

RESOURCE ACQUISITION IN A TOP MARINE PREDATOR: ASSESSING THE IMPACT OF FISHERY DISCARDS ON FORAGING STRATEGIES OF NORTHERN GANNETS (*MORUS BASSANUS*)

Votier Stephen¹, Stuart Bearhop², Matthew J. Witt², Richard Inger², David Thompson³ and Jason Newton⁴

¹ Marine Biology & Ecology Research Centre, University of Plymouth, Plymouth, PL4 8AA, United Kingdom
E-mail: stephen.votier@plymouth.ac.uk

² Centre for Ecology and Conservation, University of Exeter, Cornwall Campus, Penryn, Cornwall, UK TR10 9EZ, United Kingdom

³ National Institute of Water and Atmospheric Research Ltd (NIWA), 301 Evans Bay Parade, Kilbirnie, Wellington, New Zealand

⁴ SUERC, Scottish Enterprise Technology Park, Rankine Avenue, East Kilbride, Glasgow G75 0QF, United Kingdom

The huge quantities of waste produced by commercial fisheries worldwide attract large numbers of scavengers, including many thousands of seabirds. Although discards are widely assumed to be important to many seabird populations, much of the research comes from observations of seabirds at sea, where little is known about the reproductive status or origin of scavengers. Therefore, an important gap in our knowledge is to understand the way in which individual seabirds foraging from a central place respond to fisheries activity at-sea. Here we use data from the Vessel Monitoring System in the North East Atlantic to determine whether the foraging behaviour of individual breeding northern gannets (*Morus bassanus*) is influenced by fisheries activity. Moreover, by analysing stable isotope ratios in body tissues and fish prey we use recently developed iso-source models to accurately quantify the relative contribution of fish obtained in the form of discards and other 'natural' sources of marine prey. These results have important implications for understanding the strength of the link between fisheries and individual scavenging seabirds, which is of particular importance given likely changes in the availability of discards.