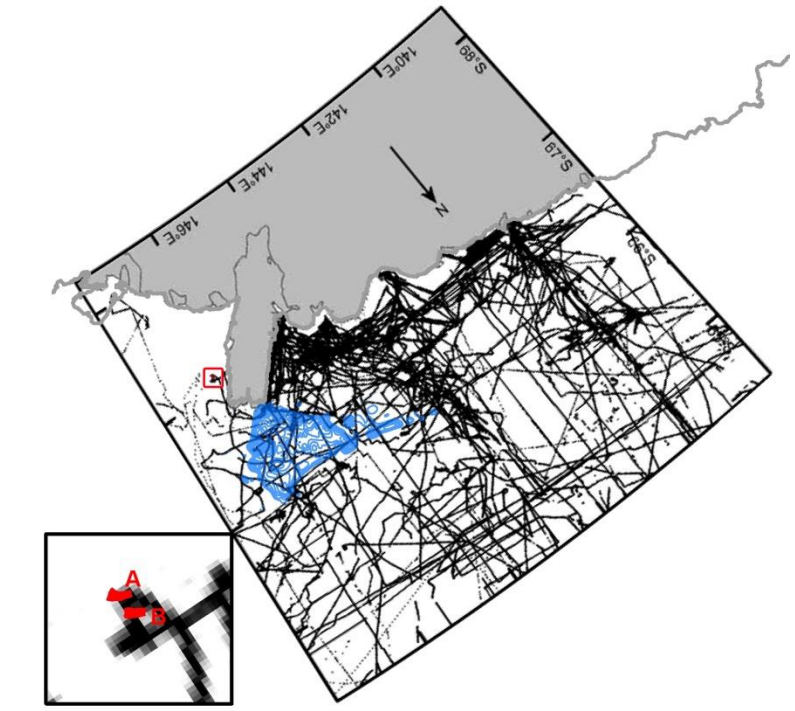
Supplementary Figures



(a)

(b)

S-Figure 1. Bathymetric measurement profiles covering the Mertz region. (a): multi-beam bathymetry dataset coverage over the Mertz region, the embedded figure in the lower left is the zoom in of red rectangle which shows the positions of iceberg A and B (polygon filled in red) on the 50th day of 2008 (Figure 4). (b): single-beam bathymetry dataset coverage over the Mertz region. Blue polylines show the contours around the Mertz Bank and black dots are measurement profiles (The Figure is redrawn from Beaman et al. (2011) because original spatial coverage of the single and multi-beam bathymetry data is not available. However using the Figures from Beaman et al. (2011), we geo-registrated it and put the contour around Mertz Bank and location of icebergs used in the text over it, from which the density of bathymetry measurement can be clear. From the coastline from Radarsat Antarctic Mapping Project-2000 indicated with thick gray line, we can conclude that the geo-registration is successfully as it coincides with that from Beaman et al. (2011) well in most parts. The Figure is under a projection of polar stereographic projection with -71 ℃S as standard latitude.)