

EarthByter wins 2010 Young Tall Poppy Science Award

Dr. Joanne Whittaker, an EarthByte research fellow, won a 2010 Young Tall Poppy Science Award. The award, celebrating excellence and endeavour in outstanding achievers in the sciences, was announced on Thursday 14 October by the Australian Institute of Policy and Science in the Powerhouse Museum. Joanne's research is focussed on examining the relationships between the deep Earth, crustal and surface processes. She showed that 50 million years ago the ancient Izanagi mid-ocean ridge was destroyed when it plunged beneath an area stretching from Korea to north of Japan (Science, 2007). A key discovery is that this event affected the motions of an entire hemisphere of tectonic plates surrounding the Pacific, with changes cascading as far away as the Southern Ocean, resulting in a previously unmapped swerve and acceleration of Australia away from Antarctica. Subsequently (Nature, 2008) Joanne developed a novel application of marine satellite gravity data and palaeogeographic reconstructions to demonstrate that deep Earth temperature anomalies associated with a supercontinent surrounded by an ocean have a profound effect on seafloor topographic evolution. This work provides a predictive framework for reconstructing improved maps of ancient ocean basins – a necessary prerequisite for understanding ocean circulation and mixing through time as well as palaeoclimate. Her EarthByte research fellow position, focussed on the evolution of the Indian Ocean, is supported by Statoil.



