

Abstract:

The distant-water fishing fleet (DWF) of the People's Republic of China is the largest in the world. Estimating, with sufficient precision, the size of that great armada is a complicated task. Official Chinese data indicates that the sum of the distant water fishing boats of Taiwan, Japan, South Korea and Spain would be barely a third of their total fleet.

In 2001, the first Chinese campaign began in Latin American waters, mobilizing a total of 22 vessels. Twenty years later, the number of Chinese ships exceeds 500 in this region.

In the summer of 2020, the Ecuadorian navy warned of the presence of a Chinese fishing squad of more than 300 boats on the edge of the EEZ of the Galapagos Islands, a biosphere reserve since 1984. Almost half of the Chinese fleet turned off their tracking and identification systems for 17 days, a practice known as "marine radar evasion", very common in illegal fishing.

Chinese plundering is a practice that threatens the sustainability of fishing grounds, the preservation of fishing wealth and the defence of biodiversity in Latin America.

Keywords:

Distant-water fishing fleet (DWF); Illegal, People's Republic of China fishing fleet, sustainable development goal number 14, Galapagos Islands

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La gran armada pesquera China amenaza para Iberoamérica

Resumen:

La flota pesquera de altura (DWF) de la República Popular China es la mayor del mundo. Estimar, con suficiente precisión, el tamaño de esa gran armada es una complicada tarea. Los datos oficiales chinos nos indican que la suma de los barcos de pesca de aguas lejanas de Taiwán, Japón, Corea del Sur y España sería apenas un tercio del total de su flota.

En el año 2001, comenzó la primera campaña china en aguas Iberoamericanas, movilizando un total de 22 embarcaciones. Veinte años después, el número de barcos chinos superan los 500 en esta región.

En el verano de 2020, la armada ecuatoriana alertó de la presencia de una escuadra pesquera china de más de 300 barcos en el límite de la ZEE de las islas Galápagos, reserva de la biósfera desde 1984. Prácticamente la mitad de la flota china apagó sus sistemas de rastreo e identificación durante 17 días, una práctica conocida como "evasión de radares marinos", muy común en la pesca ilegal.

El expolio chino es una práctica que amenaza la sostenibilidad de los caladeros, la preservación de la riqueza pesquera y la defensa de la biodiversidad en Iberoamérica.

Palabras clave:

Pesca, flota pesquera de altura, flota pesquera China, Islas Galápagos

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The Chinese deep-sea fleet

Everyone knew that the People's Republic of China's distant water fishing (DWF) fleet was the largest in the world, but no one suspected that it could be so gigantic. Estimating the size of such a large navy with sufficient precision is a complicated task, and it would be easy to overlook a few thousand ships along the way. The confusion surrounding the Chinese figures and data should not really surprise us. Anyone used to dealing with official Chinese information knows that it is wise to leave it in quarantine for some time, especially when dealing with already controversial issues.

In recent decades, China's distant water fishing (DWF) fleet has increased in size and scope, but it is not known precisely how much. In most of the major fishing countries, the size of DWF fleet has been decreasing. In any case, all countries, regardless of flag, should be more reliable in declaring the operating system of their fleet, the information on where the vessels operate, who owns them, what quantities of different species are caught, and how they are transhipped and sent to market. However, it is fair to say that China is in a different league when it comes to transparency and accuracy of information.

Calculating the total volume of catches, in the different fishing grounds, is complicated due to the increase in illegal, unreported and unregulated (IUU) fishing. The result is that the long-term sustainability of more than a few fisheries is seriously threatened, but we do not know exactly how much and what responsibility everyone bears.

In a globalised world with global threats, as we are seeing with the pandemic originating in the Chinese city of Wuhan, the reliability and timeliness of certain information is indispensable. In this case, knowing what China can and does fish is important because it affects the sustainability of farms and the preservation of the marine environment.

In 2020, the Ecuadorian press, concerned about the presence of an unusual number of Chinese fishing boats off its coast, reported that the total Chinese high seas fleet (DWF) exceeded 3,000 vessels. Recent assessments have estimated China's offshore fishing fleet at between 1,600 and 3,400 vessels, although it is unclear whether the Chinese government has a complete picture of their size.

The Chinese administration acknowledges that its distant water fishing vessels total approximately 2,600 vessels. Beijing has stated that it aims to reach 3,000 DWF ships by 2020. According to official Chinese information, the sum of distant water fishing vessels from Taiwan, Japan, South Korea and Spain would make up one third of the total Chinese





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fleet. However, in contrast to the growth in Chinese capacity, the EU DWF fleet has been shrinking over the decade, from 289 vessels to 223 fishing vessels. South Korea has similarly reduced its DWF vessels from 359 to 225 in the same period. The United States has fallen below 225 ships. Taiwan does not have a DWF fleet of more than 420 vessels.

In 1985, China's first distant water fishing fleet set sail for West Africa with only 13 vessels. Since then, five-year plans and government officials for the fishing industry have expanded its potential and tonnage without known limits, reaching the world's number one position far ahead of its followers. Today, the large Chinese distant water fishing navy officially operates in 40 countries, in the Antarctic and in international waters around the world.

Identifying the companies that own the vessels and controlling the operations of the Chinese DWF fleet is also a complex task, due to the opacity and organised confusion of the companies' relationships and actions. Many of the ships belong to small companies and others are registered in other countries. Large corporations are likely to be behind the fishing SMEs. The labyrinthine structures of the business network and the lack of transparency, favoured by China's own legislation, hinder any effort at monitoring and external control.

China's fishing fleet, which plies the world's seas, is financed by annual subsidies from the Chinese government. Estimating the amount of money spent by the Chinese authorities to promote their deep-sea fisheries is, as might be expected, a complicated exercise. Depending on the source, it ranges from \$7.5 billion to \$16.5 billion, with aid concentrated in tax exemptions, mainly on fuel and shipbuilding.

In June 2020, the independent British *think tank the Overseas Development Institute* (ODI) published a comprehensive research report entitled "*China's distant water fishing fleet scale, impact and governance*". The most relevant and striking conclusion from the exploratory and monitoring work on the Chinese DWF fleet is its estimated size. The research provides information that should alert countries around the world to the serious threat to the marine environment and the sustainability of fisheries. The number of ships identified in the ODI report is 5 to 8 times higher than previous estimates.

The document identifies a total of 16,966 Chinese distant water fishing vessels (DWF), of which almost 75% were fishing outside internationally recognised Chinese waters. Not





all ships are flagged to the People's Republic of China. Around a thousand ships are flagged with flags of convenience, even though they work for Chinese companies.

The data in the report, if the new figures are validated, represent a change in scale for the assessment of China's fishing potential in distant waters and its effects on fishing grounds.

World fisheries and China's weight.

China has established itself as the world's leading country in capture fisheries. In large part, its prominent position is related to the increase in Chinese cephalopod catches in the Southeast Pacific and Southwest Atlantic, close to the Latin American coasts, officially amounting to more than half a million additional tonnes.

China's distant water fishing fleet targeting squid, one of the most overfished and indemand species, has grown steadily over the past two decades. The eighth conference of the scientific committee of the *South Pacific Regional Fisheries Management Organisation* (SPRFMO), held in New Zealand in October 2020, provides sufficient data to monitor the size and rate of growth of the tonnes of squid harvested by the Chinese off the Latin American Pacific coast.

In 2001, the first Chinese campaign began in Latin American waters, mobilising a total of 22 vessels. In 2015, the number of Chinese fishing vessels exceeded 250, and by the end of the current decade it exceeded 500. Some boats stay fishing off the Peruvian coast all year round, in search of other species such as horse mackerel or mackerel. Factory ships can remain at sea indefinitely, transferring the catch to other vessels that transport it to the destination ports.

The Chinese distant water fleet catches between 50 and 70% of the world's total deep-sea squid catch. Chinese fishing methods and activities within the EEZ of Argentina, Ecuador and other Latin American countries are highly controversial. The overfishing of squid in Latin American fishing grounds is so worrying that, in 2020, the Chinese government itself decreed an unprecedented plan to close its squid fishing operations off the Latin American coast for a few months. Beijing has decided to ban fishing by its vessels in the main squid spawning areas, located in waters west of the Galapagos





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Islands from July to September and off Argentina, Uruguay and Brazil from September to November.

China does not fish only for squid. China's total catches of the different species are double the tonnage of the world's second-ranked country, Indonesia, and triple that of the third-ranked country, the Russian Federation. The Chinese distant water fleet alone caught two million tonnes, representing 40% of the world's total distant water fleet. China fishes a lot but, fishing much more than anyone else, it fishes in proportionately large distant waters. This is especially true in underdeveloped regions, where there are insufficient controls, and in Latin America, where it is located at the limits of exclusive economic exploitation waters and, on many occasions, it violates these limits.

Since 1980, Chinese territorial waters have been overexploited. Beijing's reaction has been to implement moratoria to reduce fishing within its waters, promote aquaculture development and encourage the development of its distant water fleet.

China is the world's leading fishing power. It is also the leading power in aquaculture production, accounting for more than half of the global total. It is the number one exporter of fish, with figures double those of the second. It is the main importer and has created immense demand in the international market. Chinese demand for fish is producing significant profits for international fish companies. However, in the medium term it may become a risk to the sustainable exploitation of many marine species in many of the world's seas.

The increase in world and especially Chinese consumption has caused the FAO Fish Price Index (FPI) to reach a record level. The upward price trend is driven by a shortage of supply of many heavily traded species coupled with strong demand worldwide. Fish has become fashionable and is considered a healthier protein food than others it replaces.

However, despite rising prices, many deep-sea fishermen would not be able to survive without state support. Subsidies granted to fisheries contribute to overexploitation, particularly in the fisheries of coastal countries that have little capacity to monitor and enforce fisheries management regimes.

Without government subsidies, more than half of the high seas fishing grounds would not be profitable at current fishing rates. In fact, the fishing subsidies received by certain industrial fishing fleets exceed the profits they earn from fishing on high seas. The result is that subsidies to the sector especially benefit companies from extra-regional fishing





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powers and end up harming small local fishermen, jeopardising the sustainability of fishing grounds and destroying the environment. Subsidies, more often than not, do not make economic sense in supporting zombie companies.

The excessive size of distant water fishing fleets, encouraged by subsidies, has meant that the state of marine fish stocks, based on long-term monitoring of stocks assessed by the FAO, has continued to deteriorate. The global percentage of marine species exploited at biologically unsustainable levels exceeded one third of the total in 2017. The most threatened seas are the Black Sea and the Mediterranean, with overexploitation accounting for nearly two thirds of the total number of species. In second place are the Latin American waters of the Southeast Pacific and Southwest Atlantic, with more than half of the species overfished.

In September 2015, the United Nations launched the 2030 Agenda for Sustainable Development. The central element of Sustainable Development Goal 14, dedicated to underwater life, is to conserve and sustainably use the oceans, seas and marine resources for development. On the basis of current data and with ten years to go, it does not seem easy to achieve the targets set.

China and illegal, unreported and unregulated fishing.

Illegal, unreported and unregulated (IUU) fishing is a serious problem that affects not only conservation, but also development and security. "Global Financial Integrity (GFI) published a report in 2017 entitled "Transnational Crime and the Developing World", in which it identified illegal fishing as the sixth most lucrative criminal activity globally, with estimated revenues ranging from \$15 to \$36 billion. The Chinese fishing fleet is responsible for this kind of illegal exploitation, although it is not easy to prove. There are many indicators that together point in the same inculpatory direction.

"The Global Initiative against Transnational Organised Crime 2019" establishes a global index of illegal, unreported and unregulated fishing measured on the basis of an analysis of 40 different factors. The People's Republic of China is the State with the most unfavourable data, standing out as the great champion of criminal IUU fishing activity.





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Illegal and unreported fishing accounts on average for approximately 15 to 35% of the total volume of fish production, equivalent to between 12 and 28 million tonnes of fish. The species targeted by illegal fishing often have a high market value and in many cases are among the most endangered. Examples include tuna, Patagonian toothfish, crab, squid and shrimp. Patagonian toothfish, more commonly known as southern cod, is so lucrative that it is called "white gold". This species can have a legal market value of more than \$10,000 per tonne.

Pirate fishing vessels use active intelligence methods to obtain information on the ability of states to operate in and near their exclusive economic zone. They are fully aware of national and international fisheries legislation and exploit its inadequacies or loopholes. Experts are quick to point out that much of this illicit business is promoted by the States' distant water fishing fleets. More than a few of the most damaging illegal attacks on fisheries are carried out by companies with legal cover. Trawler fleets often engage in illegal fishing practices to maximise their profits. The appearance of legitimacy makes it difficult to detect illegal activity.

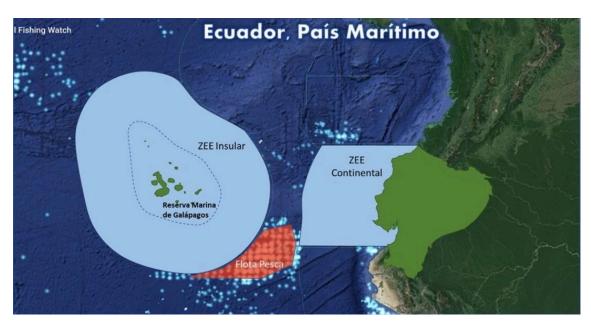
At least 183 vessels of the Chinese distant water fishing (DWF) fleet are suspected of being involved in illegal, unreported and unregulated (IUU) fishing. Only 10 companies own almost half of these vessels and several are parastatal companies.

China plunders the waters of the Ecuadorian archipelago of the Galapagos.

In early July 2020, the Ecuadorian navy issued a bulletin warning of the presence of a formidable Chinese fishing squadron of some 260 vessels fishing at the edge of the exclusive economic zone (EEZ) near the Ecuadorian Galapagos archipelago. By the end of the month, the number of vessels exceeded 340, mostly trawlers. The Galapagos Islands are about 1,000 kilometres from the mainland. Therefore, the waters of Ecuador's exclusive economic zones on the mainland and the islands do not overlap, creating a corridor of international waters, where any country can fish.







Source: Global Fishing Watch

One of the serious problems associated with the protection of the Galapagos marine reserve is that many of its species are migratory, so they move in and out of the protected area. Jorge Carrión, director of the Galapagos National Park, pointed out that it is essential to protect transboundary marine corridors for the conservation of highly migratory flagship species such as sharks, whales, rays and sea turtles".

In the meantime, the Chinese distant water fishing fleet only has to wait outside for the right moment or turn off their fishfinders to go inside. In one way or another, Chinese fishermen catch the species on their migratory journeys, inside or outside the exclusive economic zones of Ecuador, Chile, Peru, Colombia, Costa Rica, Argentina and any other Latin American country where they might be interested in fishing.

Ecuadorian Defence Minister, Oswaldo Jarrín, reported that almost half of the Chinese fleet detected last summer had turned off their tracking and identification systems, a practice known as "marine radar evasion", which is common in illegal fishing. The ships disappeared from the radar for 17 days. Turning off the identification system is an offence if it is intentional. The sudden mass disappearance of the vessels suggests that many of them decided to change their fishing grounds to concentrate within Ecuadorian waters, possibly in the Galapagos.

The Ecuadorian government, through its foreign minister, sent a communiqué to the Chinese government, in which it stated its willingness to make "its maritime rights over its Exclusive Economic Zone prevail without distinction of flag". At the same time, President





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Lenin Moreno announced that he would consult with the Latin American countries of the Eastern Pacific coast to establish a common position on Chinese overfishing off the coasts of Colombia, Peru, Chile, Panama, and Costa Rica. The Chinese plundering of fisheries is a practice that seriously jeopardises the sustainability of fishing grounds, the preservation of fish stocks and the defence of biodiversity, especially in the region's protected marine areas.

The Galapagos archipelago was declared a Biosphere Reserve by UNESCO in 1984. The protected area known as the Colon-Galapagos archipelago is home to hundreds of species of flora and fauna found nowhere else in the world. The Humboldt Current, which travels from south to north, from the upper third of Chile to the borders between Peru and Ecuador, is responsible for the great marine richness of the waters of the Latin American Eastern Pacific. In the Galapagos Islands, in addition to the Humboldt Current, there is the Cromwell Current, which comes from the west coast of the archipelago, and the warm Panama Current, which comes from the northeast. This convergence of waters provides unparalleled biodiversity, allowing for a unique mix of ecosystems. In the Galapagos Islands, we can see cold water species coexisting with tropical species.

The geographical and historical isolation of Galapagos has resulted in a high degree of biodiversity and endemism. More than 2,900 marine species have now been identified in the reserve, of which one in five is unique to the area. The biodiversity of the archipelago was once again recognised with the extension of the reserve by UNESCO in 2019, which has increased the size of the protected area at sea by a factor of two thousand.

The Juan Fernández Archipelago Biosphere Reserve in the Chilean Pacific, almost 700 kilometres from the mainland, was also extended in 2019. The total surface area was multiplied 122 times its size. In the face of potential threats of overfishing, it is good news to know that individual stocks now exceed the size of Greece or North Korea.

Undoubtedly the threat of Chinese distant water fishing in the area is related to the decision to increase protected areas, but it is not enough as many species are migratory and are caught on their seasonal journeys. The impact of catches of migratory species affects the balance of the whole ecosystem because many of them are the food base for other species that do not travel.





Conclusions

The pressure on China's arable land, its traditional fishing grounds and the size of its population favour an inclination to overexploit fishery resources in distant waters, especially on the high seas. Marine biological resources are considered the world's largest protein reserve, so owning and mastering the ocean means guaranteeing China's food sovereignty.

From the waters of Indonesia, Vietnam, the Philippines and North Korea to those of Mexico, Costa Rica, Colombia, Ecuador, Peru, Chile and Argentina in Latin America, via the Gulf of Guinea, Angola, Senegal, Mozambique and Somalia in Africa, Chinese fishing vessels have become the new masters of the fishing grounds. Reduced catches in China's traditional fishing grounds have intensified the geopolitical importance of its distant water fishing fleet in accessing the world's fishing wealth.

Fishing is an extraordinary resource for many Latin American countries. The overexploitation of fishing grounds by giant Chinese fishing fleets is a danger to the sustainability of fisheries exploitation. The result, if the situation is not corrected, is that an important industry in the region may become unprofitable and enter a serious crisis, provoked by the aggression of a major extra-regional power.

Particularly dangerous is the pressure from the fishing fleet in distant Chinese waters in the vicinity of internationally protected reserves, such as the Galapagos Islands. The incidence of Chinese fishing in the vicinity of marine natural parks in Latin America is a serious threat to the biological richness of the protected seabed.

Latin American countries must protect and defend their resources from overexploitation, which in many cases is illegal. The aggression of large factory vessels against the interests and sovereignty of Peru, Ecuador, Chile and Argentina is undoubtedly a problem with both national and international dimensions. It affects the entire continent due to the migratory nature of many species.

Illegal or unconscionable actions beyond the Exclusive Economic Zone affect the interests of the region as a whole, but also those of humanity as a whole. The preservation of the marine environment is a goal of the 2030 Agenda for Sustainable Development. In





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this sense, the international community and global civil society have something to say about the misuse of the seas beyond the spaces of sovereignty or exclusive economic exploitation of states. At stake is a unique opportunity to implement a comprehensive UN action plan, the 2030 Agenda for Sustainable Development, designed to benefit people, the planet and prosperity, while strengthening universal peace and access to justice.

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