

Foraging areas of southern elephant seals of the Falkland Islands: shopping close to home

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Southern elephant seals (*Mirounga leonina*; SES hereafter) are a key component of the biodiversity of the South Atlantic Ocean. Their foraging areas and patterns have been studied in most populations, with the notable exception of the Falkland Islands.

We deployed Argos satellite tags (SPOT5, Wildlife Computers) on 23 breeding SES females of Sea Lion Island (SLI hereafter), the main breeding colony of SES in the Falklands, to determine foraging areas during the post-breeding migration. All females were of known age and with well documented breeding history.

Although some females carried out long migrations, with loops of thousands of km - heading south to the Antarctic Peninsula or crossing the Drake Passage, moving to the Pacific Ocean and foraging in deep water off the Chilean coastline - most females (65.2%) foraged close to SLI (maximum distance 122-402 km), in rather small areas, characterised by shallow maximum water depth (78.3 % over waters with median depth < 600 m; only 3 females over depth => 4000 m).

This foraging pattern, unusual for SES females, shows that good food resources are available close to SLI, and may have a positive effect on the energy budget of breeding females. This can be in turn related to the good status of the population (increase in size and productivity in recent years, high average weaning weight of pups), and to the resilience that the population is showing to changes in global climatic and oceanographic conditions.

From a practical point of view, foraging close to the Falklands increases the vulnerability of seals to human disturbance, in particular due to the expected increase in activities related to the oil industry. The matter should be investigated by deploying a greater number of instruments with depth recording capabilities, to investigate the interactions between seals and offshore oil extraction.