Workshop Report for Attendance of Early Career Scientists at POLAR2018 Marine Working Group, IASC

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Encouraging early career scientist participation in IASC activities such as the annual Arctic Science Summit Week is a key priority for broadening participation in the work of IASC. One of the Marine Working Group (MWG) funding decisions made following the ASSW 2017 in Prague, Czech Republic was to commit to providing support for early career scientists to attend the POLAR2018 meeting in Davos, Switzerland in June 2018. The MWG supported in part the travel of 10 early career scientists (ECS) to attend POLAR2018 as well as one additional ECS to attend the MOSAiC Science Implementation workshop in Potsdam, Germany in May, 2018. The support for ECS participation was based on a MWG initiative to develop a scientific session in Davos on the topic of "Productivity, Biodiversity & Ecosystem Shifts at Cryosphere-Ocean Boundaries," which grew out of cross-cutting discussions within the MWG. These discussions had concluded that the consequences of sea and glacial ice changes upon biological activity were key priorities for study. Identification of potential ECS to be supported was based upon contact made with ECS contributors to that session and expanded in discussions with MWG members and IASC fellows. Presentations in several POLAR2018 sessions were ultimately made, and feedback from the ECS almost universally lauded the opportunities for networking, and building international collaborations, as well as the chance to present scientific findings.

Some scientific outcomes cited by the funded participants:

"During the week I co-convened the "Extreme events in the Arctic" cross-cutting workshop led by Alek Petty; 3 productive 2-hour sessions which should lead to a publication/report on characterization and impact of extreme events in the Arctic."

"I think a highlight was some of the response I got from modellers after my talk about mixotrophy...the presenter of a poster modelling primary production who recognized that mixotrophy may be an important addition to the model which showed me that my talk could make some contribution to the understanding on how ecosystems can be modelled."

"(My) study presented showed that even during dark winter time reproduction and recruitment can take place in the Arctic. Among the most important drivers shaping early

community development of epibenthos on artificial plates were: water temperature and meroplankton density above the bottom."

"My oral presentation got a lot positive feedback, and the discussion after the presentation made me realize what to emphasize in future presentations (a nice scientific outcome that I maybe didn't highlight as much as I could have). I presented outcomes from the N-ICE2015 expedition, which was a half-a-year long drift expedition in the pack ice north of Svalbard. I presented on my work on ice algal and phytoplankton ecology and bio-optics."

"I presented a pan-Arctic dataset on the pelagic records of what is currently considered an autochthonous, ice-associated amphipod. Our results demonstrate that this amphipod can be found away from sea ice anytime and anywhere, suggesting a more complex life history than previously thought."