

WOMEN IN LIMNOLOGY

HERstory, current & future perspectives

Presentation by Gender &
Science AIL Group



LIMNOLOGY

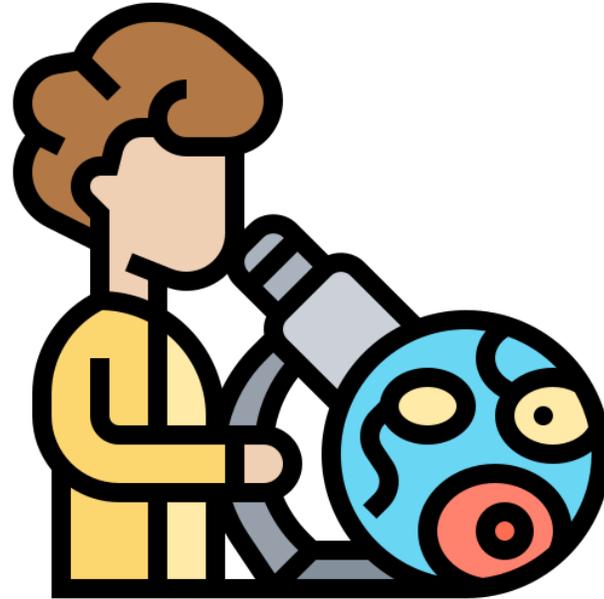
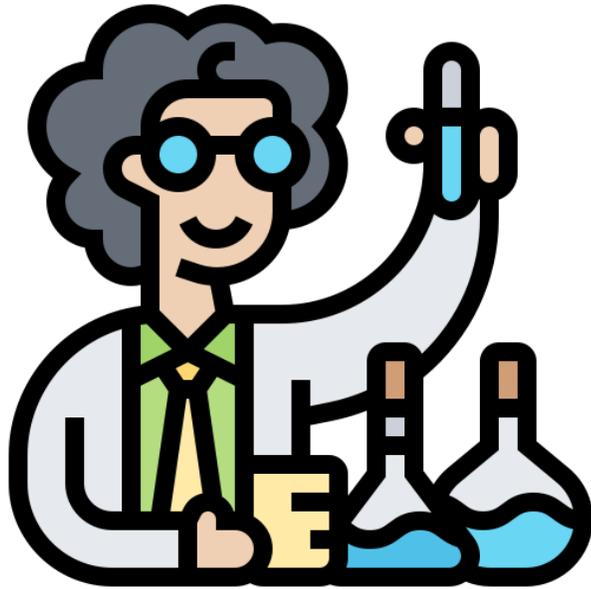
Limnology is the study of inland waters - lakes (both freshwater and saline), reservoirs, rivers, streams, wetlands, and groundwater - **as ecological systems interacting with their drainage basins and the atmosphere.**

<https://www.aslo.org/>



Photo: A. Pastor

HERSTORY OF LIMNOLOGY



The study of inland waters is fulfilled by women researchers. However, they have less visibility than their male counterparts.

1900-1930: CONTRIBUTION OF THE PIONEERS



Limnology was developed in the **19th century** & was essentially **descriptive** and mainly focused on lake hydrology, morphology, and geology.

Female scientists were extremely uncommon. Despite of the prominent barriers for women during this time, some emerged as **pioneer limnologists**.

**HARRIET B.
MERRILL**



Possibly the **first Female limnologist** hired by an American university.

**RINA C.
MONTI**



Co-founded the Italian Institute of Hydrobiology. She was the **first Italian woman to hold a permanent university professorship.**

**KATHLEEN
CARPENTER**



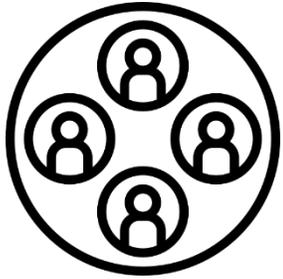
Wrote **the first British book of aquatic ecology:** *Life in Inland Water.*

**ANN H.
MORGAN**

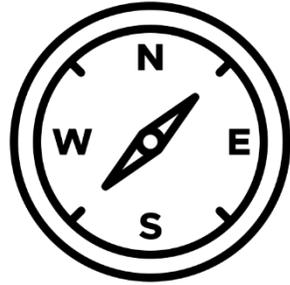


Wrote *Field Book of Ponds and Streams*. She was one of the three women **listed in the American Men of Science (1933).**

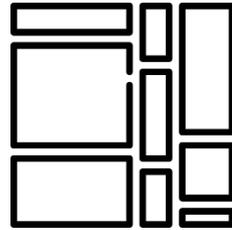
1930-1970: DEVELOPMENT OF FIELDS OF ENQUERIES



Limnological societies emerged across countries



Expeditions to the tropics, deserts, and high mountains



Quantitative approaches established



Integrative approach in both streams and lake studies



Monographs on taxonomic groups

In this period, women became more common, but many of them did not receive recognition from the limnological community during their life-time span.

RUTH M. PATRICK



First scientist with **focus on diatoms** as indicators of water quality in rivers.

ARMONIA S. ALONSO



First woman **director of the Zoology Department** at the National University of La Plata (Argentina).

RACHEL CARSON



Wrote *Silent Spring*, a book about the effect of pesticides on natural ecosystems that inspired many social environmental movements.

MARGARET M. SMITH



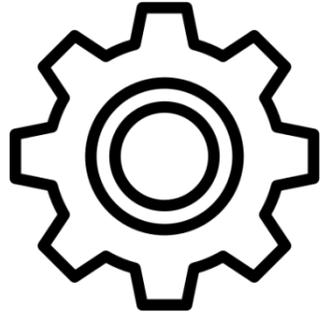
Director of the J.B.L Smith Institute of Ichthyology (South Africa). She was ichthyologist and fish illustrator.

OLGA M. KOZHOVA

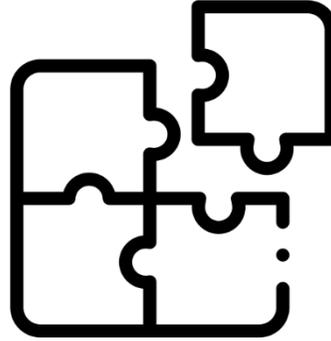


Chair of the Invertebrate Zoology Department at Irkutsk State University (Russia).

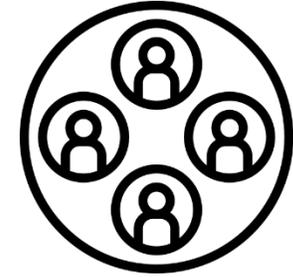
1970-PRESENT: TECHNOLOGICAL REVOLUTION



New techniques
in physical, chemical,
and biological fields



Large accumulation
of observations: long-term datasets,
comparative treatment of cases
within wide-ranging surveys

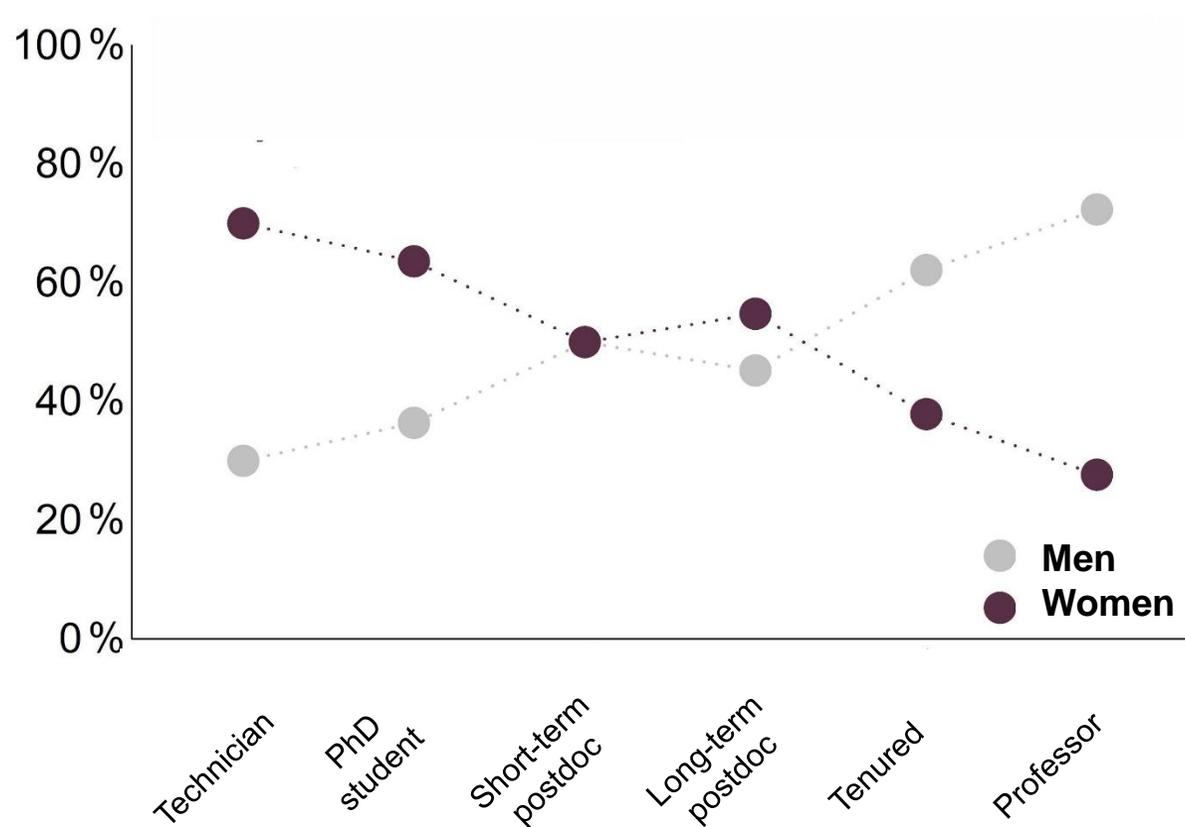


In the 80s, limnological
associations were established
in many countries of Latin
America, Africa, and Asia

**The participation and leadership of women in research groups has become commonplace.
Their contribution across different fields of Limnology is outstanding
and some of them are already receiving full recognition of their research careers.**

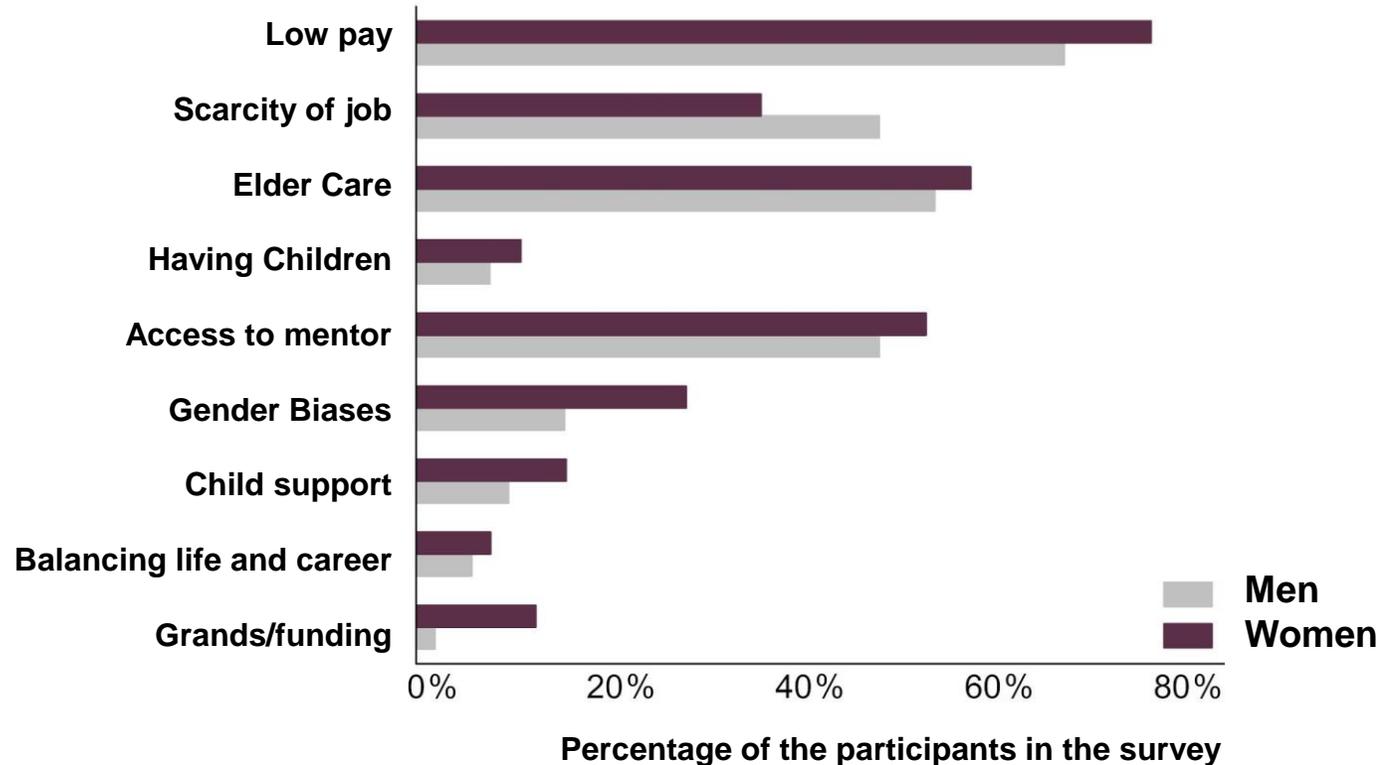
CURRENT SITUATION: HAVE WE ACHIEVED GENDER BALANCE?

Proportion of women and men at the different stages of the professional academic career at the Society of Limnology of the Iberian Peninsula (AIL).



CURRENT SITUATION: HAVE WE ACHIEVED GENDER BALANCE?

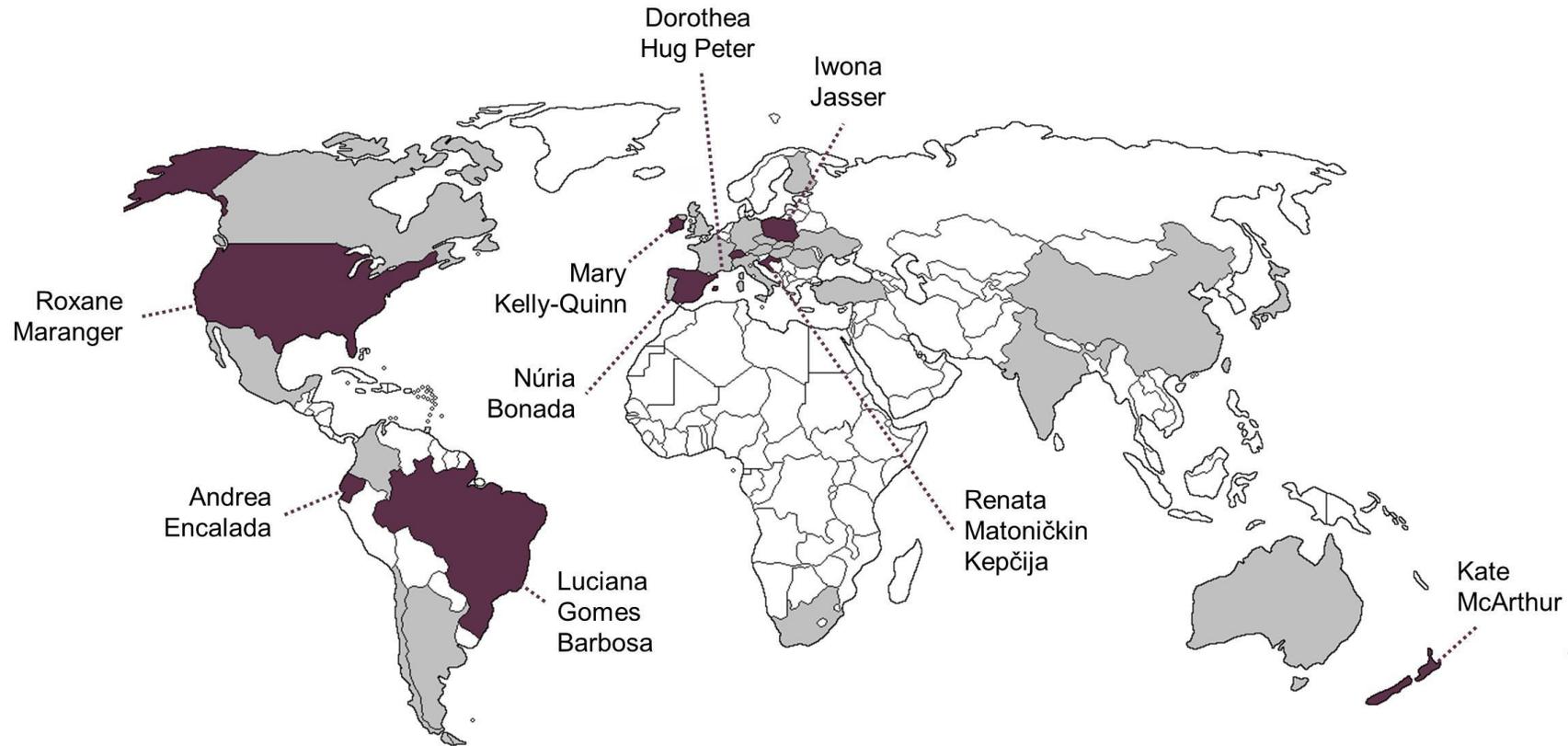
BARRIERS IN SCIENCE ARE NOT THE SAME FOR EVERYONE



Primary barriers that caused male and female limnologists to leave science are: the scarcity of job opportunities, the scarcity of grants/funding, and the low pay.

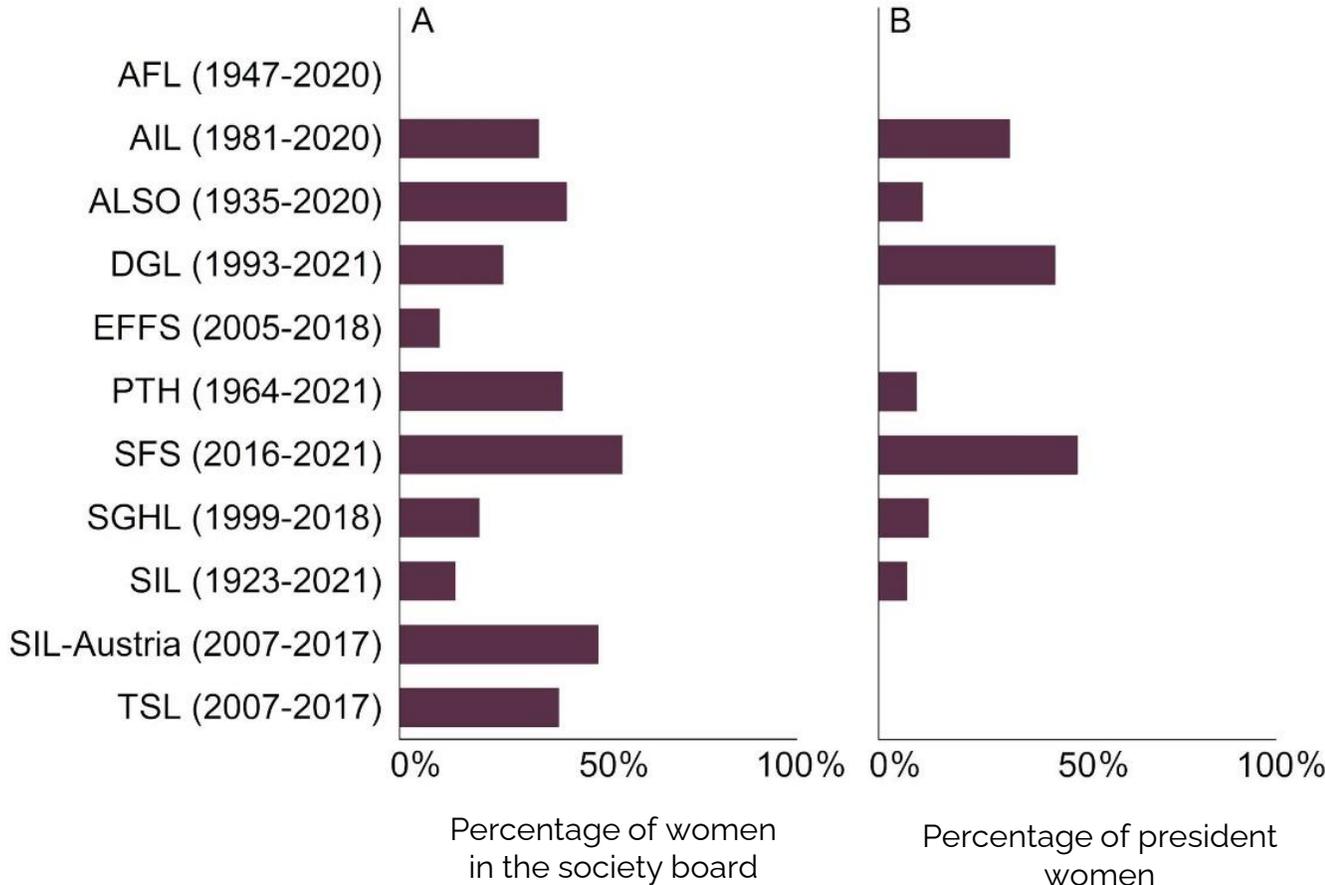
However, **barriers related to family care** are more frequently identified for women.

THE ROLE OF WOMEN IN FRESHWATER SOCIETIES



Map of the freshwater societies with man (grey) and woman (purple) presidents. Only the names for women presidents are depicted.

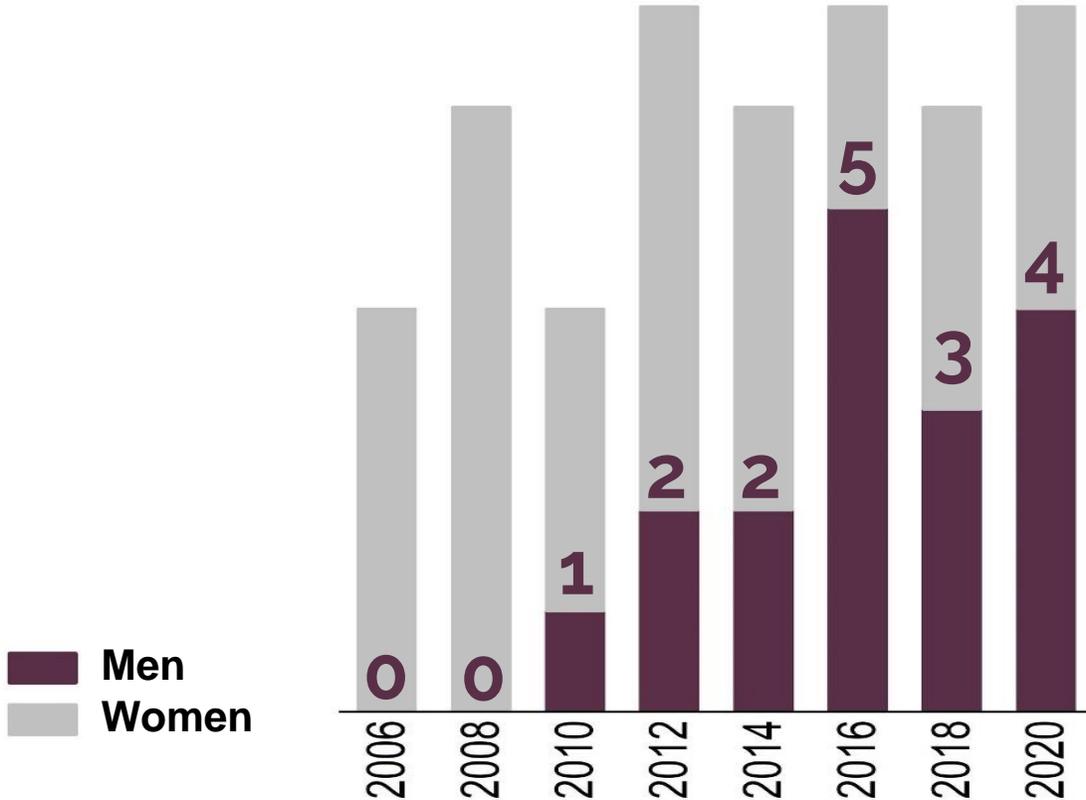
THE ROLE OF WOMEN IN FRESHWATER SOCIETIES



Source: Catalán et al., in press

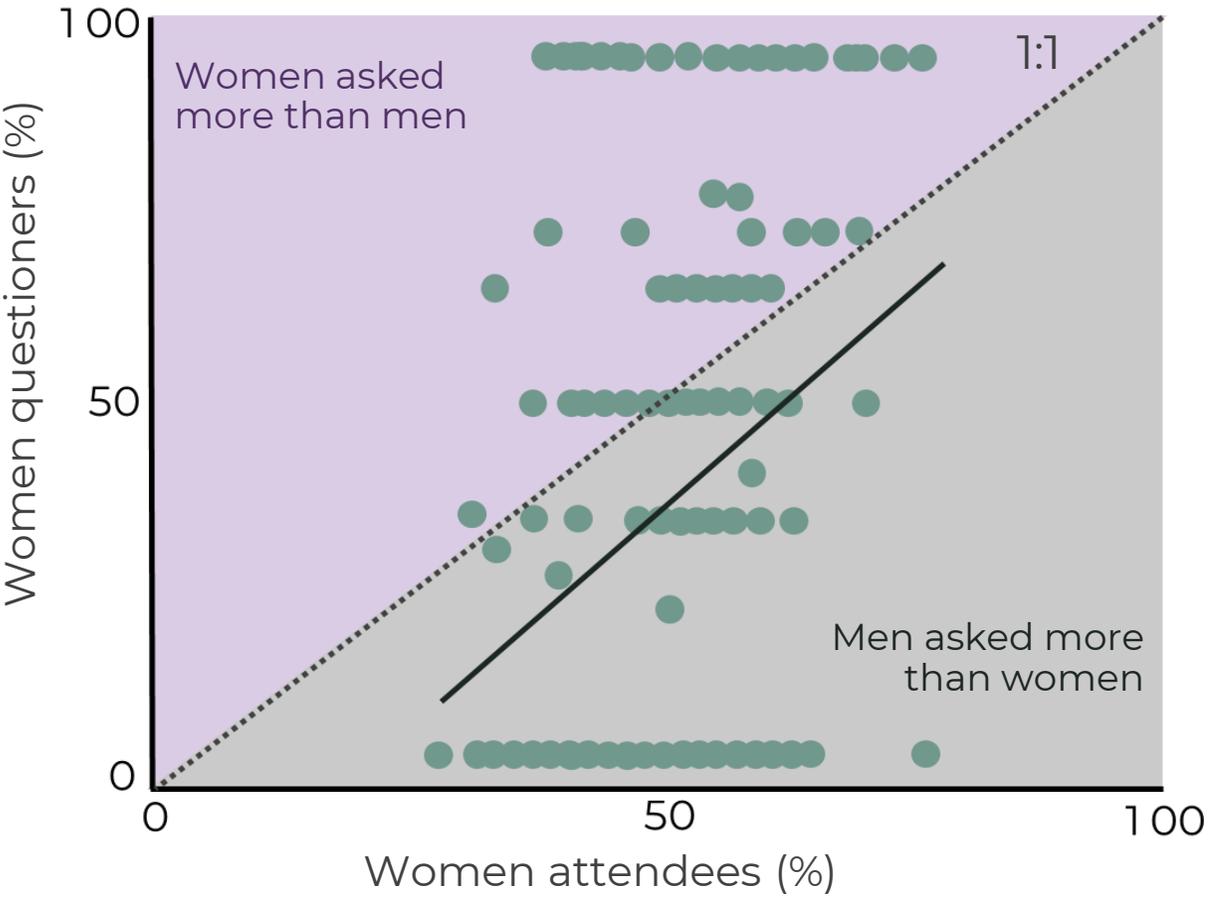
CONFERENCES: PLATFORMS OF VISIBILITY & CAREER PROGRESSION

Number of women as invited key-speaker at the meetings of the Iberian Society of Limnology



Source: Catalán et al., in press

CONFERENCES: PLATFORMS OF VISIBILITY & CAREER PROGRESSION



**THE PARTICIPATION IN CONFERENCES IS NOT THE SAME:
MEN ASK MORE QUESTIONS THAN WOMEN**

Dots location

Women asked less questions than men
(average ratio=0.7)

Slope = 1

Women asked more questions when
there were more women in the audience

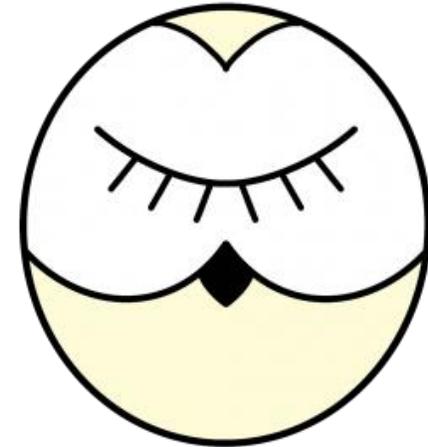
Source: Lupon et al., in preparation

GRASSROOT INITIATIVES IN THE FIELD: MOVING FORWARD FOR A CHANGE



Earth Science
WOMEN'S NETWORK

<https://eswnonline.org/>



Women in Science – Ecology Virtual
Conference

November 4th-6th, 2020

<https://www.wisecology.net/>



<https://www.limnetica.com/en/genderscience>

THANKS FOR YOUR INTEREST!

Any
comment or
question?

Contact us at: genderscienceail@gmail.com

We want to know your opinion:

Do you think the scientific system offers equal opportunities for different genders?

What could be improved to advance to equality in academia?

Answer on [menti.com](https://www.menti.com) with the code **86 60 45 9**



ACKNOWLEDGMENTS

