

Dear Ladies and Gentlemen, dear MAR family, good morning!

Please, have these MAR news for early 2024

## IAH MAR Commission Newsletter. 2024 January-February Newsletter

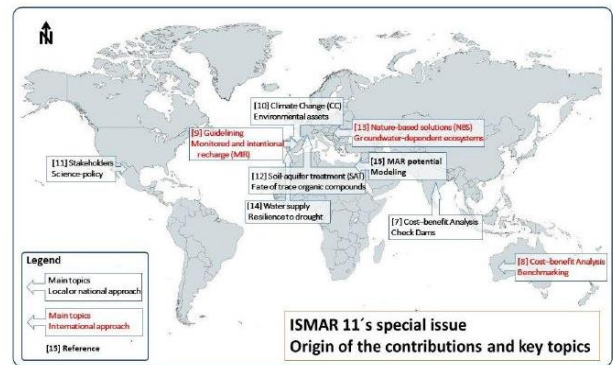
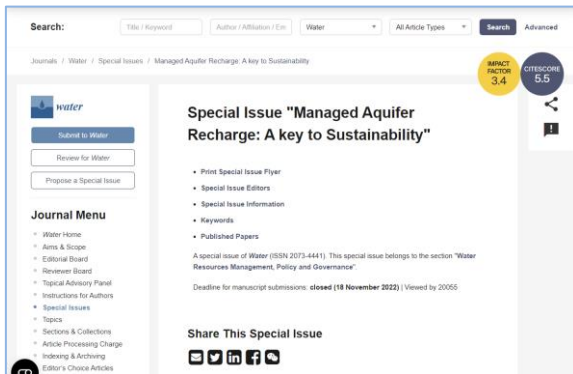
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## PUBLICATIONS ABOUT MAR

### Managed Aquifer Recharge. A key to sustainability

Selected papers on MAR, specially presented at ISMAR 11, are published in this Special Issue of the open-access Journal WATER. Ten papers have been published, including an editorial paper.



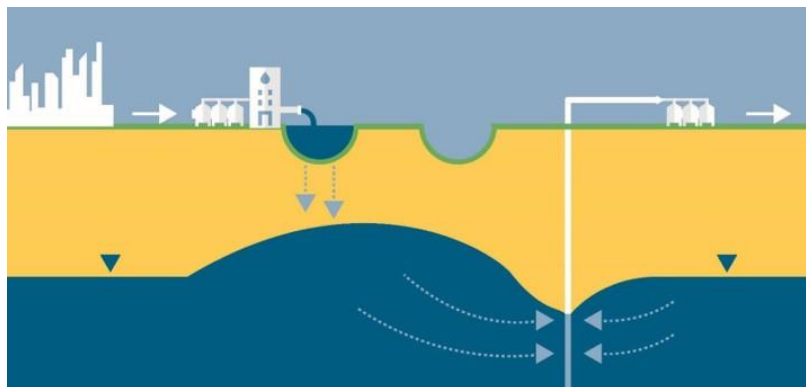
[https://www.mdpi.com/journal/water/special\\_issues/Aquifer\\_Recharge](https://www.mdpi.com/journal/water/special_issues/Aquifer_Recharge).

This is the last bulletin this info will be included.

IAH-MAR co-chairs are exploring another editorial for the future ISMAR 12's special issue. We are expecting the reply from the Hydrogeology Journal...

### Managed Aquifer Recharge (MAR-1). Technical Guidance Document and Training

The Managed Aquifer Recharge (MAR) Team finalized the production of a Technical Guidance Document and Training that evaluates the potential uses of MAR...



Read more and Guidance Document for 2023 December is on line at:  
<https://itrcweb.org/itrcwebsite/teams/active/mar>

Thank you Dave Kreamer for reporting.

## NEW MAR-RELATED PUBLICATIONS

### IAH's December Newsletter

IAH's newsletter and IAH Members Alert 2024 include more news from the MAR Commission, thanks to our communication channels have been improved. <https://iah.org/news-information-magazine>. Gratitude to IAH Executive.



Please, consider possible news articles for future editions, and contact IAH:  
[info@iah.org](mailto:info@iah.org)  
[www.iah.org](http://www.iah.org)

or inform an IAH-MAR co-chair:  
Catalin Stefan [catalin.stefan@tu-dresden.de](mailto:catalin.stefan@tu-dresden.de)  
郑焰(ZHENG Yan) [yan.zheng@sustech.edu.cn](mailto:yan.zheng@sustech.edu.cn)  
Enrique F. Escalante [efernan6@tragsa.es](mailto:efernan6@tragsa.es)

## MAR AND MAR-RELATED CONFERENCES AND SEMINARS

### ISMAR 12. Organizers “have informed” the preliminary stage has begun

The IAH South Africa website includes some information on the International Symposium on Managed Aquifer Recharge. It will be in South Africa in April-May 2025.

**[Have a look, and get ready for the largest event of the MAR community!](#)**

More info: [https://iah.org.za/files/2022/04/ISMAR25\\_PP\\_April.pdf](https://iah.org.za/files/2022/04/ISMAR25_PP_April.pdf)

We all request your help to attend and publicise the event. You may use this slide:



The poster for ISMAR12 features a scenic landscape of a vineyard in the foreground and a mountain range in the background under a blue sky with clouds. On the right side, the event details are presented in a clean, modern layout. At the top right is the ISMAR12 logo, which consists of stylized numbers '10', '11', and '12' in various colors. Below the logo, the text reads 'ISMAR12' and 'STELLENBOSCH SOUTH AFRICA 28 APRIL - 2 MAY 2025'. The main title is 'International Symposium on Managed Aquifer Recharge' in blue, followed by the theme 'From Theory to Implementation and Operation' in black. Logos for IAH South Africa and the International Association of Hydrogeologists are shown below. The dates '28 April - 2 May 2025' and location 'Stellenbosch | South Africa' are prominently displayed. At the bottom, a URL is provided: 'For more information please visit <https://ismar12.org.za/> (active 1 March 2024)'.

**IMMINENT: Second International Conference on “Water Resources Management and Sustainability: Solutions for Arid Regions”, 26-28 February 2024, Dubai, United Arab Emirates**

The conference includes a sub-theme entitled: Advanced Technologies in Water Resources Management (Large Scale Water Management, ASR, MAR).



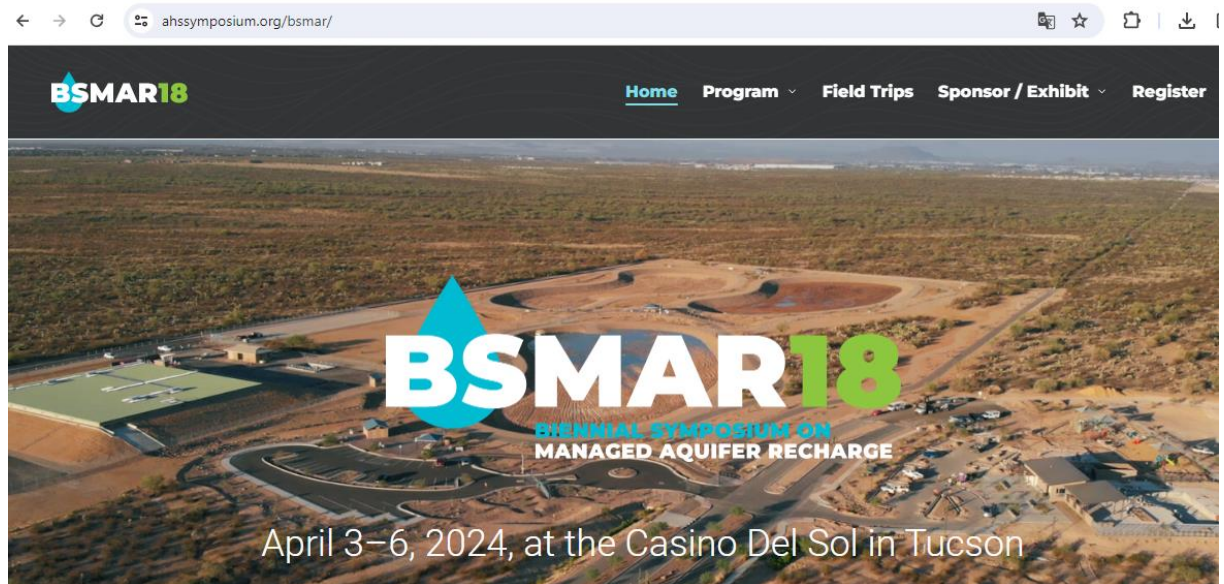
<https://conferences.uaeu.ac.ae/warms2024/en/index.shtml>

We kindly ask organizers to share some news from the conference.

## 2024 BSMAR Symposium. Arizona, April 3-6

BSMAR 18 Symposium will take place in Arizona from April 3-6, 2024.

*BSMAR18 will kick off with two concurrent panel sessions on surface recharge technologies and injection wells, featuring discussions about lessons learned and future MAR projects...*



More info: <https://ahssymposium.org/bsmar/>

## 4th International Conference on Earth Sciences and Recycling Waste Management Technologies (ICESRWT-2024) is going to be held at Dubai on June 12-13, 2024

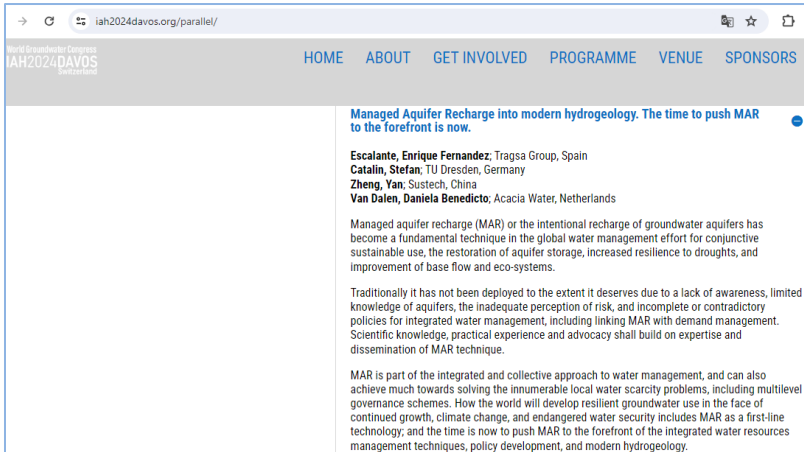
Presentation about Earth Sciences, Recycling Waste Management and other relevant to the conference.

We are expecting info from organizers about the MAR presence yet.

## IAH 2024 Conference. Davos, Switzerland. September. Abstracts deadline: February 29<sup>th</sup>

The IAH 2024 conference will take place in Davos, 2024, September 8-13<sup>th</sup>.

There is a specific session on MAR: *“Managed Aquifer Recharge into modern hydrogeology. The time to push MAR to the forefront is now”*.



World Groundwater Congress  
IAH2024 DAVOS  
Switzerland

HOME ABOUT GET INVOLVED PROGRAMME VENUE SPONSORS

**Managed Aquifer Recharge into modern hydrogeology. The time to push MAR to the forefront is now.**

**Escalante, Enrique Fernandez**, Tragsa Group, Spain  
**Catalin, Stefan**, TU Dresden, Germany  
**Zheng, Yan**, Sustech, China  
**Van Dalen, Daniela Benedicto**, Acacia Water, Netherlands

Managed aquifer recharge (MAR) or the intentional recharge of groundwater aquifers has become a fundamental technique in the global water management effort for conjunctive sustainable use, the restoration of aquifer storage, increased resilience to droughts, and improvement of base flow and eco-systems.

Traditionally it has not been deployed to the extent it deserves due to a lack of awareness, limited knowledge of aquifers, the inadequate perception of risk, and incomplete or contradictory policies for integrated water management, including linking MAR with demand management. Scientific knowledge, practical experience and advocacy shall build on expertise and dissemination of MAR technique.

MAR is part of the integrated and collective approach to water management, and can also achieve much towards solving the innumerable local water scarcity problems, including multilevel governance schemes. How the world will develop resilient groundwater use in the face of continued growth, climate change, and endangered water security includes MAR as a first-line technology, and the time is now to push MAR to the forefront of the integrated water resources management techniques, policy development, and modern hydrogeology.



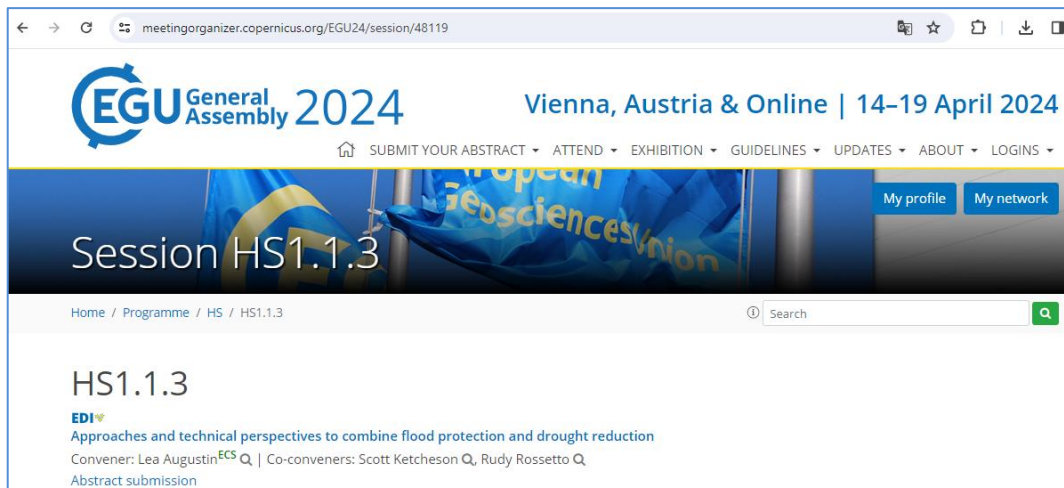
*...This session provides a platform for discussing the effectiveness, benefits, constraints, and applicability of MAR in a wide range of technical and socio-economic conditions. This session has been proposed by the Commission on Managing Aquifer Recharge of the International Association of Hydrogeologists, and aims at supporting the scientific advances of MAR in the context of the Annual IAH Congress in Davos, Switzerland.*

Organizers ask over 25 abstracts to hold the MAR session. So, *MARers*, please, proceed accordingly. To submit an abstract: <https://express.converia.de/frontend/index.php?sub=1381>

More info: <https://www.iah2024davos.org/>

## SEMINARS AND WEBINARS

**EGU24 session HS1.1.3 Approaches and technical perspectives to combine flood protection and drought reduction. Abstracts deadline 10 January 2024**



meetingorganizer.copernicus.org/EGU24/session/48119

**EGU General Assembly 2024** Vienna, Austria & Online | 14-19 April 2024

SUBMIT YOUR ABSTRACT ATTEND EXHIBITION GUIDELINES UPDATES ABOUT LOGINS

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Session HS1.1.3

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HS1.1.3

**EDI**

Approaches and technical perspectives to combine flood protection and drought reduction

Convener: Lea Augustin<sup>EC3</sup> Q | Co-conveners: Scott Ketcheson Q, Rudy Rossetto Q

Abstract submission

**HS1.1.3 Approaches and technical perspectives to combine flood protection and drought reduction. Booking necessary at: [https://bit.ly/RegistroWebinar1\\_IAH\\_CM](https://bit.ly/RegistroWebinar1_IAH_CM)**

More info: <https://meetingorganizer.copernicus.org/EGU24/session/48119>

## Geological Society of America conference in Anaheim, CA, 2024, September

A "marer" of the IAH-MAR group has reported he plans to submit a session proposal for the upcoming Geological Society of America conference in Anaheim, CA, in September, entitled "Advances in Managed Aquifer Recharge."



*"This session will present an interdisciplinary overview of the hydrological, geochemical, and geobiological processes and interactions associated with the practical implementation and operation of managed aquifer recharge strategies."* More info: <https://s23.a2zinc.net/clients/corcexpo/gsa2024/public/enter.aspx>

IAH-MAR will endorse this session with pleasure.

Thank you Dr. Gordon Osterman for reporting.

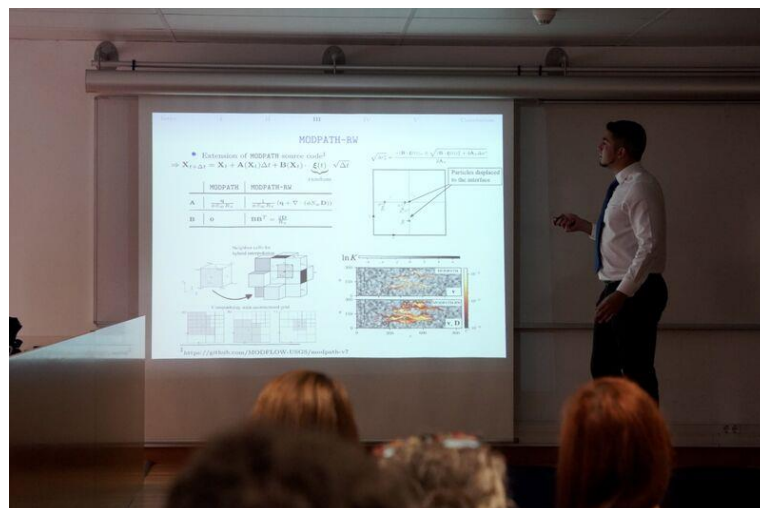
## NEW MAR OR MAR-RELATED ACTIVITIES

### MAR news MARSOLut project. Two new thesis on MAR have been defended successfully

The 5<sup>th</sup> and 6<sup>th</sup> MARSOLut Early Stage Researchers (ESRs) have defended their thesis:

RODRIGO ALFONSO PÉREZ ILLANES. UPC, Barcelona, Spain.

Title: *Particle Methods for Reactive Transport Modeling in Heterogeneous Aquifers*

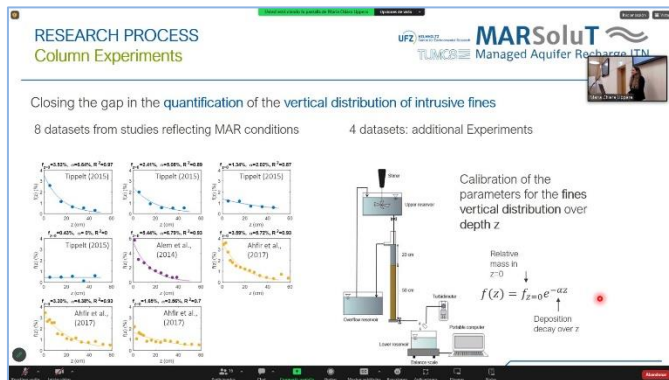


<https://h2ogeo.upc.edu/novedad/49%7D>

[https://www.linkedin.com/posts/groundwater-hydrology-group-88595524\\_lectura-de-tesis-doctoral-ingenier%C3%ADa-del-ugcPost-7155214732839260161-2wLS?utm\\_source=share&utm\\_medium=member\\_desktop](https://www.linkedin.com/posts/groundwater-hydrology-group-88595524_lectura-de-tesis-doctoral-ingenier%C3%ADa-del-ugcPost-7155214732839260161-2wLS?utm_source=share&utm_medium=member_desktop)

MARIA CHIARA LIPPERA. University of Leipzig, Germany

Title: *Advancing knowledge and prediction of physical clogging to enhance the long-term infiltration capacity of Managed Aquifer Recharge sites in response to accelerating water demand and scarcity*



**CONGRATULATIONS, Doctors, on behalf of the MAR community...**

IAH-MAR Commission has asked MARSOLut coordinator to gather and make public the entire set of thesis from the MARSOLut researchers.

At this moment, there are 6/12 already finished, [only one on the Internet](#), and some more have posted some info, e.g. the 2<sup>nd</sup> ESR, Kath Standlen, has provided links to her results:

1. Literature review and meta-analysis of in-channel MAR methods (<https://lnkd.in/eTkjnNqF>)
2. Decision support groundwater modelling of MAR in a coastal aquifer in the Algarve (<https://lnkd.in/enjTEzvH>); and
3. MAR as part of integrated water resource management in the Algarve (<https://lnkd.in/eauHT3MA>).

More info: [www.marsolut-itn.eu](http://www.marsolut-itn.eu)

## MAR JOB OPPORTUNITIES

### Position for MAR work at University of California, Davis

The Department of Land, Air and Water Resources in the College of Agricultural and Environmental Sciences, at the University of California is recruiting an Assistant Professor of "Groundwater Hydrology". As part of UC Davis' commitment to hire leading research faculty with an outstanding commitment to teaching, research, and



service, we are looking for applicants who will promote the success of historically underrepresented and marginalized student communities and address the needs of our increasingly diverse state and student population.

We are looking for candidates with strong expertise in:

- Hydrogeology
- Demonstrated knowledge of physical groundwater flow and contaminant transport
- Ability to use and improve upon numerical methods and data from neighboring disciplines (e.g., geophysics, AI) to cross a wide range of temporal and spatial scales.

Applicants should apply at the following website:

<https://recruit.ucdavis.edu/JPF06206>

Additional inquiries can be directed to Dr. Helen Dahlke, Email: [hdahlke\(a\)ucdavis.edu](mailto:hdahlke(a)ucdavis.edu). The position will remain open until filled but to ensure consideration, applications should be received by **January 31, 2024**.

Thank you Dr. Helen Dahlke for informing.

## **Position for MAR work at LNEC Lisbon (Portugal). Applications until 12 February 2024.**

A position on MAR for a young researcher

A call for applications is open for a Research Fellowship (BI) under the European research project MARCLAIMED - Integrated Decision Support Tool for Reliable and Affordable Application of Manage Aquifer Recharge with Alternative Water Resources in River Basin and Drought Management Plans.

**Applications are open until 12 February 2024.**



[https://www.linkedin.com/posts/lnec\\_lnec-engenharia-engineering-activity-7157747854051049472-vYvC?utm\\_source=share&utm\\_medium=member\\_desktop](https://www.linkedin.com/posts/lnec_lnec-engenharia-engineering-activity-7157747854051049472-vYvC?utm_source=share&utm_medium=member_desktop)

Thank you Dr. Teresa Leitão for informing.

## MORE ACTION

### Guarani aquifer Decree. Acordo Sobre o Aquífero Guarani (in Portuguese)

Promulga o Acordo sobre o Aquífero Guarani entre a República Federativa do Brasil, a República Argentina, a República do Paraguai e a República Oriental do Uruguai, firmado em San Juan, em 2 de agosto de 2010.

DECRETO Nº 11.893, DE 23 DE JANEIRO DE 2024

Download: <http://www.in.gov.br/web/dou/-/decreto-n-11.893-de-23-de-janeiro-de-2024-539361460>



### MAR in the MEDIA

Transforming rainwater management in Valladolid with BlueBloqs

[https://www.youtube.com/watch?v=c\\_8FXWlr2\\_A](https://www.youtube.com/watch?v=c_8FXWlr2_A)

El cambio climático y el uso excesivo amenazan las aguas subterráneas (in Spanish)

<https://zbr.com.mx/sin-categoria-es/el-cambio-climatico-y-el-uso-excesivo-amenazan-las-aguas-subterranas/1299516/#gsc.tab=0>

Los humanos pueden cambiar las cosas con esfuerzos deliberados y concentrados' (in Spanish)

<https://www.elperiodico.com/es/medio-ambiente/20240127/agua-subterranea-planeta-agota-hay-97417197>

MAR-related news from Chile and Panama (the second has temporarily limited access) (in Spanish)

<https://laliquanoticias.cl/2024/01/11/esval-y-delegacion-presidencial-de-petorca-se-reunen-para-abordar-desafios-hidricos-en-la-provincia/>

<https://www.prensa.com/opinion/redefiniendo-el-futuro-del-agua-con-ciencia-y-tecnologia/>



MAR local news from the South of Spain (in Spanish)

<https://www.laopiniondemalaga.es/malaga/2024/01/09/acosol-adjudica-obras-humedal-artificial-96665758.html>

Argentina AR (in Spanish)

<https://www.argentina.gob.ar/noticias/construccion-de-un-humedal-artificial-horizontal-piloto-para-el-tratamiento-de-aguas>

## Whatsapp group on Aquifer Recharge Management

This is the link to join the group, with 177 participants today:



<https://chat.whatsapp.com/J8jKMuCxTr83d1SI9vDBe>

## Previous IAH-MAR Newsletters

Please, remember that you can access the previous newsletters in our website:

<https://recharge.iah.org/newsletters>

## IAH-MAR Commission on Twitter



@IAHMARCom

<https://twitter.com/IAHMARCom>

## IAH-MAR Commission's sister Web sites

<http://china-mar.ujn.edu.cn/>



<https://dinamar.traqsa.es/>



@4dina\_mar

<https://www.linkedin.com/groups/4690290/> (528 members)

## IAH MAR Commission Forum

Please, remember you can book freely in the IAH MAR Commission Forum:

<https://lists.flinders.edu.au/mailman/listinfo/iah-mar.listcgs>

That's all by now... **please, keep reporting** ([dinamar@traqsa.es](mailto:dinamar@traqsa.es)). We miss pieces of news, especially from Asia

Dr. Enrique Fernández Escalante, on behalf of the IAH MAR Commission co-chairs.

2024 February 12<sup>nd</sup>