



5 May 2021

# International Nutrient Inter-Comparison 2022: Newsletter #2

Keep up to date on the facts, plans and people involved with the International Nutrient Inter-Comparison voyage (INIV2022) scheduled for May 2022

*INIV is an opportunity for global nutrient chemists to come together to gain first-hand knowledge and experience of measuring nutrients in the ocean.*

*The goal of this voyage is to enhance peer to peer communication while tackling a broader understanding of time-scale nutrient changes for the oceanographic community.*

*Across the voyage our focus will be on better understanding method variabilities that cannot be achieved with a standard proficiency study. We hope to answer questions and improve techniques that will be shared with the global community.*

## Welcome

Welcome to the second INIV newsletter. This newsletter aims to provide monthly updates around the current and future activities for INIV 2022. Thank you to all those who provided feedback in the March 2021 participants survey. It is exciting to see many organisations interested in participating and engaging in the planning process.

If you are interested in participating and did not receive the survey, please contact us.

## Voyage Update

The team is busy looking at the ship laboratory space and possible containerised lab options to increase lab space to ensure adequate space for all participants. Additionally, we are looking at water budgets and secondary objectives including ARGO float deployments and trace metal measurements.

## Message from the Chief Scientist

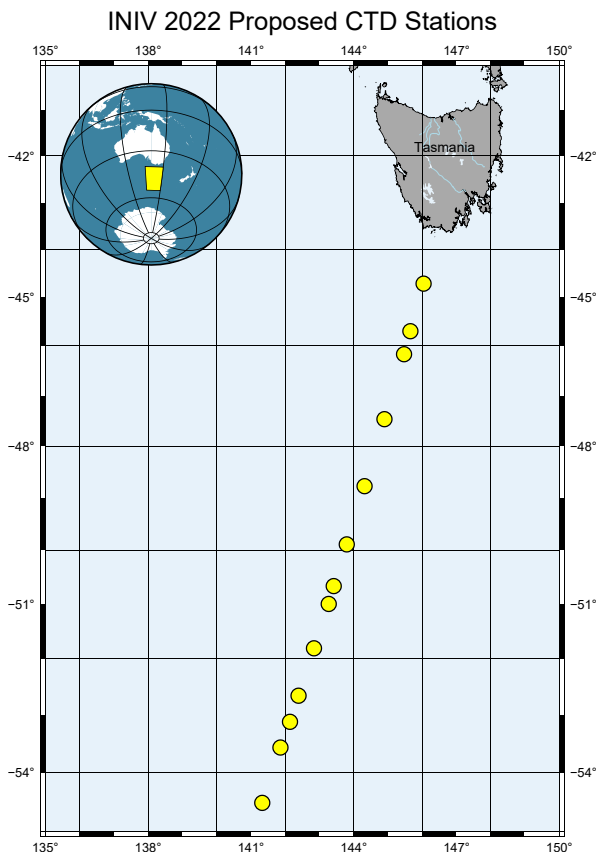


I'd like to take this opportunity to personally welcome all of you to the International Nutrient Inter-comparison voyage.

This voyage presents a unique opportunity to bring together the international nutrient community to strengthen both methods and collaborative ties, and we are looking forward to hosting all of you in Hobart very soon.

As we close in on one year from our voyage date, the project team in concert with the INIV steering committee will be working to further refine our testing methodology, refine the voyage plan and better define our project outputs. We will also be looking to identify complimentary science activities which could add further scientific and technical value to the voyage. In the coming months we will be reaching out to participants and stakeholders to provide input and feedback on the evolving plans, but

as always don't hesitate to reach out the project team if you have any questions.



The track we've selected for our cruise is the SR03 hydrographic line heading south from Tasmania across the Southern Ocean. This has been a staple survey line for Australian researchers with CSIRO conducting repeat visits for over 30 years. The complete SR03 line consists of 55 stations with depths down to 4500m. As part of this voyage we'll be aiming to complete 14 stations along the northern half of the line. Data collected during these transects has been central in informing science and modelling in the sub-Antarctic zone while helping track heat update, ocean carbon and ocean productivity. Data collected from this voyage will be shared with the science community and contribute – in albeit a small way – to improving our understanding of the vast and sparsely observed Southern Ocean.

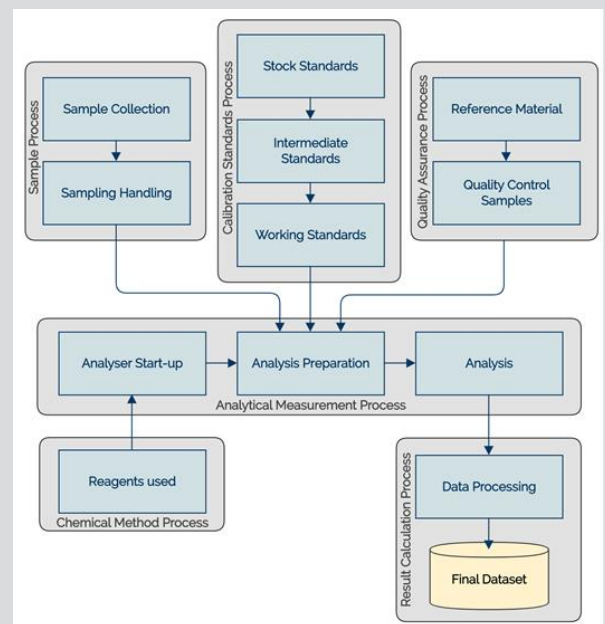
Finally, I would like to thank the CSIRO Hydrochemistry Team, the Marine National Facility and all of our Australian and overseas partners who have contributed over a number of years to make this opportunity possible. This voyage would not be possible without your ongoing support.

Warm Regards,

Andreas

## Inter-comparison voyage versus Proficiency Testing: What's the difference?

*The objective of the inter-comparison voyage is to better understand the differences and identify factors that contribute to these differences in a measured result. A proficiency test compares the measured result between multiple laboratories in relation to the assigned value and uncertainties. The purpose of INIV 2022 is to create a collaborative space to better understand and isolate key variables that contribute to laboratory differences. The goal is to have all laboratories reporting the same result. During the voyage we will isolate specific variables, sample collection and working standards, to characterize differences in the reference material and niskin bottle samples. The flowchart below describes the workflow process.*



## Funding

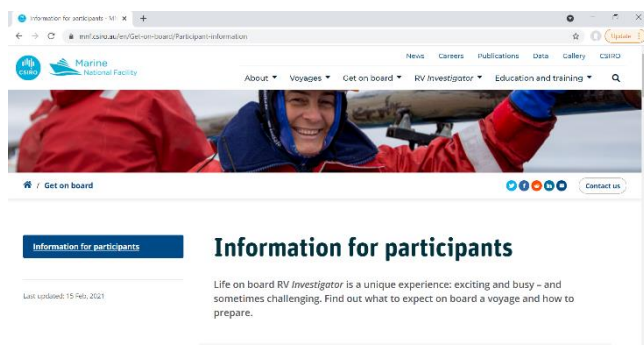
We are busy seeking opportunities for funding and sponsorship but would also like to support your organisation in this venture as well. Please contact our team if we can provide a letter of support for funding opportunities you have identified.

## Welcome Aboard

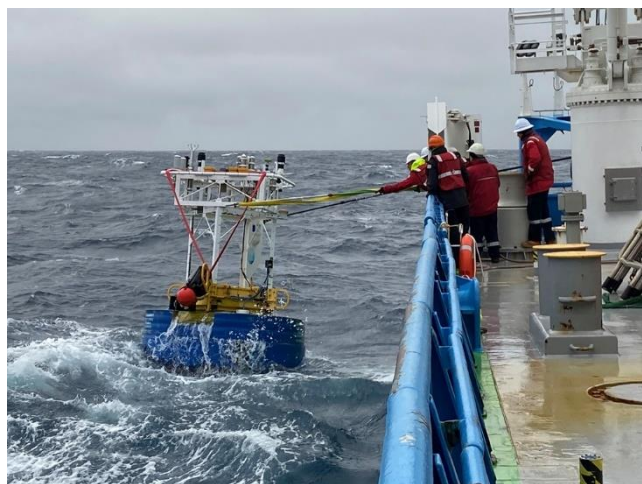
Curious to know what it is like on the *RV Investigator*?

Check out the MNF website for participants

<https://mnf.csiro.au/en/Get-on-board/Participant-information>



## RV Investigator – Latest Voyage



**Crew and scientists onboard RV Investigate recovering a mooring on the latest trip.**

The RV Investigator has just returned to Hobart after 2 weeks in the Southern Ocean. The primary objective of the trip was to replace the SOTS (Southern Ocean Time Series) deep-water moorings. These moorings are deployed and recovered annually at roughly 1000 km south west of Tasmania.

The trip is a partnership between Australia's Bureau of Meteorology (known casually in Australia as 'The BOM') and CSIRO. The moorings provide important weather data and contribute vital data for ocean and climate modelling.

See a video [here](#) that shows how the moorings were deployed.

See the [photo gallery](#) from the trip here.

## Participant Bios



**Name:** Malcolm Woodward

**Role:** Head of the PML Nutrient Facility

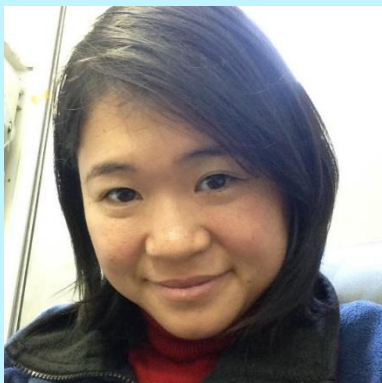
**Organisation:** Plymouth Marine Laboratory, UK

**Total days at sea:** Lost Count! 42 years is a long time, but I would estimate about 1000 days.

**Favourite voyage:** So many to choose from to all parts of the globe! But it has to be *Sterna '92* on the RRS James Clark Ross (1992). My first voyage to Antarctica investigating the biogeochemistry of the Bellinghousen Sea on what was then the new UK Polar ship, and interestingly I did another voyage last year to the Weddell Sea on her, and then on April 13th this year she was retired from service to be replaced with the RRS Sir David Attenborough. *Sterna* was an incident packed voyage, with 3 medivacs back across the Drake Passage because of illnesses and injury, first base relief to the Rothera and Faraday UK Bases, and just amazing wildlife and stunning scenery. Combined with a 2-week pre-cruise holiday on the Falkland Islands before flying home and having to have 2 days in Ascension Island halfway home because of a broken aircraft.

Good to see Greg Olsen from NIOZ in the first newsletter and having the June 2011 NZ Geotraces voyage on the *Tangaroa* as his favourite, a great trip also as I was on board with him as a visiting scientist, small world!

**What interests you most about INIV?** Intercomparisons and intercalibrations are extremely important because everyone can improve how they carry out their analysis, so this voyage offers an opportunity for colleagues to learn from each other whilst at sea which is the purest form of intercalibrating, with no storage or doubts about the reproducibility of the samples. Being at sea allows for direct conversations and discussions about all aspects of analysis, and hopefully people will improve their skills from working together and sharing knowledge.



**Name:** Mariko Hatta

**Role:** Researcher

**Organisation:** Institute of Arctic Climate and Environment Research (IACE) & Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

**Total days at sea:** 570 days

**Favourite voyage:** GEOTRACES Arctic cruise from Alaska to the North Pole to back from August 9th and October 12th, 2015 on USCGC Healy. Total 51 scientists were at sea! All of my favorite scientists from both the CLIVAR and GEOTRACES projects got together. We also had a rendezvous with RV Polarstern at the North Pole.

**What interests you most about INIV?** The INIV will keep the oceanographic capability at a high level and improve even more. This will be a wonderful opportunity to intercalibrate our new analytical techniques with others and establish global networking.

## Voyage Website

We have a website! Check it out for additional information about our voyage including voyage location, planning, getting involved, FAQ and more: <https://wp.csiro.au/iniv2022/>

## Coming Next

Coming next in the INIV Newsletter #2:

- Updates on the voyage planning
- Timeline of activities
- More participant bio's

## Contact Us

Please feel free to reach out to the CSIRO Hydrochemistry team at any time during the planning process – [cassie.schwanger@csiro.au](mailto:cassie.schwanger@csiro.au)

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### For further information

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