

## Report for the year 2018 and future activities

**SOLAS**

**Poland**

**compiled by:**

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*This report has two parts:*

- **Part 1:** reporting of activities in the period of January 2018 – Jan-Feb 2019
- **Part 2:** reporting on planned activities for 2018/2019 and 2020.

*The information provided will be used for reporting, fundraising, networking, strategic development and updating of the live web-based implementation plan. As much as possible, please indicate the specific SOLAS 2015-2025 Science Plan Themes addressed by each activity or specify an overlap between Themes or Cross-Cutting Themes.*

- 1 Greenhouse gases and the oceans;
  - 2 Air-sea interfaces and fluxes of mass and energy;
  - 3 Atmospheric deposition and ocean biogeochemistry;
  - 4 Interconnections between aerosols, clouds, and marine ecosystems;
  - 5 Ocean biogeochemical control on atmospheric chemistry;
- Integrated studies;  
Environmental impacts of geoengineering;  
Science and society.

**IMPORTANT:** *This report should reflect the efforts of the SOLAS community in the entire country you are representing (all universities, institutes, lab, units, groups, cities).*

### **PART 1 - Activities from January 2018 to Jan/Feb 2019**

#### **1. Scientific highlight**

As part of International Ocean Carbon Coordination Project (IOCCP; [www.ioccp.org](http://www.ioccp.org)) with headquarters at IOPAN in Sopot, Maciej Telszewski (Director) and Artur Palacz (Project Officer) engaged in a number of coordination and communication activities promoting the development of a global network of ocean carbon and biogeochemistry observations, supporting in part the implementation of the 2015-2025 SOLAS Science Plan.

In 2018, IOCCP and SOLAS together with representatives of other scientific partners, have worked to develop a science-based strategy for future marine carbon cycle research as part of the newly appointed IOC-UNESCO Working Group on Integrated Ocean Carbon Research.

Together with Véronique Garçon (2018 SOLAS SSC member and former Chair) as the newly appointed IOCCP Scientific Steering Group member responsible for Oxygen Essential Ocean Variable (EOV) measurements, we developed a new website for Oxygen EOV and engaged in a number of oxygen-related activities (see publications and workshops below and on [www.ioccp.org/oxygen](http://www.ioccp.org/oxygen)). Most importantly, we held the second Science Workshop of the Variability in the Oxycline and Its Impacts on the Ecosystem (VOICE) project, which resulted in submission of a Community White Paper for the OceanObs'19 Conference. Through continued collaboration between VOICE and the Global Ocean Oxygen Network (GO2NE), IOCCP contributed to enhanced coordination of oxygen-related ocean observation, research and dissemination efforts

(e.g. Breitburg et al., 2018; Kiel Declaration on Deoxygenation - <https://www.ocean-oxygen.org/declaration>).

Last but not least, IOCCP and SOLAS have worked together in the capacity building domain, e.g. by co-sponsoring an international summer school on global ocean oxygen observations (<http://mel.xmu.edu.cn/summerschool/go2ne/index.asp>) to be held in Xiamen, China in September 2019. A number of sessions planned for the June 2019 IOCCP-BONUS INTEGRAL training course on a suite of biogeochemical sensors (<http://www.ioccp.org/2019-training-course>) will also have direct relevance to the main themes of SOLAS, e.g. on air-sea interactions.

**2. Activities/main accomplishments in 2018 (projects, field campaigns, events, model and data intercomparisons, capacity building, international collaborations, contributions to int. assessments such as IPCC, interactions with policy makers or socio-economics circles, social sciences, and media).**

Membership in the Board of Directors of the Centre for Polar Studies.

Organization of an international symposium called the Sopot Forum for Young Scientists.

Presidency in EurOcean.

Leaders in the POLAND-AOD network.

Polish coordination in the NASA Maritime Aerosol Network.

Membership in the Scientific Council of the Climate Forum – Science on Climate.

Coordination of the Sopot Association for the Advanced Sciences activities.

Organization of a number of public events, promoting science.

1-2 September 2018 Kiel, Germany	Global Ocean Oxygen Network (GO <sub>2</sub> NE) annual workshop <a href="#">Meeting report</a>
8-9 December 2019 Washington, DC, USA	Ocean Carbon Uptake in CMIP6 Models: Synthesis and Intercomparison
24-26 October 2018 Tokyo, Japan	13 <sup>th</sup> Session of the International Ocean Carbon Scientific Steering Group
22-24 October 2018 Tokyo, Japan	6 <sup>th</sup> Argo International Workshop
11-13 September 2018 Prague, Czech Rep.	3 <sup>rd</sup> Integrated Carbon Observing System (ICOS) Conference
8-9 September 2018 Kiel, Germany	2 <sup>nd</sup> Science Plan Workshop of the Variability in the Oxycline and Its Impacts on the Ecosystem (VOICE) project
3-7 September 2018 Kiel, Germany	Ocean Deoxygenation Conference
1-2 September 2018 Kiel, Germany	Global Ocean Oxygen Network (GO <sub>2</sub> NE) annual workshop <a href="#">Meeting report</a>
13-15 June 2018 Santa Marta, Colombia	7 <sup>th</sup> Session of the GOOS Steering Committee (GOOS-SC-7) <a href="#">Meeting website</a> Meeting report (pending)
12 June 2018 Santa Marta, Colombia	GOOS South American Regional Workshop <a href="#">Meeting report</a>

4-8 June 2018 Washington, DC, USA	4 <sup>th</sup> International Symposium on the Effects of Climate Change on the World's Oceans
4-5 June 2018 Brussels, Belgium	A European Vision for an Atlantic Ocean Observing System - AtlantOS workshop
28-30 May 2018 Sopot, Poland	Global Ocean Acidification Observing Network (GOA-ON) Executive Council Meeting
14-17 May 2018 Plouzane, France	Ninth meeting of the JCOMM Observations Coordination Group (OCG-9) <a href="#">Meeting website</a> <a href="#">Action items (draft)</a>
7-8 March 2018 Bergen, Norway	ICOS Ocean Thematic Centre workshop on ocean CO <sub>2</sub> measurements
28 Feb-5 Mar 2018 Hobart, TAS, Australia	GOOS Cross-Panel and Executive Committee Meeting <a href="#">Meeting website and report</a>
11-16 February 2018 Portland, OR, USA	2018 AGU Ocean Sciences Meeting <a href="#">Meeting website</a>
11 February 2018 Portland, OR, USA	Surface Ocean CO <sub>2</sub> Global Observations Network Kick-Off meeting
16-18 January 2018 Paris, France	Development of the SDG 14.3.1 indicator methodology - Expert Workshop <a href="#">Methodology document</a>
<b>3. Top 5 publications in 2018 (only PUBLISHED articles) and if any, weblinks to models, datasets, products, etc.</b>	
<ol style="list-style-type: none"> <li>1. Breitburg, D., Levin, L. A., Oschlies, A., Grégoire, M., Chavez, F. P., Conley, D. J., ..., Telszewski, M., ..., &amp; Jacinto, G. S. (2018). Declining oxygen in the global ocean and coastal waters. <i>Science</i>, 359(6371), eaam7240.</li> <li>2. Bossier S, Palacz AP, Nielsen JR, Christensen A, Hoff A, Maar M, et al. 2018. The Baltic Sea Atlantis: an integrated end-to-end modelling framework evaluating ecosystem-wide effects of human-induced pressures. <i>PLOS ONE</i> 13(7): e0199168. <a href="https://doi.org/10.1371/journal.pone.0199168">https://doi.org/10.1371/journal.pone.0199168</a></li> <li>3. Telszewski M, Palacz AP, Fischer A, 2018: Biogeochemical in situ observations – Motivation, status, and new frontiers. In "New Frontiers in Operational Oceanography", E. Chassignet, A. Pascual, J. Tintoré, and J. Verron, Eds., <i>GODAE OceanView</i>, 131-160, doi:10.17125/gov2018.ch06.</li> <li>4. Palacz AP. (2018). A Report of Meeting of the Global Ocean Observing System Expert Panels (GOOS Cross-Panel 2018). GOOS Report No. 228. UNESCO, Paris, France.</li> <li>5. Telszewski M, Palacz AP. International Ocean Carbon Coordination Project (IOCCP) Conveyor Newsletter Nr 39, Sopot, Polska. Biuro Projektu IOCCP, 2018, pp. 13, <a href="http://www.ioccp.org/images/Cconveyor/March-2018/The-IOCCP-Conveyor-39_March-2018_FINAL.pdf">http://www.ioccp.org/images/Cconveyor/March-2018/The-IOCCP-Conveyor-39_March-2018_FINAL.pdf</a></li> </ol>	
<b>4. Did you engage any stakeholders/societal partners/external research users in order to co-produce knowledge in 2018? If yes, who? How did you engage?</b>	
We run workshops and science fairs, open lectures and projects with kids related to marine environment.	

## PART 2 - Planned activities for 2018/2019 and 2020

**1. Planned major field studies and collaborative laboratory and modelling studies, national and international (incl. all information possible, dates, locations, teams, work, etc.).**

1. Ny-Alesund Flagship programs, ongoing activities.
2. Summer Arctic campaign using the r/v Oceania and in cooperation with an international team of researchers.
3. NASA AERONET, ongoing activities.
4. POLAND-AOD, ongoing activities.

**2. Events like conferences, workshops, meetings, schools, capacity building etc. (incl. all information possible).**

Activities and meetings to be organized in 2019:

1. Organization of Open Science Days 6-8 June 2019.
2. Organization of an international conference for young scientists entitled: Where the World is Heading (7 June 2019).

**3. Funded national and international projects / activities underway.**

A number of projects to be submitted during 2019/20.

**4. Plans / ideas for future projects, programmes, proposals national or international etc. (please indicate the funding agencies and potential submission dates).**

A number of projects to be submitted during 2019. We will seek funding on national and international levels.

**5. Engagements with other international projects, organisations, programmes etc.**

1. IOCCP.
2. NASA AERONET (agreement until 2029).
2. Ny-Alesund Flagship programs.
3. Bilateral agreement with the Alfred Wegener Institute.
4. Global Observing Network for Reference Surface Water pCO<sub>2</sub> Observations.
5. Global Ocean Observing System (GOOS).
6. EurOcean.
7. Global Ocean Acidification Observing Network (GOA-ON).

**Comments**

