Further declines in populations of the Australian sea lion: Implications for the management of a unique pinniped

Simon D Goldsworthy[1], Peter D Shaughnessy[2], Alice I Mackay[1], Fred Bailleul[1], Dirk Holman[3], Kelly Waples[4], Holly Raudino[4]

1. South Australian Research and Development Institute (SARDI), West Beach, South Australia, Australia

2. South Australian Museum, Adelaide, South Australia, Australia

3. Department of Environment, Water and Natural Resources, Port Lincoln, South Australia, Australia

4. Department of Parks and Wildlife, Perth, Western Australia, Australia

The Australian sea lion is endemic to southern Australia and is unique among pinnipeds in having a non-annual (~18 month) breeding cycle that is temporally asynchronous across their range. They have the longest gestation period of any pinniped, protracted breeding and lactation periods, and females exhibit extreme philopatry relative to other pinnipeds. The evolutionary determinants of this unusual reproductive strategy remain enigmatic. Australian sea lions are demersal foragers, and their aquatic distribution is restricted to shelf waters off South Australia and Western Australia. The species was subject to sealing following European colonisation of Australia, from which it has not recovered. Current pup production per breeding season for the species is estimated to be ~3,000, across 70 breeding sites, with a mean and median pup production of just 43 and 19, respectively. A species-wide assessment indicates the population is declining by 2.6% per year. Surveys in South Australia indicate that declines have been ongoing for at least 1-3 decades and that pup abundance has declined by almost 25% over the last decade or less. Bycatch mortality in demersal gill-net fisheries has been identified as the major threat to Australian sea lion populations. Management actions introduced in the Commonwealth and Western Australian managed fisheries since 2010 should reduce that bycatch and its impact on populations. However, lack of ongoing monitoring means that the effectiveness of management measures introduced to mitigate bycatch and enable populations to recover cannot be assessed, with recent surveys indicating that populations are still in decline.

12th International Mammalogical Congress Perth, Western Australia 9th -14th July 2017

ABSTRACT BOOK