

Long Term Volunteer Report, Skomer Island

Spending three months living and working on Skomer Island as the long term conservation volunteer has been an important experience which will hopefully allow me to further my career within the conservation sector. After arriving at the beginning of July, I was able to gain training in a number of ecological survey techniques and develop many practical conservation skills. This was an extremely valuable and enjoyable experience. In addition, I was also able to carry out a personal research project which contributed to the 2014 Seabird Report for the JNCC.

During my time on Skomer, I gained a diverse range of new skills. I was able to take part in and carry out a number of other projects; leading the 24 hour Puffin productivity study at The Wick, carrying out weekly butterfly transects, assisting with the Grey Seal photo ID project and the Manx Shearwater chick monitoring project. I also gained experience in bird ringing, mist netting, data analysis, report writing, bird and mammal handling and being a research assistant. The three months on Skomer also added to my surveying experience, I am now confident with carrying out butterfly transects, reptile, cetacean and seal surveys. All of these are particularly useful skills for someone hoping to work in conservation.

Part of the position also involved assisting with the day to day running of the island, giving welcome talks to the daily visitors, patrolling the island, generally acting as an information point for the visitors, carrying out island maintenance, habitat management work and assisting with any other jobs required. In addition, I now know how to drive a tractor – an interesting new skill to add to my CV! Every day was different; this was one of the most enjoyable aspects of the position as a long term conservation volunteer on Skomer Island.

Research Project

During the three months spent on Skomer Island as the long term conservation volunteer, I focussed on one main project which involved analysing the diet of the Greater Black-Backed Gulls (GBBG) on the island. The aim was to identify what they mainly preyed on, what proportion of their diet was made up by Manx Shearwaters and how many nests contained Manx Shearwater remains. It was also of interest to identify how many nests contained refuse/signs of litter and plastic pollution. Visitors to the island often ask about the Manx Shearwater remains which are regularly found along the pathways so it was of interest to identify if they are one of the main sources of prey. This work also contributed towards the JNCC seabird report for Skomer Island 2014 as the data collected from these study sites were given to the Seabird Researcher, Alastair Wilson, to contribute to his work.

Method

The prey remains around 25 sample nests were used to conduct the study in late July/early August i.e. after the chicks had fledged. This sample represented nests from differing habitats and from

areas of differing Manx Shearwater densities. All prey items recorded within a 5 meter cross-shaped transect of the nests were recorded using 1m² quadrats i.e. all prey remains 5 meters North, South, East and West of the nests were recorded. The prey items were first identified and then recorded in one of 11 categories; Manx Shearwater, Fish & Fish Pellets, Refuse, Rabbit, Bird (other), Bones (other), Fur Pellet, Feather Pellet, Invertebrate Pellet, Vegetation Pellet and Crustacean Pellets & Remains. Many small bones were too difficult to identify to species level hence the general bones (other) category.

Each item of each category present around the nest sites were recorded using a tally method. In addition, a 10 meter circle around each sample nest site was used to record any other Shearwater and Rabbit carcasses outside the transect for the comparison of predation levels between species and to identify the average number of Manx Shearwater carcasses per nest thus allowing for comparison of predation levels to previous studies.

Results

Roughly 14% of the prey items recorded were Manx Shearwaters (Fig 1), compared to 20% in 2013.

Manx Shearwater remains were recorded at 92% of the nests studied (Fig 2). The bones (other) category was the most prevalent prey items category, being found at 100% of the nests. Refuse was found at 88% of the nests, compared to 76% in 2013. Other birds were found at 44% of nests in 2014, compared to 60% of nests in 2013, and included a majority of Puffin and Guillemot, three Razorbills and one Lesser Black Backed Gull (excluding chicks which did not survive to fledging).

In this study a total of 259 Shearwater carcasses were found at the sample of 25 nest sites, giving a mean of 10.36 carcasses per nest (Fig 3). Data from similar previous studies was available to make a comparison thus highlighting how Shearwater predation alters annually. This study recorded the second highest rate of Shearwater predation over the past seven years and in earlier studies, with the highest rate occurring last year with 10.64 carcasses found per nest. This indicates that Manx Shearwater predation is still at its peak. This may possibly coincide with the low number of rabbit carcasses per nest, with a mean of 2.76 rabbit carcasses per nest.

Average Proportions of each Prey Category found in the GBBG Nests

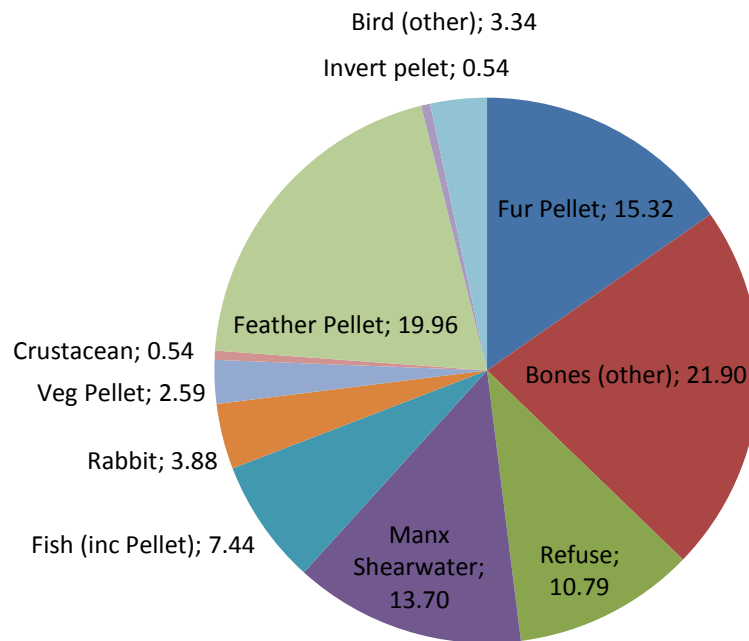


Figure 1. Great Black-backed Gull diet remains from 25 nests on Skomer Island 2014

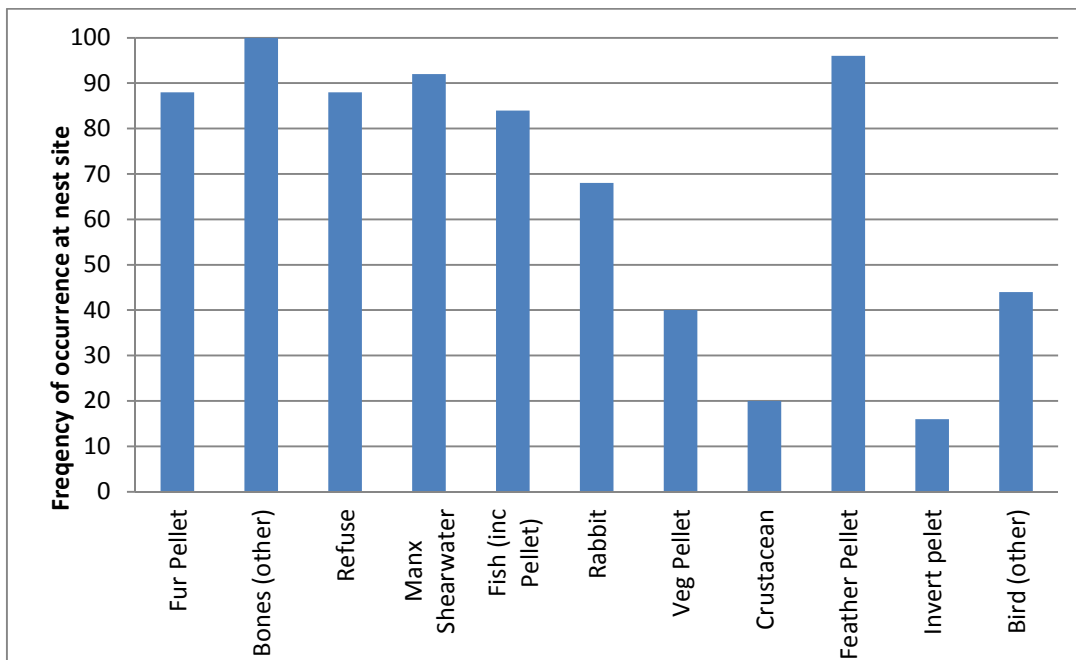


Figure 2. Frequency of occurrence of food items within 5m of 25 Great Black-backed Gull nests in 2014.

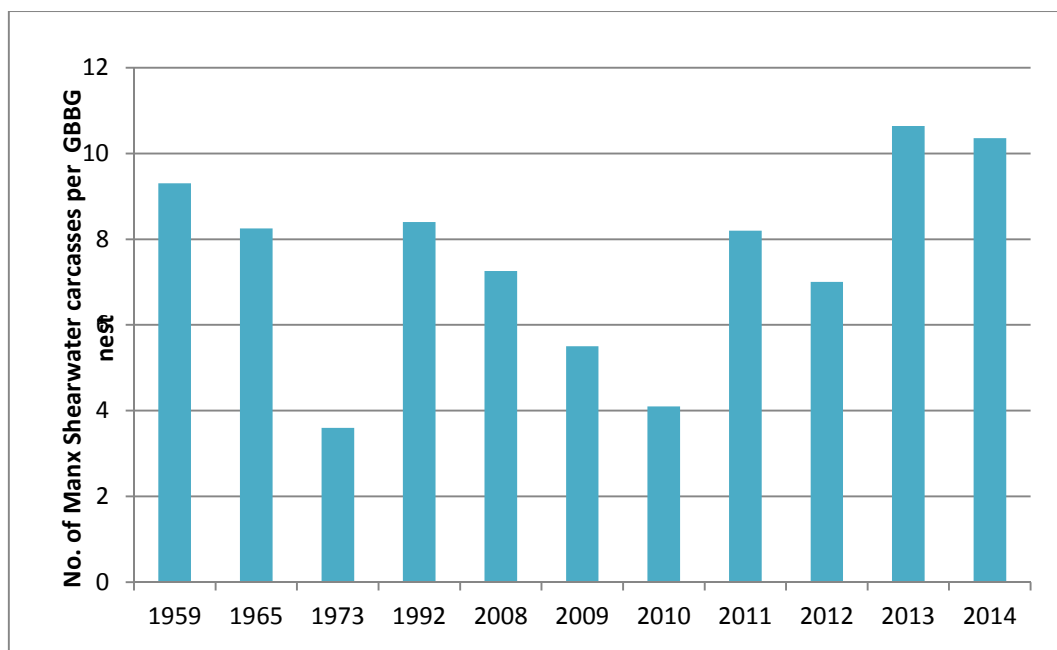


Figure 3. Mean number of Shearwater carcasses found at Greater Black-backed Gull nests in 1959, 1965, 1973, 1992, 2008, 2009, 2010, 2011, 2012, 2013 and 2014.

Manx Shearwaters appear to be one of the main food sources for the GBBG population on the island, with carcasses recorded at 92% of the nests sites. Refuse was found at 88% of the nests, an alarmingly high proportion considering the individuals in this study inhabit a nature reserve yet they still come into contact with pollution in their habitat range. Puffin, Guillemots and Razorbills also make up some of their diet but to a much lesser extent than Manx Shearwaters. 259 Shearwater carcasses were found at the nest sites but out of the 650,000 present on the island it is unlikely that GBBG predation will have any negative effects on the population.

Conclusion

In conclusion, this position as a long term conservation volunteer was the perfect job for a recent University graduate like myself, highlighting what aspects of conservation I am most interested in and giving me the determination to continue working and studying in this sector in order to reach my career goals. Living and working on a National Nature Reserve is the perfect way to gain valuable work experience. It has allowed me to gain a wide range of new skills which will have definitely increased my employability level-hopefully allowing me to further my career within the conservation sector. I am extremely grateful for this unique experience!