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KEEPING THE LIGHTS ON

Uncovering the Networks Enabling the Distant Water Squid Fleet

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Global Fishing Watch

WINDWARD

Starboard Maritime Intelligence

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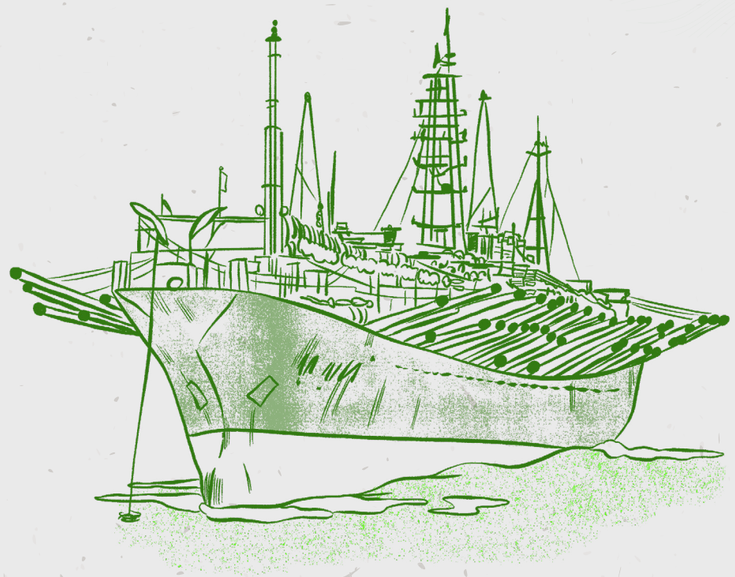


EXECUTIVE SUMMARY

Illegal, unreported, and unregulated (IUU) fishing and human rights abuses persist within the distant water squid fleet due to a network of enablers that sustain and obscure illicit activities. While these onshore and offshore support networks provide essential services, they can also allow vessels to evade enforcement and take advantage of under-resourced authorities or absent regional governance.

Offshore enablers extend the time vessels can stay at sea by reducing their need to enter port, keeping them out of reach of land-based authorities, and increasing strain on crew and squid stocks. Key offshore enablers of the distant water squid fleet include:

Refrigerated Cargo Vessels ("Reefers") — Reefers transship goods and supplies with fishing vessels and receive their catch for transport to shore. Eighty-nine percent of high-seas transshipment events with the distant water squid fleet involve reefers ultimately controlled by Chinese beneficial owners, though they are primarily flagged to other nations. These reefers largely transport the harvest to Chinese ports that are not historically subject to Port State Measurement Agreement restrictions.

Oil Tankers — Tankers provide fuel to fishing vessels at sea, reducing their need to enter foreign ports where they may undergo inspections. Nine tankers that operate under minimal regulatory oversight conduct over 80% of at-sea refueling events for the distant water squid fleet.

Floating Offshore Fisheries Bases ("FOBs") — FOBs are retrofitted fishing vessels that provide the Chinese distant water squid fleet with medical care, disembark sick, injured, or deceased crewmembers, and may provide maritime security, production, and command services. The novel use of these vessels reduces oversight of onboard injury, illness, and death and enables vessels and their crew to remain at sea for longer durations, increasing the risk of forced labor.

Key onshore enablers of the distant water squid fleet include port-based actors as well as the global financial systems that underwrite risky activities, including:

Port Agents — Port agents are the main interface between vessels and authorities on land. They coordinate onshore logistics and communicate vessel activities, crew information, and operational details that are essential for effective enforcement, but this also creates opportunities to obscure illicit activity.

Insurance — Global insurance providers continue to cover high-risk vessels despite their connections to forced labor, IUU fishing, or sanctions violations, making it easier for illicit actors to operate with financial security. Insurance claims from vessels revealed details on crew injuries that would otherwise be obscured.

GLOSSARY

AIS — Automatic Identification System. A system through which vessels broadcast data signals, including details of the vessel name, latitude, longitude, speed, and direction, among other information. AIS was initially introduced to improve maritime safety but is increasingly used by authorities to monitor vessel activity.

ANP — Administración Nacional de Puertos, Uruguay National Ports Administration.

APN — Autoridad Portuaria Nacional, Peru National Ports Administration.

CMM — Conservation and Management Measure. Binding decisions within Regional Fisheries Management Organizations that aim to conserve and manage fishery resources sustainably.

Distant Water Fishing — Fishing outside the territorial waters of a vessel's country of origin on the high seas or in another nation's exclusive economic zone.

EEZ — Exclusive Economic Zone. An area which extends up to 200 nautical miles off the coast over which a state assumes jurisdiction over the exploitation and exploration of marine resources, including exclusive fishery management authority over all fish and fishery resources.

FOB — Floating Offshore Fishery Bases. Squid jiggers that provide command and control and medical services, including shuttling injured and deceased crew into port.

FOI — Fleet of Interest

IUU Fishing — Illegal, Unregulated, and Unreported Fishing

MMSI — Maritime Mobile Service Identity. A unique nine-digit number assigned to a vessel by the flag state.

PSMA — Agreement on Port State Measures. A binding international agreement that targets IUU fishing. Its objective is to prevent vessels engaged in IUU fishing from using ports and landing their catch, reducing the incentive to operate, and blocking IUU-derived products from reaching national and international markets.[1]

RFMO — Regional Fisheries Management Organization. An intergovernmental organization formed by member nations or countries that share practical and financial interests in a particular region of international waters or of highly migratory species. RFMOs are dedicated to the sustainable management of fishery resources, and most of them have management powers, including setting catch and fishing effort limits, technical measures, and control obligations.

SPRFMO — South Pacific Regional Fisheries Management Organization

UBO — Ultimate Beneficial Owner. The person(s) who exercise ultimate effective control over an entity or arrangement.

VMS — Vessel Monitoring System. A satellite-based monitoring system that provides data to fisheries authorities on the location, course, and speed of vessels.

VOI — Vessel of Interest

INTRODUCTION

Distant water fishing fleets are at the center of the global fisheries crisis. They drive overexploitation of global fish stocks and are connected to disproportionate amounts of illegal, unreported, and unregulated (IUU) fishing and human rights abuses.[2] To date, enforcement efforts have primarily focused on targeting individual vessels and their direct owners but have largely failed to address the broader network of companies and actors that sustain illicit activities. This report examines the onshore and offshore networks of enablers that support the distant water fleet to identify additional leverage points for targeting illicit activity. It focuses specifically on the distant water squid fleet operating off the coast of Latin America, an important but underregulated fishery with a history of IUU fishing and forced labor.

The growing demand for seafood has pushed distant water fleets farther from national exclusive economic zones (EEZs), increasing operational costs and reducing their profitability.[3] China and Taiwan account for roughly 60% of distant water fishing, with Japan, South Korea, and Spain contributing an additional 30%.[4] To offset declining profitability, these nations heavily subsidize their fishing fleets, thereby disadvantaging local fleets and distorting the global fish economy. Companies are also adopting cost-cutting measures that often incentivize illicit activity, unsafe working conditions, inadequate food supplies, and human rights abuses.[5] This often includes spending extended periods at sea, sometimes operating for years between port calls and increasing the risk of IUU fishing and forced labor.[6]

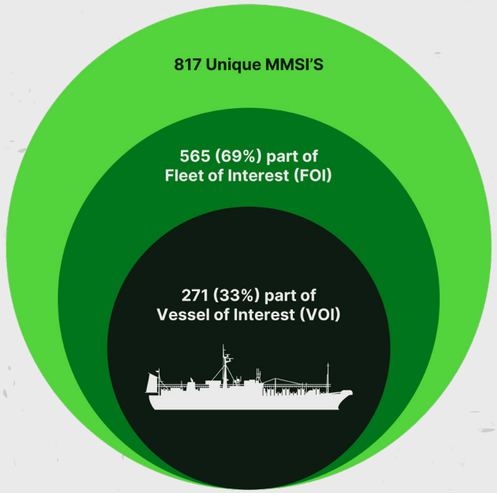
Figure 1. The Distant Water Squid Fleet

Apparent fishing effort in the South Atlantic and Pacific Oceans from December 1, 2021, to December 1, 2024. Source: Author's calculations based on AIS transmission data and apparent fishing effort sourced from Global Fishing Watch.

The distant water squid fleet exhibits especially high levels of IUU fishing and human rights abuse.[7] Squid vessels spend more time on average between port calls than other distant water fleets and have minimal fishery observer coverage. Inadequate regulatory measures allow this fleet to operate with limited transparency, particularly in the international waters around South America.[8]

The jumbo flying squid (*Dosidicus gigas*) and the Argentine shortfin squid (*Illex argentinus*) are fished by both local and distant water vessels in the Atlantic and Pacific international waters off South America. These fisheries are critical for local economies, livelihoods, and the global seafood supply, but they are at risk due to heavy industrial fishing and IUU fishing by the distant water squid fleet.[9] Exploitation and forced labor are prevalent among the distant water squid fleet, with this report finding that 69% of squid vessels operating in the international waters off South America are connected by ownership to vessels with alleged illicit activity.[10] Large industrial squid jiggers are also outcompeting artisanal and small-scale fisheries, making it harder for local communities to access the resources they depend on for food and income, and increasing tension between national and distant water fleets.[11]

Figure 2. Vessels and Fleets of Interest within the Distant Water Squid Fleet



Of the 817 unique Maritime Mobile Service Identities identified as the distant water squid fleet operating from December 1, 2021, to December 1, 2024, 69% are part of a Fleet of Interest and 33% are a Vessel of Interest. Source: Author's calculations based on Global Fishing Watch and multiple sources used to determine the VOI, as described in the methodology.

These challenges are particularly acute in South America due to large gaps in high seas regulations. The squid stocks straddle jurisdictional boundaries, and vessels migrate between the Pacific and Atlantic throughout the year.[12] While the South Pacific Regional Fisheries Management Organisation (SPRFMO) regulates fishing on the Pacific side of South America, it only minimally regulates the squid fleet.[13] On the Atlantic side, there is no equivalent regional fishery management body or agreement, leaving the fleet largely unregulated outside of EEZs.[14]

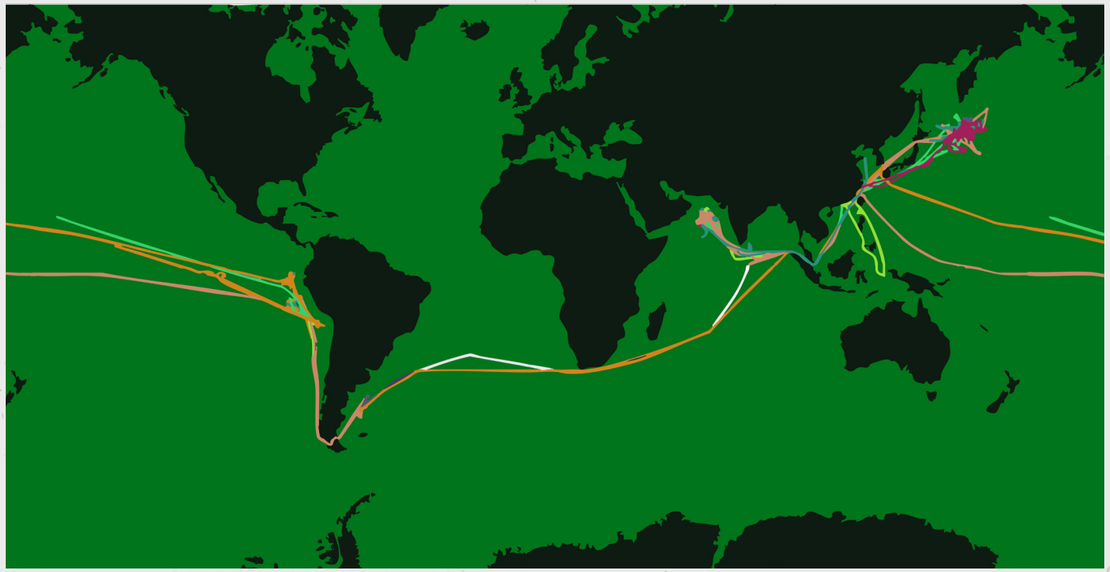
Underpinning these challenges is a network of onshore and offshore actors that support the operations of the distant water squid fleet. These networks enable vessels with established histories of illicit and risky activities to avoid detection, enforcement, and regulatory measures, especially those put in place by specific RFMOs, national waters, or ports. While this report focuses on the enablers supporting the distant water squid fleet, similar networks support distant water fishing worldwide. Given the challenges of holding distant water fleets accountable, understanding their support system provides new points of influence for a more global response.

CONTINUED OPERATIONS OF THE NOTORIOUS PINGTAN MARINE ENTERPRISE

In December 2022, the U.S. Department of the Treasury sanctioned the Chinese fishing company Pingtan Marine Enterprise (PME), its leaders, and its affiliated companies due to human rights abuses aboard its distant water squid vessels.[15] Leading up to these sanctions, C4ADS was among several organizations that brought high-profile media attention to the company's labor exploitation and environmental abuses.[16] PME was subsequently delisted from the Nasdaq Stock Exchange in March 2023.[17] Despite restrictive enforcement efforts, the company has not only continued its operations but appears to have expanded them.[18] AIS data from Global Fishing Watch indicates that, as of 2025, PME's vessels remain active in critical fishing hotspots, including the Southwest Atlantic and the SPRFMO convention area, where they appear to be operating at or above pre-delisting levels, aided by a global network of companies that provide logistical and operational support.[19]

PME's continued operations, despite sanctions and high-level attention, highlight a serious gap in how IUU fishing and labor abuse are currently understood and enforced, including these largely unaddressed networks of enablers that support the operations of illicit actors within distant water fishing fleets.

Figure 3. Post-Delisting Operations of Pingtan Marine Enterprise, April 2024 - December 2024



Graph based on Global Fishing Watch data that highlights movements of 34 fishing and support vessels ultimately controlled by Pingtan Marine Enterprise, one year after its delisting from the Nasdaq. Vessel paths indicate prolonged voyages without port calls, and thus, without regional oversight, around South America. Source: Author's calculations based on AIS transmission data sourced from Global Fishing Watch. Ownership information sourced from C4ADS' Net Worth (2022).

METHODOLOGY

This report uses publicly available information to map the onshore and offshore support networks enabling the distant water squid fleet. The analysis starts with all distant water squid vessels active in FAO zones 41 and 87—in the Southwest Atlantic and Southeast Pacific—from December 1, 2021, through December 1, 2024, based on automatic identification system (AIS) transmission data and RFMO vessel lists.[20] C4ADS then created a vessel of interest (VOI) list of distant water squid vessels suspected or confirmed of having perpetrated IUU fishing or human rights abuses, have sanctions designations, or show significant AIS transmission gaps. This yielded 271 unique vessel identifiers (MMSIs), providing a rough proxy for vessel count.[21] C4ADS defines significant AIS transmission gaps as seven or more consecutive days without transmission in a fishing area.[22] Vessels with shared ownership tend to exhibit similar operating patterns. As such, C4ADS used vessel ownership data and corporate records to map broader fleets of interest (FOIs) that are connected to VOIs through shared ownership, thereby identifying fleets with a history of risky or illicit activities.[23]

C4ADS mapped offshore support networks using AIS transmission data from Global Fishing Watch (GFW), Windward Maritime Intelligence, and Starboard Maritime Intelligence to identify the reefers, tankers, and other support vessels that likely met with VOIs based on speed and proximity.[24] Because we identified these activities through AIS transmission data, they are not officially confirmed meetings, but offer a suitable proxy when public transshipment records are not available. When possible, we corroborated encounters through SPRFMO transshipment data, however this data contains only a small share of transshipments and encounters.

Our analysis of onshore support networks of VOIs focused on agents facilitating port arrivals or representing vessels, shipyard repairs, and insurance coverage. C4ADS sourced port arrivals, primarily using data from Peru's National Ports Administration, verified against SPRFMO data, and for Atlantic vessels, Uruguay's National Ports Administration.[25] C4ADS corroborated both sources with AIS transmission data. To determine shipyard entries, C4ADS used Peruvian shipyard transparency records, AIS transmission data, media reporting, images of vessels in shipyards, and insurance claims for ship repairs.[26] Insurance coverage was first pulled from S&P Global and verified with P&I ship search pages when possible. C4ADS matched claims from fisheries mutual insurance records for squid vessels and reefers to operations off South America through AIS transmission data, port calls, and likely encounters with support vessels.

LIMITATIONS

The lack of fisheries management in the Atlantic significantly reduced our analysis in that region due to limited data. In contrast, Peru's more transparent data environment allowed us to conduct a detailed analysis of onshore networks, which is why this report largely focuses on Peru and the Pacific side of South America. Less than 10% of distant water squid fleet port visits were to Chilean ports during the study period (December 1, 2021, to December 1, 2024). Changes to Uruguay's data environment in 2023 restricted our analysis of that country from December 2021 to December 2023.

C4ADS corroborated refueling and transshipment events across multiple platforms and with official transshipment records from SPRFMO when possible. However, discrepancies in AIS coverage, tampering, and errors in event counts may alter results between platforms. Calculations and statistics in this report offer conservative estimates, and numbers will not capture every potential encounter event, as some may go unreported or undetected.

OFFSHORE ENABLERS

Roughly 80 offshore support vessels, including tankers, reefers, and floating offshore fishery bases, supported the distant water squid fleet during the study period, allowing them to remain at sea for extended periods, often beyond the reach of land-based authorities and transparency measures.[27]

REEFERS

Refrigerated cargo ships, or "reefers," are essential to the distant water squid fleet, transshipping catch, provisions, crew, and gear to and from vessels at sea. By eliminating the need for long, fuel-intensive voyages to port, reefers help reduce operational costs.[28] At the same time, they enable vessels engaged in IUU fishing and human rights abuse to evade port controls, obscure catch origins, and operate with minimal enforcement risk.

Current regulatory gaps further undermine reefer transparency and enforcement. In the SPRFMO convention area, reefers must report transshipments of fishery resources and may only interact with SPRFMO-authorized vessels. However, there is no requirement to report transfers of nonfishery resources, such as crew members or supplies.[29] Squid jiggers face more lenient reporting requirements than other fisheries, which must provide advance notice of transshipments. Instead, they are only required to submit logs within 30 days after transshipment and provide operational details quarterly.[30] In the Atlantic, the situation is even more opaque, as squid transshipment occurs without any RFMO oversight, further weakening enforcement.

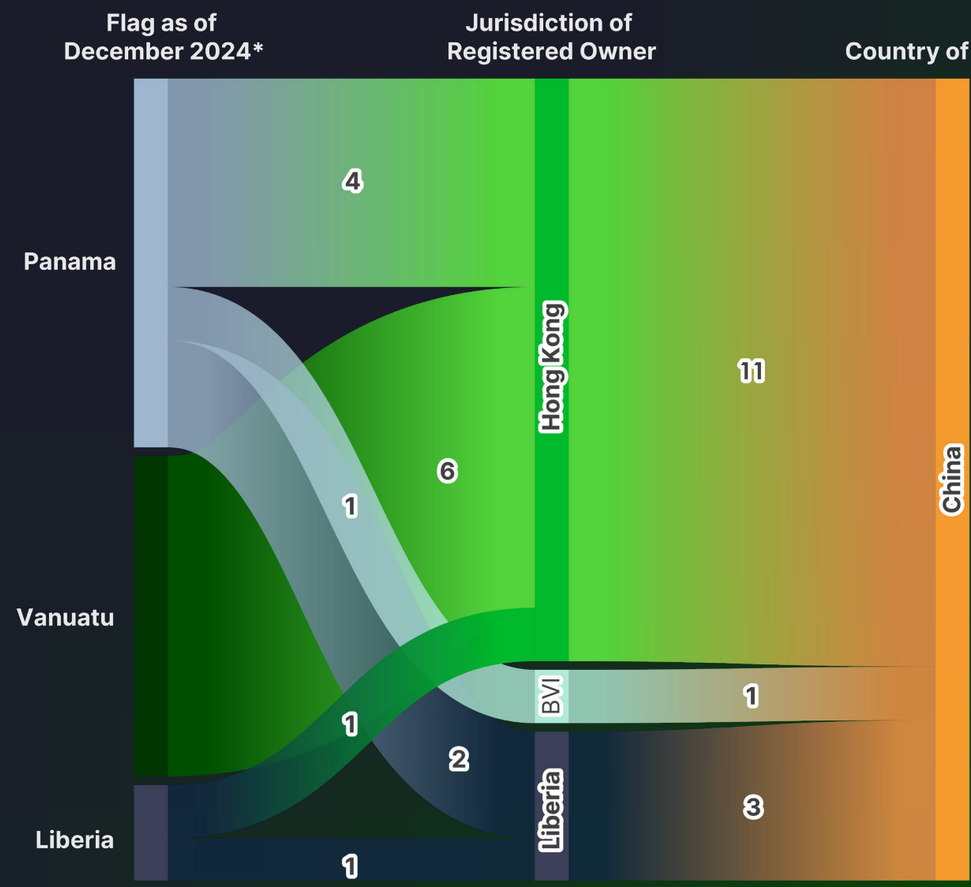
Chinese companies exert significant influence over the reefer operations that sustain the distant water squid fleet. AIS data indicates that between December 2021 and December 2024, approximately 89% of high seas transshipment events with the distant water squid fleet involved reefers that are beneficially owned in China. During this period, just 15 reefers accounted for 72% of AIS-correlated transshipments with the distant water squid fleet. They also accounted for 70% of all transshipments involving VOIs—vessels with an alleged history of risky or illicit activities.[31] While none of these reefers operate under the Chinese flag, Chinese corporate records indicate that all 15 are ultimately owned by Chinese companies or individuals through subsidiaries domiciled in Hong Kong or Liberia.[32]

Reefers typically transport catch from the distant water squid fleet to China for processing, bypassing ports closer to the South American fishing grounds.[33] Over 90% of reefers supporting the distant water squid fleet followed this pattern, allowing squid vessels to continue operations on the high seas without the need to go to port themselves.[34] Countries party to the Agreement on Port State Measures (PSMA), including Peru, Chile, and Uruguay, are mandated to deny port entry to vessels suspected of IUU fishing activities.[35] As China and Taiwan had not ratified the PSMA during the study period, this practice weakened the agreement's deterrent effect.[36] By sidestepping ports with stronger inspection protocols, reefers reduce enforcement opportunities and enable risky vessels within the distant water squid fleet to offload catch with minimal oversight.

Many reefers supporting the distant water squid fleet use "flags of convenience" rather than the flag of their home nation to gain tax benefits, reduce oversight, obscure ownership, or limit legal risks.[37] While this practice is legal and commonly used, it complicates enforcement by spreading responsibility across multiple jurisdictions, each with different regulations and enforcement capacities, and by making vessel ownership and fleet relationships harder to trace.

Historically, the majority of reefers supporting the distant water squid fleet operated under the Panama flag, including 13 of the 15 most active squid reefers between 2021 and 2023. However, following the Aquatic Resources Authority of Panama (ARAP) and Panama Maritime Authority (AMP)'s coordinated deflagging of vessels for IUU fishing links in 2022, six of them reflagged to Vanuatu, another flag of convenience.[38] By February 2025, only four of the 15 reefers supporting the distant water squid fleet remained under the Panama flag.[39] The impact of Panama's enforcement action demonstrates the leverage that flag states hold in combating IUU offenses. However, the reefer's ability to subsequently reflag underscores the need for a global approach to flag state enforcement.

Figure 4. Top Fifteen Reefers Transshipping with the Distant Water Squid Fleet, Ultimate Country of Control



**The vessel's last flag when transshipping with the distant water squid fleet within the study period. Source: Author's calculations based on S&P Global and country corporate records.*

Case Study: Wei Fong Shipping Company Limited

Wei Fong Shipping Company Limited ("Wei Fong"), based in Zhoushan, China, appears to play a pivotal role in supporting the distant water squid fleet in the Southeast Pacific and Southwest Atlantic. Its vessel, He Tai (IMO: 9070137), was the most active reefer by number of transshipments in this area between December 2021 and December 2024. Along with sister ships that also rank among the top 15 most active reefers, Triton Reefer (IMO: 8911102), Wei Ning (IMO: 9064229), and He Shun (IMO: 9044358), AIS data indicates that Wei Fong's fleet consistently serviced vessels owned by Zhoushan Ningtai Ocean Fishery Company Limited ("Ningtai"), one of the largest and most active squid fleets in the region.[40]

Roughly 65% of Ningtai's transshipments during this period were with Wei Fong reefers. AIS data and investigative reports link several Ningtai vessels to suspect or risky behavior, including unauthorized transshipments, extended AIS transmission gaps, and risk indicators of forced labor.[41]

According to the Chinese government, two Ningtai vessels, Ning Tai 11 and Ning Tai 62, conducted transshipments with unregistered reefers in the SPRFMO convention area in 2017 and 2018, violating SPRFMO regulations and prompting the Chinese government to revoke their annual fuel subsidies.[42] Eight Ningtai vessels, including the Ning Tai 6, 57, 617, and Pu Yuan 886, have exhibited significant AIS transmission gaps, some exceeding one month, which could be a result of malfunctioning AIS equipment (which would be unusual on eight separate vessels in the same fleet) or could suggest unmonitored activity.[43]

Labor rights concerns are especially acute. The Ning Tai 52, 57, and 6 have all exhibited indicators of forced labor, with the latter two disembarking deceased and injured crew in Callao, Peru.[44] In 2020, a crew member from the Ning Tai 52 submitted a formal complaint to Greenpeace citing eight International Labor Organization forced labor indicators, including restriction of movement, physical and sexual violence, excessive overtime, and withholding of wages.[45] These vessels collectively participated in dozens of transshipments with Wei Fong reefers.[46]

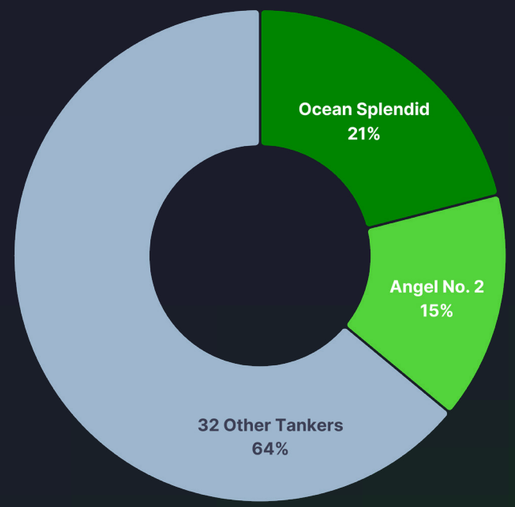
In total, 22 Ningtai vessels are on this report's vessels of interest (VOIs) list due to their alleged history of risky or illicit activities. These Ningtai VOIs engaged in 140 likely transshipment events with Wei Fong reefers, with seven vessels meeting more than 10 times during the study period. Though corporate records show no formal ownership link, Ningtai publicly lists several Wei Fong vessels on its website, and in 2024, the two companies announced that they co-launched Ning Feng Leng 1 (IMO: 9995131) and Ning Feng Leng 2 (IMO: 1026697), with a third reefer under construction.[47]

While Wei Fong reefer operations are legal, as the company's active reefers remain authorized in SPRFMO as of January 2025, its strategic relationship to and persistent engagement with Ningtai vessels raise concerns about enabling IUU fishing and human rights abuses that Ningtai has been accused of in the past.[48] These partnerships demonstrate how reefers may internalize operations, limit oversight, obscure activities, and prolong time at sea, thereby reducing transparency and enforcement opportunities.

TANKERS

Tankers play a critical but underregulated role in supporting distant water squid fleet operations by providing at sea refueling (bunkering) with minimal regulatory oversight.[49] Tankers face fewer regulatory restrictions compared to reefers.[50] Unlike reefers, tankers are not consistently required to provide notice of bunkering activities in RFMOs.[51] This regulatory gap allows tankers to support the distant water squid fleet with little record of encounters.

Figure 5. Two Vessels Account for Roughly a Third of All AIS-Detected Bunkering Events with the Distant Water Squid Fleet



AIS-detected bunkering events from December 1, 2021, to December 1, 2024.
Source: Author's calculations based on Windward Maritime Intelligence data.

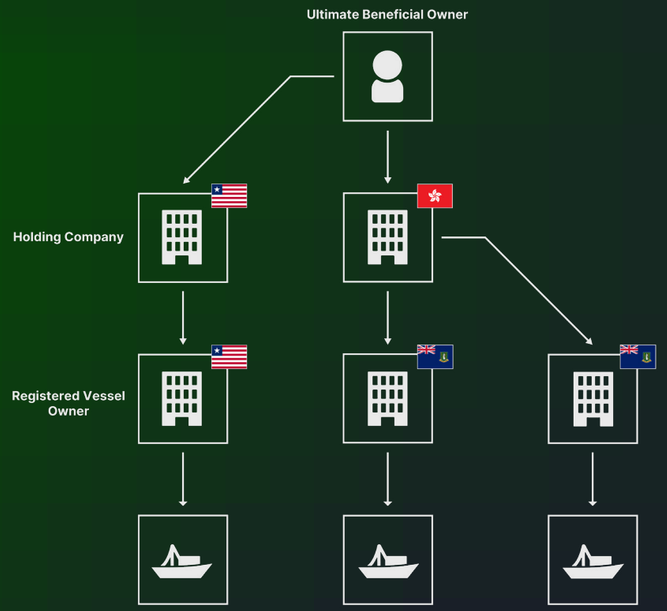
AIS analysis of ship-to-ship transfers from December 2021 to December 2024 identified roughly 30 tankers refueling the distant water squid fleet, with over 80% of suspected refueling events linked to just nine vessels.[52] These same nine tankers accounted for 82% of suspected refueling events involving squid VOIs.[53] Beyond engaging with the squid VOIs, several of the nine tankers and their owners have histories of alleged illicit activity, including conducting ship-to-ship transfers with IUU-linked vessels and involvement in oil smuggling networks.[54]

Several tankers refueling the distant water squid fleet share a common ownership structure in which they operate through single-ship companies registered in secrecy jurisdictions using shell or subsidiary companies.[55] This structure conceals beneficial ownership and interfleet connections of vessels and reduces legal exposure, reducing the ability to effectively sanction the person or people who actually benefit.[56]

While the reefer network has limited ownership overlap and is primarily beneficially owned by Chinese companies, the tanker network has a greater global distribution with fewer owners. Beneficial ownership of the tankers refueling squid VOIs is primarily split between Singapore (53%) and China (30%), followed by Greece (13%) and Korea (4%).[57] Overall, tankers do not appear to preferentially refuel vessels based on flag or company affiliation, which is likely due to the small number of active tankers servicing the fleet.[58]

The lack of regulation and opaque ownership structures in the tanker networks make it harder to monitor and enforce regulations against IUU fishing and forced labor at sea.

Figure 6. Typical Ownership Structure for a Tanker Servicing the Distant Water Squid Fleet



Some tankers have additional layers of shell or holding companies obfuscating the ultimate beneficial owner.

Case Study: The Winson Group

Half of all suspected bunkering activities with VOIs in the distant water squid fleet from December 2021 to December 2024 were carried out by tankers which public records and commercial databases indicate are ultimately controlled by Winson Oil, part of the larger Singapore-based Winson Group, a company that has been associated with extensive illicit activity.[59] Winson Group and its executives have previously been investigated by the UN Security Council for facilitating oil smuggling to North Korea, and the group has been implicated in charges of bribery, tax evasion, and corruption.[60]

The two most active tankers in refueling the distant water squid fleet VOIs over this period, the Ocean Splendid (IMO: 9221683) and Angel No. 2 (IMO: 9146027), handled 42% of suspected VOI refueling events and, according to S&P Global data, are part of the Winson Group tanker network.[61] Both tankers have a history of bunkering with VOIs.

The Ocean Splendid was investigated and sanctioned in January 2024 by the Aquatic Resources Authority of Panama (ARAP) for IUU-related activities.[62] ARAP previously sanctioned several other tankers that appear to be controlled, indirectly owned, or managed by Winson Group for IUU-related activities.[63] ARAP fined the British Virgin Islands companies that directly owned these vessels, which had concealed the vessels' interfleet ownership connections through their registration in a secrecy jurisdiction.

The Winson Group's apparent continued role in fueling distant water squid fleet operations, despite its history of sanctions and illicit operations, demonstrates how offshore fuel networks sustain illicit fishing, while opaque ownership structures can shield high-risk actors from scrutiny.

When contacted prior to publication about these findings, Winson group stated, "[These vessels] were not owned, managed, chartered, and/or controlled by any Winson Group entity during the time period mentioned, i.e., from December 2021 to December 2024. To-date, those vessels are also not owned, managed, chartered, and/or controlled by any Winson Group entity." This statement is refuted by corporate and flag registry data, as well as data from S&P Global.

FLOATING OFFSHORE FISHERY BASES

Select squid jiggers within the distant water squid fleet act as multifunctional support vessels, providing medical care, logistical support, and operational coordination. These support vessels also enable fleet-wide obfuscation of labor conditions, vessel activities, and potential illicit practices, as they lengthen the time vessels spend away from port and prevent oversight on vessel conditions. While referred to in this report as floating offshore fishery bases (FOBs), other names for vessels in this category include comprehensive support ships, offshore fishery mobile bases, integrated support vessels, and hospital ships.[64] Hospital ships are not unprecedented for distant water fishing operations, and many fishing vessels contain some medical facilities or telehealth capabilities to provide timely access to medical care for the crew while at sea.[65] Unlike traditional hospital ships, which are registered as such and primarily serve as medical facilities, FOBs are registered as fishing vessels but serve a more diverse set of functions.

Artis0nal and The Outlaw Ocean Project were the first to identify the two hospital ships currently or previously operating in the SPRFMO convention area that form the basis of this analysis.[66] Although only the Pu Yuan 801 (IMO: 8779920) and Zhe Pu Yuan 98 (IMO: 8791071) have been explicitly identified by Chinese media reporting so far, further investigation into behavioral patterns may reveal additional FOBs operating within other RFMOs and FAO regions, especially for fleets that have limited port access and a need for in-fleet coordination and support.

Chinese media reports claim FOBs have treated more than 1,000 patients at sea and transported critically ill patients to the port more than 50 times, although these numbers could not be corroborated using AIS data.[67] By shuttling crew and supplies to and from port while also providing at-sea medical care, FOBs allow other vessels in the Chinese squid fleet to bypass inspection by Peruvian port authorities and evade reporting on the circumstances of sick or injured crew. As a result, distant water squid fleet operations, catch documentation, crew conditions, and labor practices remain largely unknown to external observers and regulatory bodies.

Reports from Zhejiang-based trade organizations and media indicate that, in addition to offering medical services, FOBs play a significant role in coordinating and monitoring the activities of the Zhejiang-based distant water squid fleet.[68] Chinese media reports that the FOBs mediate crew disputes and oversee maritime security management.[69] The FOBs have also reportedly provided towing and search and rescue support, lessening the burden on coastal states for emergency aid.[70]

Reports from Zhejiang-based trade organizations and photographs from media sources suggest the Pu Yuan 801 has been retrofitted to include a questioning room (问讯室) and a hotline to the Shenjiamen Border Police. A press release from the Zhoushan Municipal Oceans and Fisheries Bureau notes that the Zhe Pu Yuan 98 will "maintain public security and foreign-related security management in fishing grounds."[71] Photos taken aboard the Pu Yuan 801 and Zhe Pu Yuan 98 and published in Chinese media show some onboard personnel in what could be Chinese Coast Guard or state security uniforms.[72]

Case Study: Zhe Pu Yuan 98

The Zhe Pu Yuan 98 presents a concerning example of how offshore and onshore networks interact to support the distant water squid fleet. Officially registered as a fishing vessel in SPRFMO, its operational patterns suggest a much broader and less transparent role. Initial reports from Artis0nal identified the vessel operating as a hospital ship within the distant water squid fleet.[73] However, the role of the Zhe Pu Yuan 98 within the distant water squid fleet appears to be closer to a command and control center, as it is reported to also coordinate movements of the broader squid fleet and provides maritime security and rescue support.

Figure 7. Zhe Pu Yuan 98

Source: The Outlaw Ocean Project / Ben Blankenship

From December 2021 to December 2024, the Zhe Pu Yuan 98 made at least 15 port calls in Peru and disembarked 16 sick, injured, or deceased crew members, although the crew members' vessels of origin and circumstances surrounding their conditions appear to be undocumented in official reports.[74] It is likely that the crew members disembarking in port did not originate from the Zhe Pu Yuan 98, however, determining the vessel of origin may provide critical insight into the onboard conditions, treatment, and patterns of vessels with recurring sickness, injuries, or death. Many of the vessels that likely transferred crew displayed AIS anomalies, uneconomical movements, or engaged in brief encounter events of under an hour.[75] Chinese fishery insurance records reveal employer liability payouts for injuries occurring on or around the same dates as potential encounters with the Zhe Pu Yuan 98, including for events where the crew members were likely treated at sea.[76] However, the brief and discrete nature of crew transfers, such as transfer by zipline, means these encounter events are not typically captured by AIS platforms, making it difficult to trace the movement of the crew.[77]

Because vessels are not required to report crew transfers, crew members can be transferred without a trace from one ship to another, limiting vessel accountability for status, number, and the origin of crew. It also makes it possible for the Chinese distant water squid fleet to internalize its operations, closing it off from external oversight. As a result, vessels that are not ostensibly connected can coordinate closely on the high seas, including with vessels that have a track record of abuses.

For example, in the early morning of January 24, 2024, both the Ming Xiang 826 (IMO: 9865477) and the Zhe Pu Yuan 98 appeared to stop fishing operations and travel for three days directly toward each other.[78] The Zhe Pu Yuan 98 traveled over 900 nautical miles (nm) from squid grounds off the southern EEZ of Peru, and the Ming Xiang 826 traveled over 800 nm from west of the Galapagos before likely meeting on January 27 on the high seas.[79]

Following an apparently brief meeting, the Zhe Pu Yuan 98 immediately began a three-day transit to the port of Callao, Peru while the Ming Xiang 826 returned to its previous fishing grounds.[80] According to in-port inspection records from the Peruvian Ministry of Production, provided in collaboration with Artis0nal, the Zhe Pu Yuan 98 disembarked a sick crew member.[81] The records do not specify the crew member's vessel of origin, so it could not be confirmed whether they came from the Ming Xiang 826.

The Ming Xiang 826 is part of a fleet of interest that includes three other vessels whose crews have submitted complaints matching the following International Labor Organization labor indicators: failure to return documents, abuse of vulnerability, deception, withholding of wages, abusive working and living conditions, and excessive overtime.[82] While the Zhe Pu Yuan 98 may have provided necessary medical care to the disembarked crew member, the lack of transparency about the crew member's origin obscures potential systemic labor abuses and shields vessel operators from further scrutiny.

> *"It is imperative to establish clear guidelines for crew transfers and implement standardized records to document these events. Mandatory registration of crew members' data transshipped on the high seas will contribute to guaranteeing the correct traceability of the crew member, and will contribute to addressing forced labor onboard fishing vessels operating in the SPRFMO Convention area." Eloy Aroni, Fisheries Director of Artis0nal*

The Zhe Pu Yuan 98's unconventional role appears to exploit gray areas in SPRFMO regulations. Although hospital ships and support vessels can be formally registered as such, the Zhe Pu Yuan 98 is registered instead as a squid jigger. No regulation explicitly bars a squid jigger from acting as a support vessel, but the Zhe Pu Yuan 98 stands out for its fleet coordination, significantly higher port calls, frequent crew transfers, and overall unusual operations.[83] The lack of formal guidelines governing its activities allows it to function on the margins, obscuring labor conditions, enabling port avoidance for other vessels, and undermining transparency within a fleet that has a history of human rights concerns.

ONSHORE ENABLERS

Onshore networks, including port agents, insurers, and logistics providers, play a critical role in sustaining the distant water squid fleet. They help vessels coordinate onshore logistics, navigate regulations, and continue operating despite compliance risks. These actors serve as in-country representatives and underwrite vessel activities, shaping how regulations are applied and enforced onshore.

PORT AGENTS

Port agents are central to distant water squid fleet operations, acting as the legally required onshore representatives for vessels entering port. They manage interactions with government authorities on behalf of vessel owners who typically do not maintain a local presence in foreign ports and ensure compliance with local regulations.[84] Serving as the de facto "single window" into ship operations, they handle everything from customs clearance and port access to crew documentation. They are the primary conduit for all information exchanged between a vessel and shore-based authorities.[85]

This influential role creates opportunities for abuse. Port agents may knowingly or unknowingly represent vessels with a history of IUU fishing or labor violations. As the parties responsible for submitting key documentation, including crew lists, position history, vessel certificates, and port entry requests, they are positioned to misrepresent, omit, or manipulate information. Given that ports are critical chokepoints for identifying IUU fishing activity and labor abuse, port agents play a pivotal role in exposing or concealing these issues.[86] They also have legal responsibility for the vessels they represent and can be charged alongside vessel owners for any illegal activities.[87]

In Peru, just four port agents handled 90% of distant water squid fleet arrivals in the study period.[88] As recent legislation in Peru has increased vessel monitoring requirements for vessels that use port services, port agents have been essential in helping the distant water squid fleet circumvent port access requirements through the use of forced arrivals or potential misrepresentation of purpose for port entry.[89] The Peruvian Ministry of Production and Peruvian Coast Guard fined these four most active port agents at least six times for the actions of the distant water squid vessels they represented, including for failing to submit information, presenting incorrect information, and failing to comply with the responsibilities of maritime agencies.[90]

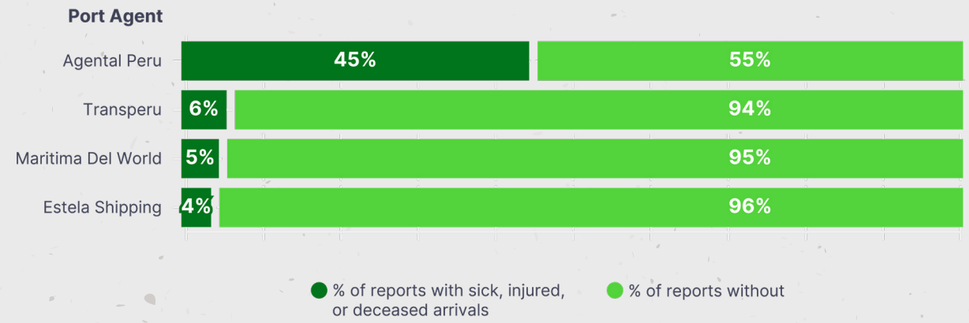
In Montevideo, three port agents represented the squid fleet during the study period and have been linked to a range of illicit activities.[91] One of the port agents, Verny S.A., was implicated in trafficking six Chinese workers into Uruguay to work on squid vessels.[92] Christophersen S.A., the second-most active agent, reportedly cooperated with North Korean authorities to place North Korean citizens on fishing vessels.[93] Both agents have represented vessels accused of or charged with IUU fishing, including one IUU-listed vessel and others involved in illegal transshipment and unauthorized fishing within the EEZs of Argentina and the Falkland Islands/Islas Malvinas.[94] Reports of forced labor allegations tied to vessels they represented included malnourishment, beatings, withholding of pay, improper work wear leading to hypothermia and loss of appendages, and psychophysical exhaustion, among others.[95]

All three of these port agents are members of the Uruguayan Chamber of Foreign Fishing Agents, which is composed of port agents that represent foreign-flagged vessels. This group is prominent in lobbying against port agent due diligence and for decreased port agent liability, with the president of the chamber claiming it is not the agency's responsibility to check the vessels' information.[96] Similarly, in Peru, the Peruvian Association of Maritime Agents and the Inter-American Chamber of National Associations of Maritime Agents hosted seminars on methods for defending port agents from fines and promoted legislation and proposals to defend the interests of port agents.[97] The activities of both associations suggest port agents are aware the fleets they are facilitating come with financial, reputational, and legal risks, and they are working to remove their accountability.

Case Study: Agental Peru

Agental Peru S.A.C. ("Agental Peru"), a Peruvian branch of a Chilean company, is a port agent that facilitates the landing of vessels in the major ports of Peru. Between December 2021 and December 2024, it facilitated the landing of at least 183 vessels in Peruvian ports, 60% of which were part of the distant water squid fleet.[98] Of these vessels, 65% were vessels of interest.[99]

Figure 8. Port Agents Servicing Squid Vessels with Sick, Injured, or Deceased Crew



The top four port agents in Peru with the highest percentage of port arrival reports that include a sick, injured, or deceased crew from the distant water squid fleet from December 1, 2021, to December 1, 2024. Source: Author's calculations using SPRFMO Inspection Reports.

Peruvian port records indicate that, during the study period, Agental Peru represented distant water squid vessels in 41 of the 70 documented cases involving the disembarkation of sick, injured, or deceased crew members, more than any other port agent in Peru.[100] Agental Peru also represented the Zhe Pu Yuan 98, a FOB supporting the distant water squid fleet for at least 11 of its 15 arrivals from December 2021 to December 2024 to offload sick, injured, or deceased crew.[101] While medical emergencies do not necessarily indicate malpractice, their bulk handling by a single port agent could suggest a larger pattern of support and misrepresentation. During the study period, over 35% of the recorded vessel arrivals facilitated by Agental Peru were for disembarking sick, injured, or deceased crew.[102] This share is substantially higher than the other top three most active port agents serving the squid fleet.

Agental Peru also has a documented history of representing high-risk vessels and was penalized for regulatory violations in 2023 and 2024.[103] In 2023, it represented the Tian Xiang (IMO: 8786038), which was involved in the only case of illegal fishing that year that the Peruvian Ministry of Production fined.[104] The following year, Agental Peru was fined by the Coast Guard of Peru after the Shunze 86 (IMO: 9870501), under its representation, failed to declare its port entry.[105] Under Peru's Legislative Decree No. 1147, port agents are legally responsible for the actions of the vessels they represent.[106] Despite this, Agental Peru has repeatedly represented vessels with clear indicators of IUU fishing and human rights abuses and attempted to evade accountability when these vessels were penalized by claiming force majeure, or unforeseen events beyond their control.[107]

Between January 2021 and July 2024, Agental Peru submitted at least 20 arrival requests in which the stated purpose for arrival did not match official inspection records.[108] For example, in November 2022, Agental listed "renewal of certificates" as the reason for the Tian Shun's (IMO: 8786026) port

entry, but the Peruvian Ministry of Production later recorded the actual purpose as a "Sick Crew Member," whose name was not included in the original crew list submitted and endorsed by Agental Peru.[109] In another example, in 2023, Agental Peru requested a forced arrival for the Ning Tai 65 (IMO: 8778500) to "endorse documents," though official inspection records later list the purpose was to hospitalize a crew member with a puncture wound to the head.[110]

The active general manager of Agental Peru is the current president of the Peruvian Association of Maritime Agents and former president of the Inter-American Chamber of National Associations of Shipping Agents. Both have promoted legislation and proposals to defend the interests of port agents.[111]

Overall, the actions of Agental Peru demonstrate how gaps in port oversight and agent accountability can weaken enforcement at one of the few chokepoints in the high-seas fishing supply chain, making it harder for authorities to detect IUU fishing, human rights abuses, or other violations tied to the distant water squid fleet. Their outsized role in handling medical disembarkations suggests a possible pattern of complicity that may shield problematic operators from scrutiny.

Complicating Factors for Transparency: Shipyards

Distant water vessels typically require maintenance every 12 to 18 months and rely on portside repairs and foreign shipyards to reduce transit losses for repairs in their home country.[112] While accessing shipyards in Peru, Chile, Argentina, and Uruguay could be done legally, distant water squid vessels have engaged in uneconomic voyages and misrepresented port entry purposes to evade monitoring and enforcement measures associated with shipyard access, often with the knowing or unknowing assistance of port agents.

The distant water squid fleet drastically reduced its use of Peruvian shipyards after Peru implemented higher transparency requirements. Prior to 2020, up to 200 squid vessels annually entered Peruvian shipyards Callao and Chimbote for routine maintenance and inspection.[113] After Peru enacted DS 016-2020-PRODUCE, which requires foreign fishing vessels to install or share previous location data from compatible vessel monitoring systems (VMS) to access port services, AIS and port data indicate that no squid vessels accessed Peruvian shipyards for a year.

Between May 2023 and December 2024, at least 35 vessels exploited loopholes to continue accessing Peruvian ports and shipyards without the legally required VMS. Of these, one port agent: Estela Shipping Peru S.A.C., handled 74% of them.[114] In such cases, port agents may have misrepresented entry purposes, citing crew changes or certificate renewals, only for vessels to proceed to shipyards for service.[115] In total, 31% of these vessels were identified as VOIs.

In the past year, AIS activity indicated that to bypass Peruvian port access requirements, up to seven squid vessels may have opted for a costly and inefficient alternative: traveling south to Chilean ports and shipyards that lack the Peruvian VMS requirement.[116] While only a small number of distant water squid vessels have taken this route, it may indicate future changes in behavior of the distant water fleet.[117] Transiting to Chile incurs additional fuel expenses and loses weeks of fishing time, but it may be preferable to complying with Peru's VMS requirement or returning to their flag state for maintenance, a much longer and more expensive journey.

Some vessels opt to remain at sea without maintenance, increasing the risk of mechanical failures, deteriorating working conditions, pollution, emergency rescues, and detentions upon port entry. Lack of maintenance places an additional burden on the nearest coastal state's rescue service, due to their international obligations to provide aid.[118] The Peruvian Coast Guard has stated that at least one of the distant water squid vessels that entered port in 2024 was ordered to enter a shipyard to fix serious defects from a lack of maintenance that could lead to the vessel breaking down.[119]

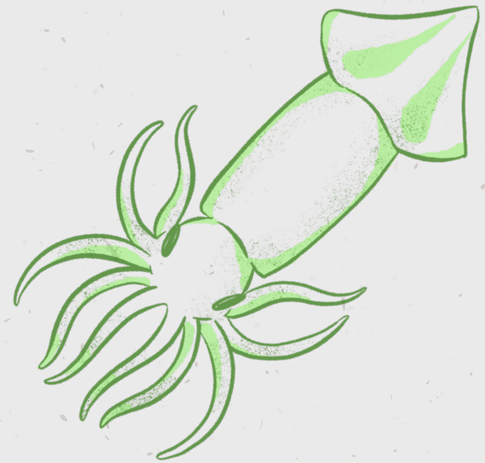
INSURANCE

Insurance is essential for vessel registration, operation, and port entry. All vessels with IMO numbers are required to have a form of insurance at registration, and many countries require proof of coverage or compulsory insurance certificates covering pollution and wrecks to enter port.[120] This makes insurance a potential point of leverage for disrupting distant water squid vessels engaged in or supporting illicit activity. But dropping coverage or increasing premiums for these vessels remains difficult due to high legal burdens and limited transparency around vessel operations. Some insurers continue covering vessels linked to forced labor, IUU fishing, and other illegal activities, indirectly facilitating these operations.[121]

Distant water squid vessels and their support networks have varying insurance policies ranging from basic hull and machinery coverage to broader Protection and Indemnity (P&I) insurance, which protects against liability claims, pollution, cargo loss, and crew repatriation.[122] Insurance coverage acts as a financial safety net for illicit operators, mitigating risks from accidents, poor labor conditions, and lack of maintenance. While many P&I clubs publicly denounce forced labor and are legally empowered to cancel the insurance of IUU-listed vessels and their fleets, some insurers have continued coverage of vessels and fleets with allegations of forced labor and IUU fishing.[123]

Following the coordinated deflagging of 32 vessels by ARAP and AMP for IUU fishing links, several unsold or unscrapped vessels retained their existing insurance coverage.[124] Some of the reefers deflagged by ARAP and AMP for IUU fishing links remained insured by Steamship Mutual and Skuld.[125] Likewise, ARAP sanctioned five tankers involved in IUU fishing activity and the tankers that were not sold or scrapped continued coverage under American Club.[126] Insurers require high burdens of proof for illegal activity, making it nearly impossible for coverage to be revoked based solely on IUU fishing or labor abuse allegations.[127] Insurers typically only conduct intensive due diligence during short annual or biannual renewal periods, further limiting opportunities for intervention.[128] Exposing and holding accountable the insurers that cover illicit operations could encourage better due diligence practices, especially if RFMOs require insurance documentation for vessel registration or fishing authorization.[129]

Insurance for the Chinese distant water fleet has been historically opaque, but province-level records provide some visibility. The Chinese government provides subsidies for insurance coverage, with three state-owned insurance providers and provincial fisheries mutual insurance associations covering the majority of the distant water squid fleet.[130] Connections to these state-backed and mutually-funded insurance providers can keep vessels operational even when commercial insurers may be reluctant to provide coverage. Data from squid-fishing provinces in China, analyzed by C4ADS, helps illuminate the vessel insurance process in China, particularly how employee liability policies handle payouts for ship accidents, critical illness, and crew injuries or disappearances.[131]



Case Study: Zhe Pu Yuan 58

The case of the Zhe Pu Yuan 58 (IMO: 9900227) highlights how data from insurance payouts, AIS records, and media reporting can be used together to better understand crew movement and vessel labor conditions in the distant water squid fleet. While operating in both the Atlantic and Pacific squid grounds, the fishing vessel was involved in at least three separate incidents between 2022 and 2024 involving sick or injured crew, each documented to varying degrees. Across two of these cases, the vessel's operator filed employer liability claims totaling 2,218,967 CNY (or approximately US$307,000).[132]

The first incident occurred in October 2022 and was confirmed through both an insurance claim and AIS data. The Zhe Pu Yuan 58 received an employer liability insurance payout of 418,967 CNY (approximately US$58,000) for an incident dated October 18, 2022, which was likely recorded in Chinese Standard Time. When adjusted to Coordinated Universal Time (UTC), the date aligns with AIS activity on the night of October 17 showing the Zhe Pu Yuan 58 appearing to stop fishing and quickly sailing toward the Zhe Pu Yuan 98, a floating offshore fishery base (FOB).[133] AIS data shows the two vessels likely met just outside the Peruvian EEZ, remaining within 50 meters of each other and traveling at under one knot.[134] On the same day, the Zhe Pu Yuan 98 requested entry to Callao for a crew emergency, while the Zhe Pu Yuan 58 appeared to resume fishing.[135] On October 19, the Zhe Pu Yuan 98 disembarked a crew member with a blow to the head. Their vessel of origin was not officially reported, and was previously uncertain due to limited reporting on crew transfers.

The second incident occurred in 2023 and is documented solely through an insurance claim from February 2, 2024.[136] The Zhe Pu Yuan 58 did not enter port and AIS data does not identify support vessel involvement, but the employer liability payout for 1,800,000 CNY (approximately US$247,000) suggests another serious crew-related event aboard the Zhe Pu Yuan 58.[137]

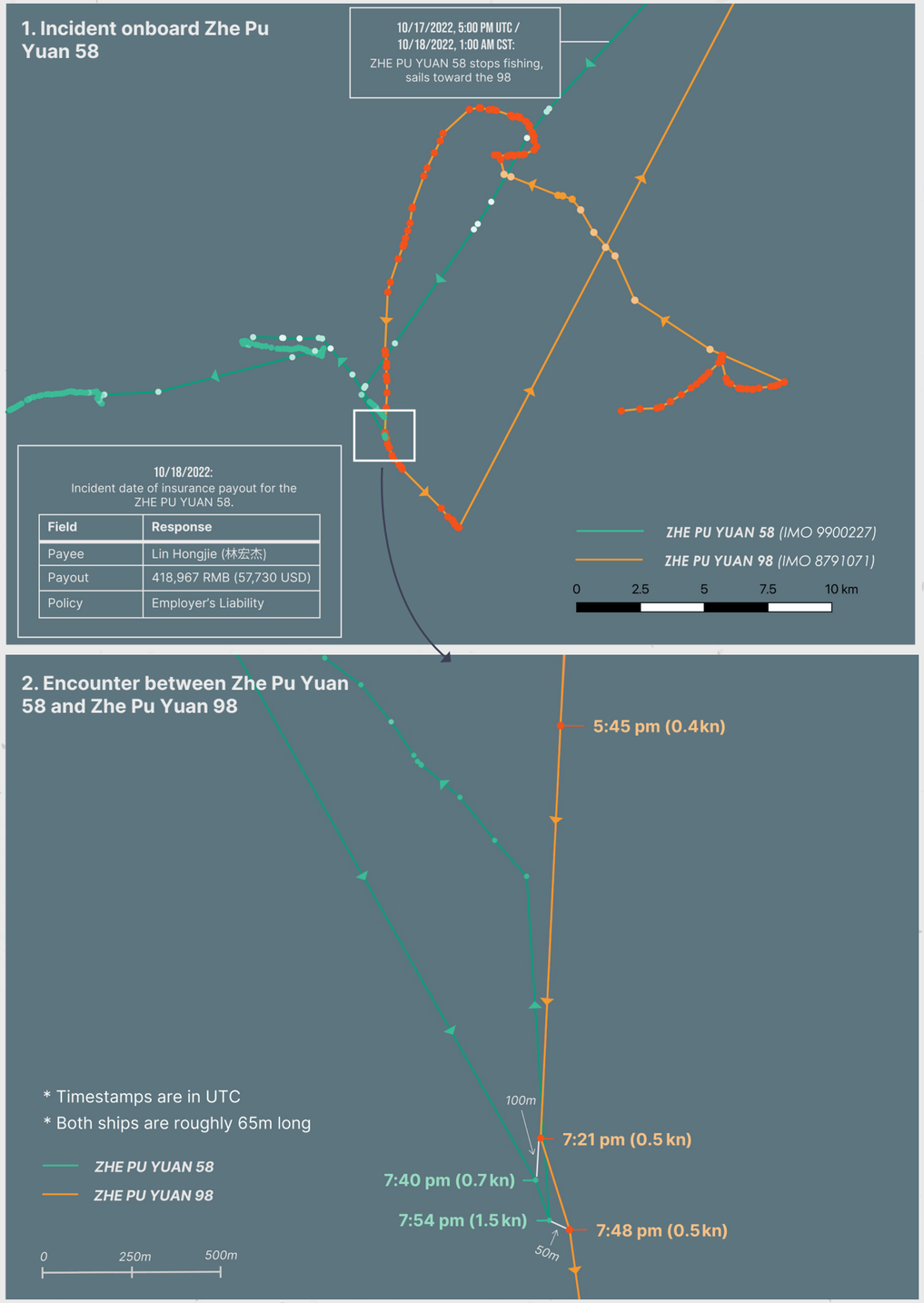
The third incident, in December 2024, was verified through Chinese media and AIS data. On December 5, 2024, the Zhe Pu Yuan 58 and the Zhe Pu Yuan 98, a FOB, met near the equator to transfer an Indonesian crew member via zipline for treatment aboard the Zhe Pu Yuan 98.[138] The crew member was described as having diarrhea, numbness in his limbs, and was unable to eat or move, symptoms consistent with beriberi, a preventable and treatable vitamin B1 deficiency.[139] On December 9, 2024, the two vessels met again, and, according to Chinese media reporting, the Zhe Pu Yuan 98 transferred the crew member back to the Zhe Pu Yuan 58 and directed the 58 to bring the crew member to port.[140] The Zhe Pu Yuan 58 proceeded to transit two weeks from the squid grounds west of the Galápagos to the port of Iquique, Chile, arriving on December 21, 2024, after bypassing Peruvian ports.[141]

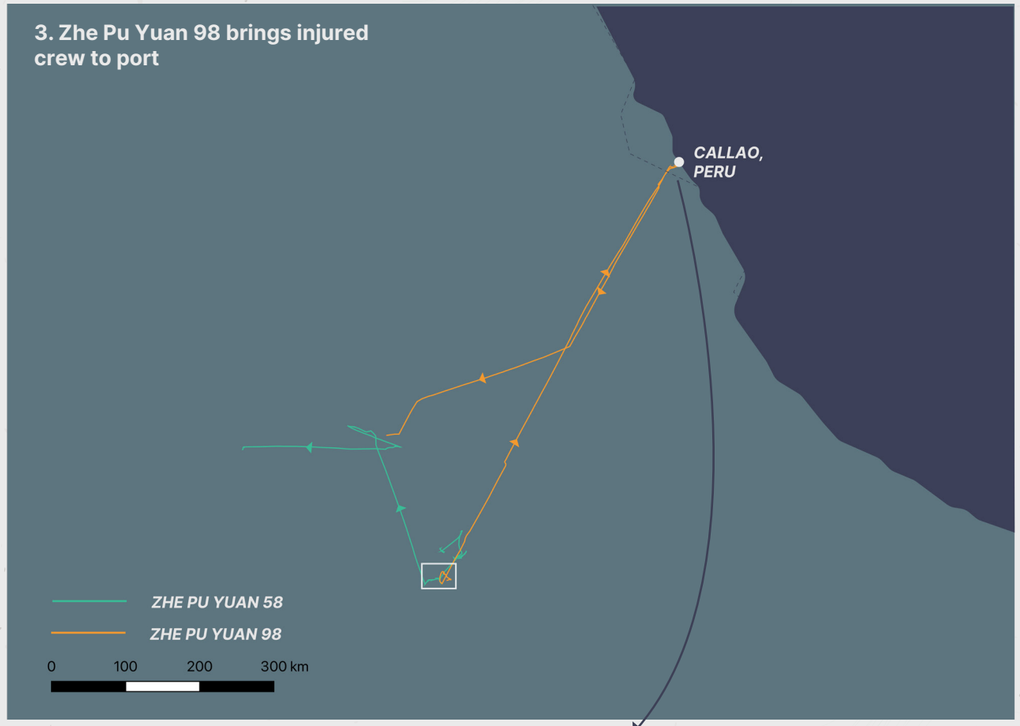
In many similar cases, the crew member's vessel of origin remains unknown due to the lack of reporting requirements for crew transfers. In this instance, the vessel was known only because the FOB directed the vessel to bring the crew member to shore. While insurance claims help identify the likely vessel of origin for injured crew, they lack details about onboard conditions or the causes of harm that may be critical to detecting human rights abuses on vessels that remain at sea for years.

Since launching in December 2019, AIS and port records show the Zhe Pu Yuan 58 spent over 23 consecutive months at sea before its first recorded port call in China in October 2021.[142] It then remained at sea for nearly 27 months before returning to China in March 2024.[143] Despite at least three known crew-related incidents, the vessel's stop in Iquique in December 2024 marked its first port call outside of China since its launch.

The Zhe Pu Yuan 58 case exemplifies how the Chinese distant water squid fleet coordinates and internalizes operations to extend time at sea, including by relying on FOBs to have minimal port interaction. All of this reduces transparency and limits oversight, raising serious concerns about human rights risks and labor conditions aboard vessels that remain offshore for years with little external supervision.

Figure 9. Zhe Pu Yuan 98 and Zhe Pu Yuan 58 Encounter





4. SPRFMO inspection record of the Zhe Pu Yuan 98

10/19/2022:
ZHE PU YUAN 98 arrives at the Port of Callao and disembarks a crew member with a blow to the head.

Type of gear on board: Squid jigging

Findings by inspector:

Observaciones

- El arribo forzoso del buque pesquero, obedece al desembarque de un tripulante [redacted] herido (golpe en la cabeza).
- Se realizó la verificación de las bodegas del buque pesquero ZHE PU YUAN 98, constatándose en la bodega del centro 137000 kg de calamar gigante Dosidicus gigas.
- El buque pesquero realizo un trasbordo el 13/09/2022 al buque QIHANG de Dosidicus Gigas con un peso de 68 toneladas, cuya pesca corresponde a lo pescado entre 18/08/2022 al 14/09/2022, según indica el MATE RECEIPT N°5.

Observations

- The forced arrival of the fishing vessel was due to the disembarkation of an injured crew member ([redacted] (blow to the head).
- The verification of the holds of the fishing vessel ZHE PU YUAN 98 was carried out and 137000 kg of giant squid Dosidicus gigas were found in the center hold.
- The fishing vessel made a transshipment on 13/09/2022 to the vessel QIHANG of Dosidicus Gigas with a weight of 68 tons, whose catch corresponds to the fish caught between 18/08/2022 to 14/09/2022, according to the MATE RECEIPT N°5.

Apparent Infringements (include reference to relevant legal documents):

Reason for arrival: *Forced arrival, injured crew with blow to the head.*

The date of incident listed on the insurance claim was converted from CST to UTC, shifting the date from October 18 to October 17, 2022.
Source: Author's calculations using internal C4ADS records of insurance payouts, SPRFMO inspection records, and Windward Maritime Intelligence.

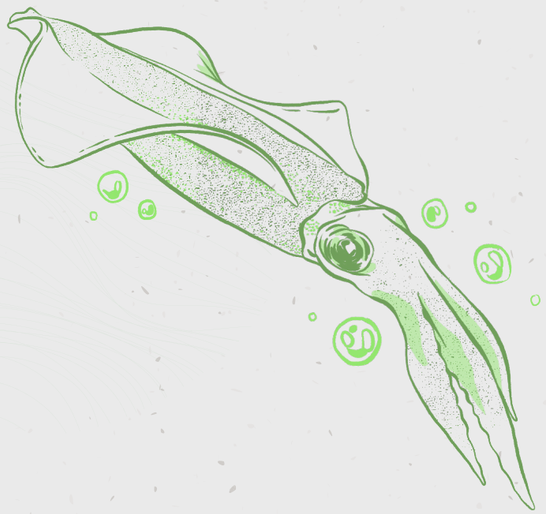
CONCLUSION AND RECOMMENDATIONS

The isolated nature of distant water squid fishing creates ideal conditions for IUU fishing and human rights abuses to occur out of sight and beyond the reach of many regulatory bodies. The reported cases of human trafficking, labor violations, and forced work are likely only a fraction of the actual incidents, as many squid vessels remain at sea for years without repatriating crew or entering port.[144] While offshore surveillance has improved, it remains limited within the distant water squid fleet. This makes it essential to understand and incorporate onshore and offshore enablers into enforcement strategies, as they are critical points of leverage for disrupting illicit activity.

Both onshore and offshore enablers play a central role in enabling the distant water squid fleet to operate with minimal transparency. But these networks often function in gray regulatory areas or are overlooked entirely, allowing problematic vessels to continue fishing despite past violations or labor concerns. A truly effective response requires more than targeting individual vessels. It demands a systemic response that includes stronger oversight and transparency on the broader support systems that sustain illicit fishing operations, while also increasing overall regulation of the distant water squid fleet.

Government subsidies play a major role in keeping distant water fishing operational and profitable, including those engaged in illicit activity.[145] While global efforts, like the World Trade Organization agreement on harmful fishing subsidies, aim to prohibit subsidies that enable illicit fishing activity, progress remains slow.[146] A more comprehensive approach that tackles both the financial incentives and the onshore and offshore enablers that allow high-risk operations to persist is needed. Stopping IUU fishing and human rights abuses in the distant water squid fleet requires aligning transparency, regulation, and accountability across the full supply chain—from port agents and support vessels to flag states and financial backers.

The following recommendations outline practical steps to improve transparency, enforcement, and international cooperation.



Increase due diligence, reporting requirements, and enforcement across the supply chain:

- **Stakeholders, including flag states, port authorities, port agents, insurers, and regional fisheries management organizations should:**
  - Require public disclosure of ultimate beneficial ownership for all vessels. Authorities should retain the ability to revoke flags or insurance coverage for entire fleets connected through shared ownership to IUU fishing or human rights abuses.
  - Conduct due diligence using publicly available data and tools to assess vessel risk profiles and reconsider engagement with high-risk fleets and support vessels, including declining port services through the PSMA and dropping insurance coverage.
- **State and international authorities should:**
  - Impose and enforce sanctions on entities that enable IUU fishing or human rights abuses, including insurers, fuel providers, and port agents.
  - Enact regulations to further restrict illegal fishing activities in the region and prevent vessels involved in IUU fishing from moving their operations and flags between jurisdictions unimpeded.

Strengthen regional fisheries management and international coordination:

Regional cooperation at the interstate and RFMO levels is essential to counter the current disproportionate enforcement and environmental challenges faced by coastal countries. Countries should push for stronger multilateral action while also adopting country-level policies that incorporate the following elements as mandates for access to ports and shipyards, especially when regional consensus cannot be achieved.

To this end, regional actors should:

- **Close the South Pacific Regional Fisheries Management Organisation's regulatory gaps to better address squid fishing and human rights concerns:**
    - Improve data sharing and stock assessments to understand the ecological impacts of the squid fisheries.
    - Introduce binding conservation and management measures for:
        - Pre-authorized squid transshipments and mandatory reporting of bunkering activity.
        - Documenting crew transshipment between vessels to ensure proper accountability of crew-related incidents.
        - A cap on the time crew spend at sea between port calls to no more than one year and mandatory reporting of serious crew incidents (e.g., illness, injury, death), with return-to-port requirements for investigation.
        - Labor protections modeled on the Western and Central Pacific Fisheries Commission's Crew Labor Standards, including access to medical care and safeguards against human rights abuses and unsafe living and working conditions.[147]
- **Close governance gaps in the Southwest Atlantic:**
    - Establish a regional fisheries management organization, treaty body, or fisheries agreement to prevent the exploitation of currently unregulated fisheries and safeguard crews operating on the high seas.

ENDNOTES

1. United Nations, "Agreement on Port State Measures (PSMA)," Food and Agriculture Organization, https://www.fao.org/port-state-measures/en/, accessed April 02, 2025.

2. "The footprint of Distant Water Fleets on World Fisheries," WWF International, August 1998, http://awsassets.panda.org/downloads/distant_water1.pdf.

3. "Shining a Light: The need for transparency across distant water fishing," Stimson Center, November 01, 2019, https://www.stimson.org/wp-content/files/file-attachments/Stimson Distant Water Fishing Report.pdf.

4. "Shining a Light," Stimson Center.

5. Daniel J. Skerritt, Anna Schuhbauer, Sebastian Villasante et al., "Mapping the Unjust Global Distribution of Harmful Fisheries Subsidies," Marine Policy 152 (June 2023): 105611, https://doi.org/10.1016/j.marpol.2023.105611; Enric Sala, Juan Mayorga, Christopher Costello et al., "The Economics of Fishing the High Seas," Science Advances 4, no. 6 (June 2018), https://doi.org/10.1126/sciadv.aat2504; David Tickler, Jessica J. Meeuwig, Katharine Bryant et al.; "Modern Slavery and the Race to Fish," Nature News, November 07, 2018, https://www.nature.com/articles/s41467-018-07118-9#:~:text=Based%20on%20the%20limited%20information,labour%20abuses%20and%20modern%20slavery; and "Following Forced Labor in the World's Fishing Fleets," Global Fishing Watch, https://globalfishingwatch.org/blog/new-study-unveils-risk-of-forced-labor-in-fisheries, accessed March 31, 2025.

6. "Squid Social Risk Profile: China, Fishing and Processing," Monterey Bay Aquarium, accessed March 11, 2025; Alfonso Daniels, Matti Kohonen, Eloy Aroni, and Mariama Thiam; "Dark webs: Uncovering those behind forced labour on commercial fishing fleets," Financial Transparency, 2023, https://financialtransparency.org/wp-content/uploads/2023/11/FTC_2023-Report_Dark-webs_EN.pdf; and Sabina Goldaracena and Sergio Almada, "Labour Exploitation in Distant Water Fishing Vessels Registered with the SPRFMO," ITF Global, January 2025, https://www.itfglobal.org/en/resources/labour-exploitation-in-distant-water-fishing-vessels-registered-sprfmo.

7. Austin Brush and Jessa Rose Dury-Agri, "Who Controls the Distant Water Squid Fishing Fleet? An Investigation into the Ownership of Squid Fishing Vessels Operating in the Southeast Pacific Ocean," C4ADS, April 2022, https://c4ads.org/wp-content/uploads/2022/04/SquidFleet-Brief.pdf.

8. "The footprint of Distant Water Fleets on World Fisheries," WWF International; Katherine L Seto, Nathan A. Miller, David Kroodsma et al., "Fishing through the Cracks: The Unregulated Nature of Global Squid Fisheries," Science Advances 9, no. 10 (March 10, 2023), https://doi.org/10.1126/sciadv.add8125; and Brush and Dury-Agri, "Who controls the distant water squid fishing fleet?"

9. "Peru Jumbo Flying Squid," WWF Seafood Sustainability, January 10, 2024, https://seafoodsustainability.org/portfolio/peru-jumbo-flying-squid/#:~:text=The%20Jumbo%20squid%20fishery%20is,to%20US%20and%20EU%20markets; Seto, Miller, Kroodsma et al., "Fishing Through the Cracks;" and "Shining a Light: The need for transparency across distant water fishing," Stimson Center, November 01, 2019.

10. United Nations, "C029 - Forced Labour Convention, 1930 (No. 29)." Convention C029 - Forced Labour Convention, 1930 (No. 29), International Labor Organization, https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB%3A12100%3A0%3A%3ANO%3A%3AP12100_ILO_CODE%3AC029, accessed March 11, 2025; and Brush and Dury-Agri, "Who controls the distant water squid fishing fleet?"

11. Nate Miller, "Data Advances Understanding of Global Squid Fishing Fleets," Global Fishing Watch, August 06, 2024, https://globalfishingwatch.org/article/data-advances-understanding-global-squid-fishing-fleets/.

12. Daniels, Kohonen, Aroni, and Thiam, Dark webs: Uncovering those behind forced labour on commercial fishing fleets, Global Financial Integrity, Financial Transparency Coalition, Fundación SES, and Pan African Lawyers Union (2023).

13. Seto, Miller, Kroodsma et al., "Fishing Through the Cracks: The unregulated nature of Global Squid Fisheries. SPRFMO CMM 18-2024 establishes some regulatory measures for the jumbo squid fishery, including VMS requirements, mandatory reporting of annual catch and monthly transshipment, a 5% observer coverage on industrial vessels, and a limit on the number and total gross tonnage of squid jigging vessels by flag. "CMM 18 Management of the Jumbo Flying Squid Fishery," SPRFMO, https://www.sprfmo.int/fisheries/conservation-and-management-measures/cmm-18-squid/, accessed March 11, 2025; and "CMM 18-2024: Conservation and Management Measure on the Management of the Jumbo Flying Squid Fishery," SPRFMO, https://www.sprfmo.int/assets/Fisheries/Conservation-and-Management-Measures/2024-CMMs/CMM-18-2024-Squid-1Mar2024.pdf, accessed March 11, 2025.

14. Seto, Miller, and Kroodsma et al., "Fishing through the Cracks: The Unregulated Nature of Global Squid Fisheries."

15. Government of the United States, "Treasury Targets Serious Human Rights Abuse Aboard Distant Water Fishing Vessels Based in the People's Republic of China," Department of the Treasury, December 09, 2022, https://home.treasury.gov/news/press-releases/jy1154.

16. Austin Brush and Mary Utermohlen, "Net Worth: How the Chinese Government & US Stock Investors Are Funding the Illegal Activities of a Major Chinese Fishery Company," C4ADS, March 23, 2022, https://c4ads.org/reports/net-worth/.

17. "Delisting of Securities of Pingtan Marine Enterprise Ltd.; SRAX, Inc.; SVB Financial Group; Signature Bank; Codiak BioSciences, Inc.; PLX Pharma Inc.; Virgin Orbit Holdings, Inc.; Kalera Public Limited Company; Pear Therapeutics, Inc.; and Intelligent Med," Nasdaq, Inc., April 28, 2023, https://ir.nasdaq.com/news-releases/news-release-details/delisting-securities-pingtan-marine-enterprise-ltd-srax-inc-svb#:~:text=Marine%20Enterprise%20Ltd.,Pingtan%20Marine%20Enterprise%20Ltd.,on%20Nasdaq%20since%20that%20time.

18. S&P Global.

19. "Revolutionizing Ocean Monitoring and Analysis," Global Fishing Watch, https://globalfishingwatch.org/, accessed April 08, 2025.

20. "Revolutionizing Ocean Monitoring and Analysis," Global Fishing Watch.

21. "Combined IUU Vessel List," https://www.iuu-vessels.org/, accessed April 08, 2025; "Bait-to-Plate," The Outlaw Ocean Project, https://www.theoutlawocean.com/investigations/china-the-superpower-of-seafood/bait-to-plate/, accessed April 08, 2025; Autoridad de los Recursos acuáticos de Panamá. | Edictos Arap., https://arap.gob.pa/edictos-arap/; Dirección de Sanciones, accessed March 13, 2025; Government of Peru, "Dirección de Sanciones," Ministry of Production, https://transparencia.produce.gob.pe/index.php/supervision-fiscalizacion-y-sanciones/direccion-general-de-supervision-fiscalizacion-y-sancion/direccion-de-sanciones, accessed March 13, 2025; and Government of the United States, "Sanctions List Search," Department of the Treasury, Office of Foreign Assets Control, updated May 12, 2025, https://sanctionssearch.ofac.treas.gov/.

22. Priyal Bunwaree, "The Illegality of Fishing Vessels 'Going Dark' and Methods of Deterrence," International & Comparative Law Quarterly," Cambridge Core, January 11, 2023, https://www.cambridge.org/core/journals/international-and-comparative-law-quarterly/article/illegality-of-fishing-vessels-going-dark-and-methods-of-deterrence/8E5D5C30A15C91BF17423ED1EF6EE0E2; and "Bait-to-Plate," The Outlaw Ocean Project.

23. S&P Global.

24. Vessel encounters are identified by Global Fishing Watch when the vessels are within 500 meters of each other for at least two hours and traveling at less than two knots while at least 10 km from a coastal anchorage. "What Is a Vessel Encounter?," Global Fishing Watch, October 15, 2024, https://globalfishingwatch.org/faqs/what-is-a-vessel-encounter/; "Undefined metrics for determining vessel encounters," Windward Maritime Intelligence, website, https://windward.ai/, accessed April 15, 2025; Vessel encounters are determined by Starboard as starting when vessels are less than 50 meters for at least 10 minutes or less than 200 meters for at least 30 minutes. Likely transshipments are at least one hour, and inferred transshipments are at least four hours at less than 3 knots. "Starboard is the common operating picture for the maritime world," Starboard Maritime Intelligence, https://www.starboardintelligence.com/, accessed April 15, 2025.

25. Government of Uruguay, "Ship Data," Administracion Nacional de Puertos República Oriental de Uruguay, https://www.anp.com.uy/inicio/puertos/montevideo/sistemas/consultas-sobre-arribos/datos-de-buques, accessed April 15, 2025; Government of Peru, "Vessel Data," Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp, accessed April 15, 2025.

26. "Sima," Servicios Industriales de la Marina, SIMA PERÚ, website, https://www.sima.com.pe/Transparency/, accessed February 25, 2025.

27. "Revealing the Supply Chain at Sea: A Global Analysis of Transshipment and Bunker Vessels," Global Fishing Watch, April 2021, https://globalfishingwatch.org/wp-content/uploads/Global-Transshipment-Analysis-Reveals-the-Supply-Chain-at-Sea.pdf; "Most global At-Sea Transshipment Involves a Small Group of Key Carriers," Pew Trusts, March 2023, https://www.pewtrusts.org/-/media/assets/2023/04/global-at-sea-transshipment.pdf; and South Pacific Regional Fisheries Management Organisation (SPRFMO) Inspections and Port Records.

28. "Most global at-sea transshipment involves a small group of key carriers," Pew Trusts, March 2023.

29. CMM 12-2023 transshipment, https://www.sprfmo.int/assets/Fisheries/Conservation-and-Management-Measures/2023-CMMs/CMM-12-2023-Transhipment_29Mar23.pdf, accessed March 11, 2025.

30. CMM 12-2023 transshipment, accessed March 11, 2025.

31. Windward Maritime Intelligence.

32. S&P Global; Chinese Corporate Records; Hong Kong Corporate Records.

33. Starboard Maritime Intelligence.

34. Windward Maritime Intelligence; and Global Fishing Watch.

35. United Nations, "Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing," Food and Agriculture Organization, 2016, https://openknowledge.fao.org/server/api/core/bitstreams/515b81dc-ad65-41c9-ab02-6ff081103cc3/content.

36. United Nations, "Agreement on Port State Measures (PSMA)," Food and Agriculture Organization.

37. "Most global at-sea transshipment involves a small group of key carriers," Pew Trusts; and "Seafarers Pay the Price for the Murky Business of Ship Nationality," International Transport Workers Federation, May 16, 2024, https://www.itfglobal.org/en/news/seafarers-pay-price-murky-business-ship-nationality.

38. "Autoridad de los Recursos Acuáticos de Panamá Asuntos Pesqueros Internacional Circular Técnica 046–2022," ARAP/IFA/TC/046/2022, https://arap.gob.pa/wp-content/uploads/2022/12/046-2022-ES-Buques-pesqueros-cancelados-del-pabell%C3%B3n-paname%C3%B1o-Relacionados-INDNR.pdf, accessed April 15, 2025; and S&P Global.

39. Windward Maritime Intelligence.

40. S&P Global Maritime Intelligence Risk Suite; and Windward Maritime Intelligence.

41. "Forced Labour at Sea: The case of Indonesian Migrant Fishers," Greenpeace in collaboration with SBMI, May 31, 2021, https://www.greenpeace.org/static/planet4-southeastasia-stateless/2021/05/ef65bfe1-greenpeace-2021-forced-labour-at-sea-digital_final.pdf; "Bait-to-Plate," The Outlaw Ocean Project; and "　洋渔业企业及 渔船违法违规问题和处理意见的通报, (Notice on Illegal and Irregular Issues of Distant-sea Fisheries Enterprises and Fishing Vessels and Suggestions on Handling)" http://www.moa.gov.cn/nybgb/2018/201806/201809/t20180904_6156764.htm, accessed March 11, 2025.

42. "农业部办公厅关于部分　洋渔业企业及 渔船违法违规问题和处理意见的通报," (Notice of the General Office of the Ministry of Agriculture on Illegal and Irregular Issues of Some Distant-sea Fisheries Enterprises and Fishing Vessels and Suggestions on Handling,) http://www.moa.gov.cn/nybgb/2018/201803/201805/t20180528_6143244.htm, accessed March 11, 2025; and "农业部办公厅关于部分　洋渔业企业及 渔船违法违规问题和处理意见的通报," (Notice of the General Office of the Ministry of Agriculture on Illegal and Irregular Issues of Some Distant-sea Fisheries Enterprises and Fishing Vessels and Suggestions on Handling,) http://www.moa.gov.cn/nybgb/2018/201806/201809/t20180904_6156764.htm, accessed March 11, 2025.

43. "Bait-to-Plate," The Outlaw Ocean Project; and Windward Maritime Intelligence.

44. SPRFMO Inspection Records.

45. "Forced Labour at Sea," Greenpeace in collaboration with SBMI.

46. Windward Maritime Intelligence; Global Fishing Watch.

47. "运输船队 – 舟山宁泰　洋渔业有限公司," (Transport Fleet - Zhoushan Ningtai Ocean Fishery Co., Ltd) https://web.archive.org/web/20231209153109/http://www.zsningtai.com/index.php?m=content&c=index&a=lists&catid=26, accessed March 11, 2025; Ningtai, "庆首航！全国最大已建大型冷藏运输船"宁丰冷1"今日启航！," (Celebrating the maiden voyage! The country's largest large-scale refrigerated transport ship "Ning feng leng 1" sets sail today!) Weixin Official Accounts Platform, https://web.archive.org/web/20241218145330/https://mp.weixin.qq.com/s?src=11&timestamp=1734533451&ver=5696&signature=Kd9zHoSCAN5TDRImichZhy8jIDFPrRoS3ifIgVshRm6dq98qYZPByebq7yOj2udSIW1xX8fKNMxGx2rhZyM7H6ErD-tFI%2AIMM3xZpitKc1IbG2yTgdokeGzz4r1eFGw6r&new=1, accessed March 11, 2025; Deleted New source, Record Available Upon Request, originally https://3g.k.sohu.com/t/n739426822; and S&P Global Maritime Intelligence Risk Suite.

48. "Search Records of Vessels," SPRMFO, https://sprfmo.org/vessels, accessed March 11, 2025; Yangqirong, "农业农村部办公厅关于部分　洋渔业企业及渔船 涉嫌违法违规问题调查情况和处理意见的通报," (Circular of the General Office of the Ministry of Agriculture and Rural Affairs on the Investigation and Handling of Alleged Illegal and Illegal Problems of Some Pelagic Fishing Enterprises and Fishing Vessels) https://www.moa.gov.cn/nybgb/2018/201806/201809/t20180904_6156764.htm, accessed March 11, 2025; "Bait-to-Plate," The Outlaw Ocean Project; and "Forced Labour at Sea," Greenpeace in collaboration with SBMI.

49. "Transshipment Regulation - RFMO Best Practices," 2020, https://imcsnet.org/resource/transshipment-regulation-rfmo-best-practices, accessed March 11, 2025.

50. With the exception of high seas bunkering for purse seiners for Parties of the Nauru Agreement, "PNA Circular No: 2019-11," Parties to the Nauru Agreement, June 27, 2019, https://pna9.pnatuna.com/sites/default/files/PNA%20Circular%202019-11%20Notice%20%20-%20High%20Seas%20Bunkering%20Ban%20FINAL.pdf.

51. "A global analysis of transshipment and Bunker Vessels," Global Fishing Watch, April 2021, https://globalfishingwatch.org/wp-content/uploads/Global-Transshipment-Analysis-Reveals-the-Supply-Chain-at-Sea.pdf.

52. Starboard Maritime Intelligence.

53. Windward Maritime Intelligence.

54. C4ADS Internal Records; See Winson Oil Case Study in the Tankers section of offshore enablers.

55. S&P Global Maritime Intelligence Risk Suite.

56. "One Ship Company," Ship Arrest In India and Admiralty Laws of India, 2024, https://www.admiraltypractice.com/chapters/80.htm#:~:text=It%20has%20long%20been%20the,beneficial%20owner%20of%20the%20company.%22, accessed February 28, 2025; and Government of the United States, "The Global Oil Tanker Market: An Overview as It Relates to Sanctions," Congressional Research Service, March 18, 2024, https://sgp.fas.org/crs/row/R47962.pdf.

57. Windward Maritime Intelligence; Singapore Corporate Registry; and Chinese Corporate Registry.

58. S&P Global Maritime Intelligence Risk Suite.

59. In this report, the "Winson Group" is a reference to the broader corporate network that includes but is not limited to identified entities that are branded "Winson" in their company names.

60. S/2021/777, September 08, 2021, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/S_2021_777_E.pdf; Lucas Kuo and Lauren Sung, "Black Gold," C4ADS, March 22, 2021, https://c4ads.org/reports/black-gold/; [2024] SGCA 31 Court of appeal / Civil Appeal No 40 of 2023..In the Court od Appeal of the Republic of Singapore, https://www.shlegal.com/docs/default-source/news-insights-documents/2024/2024-sgca-31.pdf, August 21, 2024; and "臺灣高等法院 高雄分院 105 年重上更(二)字第 6 號刑事判決,"(Taiwan High Court, Kaohsiung Branch, Criminal Verdict No. 6 of 105, Chong Shang Geng (II) Zi) Taiwan High Court Kaohsiung Branch Court, June 29, 2017, law.judicial.gov.tw/FJUD/data.aspx?ty=JD&id=KSHM%2C105%2C%E9%87%8D%E4%B8%8A%E6%9B%B4%28%E4%B A%8C%29%2C6%2C20170629%2C1.

61. Windward Maritime Intelligence; Starboard Maritime Intelligence.

62. Government of Panama, Edicto No. 022-2025, Recursos Acuáticos de Panamá, https://arap.gob.pa/edictos-arap/, accessed April 15, 2025.

63. The Angel No. 1 (IMO: 9434709) was sanctioned by ARAP for transmission gaps, an IUU fishing risk indicator, while the other four vessels were sanctioned for direct IUU fishing activities. Edicto No. 029-23, No. 209-22, No. 210-22, No. 004-23, https://arap.gob.pa/edictos-arap/.

64. Eloy Aroni, "Beyond Fishing: Dire Labor Conditions in the Southeast Pacific Ocean Squid Fishery," artis0nal, August 09, 2023, https://artis0nal.wixsite.com/my-site/en/post/dire-labor-conditions-in-the-squid-fishery.

65. "Spanish longline fleet currently enjoying the support of the world's largest hospital ship dedicated fishing," Through the Gaps!, Newlyn Fishing News (blog), September 10, 2021, http://blog.through-the-gaps.co.uk/2021/09/spanish-longline-fleet-currently.html; and "Hospital Ship Towing Stricken Spanish Fishing Vessel to Castletownbere," The Southern Star, April 17, 2024, https://www.southernstar.ie/news/hospital-ship-towing-stricken-spanish-fishing-vessel-to-castletownbere-4289446.

66. Eloy Aroni, "A Floating Hospital Conceals Labor Abuses in the Distant-Water Squid Fleet," artis0nal, July 26, 2024, https://artis0nal.wixsite.com/my-site/en/post/floating-hospital-conceals-labor-abuses-in-the-dwf.

67. Global Fishing Watch; Vessel Data, Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp; "救死扶伤，践行守护 洋渔民平安生产光荣使命——为'浙普 98号' 洋渔业综合保障船团队点赞," (Saving lives and practicing the honorable mission of guarding the safe production of ocean fishermen - Praise for the team of 'Zhe Puyuan 98' Ocean Fishing Comprehensive Protection Vessel) 舟山 洋渔业协会, Zhoushan Ocean Fisheries Association, https://archive.vn/Zew8q, accessed April 18, 2025.

68. "看浙江新闻，关注浙江在线微信," 驰骋在东南太平洋上的安全使者–浙江新闻–浙江在线", (Zhejiang News, attention to Zhejiang Online WeChat, " Ride in the southeast Pacific Ocean on the safety messenger - Zhejiang News - Zhejiang Online) https://zjnews.zjol.com.cn/zjnews/zsnews/201803/t20180302_6704157.shtml, accessed March 11, 2025; and "Full text: Development of China's distant-water fisheries,"_中华人民共和国国务院新闻办公室, (The Information Office of the State Council of the People's Republic of China.) October 2023, https://web.archive.org/web/20240329140736/http://www.scio.gov.cn/zfbps/zfbps_2279/202310/t20231024_775875.html.

69. "看浙江新闻，关注浙江在线微信," 驰骋在东南太平洋上的安全使者–浙江新闻–浙江在线," (Zhejiang News, attention to Zhejiang Online WeChat, " Ride in the southeast Pacific Ocean on the safety messenger - Zhejiang News - Zhejiang Online) https://zjnews.zjol.com.cn/zjnews/zsnews/201803/t20180302_6704157.shtml, accessed March 11, 2025.

70. "Full text: Development of China's distant-water fisheries,"_中华人民共和国国务院新闻办公室, October 2023.

71. "Set sail! The 'Zhepuyuan 98' ocean-going fishery comprehensive support ship goes to the Southeast Pacific to carry out patrol mission," Zhoushan Marine Economic Development Bureau, 2021, Zsoaf.zhoushan.gov.cn/art/2021/3/26/art_1563591_59016711.html.

72. 13天，他创纪录了！" (13 days, he set a record) 澎湃号·政务_澎湃新闻-the Paper, https://web.archive.org/web/20250401131730/https://www.thepaper.cn/newsDetail_forward_29921015, accessed April 01, 2025; "驰骋在东南太平洋上的安全使者–浙江新闻–浙江在线," "The safety messenger riding on the southeast Pacific Ocean - Zhejiang news - Zhejiang Online," https://zjnews.zjol.com.cn/zjnews/zsnews/201803/t20180302_6704157.shtml, accessed March 11, 2025; and " 洋之星——记东南太平洋综合服务保障船"浙普 98" Ocean Star - Southeast Pacific Integrated Service Support Ship "Zhepuyuan 98" Zhoushan Ocean Fisheries Association, July 4, 2024. https://mp.weixin.qq.com/s?__biz=MzAwNjM0OTk0OQ==&mid=2650030505&idx=1&sn=6e229f676bbb166a5bdbca8f126aab78&chksm=82e334b86f5e630c84ffb.

73. Eloy Aroni, "A Floating Hospital Conceals Labor Abuses in the Distant-Water Squid Fleet," artis0nal, July 26, 2024, https://artis0nal.wixsite.com/my-site/en/post/floating-hospital-conceals-labor-abuses-in-the-dwf.

74. Vessel Data, Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp; and SPRFMO Inspection forms.

75. Windward Maritime Intelligence.

76. C4ADS Internal Records.

77. Yvette Sierra Praeli, "China's Pacific Fleet Reportedly Using Squid Ship as Hospital to Evade Scrutiny," Mongabay, October 23, 2024, https://news.mongabay.com/2024/10/chinas-pacific-fleet-reportedly-using-squid-ship-as-hospital-to-evade-scrutiny/.

78. Global Fishing Watch, Work Space and Tracks accessible https://globalfishingwatch.org/map/fishing-activity/mingxiang_826_and_zhepuyuan_98_encounter-user-public

79. Windward Maritime Intelligence; Global Fishing Watch, Work Space and Tracks accessible https://globalfishingwatch.org/map/fishing-activity/mingxiang_826_and_zhepuyuan_98_encounter-user-public

80. Windward Maritime Intelligence; Global Fishing Watch, Work Space and Tracks accessible https://globalfishingwatch.org/map/fishing-activity/mingxiang_826_and_zhepuyuan_98_encounter-user-public

81. SPRFMO Inspection Reports; Produce Inspection Reports; Vessel Data, Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp.

82. S&P Global Maritime Intelligence Risk Suite; and "Bait-to-Plate," The Outlaw Ocean Project.

83. Global Fishing Watch; Zhoushan Marine Economic Development Bureau, "Set sail! The 'Zhepuyuan 98' ocean-going fishery comprehensive support ship goes to the Southeast Pacific to carry out patrol mission," 2021, Zsoaf.zhoushan.gov.cn/art/2021/3/26/art_1563591_59016711.html; and "救死扶伤，践行守护 洋渔民平安生产光荣使命——为'浙普 98号' 洋渔业综合保障船团队点赞," (Saving lives and practicing the honorable mission of guarding the safe production of ocean-going fishermen - Praise for the team of 'Zhe Puyuan No. 98' Ocean-going Fishing Comprehensive Protection Vessel,") 舟山 洋渔业协会, accessed April 18, 2025.

84. Alfonso Daniels, Matti Kohonen, Eloy Aroni, and Mariama Thiam, "Dark webs: Uncovering those behind forced labour on commercial fishing fleets," Financial Transparency, 2023, https://financialtransparency.org/wp-content/uploads/2023/11/FTC_2023-Report_Dark-webs_EN.pdf; "A Case Study of Indonesian Fishermen on Taiwanese Distant Water Fishing Vessels Operating in the Pacific Ocean," USAID, Humanity Research Consultance and Winrock International, August 2024, https://web.archive.org/web/20240927103425/https://winrock.org/wp-content/uploads/2024/08/Asia-CTIP-Tuna-Research-1.pdf.

85. The Role, Responsibilities, and Obligations of the Ship Agent in the International Transport Chain," The Federation of National Associations of Ship Brokers & Agents, August 2020, https://www.fonasba.com/wp-content/uploads/2021/07/ROLE-OF-THE-AGENT-AUGUST-2020.pdf; and Francisco Blaha, "The Role of 'Port Agents' in Tuna Fishing in the Pacific," Francisco Blaha blog, September 21, 2017, http://www.franciscoblaha.info/blog/2017/9/21/the-role-of-port-agents-in-tuna-fishing-in-the-pacific.

86. Irina Bukharin, "Safe Harbor," C4ADS, August 04, 2020, https://c4ads.org/issue-briefs/safe-harbor/.

87. United Nations, "Article 164 and paragraph (b) of Article 546 of the Regulations of Legislative Decree No. 1147, which regulates the strengthening of the Armed Forces in the powers of the National Maritime Authority. General Directorate of Captaincies and Coast Guard, approved by Supreme Decree No. 015-2014-DE dated November 26, 2014;" Food and Agricultural Organization: Article 546 responsibilities of maritime agents, https://faolex.fao.org/docs/pdf/fij152587.pdf, accessed April 15, 2025.

88. Vessel Data, Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp.

89. SPRFMO Inspection Reports.

90. Government of Peru, Plataforma Digital Única del Estado Peruano, Gobe.pe. Sanction and fine documents are available upon request

91. The Rime of the Juche Mariner North Korea," HRNK Insider, https://web.archive.org/web/20230529022450/https://www.hrnkinsider.org/2016/06/the-rime-of-juche-Mariner-north-korean.html,https://web.archive.org/web/20221219190619/https://www.elobservador.com.uy/nota/los-esclavos-del-mar-una- historia-repetida-201452119500; "Jueza de Los Santos Dictó 18 Procesamientos Por Vinculación a Red de Tráfico de Personas," Poder Judicial - Bienvenidos al Poder Judicial, https://www.poderjudicial.gub.uy/institucional/item/415-jueza-de-los-santos-dicto-18-procesamientos-por-vinculacion-a-red-de-trafico-de-personas.html, accessed March 25, 2025.

92. "Jueza de Los Santos Dictó 18 Procesamientos Por Vinculación a Red de Tráfico de Personas," Poder Judicial - Bienvenidos al Poder Judicial.

93. "The Rime of the Juche Mariner North Korea," HRNK Insider, https://web.archive.org/web/20230529022450/https://www.hrnkinsider.org/2016/06/the-rime-of-juche-mariner-north-korean.html, accessed March 25, 2025.

94. "Chinese Jigger Which Had Escaped Arrest, Finally Ordered by Its Company to Turn In," MercoPress, May 15, 2020, https://en.mercopress.com/2020/05/15/chinese-jigger-which-had-escaped-arrest-finally-ordered-by-its-company-to-turn-in; "Notice of the General Office of the Ministry of Agriculture on Illegal and Irregular Issues of Some Distant-Water Fishing Enterprises and Fishing Vessels and Suggestions for Handling Them," 农业部办公厅关于部分 洋渔业企业及 渔船违法违规问题和处理意见的通报, March 20, 2018, https://web.archive.org/web/20230322134712/http://www.moa.gov.cn/nybgb/2018/201803/201805/t20180528_6143244.htm; and Fermín Koop and Michelle Carrere, "Boats Fishing Illegally Slip through the Nets at Uruguay's Main Port," Dialogue Earth, June 08, 2023, https://dialogue.earth/en/ocean/362678-boats-fishing-illegal-uruguay-montevideo/.

95. Government of Argentina, "Caleta Olivia: Argentinian federal justice has jurisdiction in a case of labor exploitation inside a foreign ship sailing through the Malvinas Islands," Public Prosecutor's Office, February 29, 2024, https://www.fiscales.gob.ar/trata/caleta-olivia-declararon-la-competencia-de-la-justicia-federal-argentina-en-un-caso-de-explotacion-laboral-de-un-buque-extranjero-que-navegaba-por-islas-malvinas/; Sabina Goldaracena and Sergio Almada, "Labour Exploitation in Distant Water Fishing Vessels Registered with the Sprfmo," ITF Global, January 2025, https://www.itfglobal.org/en/resources/labour-exploitation-in-distant-water-fishing-vessels-registered-sprfmo; and "Los Esclavos Del Mar: Una Historia Repetida," El Observador, May 23, 2014, https://web.archive.org/web/20221219190619/https:/www.elobservador.com.uy/nota/los-esclavos-del-mar-una-historia-repetida-201452119500.

96. Koop and Carrere, "Boats Fishing Illegally Slip through the Nets at Uruguay's Main Port," Dialogue Earth.

97. Alberto Rene Zarate, "Seminario: Decreto Supremo N. 003-2022 – Mincetur -Infracciones Y Sanciones al Decreto Legislativo 1492 – Mecanismos de Defensa Para El Agente Maritimo," Asociacion Peruana de Agentes Maritimos, April 24, 2022, https://apam-peru.com/seminario-decreto-supremo-n-003-2022-mincetur-infracciones-y-sanciones-al-decreto-legislativo-1492-mecanismos-de-defensa-para-el-agente-maritimo/.

98. Cpt and Agental, www.Agental.cl, https://web.archive.org/web/20241101000000*/agental.cl, non archived site accessed February 06, 2025.

99. Vessel Data, Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp; and C4ADS Internal Records.

100. Vessel Data, Autoridad Portuaria Nacional de Perú; and SPRFMO Inspection and Port Records.

101. SPRFMO Inspection Forms.

102. SPRFMO Inspection and Port Records.

103. Government of Peru, "Resolucion Directoral: RD-00612-2024-PRODUCE/DS-PA," March 05, 2024, https://cdn.www.gob.pe/uploads/document/file/6084763/5384912-rd-612-2024-produce-ds-pa.pdf?v=1710953020.

104. Government of Peru, "Resolucion Directoral: RD-00612-2024-PRODUCE/DS-PA."

105. Government of Peru, "Resolucion Directoral, January 29, 2024, https://www.dicapi.mil.pe/storage/resolutions/qQ2Z6qXu1715114503.pdf.

106. United Nations, "Article 164 and paragraph (b) of Article 546 of the Regulations of Legislative Decree No. 1147, which regulates the strengthening of the Armed Forces in the powers of the National Maritime Authority. General Directorate of Captaincies and Coast Guard, approved by Supreme Decree No. 015-2014-DE dated November 26, 2014;" "Maritime (ISPS Code) Regulations 2014," Food and Agricultural Organization, https://faolex.fao.org/docs/pdf/fij152587.pdf.

107. Applicable use of Fuerza Mayor/Force Majeure is defined within the sanctioning document as "a situation beyond the control of the operator and the commercial risks normally assumed, and reasonable diligence has been taken to avoid the consequences of force majeure or to mitigate them as far as possible." Additionally, it must not constitute a typical risk of the activity, present as out of the ordinary for all parties, or be unforeseeable/irresistible,
RD-00623-2024-PRODUCE/DS-PA, March 05, 2024, https://cdn.www.gob.pe/uploads/document/file/6080234/5382229-rd-623-2024-produce-ds-pa.pdf.

108. SPRFMO Inspection forms. Discrepancies were determined based on requested reason (Annex 1) and inspection report (Annex 3). Differences between endorsement of documents and renewal of certificates were not included in this number but unreported crew changes and sick, injured, or deceased crew were.

109. SPRFMO Inspection forms. Discrepancies were determined based on requested reason (Annex 1) and inspection report (Annex 3). Differences between endorsement of documents and renewal of certificates were not included in this number but unreported crew changes and sick, injured, or deceased crew were.

110. SPRFMO Inspection forms

111. "Bienvenido a Apam," Asociacion Peruana de Agentes Maritimos, May 18, 1970, https://apam-peru.com/bienvenido-a-apam/; and "Servicios" Asociacion Peruana de Agentes Maritimos, May 18, 1970, https://apam-peru.com/servicios/.

112. Elizabeth Havice, Mike A. Mccoy, and Antony Lewis, "Market and Industry Dynamics: Western and Central Pacific Ocean Distant Water Tuna Purse Seine Fishery," August 2019, https://www.researchgate.net/publication/336411162_MARKET_AND_INDUSTRY_DYNAMICS_WESTERN_AND_CENTRAL_PACIFIC_OCEAN_DISTANT_WATER_TUNA_PURSE_SEINE_FISHERY.

113. Vessel Data, Autoridad Portuaria Nacional de Perú, https://eredenaves.apn.gob.pe/apn/inforedenaves.jsp; Port State Measures Before and After Study, September 2023, https://mragasiapacific.com.au/wp-content/uploads/2023/10/MRAG-AP-Pew-PSMA-BA-Study-final.pdf.

114. Vessel Data, Autoridad Portuaria Nacional de Perú.

115. SPRFMO inspection reports; "Sima," SIMA PERÚ - Servicios Industriales de la Marina - Principal.

116. Windward Maritime Intelligence.

117. Starboard Maritime Intelligence; Pesqueros Chinos Evitan el control satelital Peruano y se refugian en Chile, February 08, 2025, https://gestion.pe/peru/pesqueros-chinos-evitan-el-control-satelital-peruano-y-se-refugian-en-chile-calamasur-noticia/.

118. 98(2) of UNCLOS and 1979 SAR Convention.

119. Omar Vivas, "Dirección General de Capitanías Y Guardacostas," DICAPI, April 24, 2024, https://www.dicapi.mil.pe/noticias/autoridad-maritima-nacional-inspecciona-embarcacion-extranjera-de-en-el-marco-de-los-acuerdos-de-los-que-el-peru-forma-parte; and Interview with DICAPI official took place on February 06, 2025.

120. Republic of the Marshall Islands, "Marine Notice 2-011-45: Nairobi International Convention on the Removal of Wrecks, 2007 Certification Requirements," Maritime Administrator, March 2024, https://www.register-iri.com/wp-content/uploads/MN-2-011-45.pdf; Digital, TMD, "What Are Blue Cards?" Falvey Insurance Group, November 01, 2024, https://falveyinsurancegroup.com/blog/vessel-pollution-insurance/what-are-blue-cards/#:~:text=Bunker%20Blue%20Card,with%20a%20bunker%20Blue%20Card.

121. S&P Global Maritime Intelligence Risk Suite.

122. United Nations, "World review of capture fisheries and aquaculture insurance 2022," Food and Agricultural Organization, February 2020, https://www.rfilc.org/wp-content/uploads/2022/04/World-review-of-capture-fisheries-and-aquaculture-insurance-2022.pdf.

123. "Home," UK P&I, https://www.ukpandi.com/legal-documents/modern-slavery/, accessed February 10, 2025; S&P Global; "Daily briefing," Lloyd's List, February 16, 2021, https://lloydslist.com/-/media/lloyds-list/daily-pdf/2021/02-february/dailypdf160221.pdf; and "Marine Insurers Prevented From Doing Business With Vessels Fishing Illegal," TMT, May 26, 2023, https://www.tm-tracking.org/post/lloyd-s-market-association-adopts-new-contract-clause-to-prevent-marine-insurers-from-doing-business.

124. Government of Panama, "AUTORIDAD DE LOS RECURSOS ACUÁTICOS DE PANAMÁ ASUNTOS PESQUEROS INTERNACIONAL Circular Técnica 046 – 2022," Aquatic Resources Authority of Panama--ARAP/IFA/TC/046/2022, https://arap.gob.pa/wp-content/uploads/2022/12/046-2022-ES-Buques-pesqueros-cancelados-del-pabell%C3%B3n-paname%C3%B1o-Relacionados-INDNR.pdf.

125. "Vessel Search," Steamship Mutual, https://www.steamshipmutual.com/vessel-search?prod_vessel&query=, accessed April 01, 2025; and "Vessel Search," Skuld, https://www.skuld.com/vessels/?q=; S&P Global, accessed April 01, 2025.

126. The American Club: Mutual P&I Association: P&I Clubs, https://www.american-club.com/page/ship-search/, accessed April 01, 2025; Edicto No. 029-23, No. 209-22, No. 210-22, No. 004-23, https://arap.gob.pa/edictos-arap/, accessed April 01. 2025.

127. Priyal Bunwaree, "Curbing 'Dark' Activity at Sea: The Role of the Marine Insurance Industry," European Journal of Risk Regulation," Cambridge Core, March 20, 2025, https://doi.org/10.1017/err.2025.15.

128. Bunwaree, "Curbing 'Dark' Activity at Sea."

129. James W. Ellsworth, Brad McNally, Michael Sinclair, and Daniel Mejía Sara García, "Will 2024 Be a Turning Point for IUU Fishing?" Brookings, January 29, 2024, https://www.brookings.edu/articles/will-2024-be-a-turning-point-for-iuu-fishing/.

130. Government of the People's Republic of China, "China Fishery Mutual Insurance Society Founded in Beijing," Ministry of Agriculture and Rural Affairs, March 20, 2023, http://english.moa.gov.cn/news_522/202303/t20230325_301092.html; Xiaolin Chu, "The review of the evolution, deficiencies, and future outlook of China's pelagic fisheries management from 1985 to 2024," August 27, 2024, https://www.sciencedirect.com/science/article/pii/S240584402413040X; Hang Zhou, "Provincial variations and entrepreneurialism in the development of China's Distant Water Fisheries (2011–2020)," Marine Policy Volume 147 (January 2023): 105344, https://www.sciencedirect.com/science/article/pii/S0308597X22003918; and C4ADS Internal Records.

131. Fisheries Mutual Insurance Coverage Policies; and C4ADS Internal Records

132. C4ADS Internal Records.

133. The date on the insurance claim was listed as "10/18/2022." C4ADS converted it to UTC to match vessel tracks. This event likely occurred on 10/17/2022 based on the conversion between Chinese Standard Time and Coordinated Universal Time.

134. Windward Maritime Intelligence.
135. SPRFMO inspection reports.

136. C4ADS Internal Records.

137. Windward Maritime Intelligence.

138. Zhoushan Ocean Fisheries Association, March 17, 2025, archived at https://archive.vn/Zew8q#selection-859.665-859.820.

139. "The Return of an Old Scourge Reveals a Deep Sickness in the Global Fishing Industry," Boston Globe, October 16, 2023, https://www.bostonglobe.com/2023/10/12/opinion/beriberi-fishermen-outlaw-ocean/t; and "13天，他创纪录了！" (13 days, he set a record)_澎湃号·政务_澎湃新闻, the Paper,https://web.archive.org/web/20250401131730/https://www.thepaper.cn/newsDetail_forward_29921015, accessed April 01, 2025.

140. "13天，他创纪录了！" (13 days, he set a record), 澎湃号·政务_澎湃新闻, The Paper, Accessed April 01, 2025; and Windward Maritime Intelligence.

141. Global Fishing Watch.

142. Starboard Maritime Intelligence.

143. Starboard Maritime Intelligence.

144. "Labour Exploitation in Distant Water Fishing Vessels Registered with the Sprfmo," ITF Global, February 12, 2025, https://www.itfglobal.org/en/resources/labour-exploitation-in-distant-water-fishing-vessels-registered-sprfmo; and "Trapped at Sea: Exposing North Korean Forced Labour on China's Indian Ocean Tuna Fleet," Environmental Justice Foundation, February 22, 2025, https://ejfoundation.org/reports/trapped-at-sea-exposing-north-korean-forced-labour-on-chinas-indian-ocean-tuna-fleet.

145. Daniel J. Skerritt, Anna Schuhbauer, Sebastian Villasante et al., "Mapping the Unjust Global Distribution of Harmful Fisheries Subsidies," Marine Policy 152 (June 2023): 105611, https://doi.org/10.1016/j.marpol.2023.105611.

146. "The footprint of Distant Water Fleets on World Fisheries, Endangered Seas Campaign," WWF International, August 1998, http://awsassets.panda.org/downloads/distant_water1.pdf.

147. "Meetings," CMM on Crew Labour Standards, WCPFC Meetings, https://meetings.wcpfc.int/node/22054, accessed March 13, 2025.

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