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Thanks to a Royal Society of Biology Travel Grant, I spent May 2018 working in the Department of Conservation Biology at the Estación Biológica de Doñana (EBD) in Seville, Spain. While at the EBD, I was based in the stable isotope laboratory, working under the supervision of Dr Manuela Forero, where I helped prepare a large collection of seabird feathers (sampled from multiple species across multiple years) for stable isotope analysis (SIA). These feather samples were obtained from a seabird community breeding at Bird Island, South Georgia, and include the charismatic wandering albatross.

SIA of avian tissues (e.g. feathers or blood) can be used to infer information about diet, trophic level, and other aspects of foraging ecology. Isotope ratios of carbon (13C to 12C, δ 13C) and nitrogen (15N to 14N, δ 15N) are most commonly used in seabird studies. The value of δ 15N increases predictably with increasing trophic level, as 14N is excreted preferentially in nitrogenous waste. The carbon ratio also changes, but in smaller amounts. However the δ 13C values of primary producers vary according to certain processes. This enables us to determine the importance of different carbon pools to the consumer, and therefore provides spatial information. Moreover, SIA may help overcome several of the biases inherent in conventional methods (e.g. stomach contents analysis).

I would like to thank the Society for their generous support of this project. I received a large amount of training from the staff at the stable isotope laboratory, which has been incredibly valuable. The work completed during this laboratory visit will form part of my PhD thesis, and this funding has supported my accommodation and travel.





The Estación Biológica de Doñana in Seville, Spain, and inside the stable isotope laboratory.