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IFOP organizes first national meeting of scientific vessel operators

On July 17 and 18, in Viña del Mar, the "first national meeting of operators of vessels and scientific platforms oriented to marine research" was held, organized by the Department of Marine Operations within the framework of the celebration of the 60th anniversary of the Institute. The activity began with the words of the Executive Director of IFOP, Gonzalo Pereira, who highlighted the importance of having the B/C Abate Molina and B/C Dra. Barbieri, in the development of the research projects that the institution leads. Pereira also referred to the history of each of the vessels and the professionals who work on them, both researchers and crew.

Iván Toro, IFOP researcher, said "this national meeting was born with the idea of bringing together all operators and users of scientific vessels in our country in order to establish technical and scientific support cooperation through our experiences and to present the various capabi-



lities and tasks that vessels perform in different areas of the country."

Patricio Herrera, Head of the Department of Marine Operations, said that this meeting should mark the beginning of a constant interaction between institutions that carry out marine research, be they vessel operators, research centers, fisheries administration and suppliers, among others.

The event was attended by shipyards ASENNAV and SOCIBER, institutions such as the National Antarctic Institute (INACH), Hydrographic Service of the Chilean Navy SHOA, Meteorological Service of the Navy SERVIMET, Undersecretariat of Fisheries and Aquaculture SUBPESCA,



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Pontifical Catholic University of Valparaíso PUCV, Andrés Bello University, University of Concepción UDEC, DAPMARES of Punata Arenas and marine suppliers such as SIMRAD, ALAKALUF and Departments of the Fisheries Development Institute IFOP. Finally, the participation of the University-National University Laboratory System UNOLS of the USA in a talk via Streaming from Los Angeles CA stands out.

With a Documentary about turtles prepared by IFOP and Upla TV, Propedeutics of the Playa Ancha University, started classes

The Propedeutics Program of the University of Playa Ancha began its classes with a day in the Dr. Félix Morales Pettorino Classroom, in which the documentary prepared by the Fisheries Development Institute (IFOP) and the UPLA TV channel was broadcast to raise awareness about the reduction of bycatch of Eastern Pacific leatherback turtles in spinel fisheries in Northern Chile.

In this way, just over 100 high school students and graduates began a crucial period of preparation through this alternative route of access to Higher Education, which will allow them to develop better learning strategies, as well as socio-emotional skills that will help them function in a better way in the university world.

After the broadcast of the audiovisual piece prepared from the project carried out by IFOP and the Marviva Foundation of Costa Rica,

which was funded by the National Fish and Wildlife Foundation of the United States, the students actively participated in the explanatory dialogue and questions asked by the head of the IFOP's Highly Migratory Resources Monitoring project with an Ecosystem Approach, Dr. Patricia Zárate, the specialist in coastal ecosystems and researcher at the UPLA Environmental HUB, Dr. María José Díaz, as well as the academic from the Faculty of Engineering, Eva Soto, who developed a playful trivia to bring the audience closer to the topic of marine reptiles, highly migratory and threatened by human activity.

Subsequently, the coordinators of the UPLA Propedeutic, Macarena Sanders and Jazmín López, answered the students' questions about this program that provides a guaranteed place in the career of interest to young people, without considering the score obtained in the PAES.



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Peruvian students visit IFOP Arica and strengthen collaboration ties in fisheries research

A group of students from the Professional School of Fisheries Engineering of the National University of Moquegua, Ilo Campus (Peru) visited the Regional Headquarters of the Fisheries Development Institute (IFOP). This activity, part of a technical tour organized by the University of Tarapacá and financed by the Regional Government of Arica and Parinacota through the Innovation Fund for Competitiveness, sought to promote the exchange of knowledge and strengthen collaboration networks between institutions dedicated to fisheries and aquaculture research in both regions.

During their stay, the students participated in various activities, which included a visit to the hatchery of the Dorado Arica Unit, IFOP and the University of Tarapacá, where they attended presentations by researchers and took guided tours of the different laboratories. These experiences allowed future fisheries engineers to learn firsthand about the scientific and technological advances in the sector, as well as the challenges and opportunities facing the fishing industry in the area.



The IFOP regional head, Hernán Padilla, highlighted the importance of these initiatives in these border areas that facilitate the creation of collaboration networks between Chile and Peru, countries that share fishing resources and face common environmental challenges. “By sharing scientific and technical information, we can respond more effectively and in a timely manner to events caused by Climate Change, El Niño, and strengthen the sustainable management of our marine resources,” he said.

For her part, academic Sheyla Zeballos from the University of Moquegua valued the opportunity for her students to obtain valuable knowledge that complemented their academic training, learn about operations, technological advances and the important work of linkage that IFOP carries out. In addition, the professor stated “that this meeting initiates the possibility of weaving close ties on issues of common interest for both the north of Chile and the south of Peru, so we consider that we must continue to address those challenges in the fishing and aquaculture industry to improve the management of our resources and strengthen ties.”



IFOP researchers give talks on ocean care at a school in Valparaíso

IFOP researchers Diana Párraga and María Fernanda Jiménez gave a talk at the Alborada School in Curauma. Diana explained that “the talks are part of activities carried out by the school, related to the month of the environment”, a context in which we were invited to present.

We then focused the presentation on letting students know what the ocean is, the importance of the sea in Chile and the fishing activity focused on the crustacean fishery and how the institute contributes to the monitoring of fisheries, through the collection of scientific information and the generation of knowledge of fishing resources, the basis for correct administration, decision-making and in general to contribute to the well-being of ecosystems and communities. Information will also be given on the main problems of pollution of our seas and how to contribute to their care.

Likewise, the other presentation made by María Fernanda was also framed within one of the objectives of the discard project, the “International Convention of MARPOL 73/78 (garbage management), in fishing vessels” and, because it is one of the main pollution problems in our seas.

Therefore, this presentation dealt with a pollution problem, which is currently of great importance, “Microplastic in the ocean”, covering topics such as: where does it come from? how is it formed? the consequences that plastic brings with it in the organisms that live in our seas, the impact that this entails, both for marine and human organisms, and the possible solutions that could avoid or reduce the emissions of these.

It is important to make these problems known to future generations, since from a young age we must instill the care and respect for our main ecosystems. In addition, recognize the contribution that is made in areas of fisheries research.



Fisheries Development Institute holds “IFOP 60th Anniversary Cup”

During the months of June and July 2024, the “IFOP 60th Anniversary Cup” Soccer Championship was held, an activity that is part of the celebration of the 60th anniversary of the Fisheries Development Institute. On this occasion, the organization was in charge of IFOP and as is tradition, most of the institutions related to the maritime-fishing sector participated, such as: National Fisheries and Aquaculture Service (SERNAPESCA), the Undersecretariat of Fisheries and Aquaculture (SUBPESCA), the Maritime Hydrographic Service of Chile (SHOA), the National Institute for Sustainable Development of





Valla menos batida

Goleador campeonato

Artisanal Fishing and Small-Scale Aquaculture (INDESPA) and the Fisheries Development Institute (IFOP).

The championship was held in two groups of four teams, with a total of 16 matches, 12 in the group stage and 4 in the final stages (semi-finals and final). All matches were played on the fields of the Don Elías Figueroa sports complex, located at Av. José Santos Ossa 3788, Valparaíso

The teams that qualified for the semi-finals were: SHOA, SERNAPESCA (A), IFOP and INDESPA. Where the teams from SHOA and SERNAPESCA (A) were finalists and IFOP and INDESPA competed for third place. In this way, the final day was played on Saturday, July 13th starting at 2:00 p.m. with the match for third place, with IFOP winning by a score of 3 to 1. The final match between SERNAPESCA and SHOA had everything that a final would expect, a 3-3 draw in regular time, leading the championship definition to a heart-stopping penalty shootout, which was resolved with the victory of SERNAPESCA (A) by 3 goals to 2. Rising as the brand new champions of the 2024 IFOP 60 YEARS CUP version.

After the final, the award ceremony for the winning teams took place, where the "IFOP 60 YEARS CUP 2024" cup and its respective medals were presented to SERNAPESCA (A) players and coaching staff. SHOA and IFOP were also awarded medals for second and third place, respectively. In addition, 2 individual trophies were awarded in the categories of Top Scorer of the championship to Javier Cortes, IFOP player,

with 10 goals, and Sebastian Gacitúa, goalkeeper of the SHOA team. To conclude the championship, a cocktail party was offered to all the players and the public attending the final, with around 100 people coming together.

Edison Garcés, the organizer of the championship, said: "Through this IFOP 60th Anniversary CUP championship, a football tradition and good coexistence between the institutions that work in association with the maritime world was revived. I hope that every year, the interest in participating increases, since it is a moment of relaxation and a space to share with our colleagues in the trade." In this version, the organization of the COPA 60 AÑOS IFOP championship was the responsibility of IFOP and as president of the organizing committee I have to say that although it was not an easy task, I want to thank the constant support of the Executive Director: Don Gonzalo Pereira, who facilitated the work of this championship at all times, the HR Department, with the logistics and transfer of equipment, the organizing committee for their constant work and dedication and all the participating teams, thanks to whom we were able to achieve the objective. Finally, I want to congratulate the deserved champion; SERNAPESCA, who played a tremendous championship. In addition to wishing them the best of luck in the organization of the 2025 version of this CUP, since they will be the next hosts."

Guillermo Moyano, member of the organizing committee of the 60 years IFOP championship, would like to thank each of the participants, whether in the role of player, coaching staff and fan for the motivation shown in each of the days. There were exciting matches, leaving everything on the court. I feel that we were able to revive the essence of this championship, where nothing is given to the opposing team, but loyalty and camaraderie prevail. In addition, I think that there was a quantitative leap in the organisation of the championship, thanks to the total support of the Institute in this activity.

Although the cup was not at home as we had hoped, we were able to enjoy it and for a month we were all around the ball.



VOLVER



Bryan Burlaz, who is also the event organizer and a member of the IFOP team, said that in addition to sport being a healthy activity that allows for physical and mental well-being, this particular event encourages interaction between colleagues from institutions that work on issues related to ocean and coastal management. A major challenge in moving toward management with an ecosystem approach is interaction between institutions. Events like this, which allow people who make up the institutions to communicate, can help facilitate interaction in other, more formal instances.

IFOP will investigate the current situation of the common hake in Chile

YESTERDAY, JULY 24, THE SCIENTIFIC VESSEL ABATE MOLINA SET SAIL FROM THE PORT OF VALPARAÍSO TO INVESTIGATE THE CURRENT STATE OF THE COMMON HAKE.

The general objective of the cruise, headed by the fisheries engineer Álvaro Saavedra, is to carry out a hydroacoustic survey between the northern border of the Coquimbo Region and the Los Ríos Region, to determine the stock of common hake.



Professionals, technicians and the crew of the Abate Molina Vessel are participating in the cruise and it will take place between July 24 and August 28 (34 days). Samples will be obtained to identify and assign the corresponding echotracers to common hake, biological samples of common hake to characterize its demographic and reproductive structure. Quantify and characterize the accompanying fauna present in the identification fishing hauls. And at each bio-oceanographic station, physical profiles of the water column, meteorological data and samples of zooplankton and ichthyoplankton.

New IFOP research vessel “Doctora Barbieri” joined the Voluntary Meteorological Observer Program

THE EFFORTS WERE LED BY PROFESSIONALS FROM THE METEOROLOGICAL CENTER (V.), DEPENDENT ON THE MARITIME GOVERNMENT OF VALPARAÍSO.

The fishing and oceanographic research vessel “Dra. Barbieri”, built in the Asenav shipyards in Valdivia for the Fisheries Development Institute (IFOP), joined the Voluntary Meteorological Observation Vessels (VOS) program, reinforcing the organization’s commitment to the collection of meteorological data crucial for the study and understanding of the oceans and climate, providing essential information to the professional teams that work in the different maritime meteorological centers that operate along our coast, dependent on the Meteorological Service of the Chilean Navy.

The study and understanding of maritime meteorology are essential for the different operations that are carried out throughout our bioceanic maritime territory, where the recording of data and its analysis are essential for the development of the scientific meteorological discipline, which provides important background for decision-making by diffe-





rent users and maritime authorities at an international level.

To materialize this initiative, specialist personnel from the Meteorological Center dependent on the Maritime Government of Valparaíso held meetings with the Captain and deck officers of the Ship “Doctora Barbieri”, during which, along with making known the scope of the VOS program and promoting the use of forecasts and graphic material prepared by the Meteorological Service of the Navy, a review of the ship’s meteorological instruments was coordinated.

The VOS network is an essential initiative of the Global Ocean Observing System (GOOS), the World Meteorological Organization (WMO) and the Intergovernmental Oceanographic Committee (IOC), which allows ships from around the world to contribute with their own meteorological reports, essential to improve the monitoring of extreme events and maritime weather forecasts; data that are especially necessary in the area of national responsibility assigned to Chile (METAREA XV), which covers the entire South Pacific Ocean to Antarctica.

In this regard, the head of the Meteorological Center, Captain Felipe Rifo Espósito, commented that “the participation of the research vessel “Doctora Barbieri” in the VOS network not only strengthens the megadata of local and global meteorological data, but also underlines the importance of collaboration and the commitment of the scientific community to climate monitoring. This collective

effort benefits both research and safe and efficient navigation in the world’s oceans, as established in the International Convention for the Safeguarding of Human Life at Sea (SOLAS) and the commitment of the member States of the International Maritime Organization (IMO).”

In this way, this work in alliance and mutual contribution of different data and products produced by meteorology specialists, allows the work and studies to be projected in the understanding of atmospheric phenomena in the different areas of responsibility of the Navy’s Meteorological Service, through its five Maritime Meteorological Centers, contributing to national development, the actions of the State and international cooperation throughout our immense sea.

Chilean Navy News

Presentation of the CHONOS Initiative at the EDITO 2024 Digital Ocean Forum, Brussels 2024

Brussels – During the EDITO 2024 Digital Ocean Forum, Elías Pinilla, researcher at the Instituto de Fomento Pesquero (IFOP), presented the innovative CHONOS Initiative, a program that has as its central objective the sustainable management of the coasts in the Chilean Patagonia region, through ocean observations and simulations.

Aligned with the UN Decade of Ocean Science for Sustainable Development, the European Digital Twin Ocean (EU DTO) is a multidimensional virtual representation of the ocean. It combines marine observations, artificial intelligence, and ocean models operating on high-performance computers. This flagship initiative of the European Commission, co-developed by Mercator Ocean International and the Flanders Marine Institute (VLIZ), was presented at the Digital Ocean Forum 2024, offering new capabilities for marine data exploration and decision-making. The forum brought together experts

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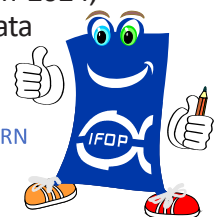


Image Analysis Course using Image-Pro software

CARRIED OUT IN THE AQUACULTURE RESEARCH DIVISION AT THE PUERTO MONTT REGIONAL HEADQUARTERS OF THE FISHERIES DEVELOPMENT INSTITUTE.

Between July 1 and 5, the training course “Image Analysis” was held at the Puerto Montt Regional Headquarters of the Fisheries Development Institute. Image-Pro Software”.

Lizandro Muñoz R. laboratory analyst of the Age and Growth Section and who has various international and national trainings in microscopy and image analysis among others in his curriculum, indicated as course rapporteur that this is an activity that has been carried out at the request of the DIA Aquaculture Research Division through the Institute’s PACAN-PAVAN 2024 High Training Program, in order to deliver basic microscopy tools, pre-acquisition of working images and its own Image Analysis tools to personnel from different Departments of the Division.

With the attendance of eight people, including researchers and analysts, including an analyst who carries out activities in Punta Arenas, the course covered the introduction to the use of tools for image analysis but also included real samples provided by the attendees themselves, which translated into a greater and better understanding of the processes that occur in the analysis of the images themselves, which gave added value to the course in development.

On the other hand, having samples and images previously acquired by the analysts themselves gave the opportunity for attendees to have a better approach and understanding of the proper use of the microscopy equipment because they were able to acquire their own images and develop the activities that were carried out. they were indicating. For this reason, the course was developed interactively where suggestions were made for the application of tools to improve the methodologies, but the best of all is that the idea was for the participants themselves to give those suggestions, which also achieved both time going over the use of the Image Analysis tools of the software and where they were able to verify

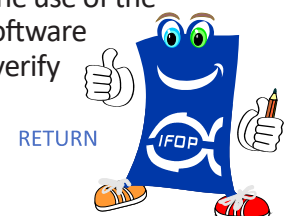


and representatives from mainly European initiatives, making the presence of IFOP’s CHONOS particularly relevant as a prominent example of ‘Digital Ocean’ applied to the complexity of Patagonia’s channels and fjords.

The presentation of CHONOS and the discussion forums is a significant recognition, as it positions IFOP on the global map of advanced science-based ocean research and management. Aligning local efforts with the Digital Twin Ocean platform underlines the importance of integrating technical aspects with public policy decision-making to promote sustainable management of marine resources on the coast of Chile.

During the visit to Belgium, meetings were also held with scientists from EMODnet (European Marine Observation and Data Network), under the auspices of the Flanders Marine Institute (VLIZ), with whom IFOP has a fruitful collaboration agreement since 2022. Discussions focused on possible collaborations for the standardization of data infrastructures and on the exploration of joint research projects.

The CHONOS Initiative has gained significant visibility among the European scientific community and decision-makers, opening doors for future international collaborations that strengthen sustainable marine management in Chile. This visibility allows for the exchange of knowledge and technologies to be fostered, as well as positioning the developments carried out in Chile as part of a sustainable management model in the context of climate change.





that working with their images opens a great way for them to develop in order to obtain counts and measurements of the objects under study, whether shells, seeds, algae, etc

The CREAN was also visited, which is the Center for the Study of Harmful Algae, where the work carried out with inverted microscopy was verified and where it was confirmed that the samples they observed are also possible to work on image analysis, and having attended this The course provides them with trained personnel in this regard with the use of Image-Pro software where they will have the task of solving their own problems and developing work routines that allow them to obtain improvements in their results.

This training has given the option of forming a good group of people who could develop or collaborate in studies that involve the use of “Image Analysis” and which has the grace that it has been developed entirely by IFOP staff.

Educating in the care of the Marine Ecosystem IFOP and BAJ Los Lagos join together for Scientific dissemination

EXHIBITION WILL RUN UNTIL AUGUST 29 AT THE GALERIA ACTIVA DE BALMACEDA ARTE JOVEN LOS LAGOS.

A call to educational establishments, groups and neighborhood associations to register to participate in artistic mediations.

From a look at the care of marine ecosystems and their environment, the Exhibition “Immer-

sion: Photography of Marine Diversity” was launched, where the Fisheries Development Institute (IFOP) and Balmaceda Arte Joven (BAJ) finalized their strategic alliance focused in scientific dissemination in the Lakes region.

Within the framework of the 60 years of the Fisheries Development Institute, authorities from both entities, scientists, art and science disseminators gathered around the common commitment to address environmental challenges from a collaborative and multidisciplinary perspective, joining efforts to inspire awareness and action in communities.

This was highlighted by Gastón Vidal, head of the research and aquaculture division of the Los Lagos Fisheries Development Institute, who said “this is a new facet for us, the Institute this year celebrates 60 years of existence and we wanted to show what we see every day , organisms under the sea and show their beauty to the community, with the hope that this will project the protection of these ecosystems, raising that environmentalist spirit,” said the head of the IFOP research and aquaculture division.

In this regard, the director of Balmaceda Arte Joven Los Lagos, Francisca Paris, explained that for the corporation this union is a great achievement, “it is important to highlight that culture is transversal, it is in all areas and its objectives are to educate . In this case, underwater photography can act as a bridge between scientific knowledge and the public; art, in addition to expanding horizons and enriching the quality of life, can be an effective tool for scientific dissemination.”

“Balmaceda Arte Joven had the desire to highlight art and science through its Active Gallery, and what better way to do it than to find an ally like the Fisheries Development Institute, an institution with more than 60 years, which has more of four research laboratories to make the marine ecosystem in the region visible. We managed to generate this synergy, giving the public a sample of underwater, microscopic and laboratory photographs with the aim of raising social awareness in the community to care for the underwater environment,” said the director of BAJ Los Lagos.

This great work of capturing fragments of reality under the sea and



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The “Immersion” exhibition not only offers an intimate look at the unique geomorphological diversity of our territories, including the Chiloé archipelago and the infinite canals that make up our coast, but also highlights the urgency of protecting these landscapes that are fundamental to communities local.

For Paulette Beroiza, in charge of the Active Gallery of Balmaceda Arte Joven, “on this occasion we wanted to show a proposal in which we can appreciate what we cannot see with the naked eye, this montage can be visited by students from the different establishments educational through artistic mediations, we invite everyone to register to view this exhibition as a group and raise awareness of how we should inhabit our territory and we believe that art is fundamental in being part of this process of reflection in our region,” Beroiza said.

an augmented view of the microorganisms of marine ecosystems was carried out by IFOP researchers Karla Álvarez, Pablo Leal, Sebastián Cook, Jorge Mardones and Luis Henríquez, who in this edition develop a line of research within the framework of underwater photography.

For researcher Sebastián Cook from the Fisheries Development Institute, “these records are taken with analogue cameras, obtained from various investigative dives in which we were working with the IFOP Los Lagos team. This exhibition contributes to showing part of the diversity of marine species in the Los Lagos region, being an educational way for boys, girls, adolescents and the general public to learn about marine biodiversity and protect it from pollution.”

Artistic Mediations

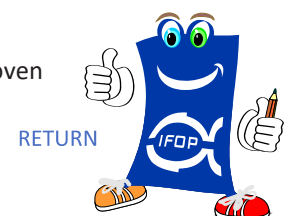
In a quest to expand the possibilities for the community to learn about this interesting photographic exhibition, Balmaceda Arte Joven opens the doors of its Active Gallery to the public through artistic mediations, instances where a group of people from educational establishments, groups, neighborhood associations can participate in this exhibition with the support of a professional who will guide and provide more information about each work.



For more information you can contact the email gactiva@baj.cl or +56942070333

The strategic alliance between Balmaceda Arte Joven and the Fisheries Development Institute (IFOP) reflects a common commitment to addressing environmental challenges from a collaborative and multidisciplinary perspective, joining efforts to inspire awareness and action in communities. With this objective, during the coming months the “Immersion” Exhibition will tour the various Balmaceda headquarters throughout the country.

Photos and news Balmaceda Arte Joven



IFOP achieves incorporation of CHONOS in the “Decade of the Oceans”

Within the framework of the sixth Call for Actions of the Decade, called by the Decade of Ocean Sciences for Sustainable Development (2021-2030) or Decade of the Oceans, the IFOP postulated the “Oceanographic Information System – CHONOS” initiative, led by the Department of Environment of the Aquaculture Research Division.

The Decade of the Oceans is an initiative coordinated by UNESCO’s Intergovernmental Oceanographic Commission (IOC), which provides a framework for global actors to engage and collaborate outside their traditional communities to spark a revolution in ocean sciences. . The actions that are part of the Ocean Decade contribute to meeting 10 challenges that articulate the most immediate priorities to achieve “The science we need for the ocean we want.” This through the search for transformative ocean science solutions for sustainable development, which connect people with the ocean.

CHONOS will be part of the “ForeSea – Future Ocean Prediction Capability” Program led by OceanPredict where institutions from the United Kingdom and Northern Ireland participate. The vision of the program is to generate strong international coordination and the joint creation of prediction capabilities for the future, thus contributing to advancing challenges; Ocean Observation, Digital Representation of the Oceans and Capacity Building. Through this program, it is sought that the science of ocean prediction has greater impact and relevance at a global level.

The addition of CHONOS to the Decade of the Oceans will allow the integration of the IFOP into a global network of ocean-minded professionals committed to the co-design and implementation of joint actions to advance towards a revolution in ocean sciences. This network has approximately 7,000 members in more than 100 countries working in various sectors, such as sciences, arts, government, industry and academia.



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