

Little Egret Abundance at WWT Washington

A citizen science survey by David Dinsley

This survey was created as a way to engage visitors at WWT Washington to become involved in an ornithological survey and assist in the species specific monitoring of Little Egret on the reserve.



Figure 1 - Little Egret on the Wader Lake Fingers - Venetia Parkins

Aim

To monitor the abundance of Little Egret/ *Egretta garzetta* at WWT Washington over the period of one calendar year – observing the activity and behaviour of this species whilst using the reserve.

History at WWT Washington

'An occasional visitor first recorded on Wader Lake on the 26th May 1996. However, recently, the little egret seems to be becoming an almost annual bird for the site which is no surprise given the increase in numbers elsewhere in the county in recent years.' - **Status of wild bird species at WWT Washington Wetland Centre 1974 – 2014**

At the time of writing this the Little Egret has only been present on site for twenty four years, increasing gradually over that time. A trend present across the U.K as this bird increases its breeding population over the country.

Species Identification

A small White Heron, the Little Egret isn't much larger than a Curlew in body size but the neck makes it slightly taller. The plumage of a Little Egret is incredibly bright white, these herons spend a large amount of time preening and maintaining their plumage. The leg colour varies from dull yellow through to jet black, depending on age, with adults sporting lemon yellow feet and toes.

The lores; the skin between the beak and eyes, can also vary in colour considerably. From blueish grey through to yellowish green.

In the breeding season adults sport their breeding plumage of feather plumes from their breast and back. As well as two long plumes on their nape.



Figure 2 Little Egret - Adult

Similar Species

Great White Egret/ Ardea alba

Similar to the Little Egret but much larger, and closer in size and stature to that of a Grey Heron. The Great Egret is bright white with a distinctive 'S' kink in their neck, adults also sport a long 'sun orange' bill and green lore's. See image below for size comparison



Figure 3 Great Egret (left) & Little Egret (right)

During the period of the survey, three Great Egrets were noted in the area. A pair at Lambton Pond (Chartershaugh Pool) 11/09/2019, and one at Barmston Pond, 12/10/2019. Both locations are very close to the reserve at WWT Washington, though none were seen on the reserve during the survey period.

Eurasian Spoonbill/ Platalea leucorodia

The Eurasian Spoonbill is an allied heron species, and is being recorded in the UK in increasing numbers.

Much like other similar species to the Little Egret, it is a long legged bird with bright white plumage. The Spoonbill does however sport a large spoon shaped bill (hence the name) which it uses to sweep through the water to detect prey items. The bottom of the spoon has a yellow pattern on it, this is unique to each Spoonbill and can aid in individual identification.

Adult Spoonbill sport a mullet like head crest, a dull yellow collar and a bright yellow and red gular patch under the chin. Juveniles sport a dull coloured bill and no plumage or throat colouration. They do have noticeable dark wing feathers when in flight.



Figure 4 Eurasian Spoonbill - adult

Spoonbill have been historically recorded on the reserve at WWT Washington, with the most recent in June 2017. A young adult bird was present on the Saline Lagoon on June 5th for little over a day, before leaving site just before opening the following day.

Cattle Egret/ Bubulcus ibis

The Cattle Egret is the most similar species, size wise, to the Little Egret in the UK. It is also the least likely to appear on site at WWT Washington, with no records as of writing this report.

The Cattle Egret is a squatter and stockier built bird, with a shorter bill and thicker neck. Like the Great Egret the adults have a sunburst orange bill and black legs. The juveniles can look very similar for a time (see figure 6), key differences to note are the shorter bill, chunkier legs and the less slender neck.



Figure 5 Adult Cattle Egret - non breeding plumage.



Figure 6 Juvenile Cattle Egret bearing a striking resemblance to the L. Egret despite bill shape and thicker neck.

Historic Breeding Attempts

The best example of attempted breeding behaviour of Little Egret at WWT Washington, took place in May 2019. For several days a pair, in full breeding plumage, were observed mating, displaying and nest building. They had tucked themselves into the established heronry at Wader Lake, and were located in close proximity to an active Grey Heron nest.

The assumed male bird would fly below the heronry tree line, collecting twigs and branches, and returning with them to the proposed nest site. The assumed female would stay within the cover of the tree, at times she was incredibly difficult to locate, despite the bright white plumage.

The reason behind the nest failure / abandonment is unclear. A 2020 breeding attempt was not made, despite a pair being seen briefly in the heronry.



Figure 7 Little Egret pair in the Heronry May 2019. Nest site was tucked underneath Grey Heron territory. – David Dinsley



Figure 8 Little Egret (assumed male) bringing nest material to nest site. Female is tucked in. – David Dinsley

The Survey (August 2019 – August 2020)

Surveying Method

For maximum accessibility the survey was kept as simple as possible.

The information required per person taking part was the location of the sighting, number of bird/s, date, time and what the bird was doing (fishing/ roosting, preening, etc.)

Social media posts were created by the marketing team (D.Nolan) to drum up engagement for visitors and increase reach, informative posters and A5 forms were also placed into all hides located in wetland areas. These forms were to be filled in by the public and returned to reception. The posters did also include my email address that people could send their sightings in to. Indeed, a number of sightings were e-mailed, along with photographs to go with the sightings.

Survey Results

The survey was began in August 2019 and ran through until the end of August 2020. Though the main focus was public records, reserve staff and placements working on site actively fed into the survey. A large amount of staff sightings were recorded during the morning fence check and the afternoon site clearance.

Reception was positive, though many people would not include a large majority of the information asked for. For example, activity of the bird or time was omitted from the form or email.

Unfortunately, due to the unforeseen circumstances surrounding COVID-19 there was a period of time between March and June that may not be an accurate reflection of abundance at that time. During the lockdown, working staff would still record any sightings, though the time frame they were on site to potentially encounter a L. Egret was limited.

Reported sightings per month are recorded in the table below.

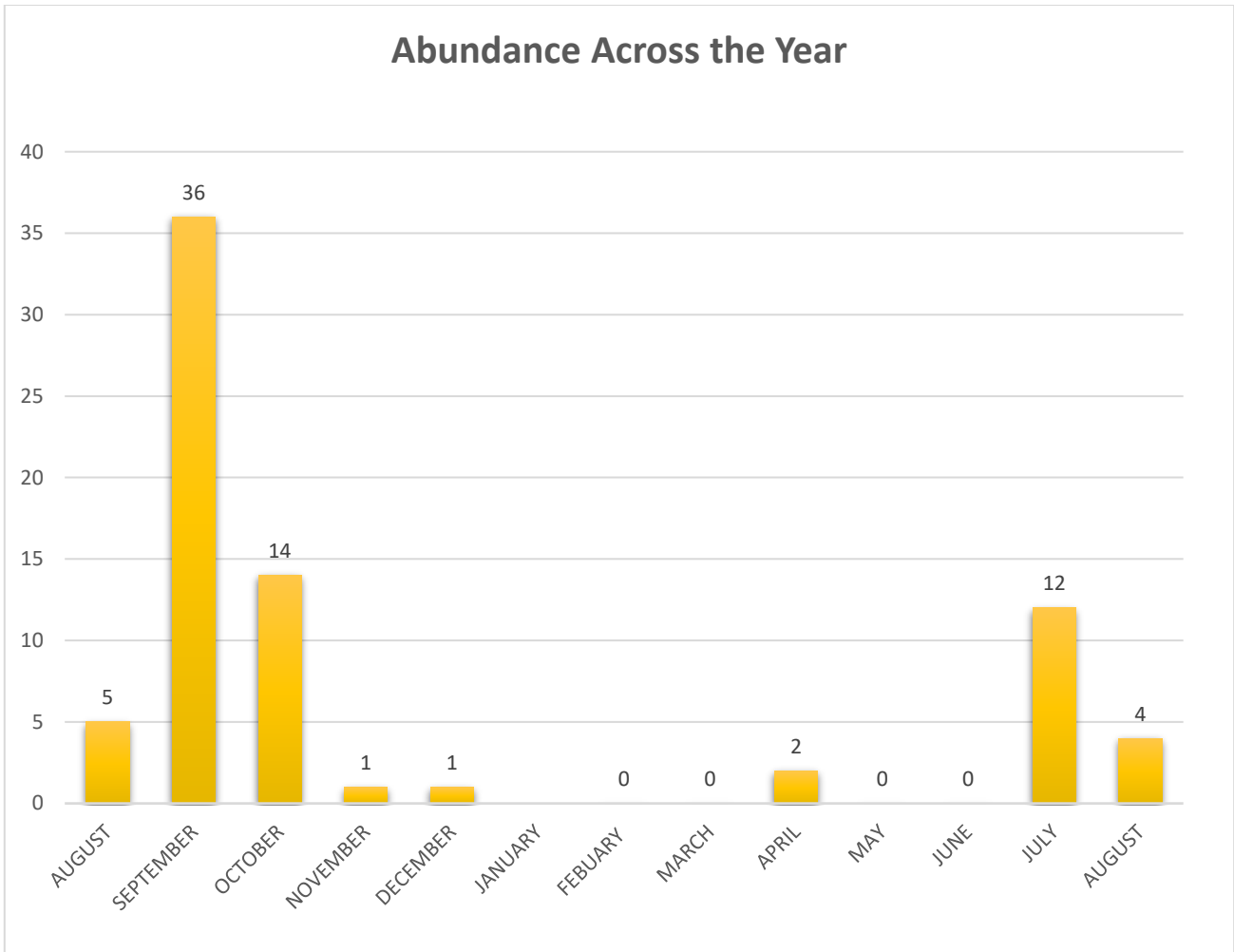
MONTH	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG
Little Egret sightings	5	36	14	1	1	0	0	0	2	0	0	12	4

As you can see from the table the winter months were a very quiet period for Little Egret activity on site. Numbers across the year in general are of a low count, with birds generally appearing as singles or doubles. Very rare were there any sightings of more than two birds at one time.

Late summer appeared to be the peak for site visitation. My theory for this is the dispersal of breeding birds from their nest sites. Once breeding has completed, Egrets will once again roam.

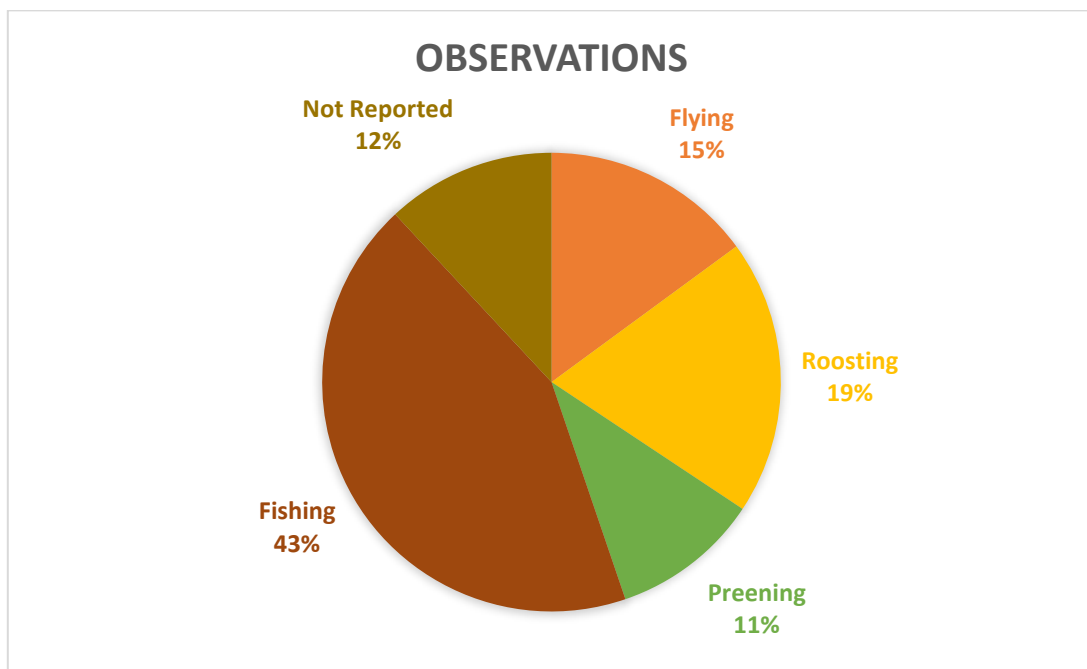
An interesting observation has been the sighting of a colour ringed individual on the R.Wear a few times – unfortunately without the number of the darvic ring recorded the origins of this bird cannot be traced.

Abundance Across the Year

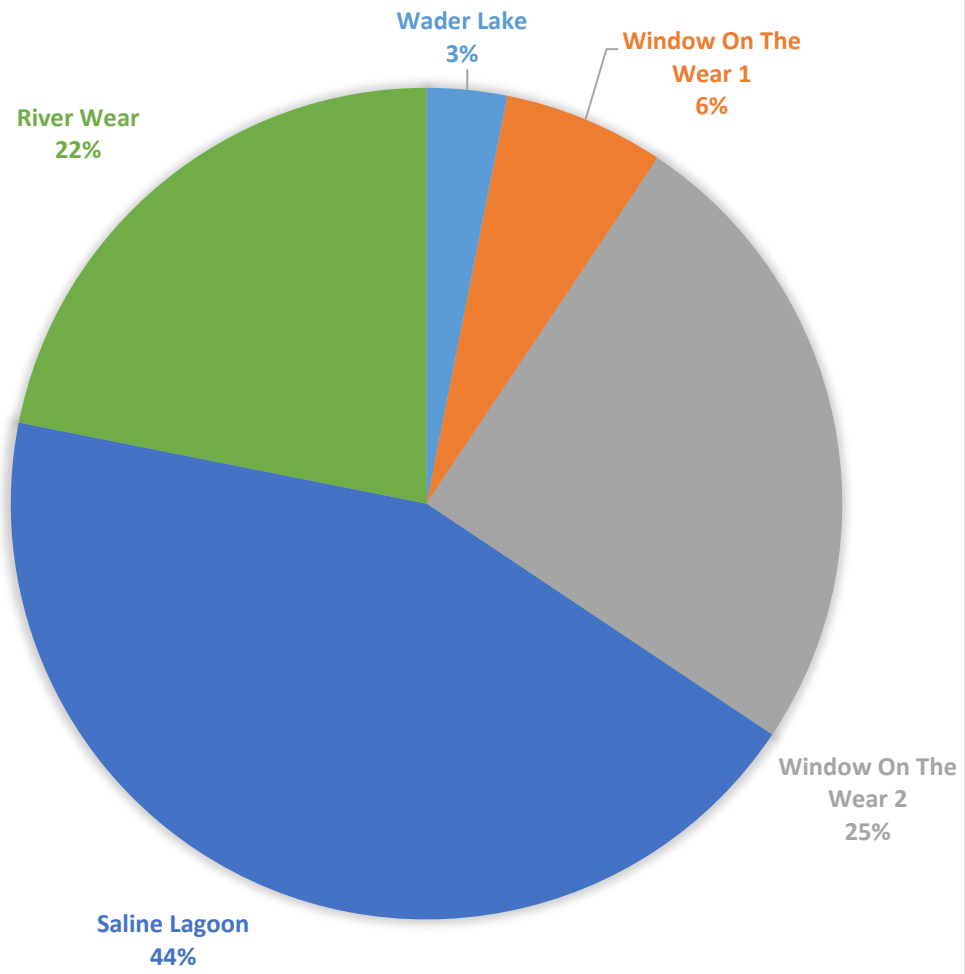


Behaviour

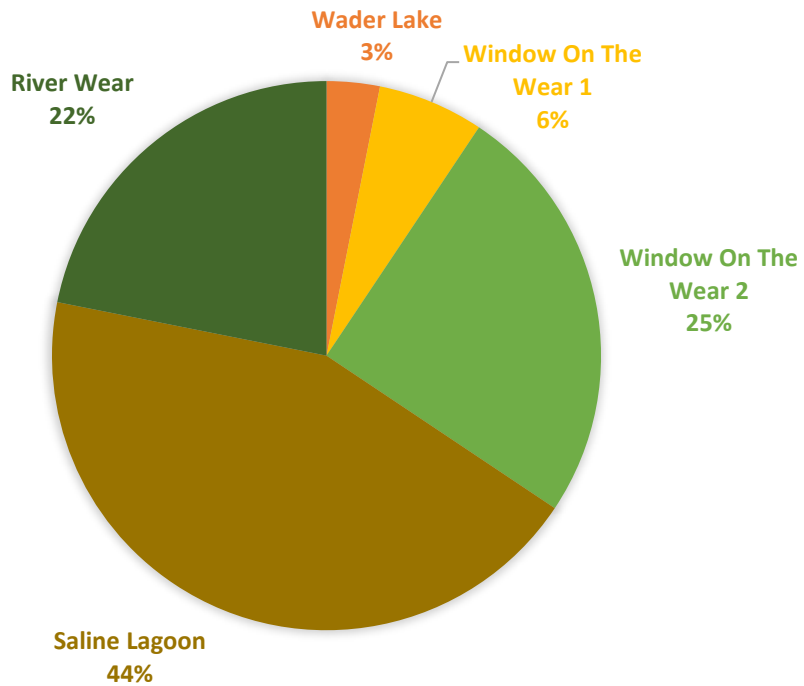
The most reported behaviour type was fishing, when present Little Egret will hunt primarily in the brackish waters of the Saline Lagoon and on the tidal pools of the R.Wear. On a low tide, brackish water collects in pools on the middle and lower intertidal zone of the river. The Egrets could be regularly seen foraging amongst this area, catching fish mostly but also invertebrates. A noteworthy observation was the presence of Black-headed Gulls around Egret as they fished.



FISHING LOCATIONS



SIGHTING LOCATIONS



Conclusion

In summary the best time to catch Little Egret on site is between the months of July and October, with September and October being the peak for sightings – September especially, as shown in the swell of sightings in 2019.

Prospective breeding attempts in the months of May 2017, May 2019 and April 2020 have all occurred within the current Heronry. The breeding attempt of 2019 being the closest we've come to a successful breeding pair. Several days of nest building, courtship and mating were observed before the pair abandoned their attempt. The reason why is still unknown.

The most reliable location to observe Little Egret are from both Window on the Wear 1 & 2, where they will fish below on the tidal pools at low or turning tide. The regular tidal changes create small pools within the rock and stony substrate of the river bed, creating catchments for prey items.

The Saline Lagoon breach is also good spot to see them on a high tide, this area tends to be used to roost up and preen, with very occasionally fishing within the Lagoon as well. They will less frequently use Wader Lake, when they do it's often during the afternoon when the River is in high tide.

They have been observed, by myself, fishing using their foot stirring technique, where they shake their feet in the water to disturb prey items out from cover. Each bird has an individual foot preference they will shake to do this – left or right.



Figure 9 - Little Egret fishing, Saline Lagoon – Ian Henderson

Closing Statement

Visiting Little Egret continue to steadily rise in regularity and number at WWT Washington, and with a national increase in Little Egret numbers, and birds successfully breeding in the area, it's likely only a matter of time until they become a breeding bird on the reserve.

Positive signs over the past few years of individual birds and pairs (always only a single pair at one time) prospecting the Wader Lake heronry, is incredibly promising for the future. Hopes that one pair will settle and breed is not only anticipated but is accepted at this point. Should the site not deviate from the current method of management?

Credits

Many thanks to all who reported sightings, without you this survey wouldn't have been as successful as it was.

Thanks to;

Alex Hudson	Deborah Nolan	Michael Finlay
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Bill Kearney	Jackie Pluck	Sheila Brunger
Brian Irving	Joe Finlay	Venetia Parkins
Dan Barker	John Gowland	Yvonne Norton
David Kelly	Lauren Band	

And to all other surveyors who chose to remain anonymous.



Figure 10 Little Egret over the River Wear - Alex Scott