



International

11 June, 2010

Executive Committee
Scientific Committee on Oceanic Research

Greetings,

We are writing to support the proposal to form a SCOR working group on metal-binding organic ligands. Such a working group has potential to add substantially to our knowledge of the factors that regulate the supply of essential micronutrients to marine organisms as well as the implications for marine ecosystems. The objectives of this working group nicely complement those of the GEOTRACES program.

GEOTRACES aims to identify the processes that supply trace elements to the ocean and to quantify the rates of trace element removal. In addition, GEOTRACES will characterize the internal cycling of trace elements by biological uptake, chemical scavenging, and physical transport. These goals will be achieved in large part by measuring the distribution of trace elements throughout the ocean.

Chemical speciation of trace elements, often dominated by organic complexes, influences both the bioavailability of the elements and their residence time in the ocean. This is particularly important for micronutrient elements, such as Fe, Co and Zn, which are thought to regulate the growth of certain organisms. GEOTRACES cruises offer an opportunity to examine the chemical speciation of trace elements, and its variability throughout the ocean. However, a detailed investigation of the composition, structure and origin of organic ligands is beyond the scope of the program. Similarly, GEOTRACES lacks the resources to mount a comprehensive evaluation of competing technologies for investigating ligands. Consequently, the proposed working group would add value to GEOTRACES by recommending best-practice strategies to investigate organic ligands in seawater. Once identified, these technologies can be applied routinely aboard GEOTRACES expeditions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Anderson and Gideon Henderson". The signature is written in a cursive, flowing style.

Robert Anderson and Gideon Henderson
Co-Chairs, GEOTRACES SSC