Trends in the diet of two *Eudyptes* penguins at South Africa's Prince Edward islands from 1994-2015

Dyer BM ¹, Crawford RJM ^{1,2}, Makhado AB ¹, Upfold L ¹

¹ Branch Oceans and Coasts, Department of Environmental Affairs, South Africa

² Animal Demography Unit, University of Cape Town, South Africa

Two species of crested (*Eudyptes*) penguins breed at South Africa's Prince Edward Islands (Marion Island and Prince Edward Island) in the south-west Indian Ocean: Macaroni *Eudyptes chrysolophus* and Southern Rockhopper *E. chrysocome* Penguins. Since 1994, their populations have been decreasing and their diet during the chick-rearing stage of breeding has been monitored using methods recommended by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The paper reports the different prey items eaten by the two penguins at Marion Island based on information collected from 1994 to 2015, a period of almost 22 years. For both penguins, euphausiids, notably *Euphausia vallentini* and *Thysanoessa vicina*, contributed most of the mass of the diet during chick rearing. Fish, especially myctophids, were important on occasions and their capture may have contributed to increased breeding success. Cephalopods were less important prey. The paper will document trends in the relative contributions of different prey species to the diets of the two species. It additionally will document trends in the mass of chicks of the two species at fledging and discuss the possible influence of diet on that mass.