

Geo-heritage in east Antarctica

Chris Carson¹

¹*Geoscience Australia, GPO BOX 378, Canberra, ACT, 2601, AUSTRALIA*

With improving accessibility to Antarctica, the need for proactive intervention, protection and management of sites of intrinsic scientific, historic, aesthetic or wilderness value is becoming increasingly important. The Protocol on Environmental Protection to the Antarctic Treaty (the ‘Madrid Protocol’) includes provisions to protect such locations. Whereas, these provisions have been primarily utilised to protect sites of biological or cultural significance, sites of geological or geomorphological significance may also be considered. To date, only two sites within East Antarctica (Marine Plain, Vestfold Hills; Mount Harding, Grove Mountains), have been declared as Antarctic Specially Protected Areas (ASPA) in recognition of their unique geological or geomorphological significance.

More recently, Stornes, a peninsula in the Larsemann Hills (Prydz Bay), has also been identified as an ASPA candidate due to an abundance and diversity of extremely rare granulite-facies borosilicate and phosphate minerals. The Stornes example illustrates a growing awareness of the intrinsic scientific value of geological and geomorphological features across the AAT, including rare mineral and fossil localities. This awareness is identified within the current Australian Antarctic Science Strategic Plan emphasising that geosciences can actively contribute to, and influence the development of management plans, and can actively support Australia’s commitments to Annex V of the Madrid Protocol. Wider recognition of sites of geological significance can be achieved by invoking provisions for area management, including requirements for permission to enter issued by a responsible national authority. Area management should mitigate casual souveniring, oversampling and accidental or deliberate damage caused by ill-advised construction or other human activity.