

The Cape Shirreff AMLR crew arrived in Punta Arenas, Chile on 10 October to begin the 2009/10 field season at the U.S. AMLR base camp on Livingston Island. The opening crew this year consists of Kevin Pietrzak, Ryan Burner, McKenzie Mudge, Ray Bucheit and Mike Goebel. We departed Punta Arenas for the Antarctic on the R/V *Laurence M. Gould* on 13 October. We arrived at Copacabana on King George Island very early in the morning on 17 October. We spent most of that day opening Copa. We arrived at Cape Shirreff the following morning, Sunday, 18 October. Unfortunately, sea conditions did not permit offloading to begin until the seas improved. At 12:30 pm the first zodiac was launched with a shore party of four to assess landing conditions and the camp. Winds were approximately 20mph WSW but decreasing. Conditions on shore were good and the cargo off-load was not initiated around 13:30. Two zodiacs were launched but because conditions at the ship were still marginal only the Cape Shirreff field team and a few Raytheon crew went ashore to help on shore, dig out camp, and offload zodiacs at the beach. Conditions, however, continued to improve and around 4pm a small group of volunteers, passengers on board the GOULD, went ashore to help with the opening. Six and a half hours and ~15 zodiac trips later, the off load was completed. By then it was 8pm and light was waning. The last zodiac back to the ship departed and the Cape Shirreff crew was left to complete the transfer of cargo and opening the camp.

There is more snow this year than in previous years, but we also arrived six days earlier than last year (18 Oct vs 24 Oct). The camp only had minor damage over the winter, with two windows and one door cover partially damaged at the hinges. All cargo and trash left on the island last year remained safe and secure. Because we were unable to start offloading operations until late in the day, there was less volunteer support and because of heavy snow cover we were unable to dig out the trash from last year and offload it to the ship. There was no damage to the bird blind/emergency shelter on the north end of the Cape.

This is the earliest our camp at Cape Shirreff has ever been opened and six days earlier than the previous record for early arrival.

Seabirds:

1. In the first days after arrival, we opened the penguin blind/emergency shelter, set up solar panels and the weather station.
2. The chinstrap penguin sub-colonies are snow covered. Most sub-colonies are empty or have fewer than 20 chinstrap penguins. No courtship behavior or nest building activity has been observed.
3. The gentoo penguins are leaving each morning to forage and returning in the afternoon to the breeding colonies. Some courtship behavior has been observed but no nest building activity has been seen.



Pinnipeds:

4. We conducted our first breeding elephant seal census on 19 October. There were 16 adult females with pups, and two females without pups. No pups have weaned yet. There are females still arriving, however, and we expect more births.
5. There are only three adult male fur seals on the U.S. AMLR fur seal study site. Last year around this time there were 20 males already on territory.
6. There are three Weddell seals with pups but one only gave birth two days ago. We conducted the first weekly phocid census of the entire Cape on 23 October. The most abundant phocid was the southern elephant seal followed by the Weddell seal. We have seen one small juvenile male leopard and one crabeater seal since opening camp on 18 October.

Weather:

7. We set up our weather station on 21 October to record wind speed, direction, temperature, humidity, precipitation and solar radiation at 15-minute intervals. The mean temperature since 21 October has been -2.6. The high was 4.7 and the low was -5.6. We have had two storms since arriving: the first on 20 October and the second on the 22 October. The mean wind speed since 21 October has been 15.5 mph and the maximum wind speed was 57.0 mph. We have had only one day above freezing.

Camp:

8. In spite of deeper snow, the camp opening has gone well. The colder temperature with an early arrival has been a problem for keeping our produce from getting too cold. We may have lost a lot of produce because temperatures at night have been falling to -5.0° Celsius.
9. Our Iridium system for email communications has been up and operating since 21 October. Communications have been established with daily contact with Palmer Station at 0900 on the single side band radio.
10. Our single fixed solar array, wind generator, and gasoline powered generators have all been operational since 21 October. All are functioning well.
11. We wish to thank the captain, officers and crew of the R/V *Laurence M. Gould* for their support in opening the Cape Shirreff field camp. We extend our deepest appreciation and gratitude to all of the people who helped offload our cargo, especially Stian Alessandri, the MPC, Rick, Jack, Thor and Dave the zodiac team, and Mike and Dan the IT specialists on the *Gould*.
12. Thanks are also extended to the staff of the NOAA Southwest Fisheries Science Center, Antarctic Ecosystem Research Division in La Jolla, California for their support in getting the 2009/10 field season off to a good start. In particular, thanks to Dr. George Watters, Raul Vasquez del Mercado, Douglas Krause, Stephanie Sexton, Amy Van Cise and Dr. Wayne Trivelpiece.



Submitted by AMLR staff currently residing at the Cape Shirreff field station, Livingston Island.