

CURRENT AND FUTURE MONITORING OF SEABIRDS ON THE ST TUDWAL'S ISLANDS

The St. Tudwal's Islands (St. Tudwal's Island East and St. Tudwal's Island West) lie in Cardigan Bay, a kilometer off the coast of the Llŷn Peninsula near Abersoch, Gwynedd. The islands' situation in the north of Cardigan Bay, provide a unique provision for some of the most easterly colonies of seabirds within the bay and was a site the Seabird Monitoring Program (SMP) encouraged to survey.

Literature from the 1950s documented that the islands used to hold the largest Atlantic Puffin (*Fratercula arctica*) colony in north Wales, with significant numbers reported at the turn of the 20th century ^{1,2}. However, when rats reached the islands in the 1940's they rapidly wiped out the burrow-nesting avifauna, and by 1951 there were no breeding pairs left. Now the islands still support thousands of breeding ground- and cliff-nesting seabirds ³.



St Tudwal's East (left) and St Tudwal's West (right) with the distinctive silhouettes of the Rhinogydd and Cadair Idris on the mainland behind.

Data collected from 2021 for apparently occupied nests (AON) for St Tudwal's West provided the recent baseline required to establish the magnitude of the Highly Pathogenic Avian Influenza (HPAI) impact on the colony. The Emergency HPAI Seabird Monitoring Grant facilitated access to these islands which include species that the SMP HPAI Task and Finish group highlighted. After ascertaining the method used in 2021 and the date the data was collected, the survey was undertaken on the exact same weekend as the initial counts. Consistency aided confidence in comparing counts; however, going forward the grant will enable far more complete colony counts (largely following Census Method 3 in ⁴).

AON	Great black-backed gull (<i>Larus marinus</i>)	Herring gull (<i>Larus argentatus</i>)
2021	40	300
2023	38	329

These data are congruent with the visit reports from this year, insofar as, no HPAI relate deaths have been noted on either of the St Tudwal's islands. As an isolated archipelago adjacent to a popular

holiday destination, the monitoring of this breeding ground which sits within a Special Area of Conservation provides an interesting data point for geographically important colonies on the fringes of human inhabitation.

This successful count satisfies the short term aim of the grant, but the Seabird Group have enabled a fantastic capacity to undertake seabird monitoring work that would otherwise not be feasible to the appropriate standards. Beyond this single season benefit, it is anticipated to widen the scope of the monitoring to include the entire gull (*Larus fuscus*, *L. marinus*, *L. argentatus*), auk (*Uria aalge* and *Alca torda*), kittiwake (*Rissa tridactyla*), shag (*Phalacrocorax aristotelis*) and cormorant (*Phalacrocorax carbo*) population on St Tudwal's East. Due to the relatively small colony size, it is not an unattainable ambition to attempt full island estimates of breeding seabird numbers. This would enhance the accuracy of assessing future impacts, global trends and novel stressors of their environment. Annual count data for the St Tudwal's Islands could also potentially provide key indicators for future assessment of rat eradication proposals, with plentiful rabbit burrows for prospective breeding Manx Shearwater (*Puffinus puffinus*). Regular colony monitoring could also inform locally important decisions on the impact of increased leisure use of the surrounding marine environment, as the breeding season coincides with an estimated >40-fold increase in local population size. Thus, the future legacy of the grant will hopefully have long lasting and far-reaching impact on data collection in this nationally important Special Area of Conservation.

References

1. Thearle, R. F., J. T. Hobbs, and Fisher J. "The birds of St. Tudwal Islands." Brit. Birds 46 (1953): 182-8.
2. Williams, G., Lovegrove, R., Williams, I. (2010). Birds in Wales. United Kingdom: Bloomsbury Publishing.
3. Welsh Bird Report No. 30: (2016). Edited by Julian Hughes. Welsh Ornithological Society
4. Walsh PM et al. (1995). Seabird monitoring handbook for Britain and Ireland: a compilation of methods for survey and monitoring of breeding seabirds. JNCC/RSPB/ITE/Seabird Group.