

## **Dispatch from Tuesday, 12 February 2008**

Hello again:

One of the great successes of this year's field work was our pilot study on Leopard Seals. When I first went to Cape Shirreff in the late 1990's you could count on seeing the occasional Leopard seal and if you were lucky you might see a Leopard seal take a pup or a penguin. However, things have changed dramatically on the Cape as Leopard seals are routinely observed and on one day this season our Chilean colleagues counted 22 Leopard seals!!!! Now if you consider that the leopard seals are probably feeding exclusively on fur seals pups and prior to fledgling adult penguins that a lot of pup and penguin predation!!! So in an effort to better understand this interaction, Mike Goebel of the US AMLR program initiated a pilot tagging effort of leopard seals. As our Chilean colleagues had flipper tagged leopard seals with simple numbered tags we knew that many of the leopard seals regularly returned to the Cape. However, we didn't have any idea as to whether they remained at the Cape or if they migrated where did they go. So to answer that question we attached satellite tracking transmitters to four of the seals and on three of them we were also able to deploy time depth recorders. We did this by lightly sedating the seals with midazolam. This made the animals sufficiently sleepy and lethargic so that we could carefully glue the transmitter and dive recorder to the animals back. The seals were still very much awake and capable of some movement so we had to do this very carefully!!!! However, we were successful and we are now waiting to see where the animals go as the season progresses. With any luck, the seals will return next year and we will be able to recover the tags and we can retrieve the diving data. The three attached pictures show a female leopard seal looking around, followed by Mike and Gitte checking out a recently tagged seal, and finally a picture showing Mike and Gitte measuring the length of one of our sedated seals. As you can see the seals weren't that asleep!!!

Best,  
Dan Costa





