**RSRMPA\_GIS Version 0 README**

The GIS information presented in this folder was compiled by Adrian Dahood for the Delegation of the United States of America. Questions regarding the data should be directed to the data originators as identified in the meta data for each file.

1. All shapefiles have been projected into the South Pole Lambert Azimuthal Equal Area projection (WKID: 102020). All area calculations were performed after the files were projected into this projection. As needed, some data files were clipped to the extent of MPA Planning Domain 8.
2. RSRMPA\_GIS.mxd is an ARCGIS project that was created in ARCMap 10.6.0, a copy has also been saved in ARCMap10.0. Basemap and baseline data files have been pre-loaded into this project. Additionally, tables showing the percent of each polygon that occurs in each MPA zone can be seen in the “List by Source” option of data view or the csv files for each table can be opened directly outside of ARCMap.. If you cannot open the RSRMA\_GIS.mxd file, please note that you can load all the provided files into projects created in earlier versions of ARCMap or into QGIS. You will need to adjust the symbology and label display to suit your needs.
3. The folder “Science Papers Supporting Data” contains PDFs of published papers and CCAMLR papers that describe the underlying data used to Please read the meta data files to determine which papers are relevant to each data layer.
4. Metadata have been provided in metadata files that can be accessed through the ARC Catalog description for each layer. The contents of these files have also been compiled in a word document for users who cannot access meta data through ARCGIS.
5. Basemap data are provided in their own folder
   1. Basemap data are data that improve the visualization of the data itself and are not part of the baseline data. Baseline data include a low-resolution Antarctic Coastline (Antarctica), bathymetry contours in 100m increments and the 550m isobath, a bathymetry raster, and a polygon describing all MPA zones and the open area of the Ross Sea Region MPA (RSR\_Simple). While not loaded in the ARCMAP project, we have provided an additional collection of files where each section of the RSRMPA and the boundary for MPA Planning Domain 8, are presented in their own shapefiles.
6. Baseline data have been provided in four sub-folders
   1. Areas data are the polygons provided by New Zealand (WS-SM-18/01). These files have the suffix “\_zonal” which signifies that the polygons have split by MPA zone. The attribute table for each file lists the area of the polygon in km2 that occurs in each MPA zone and the percent of the total polygon that occurs in each MPA zone.
   2. Ballard Habitat files are the only raster data included. These data represent modeled habitat preferences for 8 species and metrics for species richness and conservation priority. These data are described in Ballard G, Jongsomjit D, Veloz SD, Ainley DG (2012) Coexistence of mesopredators in an intact polar ocean ecosystem: The basis for defining a Ross Sea marine protected area. Biological Conservation 15672-82
   3. Bioregions are the benthic and pelagic biorgegionalizations conducted by New Zealand (WG-EMM-10/30) and provided in WS-SM-18-01. These files have the suffix “\_zonal” which signifies that the polygons have split by MPA zone. The attribute table for each file lists the area of each bioregion in km2 that occurs in each MPA zone and the percent of the total bioregion that occurs in each MPA zone.
   4. Point data are the files presented in WS-SM-18/02, SC-CAMLR-XXXVII/11, and SC-CAMLR-XXXVII/BG/13, and supplemented with files describing silverfish and marine mammals that were only recently made available These data are presented as points and as a polygon where either the total count (penguins) or a mean estimate of density (zooplankton and silverfish) have been associated with each MPA zone. Files that end in “\_Map” or “\_map” are the polygon files.
7. We intend for this GIS database to be updated regularly as relevant spatial files are made available.