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IFOP HAS NEW LABORATORIES IN VALPARAÍSO

IT IS A 180 MILLION INVESTMENT FINANCED UNDER CORFO / IFOP PROGRAM.

An important remodeling was carried out on IFOP Valparaíso headquarters fourth floor, to adapt its structure to the institution's new requirements, which is in charge of carrying out fisheries and aquaculture research which serve to advise national authorities on fisheries policies.

The new design included the creation of modern laboratories for age and growth, plankton and oceanography, large meeting rooms, with more space and lighting, all decorated with art pieces by Jorge Muñoz, which provides a cozy work environment.

It is a totally new concept which allows labs unification and other departments that were scattered around the building. The marine operations department which is the unit in charge of everything related to the Abate Molina Scientific Vessel and the radio station that monitors the ship will also be located here; The sampling management department will also have its offices at the new dependencies, this is the unit in charge of all the institution scientific observers.



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Executive director Luis Parot explained "What is being done is a deep modernization of the building that started on the 4th floor, in order to facilitate our researchers and analysts work ; In a physical space with more natural light, with better technology and support tools for research development done at this place, it must be remembered that Fisheries Development Institute has a legal obligation to research about fisheries and aquaculture in order to advise the State on measures related to fisheries management and regulations "



Editorial committee

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Gabriela Gutiérrez V. / Journalist

Graphic design

Mario Recabal M. / Senior graphic designer

IFOP AND EXPLORA VALPARAÍSO LAUNCH A CAMPAIGN TO LEARN ABOUT SCIENTIFIC RESEARCH IN THE SEA

“SCIENCE TO PROTECT THE SEA” IS THE NAME OF THE NEW SCIENTIFIC DISSEMINATION CAMPAIGN LAUNCHED IN VALPARAÍSO REGION, IN ORDER TO BRING SCIENTIFIC CULTURE AND THE OCEAN CLOSER TO ALL CITIZENS.

In this new commemorative month of the sea, Fisheries Development Institute (IFOP) and Explora Valparaíso- which depends on the Science, Technology, Knowledge and Innovation Ministry, launched “Science to protect the sea” campaign through their social networks to publicize scientific research carried out in Chile and in Valparaíso Region, to protect the ocean and its resources.

Through 9 attractive pictures, this project aimed at people of all ages, accounts for the work carried out by researchers from diverse scientific areas to understand marine species behavior, and to know details such as their reproduction and distribution, in order to learn to manage marine resources and thus promote responsible fishing.

“This campaign arises from the interest in spreading science’s importance in fishing activities care and ocean protection. In previous years, these contents have been placed on Valparaíso’s Metro station network, however, in this context of Covid-19, this series will be disseminated through social networks and other online platforms,” said Mabel Keller, Explora Valparaíso Director.

In this way, “Science to protect the sea” teaches us why seabirds are important to know the state of the ocean, what is the red tide – which is not really red – why it is important to respect biological closures and the relevance of age of the fish to determine the fishing quotas, among many other issues.

In order to carry out presented contents, the campaign was coordinated by Explora Valparaíso’s team and the work of the team of researchers from IFOP Fishing Promotion Institute, and its designers; Carolina Irrarrazaval and Natalia Golsman,



along with journalist Gabriela Gutiérrez and the Institute Executive Director, Luis Parot.

In this regard, IFOP designers pointed out that “the discipline of graphic design is a key issue in clear and innovative communication of ideas, even more in the scientific area in which it is difficult to communicate in a simple and attractive way. This is the aim of this project, to offer interesting content through a pleasant, creative and understandable visual communication for all public”.

It should be noted that this campaign is part of an alliance sustained since 2012 between Explora Valparaíso and Metro de Valparaíso, in order



IFOP conducted a hydro-acoustic assessment cruise for small pelagics in Los Lagos inland waters

Between April 20th and May 8th, Fisheries Development Institute, (IFOP) conducted the small pelagics hydroacoustic assessment cruise in Los Lagos inland waters.



This campaign's objective is to estimate pelagic southern sardines, common sardines and anchovies recruitment strength that will allow tuning the stock assessment models that will ultimately be the basis of IFOP's advice to SUBPESCA for its administration. In addition to the acoustic evaluation, the environmental and physical conditions of the ocean, the environmental supply of available food for fish, and the trophic behavior are measured.

Fishing engineer Jorge Castillo, head of the project ; who referred to southern sardine mentioning : "is the most important pelagic species in Los Lagos,inland waters which supports an artisanal purse-seine fishery made up of a fleet of about 21 vessels under 50 tons of hold. This pelagic species spawns in late winter and spring. The largest presence of juveniles in the area is recorded in the fall. Its stock is dependent on recruitment pulses, which varies between years according to environmental conditions and spawning success, hence the importance of performing this direct evaluation using hydroacoustic techniques to estimate the strength of the recruitment that will allow projecting the population's stock levels .

These results will define xploitation levels that ensure stock sustainability . Along with the above, we study factors that can cause alterations or changes in the levels of abundance and spatial distribution of resources, incorporating the study of the physical oceanographic variables of the sea, food supply and resources trophic behavior".



RETURN

OBSERVADORAS/ES CIENTÍFICAS/OS

Se encargan de la **recopilación de datos a través del muestreo** de los recursos pesqueros extraídos a lo largo del país.

De esta manera, se obtiene la información necesaria para ejercer acciones que ayuden a proteger los recursos del mar.

¿Qué datos se obtienen en el muestreo?

- Tipo de especie
- Talla
- Peso
- Sexo
- Lugar de extracción

¿Dónde se realiza el muestreo?

- Naves pesqueras artesanales e industriales
- Puertos y puertos de desembarque
- Plantas de procesamiento

Luego, la información se recopila en los centros pesqueros y se genera los bases de datos.

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@exploravalpo

¿QUÉ ES EL DESCARTE?

Es la acción de devolver al mar las especies capturadas sin intención en operaciones de pesca.

¿POR QUÉ OCURRE?

A veces las redes capturan, junto a las especies de interés comercial, otras que cohabitan con estas, las que son descartadas ya que no tienen valor económico, o bien son especies con veda o cuotas de pesca, cuyo desembarque es sancionado.

Especies de interés comercial:

- Merluza común
- Langostino amarillo
- Merluza de cola
- Merluza de tres aletas

Fauna acompañante:

Especies donde ocurre el descarte:

- Grancheros, jálidos, rayas y otros peces.

¿CÓMO REDUCIRLO?

A través de mejoras en los diseños de los artes de pesca y tecnologías de detección que permitan capturar solo las especies comerciales y/o modificar períodos y zonas de pesca.

Chile es uno de los países pioneros en la investigación del **DESCARTE** y en implementar un plan para su reducción.

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CONOCIENDO Y CUIDANDO LOS MARISCOS DE CHILE

Marisco es un término utilizado en la gastronomía para referirse a los **invertebrados marinos comestibles**, los que se clasifican en cuatro grupos taxonómicos: moluscos, crustáceos, equinodermos y uncordosados.

En su mayoría, deben ser extraídos sobre una **Talla Mínima Legal**, cuya finalidad es proteger a los juveniles y asegurar su futura reproducción.

La extracción de estos recursos es principalmente por becos, lo que la vuelve mucho más selectiva.

MOLUSCOS

- Gastropodos: El loco y la concha
- Bivalvos: El almeja y la ostra
- Cefalópodos: El pulpo y la sepieta

CRUSTÁCEOS

- Decápodos: El cangrejo
- Camaronos: El camarón

EQUINODERMOS

Erales

UNCORDADOS

Pluteo

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FLORACIONES DE ALGAS NOCIVAS (FAN) O MAREA ROJA

En los últimos 50 años, este fenómeno ha sido más frecuente e intenso en todo el mundo, abarcando sectores geográficos más amplios.

¿Qué son las FAN?

no son mareas, ni son todas rojas

Es un fenómeno natural que ocurre cuando aumenta excesivamente la densidad de algunas microalgas nocivas en ambientes acuáticos.

Esto ocasiona la muerte de organismos, la contaminación de especies y la alteración de ecosistemas.

Las microalgas nocivas son alimento de moluscos y crustáceos, los que al ser consumidos pueden provocar daños a la fauna marina y a seres humanos.

¿Sabías qué?

Los mariscos contaminados no cambian de color, olor o sabor y las toxinas no son destruidas por la cocción, limón o vinagre. Además, no existen antidotos contra estas toxinas, por lo que algunas pueden causar intoxicaciones muy graves e incluso la muerte.

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¿POR QUÉ SE MARCAN LAS TORTUGAS, LOS PECES Y LOS TIBURONES?

Este proceso es fundamental para investigar el ciclo de vida de especies como el pez espada, los tiburones y tortugas marinas. Una vez marcada la especie, se puede obtener información sobre su **desplazamiento y crecimiento**. Existen distintos tipos de marcas, entre las que destacan las satelitales y convencionales.

Entre Arica y Lebu se han registrado 4 especies de tortugas marinas, todas amenazadas de extinción.

Un Tiburón azul fue marcado y liberado a unos 60 km de la costa de Salinas de Pudahuel en Valparaíso, Chile. A los 415 días de su marcaje, fue recuperado y liberado en Nueva Zelanda. En ese período, el tiburón creció 50 cm y recorrió unos 8.200 km.

¿Sabías qué?

Los tiburones azules son el mayor animal que vive en el océano.

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to create knowledge democratization spaces and to contribute to scientific culture strengthening in Valparaíso Region.

Survey seeks to find out Covid-19 impact on national aquaculture and fishing industry

DATA WILL BE COLLECTED DURING THIS AND NEXT WEEK.

Fishing Development Institute (IFOP), is collecting information about the effects that COVID-19 has caused in work and market environment, in local companies. This information will be available to Fisheries and Aquaculture Undersecretariat (SSPA), within the framework of the authority required knowledge in order to handle in the best way sectoral public policies.

"IFOP permanently monitors the sector productive performance as a whole . On this occasion, in the context of current health emergency that the country and the world are experiencing, we seek to compile data about the effect that COVID-19 pandemic has had on local business. We do it through an online survey, focusing the investigation on cultivating companies and on fishing plants, between the two they add up to more than 800 companies ", explained to AQUA Johanna Rojas Rojo IFOP Economics Section researcher in charge of corporate communications .

—Along with stressing out that data will be collected during the present and next week, Johanna Rojas said that answering the survey takes less than 15 minutes. To facilitate its response, the survey has been sent in two formats (online and Word). Those companies, especially MSMEs and SMEs that together are 70%, who have not received the survey, are urged to contact the person in charge at johanna.rojas@ifop.cl, and / or at cell +56 9 8259 8604).



Abate Molina ship set sail for anchovy and common sardine research

On Wednesday May 6th with a crew of 28 people, Fisheries Development Institute Abate Molina Scientific vessel sailed off Valparaíso's Port to assess and characterize anchovy and common sardine stock resources present between the regions of Valparaíso and Los Lagos, through hydroacoustic method, during the period of maximum recruitment and immediate autumn.

In this scientific journey, Enrique Quiero as ship captain and fishing engineer Álvaro Saavedra as the cruise's head.

Luis Parot Donoso, IFOP executive director, explained "for 31 days our professionals will evaluate sardines and anchovies recruitment between the regions of Valparaíso and Los Lagos, it is a very intense cruise that investigates resources situation specially those that are very important from an economic point of view for artisanal and industrial fishing ".

Regarding Covid 19 pandemic, Parot added "strict health safety protocols and crew's and researchers commitment make it possible to continue working"



IFOP moves towards ecosystemic management with research in southern oyster fishery

AT MAGALLANES REGION.

Fisheries Development Institute (IFOP) jointly with Walton Family Foundation (WFF) is developing the project named “Ecosystemic evaluation of southern scallop fishery (*Chlamys vitrea*) in Parry Bay fjord, Multiple Use Marine Protected Coastal Area (AMCP-MU), Almirantazgo bay, Magallanes region, Chile”.

Dr. Carlos Montenegro head of the project explained “Magallanes and Chilean Antarctic Region has experienced an artisanal fishing activity sustained increase in the last 10 years, an increase that has been associated with fishermen immigration pro-

cess, mainly from Los Lagos, Aysén and Biobío regions also to fishing companies establishment that commercialize fresh refrigerated resource in European, American and Asian markets. This has translated into a greater fishing effort, but it has also meant a greater job offer, which has transformed fishery benthic resource into one of the region’s main economic axes.

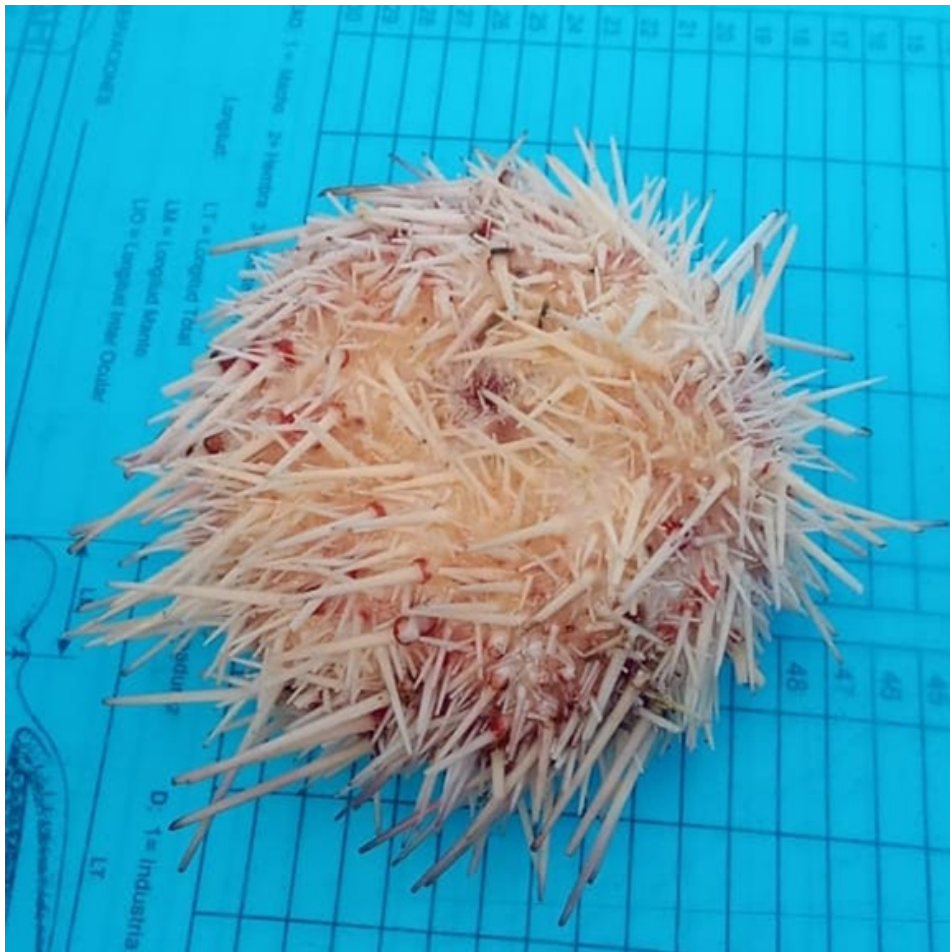
A special case is southern oyster extraction, a Patagonian channels endemic species associated with fjords and channels in the Magallanes region in southern Chile, which, from 1990s, generated an important fishery. reaching a historical maximum of 3,670 tons landed in 1998, dropping dramatically to 209 tons in 1999. Starting in 2001 and given the condition of over-exploitation that this resource presented, the authority had an extraction ban for the entire Region for a 3 years period, which was extended until 2005”.

The project will last 21 months.



Featured photos in May on our social networks

Photos: Miguel Llancabure / Scientific Observer



Photos: Francisco Bertrán / Scientific Observer

