Hueihue

Puerto Williams

'illiams <sub>P</sub>

Putemúr S Puert<sub>íFo</sub>cha ncut BULLFTINert Arica Calde

Tocopilla Arenas Angud Punta Arenas

Porvenir Caquimbo

IN THIS NUMBER

3

- IFOP Board of Directors, visits scientific ship Abate Molina
  - IFOP pays tribute to Dr. María Ángela Barbieri
- IFOP Director, receives authorities from Vilankulo district, Mozambique
  - Abate Molina Scientific vessel set sail to investigate anchovy and common sardine
- Ignacio Payá, IFOP researcher, participated in cephalopods life history and fisheries at ICES, Spain working group meeting
  - Javiera San Martín, IFOP researcher, won a scholarship at Flanders

    Marine Institute
    - International expert trains IFOP professionals



## IFOP Board of Directors, visits scientific ship Abate Molina

Yesterday, Thursday, August 31rd, a sunny and beautiful day accompanied the visit of the IFOP Board of Directors to the scientific ship Abate Molina, in the Valparaíso Region, they were received by Gonzalo Pereira, IFOP's Executive Director, Patricio Herrera, head of marine operations, Takashi Abbe, boat captain and crew. They gave them a tour of the ship and explained what each of the scientific equipment is for, they learned about the laboratories, and the spaces that the ship has and that make it possible for the workers to be on board for a month.

Claudio Maggi, IFOP Board of Directors President explained "we had the opportunity to visit Abate Molina ship, the visit was very beneficial, it was important to be able to learn on the ground, the heart of our research work as an institute, the work of the crew, all the com-

plexity involved in operating a scientific vessel, with the characteristics of the Abate Molina, in addition to the modernizations it has had both in equipment and accommodations that facilitate workers daily life, they are cruises that last several days and most of the year. People are on the high seas, therefore, all of us who participated in this visit greatly appreciate the invitation from IFOP's management, since we were able to meet and take another view, understanding much better, the characteristics of the research work that the institute does, so very happy to have been able to participate."

Gonzalo Pereira Puchy, Fisheries Development Institute Executive Director commented "this visit is carried out in the context that the topic of today's Council session is to know construction progress

Editorial committee Gonzalo Pereira P. Gabriela Gutiérrez V.

Executive Director Journalist

Graphic design Mario Recabal M.

Senior graphic designer



and start of operations of Dra. Barbieri vessel, they are in charge of presenting this information. Jorge Castillo from direct evaluation, Jorge Miranda from finance and Patricio Herrera from marine operations, they will inform the Council about the progress and financial requirements for next year that IFOP will need, for the operation of this new ship."

## IFOP pays tribute to Dr. María Ángela Barbieri

The researcher worked for 26 years at Fisheries Development Institute, and is the only woman who has been head of the hydroacoustic evaluation department. Chile's new research ship will bear her name

María Ángela, is doctorate in Biological Oceanography from Université de Bretagne Occidentale (France), prominent professor, researcher and fisheries engineer at Pontificia Uiversidad Catolica de Valparaiso (PUCV), has an extensive work career, she served as academic at Universidad Catolica, as an IFOP researcher, and at the Fisheries Undersecretariat as head of fisheries development division. She is currently a member of two Scientific Committees and the Fisheries and Aquaculture Research Fund Council.

BULLETIN Nº 55, SEP. 2023



María Ángela is a pioneer in the use of satellite information and hydroacoustic research in Chile. She is the only woman who has been head of the hydroacoustic evaluation department at Fisheries Development Institute. While she was in charge of this department she generated exchanges with France and as a result of this, internships for IFOP professionals were carried out in this country. She was in charge of IFOP's international relations and GEF Humboldt Project.

Yesterday, her IFOP colleagues honored her in Valparaíso for her outstanding work in marine sciences.



Gonzalo Pereira IFOP's Executive Director explained "the tribute is for the new scientific research vessel baptism with her name, the activity is motivated by Dr. Barbieri's career both at IFOP, where she was head of direct evaluations and also in Subpesca, where she served as head of the fisheries development division, is an initiative that was born from IFOP workers themselves, out of love and respect for her career. Ship Doctora Barbieri is 30.8 meters long and 9 meters wide; "It will have state-of-the-art laboratories and instruments for our fishing resources research."

María Ángela expressed "for me it is a great emotion, a surprise, IFOP is an institution dedicated to fisheries research and therefore for me, this activity prepared by my colleagues is important.

RETURN

# Envedonosimento a una professional exceptional excepti

I feel it as a recognition, from my peers, I value it a lot, it moves me because I remember all the work together with IFOP colleaghues, the efforts to move the projects forward, a lot of effort, a lot of commitment and that fills me."

# IFOP Director, receives authorities from Vilankulo district, Mozambique

On Friday, September 8th, two officials from Mozambique, Inhambane Province; Vilankulo District. Edmundo Galiza Dimande District Administrator and advisor Feliz Nbangha, visited IFOP. They were received by IFOP Executive Director, Nancy Barahona Fisheries, Evaluation Department Head, and Researcher Naití Morales.

During the visit, they expressed interest in establishing cooperation links with our Institution given Vilankulo District coastal marine nature and the need to strengthen their scientific and technical capacities, which allow them greater knowledge of its biodiversity and ecosystems, for fishing and tourism sustainable development. Contacts will continue in order to explore cooperation modalities between both Institutions.



## Ifopino

#### Abate Molina Scientific vessel set sail to investigate anchovy and common sardine

CAPTAIN TAKASHI ABE IS IN COMMAND OF THE SHIP, AND THE FINAL CALL IS EXPECTED TO BE ON SEPTEMBER 21RST IN VALPARAÍSO

Abate Molina scientific vessel set sail on Saturday, September 2nd, from Valparaíso's port, and will sail for 19 days, to investigate spawning stock of anchovy and common sardine distribution, abundance and biomass between Valparaíso Region and Los Lagos Region.

This research cruise, led by Dr. Jessica Bonice-lli from IFOP Oceanography and Environment Department, takes place during the maximum spawning intensity period for these species, when common sardines and anchovy eggs and larvae can be collected, at the same time that adult fishing is carried out looking for spawning females and in parallel meteorological parameters such as wind and oceanographic variables such as temperature, salinity, oxygen and chlorophyll are recorded in the water column up to a depth of 200 m.

All this information will subsequently be analyzed comprehensively to estimate, from this sample, spawning Stock total Biomass, that is, the number of females that are spawning the next generation of these species.

These data, their analysis and results, are key for sectoral authority since they allow decisions that have to do with sustainable development of these two fisheries to be supported with scientific information, especially considering Climatic change current context and intense El Niño. 2023, which may affect the short-term future availability of these hydrobiological resources.

Additionally, on this IFOP cruise, Universidad de Concepción Research Center in South-Eastern Pacific (COPAS COASTAL), is carrying out the field work of the project "Carbon fluxes and plankton diversity in climate transition zone of South Central Chile", directed by Dr. Camila Fernández. Therefore, two researchers from COPAS COASTAL will ca-

RETURN



rry out biogeochemical parameters and a series of experiments in incubation mode continuous surface monitoring between Concepción and Puerto Montt of "in situ" in latitudinal progression aimed at monitoring physical-chemical characteristics that allow estimating flows. of CO2 to and from the ocean and identify species with biotechnological value. This joint cruise is part of collaborative actions that the IFOP has established with different national universities.

#### Ignacio Payá, IFOP researcher, participated in cephalopods life history and fisheries at ICES, Spain working group meeting

With the aim of staying at the frontier of knowledge about biology, ecology and cephalopod fisheries (cuttlefish, squid and octopus), researcher Ignacio Payá from IFOP's Resource Evaluation Department (DER), participated in ICES life history and cephalopods fisheries working group.

(https://www.ices.dk/community/groups/Pages/WGCEPH.aspx).

## Ifopino

This group, made up of a total of 56 scientists from 14 countries, met between July 3rd and 7th, 2023, at the Marine Research Institute (CSIC-IIM) in Vigo, Spain. At IFOP, Payá is in charge of evaluating cuttlefish (*Dosidicus gigas*) stock and calculating biologically acceptable catch for Chile. He is also co-chair of the squid working group looking at cuttlefish fisheries at the South Pacific Fisheries Organization (www. sprfmo.int).



# BULLETIN № 55, SEP. 2023

Payá mentioned that participation in this meeting will improve work and analysis carried out in "Status and Possibilities of Biologically Sustainable Exploitation of Cuttlefish 2024" project. It will also contribute to "Biological study program of cuttlefish in Chile, in sectors outside the fishery, with emphasis on renewal and growth rates, complementary to the studies carried out in the Cuttlefish (*Dosidicus gigas*) Fishery Monitoring project.". This program is part of the GEF-UNDP Chile Peru UNDP GEF PIMS ID N° 5697 project "Catalyzing Strategic Action Program implementation for shared marine resources sustainable management in Humboldt-Humboldt II current system".

#### Javiera San Martín, IFOP researcher, won a scholarship at Flanders Marine Institute

Javiera, won a scholarship at prestigious Flanders research institute, in Blue Science and Technology Summer Training program. There were two weeks in which she participated in an international Blue Science and Technology training.

The improvement addresses important (global) societal challenges from an interdisciplinary and multidisciplinary perspective. Academic conferences were held by different international institutions's best researchers, active in various Blue Economy fields, with seminars given by European politicians, as well as by



Ifopino



private companies with established value in their sector, and practical experience. Topics such as sustainability, aquaculture, coastal protection, blue biotechnology, marine spatial planning, social and innovative entrepreneurship were discussed.

Javiera commented "my motivation to participate was to be able to acquire knowledge, visions and experience that can be transformed into a valuable contribution for sustainable development of marine sciences in Chile.

In total we were approximately 15 participants from this school, all from different countries. (Canada, Portugal, Germany, China, Ecuador, Belgium, Chile)

The organization that awards the scholarship is VLIZ (Flanders Marine Institute) under its charity "The Sea as a Good Cause"

https://vliz.be/en/sea-good-cause





#### International expert trains IFOP professionals

Within the framework of "Evaluation of Management Strategies (EEM) for the Implementation of the Precautionary Approach in Common Hake (*Merluccius gayi*) in the Context of the General Law on Fisheries and Aquaculture" project, which is executed by IFOP Resource Evaluation Department, "Advanced training workshop on the use of openMSE software packages" was held.

EEM implementation activities began in July with concepts and theory basic training, and openM-SE software platform introduction, by a team of

Canadian experts from Blue Matter Science Ltd., and continue with this advanced training workshop applied to common hake fishery.

The workshop is aimed at a group made up of administrators from Fisheries and Aquaculture Undersecretariat and researchers from both IFOP and Southern Southern Zone Demersal Resources Technical Scientific Committee and Common Hake Management Committee; and is being taught by Dr. Quang Huynh, Blue Matter Science Ltd Senior Researcher.

Dr. Huynh is Management Strategy Evaluation toolkit (MSEtool) lead developer software library, an open source software for doing next-generation EEM evaluation.





RETURN