support a diverse fauna dominated by a colonial stony coral, Solenosmilia variabilis, and that the fauna is highly endemic with numerous new species.

East Tasmania Survey

In 1997, the 85 m Scripps Institution of Oceanography research vessel Melville mapped the seabed on the continental margin of east Tasmania and at the eastern end of Bass Strait in a cooperative project with AGSO. The Melville is fitted with a SeaBeam 2000, a 121-beam sonar system with a swath coverage of 120°. The maximum swath width is about 3.4 times the water depth, and about 20 000 km$^2$ of the margin were surveyed in eight days of surveying (Hill et al. 1998).

The aims of the cruise were to determine the morphology and seabed character of selected areas, to provide data for tectonic, basin and sedimentological studies (including surveying a jarosite dumping site southeast of Hobart - Harris et al. 1999b), to aid the fishing industry, and to provide critical information for future geoscience surveying. A specific objective was to map the structure of bedrock outcrop on the eastern margin of an inferred sedimentary basin beneath the upper continental slope off the Freycinet Peninsula.

Figure 6 is a perspective view to the northwest of the continental margin east of Bass Strait and illustrates the
FIG. 6 — Perspective view of Bass Canyon, looking northwest from the Tasman Sea (after Hill et al. 1998). Horizontal scale is indicated by the tick marks at 20 km intervals. The image was generated from high-resolution swath-mapping data, with infill at the edges of the image provided by older, conventional bathymetric data from multiple sources. The water depths range from about 4400 m in the Tasman Basin, in the foreground, to less than 200 m deep on the continental shelf, in the background.

FIG. 7 — Areas around Australia which have previously been swath-mapped, and priority areas for future swath-mapping.