
Letter to the Editor

The new *Beagle*: a flagship for science in a new age of sail

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Sir – Your special issue, ‘In Linnaeus’ Wake: 300 years of Marine Discovery’ (*Zoologica Scripta* 38: Suppl. 1, February 2009) encompassed both the history of maritime scientific exploration and its enduring legacies. Impressive marine and terrestrial specimen hauls from three centuries of scientific voyaging, largely under sail, underpinned major scientific advances not least Darwin and Wallace’s theory of evolution by natural selection.

There is international recognition that the time is ripe for a reinvigoration of expeditionary science, with a particular emphasis on marine environments. The Partnership for Observation of the Global Oceans (POGO) was created in 1999 “by directors and leaders of major oceanographic institutions around the world to promote global oceanography, particularly the implementation of an international and integrated global ocean observing system” (<http://www.ocean-partners.org>). POGO makes a case for extensive and sustained oceanic observation, research and modelling – a case which is echoed in a themed issue of *Nature* (450; 2007) on “Earth Monitoring” and the accompanying online special, “Earth Observation” (<http://tinyurl.com/mvp9bg>), which calls for the ‘patching together’ of a complete worldview that unites Earth observations from space with ground- and ocean-based exploration and monitoring.

The HMS Beagle Project (<http://www.thebeagleproject.com>) is raising funds to rebuild HMS Beagle to serve as a

charismatic flagship for science in a new age of sail. After she is built, the new Beagle will circle the world in Darwin’s wake, making similar landfalls. She is not intended to be a museum ship; she will be equipped with modern laboratories and equipment to support a series of researcher-led marine and terrestrial projects as well as continuous collections of samples for DNA barcoding (<http://www.barcoding.si.edu/>) and metagenomics (*Nature Reviews Genetics* 6, 805; 2005).

As formally established in a signed International Space Act Agreement with NASA, scientists aboard the new Beagle will collaborate with astronauts aboard the International Space Station on biodiversity and climate change research. Ocean surface water samples for biological assessment will be time-stamped for correlation with images taken from space. These images will enable the visible characteristics of plankton blooms and other biotic phenomena as seen from space to be ground-truthed by real measurements from the ship.

Just as Linnaeus and his apostles had a double mission to spread the ‘gospel’ of the new botanical principles and collect empirical data so the new Beagle will have a double mission of multi-disciplinary science and inspiring public engagement with – and action to protect – global biodiversity and climate stability.