

Project Title : Underwater Archaeology and Biology study of the wreck of HMS Erebus

Research Team

Principal Investigator: Ryan Harris, Senior Underwater Archaeologist, Parks Canada

Total number of participants: 19

Project activities and objectives, necessity and duration:

The 2015 project extends over six weeks (August 11 to September 19). The study of HMS Erebus is planned as a multi-year project (2015-2020).

The principal component of the project (August 17 to September 19) consists of underwater archaeology investigations of the HMS Erebus wreck site to continue with site recording, evaluation of site condition, more in depth investigations of the periphery and interior of the wreck site as well as test excavation and recovery of diagnostic artefacts necessary to help reconstruct the story of the Franklin expedition.

This project comprises a marine biology component that will be conducted before the archaeology work (August 11 to 17). The main goals of the biology pilot project are to characterize the benthic communities (fauna and flora) found on the wreck and use this information to better understand Arctic marine biodiversity, the factors limiting or enabling the development of benthic communities in Arctic regions and the impact of these communities on the wreck.

Location: Wreck of HMS Erebus and HMS Terror National Historic Site, Wilmot and Crampton Bay, Queen Maud Gulf.

Method of transportation: The 65 foot vessel Martin Bergmann and a smaller 35 foot vessel (name to be confirmed) from the Arctic Research Foundation will provide transportation and accommodation during the 2015 project. The diving operations will take place from the Parks Canada vessel Investigator (33 feet) and smaller inflatable vessels. No structures will be erected.

Methods: Summer dive operations will involve both SCUBA and surface supplied diving from small vessels anchored to blocks carefully placed around the site. Most of the archaeological work will be site documentation and structural recording through photo and video and measurements. Artefact recovery and test excavation will be modest in 2015 and mainly conducted at the stern (back) area of the wreck using aluminium grids for reference and water dredges activated with water pumps. Inspections of the interior will be done with a ROV (underwater robot). The biology work will consist of sampling of species, video and photo recording and placement of an underwater probe to record data on water conditions.

Benefits of Research: The archaeology component is essential to understand the story of the Franklin expedition and its relationship with Inuit history in the area. The biology

component will help to understand the local fauna and flora and how it compares with other areas of the Queen Maud Gulf.

For 2015, Parks Canada is planning to hire three Inuit to help on the project on site and in the communities. Long term Parks Canada is planning to build infrastructures in Gjoa Haven linked to the interpretation of the wreck and the Franklin story. This will provide employment, economic and tourism opportunities for the Arctic communities. This should be operational at the end of the archaeological project.