is sustained from year to year.



**323.** Grey Heron nest in Reedmace bed with two well-grown chicks close to fledging, Cheshire & Wirral, May 2020.

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**David Norman** took advantage of early retirement from his career in physics to ring birds as often as possible and to undertake a second career as a trustee at a number of environmental charities. **Richard Castell** has found time from his ecological consultancy to travel widely, publishing a DVD-ROM documenting images of the nests of nearly all the breeding birds of the Western Palearctic, and co-authoring the BTO's guide to nestrecording. **Andy Harmer** has been a birder for 48 years and a wildlife photographer for almost as long, supplying images for numerous publications worldwide. An ecological consultant for 22 years, he is currently using drones to study a wide range of birds. **John Marchant** was national organiser of, among other surveys, the UK Heronries Census until retiring from the BTO in 2016.

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