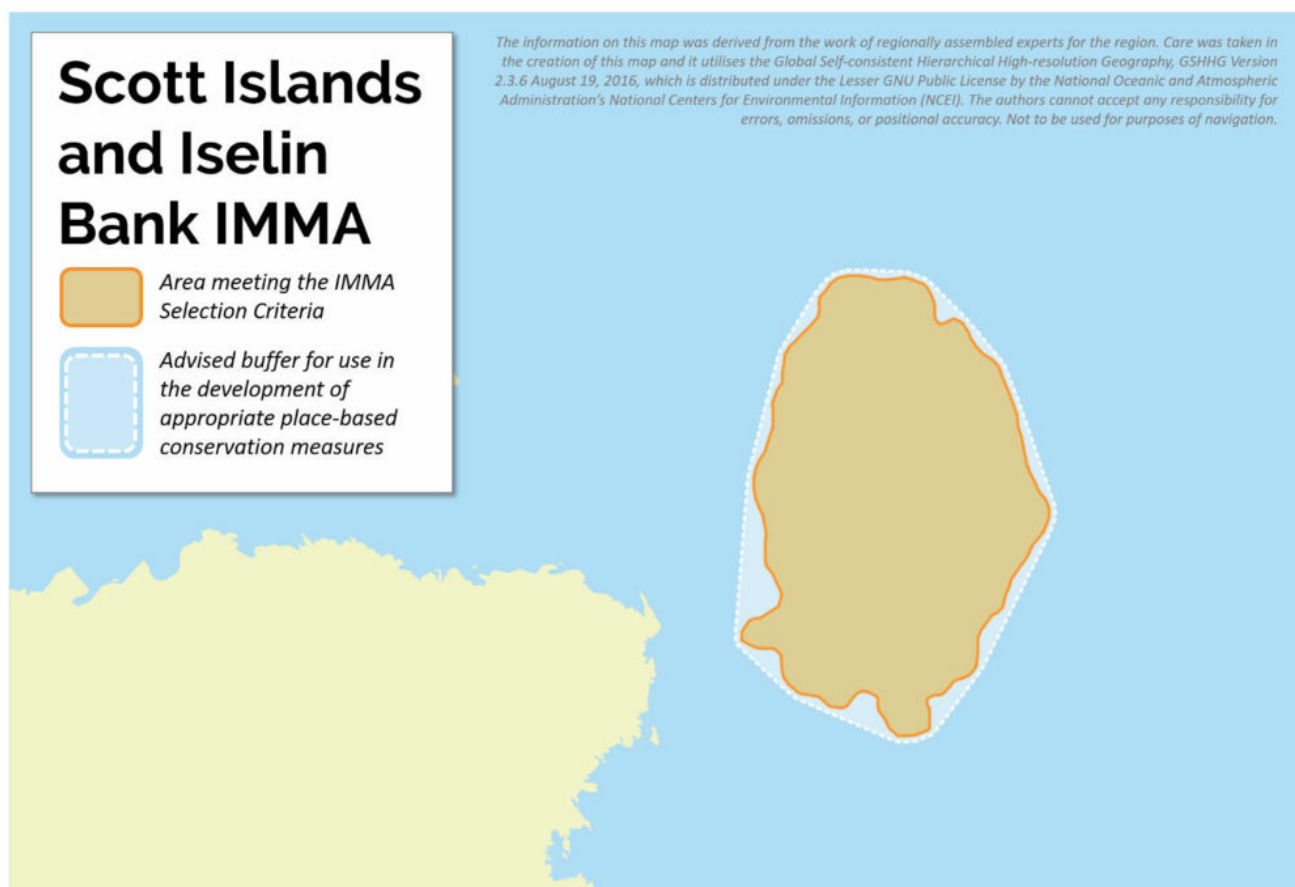


Scott Islands and Iselin Bank IMMA



Criterion A – Species or Population Vulnerability

Blue whales, *Balaenoptera musculus*, were hunted for over a century and whaling brought them to the brink of extinction before the species became protected by international agreement in 1966. The subspecies is red-listed as Critically Endangered (Cooke, J.G. 2018) and is of global interest as one of the most at risk baleen whale species in the Southern Ocean. The Antarctic form *B. m. intermedia*, which used to be the most abundant form of blue whale, occurs in the Antarctic in summer, from the Antarctic Polar Front up to and into the ice (Branch et al. 2006), including (in the past) the South Georgia area. Its winter distribution is poorly known, but the presumption has been that animals migrate in winter to lower latitudes, largely because blue whales were caught off Namibia, South Africa, in winter (Best 1998, Mackintosh 1965). Commercially

exploited to critical population levels, the fin whale, *Balaenoptera physalus*, is currently a vulnerable species in the Southern Ocean (Reilly et al. 2013). Fin whales have a nearly circumpolar distribution in the Southern Ocean (De Broyer et al. 2014) with numerous records around the Balleny Islands (Naganobu et al. 2005).

Criterion C: Key Life Cycle Activities

Sub-criterion Cii: Feeding Areas

This area has been identified as an important feeding area for humpback whales (Andrews Goff et al. 2018). Found in oceans and seas around the world, humpback whales typically migrate up to 25,000 km each year. Most populations feed in high-latitude waters, and migrate to tropical or subtropical waters to breed and give birth, fasting and living off their fat reserves. Their diet consists mostly of krill and small fish and their foraging habitat in the Scott Islands region is associated with the marginal ice zone (Andrews Goff et al. 2018). This area has also been identified as an important feeding area, using passive acoustics, for Antarctic blue whales (Double et al. 2015, Miller et al., 2015). In addition, Antarctic minke whales are known to occur from around 7°S to the ice edge (and into the ice fields) during the austral summer in the region where they feed mainly on krill (Ballard et al., 2012).

Criterion D: Special Attributes

Sub-criterion Dii: Diversity

There is good tracking data to show that humpback whales use the area for feeding (Andrews Goff et al. 2018). This is also the case for some southern elephant seals (Hindell et al. 2017). Transect survey data show that this productive area is used by many species of marine mammals, including: Antarctic blue whales (Tangaroa Census of Antarctic Marine Life); minke whales (probably mainly *B. bonaerensis* but possibly also *B.*

acutorostrata) (Tangaroa Census of Antarctic Marine Life); killer whales, *Orcinus orca*, (Tangaroa Census of Antarctic Marine Life); fin whales, *Balaenoptera physalus*, (Tangaroa Census of Antarctic Marine Life); southern long-finned pilot whales, *Globicephala melas edwardii*, and leopard seals, *Hydrurga leptonyx*. Satellite studies conducted in both McMurdo Sound and Terra Nova Bay show areas along the western Ross Sea coastline where Type-C killer whales engage in feeding activities and long-distance travel beyond the coast, outside the polar front (Eisert et al., 2015). The Type-B1 killer whale whales, which mammal-feed on mammals and birds that commonly occurs along the ice shelf in this region during the austral summer, taking advantage of both the seal and Adelie penguin colonies in the area (Andrews et al., 2008; Lauriano et al., 2007a,b). Antarctic minke whales are known to occur from around 7°S to the ice edge (and into the ice fields) during the austral summer in the region. They feed mainly on krill and, in turn, are important prey for killer whales. High densities of Antarctic minke whales are recorded in the entire Ross Sea area (Ballard et al., 2012). The distribution of crabeater seals is tied to seasonal fluctuations of the pack ice. They can be found right up to the coast and ice shelves of Antarctica, as far south as the Bay of Whales, during late summer ice break-up. They occur in greatest numbers in the seasonally shifting pack ice surrounding the Antarctic continent (Hückstädt, L. 2015). Van Dam & Kooyman (2004) reported several sightings during a late autumn transect through the Ross Sea. Southern long-finned pilot whales are found circumpolar throughout the Southern Ocean in cold currents (Goodall and Galeazzi, 1985). The Australian 'Southern Ocean Cetacean Ecosystem Program' (SOCEP) surveys, whales were found near ice as south as 64° South (Waerebeek et al. 2004) and Brownell (1974) reported sightings near Scott Island (67°S, 179°W).