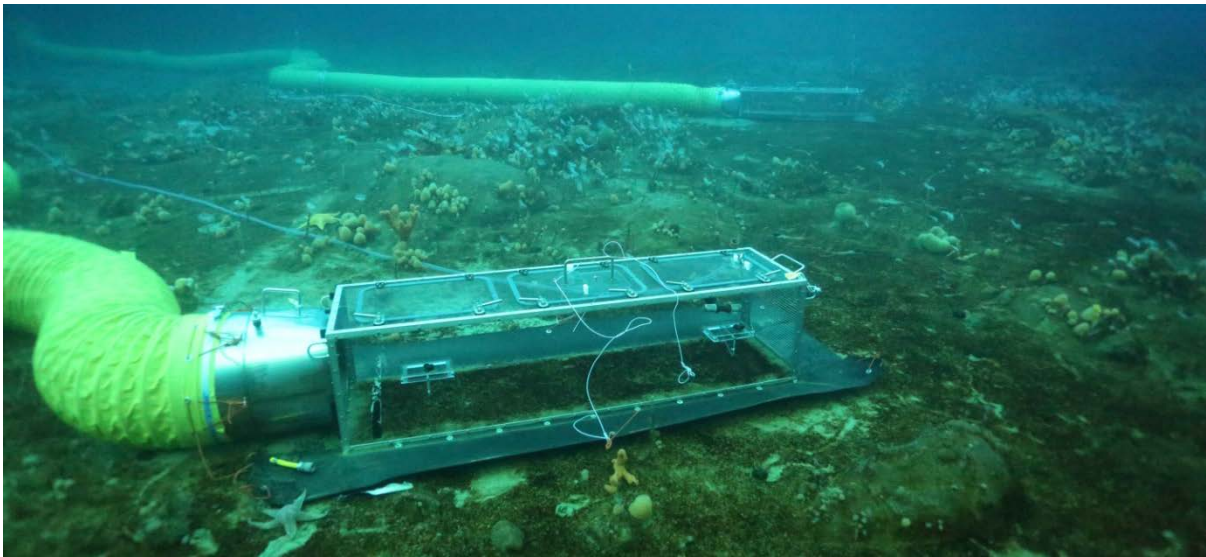


## **xFOCE systems: present status and future developments workshop**



**29<sup>th</sup> April 2016**

**Australian Antarctic Division, Kingston, Tasmania**

**Organized by Jonny Stark and Jean-Pierre Gattuso**

FOCE (Free Ocean CO<sub>2</sub> Enrichment) systems were developed to address the urgent need for community level mid-term and long-term field experimental manipulations of ocean acidification (Brewer et al. 2013; Gattuso and Kirkwood 2014). xFOCE systems have now been around for some years and have been deployed in locations all over the world (Gattuso et al. 2014). An xFOCE workshop will be held to coincide with the 4th International Symposium on the Ocean in a High-CO<sub>2</sub> World, to be held in Hobart in May 2016. There will be no costs involved to participate in the workshop.

We would like to invite scientists, engineers and technicians working with FOCE or interested in becoming involved or finding out more to attend this one day workshop to be held just prior to the conference, at the Australian Antarctic Division (AAD). The aim of the workshop is to advance knowledge of best practices for seafloor controlled CO<sub>2</sub> enrichment experiments so as to better understand biogeochemical and ecosystem impacts of ocean acidification, including the required engineering practices for experimental design, sensing, and controlled feedback.

The workshop will cover all aspects of FOCE from engineering, logistical and scientific perspectives. It will also include an opportunity to inspect the antFOCE system, which was recently successfully deployed for a 12 week period in Antarctica, and discuss its features with the AAD scientists and engineers who modified the xFOCE design for Antarctic conditions and built and deployed it.

We invite talks on all aspects of FOCE experiments and systems. The suggested format is 15 minute talks followed by 15 minutes of discussion and questions.

Possible topics for talks and discussion include (but are not limited to):

- Identifying the priority research goals for FOCE experiments and how to achieve them
- Characterising and comparing the effects of FOCE experiments
- Are there critical CO<sub>2</sub> concentrations that elicit change?
- Habitat suitability and vulnerability
- International links and collaborations
- Parallel FOCE science: the same scientific components in different experiments
- Linking physical and biological measurements
- Controlling acidification
- Multiple stressors and FOCE
- Sensors and systems

We look forward to meeting with the FOCE community, past, present and future at this exciting workshop.

Please contact [jonny.stark@aad.gov.au](mailto:jonny.stark@aad.gov.au) to register your interest for participating in this workshop.

Sincerely

Jonny Stark and Jean-Pierre Gattuso

#### References

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- Gattuso JP, Kirkwood W, Barry JP, Cox E, Gazeau F, Hansson L, Hendriks I, Kline DI, Mahacek P, Martin S, McElhany P, Peltzer ET, Reeve J, Roberts D, Saderne V, Tait K, Widdicombe S, Brewer PG (2014) Free Ocean CO<sub>2</sub> Enrichment (FOCE) systems: present status and future developments. *Biogeosciences* 11: 4057-4075 doi 10.5194/bgd-11-4001-2014