



I S O F I S H

International Southern Oceans Longline
Fisheries Information Clearing House

The Chilean Fishing Industry:

**its Involvement in and Connections to the
Illegal, Unreported and Unregulated
Exploitation
of
Patagonian toothfish
in the
Southern Ocean**

ISO FISH Occasional Report No.2

March 1999

Sumario en Español

Based on a Report Prepared
by
Juan Carlos Cárdenas and Patricio Igor Melillanca
of
the Center for Conservation and Sustainable Development
ECOCEANOS
ecoceanos@entelchile.net
Valparaiso/Santiago de Chile

ISOFISH

ISOFISH was established following the Sixteenth meeting of the Commission of CCAMLR (the Convention on the Conservation Antarctic Marine Living resources) [CCAMLR XVI] in Hobart in November 1997. It is a joint venture between conservation NGOs and commercial fishing companies licenced to fish for Patagonian toothfish [*Dissostichus eleginoides*] within the CCAMLR area (including EEZs around sub-Antarctic islands).

The principal objective of ISOFISH is to develop the capacity to report on the activities of unlicensed longline fishing vessels within the CCAMLR area and those associated with, benefiting from, and responsible for, these illegal, unreported and unregulated activities. The information outputs are to be used to encourage and assist CCAMLR member governments to adopt and ensure compliance with conservation measures designed not only to ensure the sustainability of Southern Ocean fish stocks but also to ensure the survival of albatross and other seabird populations presently being hooked and drowned by improper deployment of longline systems, principally by unlicensed operators.

ISOFISH is an operation of the Hobart-based environmental NGO, the Tasmanian Conservation Trust, with a Board of Management to oversee its operations. Present Board members are:

Michael Lynch, Director, Tasmanian Conservation Trust, Hobart, Tasmania (Chair).

Stuart Richey, Richey Fishing Co. Ltd. and Deputy Chair of Australian Fisheries Management Authority (AFMA), Devonport, Tasmania.

Martin Exel, Manager, Fisheries Development, Kailis & France Group, Fremantle, Western Australia.

Keith Sainsbury, Program Leader, Multiple Use Management of the Australian EEZ, CSIRO Marine Division, Hobart, Tasmania.

Margaret Moore, World Wide Fund for Nature (Australia), Melbourne, Victoria.

Beth Clark, The Antarctica Project, Washington (global coordinator of the ASOC network).

Michael Kennedy, Humane Society International (Australia), Sydney, New South Wales.

For more information on ISOFISH or to find out how you can help, please contact us at:

International Southern Oceans Longline Fisheries Information Clearing House

ISOFISH, 148b Elizabeth St., Hobart, Tasmania 7000, Australia.

Ph: +61 3 6231 2564; fax: +61 3 6231 2596

E-mail: isofish@trump.net.au

Copies of this report are available on request from ISOFISH at the above address and can be downloaded from the ISOFISH website.

[www.isofish.org.au/news/reports.htm]

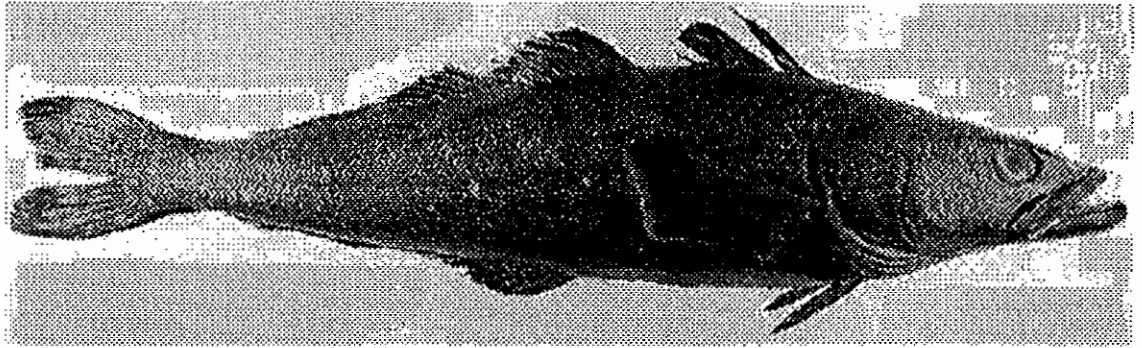


Figure 1: Merluza negra or Patagonian toothfish [*Dissostichus eleginoides*]

Acknowledgements

ISOFISH would like to acknowledge the diligence and determination of Juan Carlos Cardenas and Patricio Igor Melillanca of Chilean conservation NGO, Ecoceanos, based in Santiago, in preparing the material for this report over a period from April to October 1998. Their accumulated knowledge and experience of the Chilean fishing industry and marine conservation issues built up over years of campaigning on marine conservation issues were essential ingredients in making this report possible. Confirmation and elaboration of much of this material has been provided by industry contacts in South America. This effort has been significantly assisted by the publication of comprehensive fisheries statistics by Chilean government agencies.

The production of this material by Ecoceanos was financed by a small grant of US\$2,000 from The Antarctica Project, the Washington-based coordinator of the global conservation NGO network, ASOC (the Antarctic & Southern Ocean Coalition). Given that this sum was only sufficient to support a small 'desk-top' study based on publicly available records and on existing sources and networks, a remarkable volume of information has been collated and analysed. The views and opinions expressed in this Report on the basis of their analysis, however, are those of ISOFISH. The fieldwork necessary to extend this work remains to be done as and when further funding can be secured.

Ecoceanos have drawn on information from, and the advice of, a wide range of industry, community and government agency contacts which they have built up over the years, supplemented by access to key elements of the nascent ISOFISH network. As ever, ISOFISH's unique degree of cooperation between fishing industry and conservation NGOs in sharing information and ideas has helped put confidence into the conclusions. Inevitably, the key individuals in these organisations cannot be named, for obvious reasons. Our thanks to them for their trust in us and commitment to conservation outcomes and legitimate operations.

Finally, our thanks continue to go to the Tasmanian Conservation Trust and its Director, Michael Lynch, who provide institutional and administrative support for ISOFISH, allowing us to make the most efficient and effective use of whatever funds we can glean.

Alistair Graham
ISOFISH Coordinator
March 1999

A Plea for Help

This report is based on the limited information presently available to ISOFISH of a standard of reliability sufficient to warrant publication. The picture we have of the involvement of Chilean fishing companies and others in catching, processing and trading Patagonian toothfish from operations based in or connected with Chile is far from complete although the comprehensive collection and publication of fisheries information by Chilean agencies has made a major contribution to this picture. We know that more companies and individuals are involved in the trade in illegal toothfish and that the ramifications within the Chilean economy and society, and beyond, are greater than those we have identified so far. More importantly, we are aware that other networks involved in the illegal toothfish trade in other countries, like South Africa, Japan, Spain and the USA, remain to be fully exposed.

If you, the reader, can help by correcting, complementing or supplementing any of the information or ideas contained in this report, please do not hesitate to contact us - confidentially or anonymously, if you wish. In particular, if we have erroneously identified the nature or extent of any country, company or individual in the trade in illegally caught Patagonian toothfish, please let us know so that we can make the appropriate corrections and apologies.

The success of ISOFISH in attempting to persuade governments to cease their involvement in illegal longline fishing for, and trade in illegally caught, Patagonian toothfish (and to constrain similar involvement by their companies and citizens) rests entirely on the preparedness to help of those who are involved in or associated with the trade but are concerned for sustaining commercial fisheries and ensuring the survival of species of albatross.

Telling us what you know about fishing boats, companies and individuals involved in the Patagonian toothfish trade, however small and trivial such involvement may seem to you, is one way you can help. This is an urgent matter. Scientists acknowledge that colonies of albatross species will start becoming extinct within just a few years unless urgent and comprehensively effective action is taken to stop illegal longlining for Patagonian toothfish. Meanwhile, isolated toothfish fisheries have already started collapsing to commercial extinction under pressure from poachers.

Contents

	Page No.
1. Summary & Recommendations	1
English text	1
Spanish text	5
2. Background to Chilean Involvement in Illegal Fishing and Toothfish Poaching	11
2.1 The Global Context	11
2.2 Development of the Southern Chilean Bottom Fishery	13
2.3 Development of the Chilean Toothfish Fishery	16
2.4 A History of Involvement by some Chilean companies in Illegal Fishing Activities in the Southern Ocean	18
2.5 Improving Chilean Government Fisheries Controls	21
3. Overview of Toothfish Fisheries Exposed to Illegal Fishing by Chilean Owners and Operators	23
3.1 The Chilean southern zone Bottom Fishery	23
3.2 The Argentinian Continental Shelf	23
3.3 CCAMLR - South Atlantic Sector	24
3.4 CCAMLR - The Indian Ocean Sector	26
3.5 CCAMLR - The Ross Sea	27
4. Chilean Companies involved in Illegal, Unreported and Unregulated [IUU] Fishing for Toothfish	29
4.1 The Verdugo Group	29
4.1.1 The Birth of a Fishing Mogul	29
4.1.2 INTESA - Integracion de Actividades S.A.	31
4.1.3 Pesquera del Mar Antartico	32
4.1.4 Pesquera Mar del Sur S.A. & Pesquera Mar del Sur Austral S.A.	32
4.1.5 INTEGRA - Integracion de Actividades S.A. & Pescom	34
4.1.6 Pescom S.A.	34
4.1.7 Jetex S.A. - a Panama Connection	34
4.2 ANAPESCA - the National Association of High Seas Fishing Owners	35
4.2.1 Eduardo Vieira S.A. (Vieirasa) and Pesquera Vieira Chile (operating as CONCAR in Chile)	36
4.2.2 Pesquera Punta Arenas S.A.	37
4.2.3 Pesquera Los Andes S.A.	38
4.3 ARBUMASA Group (Armadores de Buques Marisqueros S.A.) (including Pesquera Suriberica)	39
4.3.1 Pesquera Suriberica S.A.	40
4.4 Marabal group (including Pesquera Cisne S.A., Iberchile S.A., Clayton Trading S.A., Pescargen S.A. & Beiramar S.A.)	43
4.4.1 Pesquera Cisne S.A.	41
4.4.2 Clayton Trading S.A.	42
4.4.3 Beiramar S.A.	42
4.4.4 Pescargen S.A.	42
4.5 Pesquera Mar Azul (including Alpesca & Patagonian Pride Ltd.)	45
4.6 Montevideo Port, Uruguay, still a base for toothfish poachers	47
4.7 The Argentinian Connection	48
4.7.1 Antarctic Longlining S.A.	48
4.7.2 Argenova S.A.	48
4.7.3 Pescom S.A.	49
4.7.4 Compania Pesquera Argentina	49

4.7.5	ARBUMASA (Compania Armadora de Buques Marisqueros S.A.	49
4.7.6	Patagonia Pride S.A.	50
4.7.7	Pesquera Alpesca S.A.	50
4.7.8	Pesquera Mar del Sur Austral S.A.	51
4.7.9	Glacial S.A.	51
4.7.10	Eduardo Vieira S.A.	51
4.8	Transshipping at Sea - a Much Reduced Problem	52
4.9	Sea Freight Companies also Responsible	53
5.	Background Information on the Chilean Patagonian toothfish fishery	55
5.1	Introduction	55
5.2	The Southern Industrial Fishing Fleet	60
5.3	Labour Conditions	61
5.4	The Punta Arenas Free Trade Zone	62
6.	Chilean Toothfish Exporters, Trade & Markets	63
6.1	Export Companies, Products & Prices	64
6.2	Japanese Imports	69
7.	Background Information on other Chilean companies involved in the Patagonian toothfish fishery	73
7.1	Taiyo A & F Co. Ltd. (TAFCO)	73
7.2	Nippon Suisan Kaisha (Nissui)	74
7.3.	Companies organised under the Federacion Gremial de Industriales Pesqueros de la Macrozonas X, XI & XII Region (AFIPES)	76
7.3.1	Pesca Chile S.A.	76
7.3.2	Pesquera Frio Sur S.A.	83
7.3.3	Pesquera Grimar	85
7.3.4	Pesquera Isla del Rey	86
7.4	Amerop Co	86
8.	Fish Processing Plants	87
8.1	Shipping Companies	90
Appendix 1.	Key People & Institutions	91
Appendix 2.	Vessels owned by companies with Chilean and/or Spanish connections and suspected or convicted of involvement in Illegal, Unreported or Unregulated Fishing for Toothfish	93
Appendix 3.	Tables of Historical Chilean catches of Patagonian toothfish 1986-1997	95
Appendix 4.	Future Work	98

"...These factory vessels at the south of 43° latitude, are working in an area with a long period of studies and each year we are developing a continuous check point, knowing the stock exactly, its distribution and reproductive pattern. In consequence, the activity in this area is absolutely under control, and I would say that it is one of the fisheries with more effective control..."

[Roberto Verdugo Gormaz; Actas de Sesiones del Consejo Económico y Social de la Junta Militar de Gobierno Chile; Biblioteca Nacional de Chile, 1984-85. Snr Verdugo Gormaz was the Under-Secretary of Fisheries in an earlier government and is, today, the main Chilean buyer and exporter of Patagonian toothfish. Translation by Ecoceanos.]

1. Summary and Recommendations

Summary

1. **This ISOFISH Report outlines a complex web of illegal fishing, and trading in fish and fish products derived from that illegal fishing, by some Chilean and foreign companies operating in or from Chile.** Some Chilean owned and controlled fishing vessels are operating under flags of convenience beyond Chilean jurisdiction to avoid national laws. These companies and the officers of their vessels show callous disregard for stocks of the highly prized Patagonian toothfish and for the survival of the much cherished albatross.
2. **The 'Pirate King' of the Patagonian toothfish poachers is the Chilean businessman, Roberto Verdugo, ex Under-Secretary of Fisheries in an earlier Chilean government and now controller of the Verdugo group of companies (including, Integracion de Actividades S.A. (Intesa), Actividades Integradas S.A. (Integra), Pesquera Mar del Sur S.A., Pesquera Mar del Sur Austral S.A., Pesquera del Mar Antartico S.A., Jetex S.A. & Pescom) exporting globally under the 'Integra' and 'Verdy' brands of fish products.**
3. **The Verdugo Group's INTESA is the largest Chilean exporter of frozen fish products and is responsible for 62% of exports of frozen Patagonian toothfish products (exporting 8,426 tonnes, worth US\$55M, in 1997) - an extraordinary position of market dominance for a single company in a single market. By contrast, 33 companies are involved in the export of fresh chilled toothfish although it represents only 11% of total exports by value.**
4. **Exports of frozen fillets to Japan by INTESA dominate the trade in Patagonian toothfish products, accounting for 54% by value of the entire Chilean toothfish trade in 1997. This trade appears to occur between Intesa and the major Japanese fish trading corporation, Maruha. Further work is needed to detail this crucial aspect of global toothfish trade flows.**
5. **Frozen Patagonian toothfish products represent 89% of the total volume of toothfish exports. All the 'illegal' trade is likely to be in this trade flow because fish caught in distant fishing grounds must be frozen for transport to processing plants where they are thawed for processing but must then be immediately refrozen to maintain quality and hygiene. Fresh, chilled products make up the remaining 11% of exports with very minor volumes of smoked and canned products also being exported. Total exports of 16,000 tonnes of toothfish products were worth US\$100M in 1997.**
6. **Frozen fillet exports, worth US\$65M in 1997, are the dominant but declining product in the Chilean toothfish export trade, falling from 83% of the value of total exports in 1996 to 73% in 1997 (as the value of re-exports of unprocessed frozen toothfish doubled from 10% to 18% of the value of frozen exports between 1996 and 1997).**
7. **Prices for various frozen products averaged about US\$6.20/kg (fob) in 1997. With fillets fetching around US\$6.55/kg and HGT around US\$4.94. A rapid diversification of frozen toothfish products away from just fillets seems to be occurring. Some 14 different products are now identified in trade, with premium products worth around US\$9/kg and low grade products \$2/kg.**
8. **About 80% of all frozen Patagonian toothfish exports from Chile go to Japan. A further 8% goes to the USA and 7% to elsewhere in East Asia (China, Hong Kong, South Korea and Taiwan) with small volumes also going to Thailand, Malaysia, Singapore, Canada and Brasil.**

9. In addition to the Verdugo Group, the following Chilean and Chilean based companies have also been identified as being involved in the illegal toothfish trade to a significant extent in recent years:
- the Vieira Group, including CONCAR and Eduardo Vieira S.A. (Argentinian);
 - the Arbumasa Group (Armadores de Buques Marisqueros S.A.) including Pesquera Suriberica S.A. and Pesquera Punta Arenas S.A.;
 - Pesquera des Los Andes S.A.;
 - the Marabal Group (including Iberchile S.A., Pesquera Cisne S.A., Pescargen S.A. (Argentinian); and Beiramar S.A. (Spanish));
 - Pesquera Mar del Sur S.A. (including Pesquera Mar del Sur Austral S.A. (Argentinian));
 - Pesquera Mar Azul S.A. (including Patagonian Pride Ltd., a joint venture between Mar Azul and Argentinian company, Alpesca S.A.); and
 - Pesquera del Mar Antartico S.A. (including Pescom (a joint venture with Integra)).
10. ISOFISH has enough evidence to publicly identify the above companies and associated individuals as knowingly and persistently involved in and benefiting from toothfish poaching activities to a greater or lesser extent. **Some eight companies and groups of companies with strong Chilean connections own and operate some fifty (50) longliners which have been involved in toothfish poaching within the last few years.**
11. **This is not to say that other companies involved in the toothfish trade are 'squeaky-clean' but that a line can be drawn fairly between the 'good' and the 'bad'.** Some of the 'good' have even gone so far as to conduct their own overflights, even over UK controlled waters in the South Atlantic, in an effort to identify and expose Chilean poachers.
12. **Improvements in Chilean government fisheries control measures has forced illegal Chilean companies to become rogue operators - reflagging their vessels to flag of convenience states (such as Belize, Panama and Honduras); landing or transshipping their catches at ports in collaborating countries (such as Uruguay, Mauritius, Mozambique and Namibia); and transshipping catches to freighters at sea. Uruguay's Montevideo Port and Mauritius' Port Louis deserve singling out for condemnation for continuing to provide unquestioning support to these poachers.**

Recommendations

1. **Chile is to be congratulated for the compilation and publication of such detailed and comprehensive trade statistics for toothfish. This is a far better contribution of information to the cause of identifying and exposing those engaged in illegal, unregulated and unreported fishing for toothfish in the Southern Ocean than that of any other state.**
2. All countries involved in the toothfish trade need to review their trade monitoring and control measures as a matter of urgency to ensure that importation of fish products can be readily monitored and those products derived from illegally caught toothfish can be identified and excluded. With respect to Chilean exports, this applies particularly to Japan and the USA but also to China, (including Hong Kong), South Korea, Taiwan, Thailand, Malaysia, Singapore, Canada and Brasil as well as to a number of EU member countries.
3. As an essential first step, all countries must close their ports to vessels wishing to land or transship toothfish unless they furnish VMS evidence and appropriate licences to prove that the fish were caught legitimately. **Both Chile and Argentina are urged to effectively implement full VMS coverage of licenced vessels within their waters, and flying their flags, as soon as possible.**
4. **Concerned countries are urged to persuade those countries acting as flag of convenience states (like Belize, Panama, Honduras and Vanuatu) and providing open ports (like Mauritius, Uruguay and Namibia) for the toothfish poachers to cease providing such assistance.** Gratifyingly, Namibia has already committed itself to such a course of action.
5. The 'good' companies in Chile which have already helped to expose illegal fishing, are now urged to extend their concerns to help expose and stop the trade in fish products derived from this illegal fishing — the toothfish trade is a 'game' in which there are *no* innocents.
6. While this report concentrates on the involvement of some Chilean companies in illegal fishing operations, further work is needed to detail relationships in the trade in toothfish by all companies involved in the illegal trade, especially improved identification of fishing vessels and ports involved.
7. **With continued failure to close ports to poachers and reliance on transshipment of toothfish from longliners to freighters at sea, even as the overall level of poaching goes down, it remains important that market controls are used to complement flag state and port state controls to curtail the toothfish poachers.** The USA's toothfish import control regulations provide a good template which should be adopted by all concerned countries.
8. **A key element of any market control system is an easily verifiable certificate of origin system.** Toothfish market states are urged to introduce such a system immediately and thence seek international acceptance of the system through CCAMLR and FAO. Importantly, the officials responsible for administering any import control system, including a certification scheme, need significant research support to allow them to investigate and confirm the *bona fides* of the traders concerned and fishing vessels identified.
9. **Meanwhile, Chile is to be commended for plans to close its ports to its own vessels, as well as foreign ones, suspected of illegal fishing outside Chilean waters.** Amendment of Article 165 of the Chilean Fisheries and Aquaculture Law (1991), which obliges Sernapesca, in the case of straddling or high migratory stocks "[to] ban the landing or any direct or indirect services, when evidence exists to safely conclude that the extractive operations undertaken by a vessel adversely affects the fishing resources or its exploitation by the national fleet in the EEZ", can readily achieve this outcome.

- 10. To close the loophole which allows poachers entering ports to claim that their toothfish were caught on 'the high seas', all countries involved in any aspect of the trade in toothfish should ratify UNIA [the United Nations Implementing Agreement on High Seas Straddling and Highly Migratory Fish Stocks] as a matter of urgency. Because it is possible to catch toothfish in areas which are not only outside EEZs but also outside the CCAMLR Area off the Argentine continental shelf (and in some parts of the Indian Ocean immediately to the north of the CCAMLR Area), it is a believable assertion for those port authorities inclined to believe it. UNIA allows coastal and fishing nations to establish a regional fishery, and regional management arrangements for it, which would close this loophole.**
- 11. Like-minded states must cooperate to frustrate ill-intentioned ship owners reflagging their vessels to flag of convenience states. This should cover failure to comply with the full range of national laws and international agreements, not just nature conservation. A broad front, 'ships of shame' campaign is needed to persuade as many states as possible to negotiate an agreement, consistent with UNIA, allowing them to close their ports to 'ships of shame' without infringing GATT free trade commitments.**
- 12. All countries which are signatories to CCAMLR and to the Bonn Convention on the Conservation of Migratory Species should increase their commitment to research about, and monitoring of, the impacts of longline fishing fleet operations on the marine mammals, albatrosses and other sea birds populations in the Southern Ocean. Compliance with incidental mortality mitigation techniques and tactics both inside the EEZ and throughout CCAMLR and other affected waters must be improved - through better crew training and education as well as through improved regulation and enforcement.**
- 13. Chile, and other fishing states, should introduce new laws and regulations to allow revocation, potentially permanently, fishing licences for ships' captains and fishing masters, if they are found to have been responsible for any illegal, unreported or unregulated fishing operations in regulated waters in any jurisdiction.**
- 14. Further investigation is needed as a matter of urgency, to identify and expose fish processing plants that handle toothfish from poaching operations with a view to persuading host governments to close such plants and prosecute their owners should they decline to immediately cease processing toothfish from such sources. Market states should be prepared to 'blacklist' imports from countries which do not implement such measures.**
- 15. While shipping companies may have limited legal responsibility to ensure that the goods they carry are 'legal' (it being the responsibility of the consignor, consignee and national customs agencies), it is time to assert that such companies have a moral responsibility. This responsibility clearly exists in circumstances where they can reasonably be expected to suspect that 'illegal' goods are being consigned - like frozen fish from southern Chile — and when such illegality does such enormous environmental harm - like poaching toothfish.**
- 16. It is time that banks, other financial institutions and insurance companies which routinely provide loans and insurance cover for the purchase and operation of fishing vessels also sought assurances that such vessels will not be involved in 'illegal' fishing. They should ensure that contracts they enter in to provide such services are only valid insofar as vessel operators comply with national and international fisheries rules and regulations.**

Sumario y Recomendaciones

Sumario

1. Este informe de ISOFISH detalla una red compleja de operaciones pesqueras ilegales, y el comercio de pescado y productos de pescado derivados de operaciones pesqueras ilegales, por parte de compañías chilenas y extranjeras operando en Chile o desde este país. A menudo, las embarcaciones que son propiedad o están bajo control de intereses chilenos llevan a cabo sus actividades con banderas de conveniencia mas allá de la jurisdicción chilena para evitar las leyes nacionales. Estas compañías y sus oficiales muestran una absoluta falta de consideración por las reservas de merluza negra y por la supervivencia de los albatros.
2. El "Rey Pirata" de los pescadores furtivos es el empresario chileno Roberto Verdugo, quien fuera Subsecretario de Pesca de un gobierno chileno anterior y quien es actualmente el controlador del grupo de compañías Verdugo (incluyendo Integración de Actividades S.A. (Intesa), Actividades Integradas S.A. (Integra), Pesquera Mar del Sur S.A., Pesquera Mar del Sur Austral S.A., Pesquera del Mar Antártico S.A., Jetex S.A., Pescom y Amerop). El Grupo exporta globalmente bajo las marcas de productos de pescado 'Integra' y 'Verdy'.
3. La empresa Intesa del Grupo Verdugo es el importador más importante en Chile de productos congelados de pescado. Esta empresa es responsable por el 62% de las exportaciones de productos de merluza negra congelada (8.426 toneladas con un valor de 55 millones de dólares norteamericanos, en 1997), lo que representa un dominio extraordinario del mercado por parte de una sola compañía en un mercado único. En contraste, 33 compañías se encuentran vinculadas con la exportación de merluza negra fresca refrigerada aunque ésta representa solamente el 11% del valor total de las exportaciones.
4. La exportaciones de Intesa de filetes congelados al Japón dominan el comercio de productos de merluza negra, representando el 54% del valor de la totalidad del comercio de merluza negra en Chile para el año 1997. Aparentemente este comercio tiene lugar entre Intesa y Maruha, la mayor corporación japonesa en el comercio de pescado. Se requiere investigar con más profundidad este aspecto fundamental del comercio global de merluza negra.
5. Los productos congelados de merluza negra representan el 89% del volumen total de exportaciones de merluza negra. Es probable que todo el comercio "ilegal" se encuentre concentrado en este flujo comercial, ya que el pescado capturado en zonas pesqueras remotas debe ser congelado para su transporte a plantas procesadoras donde se los descongela para su procesado, aunque deben ser congelados nuevamente en forma inmediata para mantener la calidad del producto, así como por razones de higiene. El pescado fresco refrigerado representa el 11% restante de las exportaciones con volúmenes menores de exportación de productos ahumados y enlatados. La exportaciones totales de 16.000 toneladas de productos de merluza negra en 1997 representó un valor de 100 millones de dólares norteamericanos.
6. La exportación de filetes congelados con un valor en 1997 de 65 millones de dólares norteamericanos es el producto dominante pero en declinación en las exportaciones chilenas de merluza negra. El valor de las exportaciones de filete decayó desde un 83% del valor total de las exportaciones en 1996 al 73% en 1997 (así como el valor de re-exportación de merluza negra congelada sin procesar se duplicó desde un 10% a un 18% del valor de las exportaciones de productos congelados durante el mismo período).

7. Los precios por varios productos congelados en 1997 fueron en promedio 6,20 dólares norteamericanos por kilogramo libre a bordo (fob). Con los filetes alcanzando un promedio de 6,55 dólares norteamericanos y el producto HGT alrededor de 4,94 dólares norteamericanos. Parece que está ocurriendo una diversificación rápida de productos congelados de merluza negra congelada, con 14 productos diferentes identificados en el comercio. Los productos de mayor calidad se cotizan a unos 9 dólares norteamericanos por kilogramo, mientras que los productos de menor calidad se cotizan a alrededor de 2 dólares norteamericanos por kilogramo.
8. Alrededor del 80% del total de exportaciones chilenas de merluza negra congelada se destina hacia el Japón. Un 8% se destina hacia los EEUU, y un 7% se dirige a destinos varios en el sudeste asiático (China, Hong Kong, Corea del Sur y Taiwán) con volúmenes menores destinados a Tailandia, Malasia, Singapur, Canadá y Brasil.
9. Además del Grupo Verdugo, se pudo identificar a las siguientes compañías chilenas o situadas en Chile como involucradas en forma importante en el comercio ilegal de merluza negra:
 - El Grupo Vieira, incluyendo CONCAR y Eduardo Vieira S.A. (Argentina);
 - El Grupo Arbuma S.A. (Armadores de Buques Marisqueros S.A.) incluyendo la Pesquera Suribérica S.A. y la Pesquera Punta Arenas S.A.);
 - Pesquera de los Andes S.A.;
 - El Grupo Marabal, incluyendo Iberchile S.A., Pesquera Cisne S.A., Pescargen S.A. (Argentina) y Beiramar S.A. (España);
 - Pesquera Mar del Sur S.A. y Pesquera Mar del Sur Austral S.A. (Argentina);
 - Pesquera Mar Azul S.A. (incluyendo Patagonian Pride Ltd., una empresa conjunta entre Mar Azul S.A. y la compañía argentina Alpesca S.A.);
 - Pesquera del Mar Antártico S.A. (incluyendo Pescom, una empresa conjunta entre Integra y la Pesquera del Mar Atlántico S.A.).
10. ISOFISH tiene suficiente evidencia como para identificar públicamente las compañías listadas arriba y los individuos asociados a éstas como involucrados en forma persistente en la pesca furtiva de merluza negra, con conocimiento de causa y beneficiándose con esta actividad. Esto no indica que otras compañías involucradas en el comercio de merluza negra son totalmente "limpias", pero se puede trazar una línea entre los 'buenos' y los 'malos' entre los actores chilenos. Algunos de los 'buenos' han incluso llegado a conducir sus propios vuelos de relevamiento, aún sobre aguas del Atlántico Sur bajo control de Gran Bretaña, en un esfuerzo para identificar y exponer a los pescadores furtivos chilenos.
11. Las mejoras en las medidas de control de pesca impuestas por el gobierno de Chile en medidas de control de pesca han forzado a las compañías ilegales chilenas a transformarse en operadores "piratas", llevándolos a cambiar de bandera y usar banderas de conveniencia (tal como las de Belize, Panamá, Vanuatú y Honduras); la descarga o transbordo de la captura en puertos de países que colaboran con la pesca ilegal (tal como Uruguay, Mauricio, Mozambique y Namibia); y al transbordo de la captura a cargueros en alta mar. El puerto uruguayo de Montevideo debe ser señalado individualmente y condenado por haber proveído apoyo incondicional a los pescadores furtivos desde que éstos comenzaron sus operaciones, el que continúa.

Recomendaciones

1. Se debe congratular a Chile por la compilación y publicación de estadísticas detalladas sobre el comercio de merluza negra. Sin excepciones, esta contribución de Chile para identificar y exponer a los pescadores furtivos de merluza negra es mucho mayor que la de ningún otro estado.
2. Los países involucrados en el comercio de merluza negra deben revisar las medidas de vigilancia y control de la industria con carácter de urgencia, de modo de asegurar que la importación de productos de pescado pueda ser vigilada, y que se puedan identificar y excluir del comercio aquellos productos derivados de merluza negra capturada en forma ilegal. Con relación a las exportaciones chilenas esto se aplica al producto exportado hacia el Japón y los EEUU así como China (incluyendo a Hong Kong), Corea del Sur, Taiwán, Tailandia, Malasia, Singapur, Canadá y Brasil.
3. Como un primer paso que se considera esencial, los países deben cerrar sus puertos a las embarcaciones que intenten descargar o trasbordar merluza negra a menos que posean evidencia de sistemas de monitoreo de embarcaciones (Vessel Monitoring Systems – VMS) y las licencias correspondientes para demostrar que el pescado ha sido capturado en forma legítima. Se urge a Chile y a la Argentina a implementar lo antes posible el uso efectivo de VMS en embarcaciones con licencia para pescar en aguas territoriales o que porten banderas de éstos países.
4. Se urge a los países que se encuentran preocupados por la pesca ilegal de merluza negra a persuadir a los estados que ofrecen banderas de conveniencia (como Belize, Honduras, Panamá y Vanuatú) o puertos abiertos al tráfico ilegal (como Mauricio, Namibia y Uruguay) a que suspendan su asistencia. Es satisfactorio notar que Namibia se haya comprometido a seguir este curso de acción.
5. Los actores ‘buenos’ en Chile (las compañías pesqueras que han ayudado a exponer a la pesca ilegal) deben ayudar a exponer y detener el comercio de productos derivados de la pesca ilegal. El comercio de merluza negra es un “juego” en el que no hay inocentes.
6. Este informe se concentra en las actividades de algunas compañías chilenas involucradas en la pesca ilegal de merluza negra. Sin embargo, se requieren aún más esfuerzos para poder detallar las relaciones entre las compañías involucradas en el comercio ilegal de merluza negra. En particular se requiere mejorar la identificación de las embarcaciones y los puertos involucrados en el comercio.
7. Debido al fracaso continuo de cerrar los puertos a pescadores furtivos y la dependencia en el transbordo de merluza negra desde palangreros en alta mar a buques cargueros, aún cuando los niveles de pesca furtiva decrezcan, sigue siendo importante el uso de controles de mercado para limitar la pesca furtiva. Estos controles pueden actuar como complemento de los controles de los estados que ofrecen banderas de conveniencia y puerto. Las regulaciones de los EEUU para controlar regulaciones de importación de merluza negra ofrecen un buen modelo que debería ser adoptado por los países preocupados por este tema.

8. Un sistema verificable de certificación de origen es un elemento clave de cualquier sistema de control de mercados. Se urge a los estados donde se vende merluza negra a que introduzcan estos sistemas en forma inmediata y a que busquen aceptación internacional de estos sistemas por medio de la CCRVMA y de la FAO. Es importante que los oficiales responsables por la administración de sistemas de control de importaciones, incluyendo certificación de origen, sean capaces de investigar y confirmar los bona fides de las embarcaciones pesqueras y comerciantes involucrados.
9. En tanto, se congratula a Chile por sus planes de cerrar sus puertos a las embarcaciones (tanto chilenas como extranjeras) sospechosas de llevar a cabo actividades pesqueras ilegales en aguas más allá de la jurisdicción marítima de Chile. Esto puede lograrse en forma inmediata con la reforma del Artículo 165 de la Ley Chilena de Pesca y Acuicultura de 1991 obliga a Sernapesca (el Servicio Nacional de Pesca) en el caso de superposición de reservas pesqueras o de reservas altamente migratorias, a "...prohibir la descarga o el uso directo o indirecto de servicios, cuando existe evidencia para concluir en forma satisfactoria que las operaciones extractivas llevadas a cabo por una embarcación afectan en forma adversa los recursos pesqueros o su explotación por parte de la flotilla nacional en la Zona Económica Exclusiva". ((It is not clear if this amendment has been carried out, or if it is a proposal; in the former case, it should be the original text in Spanish, extracted from the text of the law)).
10. Para cerrar la posibilidad de que los pescadores furtivos declaren que su captura proviene de "alta mar" los países involucrados en cualquier aspecto del comercio de merluza negra deben ratificar la UNIA (sigla en inglés del Acuerdo de las Naciones Unidas en Superposición de Alta Mar y Reservas de Pesca Altamente Migratorias) en forma urgente. Debido a que es posible capturar merluza negra fuera de las Zonas de Exclusividad Económica y del área de la CCRVMA costa afuera del la plataforma continental argentina y asimismo en partes del Océano Índico situadas inmediatamente al norte del área de la CCRVMA, es una acción posible para las autoridades que deseen ratificar este acuerdo. ((this paragraph in the original does not make a lot of sense; also need official translation for UNIA)). UNIA permite que los estados costeros y pesqueros desarrollen una pesquería regional y planes de manejo regionales para poder cancelar esta posibilidad.
11. Los estados costeros que puedan, de acuerdo a la ley internacional, extender sus reclamos a plataformas continentales contiguas más allá de las 200 millas deben tomar medidas en forma inmediata para hacerlo. Esto cerraría la posibilidad de explotar especies migratorias y permitiría a estados costeros extender su jurisdicción (y en consecuencia sus controles de pesca) de forma de cubrir la casi totalidad del área donde se sabe existe merluza negra. En tanto que se carezca de datos batimétricos que permitan un relevamiento adecuado, como se requiere para poder presentar reclamos válidos para extender los reclamos sobre plataformas continentales, lo cual es problemático para algunos países, los países con los recursos y tecnología para llevar a cabo este tipo de relevamiento deben ofrecer su ayuda a aquellos países con menos posibilidades de hacerlo.
12. Los estados que comparten ideas sobre la pesca ilegal de merluza negra deben frustrar las malas intenciones de propietarios de embarcaciones pesqueras que pasan a usar banderas de conveniencia. Esto debe cubrir el incumplimiento no sólo con medidas de conservación de la naturaleza sino también con leyes nacionales y acuerdos internacionales. Es preciso formar un frente amplio para oponerse a los "buques del oprobio" por medio de una campaña para persuadir tantos estados como sea posible para negociar un acuerdo, que sea consistente con la UNIA, que les permita cerrar sus puertos a los "buques del oprobio" sin contravenir los acuerdos de GATT para el comercio libre.

- 13.** Los estados signatarios de la CCRVMA y de la Convención de Bonn para la Conservación de Especies Migratorias deben incrementar su compromiso de investigar y monitorear el impacto de la pesca de palangre en mamíferos marinos, albatros y otras especies de aves marinas del Océano Austral. Se debe mejorar el uso de medidas de técnicas y tácticas para mitigar la mortandad incidental en Zonas Económicas Exclusivas y en el área de la CCRVMA y otras aguas afectadas por la pesca ilegal. Esto puede lograrse por medio de mejoras en el entrenamiento y educación de las tripulaciones, el uso de reglamentaciones, y el cumplimiento de éstas.
- 14.** Chile y otros estados pesqueros deben introducir nuevas leyes y reglamentos para revocar, en forma permanente si es preciso, las licencias pesqueras de capitanes y maestros de pesca si se los encuentra como responsables por operaciones pesqueras ilegales, no reguladas o no reportadas, en aguas de cualquier jurisdicción.
- 15.** Es preciso llevar a cabo investigaciones, en forma urgente, que permitan identificar y exponer a las plantas procesadoras de pescado que procesan merluza negra proveniente de operaciones furtivas, con el propósito de persuadir a los gobiernos de países donde éstas actividades ocurren a que cierren estas plantas y lleven a sus propietarios ante la ley, en caso de que éstos se nieguen a cesar sus operaciones con productos ilegales en forma inmediata. Los estados donde se comercia con merluza negra deben estar dispuestos a crear “listas negras” de productos de importación de países donde no se implementan estas medidas.
- 16.** Aunque las compañías pesqueras tienen una responsabilidad legal limitada para asegurar que los bienes que comercian son legales (siendo responsabilidad del consignador, del consignatario, y de las autoridades aduaneras), es preciso mencionar que éstas compañías tienen obligaciones morales al respecto. Esta responsabilidad existe claramente en circunstancias donde sea razonable sospechar que los bienes consignados son de origen “ilegal” – como pescado congelado del sur de Chile – y cuando ese origen ilegal causa un daño ambiental mayúsculo, como la pesca ilegal de merluza negra. Es oportuno que los bancos, otras instituciones financieras y compañías aseguradoras que como rutina proveen con hipotecas y cubierta de seguros para la compra y operaciones de embarcaciones pesqueras tengan la certeza de que estas embarcaciones no serán usadas para la pesca ilegal. Estas compañías deben asegurarse que los contratos en las que ellos entran para proveer estos servicios son sólo válidos en tanto que los operadores de embarcaciones cumplan con leyes y reglamentos de pesca nacionales e internacionales.

Figure 2.1: Map of southern South America showing ports known to be involved in the Patagonian Toothfish trade.



2. Background to Chilean Involvement in Illegal Fishing and Toothfish Poaching

2.1 The Global Context

The southern seas around Chile and Argentina contain some of the largest, most productive and valuable of the World's fisheries. As time passes, however, this region adjacent to Antarctica has the potential to become a zone of conflict as a consequence of the southerly spread of the many global and regional economic and environmental disputes. During the last decade, the Southern Ocean's marine ecosystem has been attracting growing attention from transnational fishing companies with overcapitalized industrial fishing fleets as disputes deepen between them and between the nations which house them over access to fishing grounds and control over markets.

The Antarctic Treaty System, with its commitment to ensure that Antarctica remains demilitarised and does not become the scene or object of international discord, is now coming under these same pressures of overcapitalisation and overexploitation in the fishing industry. This fishing effort is now spilling out of depleted and better regulated coastal fisheries into CCAMLR waters of the Southern Ocean, bringing with them the same conflicts which are endemic in fisheries elsewhere in the world.

This pressure can already be seen in the southern cone of Latin America: in the unresolved sovereignty conflicts; in the overfishing of the main demersal (bottom) fish resources; in the high levels of overinvestment in industrial fishing fleets; and in the reflagging of fishing fleets to flag of convenience states. Industrial fishing fleets were initially attracted to the fishing grounds of the southern cone when controls, monitoring and management plans were nonexistent, rudimentary or so perfunctory as to allow high levels of illegal and unregulated fishing operations by both national fleets. As coastal states have improved fisheries management within their EEZs, illegal bottom fishing fleet operators have moved on to less well regulated fisheries - especially those within the CCAMLR area.

Some of the factors contributing to yet another chapter of the fishery crisis in the waters of the Southern Ocean around Antarctica include:

- growing conflict between local, small scale fishing fleets and industrial fleets in the coastal waters of southern Chile;
- reflagging of longlining fishing vessels to flag of convenience states to avoid the obligation to comply with either coastal state or CCAMLR regulations and conservation measures.
- some redeployment of fishing vessels from the European Union's and other northern hemisphere fishing fleets to the southern hemisphere due to overcapacity in their fleets;
- the lack of effective monitoring and control by coastal states of the rapid expansion of industrial fishing activities and investment in the region;
- use of destructive or non-selective fishing technologies and methods by some industrial fishing fleets in some fisheries around the world;
- failure to install or deploy mitigation measures to avoid incidental mortality of seabirds and marine mammals;
- incompatibility between coastal states' fishing regulations and CCAMLR's conservation measures in many instances;
- lack of a CCAMLR mechanism to allocate allowable catches between licenced operators;

- inevitably weak CCAMLR enforcement and control mechanisms outside EEZs, presently limited to flag state responsibilities of CCAMLR member states; and, last but not least
- overfishing of the main pelagic and bottom fish resources in the region both within EEZs and within the wider CCAMLR area.

Global environmental changes, such as climatic changes, ozone depletion, and "El Niño" oceanographic change patterns, further exacerbate these problems by causing both short term and long term impacts on regional marine biodiversity and its productivity and distribution.

Of particular concern, as the global fishery crisis continues to affect southern waters, is the way in which deep-water fisheries can be developed very rapidly, and in which the target fish populations are especially vulnerable to overfishing. These characteristics of fish stocks and the fishing fleets which exploit them have had dramatic impacts on susceptible fish stocks worldwide, where development is not properly controlled and managed.

The Patagonian toothfish fishery classically exhibits both these characteristics and looks set to become the latest, and perhaps the fastest, in this global succession of overexploitation and collapse. In the absence of effective monitoring and control in this high value fishery, we fear that the experience gained in other fisheries around the world could be lost on the Patagonian toothfish fishery. CCAMLR now faces its sternest test yet at managing a natural resource.

While the exploitation of other fisheries within the Southern Ocean predated the establishment of CCAMLR such that CCAMLR inherited already entrenched management problems, the Patagonian toothfish fishery is a new phenomenon. CCAMLR member countries can have no-one but themselves to blame for failure to establish an effective management and control regime for the Patagonian toothfish.

Given that all the major fishing nations (with the exception of China) are parties to CCAMLR, the political will can — and must — be found within CCAMLR to deal with this problem by not only finding the solutions but also agreeing to implement them. If CCAMLR member countries cannot agree to establish the necessary structures and mechanisms to ensure effective fisheries management, then conservation-minded countries will have no option but to do so for themselves as best they can.

2.2 Development of the Southern Chile Bottom Fishery

The southern Chile bottom fishery is located in the remote south, between latitudes 41°S and 57°S. It is characterized by a remarkably narrow continental shelf and a very indented and sinuous coastline, with a complex network of fjords, internal channels and islands. This fishery is made up of several demersal species with relatively low growth rates and long lifespans thus rendering them highly vulnerable to overfishing. These species also interact trophically, that is to say, they are dependent on each other to some extent, making conservation management more complicated and the impacts of overfishing more widespread.

The main target species for both the Chilean industrial and small scale (artisanal) fishing sectors are:

- Austral hake [*Merluccius australis polylepis*] also known as Patagonian hake, Antarctic queen or merluza austral;
- Golden kingclip [*Genypterus blacodes*] also known as pink cusk eel or congrio dorado; and
- Patagonian toothfish [*Dissostichus eleginoides*] also known as Chilean sea bass, bacalao de profundidad or merluza negra.

Additionally, southern blue whiting [*Micromesistius australis*] also known as merluza de tres aletas o polaca, and the Patagonian whiphake [*Macrorhynchus magallanicus*] also known as Patagonian grenadier, hoki, or merluza de cola, are fished to some extent, mainly by industrial fishing fleets for export to "surimi" market in Japan.

The Austral hake and Golden kingclip are fished with trawlers at depths of 500-800 metres and from 5-30 miles off the coast. Patagonian toothfish, however, is fished only with longlines at depths of 600-2,000 m inside the Chilean EEZ, and in adjacent waters within the CCAMLR area.

In the mid 1980s, some 78 industrial fishing vessels were active in Chile's southern sector between 41°S and 57°S. Many of these were old Spanish, South Korean and Japanese vessels forced out of their national fleets and fisheries by overcapitalisation and overfishing closer to home. These industrial operations joined some 600 small, artisanal fishing boats already working these fisheries. By 1991, the industrial fishing fleet was down to 43 vessels (5 factory trawlers; 5 freezer trawlers; 12 factory longliners and 21 freezer longliners).

As a consequence of overfishing of Austral hake and Golden kingclip fish stocks and shifting of that effort to toothfish stocks, the subsequent imposition of restrictive quotas in the Patagonian toothfish fishery, and an increasingly expensive and effective fisheries management regime, most of Chile's industrial fishing fleet has migrated outside the Chilean EEZ, to other EEZs and high seas areas in the Southwest Atlantic, Indian Ocean and other sectors of the CCAMLR area [See Table 2.1 below].

Today, only 21 industrial fishing vessels remain in the offshore waters, and another 8 in the internal waters of the Aysén and Magellan regions in this southern sector. Of the 11 factory vessels in the Chilean demersal fishery in 1991, owned by transnational companies such as Pescanova, Nippon Suissan Kaisha, Taiyo and Daerim Fisheries, only 3 freezer trawlers remain active in the demersal fishery today.

The southern bottom fishery did show signs of succumbing to overfishing pressure on all three principal fish stocks. This, and consequential successive switching of effort to alternative stocks, is evident from the catch landings statistics reproduced in Table 2.1 indicating that landings for Austral hake and Golden kingclip peaked in 1990 while Patagonian toothfish peaked in 1992. The exploitation of these fisheries in the southern sector by industrial fishing fleets began in

1978 under the policy framework of the then military regime to encourage foreign investment. There was a very rapid expansion in the levels of fishing with increasing fleet size controls and TACs being permitted by a succession of fisheries regulations.

No management plans were produced, however, and mistakes in stock assessment, exacerbated by poor knowledge of different components and interrelations of southern marine ecosystem allowed overestimation of maximum sustainable yields. Weak or nonexistent control and monitoring systems for the new industrial fishing fleets further exacerbated the situation.

High discard and bycatch levels (as high as 70% in the austral hake fishery), overfishing, fishing in the spawning season and in recruitment areas during 1986 to 1988 seasons; failure to require vessel monitoring systems, inadequate science and inadequate regulation - all contributed to overexploitation. Fishing effort increased five-fold between 1986 to 1990 ended but this was sufficient to deplete austral hake and the golden kingclip stocks, with reductions in their original biomass estimated to be as much as 87% or more and 76% respectively in the early '90s.

Table 2.1: Landings of austral hake, golden kingclip and Patagonian toothfish. Chile (tonnes) 1988 - 1997.

Species	1988	1990	1991	1992	1994	1997
Austral Hake	39,000	70,000	50,000	40,000	23,000	20,000
Golden Kingclip	8,000	15,000	12,000	9,000	4,626	4,000
Patagonian Toothfish	4,300	9,387	10,969	30,828	21,003	10,138
Totals	51,300	94,387	72,969	79,828	48,629	34,138

[Source: Sernapesca (1998)]

The Chilean southern bottom fish industry exported US\$270.4M in 1997 or 14.4 % of total value of Chile's fish exports. This fishery is characterized by the high level of concentration, both in markets (Japan took 36.1% and the top four markets took 78.2%), and in fish resources - just four target species represented 78.2 % of total fishery value. Similar patterns of concentration are found for each species: Spain and Portugal took 92.5 % of austral hake exports, while Japan took 86% of frozen Patagonian toothfish and the USA took 99% of fresh Patagonian toothfish.

The processing, export and marketing of fish from the southern sector bottom fishery is controlled by just a few transnational companies: Pesca Chile (a subsidiary of Spanish company, Pescanova, the World's largest hake producer); Emdepes Ltda (a subsidiary of Nippon Suissan Kaisha (Japan); Mitsui Co. (Japan) and Daerim Fishery Co. (South Korea). These four companies account for 53.1% of total export revenue. Three companies control more than 70% of Austral hake exports while just two companies control more than 80% of Patagonian toothfish export revenues.

Figure 2.2 Landings of Austral Hake, Golden Kingclip and Patagonian toothfish, Chile (nominal whole tonnes) 1986 - 1997

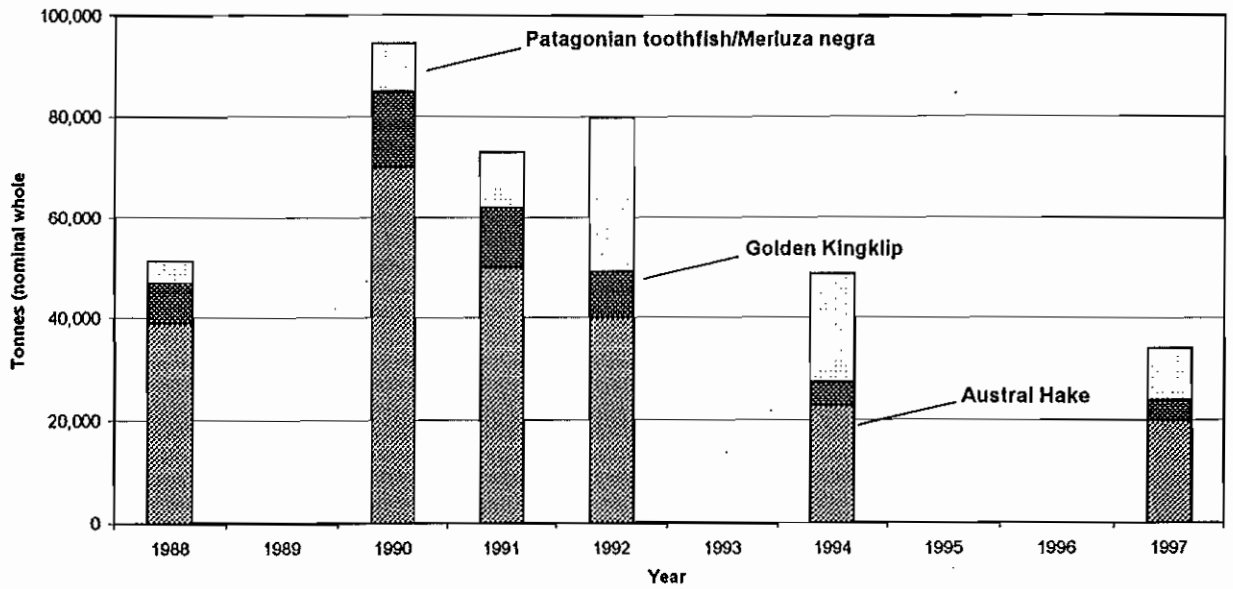
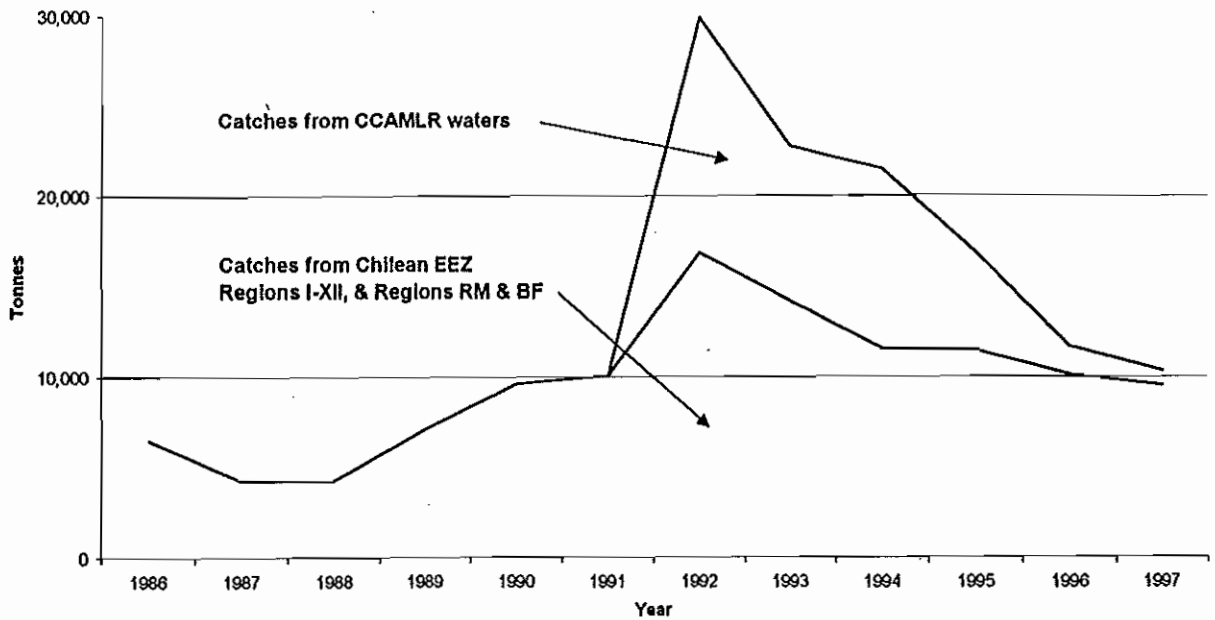


Figure 2.3: Chilean catches of Patagonian toothfish, 1986-1997 (tonnes/year)



2.3 Development of the Chilean Toothfish Fishery

In the mid 1980s, an artisanal fishery for toothfish developed in Chile's northern and central zones. Before 1991, fishing vessels larger than 15 metres in length were not allowed into the northern zone while vessels larger than 18 metres were excluded from the central zone, effectively reserving them for artisanal fishers. In 1994, there were 10,512 artisanal fishermen with 2,308 boats involved in the Patagonian toothfish fishery along much of the Chilean coastline (Subpesca, 1995) and, in 1997, the artisan fleet caught 3,432 tonnes (Sernap, 1998).

The southern zone, being unsuitable for artisanal fishing because of the adverse climate, was not developed. Conversely, toothfish stocks are more productive in the colder southern waters where nutrient and oxygen levels are higher. Consequently, there was only marginal exploitation of the toothfish stock with only marginal impacts.

By the late 1980s, a longliner fleet targeting Austral hake and Golden kingclip had established itself in the southern zone. These vessels repeatedly reported the presence of commercially exploitable stocks of Patagonian toothfish, caught as bycatch in deeper waters, although no licenced targeted exploitation occurred as the toothfish fishery in the southern zone remained closed.

To develop this potential fishery, amendments to fisheries laws and regulations were required. The military regime had begun the process by authorising exploratory fisheries targeting toothfish and the new fisheries agency of the new civilian government continued the process by amending the law to allow formal commercial development. In 1991 a nine-month commercial fishery for toothfish between 47°S and 57°S was approved to estimate fish stocks and evaluate commercial potential.

Eleven companies applied for the licence to initiate this exploratory fishery which was by longline only. In the end, only one vessel from each company was allowed to participate - sowing the seeds of future overexploitation and illegal activities by companies frustrated at having a 'foothold' in the fishery but not a commercially viable stake.

When high catch per unit effort figures were confirmed for the exploratory toothfish fishery, the new Chilean Fisheries Service decided to develop a regulated toothfish fishery in the southern zone, south of 47°S. Under the new Fisheries law, the government was able to declare the southern toothfish fishery to be a new fishery thus enabling the Service to adopt a whole suite of specific measures covering the management, administration and regulation of access.

Pursuant to these measures, an annual catch quota for longlining for toothfish was first fixed in 1992 for 1993. Under the new rules, each company's quota is reduced by 10% each year and the surplus reauctioned or retired, depending on latest stock assessments. So, in December 1992, portions of the start-up 1993 quota were offered for sale to the fishing industry at public auction and the following companies purchased quota: Friosur, Mar del Sur, Pesca Chile, Frio Aysen, Suriberica, Grimar, Los Andes, Pesca Cisne, Mar Azul, Punta Arenas and Concar. So, in April 1993, a stable longline fishery for toothfish began.

Meanwhile, in 1991, Chilean flagged fishing vessels first began operations in CCAMLR and adjacent waters outside the Chilean EEZ. The government responded by adopting regulations (No.857 of 1991 and No.2301 of 1992) in an attempt to control its vessels in areas beyond its jurisdiction. These regulations required Chilean flagged longliners to provide fisheries authorities with prior notification of vessel movements into and out of fisheries, to allow inspections and to declare catches and landings.

The regulations also required such vessels to comply with all CCAMLR Conservation Measures and with the CCAMLR inspection regime when operating in the CCAMLR area. Much of this Chilean fishing activity was confined to CCAMLR Area 48.3 in the South Atlantic sector of the Southern Ocean. In response, the UK government declared a 200 mile EEZ around South Georgia and the South Sandwich despite not wishing to exacerbate an ongoing sovereignty dispute with Argentina. These EEZs cover much of the fishable waters in Area 48.3 and Chilean and other vessels are required to purchase UK fishing licences, work to quotas set by CCAMLR, comply with CCAMLR Conservation Measures, and observed closed seasons. Compliance with these rules is ensured by a military surveillance, inspection and apprehension capacity.

In 1992/3, Frisur V undertook a research fisheries cruise in CCAMLR Area 48.2 to the west of the Antarctic Peninsula targeting Antarctic toothfish [*Dissostichus mawsonii*] with very disappointing results. A repeat survey of Areas 48.2, 48.3 and 88.3, further west, by Tierra del Fuego in 1997/8 was similarly disappointing and no commercial fishing for toothfish has yet to take place in this region.

Tables setting out the historical catches of Patagonian toothfish by artisanal and industrial fishing fleets in each of Chile's coastal regions based on Sernap published information are included in Appendix 3, pp95-97.

2.4 A History of Involvement by some Chilean Companies in Illegal Fishing Activities in the Southern Ocean

Since 1992, some Chilean fishing companies have been fishing illegally for Patagonian toothfish. For some, the initial motivation was that some companies only had fishing licences for Austral hake and Golden kingclip in developed and less productive fisheries and could not resist the temptation to target toothfish stocks in immediately adjacent deeper waters rather than wait until a regulated fishery was developed.

Once quotas had been allocated for the southern toothfish fishery from 1993, some companies which either had not managed to buy quota at auction or had not bought enough to make operations commercially viable, could not resist the temptation to fish for a previously unexploited stock in uncontrolled waters.

This illegal fishing activity in 1992 and 1993 was initially confined to Chilean coastal waters within its EEZ but quickly spread to adjacent Argentine and CCAMLR waters as surveillance and patrols by Chilean authorities improved. One Chilean commentator estimated that almost three quarters of the Patagonian toothfish catch at this time was from illegal sources (C. Munita, 1993). Catches from CCAMLR waters were already estimated at 7,000 tonnes - more than double the approved quota - being taken at about 1,500 tonnes/month (Garcia de la Huerta, 1994). Persistent reports of toothfish poaching by licenced quota holders within the Chilean EEZ, especially by other law-abiding licenced quota holders, led to licenced vessels being required to carry automated satellite vessel monitoring system [VMS] on board to frustrate misreporting of positions.

While Chilean coastal communities had developed an artisanal toothfish fishery, there was no artisanal exploitation of toothfish stocks within Argentine waters. Thus Chilean poachers, forced out of home waters, had unexploited toothfish stocks to themselves on the edge of the Argentine continental shelf - until joined by a few Norwegians in 1995. With the introduction of toothfish quotas for the Chilean southern zone, transferring operations to Argentine coastal waters became very attractive to Chilean operators as the Argentine authorities had not yet set quotas for toothfish and, furthermore, regional development subsidies were available to fishing vessels prepared to use the southern Argentine ports of Santa Cruz and Ushuaia (*El Mercurio*, 27 December 1994).

In 1994, Marazul was the first company to close down its base in Punta Arenas and move its operations into the South Atlantic. Two other companies, Suriberica and Mar del Sur, reduced their Chilean operations in favour of starting up South Atlantic operations.

Meanwhile, these displaced Chilean longliners also began fishing within CCAMLR Area 48.3 around South Georgia in breach of CCAMLR regulations - where fisheries patrols were rare and toothfish stocks more abundant. In both cases, illegal, unregulated and unreported Chilean fishing vessels taking toothfish in Argentine and CCAMLR waters routinely misreported their positions as they were not required to carry VMS. They routinely claiming to be outside regulated waters in an effort to avoid detection and apprehension.

By the mid 1990s, in response to effective Chilean fisheries regulation and Argentine complaints, the Chilean toothfish poaching companies had concentrated their longline fishing fleets around South Georgia in CCAMLR Area 48.3, perceiving UK fisheries management to be virtually non-existent and CCAMLR regulations to be wholly unenforceable. Virtually free of any restrictions, this rogue fleet of Chilean longliners caught large amounts of toothfish.

The Chilean government inevitably was pressured by CCAMLR member states to curb the poaching activities of longliners flying its flag. In response, some Chilean companies continued to hold Chilean licences and purchase domestic quota allocations while also poaching fish from Argentine or CCAMLR waters, alternating between legal and illegal activities to disguise and conceal their illegal catches while continuing to use their traditional ports and plants in Chile.

Other companies chose to completely abandon the domestic Chilean fishery, reflagging their longliners to flag of convenience states and becoming rogue toothfish poachers. In 1993 and 1994, some of these rogues were using Montevideo, in Uruguay, as their landing point, where the fisheries authorities were unconcerned and would accept 'high seas' as the point of origin of toothfish landed and transshipped in Montevideo Port. This is the same fiction, they and others used later with similar success in Port Louis in Mauritius in subsequent years - and are still doing so.

In August 1994, the UK declared and began enforcing a 200 mile EEZ around South Georgia and the South Sandwich Islands. This effectively brought to a halt the bulk of the poaching operations by the Chilean toothfish poachers in CCAMLR Area 48.3. At the same time, new commercial stocks of toothfish were being located in Argentinian waters. Both licenced and rogue Chilean operators took out Argentinian licences to fish these stocks within the Argentinian EEZ, many of them reflagging to Argentina. It was at this time that Norwegian interests appeared in the toothfish fishery, also fishing Argentinian stocks with Argentinian flagged longliners.

Inevitably, this concentration of fisheries effort targeted at toothfish stocks resulted in initial high levels of catch followed by a decline, which threatened the commercial viability of the fishing effort. These Chilean and Norwegian longliners then turned eastwards, looking for new toothfish stocks. Some started poaching again in UK waters around South Georgia while others began exploring further eastwards into the Indian Ocean sector of the Southern Ocean.

By 1995/96, some Chilean longliners had begun poaching toothfish in the EEZs around sub-Antarctic islands in the Indian Ocean sector, working out of Cape Town and other ports in southern Africa. In mid 1996, local media reports noted a number of longliners leaving Punta Arenas for the Indian Ocean (*Diario Prensa Austral*, 8, 9 & 13 September 1996).

News of these operations precipitated an immediate and massive eastward migration of the Chilean longlining fleet to these rich new fishing grounds relatively poorly defended by South African, French and Australian surveillance and patrols. 12 unlicensed Chilean longliners were later observed in EEZs around Indian Ocean sub-Antarctic islands in 1997, five of which were identified: Concar's Maria Tamara; Argenova's Magallanes I; Pesquera Punta Arenas' Frio Sur III; and Suriberica's Isla Camila and Isla Sofia. Chilean longliners were joined by similarly unscrupulous operators from other countries and the size of this pirate fleet was estimated at 50 vessels (Bofill, 1996).

As this great eastward migration of longliners from the Chilean Pacific Coast to the South Atlantic and on into the Indian Ocean took place, many operators reflagged and renamed their boats time and again. Chilean boats became Argentinian and then moved to flags of convenience. In 1997, SERNAP officials noted publicly that 11 longliners from five Chilean companies were reflagged, nine of them going to Argentinian waters (*Que Pasa*, 29 March 1997, p.25). They were joined by Argentinian and Norwegian operators who, likewise, moved to Argentina and then to flags of convenience. Some Chilean operators have kept their Chilean or Argentinian registration so that they can continue a double life - fishing legally within EEZs for some of the year and then poaching in CCAMLR waters for the rest of the year.

By 1997, some 15 Chilean longliners were thought to be poaching around South Georgia while in the 1997/98 season, a similar number were identified around sub-Antarctic islands in the Indian Ocean sector of the Southern Ocean.

In summary, the main drivers for this great exodus from Chilean waters and even larger descent upon sub-Antarctic islands were:

- Growing demand for toothfish on Japanese and other OECD country markets with both increasing volumes and prices.
- Overcapacity in the Chilean southern zone fishery - too many longliners from too many companies competing for not enough quota in the southern bottom fishery.
- Ready access to an undeveloped toothfish fishery in Argentine waters with no quota limits.
- Abundant and easily locatable toothfish stocks around sub-Antarctic islands.
- A fine appreciation of the low risk of apprehension because of weak coastal state controls in these remote waters.
- Very low financial costs of apprehension, despite heavy penalties, because of the low value of the older, 'rust bucket' vessels which cost little to write off.
- Difficulties and delays for the Chilean authorities in establishing and exercising effective jurisdictional control over Chilean flagged vessels outside Chilean waters.
- Improving control of Chilean waters and increasing associated costs.

2.5 Improving Chilean Government Fisheries Controls

Once Chile's authorities - the National Fisheries Service, SERNAPESCA - realised that much of its longliner fishing fleet was poaching toothfish either in Chilean waters or in other regulated fisheries, they have introduced - and continue to introduce - new, positive measures in an attempt to put an end to this illegal fishing. These measures include:

- Controlling foreign vessels unloading in Chilean ports, including their having to install and use VMS before being allowed into ports.
- Requiring fishing vessels leaving Chilean fishing grounds to have effective monitoring of catches on board to prevent them fishing illegally while transiting Chilean waters.
- Introducing regulations making it compulsory for all fishing vessels to install and use VMS [Law No.19.521, Gazetted: 23 October 1997]. This is a recent measure which is yet to be fully implemented.
- Prosecuting Chilean operators found to have been fishing illegally in the CCAMLR Area.
- Increasing the maximum fines and penalties which can be imposed upon conviction.

These new measures are additional to and complement existing measures covering matters such as naval patrols, aerial surveillance, port inspection of catches on unloading, etc. In addition, those companies operating legally in the demersal fishery have assisted by publicising and reporting the illegal activities of their peers. On occasion, Grimar and Pesca Chile, for instance, have actually chartered their own planes with fisheries inspectors on board to supplement the government's efforts. Meanwhile, Friosur has gone so far as to publicly denounce Roberto Verdugo's involvement in illegal activities.

Taken together, these measures have effectively driven the longliners operated by those companies involved in illegal fishing activities from Chilean waters, most of which have subsequently lost their Chilean fishing rights. Fishing vessels' licences lapse if they fail to operate in Chilean waters for more than a year.

There are concerns that Sernapesca inspections in Chile's southern zone bottom fishery are not as frequent or comprehensive as they might be. Apparently, there are only nine inspectors dedicated exclusively to control activities and these are effectively confined to checking those fishing vessels which put in to Punta Arenas and land-based processing plants.

There is still inadequate patrolling and surveillance actually on the fishing grounds and, while laws have been enacted requiring all vessels to carry a vessel monitoring, the system is not yet in operation as reluctant sectors of the industry drag out debate over the best system to install.

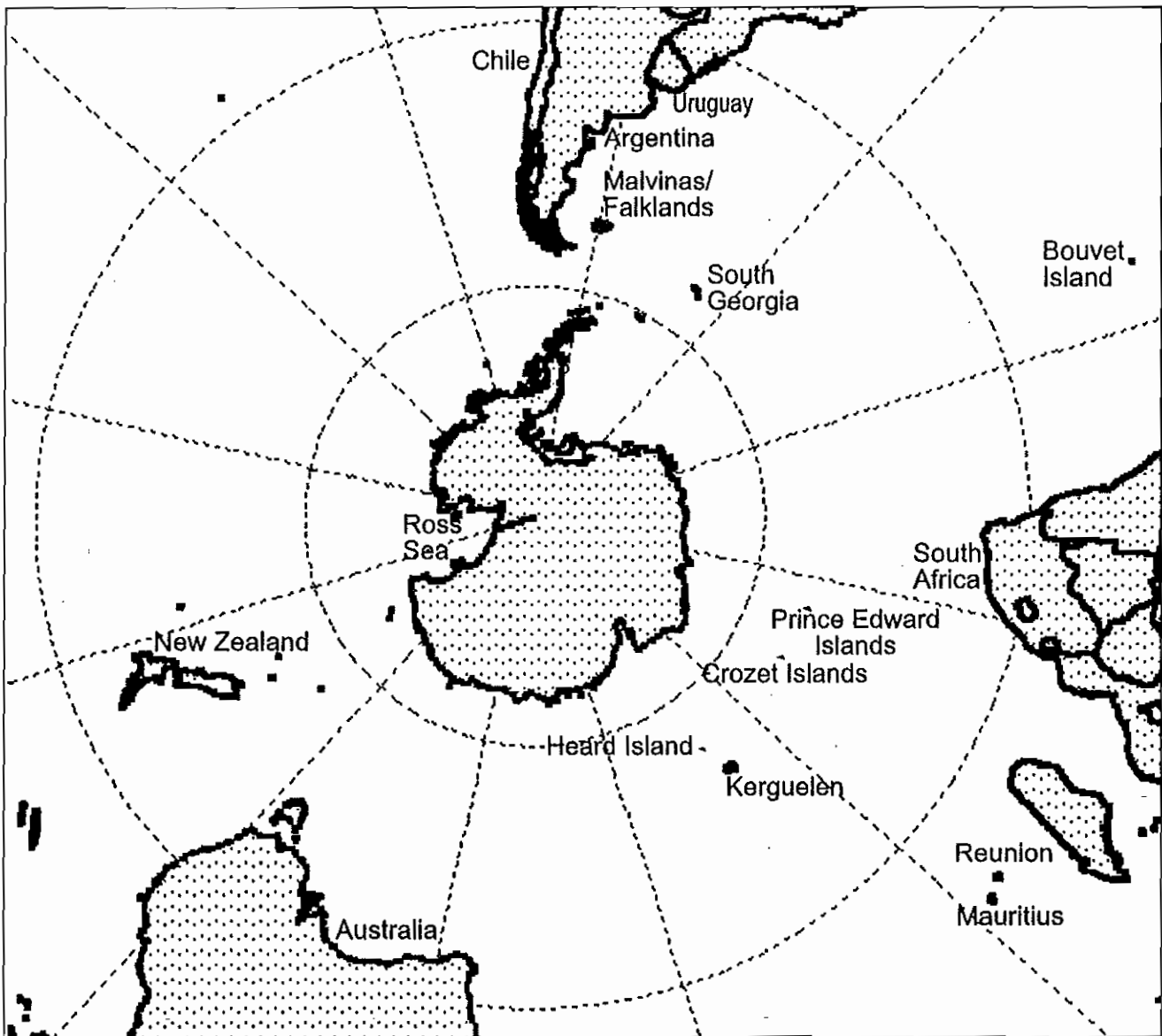
In response to concerns at having Chilean ports used by Chilean longliners operating illegally in CCAMLR waters, the Chilean government has decided to introduce new regulations to allow it to close its own ports to its own fishing vessels, if they are suspected of operating in breach of regulations in other jurisdictions. Regulations allowing Chilean authorities to close ports to foreign flagged vessels have been in place for some years. Extending these to Chilean flagged vessels should have a dramatic impact on many toothfish poachers by denying them access to their established processing plants and trading networks in Chile. While this cannot prevent them attempting to re-establish elsewhere, the disruption should be substantial.

Regrettably, these ongoing efforts by Chilean authorities have yet to curtail Chilean involvement in toothfish poaching within the CCAMLR Area. As recent experience with attempts to prosecute responsible officers of Mar del Sur longliners found fishing without a licence in CCAMLR waters has shown, while improvements in the Chilean regulatory regime have been successful at deterring illegal fishing within the Chilean EEZ, the ongoing dispute over the

Malvinas/Falklands continues to destabilise Chile's efforts to deter Chilean flagged longliners from fishing in CCAMLR waters in breach of CCAMLR regulations.

The next Chapter identifies those Chilean companies still involved in toothfish poaching and, where possible, identifies the key individuals responsible for deploying this poaching effort at such a high cost to the survival of commercial toothfish stocks and albatross populations in the Southern Ocean.

Figure 2.4: Map of the Southern Ocean showing principal toothfish fishing grounds and neighbouring countries



3. Overview of Toothfish Fisheries Exposed to Illegal Fishing by Chilean Owners and Operators

3.1 The Chilean southern zone Bottom Fishery

Chile now has an effective management regime for its southern zone bottom fishery - at least insofar as it has successfully deterred Chilean and foreign operators from poaching toothfish in the fishery.

The key measures responsible for this outcome are: an EEZ patrol system where naval patrols are complemented by the efforts of licenced toothfish quota holders; requiring foreign vessels to carry VMS before using Chilean ports to unload; and recent moves to similarly require Chilean vessels to use VMS before using Chilean ports.

3.2 The Argentinian Continental Shelf

Argentina is also introducing daily monitoring of VMS for all fishing vessels operating in their EEZ and adjacent waters. They also require similar compliance for Argentine vessels and vessels using Argentine ports for EEZs of waters over which they maintain a claim — those around the Malvinas/Falklands, South Georgia and South Sandwich Islands. The continental shelf is very wide off much of the Argentine coast such that fishable bottom waters at depths down to 2,500 metres extend beyond the 200 mile limit for the EEZ. The estimated total allowable catch for toothfish within the EEZ is allocated to licenced operators making no allowance for poaching activity or adjacent fishing of straddling stocks outside the EEZ on the extended continental shelf.

There are fishable waters for toothfish outside the Argentinian EEZ, however, on the edge of the continental shelf and there are reports of unregulated 'high seas' fishing for toothfish in this narrow zone. The *Salvora*, owned by the Chilean Abal Group, and the *Jacqueline*, owned by the Spanish company, Friermar, have reportedly been fishing these waters in 1998 and unloading in Montevideo Port [ISO]. Reports of persistently low catch rates have discouraged large numbers of longliners from fishing along the edge of the Argentine continental shelf, although a recent report of very high catch rates in southern waters in late 1998 may precipitate more activity [ISO].

To deter unregulated fishing in this narrow zone beyond Argentinian jurisdiction, the Argentinian government monitors fishing vessel activities in the area and has closed its ports to unlicenced foreign fishing vessels. This is part of a general fisheries regulation, which requires all holders of Argentinian fishing licences to only use Argentine ports for unloading their catch.

In response, some of those vessels fishing for toothfish, both as poachers inside regulated waters in the South Atlantic and legally on the high seas adjacent to the EEZs but outside the CCAMLR Area, land and transship their catches in Montevideo, Uruguay, where authorities are prepared to accept 'high seas' as the source of toothfish irrespective of where they were actually caught.

3.3 CCAMLR Areas 48.3 & 48.4 - the South Atlantic Sector

This Area covers South Georgia and the South Sandwich Islands. These are very productive waters as the nutrient and oxygen rich waters of the cold, circumpolar current are forced upwards by continental shelves. CCAMLR sets quotas and seasons for toothfish fishing in the Area and some ten longliners are licenced to fish in winter from March to August to minimise the incidental mortality of seabirds. The presence of these licenced longliners and UK patrol boats and surveillance aircraft, not to mention the appalling weather conditions, successfully deter poachers.

In summer, however, when the risk to seabirds is at its height during their breeding season, the UK's patrolling decreases and aerial surveillance is reported to be of only limited effectiveness, the poachers return. Nevertheless, there has been significant improvement in the UK's fisheries management efforts such that the level of toothfish poaching is now much less than in earlier years and most of the poaching fleet has moved eastwards in search of easier pickings. Those poachers which are still active in Area 48.3 & 48.4 use Montevideo as their base of operations and pressure needs to put on the Uruguayan government to introduce port controls for Montevideo Port - and to ensure their effective implementation - to prevent toothfish poachers from landing and transshipping there.

There is a growing concern that some of the toothfish poachers which have moved eastwards to the Indian Ocean sector may return to south Atlantic waters in response to similarly improving fisheries patrolling by coastal states in that sector. Indeed, the *Salvora*, having been arrested by Australian authorities and released on bond in 1998, reportedly attempted to resume poaching in Area 48.3 but was dissuaded from doing so by the presence of an Australian VMS on board as one of its bond conditions and following radio contact with a UK patrol vessel in August 1998. [The *Salvora*, having paid its Australian fines, has subsequently returned to the Indian Ocean sector to poach in French waters, working out of Mauritius. She has recently been exposed by Greenpeace who found her fishing illegally inside the French EEZ around Kerguelen in early March 1998.]

Chilean operators were neither the first nor alone in fishing for toothfish in CCAMLR Area 48.3. Table 3.1 and Figure 3.2, below, summarise catch statistics for the Area, giving an outline of the extent of involvement of fishing vessels flagged to Chile and other nations. Note that this information refers to the nationality of the vessels involved - not of the companies which own and operate them. This reflects CCAMLR's present limitation to control measures based on the exercise of flag state responsibility by member states to manage activities in the Southern Ocean.

Fisheries management is also frustrated to some extent by the ongoing sovereignty dispute between Argentina and the U.K. over the Malvinas/Falklands which also encompasses South Georgia and the South Shetland Islands. At present, Argentine and Chilean courts do not accept the jurisdiction of the UK to apprehend vessels flying their flags. As a result, Chilean authorities in particular are having trouble securing convictions in local courts for breaches of Chilean regulations relating to fishing in CCAMLR in non-compliance with CCAMLR rules because the UK's authorities' apprehension is deemed illegal and their evidence inadmissible.

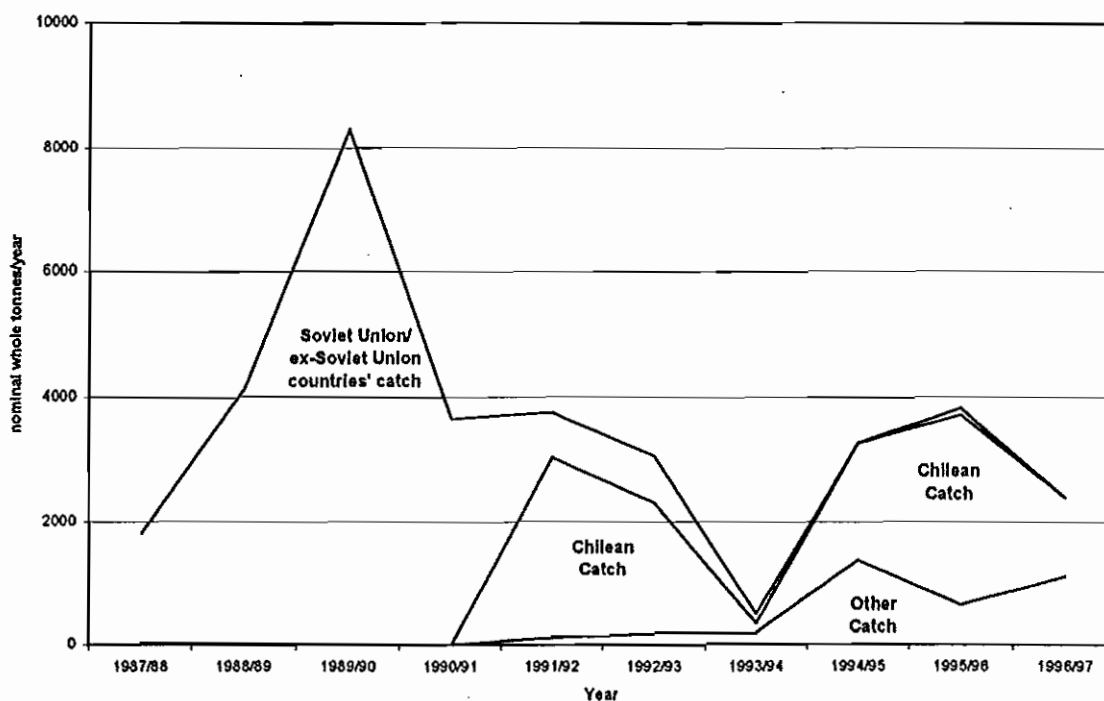
There can be little doubt that the cause of conserving toothfish stocks and saving albatross populations would be significantly advanced by an early resolution of this ongoing dispute — or at least normalisation of relations to the extent that effective enforcement of mutually agreed fisheries management arrangements can be achieved.

Table 3.1: Historical Catch records for Patagonian toothfish in CCAMLR Area 48.3 (South Georgia) [nominal tonnes of whole fish]

Flag state	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
Argentina	-	-	-	-	-	-	70	179	-	-
Chile	-	-	-	-	2,917	2,125	151	1,876	3,085	1,297
Germany	5	-	-	-	-	-	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	291
UK	-	-	2	1	1	-	1	-	-	398
EU/EEC	-	-	-	-	-	-	-	-	187	-
South Korea	-	-	-	-	-	-	135	381	366	425
Soviet Union	1,777	4,138	8,309	3,639	-	-	-	-	-	-
Russia	-	-	-	-	307	283	151	10	103	-
Ukraine	-	-	-	-	407	458	-	-	-	-
Bulgaria	-	-	-	-	115	183	70	179	-	-
Poland	27	-	-	-	-	-	-	-	-	-
TOTAL	1,809	4,138	8,311	3,640	3,747	3,049	508	3,262	3,822	2,389

[Source: CCAMLR Statistical Bulletins]

Figure 3.1: Reported catches of Patagonian toothfish in CCAMLR statistical sub-area 48.3 (South Georgia)



3.4 The Indian Ocean Sector

- CCAMLR Areas 58.7, 58.6, 58.5, 58.4.3 & 58.4.4

This is the area where the present toothfish poaching effort is concentrated. There are three separate problems - fishing within EEZs, fishing elsewhere within the CCAMLR Area, and fishing outside the CCAMLR Area. Within EEZs, licenced and unlicenced fishing vessels compete for access to toothfish stocks in EEZs around the sub-Antarctic islands - the Prince Edward and Marion Islands (South African), the Crozet Islands (French), Kerguelen (French) and Heard & Macdonald Islands (Australian). Ineffective patrolling by the South Africans around Prince Edward and Marion Islands has resulted in toothfish stocks being fished almost to commercial extinction by 1998 [CC98]. Despite very active patrolling by the French around the Crozet Islands, toothfish stocks here are also showing signs of collapse under the pressure of poaching [CC98]. Meanwhile, efforts by French and Australian authorities around their islands on the Kerguelen Plateau seems to be holding the poachers at bay to some extent.

One reason for this success in deterring poachers around Heard Island and Kerguelen is that the poachers are simply moving further offshore, beyond the 200 mile limit of the EEZs and fishing in deeper waters. With longliners capable of fishing to depths of 2,500 metres, there is plenty of fishable bottom water in the Indian Ocean sector of the Southern Ocean safely beyond the jurisdictional reach of coastal state fisheries patrols. As if to emphasise such impotence, the Australian authorities recently came across the Puerto Madryn fishing in defiance of CCAMLR regulations just outside the Australian EEZ around Heard Island but could do no more than exchange pleasantries with her officers.

While the fishing prospects of these waters is generally regarded as poorer than shallower shelf around islands, the unregulated Norwegian operators have had considerable success. This is one of CCAMLR's big problems - governments cannot enforce CCAMLR quotas and conservation measures in waters beyond EEZs. The illegal, unregulated and unreported thus remain free to operate from complicit ports in non-cooperating countries like Mauritius. With the recent boarding and inspection of the Salvora on entry to Port Louis, it may be that Mauritius is finally prepared to abandon its support for the toothfish poachers. It is to deal with the problem of 'open' ports that market controls are needed, to prevent poachers and rogue port states from profiting from their active involvement in the trade in illegally caught toothfish.

Also, while toothfish stocks are almost entirely confined to Southern Ocean waters within the CCAMLR Area, there are one or two places where stocks straddle the CCAMLR boundary such as to the north of the Crozet Islands. It is thus possible for longliners to catch toothfish legitimately in such waters (outside CCAMLR and EEZ controlled waters - the true high seas) and therefore hard to disprove any one claim by longliners entering port that their fish were caught 'on the high seas' where no quotas, seasons and other rules and regulations apply. What cannot be believed is that *every* longliner landing toothfish in Port Louis, Mauritius, fished only in these few, small, unproductive area.

3.5 The Ross Sea - CCAMLR Areas 88.1 & 88.2

While Patagonian toothfish [*Dissostichus eleginoides*] are found on continental shelves of sub-Antarctic islands and southern South American coasts, the Antarctic toothfish [*Dissostichus mawsonii*] is found around the Antarctic continent in latitudes south from about 65°S. While no poaching has been reported from the Ross Sea area, there are very large areas of fishable bottom waters of suitable depth such that some very large stock estimates have been made - on the basis of some highly speculative extrapolations from other stocks and despite very discouraging results from exploratory fisheries cruises in CCAMLR Areas 48.1, 88.3 and 88.2. This far south, sea ice cover effectively prevents fishing for eight months of the year.

This official speculation has attracted both licenced and unlicenced activity. While the New Zealand government has issued two licences for 1998/99, there were reports circulating at the CCAMLR XVII meeting in Hobart, in November 1998, that a fleet of longliners was being refitted in Lima, Peru, to poach for toothfish in the Ross Sea but this has not been confirmed and nothing has been heard since. It may be that the redeployment of Pesquera Mar Azul's longliner fleet is the cause of this rumour — see Chapter 4.2.6 below.

The New Zealand government is to be congratulated for its well publicised surveillance and patrol efforts. This, along with the sheer distance to an accommodating port, is likely to have acted as a significant deterrent to any poachers who had been contemplating visiting the Ross Sea region. Neither the New Zealand authorities nor Greenpeace sighted any poachers in the Ross Sea when visiting the area earlier this year and, similarly, neither licenced fishers nor transiting vessels servicing Antarctic bases have reported any unusual sightings.

[blank page]

4. Chilean Companies involved in Illegal, Unreported and Unregulated [IUU] Fishing for Toothfish

Many changes have taken place in the Chilean deep sea fishing fleet since it first started operating in southern waters in the mid 1980s such that few of the Chilean companies involved in toothfish poaching beyond Chilean waters still maintain any fishing rights within Chilean waters and most have reflagged their vessels to flag of convenience states. It is thus becoming progressively harder to maintain an accurate picture of what these Chilean operators are now doing.

It is clear, however, that most of the Chilean companies and individuals involved in toothfish poaching are associated with one or other of two groups: the Verdugo Group, run by Roberto Verdugo; and ANAPESCA, the National Association of High Seas Fishing Owners. Further details of these two groups are set out below in this Chapter. Background information on other companies involved in the Chilean bottom fishing industry, with little or no history of involvement in illegal, unregulated or unreported fishing is included in Chapter 5.

4.1 The Verdugo Group

4.1.1 The Birth of a Fishing Mogul

Roberto Verdugo Gormaz is a Chilean fishing businessman with qualifications in fishing administration. He was the Under-Secretary of Fisheries in the 1980s. He still has close contact in the Fisheries Service despite the present Under-Secretary having initiated several legal actions against him. Snr Verdugo is president of the metropolitan chapter (Santiago) of the Asociación Gremial de Profesionales Pesqueros de Chile (the Chilean Fisheries Professional Association - APROPECH). This is a very important strategic network which includes the last three Chilean Undersecretaries of Fisheries: Roberto Verdugo Gormaz (Pinochet period), Roberto Cabezas Bello (Pinochet period), and Andrés Couve Rioseco (Aylwin period, 1990-94).

At the present, Sr Verdugo's main activities are based in Argentina. He has started a process of diversifying his fishing activities to include the general food and other sectors of the economy. He is expected to buy his way into fisheries in Vietnam and to expand his networks into the Mainland Chinese and Hong Kong markets. In the past, he has been credited with pioneering the development of fisheries and fish trading operations in Argentina, Uruguay, South Africa, Namibia, Mozambique, Mauritius and probably Mozambique and Senegal as well. Panamá is also an important part of his networks and is probably the centre of his financial operations.

He is closely associated with the large, Japanese fish trading corporation, Maruha, and other traders, which have operated in Chile for many years. Snr Verdugo's success has been largely due to his financial strength underpinning his capacity to buy large volumes of Patagonian toothfish and Maruha is thought to have assisted in this respect. By 1996, Sr Verdugo had

become the largest Chilean exporter of frozen seafood and the fifth largest fish product exporter in the country.

Meanwhile, he has also become responsible for more than 60% of all exports of frozen toothfish products (representing 55% of Chile's exports of all toothfish products). Much of the trade he controls comes not just from the toothfish caught by longliners operated by member companies of his Group but mainly from those operated by members of the ANAPESCA Group. It is this domination of the toothfish trade, which has allowed Sr Verdugo to become such a dominant player in the overall Chilean fish trade.

Industry, community and official sources concerned with the Chilean fishing industry all confirm that the Verdugo Group's toothfish trading activities are mostly — but not solely - of 'illegally' caught toothfish. Some of these sources also identify that one of the reasons why frozen fillets represents such a high proportion of the export trade is that the Verdugo Group's processors are among those which customarily inject fillets with flavour and texture enhancing chemicals which may increase product weight by 5-15%. This treatment cannot be performed on whole, HG or HGT fish.

Sr Verdugo's business address is Office 142, 1860 Avenida 11 de Septiembre, Santiago. It is also the operational base for the Asociacion Gremial de Industriales y Armadores Pesqueros Palangreros de la XII Region. His two main companies involved in the toothfish trade are: Integracion de Actividades (Integra) and Pesquera del Mar Antartico S.A.. The President of these two companies is: Sr Salvador Villanueva Fernandez.

Over the last two years, Sr Verdugo's companies have been in open, public conflict with three of Chile's largest fishing companies: Pesca Chile (a subsidiary of the Spanish company, Pescanova), Endepes (a subsidiary of the Japanese company, Nippon-Suisan) and local company, Friosur. He has openly accused them of using their influence to obtain privileged access to fishing quotas. At the same time he has been accused of promoting the American Seafood Co.'s project which entailed fishing rights being issued for a giant surimi factory trawler inside Chilean waters.

When Sr Verdugo left his position as Under-Secretary of Fisheries, with all the years of knowledge of the fishing sector and established contacts with foreign companies, he decided to establish himself as a fishing fleet owner. His first vessel was the Mar del Sur I. He rapidly expanded his fleet by adding two new freezer longliners, Mar del Sur II and III. Through associated companies, he then incorporated two more longliners, the Isla Guamblin and the Isla Guafo, into his fleet.

In the early years of the development of the southern toothfish fishery in Chile, Sr Verdugo concentrated his entire fleet in this single fishery such that, in a few short years, he had established and consolidated a dominant position in the toothfish trade. He has managed to maintain this dominant position despite only purchasing 5% of the toothfish quota at the initial auction in 1993 and having only increased his stake to 10% in 1997. Interestingly, he failed to buy any Chilean toothfish quota in 1998.

4.1.2 INTESA - Integracion de Actividades S.A.

Company Address: Office 142, Avenida 11 de Septiembre No.1860, Santiago, Chile

Phone: +56-2232.3405; Fax: +56-2231.1027

Activities: Processing and export of fresh, frozen and canned fish products
(it does not operate fishing vessels itself)

In 1997, INTESA was responsible for 62% of total Chilean exports of frozen toothfish, mainly to Japanese markets. It is the major buyer of fish in South America and also the largest exporter of Chilean frozen fish largely as a result of its domination of the toothfish trade.

As Maruha is the largest Japanese importer of fish, Integra and Maruha have built up a strong relationship since the toothfish fishery began and have dominated the toothfish export trade since its inception. Sr Verdugo has processed and sold the catch from his own vessels, but what has given him commercial strength has been his activity as a trader of toothfish and other fish. In particular, he used to buy most of the toothfish landings from ANAPESCA's vessels.

His companies are believed to have organised the purchase and export of the first landings of illegally caught toothfish in Montevideo by Chilean poachers in the early 1990s and then, when the toothfish poaching fleet first moved to the Indian Ocean, he set up similar operations in Cape Town (South Africa), Luderitz (Namibia) and Port Louis (Mauritius). It is understood that Sr Verdugo's companies would buy the entire catch of several hundred tonnes landed by these poachers returning from fishing trips. Some would be consigned directly to Asian markets while the rest would be shipped via Chile. His companies chartered refrigerated freighters (reefers) for this trade, transshipping frozen HGT toothfish in the ports where they were landed. It is understood that the reefer, Verdugo, is owned and operated by one of the Verdugo Group's companies.

The Verdugo Group has been reported taking consignments of toothfish from Mauritius to the ports of Punta Arenas and Puerto Montt in southern Chile for processing and re-exporting. These exports went mainly to Japan under the 'Integra' brand. This is the heart of the illegal trade in toothfish. In 1996, for instance, the Verdugo Group's processing plants would have exported more than 9,000 tonnes of toothfish fillets. With increased efforts to control toothfish poaching, and thus reduce poaching activity, the Verdugo Group's 1997 throughput for its southern Chile processing plants is estimated at 7,000 tonnes of toothfish products, dropping to 6,000 tonnes in 1998 and expected to be even lower in 1999.

Obviously, not all poachers sell all of their toothfish catch to Verdugo's operations. Poachers landing toothfish in Mauritius, for instance, have sold toothfish to other traders such as Ocean King (USA) as well as Amerop (part of the Verdugo Group). Conversely, the Verdugo Group also buys toothfish from licenced fishing vessels operating legally in Chilean waters. It is thus not possible to assert that all toothfish traded by Verdugo Group companies are illegal.

This confusion further emphasises the importance of making VMS-based proof of source of toothfish available to authorities in ports on landing. Insofar as these authorities are prepared to believe that toothfish were caught 'on the high seas' - however improbable this might be, they then generate documentation which allows traders and importers the comfort of accepting the same fiction. The application of import control regulations in the USA is beginning to put a stop to this documented fiction in the US at least.

4.1.3 Pesquera del Mar Antartico

This company is based in Puerto Montt and buys toothfish caught by longliners operated by companies associated with Anapesca's companies and by other companies fishing outside Chilean waters. It has been reported trading in Cape Town, Walvis Bay and Mauritius. In 1996/1997 Chilean customs officials flew to South Africa and Namibia in an attempt to control this export of fish obtained in "international waters" by a Chilean company. The company was importing toothfish into Chile which had been transshipped to a refrigerated freighter routed to Puerto Montt in southern Chile from ports in southern Africa.

Pesquera del Mar Antartico shares its head office and communications with other members of the Verdugo Group of companies. Like INTESA, it is solely a trading company and does not own or operate any fishing vessels.

Head Office:

Address: Office 142, Avenida 11 de Septiembre 1860, Santiago, Chile
Fax: +56-2231.1027

Southern Chile Operations

Address: Bima 330, Barrio Industrial, Puerto Montt, Chile
Phone: +56-5.256.875; Fax: +56-5.257.961

Note that one of the company's shareholders is a Raul Yokota Bernet. 'Yokota' was the name given as the owner of the Golden Eagle (ex Celine) by its captain when arrested by French authorities in Reunion last year. The Golden Eagle is one of the Cindy Fishing Co. longliners owned and operated by Norwegian poacher, Oddvar Vea (see ISOFISH Occasional Report No.3 - the 'Norway Report'.) The possibility that Vea has sold some of his fleet of longliners to Sr Yokota warrants further investigation.

4.1.4 Pesquera Mar del Sur S.A. & Pesquera Mar del Sur Austral S.A.

Pesquera Mar del Sur S.A. was established as a Chilean company, registered in Santiago, on 2 October 1988 by Sr Roberto Verdugo and Jetex S.A. of Panama City. Jetex S.A., which operates from offices at Edificio Easter, 12 floor, Avenida Federico Boyd, P.O. Box 8807, Panama City, has Roberto Verdugo himself identified as its representative, residing at Los Misioneros N° 1929, Providencia, Chile.

Pesquera Mar del Sur S.A. owns and operates a fleet of three longliners, the **Mar del Sur I, Mar del Sur II & Mar del Sur III.**

Head Office: Office No.4, Ramon Freire 470, Valparaiso, Chile

General Manager: Salvador Casados EliceGUI (Spanish citizen)

Ownership: Spanish and Chilean (Sr Verdugo is the main shareholders)

Directors: President: Fernando Santander Foster

Vice President: Roberto Rozas Delgado

Secretary: Mario Fernandez Galdamez

Treasurer: Erika Acevedo Chacon

Director: Fritz Lindemman Sacaldini

Southern Chile Operations - Puerto Montt

Address: Andina 062, Parque Industrial, Puerto Montt, Chile

Phone: +56-5.257.984/5.258.620; Fax: +56-5.257.984

Activities: Processing and export of frozen fish products

Southern Chile Operations - Punta Arenas

Address: Avenida Presidente Carlos Ibanez del Campo, No.05757, Punta Arenas
Activities: Processing and export of frozen fish products

The company began licenced operations in the Chilean southern bottom fishery in 1989 with three factory longliners active in the fishery: the Mar del Sur I, II & III. The latter was previously the Friosur III. In 1993, however, the Mar del Sur I & II were redeployed from Chilean waters to the South Atlantic, including the Argentine EEZ and CCAMLR Area 48.3. They promptly began fishing in defiance of CCAMLR regulations in Area 48.3 and then continued to do likewise in the Indian Ocean sectors of the CCAMLR Area. In September 1993, one of the Mar del Sur's crew, Manuel O. Labra Munoz, was reported lost overboard only 60 miles from South Georgia despite the toothfish fishing season being closed at the time.

Meanwhile, the Mar del Sur III (previously Friosur III) was reflagged to Argentina. In August 1995, it suffered but survived a fire on board while fishing around South Georgia.

The company and its vessels no longer hold any fishing rights in Chile and is now entirely devoted to toothfish poaching. In 1994/95, all three longliners, the Mar del Sur I, II & III were reported fishing illegally in CCAMLR Area 48.3. Meanwhile, the Mar del Sur II & III were reflagged to Argentina with Ushuaia as their port of registry and ownership transferred to the Argentinian registered company, Pesquera Mar del Sur Austral S.A. This latter company was established and the two longliners reflagged so that they could hold permits to fish in the Argentinian EEZ and land toothfish at Argentinian ports — the actual source of which cannot be verified in the absence of an Argentinian VMS port control measure.

On 10 January 1996, the Mar del Sur II's fishing permit was cancelled because she had been out of Chilean waters for more than a year and had been sold to an Argentinian company and reflagged to Argentina. They appealed the decision and, in a controversial decision in April 1997, the Chilean Supreme Court ordered that the fishing permit be reinstated. The Chilean Under-Secretary of Fisheries is currently appealing this decision. Meanwhile, the Mar del Sur III, which has been absent from Chilean water since 1993, has also had its domestic fishing permit withdrawn. The Supreme Court had ordered this permit to be restored, likewise, but it has subsequently been cancelled on a technicality. Meanwhile, on 3 October 1996, a company request to transfer the Mar del Sur I's domestic fishing permit to the Mar del Sur V was rejected - and, again, Sr Verdugo won an appeal to the Supreme Court.

More recently, the Mar del Sur II was reported landing illegally caught toothfish in Mauritius in 1997/98, using Seabourne as its local shipping agent, and was subsequently arrested by the French in February 1998 with 50 tonnes of toothfish on board and the skipper and fishing master were subsequently fined. The Mar del Sur II was again arrested by the French in their Kerguelen EEZ in October 1998, apparently operated by a new company called Tradewind. She has subsequently been confiscated by the French authorities who plan to scuttle her

There are unconfirmed reports that the commercial relationship between Sr. Verdugo and Sr. Casados, Pesquera Mar del Sur's General Manager, has deteriorated for unknown reasons.

4.1.5 Integracion de Actividades S.A. [Integra] & Pescom

Integra operated the two refrigerated factory longliners, the **Isla Guamblin** and the **Isla Guafo**. To facilitate the transfer of the operations of these two fishing vessels to Argentinian waters, the company, PESCOM, was established in Argentina as a joint venture between Integra and a company called Pesquera del Atlantico. It is a Chilean owned and operated company despite it and its fishing vessels being registered in Argentina. One of its principal roles is to facilitate the transfer and sale of fishing vessels from Chilean to Argentine and South Atlantic waters.

On first operating in South Atlantic waters, the Isla Guafo [Chilean Registration No.: 6418] operated out of Montevideo Port in Uruguay. In 1994, the Isla Guafo was leased to Consolidated Fisheries Ltd. and registered in the Malvinas/Falklands to fish under licence in those waters. Consolidated Fisheries Ltd. is a consortium of some 18 local Malvinas/Falklands companies which lease longliners for toothfish fishing in Malvinas/Falklands, South Georgia and South Shetland Islands waters. They presently have permits for two vessels. Their catches are exported to Japan. Then, in July 1995, the Isla Guafo caught fire around the Malvinas/Falklands with a crew on board of 35 Chilean, 2 Spanish and 1 Australian and was later scuttled. Its skipper, Julio Olavarría, said to the media that the vessel was finally sunk with explosives to "avoid ecological damage in the area".

The Isla Guamblin [Chilean Registration No.: 6414] also continues to fish in Argentine and South Atlantic waters where she continues to fish but has been sold to a different owner not known to be part of the Verdugo Group. Whether any interests within the Verdugo Group remain beneficial owners is, as yet, unknown.

4.1.6 Pescom S.A.

Pescom is a joint venture between the Verdugo Group's Chilean company, Integracion de Actividades (Integra) and the Argentinian registered company Pesquera del Atlantico to allow the redeployment of its longliners, Isla Guafo [Register No.6418] and Isla Guamblin [Register No.6414] from Chilean to Argentinian waters. Pescom also has a subsidiary, **Pionera SAPNICEI** which owns and operates the Argentine flagged longliner **Cristal Marino** [call sign: LW5924, port of registry: Quequen-Necochea, Argentina]. She was sighted in French waters around the Crozet Islands on 12 September 1996. She was earlier reported to have been in South African waters around the Prince Edward Islands and using Walvis Bay, Namibia to unload toothfish. She never held licences to fish for toothfish.

4.1.7 Jetex S.A. - a Panama Connection

Sr Verdugo is rumoured to have financial links with companies in Panama City. The only information we have on this connection to date is that Pesquera Mar del Sur S.A. and Pesquera Mar del Sur Austral S.A. are jointly owned by Roberto Verdugo and Jetex S.A. of Panama City. Jetex S.A., itself, which operates from offices at Edificio Easter, 12 floor, Avenida Federico Boyd, P.O. Box 8807, Panama City, has Roberto Verdugo himself identified as its representative, residing at Los Misioneros N° 1929, Providencia, Chile.

In order to try and identify more of the beneficial owners of the companies in the Verdugo Group involved in the illegal toothfish trade, ISOFISH has identified attempting to elucidate these connections as a priority for future investigation.

4.2 ANAPESCA - the National Association of High Seas Fishing Owners

President: Oscar Bull Monsalves

General Manager: Carlos Hernandez

Address: Cochrane 639, Office 118, Edificio Principal, Valparaiso, Chile

ANAPESCA is an association of six small to medium sized fishing companies operating in the Chilean southern bottom fishery - all with Spanish capital behind them, established in 1989. Originally, the group's members had 11 freezer longliners. By 1993, they had 23 fishing vessels operating in southern Chilean waters out of Punta Arenas but only five had permits to fish in the open sea. The others were confined to inshore fisheries in the internal channels and fjords where catches were generally in decline.

After some five years of generally poor commercial performance in these licenced fishing operations, the ANAPESCA companies have been progressively shifting their operations out of Chilean waters to exploit toothfish stocks in the South Atlantic, including CCAMLR Area 48.3. By 1997, they landed an aggregate of only 1,500 tonnes of licenced catches of Austral hake, Golden kingclip and Patagonian toothfish at the Group's fish processing plants in Punta Arenas and Port Williams. The Group's activities account for only 3-5% of the total landings of bottom fish in Chile's Magellan Region, with aggregate earnings of some US\$6M.

By 1998, ANAPESCA had only five vessels remaining in licenced Chilean waters, with four in internal waters and only one in the open sea. In the first three months of 1998, these vessels caught only 204 tonnes of bottom fish in Chilean waters. Overall employment levels had correspondingly fallen from a high of 1,360 to 360 in 1998. It is expected that, in 1999, only one vessel will be left in Chilean waters with the remaining four understood to be fishing for toothfish in the South Atlantic, almost certainly in defiance of CCAMLR regulations. As a result of extended absences from Chilean waters, four of ANAPESCA's longliners have already had their permits to operate in Chilean waters revoked.

Nowadays, ANAPESCA's principal activity involves catching toothfish off both the Atlantic and Pacific coasts and selling them to Roberto Verdugo's Intesa and to Pesca Chile, Pesquera Grimar and other Spanish companies as well as to Japanese and American traders. Reflecting their rather varied fishing strategies, ANAPESCA's member companies have been actively campaigning against the introduction of compulsory VMS for all licenced fishing vessels.

The Association has now more-or-less broken up, with only one of its members, Pesca Cisne, still holding licences to fish for stocks other than toothfish in Chilean waters. Almost the entire ANAPESCA fleet has now left Chilean waters and all member companies of the Association are considered to be involved in toothfish poaching operations outside Chilean waters. More detail is given in the sections below: Reports and accusations by licenced fishing companies of poaching by ANAPESCA members' longliners within Chilean waters have ceased as effective government controls have been introduced and applied.

When fishing in the South Atlantic, catches are landed and sold in Montevideo, Uruguay and, when operating in the Indian Ocean sector of the Southern Ocean, catches are landed and sold in Port Louis, Mauritius. In both cases, Verdugo Group companies are the main, but not exclusive, purchasers.

The various member companies of the ANAPESCA Group are:

4.2.1 Eduardo Vieira S.A. (Vieirasa) and Pesquera Vieira Chile (operating as CONCAR in Chile)

CONCAR is the Chilean operation of Spanish fishing company, Pesquera Vieira S.A. which is managed by Pedro Munoz. Its Chilean operation, CONCAR, employs approximately 200 people in fishing and fish processing and is an inveterate toothfish poacher.

Owner: Eduardo Vieira S.A.

Managers: Francisco Campos, Emilio Pinal Garcia

Representative: Oscar Bull Monsalves

Ownership: Spanish & Chilean

Legal representatives: Víctor Ríos & Carlos García

Eduardo Vieira S.A. is a Spanish company with branches in Argentina, Namibia and Senegal as well as Chile. In Chile, the company operates as CONCAR - Construcciones y Carpinterías Navales S.A. It has considerable Spanish capital backing and they have two Chilean flagged longliners:

Antonio Lorenzo [call sign: CB4054, port of registry: Valparaiso, Chile]; and

Maria Tamara [call sign: CB4459, port of registry: Valparaiso, Chile].

Both longliners have a history of toothfish poaching. Eduardo Vieira S.A. has a third Argentine registered longliner, the **Vieirasa XII**, registered in the name of Ibsa S.A., the company used for its Argentinian operations. This longliner also has an extensive poaching history. Also, Pesquera Vieirasa owns and operates the **Vieirasa VIII**, a converted freezer factory trawler which has been reported poaching toothfish in the southern Indian Ocean.

CONCAR was one of the first companies to enter Chile's newly opened southern zone toothfish fishery in 1993 and, in that year, was exporting an average of 170 tonnes of toothfish a month to markets in Japan and the USA. At the same time, the Maria Tamara was accused of fishing illegally in UK and CCAMLR waters around South Georgia and 200 tonnes of toothfish were subsequently seized by Chilean authorities.

That year, CONCAR also invested US\$1.5M in a 2,500 tonne capacity cold storage complex in the Tres Puentes area of Punta Arenas. This facility is presently on the market for sale and CONCAR has since built a new fish processing plant in the remote harbour of Puerto Williams on Navarino Island in the Beagle Channel, across the Channel from the Argentine port of Ushuaia. This island is a Chilean naval base and is under strict military control.

In 1994, both CONCAR longliners, along with the Ercilla and Mar Azul XI, were observed and reported fishing illegally around South Georgia within the CCAMLR Area 48.3 after the licenced fishing season had closed. In March 1996, the Antonio Lorenzo, skippered by Norman Aguirre Gonzales, was arrested by a UK patrol for fishing illegally around South Georgia and CONCAR was subsequently fined US\$75,000 for that offence. This proved no deterrent whatsoever and she has subsequently been arrested by the French for poaching toothfish in the southern Indian Ocean.

In 1997, CONCAR still held some 13% of the Chilean southern zone toothfish quota giving it access to some 800 tonnes out of an overall quota allocation of 6,000 tonnes. CONCAR has thus kept its longliners Chilean flagged so they can fish legally in Chilean waters and then poach much more toothfish from elsewhere.

Most of their Chilean landings of toothfish are sold to the Verdugo Group's Intesa trading company which also purchases the Argentinian catch from the Vieirasa XII although CONCAR did export 373 tonnes worth US\$1.6M (fob) under its own name.

In October 1998, the Vieirasa XII was eventually arrested by the French inside their EEZ around Kerguelen, at the same time as the Mar del Sur II. She also has been confiscated by the French authorities and will probably be scuttled.

In July 1998, the local Court in Punta Arenas dismissed three separate charges against CONCAR's two poaching longliners, the Antonio Lorenzo and Maria Tamara. The Antonio Lorenzo had been the subject of a diplomatic protest by the Chile to the UK demanding the return of the vessel when it was apprehended for poaching around South Georgia on the grounds that Chile did not recognise the UK's jurisdiction over the waters where she was arrested.

On 1 September 1998, the **Antonio Lorenzo**, in the company of Pesquera Los Andes' longliner, Ercilla, was again arrested - this time by the French for poaching toothfish in their EEZ around the Crozet Islands. According to their union back in Punta Arenas, SITONER, a total of 74 Chilean crew of these two longliners were subsequently detained in Reunion on 3 September before eventually being repatriated to Chile.

4.2.2 Pesquera Punta Arenas S.A.

Head Office:

Address: Office 308, La Concepcion 56, Santiago de Chile, Chile.

Phone: +56-2252.0706 / 2252.0707; fax: +56-2252.0737

Manager: Luis Mujica De Los Santos

Ownership: Spanish & Chilean (a member of the ARBUMASA Group)

Established on 17 August 1988 with Founding Directors:

Jesus Salvador Pascual Condon (a Spanish businessman) of Urbanizacion Fuenteiduenca C-D No. 48, Madrid, Spain.

Alveo Herguera Garcia (a Spanish businessman) of Avenida de Los Castillos 20, Acorcon, Madrid, Spain.

Southern Chile Operations:

Address: Avenida Carlos Ibanez, 6.5 Km Norte, Punta Arenas, Magallanes, Chile.

Phone: +56-1.211.271/1.212.377; fax: +56-1.214.216

Activities: processing and exporting frozen fish products.

Pesquera Puntas Arenas S.A. presently operates a freezer longliner fishing fleet of six vessels: the Chaval, Frio Sur III, Chamiza, Chacabuco & Charrua have been joined by the **Isla Isabel** [Registration No.2635, port of registry: Valparaiso, Chile]. All five have been reflagged away from Chilean jurisdiction and all their Chilean permits and licences have lapsed. They are thought to be operating out of Montevideo Port, Uruguay. The company is also thought to be associated with Pesquera Cabo de Hornos, another fishing company which moved away from southern Chile some years ago.

4.2.3 Pesquera de Los Andes

Head office:

Address: Avenida 11 de Septiembre 2155 Torre A, Office 1001, Santiago de Chile.

Phone/fax: +56-2231.3348

Owner: Santos Eraso (a Spanish citizen)

General Manager: Aldo Alvarez

Regional Offices:

Address: Reyes Lavalle 3170, Office 21, Santaigo de Chile

Phone: +56-1.224.089 / 1.247.289; fax: +56-1.247.298

Pesquera de Los Andes was established in 1989 by Pesquera Erala S.A. in association with Comercializadora Paiguanal Ltda. and Sr Miguel Santos Erazo Perez, later joined by Edmundo Javier Catalan Brunet (owner of Salmones Glaciares S.A.) and Manuel Briones. Pesquera Los Andes is based in Punta Arenas and is an inveterate poacher which owns and operates two longliners:

Ercilla [built in 1988, call sign: CB4061, port of registry: Valparaiso, Chile]; and
Elqui [call sign: CB3799].

They still operate under the Chilean flag so that they can retain their permits to fish in Chilean waters where the company holds 5% of the southern zone toothfish quota. Notwithstanding this, both longliners have lost their Chilean permits owing to extensive absence from the fishery. Nevertheless, in 1997, the company still managed to export from Chile some 153 tonnes of toothfish valued at US\$1M to Japan and Hong Kong.

Pesquera de Los Andes is thought to have close trading ties with Japanese fish trader, Taiyo A & F Co. (TAFCO) which, in 1992, launched a US\$2M advertising campaign promoting toothfish as 'the new face of white meat'.

In 1994, the **Elqui** was the first longliner to develop the toothfish fishery around Las Malvinas/Falkland Islands on charter to the local consortium, Consolidated Fisheries Ltd. which held the fishing licence. Later that year, however, she was publicly exposed by other licenced fishing companies (Pesquera Frio Sur, Pesquera Frio Aysen & Pesquera Grimar) for fishing illegally in UK waters around South Georgia after the toothfish season had ended. By 1996, she was reported landing and selling toothfish in Mauritius without holding any licences to do so from CCAMLR or coastal state authorities and can thus be presumed to be poaching toothfish in CCAMLR's Indian Ocean sector. In 1997, the **Elqui** was back in the South Atlantic where she was reported fishing illegally in UK controlled waters around South Georgia after the season had closed - by other Chilean companies which were prepared to comply with the conditions of their licences to fish in these waters.

In 1995, the **Ercilla** was fined about US\$250,000 by Sernapesca, the Chilean National Fisheries Service, for illegally catching 33 tonnes of toothfish in Chilean waters - for which her skipper, Alan Torres Catalan, was also fined for fishing inside the Chilean EEZ without a licence. The **Ercilla** then left Chilean waters for the southern Indian Ocean where she held South African licences to catch and land Patagonian toothfish in 1996 but they have not been renewed. She was sighted in French waters around the Crozet Islands in May 1997 and seen fishing there in July 1997. The **Ercilla** has since been arrested by the French while poaching in French waters around Kerguelen. She will probably be confiscated and scuttled along with some six or seven other longliners owned by companies which have been fined by French authorities for toothfish poaching but are showing no signs of paying those fines.

4.3 ARBUMASA Group (Armadores de Buques Marisqueros S.A.) (including Pesquera Suriberica & Pesquera Punta Arenas)

Address: Avenida Hispano America, Huelva, Spain
Owner: Sr Amador Suarez (a Spanish citizen)
Manager: Mariano Perez Elizalde

ARBUMASA has investments and subsidiaries in South America and Mozambique as well as Spain. In Chile, they currently have three longliners operating in Chilean waters. Part of this fleet has already been reflagged to Argentina to allow them to fish in Argentine waters. The Group has bases of operations in both Chile and Argentina and owns and operates five longliners:

- Arbumasa XX** [Register No.6286]
- Arbumasa XXI** [Register No.6287]
- Arbumasa XXII** [Register No.6314]
- Arbumasa XXIII** [Register No.6413, call sign: LW9017, port of registry: Buenos Aires, Argentina]
- Arbumasa XXV.** Recently reflagged from Argentina to Belize, it was sighted repeatedly fishing illegally in French waters around the Crozet Islands in March 1997.

The Group has other fishing investments in Mozambique and Argentina mainly targeting shrimp which is sold in Spain under the Frio Condal brand name. Frio Condal is another member of the ARBUMASA Group which has a strong commercial relationship with Japanese global fish trader, Nippon Suisan. The ARBUMASA Group also has two Chilean subsidiary companies, Pesquera Suriberica and Pesquera Punta Arenas, which are also members of ANAPESCA,. It established these two companies in 1988 in a joint venture with Mayoristas Pesca del Sur S.A., another Spanish company based at Gran Via 8, Huelva, Spain. Pesquera Suriberica started off with a fleet of three freezer longliners:

- Isla Camila** [call sign: CB4234, Register No.2637, port of registry: Valparaiso, Chile];
- Isla Sofia** [call sign: CB4188, Register No.2636, port of registry: Valparaiso, Chile];
- Isla Isabel** [Register No.2635], (now operated by Pesqueras Punta Arenas S.A.).

It now also owns the **Isla Dolores**.

These longliners all began fishing licenced bottom fisheries in the Chilean southern zone but, once shore based storage and processing plant had been established, Chilean operations by Pesquera Punta Arenas were reduced to limited fishing for Austral hake and Golden kingclip in the inshore southern waters of Region XII and the longliners redeployed to other waters. Some vessels were reflagged to Argentina while others were redeployed directly to southern African waters.

Meanwhile, the ARBUMASA Group succeeded in purchasing 30% of the initial Chilean toothfish quota offered for sale in 1993. Although the number of longliners still holding Chilean fishing permits had significantly reduced, the Group still held 21% of the total toothfish quota in 1997. To ensure the Group maintained the capacity to fish this quota, Pesquera Suriberica's three longliners, the Isla Camila, Isla Sofia and Santa Isabel, have remained Chilean flagged and registered in Valparaiso. All other Chilean fishing rights have now been lost.

The Isla Camila and Isla Sofia have been identified poaching toothfish. The Isla Camila was sighted but not apprehended in French waters around the Crozet Islands on 11 December 1996. The Isla Sofia had a licence to land toothfish in South Africa which lapsed in January 1997 yet she was subsequently seen poaching around the Crozet Islands, with her call sign and name obscured, in February 1997 and again in March 1997.

Both these longliners now operate legally in UK waters in the South Atlantic around South Georgia. The Isla Camila has been chartered by Gairloch Seafoods, while the Isla Sofia was operated by Pesquera Suriberica such that the Group's vessels managed to secure two of the ten licences issued by the UK for fishing in its EEZs in CCAMLR Area 48.3. The Isla Sofia was inspected by UK authorities in 1998 and found to be not wholly compliant with CCAMLR Conservation Measures.

The Group's landings of toothfish in Chile are sold to Verdugo Group companies which ARBUMASA has had a longstanding business relationship, and to Nippon Suisan, for processing and export. In 1993, the company had spent US\$ 50,000 on upgrading its processing plants to complying with EU regulations.

4.3.1 Pesquera Suriberica S.A.

Head Office:

Company Registration No.: 96.536.930 - 9

Address: Miraflores 22, Office 1903, Santiago de Chile, Chile.

Phone: +56-2632.1071; fax: +56-2632.2500

General Manager: Luis Mujica De Los Santos

Activities: processing and export of frozen fish products

Ownership: Spanish & Chilean

- Armadores de Buques Marisqueros S.A. (ARBUMASA) of Avenida Hispano-America (no number), Huelva, Spain; and
- Mayoristas (Pesca) del Sur S.A. of Gran Vía Nº 8, Huelva, Spain.

Pesca Suribérica S.A. was established in Chile on 8 July 1988 but it remains registered in Panamá City. It is known to have a close trading relationship with the Verdugo Group.

4.4 Marabal group (including Pesquera Cisne S.A., Iberchile S.A., Clayton Trading S.A., Pescargen S.A., & Beiramar S.A.)

Owners: the Abal family (Spanish). It seems to be a father & son operation — Sr Jose Abal is the father and Sr Manuel Abal is the son.

The Abal family's Marabal Group established Iberchile S.A. as the company to run its Chilean operations and bought the longliner, **Iber I**. She performed very poorly and she was removed from Chilean waters, reflagged her to a flag of convenience country, Belize, setting up Clayton Trading S.A. in Uruguay as her registered owner and renaming her the **Liberty**. After poaching in CCAMLR Area 48.3 around South Georgia in 1995 and again in 1996, operating out of Montevideo, Uruguay, she was redeployed to the southern Indian Ocean. She was later renamed the **Ons** and was again sighted fishing illegally around Heard Island in 1997.

The Marabal Group also owns and operates the **Puerto Madryn** and the **Salvora** and now runs solely as a poaching operation. The Puerto Madryn used to operate in Argentinian waters under the Argentine flag but has since been reflagged and redeployed to poaching activities. All three vessels have been using Port Louis, Mauritius, as their base for illegal fishing in the southern Indian Ocean. The Salvora was arrested by the Australians in October 1997 for fishing illegally in their EEZ around Heard Island EEZ.

On its release, in 1998 the Salvora returned to the South Atlantic where it has been fishing in defiance of CCAMLR rules in Area 48.3, using Montevideo, Uruguay, as its base. Meanwhile, the Puerto Madryn was arrested by the French in 1998 and is expected to be confiscated and scuttled. More recently, the Salvora has been discovered fishing illegally in the French EEZ around Kerguelen by Greenpeace's ship, the Arctic Sunrise and, as this report goes to press, Greenpeace are in formal 'hot pursuit' of the Salvora as she heads for Port Louis, Mauritius.

It is rumoured that Manuel Abal has purchased a longliner in Mauritius to continue toothfish poaching in the region. The vessel is apparently a tuna longliner which has been laid up in Mauritius. This has yet to be confirmed. It is also understood that the Marabal Group has just purchased a reefer so that they can transfer toothfish catches from longliners owned and operated by companies in the Group.

4.4.1 Pesquera Cisne S.A.

Head Office address: Avenida Los Flamencos 700, Punta Arenas, Magallanes, Chile.

Postal address: Casilla 124-D, Punta Arenas, Magallanes, Chile.

Phone & fax: +56-1.212.432

Manager: Jose Adolfo Suris

Owners: Manuel Abal (Spanish citizen, son of Jose Abal) & Chilean partners

Activities: processing and export of frozen fish products.

Established: 4 April 1988

Founding directors:

Florindo Gonzales Otero, Cuatro Caminos No.7, Carballino, Orense, Spain.

Florindo Gonzales Corral, Cuatro Caminos No.7, Carballino, Orense, Spain

Manuel Carballo Eire, San Miguel No.18, Orense, Spain.

Jose Antonio Losada Fuenzalida, Juana de Arco No.2083, Santiago de Chile, Chile (representing Sr Carballo).

In 1997 Pesquera Cisne exported 2,400 tonnes of frozen fish products, mainly Austral hake. It is understood to be planning to invest several million dollars over the next two years to build a large, modern processing plant. Apparently, they intend to further process the Chilean bottom fish they catch under licence in Chilean waters with a view to improving their turnover and profits.

Pesquera Cisne already have a significant investment in a cold storage plant in southern Chile with 2,500 tonnes of freezer storage capacity. A refrigerated freighter moored alongside and plumbed into the plant gives it an additional 600 tonnes of freezer storage capacity. The company is also planning to build a wharf to improve its handling of both offloading toothfish from longliners and the loading of refrigerated reefers for export.

In 1995, a Chilean fishing permit was transferred from one of Pesquera Cisne's longliners, the **Ilsa V**, to another, the **Cisne Blanco**. Another of their longliners, the **Cisne Verde**, has been reported fishing illegally in French waters around the Crozet Islands and, in early 1997, was reported landing toothfish in Port Louis, Mauritius.

The company has recently acquired two new longliners, the **Cisne Rojo** and the **Cisne Azul**. As of October 1998, these were in Vigo Harbour, Spain awaiting the outcome of Pesquera Cisne's application to have the fishing permits for Roberto Verdugo's Mar del Sur II & III transferred to them. Pesquera Cisne presently holds about 6% of the Chilean southern zone toothfish quota and additional licences to fish for Austral hake and Golden kingclip. The company therefore keeps its longliners registered in Chile and active in Chilean waters.

4.4.2 Clayton Trading S.A.

Clayton Trading S.A. is understood to be owned by Manuel Abal and was established as the vehicle to own and operate the **Liberty** when she was transferred from Chilean to Belize jurisdiction (and renamed from the **Iber I**). In 1998, Clayton Trading S.A. was identified as the owner/operator of the **Puerto Madryn** by French authorities on her arrest and similarly identified as the owner/operator of the **Salvora** by the Australians at the time of her release.

4.4.3 Beiramar S.A.

The Marabal Group is also understood to have used Beiramar S.A. as their shipping agent for the **Salvora** and the **Ons** (previously the **Liberty**, and the **Iber I** before that). At present, however, it appears that Beiramar, based in the port of Moaña, Pontevedra, Galicia, (NW Spain), has ceased trading.

4.4.4 Pescargen S.A.

Pescargen is an Argentine registered fish processing company which has been identified as part of the Marabal Group by contacts in Spain and as the seller of toothfish products from the **Salvora**, **Puerto Madryn** and **Ons** in Japan.

4.5 Pesquera Mar Azul, including Alpesca & Patagonian Pride Ltd.

Head Office:

Address: Washington 230, Valparaiso, Chile

Phone: 53-2.239.157

Ownership: Chilean (a member company of the Angellini Group)

Base of operations: Punta Arenas

Activities: processing and export of fresh and frozen fish products.

Regional Offices:

Address: Bellavista 168, Piso 20, Edificio Centenario, Valparaiso, Chile

Phone: +53-2.253.617; fax: +53-2.253.670

Address: Estado 337, Office 301, Santiago de Chile, Chile.

Address: Los Aromos 551, Aguas Buenas, San Antonio, Chile.

Phone: +53-5.231.624 / 5.286.110

Address: Iquique 5803, Antofagasta, Chile.

Pesquera Mar Azul S.A. was established in 1987 by three companies: Inversiones Mar Azul Ltda., Johnson's S.A., and Efectivo S.A.. It is now a company member of the Angellini Group, one of the largest in the Chilean economy. The Group's founder and controller is Anacleto Angellini Fabbri, a 1940s immigrant to Chile. He is the owner of the principal fish meal companies in northern Chile. He is also one of the richest men in the world. In 1990, Forbes had him listed with an estimated worth of over US\$1 billion.

The Angellini Group's holdings include the Copec Company (which controls 51% of Chilean oil distribution), a conglomerate of investment, financial, forest, shipping, mining, fishing and electric companies. It is the owner of the biggest South American fish meal company, Pesquera Eperva as well as Celulosa Arauco and Alto Paraná in Argentina - between them, one of the three largest cellulose producers in the world.

Pesquera Mar Azul's fishing efforts were never very successful and the company has now been liquidated. The company had originally acquired six tuna longliners to fish in the relatively sheltered inshore waters of Chile's southern Region XII and with the company's small toothfish quota allocation, only 2% of the total, the operations were not profitable for six longliners. To make matters worse, in a tragic accident, two of their factory longliners, the Mar Azul XVI and Mar Azul XI, collided and sunk in a storm in May 1993.

In 1994, Pesquera Mar Azul's longliner, the Mar Azul XIV was publicly accused of fishing illegally in the Chilean EEZ and for misreporting its position to Chilean authorities. Nevertheless, it still holds 2% of the Chilean southern zone toothfish quota - a mere 90 tonnes out of an overall annual toothfish quota of 6,000 tonnes. Its longliners, Mar Azul XV and XI have also both been caught illegally fishing in Chilean waters and were subsequently fined a total of 500M Pesos (approx. US\$1.2M) in April 1995. In an attempt to reverse their flagging fortunes, Pesquera Mar Azul entered into a joint venture, Patagonian Pride Ltd., with the Argentinian fishing company, Alpesca (which is part of a major industrial group in Argentina), and redeployed their longliners to Argentine waters in a dedicated toothfish fishing operation. The Mar Azul X, XII, XIV and XV were subsequently reflagged to Argentina and fished the Argentinian EEZ and landed their catches at Alpesca's fish processing plant. This joint venture also failed to perform up to expectations and the project was never completed and some of the longliners were sent to fish in the CCAMLR's southern Indian Ocean sector without acquiring licences to do so.

All Pesquera Mar Azul's longliners eventually lost their Chilean fishing permits through a combination of illegal activities within Chilean waters and prolonged absence from these waters. At present, the Group is no longer involved in the toothfish fishery. These longliners, which had been transferred to Patagonian Pride, are now reported to be back under the ownership and control of Pesquera Mar Azul and, in October 1998, were observed in dock in the northern Chilean port of Mejillones and to have been reflagged to Panama. These longliners are understood to be in transit to Arica Port on the Chile/Peru border. The company is understood to be trying to sell its longliner fleet.

This activity may be the source of rumours circulated by the New Zealanders at the CCAMLR XVII meeting in Hobart in November 1998 that there was a fleet of long liners being fitted out in Lima, Peru for deployment to the Ross Sea, poaching for Antarctic toothfish [*Dissostichus mawsonii*]. No such activity has been detected to date despite the presence of two licenced New Zealand factory longliners (see ISOFISH Occasional Report No.3 (the Norway Report) for details) in the area; surveillance overflights by NZ Airforce Orions, a patrol by a NZ Navy frigate; a visit by Greenpeace's ship, Arctic Sunrise; and various transits through the Ross Sea by ships servicing the multinational research effort in and around the Antarctic mainland.

Pesquera Mar Azul S.A. is understood to still be the owner of the longliners:

- Mar Azul [Register No.?, call sign: LW9044];
- Mar Azul X [Register No.6435];
- Mar Azul XII [Register No.6436, call sign: LW9043];
- Mar Azul XIV [Register No.6437]; and
- Mar Azul XV [Register No.6438, call sign: MAT6438].

Table 4.1: Summary of all Chilean flagged Longliners which have Lost their Permits or have been Deregistered as a result of infringing Chilean fisheries regulations - 26 in all.

Company	Longliners			
Pesquera Punta Arenas	Chacabuco	Chamiza	Chamiza	Charrua
Pesquera Suriberica	Isla Dolores	Isla Isabel	Isla Sofia	
Pesquera Mar del Sur	Mar del Sur I	Mar del Sur II	Mar del Sur III	
Pesquera des Los Andes	Elqui	Ercilla		
Torres del Paine	Torres del Paine			
Marazul	Marazul X	Marazul XII	Marazul XIV	MarazulXV
Santa Ana	Area Milla	Brisca	Canadelo	
Omega	Cristina	Elba's	Elena's	
Guafo/Integra	Isla Guafo	Isla Guamblin		
Iberchile	Iber I (Liberty)			

[Note: while these longliners may have suffered loss of their permit to fish in Chilean waters for a number of reasons (of which poaching is just one), this list identifies longliners (and the companies which own them) which can reasonably be suspected of fishing without a licence if found landing toothfish in any port in the absence of evidence that they have subsequently acquired permits and licences to fish elsewhere.]

4.6 Montevideo Port, Uruguay, still a Base for Toothfish Poachers

Uruguay has played host to toothfish poachers working in the South Atlantic and CCAMLR Area 48.3 ever since the first Chilean longliners started leaving their home EEZ. Like others, Uruguayan authorities in Montevideo routinely accept 'high seas' or 'international waters' as the source for toothfish landed or transshipped in the port without documentation to verify point of origin.

Longliners owned and operated by Chilean companies with Chilean crews from southern Chile and fishing for toothfish are still using Montevideo to land and transship their catches although to a lesser extent than in previous years. The following vessels have been identified as using Montevideo as their base of operations for toothfish fishing operations in recent years:

Longliners known to have been involved in illegal, unreported and unregulated [IUU] fishing for toothfish:

Torres del Paine, owned by Pesquera de Alta Mar which is owned by Alejandro Soffia Diaz of Bascunan Guerrero 1389-B, Santiago de Chile, Chile.

Ons (previously the **Liberty** and **Iber I** before that), **Salvora**, (call sign: V30W6) & **Puerto Madryn** (call sign: V3TR8), the Spanish-based Marabal Group's three longliners (see Section 4.4 above). They all now fly the Belize flag and are registered in Belize City. While the Marabal Group is still assumed to be the beneficial owner, names of companies associated with the vessels' registrations include: Pesquera Hardverd Corporation; Clayton Trading Co. S.A.; and Pesquera Milaril International.

Vieirasa IV, Argentine registered and owned by Eduardo Vieirasa S.A., part of the Vieirasa Group.

We are also aware that **Pescargen III**, **Pescargen V**, & **Pescargen VII**, flying Spanish flags, owned by Pescargen S.A., have been using Montevideo recently. Insofar as Pescargen has been identified as part of the Marabal Group, there is some concern as to what these vessels may have been doing although we have no evidence that they have been landing toothfish.

Little is yet known about what happens to toothfish landed in Montevideo. Some frozen toothfish, at least, is processed at local plants for export to the EU and USA while there are reports of fresh/chilled toothfish being air freighted into Spain.

4.7 The Argentinian Connection

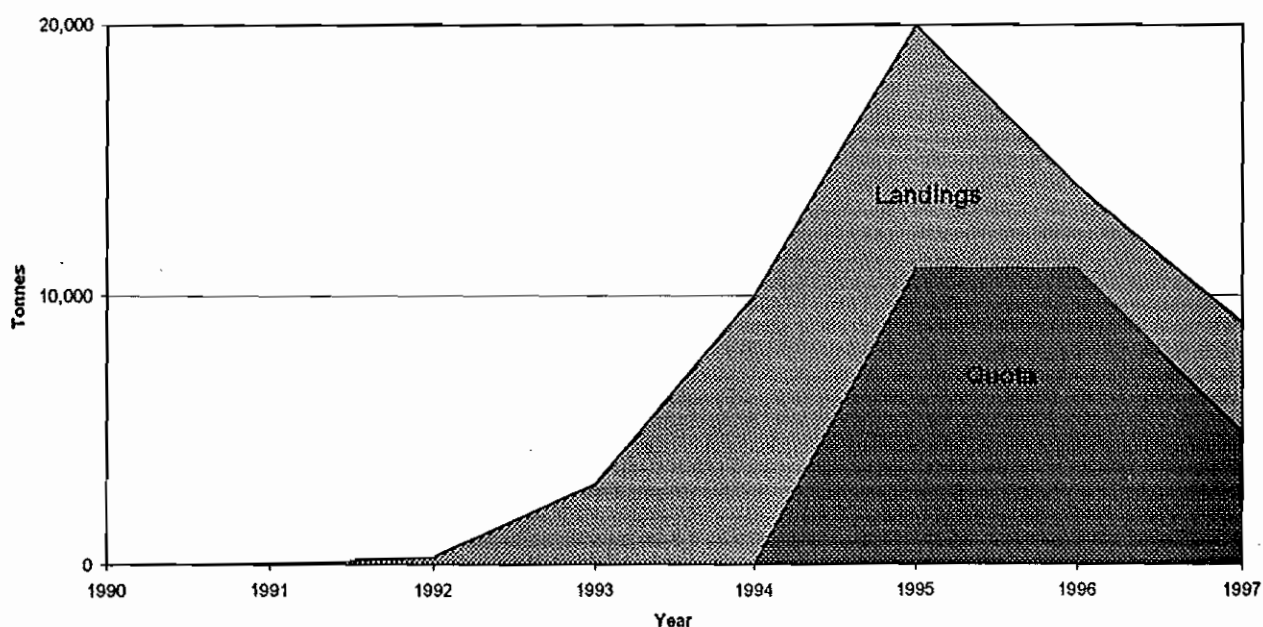
There was no Patagonian toothfish fishery in Argentina when the displaced Chilean freezer longliners first started arriving from their crowded fishery in the early 1990s. The continental shelf is so wide off the Argentinian coastline such that artisanal fishing communities had not ventured far enough offshore to encounter toothfish stocks. In Argentina, the Patagonian toothfish is known as *bacalao de profundidad* (cod of the deep). Similarly, the shelf supported sufficiently abundant fish stocks such that the industrial fleet had had no need to venture into remoter and deeper waters at the edge of the shelf - to the extent that they and fisheries authorities were very surprised when the Chileans, shortly followed by some enterprising Norwegians, turned up asking for permits and licences - but not quotas!

The first Argentinian landings of Patagonian toothfish (*Merluza negra*) were recorded in 1990. Very small tonnages were landed in 1990 and 1991 before rising sharply to a peak of 20,000 tonnes in 1995 and then declining almost as sharply. When quotas were finally introduced for toothfish in 1995, the initial quota was set at 11,000 tonnes - yet landings of 20,000 tonnes were recorded. In recent years, catches have declined as stocks have been depleted and longliners have sought easier pickings elsewhere - in CCAMLR waters around sub-Antarctic islands to the east. In response to this collapse, the quota for 1997 was reduced by more than half to 5,000 tonnes — Argentinians had lost their toothfish stocks almost before they knew they had them!

Table 4.2: Argentinian Landings of and Quotas for Patagonian Toothfish (tonnes), 1990-1997

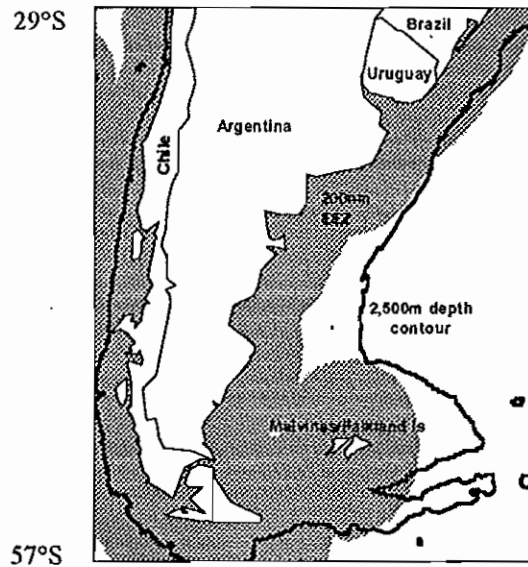
	1990	1991	1992	1993	1994	1995	1996	1997
Landings	10	10	300	3,000	10,000	20,000	14,000	9,000
Quota	0	0	0	0	0	11,000	11,000	5,000

Figure 4.2: Argentinian Landings of and Quotas for Patagonian Toothfish (tonnes), 1990-1997



Also, because of the size of the continental shelf, a significant part of the toothfish fishery occurs in international waters beyond Argentina's 200 mile EEZ. As longliners in the fishery moved into deeper waters, they found themselves operating outside EEZs — a circumstance which did not occur in Chile, with its much narrower continental shelf.

Figure 4.3: Location of EEZ boundaries and the 2,500 depth contour in the western South Atlantic, showing the extent of the Patagonian toothfish fishery in unregulated waters.



Importantly, this part of the toothfish fishery (on the edge of the continental shelf outside the Argentinian EEZ) is one of the few places where unrestrained and unreported fishing for toothfish can be pursued legitimately - outside the CCAMLR Areas and outside EEZs. The authorities in Montevideo thus have more justification than do their colleagues in Mauritius for believing statements of 'on the high seas' for the origin of catches being landed and transshipped within their jurisdiction.

Most of the landings of toothfish in Argentina are in Ushuaia, in the far south, with smaller quantities being landed in Patagonian ports, Puerto Deseado and Punta Quilla and very small volumes in Bahia Blanca and Los Demas. Most of the landings take place in spring, between June and October, with peaks in August and, later, in December. The danger to albatrosses and other seabirds from this longline fishing effort is thus considerable.

While the dramatic rise and fall of the Argentinian toothfish fishery was occurring, the overall Argentine fishing industry has been undergoing a rapid and sustained expansion. The industry more than tripled over the ten years from 1988 to 1997 from landings of about 400,000 tonnes/year in 1988 to 1,226,000 in 1997. Toothfish thus represent less than 1% of landings. This programme of expansion has also focused on increased exports with export receipts increasing more than five-fold between 1985 and 1997. The following Argentinian or Argentina-based companies have been identified as being involved in the toothfish fishery:

4.7.1 Antarctic Longlining S.A.

Antarctic Longlining is a subsidiary of the Norwegian/USA complex of companies including **Resources Group International Inc.(RGI)**, AKER & American Seafood Ltd. It is heavily involved in the Argentinian toothfish fishery - in 1996, RGI held a third of the entire toothfish

quota for the whole EEZ which they fished legally with three longliners under licence in Argentine waters:

- Antarctic I** [Register No.6319]
- Antarctic II** [Register No.6447]
- Antarctic III** [Register No.6550]

In addition, RGI subsidiary, American Champion Ltd. Partnership, is the owner of the **American Champion** [USA flagged, registered in Seattle, call sign: KYAZ]. American Champion was built as a 63m Alaskan crabber and trawler in 1970 capable of pumping pollock to surimi ships. She was being operated by ASC (South America), an RGI subsidiary, in Argentina in 1996 and, in 1997, she was working out of southern African ports in and reported landing toothfish catches in Walvis Bay. Mike Nordby, a Director of RGI, was listed as an 'advisor' member of the USA delegation to the 1996 CCAMLR XV meeting in Hobart. The American Champion is understood to have been redeployed recently to oil and gas rig supply work.

Other identified RGI companies are: RGI (Antilles) N.V.; RGI (Europe) B.V.; RGI Finance S.A. (Luxembourg registered); RGI ApS (Denmark). Additionally, **RGI Inc. (USA)** has a number of subsidiaries: Gresving A.S. (Norwegian); Norsk Barnesikring A.S. (Norwegian); Rena Box Packaging Inc. (USA); RGI Holdings Inc. (USA); Resources Group Inc. (USA); K.W. Properties Inc. (USA); Grand Harbour Associates Inc. (USA); Grand Harbour Partnership (USA); and Grand Harbour Corporation (USA).

RGI also owns **Foreign Holdings B.V.** (Netherlands registered) which, in turn, owns: Langsten A.S. (Norwegian); Brattvaag Industrier A.S. (Norwegian); Kasten-Hovik Group A.S. (Norwegian); Brooks Sports Inc. (USA); and Avantor A.S. (Norwegian). It also owns **Norcrest Finance Corporation** (Liberian registered) which, in turn, owns: RGI A.S. (Norwegian); Martin Bang A.S. (Norwegian); EMO Holdings A.S. (Norwegian); Tomra Konfeksjon A.S. (Norwegian); Industribygg A.S. (Norwegian); Norway Seafood A.S. (Norwegian); Helly-hansen A.S. (Norwegian); Champion Seafoods Ltda. (Cayman Islands); Gunnar Schjeldrupsvel Holdings A.S. (Norwegian); Global Waters Industries Inc. (USA); and Polynor A.S. (Norwegian).

4.7.2 Argenova S.A.

Argenova is a wholly owned subsidiary of Pescanova, the giant, global fishing company based in Vigo in north-west Spain. It owns and operates four longliners and used to own one reefer all of which were sighted in various EEZs and CCAMLR Areas in 1997. They are:

- **Estela** [Register No.6010, call sign: LW 8316, port of registry: Puerto Deseado, Argentina] was seen fishing in regulated waters around South Georgia (CCAMLR Area 48.3) in 1995 and 1996 and in French waters around the Crozet Islands in February 1997 and around Kerguelen in July 1997.
- **Fuji** [call sign: LW 8194, port of registry: Puerto Deseado, Argentina] was seen in French waters around the Crozet Islands on 20 February 1997. It had no toothfish in its holds at the time of boarding but did have heads on its deck.
- **Marunaka** [Register No.6049, call sign: LW8468, port of registry: Puerto Deseado, Argentina] was sighted in French waters around the Crozet Islands on 26 December 1996, 14 & 15 January 1997 and, later, in Australia's Heard Island EEZ on 6 May 1997 and again on 6 June 1997.
- **Magallanes 1** [Register No.6243, port of registry: Belize City, Belize (reflagged from Argentina)] was reported landing toothfish in Beira, Mozambique in February 1997 and was seen in French waters around the Crozet Islands on 20 & 28 February 1997 before landing

toothfish again in Cape Town, South Africa in March 1997 without having been licenced to fish for toothfish. She was later seen in the Australian Heard Island EEZ in June 1997 and landed 176 tonnes of toothfish in Walvis Bay, Namibia in August 1997. More recently, she has been reported to have unloaded 65 tonnes of toothfish in Beira, Mozambique.

- **Orense** [call sign: LW9099; port of registry: Buenos Aires, Argentina] was a refrigerated freighter (reefer) involved in the transshipment of toothfish from the longliners, Estela and Fuji, through South African ports. In March 1997, she was reported landing 919 and 320 tonnes of toothfish at Walvis Bay, Namibia. In January 1998, she was reported to have sunk with no loss of life.

There have been no recent sightings of Argenova longliners in toothfish fisheries. It is understood that Pescanova eventually responded to repeated identification of Argenova vessels suspected of illegal, unregulated or unreported fishing in EEZs and within the CCAMLR Area by castigating the company in 1997. It is possible that, as a result of such intervention, Argenova has forsaken involvement in illegal fishing for toothfish. If this is the case, it is to be hoped that they will make a formal declaration to that effect, as have some of those Norwegians similarly involved. When this has happened, Pescanova's responsibility for its subsidiaries will have been adequately discharged in this regard.

4.7.3 **Pescom S.A.**

Pescom is a joint venture between the Verdugo Group's Chilean company, Integracion de Actividades (Integra) and the Argentinian registered company Pesquera del Atlantico to allow the redeployment of its longliners, Isla Guafo [Register No.6418] and Isla Guamblin [Register No.6414] from Chilean to Argentinian waters (see Chapter 4.1 & 4.1.5, above). Pescom also has a subsidiary, **Pionera SAPNICEI** which owns and operates the longliner Cristal Marino [call sign: LW5924, port of registry: Quequen-Necochea, Argentina]. She was sighted in French waters around the Crozet Islands on 12 September 1996. She was earlier reported to have been in South African waters around the Prince Edward Islands without a licence to fish for toothfish and to have been using Walvis Bay, Namibia to land toothfish.

4.7.4 **Compania Pesquera Argentina**

This company owns and operates the three longliners, **Kinsho Maru** [Register No.6340, call sign: LW9302 or 6340, port of registry: Buenos Aires, Argentina], **Esamar I** [call sign: LW8485], and **Esamar III**. The Kinsho Maru was arrested in French waters on 29 March 1997 and its officers subsequently convicted and fined for toothfish poaching. At the same time, the Esamar I held a licence to catch toothfish in South African waters which expired in April 1997 and was not renewed.

4.7.5 **ARBUMASA**

(Compania Armadora de Buques Marisqueros S.A.)

ARBUMASA is a Chilean company which owns and operates the five longliners: **Arbumasa X** [Register No.6286], **Arbumasa XI** [Register No.6287], **Arbumasa XII** [Register No.6314], **Arbumasa XIII** [Register No.6413], **Arbumasa XV**. See Chapter 4.2.2 above for more information.

While the first four remain Argentinian flagged and registered, Arbumasa XV (call sign: V3TK8) has been reflagged from Puerto Deseado, Argentina to Belize City, Belize. Arbumasa XIII was seen fishing illegally in French waters around the Crozet Islands on 19 January 1997 while Arbumasa XV was seen in the same waters on three separate occasions in mid March 1997. Arbumasa XIII (call sign: LW9017) is now reported to be operating out of Montevideo Port, in Uruguay, despite being Argentinian registered.

4.7.6 Patagonian Pride S.A.

Patagonian Pride is a joint venture cementing a strategic alliance between the two Chilean companies, Pesquera Mar Azul Ltd. and Alpesca S.A.. This venture was their response to being unable to acquire enough toothfish quota in the Chilean southern zone fishery to support a viable operation. Mar Azul contributed 4 longliners that had little opportunity to catch toothfish in Chilean waters and had them to Argentina. Its strategic purpose in reflagging was to allow its longliners to catch toothfish in and off the Argentinian EEZ for export to Japan. This required the catch to be landed and processed in Argentina - hence the strategic alliance with Alpesca.

While the venture was not a success and has now stopped operating, the following vessels were entered on the Argentinian register:

- Mar Azul [Register No.?, call sign: LW9044];
- Mar Azul X [Register No.6435];
- Mar Azul XII [Register No.6436, call sign: LW9043];
- Mar Azul XIV [Register No.6437]; and
- Mar Azul XV [Register No.6438, call sign: MAT6438].

These longliners are now reported to be back under the ownership of Pesquera Mar Azul and, in October 1998, were observed in dock in the northern Chilean port of Mejillones and to have been reflagged to Panama. These longliners are understood to be in transit to Arica Port on the Chile/Peru border. The company is understood to be trying to sell its longliner fleet.

4.7.7 Pesquera Alpesca S.A.

Pesquera Alpesca S.A. is a fishing company owned by Alpagatas S.A., one of the largest holding companies in Argentina which is thought to have Japanese investment. Alpesca has been exporting fish products for 12 years. It presently exports some 90,000 metric tons of boneless hake fish blocks, hake fillets, and hake HG to more than 15 different countries throughout the world, including USA, UK, Germany, Canada, Italy, Denmark, Australia, France, Sweden, Holland and Belgium.

Fishing in the South Atlantic (south of 43° South Latitude.), Alpesca catches around 40,000 metric tons of hake per year, with 5 modern vessels built in 1990. This catch is landed in Puerto Madryn, Patagonia, Argentina and processed there where it has its own fish processing plant. Alpesca invested US\$30M in 1989 to establish this plant in Puerto Madryn. Each month, it can produce over 1,000 M/T of standard block frozen fish (skinless and boneless), defatted fish blocks (skinless and boneless), interleaved, shatterpacked fillets and H+G IPW (big sizes).

Alpesca is a specialist producer of boneless hake blocks, produced according to the specifications of each and every market. The plant is equipped with the most modern Baader headers, filleters, skimmers and mincers from Germany, Trio defatters from Norway, trimming tables from Denmark and Canada, Norfo demolders and washers from Denmark, and British Howden and Danish Sabroe compressors, Norfo graders, an 80 tonne/day ice machine with 200

tonne capacity ice silo, and racked chilling rooms with a capacity of 3,000 M/T. 800 people are employed at this plant.

Alpesca's own fishing fleet consists of: Cabo Buen Tiempo; Cabo San Juan; Cabo San Sebastián; Cabo Vírgenes; Cabo Tres Puntas; Joluma; María Luisa; Promarsa I; and Promarsa II. These vessels operate in Argentinian waters and none of them are suspected of any involvement in illegal fishing for toothfish.

Alpesca's became involved in the toothfish trade through its association with Pesquera Mar Azul S.A. in setting up Patagonian Pride Ltd. as a joint venture between the two companies. Mar Azul was an inveterate poacher within the Chilean EEZ and the only reason Alpesca is not listed as involved in toothfish poaching as a result of this association with Mar Azul is because it was not a commercial success and is no longer operating.

4.7.8 Pesquera Mar del Sur Austral S.A.

This company is part of the Verdugo Group and was established in Argentina specifically for the purpose of allowing the redeployment of longliners owned and operated by the Chilean Verdugo Group company, Pesquera Mar del Sur S.A.. See Chapter 4.1.4, above. The company owns and operates two longliners: **Mar del Sur I** [Register No.6384] and **Mar del Sur II** [Register No.6394, call sign: LW9591 or CB3544]. Both are registered at the port of Ushuaia in southern Argentina.

4.7.9 Glacial S.A.

Address: Avenida Davila 840, 1007 Buenos Aires, Argentina
Phone: +54-1331.9109; fax: +54-1331.4534

Glacial S.A. was set up by the Norwegian company, Birting, to allow the deployment of the four purpose built longliners, **Alida Glacial**, **Aliza Glacial**, **Caroline Glacial** and **Cristina Glacial** to the South Atlantic, including the Argentinian EEZ. See ISOFISH Occasional Report No.3 (the Norway Report) for more on this company and the poaching activities of these longliners. In response to pressure from the Argentinian government, itself under diplomatic pressure from CCAMLR member countries over the poaching activities of the Glacial S.A.'s longliners in the southern Indian Ocean, the Glacial longliners have been reflagged to Panama and ownership transferred to Ravenor Overseas Inc., also registered in Panama.

The Birting Co. was originally established by Norwegian, Frank Sporseem, in the 1960s as a whaling company so has lots of experience in Southern Ocean waters. Later on, another Sporseem company, Huse-Sporseem A.S., as operator of the Otter Birting, was in the thick of the 'cod wars'. The present controller of the Glacial group of companies, Magne Hisdal, based in Bergen, is well known within his community as the controller of a fleet of longliners which engage in illegal fishing.

4.7.10 Eduardo Vieira S.A.

This Spanish company has one longliner registered in Argentina - the **Vieirasa XII** [call sign: LW9745] registered at the southern port of Ushuaia. Like Vieira's other two longliners, operated by its Chilean company, CONCAR, the Vieirasa XXII has been sighted fishing illegally.

4.8 Transshipping a much Reduced Problem

Transshipping is the transfer of fish from fishing vessels to refrigerated freighters or 'reefers', (either directly between vessels in port or at sea or via a freezer facility in port) for transport to processing plants rather than landings at processing plants or container terminals direct from fishing vessels. Longliners fishing in South Atlantic waters and servicing processing plants in South America did not require transshipment because steaming time between port and fishing grounds was not too long.

When these longliners shifted to CCAMLR's Indian Ocean sector, however, transshipment was necessary. In 1996 and 1997, ports in southern Africa, especially Cape Town and Mauritius, were used. When South Africa then closed its ports to unlicensed fishing vessels even while the illegal fishing effort was growing, some additional transshipment was transferred to Mauritius in 1997 and 1998 while some turned to transshipping at sea.

It would appear that substantially reduced volumes of illegally caught toothfish are being traded in 1998/99 with industry sources estimating that the overall volume of toothfish in trade is down by perhaps as much as 25,000 tonnes (nominal whole weight) a year, while prices have been high for a sustained period - reflecting a reduction in the poaching effort between 1997/98 and 1998/99 by between a third and a half. There is thus a much reduced necessity to transship at sea and transshipments at ports appear to be substantially down as well. Landings in Port Louis, Mauritius, for instance seem to be down to perhaps a quarter of what they were a year ago.

First hand accounts of transshipment at sea by Chilean crew members involved confirm that some transshipment at sea of illegally caught toothfish is still occurring [Ecoceanos]. They say that weather conditions can make it very difficult and dangerous, noting that bad weather does make transshipment at sea, while on or close to the fishing grounds, very difficult indeed. In some cases, they say frozen toothfish are lost overboard during transshipment in such circumstances. Other sources confirm that Port Louis, Mauritius, and Montevideo Port, Uruguay, are still being used as transshipment ports for illegally caught toothfish.

Trying to identify those few reefers involved in the transshipment of illegally caught toothfish from the many routinely and properly involved in servicing the legal fishing industry remains a priority in the continuing effort to expose and contain the trade in illegally caught toothfish and those responsible for it. Those countries with ports used for transshipping need to be persuaded to introduce effective monitoring measures, such as VMS, to allow reliable verification that the fish being transshipped is from properly licenced fishing operations.

It is vitally important that market controls are used to complement flag state and port state controls to curtail the toothfish poachers. The USA's toothfish import control regulations, which require US importers to identify not only the trader they are dealing with but also the fishing vessel from which the consignment originated, is a good template which should be adopted by all concerned countries. Importantly, however, the officials responsible for administering such an import control system need significant research support, backed by an effective certification scheme, to allow them to investigate and confirm the *bona fides* of the traders concerned and fishing vessels identified.

4.9 Sea Freight Companies are also Responsible

Illegally caught toothfish get to market by two main routes — either directly in reefers (refrigerated freighters) transshipping direct from longliners at sea or in containers shipped as ordinary commercial refrigerated freight from those ports where toothfish were landed, stored and/or processed. While shipping companies may have limited legal responsibility to ensure that the goods they carry are 'legal' (it being the principal responsibility of the consignor, consignee and national customs agencies), it is time to assert that such companies have a moral responsibility. This responsibility clearly exists in circumstances where they can reasonably be expected to suspect that 'illegal' goods are being consigned - like frozen fish from southern Chile — and when such illegality does such enormous environmental harm - like poaching toothfish.

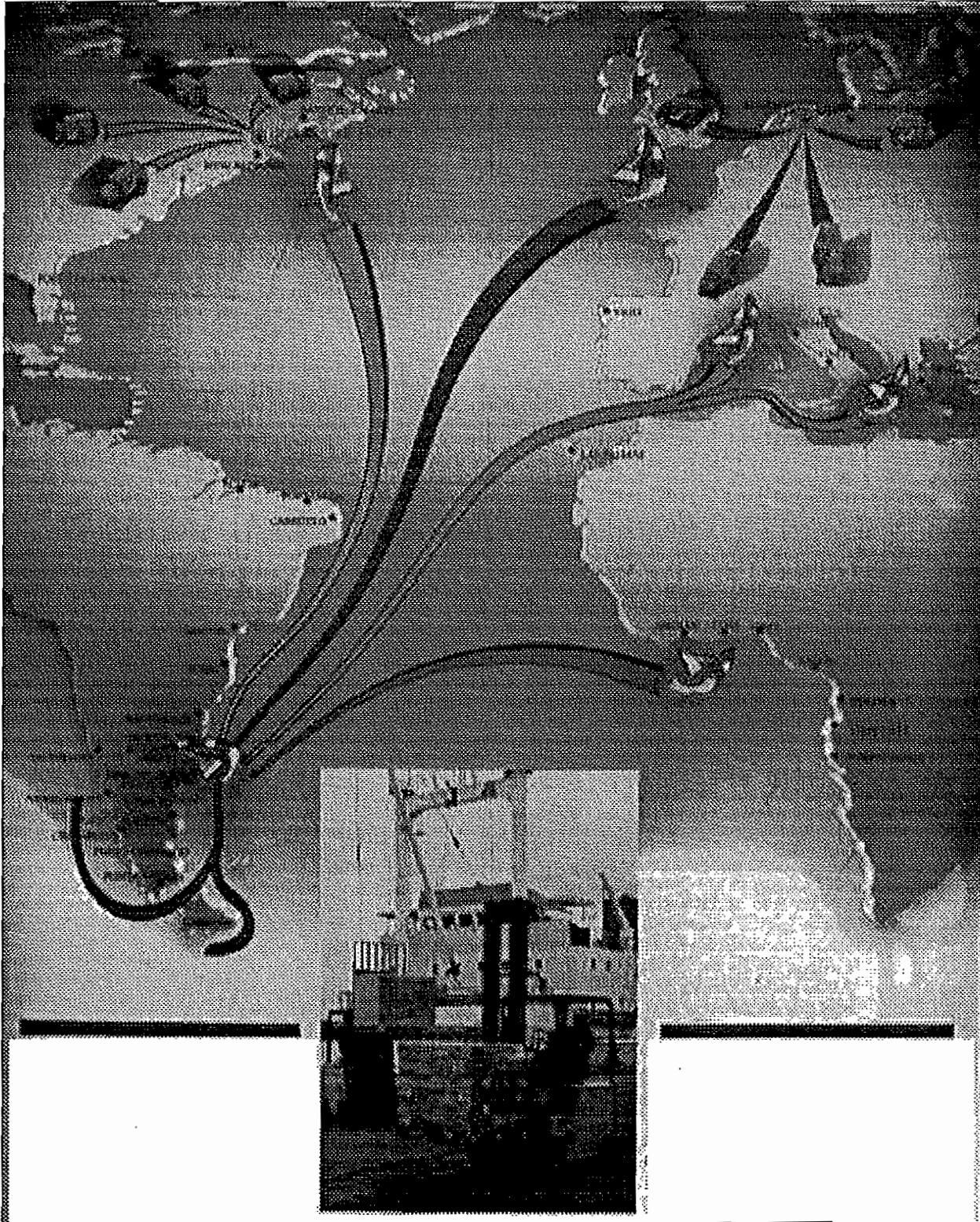
Just to illustrate the problem, the following two advertisements have been reproduced from recent copies of an Argentinian fishing industry magazine (Redes magazine). We have no evidence that any particular shipping company is involved in shipping illegally caught toothfish or toothfish products derived from such fish. However, given that there are substantial quantities of toothfish being caught 'illegally', processed somewhere else, and the resultant products sold in many other countries, it is inevitable that a number of shipping companies must be involved in this trade — although probably unwittingly in most cases.

Given that some of these shipping companies service ports known to be points of landing for illegally caught toothfish and ports which act as regional centres for container traffic originating from such ports, it is highly likely that these shipping companies do carry containers of illegally caught toothfish from time to time. All shipping companies transporting frozen fish and fish products should adopt policies and management strategies to ensure that none of the toothfish product they carry is derived from illegally caught toothfish.

Fig 4.3: Shipping Line Advertisement in Redes Magazine



Fig 4.4: Shipping Line Advertisement in Redes Magazine



5. Background Information on the Chilean Patagonian toothfish fishery

"... the first Chilean fleet operating in the 48.3 CCAMLR's area, showed efficiency and responsibility with respect to management rules imposed in this oceanic region."

[Andrés Couve R., when Chilean Undersecretary of Fisheries (1990-94). In: "Andrés Couve: La pesquería Chilena dispone de atractivos mecanismos para la inversión extranjera". Revista América Azul. Primer trimestre 1992. p: 9 -11. Translation by Ecoceanos.]

" This southern fishery , I said, has been one of the rare fisheries that was known prior to industrial operations and large-scale harvest, as consequence of research expeditions that allowed all the parameters needed for adequate administration to be obtained."

[Roberto Verdugo when Undersecretary of Fisheries in the Chilean military regime. In "Actas de sesiones del Consejo Económico y Social de la Junta Militar de Gobierno". Biblioteca Nacional de Chile. 1984 - 1985. Translation by Ecoceanos.]

5.1 Introduction

Patagonian toothfish [*Dissostichus eleginoides*] is a benthic resource and straddling stock, with a wide Antarctic circumpolar distribution on continental shelves throughout the Southern Ocean and off Chile, Argentina and Uruguay. It is caught at depths from 600 to 2000 metres in southern South American waters, making it one of the deepest fisheries in the world. The stock is subject to management under different national regimes within EEZs and under CCAMLR's Conservation Measures within CCAMLR waters. There is little scientific information on which to base catch limits in sub-Antarctic waters. Inevitably, there is little known about the ecological impacts of illegal and unregulated fishing operations. Indeed, it would be fair to say that scientists know much less than the skippers and fishing masters of the illegal fishing vessels about such matters as stock sizes and spawning areas.

Patagonian toothfish have a life history similar to those of other deep water species: long lived (up to 40 years); slow to reach sexual maturity (probably after 8-10 years); not prolific breeder; extremely sensitive to any kind of exploitation pressure; extremely slow growing; and can grow to great size — up to two metres long, weighing around 100 kgs.

As a consequence of its deep water distribution, commercial catches of Patagonian toothfish only began in the mid 1980s when a modest 500 tonnes/year were caught in Chile's central-south coastal waters close to the northern limit of its range. These catches gradually spread to southern areas. The Chilean Patagonian toothfish fishery was relatively small scale up until the mid 1980s, operations being restricted to small trawlers from coastal communities making daily fishing trips. In 1989, however, a significant transfer of fishing effort from the austral hake and golden kingclip fisheries to the toothfish fishery in adjacent deeper waters — and in waters beyond the Chilean EEZ - began.

Table.5.1: Patagonian toothfish landings and production, Chile 1987-1997
[nominal whole tonnes/year]

Year	Landed Whole	Residual [1]	Smoked Fillets	Frozen Fillets	Fresh HGT
1987	4,327	2,411	No Prodn.	1,687	229
1988	4,300	4,470	No Prodn.	1,998	243
1989	6,889	7,626	No Prodn.	3,507	226
1990	9,387	11,952	No Prodn.	4,483	578
1991	10,969	15,950	1	6,553	417
1992	30,828	25,730	6	19,892	1,150
1993	22,008	24,974	No Prodn.	21,300	1,464
1994	21,003	23,650	No Prodn.	21,018	1,309
1995	17,552	19,909	No Prodn.	19,730	1,563
1996	11,747	16,193	1	14,377	1,085
1997	10,138	10,139	1	16,191	0
Total	149,148		9	130,736	8,264

[Source: SERNAP Annual Report statistics for landing and production figures. [1] 'Residual' derived by ISOFISH as accumulated net difference between reported annual landings and production probably due mostly to containerised freight imports and stocks held in temporary storage.]

Between August 1991 and July 1992, commercial catches of Patagonian toothfish by industrial fishing fleets began on the Chilean continental shelf as an 'exploratory fishery'. This occurred under Chilean regulation and 11 longline factory vessels were given permits to explore over a massive area of 40,000 square nautical miles from 47°S to 57°S in a coastal band 80 miles wide. The objective was to establish the location and abundance of Patagonian toothfish throughout the southern sector.

Meanwhile, on 2 November 1991, various Spanish, Japanese and South Korean longliners under the Chilean flag (see Table 5.2) started operations in CCAMLR subareas 48.3 & 48.4 (South Georgia and the South Sandwich Islands), with a quota of 3,500 tonnes. This was the first ever Chilean high seas fishing fleet operation and served to reduce competition within the domestic industrial fishing fleets for Austral hake in the Chilean EEZ and to allow continuation of fleet activities during otherwise inactive periods of the year.

Table 5.2: Longliners participating in the Patagonian toothfish exploratory fishery between 47°S and 57°S within the Chilean EEZ (1991-92)

Vessel name	Company	Vessel name	Company
Mar del Sur II	Pesquera Mar del Sur	Chaval	Pesquera Punta Arenas
Mar Azul XIV	Pesquera Mar Azul	María Tamara	Pesquera Concar
Elqui	Pesquera Los Andes	Isla Camila	Pesquera Suribérica
Frío Sur V	Pesquera Frioaysén	Magallanes III	Pesca Chile
Brisca	Pesquera Santa Ana	Isla Guafo	Actividades Integradas

While the initial 1992 official toothfish quota for the Chilean EEZ might have been only 4,500 tonnes, the industrial fleet fishing fleet actually landed more than 30,000 tonnes of toothfish. While some 6,300 tonnes of landed toothfish were from artisanal fisheries and from South Georgia (and thus not part of the Chilean EEZ quota), this still leaves some 19,000 tonnes

unaccounted for, much of which was understood to have come from illegal fishing within the Chilean EEZ.

In 1993 the Patagonian toothfish quota for the Chilean EEZ was increased to 6,500 tonnes as an exploratory fishery - a "Pesquería en Régimen de Desarrollo Incipiente". A few months later, governmental resolution N° 70, of 26 February 1993, authorized a fishing permit from 1 February 1993 to 2 May 1993 for the longliner "Friosur V", owned by "Pesquera Frío Aysén" to conduct an exploratory fishing cruise in CCAMLR Area 48.3 in the South Atlantic and began setting quotas for Chilean longliners fishing in CCAMLR waters as well as the Chilean EEZ. This was a very neat way of extending Chilean jurisdiction to control Chilean flagged vessels fishing in regulated waters in CCAMLR Area 48.3 without exacerbating the ongoing sovereignty dispute over the Malvinas/Falklands.

Table 5.3: Chilean Patagonian toothfish Quotas and Quota Holders (tonnes), 1993 & 1997 (Chilean waters only)

Quota holding Company	1993		1997		1998	
	Quota	%age	Quota	%age	Quota	%age
TOTAL	6,500	100	6,000	100.0	6,000	100.0
Grimar	975	15	54	0.9		
Concar	715	11	801	13.4		
Frio Aysen	1,105	17	0	-		
Mar del Sur	325	5	638	10.6		
Frio Sur	585	9	0	-		
Suriberica	1,300	20	838	14.0		
Pesca Chile	260	4	2,029	33.8		
Sarpesca	0	-	525	8.8		
Pesqueras Los Andes	325	5	315	5.3		
Marazul	130	2	0	-		
Pesqueras Punta Arenas	650	10	450	7.5		
Pesca Cisne	130	2	348	5.8		

Note that most companies have remained in the Chilean southern toothfish fishery since its inception in 1992 but only Pesca Chile has substantially increased its quota holding. It appears that some of those remaining may be using their low levels of quota holdings to justify toothfish landings from other sources — including illegal, unregulated and unreported fishing in other jurisdictions.

Despite the increase in toothfish quota and the licencing of fishing in CCAMLR waters, lack of adequate control by government meant that Patagonian toothfish catches in 1993 were still about 9,000 tonnes over the quota limits much of which was understood to still be coming from illegal fishing within the Chilean EEZ. In response to this problem, on 11 June 1993, a meeting took place between: the Undersecretary of Fishery, Andrés Couve; the Director of Servicio Nacional de Pesca (the National Fisheries Service, SERNAPESCA), Juan Rusque; the Chilean Minister of Foreign Affairs; and various Chilean navy and fishing company representatives. The purpose of the meeting was to establish a voluntary agreement to control illegal fishing and to install a vessel monitoring system on all vessels to ensure compliance with that agreement.

Unfortunately, no such agreement was reached and, given the lucrative nature of this fishery, this is perhaps understandable. In the months after this meeting, SERNAPESCA developed a number of control measures to be applied to the vessels suspected of fishing illegally. This allowed authorities to confirm inconsistencies between vessel logbooks and company

declarations of geographic origins of Patagonian toothfish catches and the vessels' real geographic location.

Table 5.4: Chilean Patagonian toothfish Landings and Quotas, 1986-1997 [Sernap] ⁽¹⁾

Year	Landings from:				TOTAL	Quota S. of 47°S	Quota S.Georgia
	Chile EEZ Total	Chile EEZ Artisanal	S.Georgia	Others			
1986	6,988	6,100	0	0	6,988	-	-
1987	4,337	3,384	0	0	4,337	-	-
1988	4,300	3,775	0	0	4,300	-	-
1989	6,889	4,887	0	0	6,889	-	-
1990	8,387	5,616	0	0	8,387	-	-
1991	10,968	3,931	0	0	10,968	-	-
1992	14,020	3,654	2,617	13,803	30,430	-	3,350
1993	9,986	4,122	2,725	9,834	22,545	6,500	3,350
1994	11,094	5,987	151	9,896	21,041	6,500	1,300
1995	9,820	4,582	1,870	5,806	17,496	6,500	2,800
1996	7,006	4,987	3,080	1,661	11,747	7,500	4,000
1997	8,039	3,432	1,275	804	10,128	6,000	5,000

[1] These figures are transcribed from poor copies of extracts from SERNAP Reports and there may be errors in transcription.

Note that there is a significant artisanal fishery which does not operate south of 47°S, so is not covered by quotas for this region. Note also that Chile sets quotas for fishing by Chilean flagged vessels in UK controlled waters in CCAMLR Areas 48.3 & 48.4 in deference to the ongoing sovereignty dispute between Argentina and the UK.

Note the sudden and huge start to landings of toothfish from waters other than those for which Chilean licences are required. Note also how the reported landings from 'other' waters then tails off. In part, this reflects the extent to which Chilean owned longliners engaged in toothfish poaching were reflagging to other countries in order to avoid improved regulation of the Chilean toothfish fishery - like reporting catches and landings. It is also possible that the bulk of the toothfish trade continued to arrive at processing plants in southern Chile, but through imports from transshipment ports, principally those in southern Africa (including Mauritius) rather than direct landings from fishing vessels. That this can happen is strong justification for the continuing and pressing need to improve port state controls and to implement effective trade monitoring mechanisms for toothfish. The forthcoming CCAMLR intersessional meeting, in Brussels in late April 1999, will be attempting to get agreement from member states on the adoption of such a suite of measures.

Some portion of these foreign landings by Chilean operated longliners (in ports such as Port Louis and Montevideo) are consigned directly to foreign markets without ever entering Chilean jurisdiction. This is another area which warrants further investigation - to identify the destination of toothfish consignments originating in non-Chilean ports.

In 1994, above quota catches of toothfish still accounted for some 8,000 tonnes, much of it likely to have come from illegal, unregulated and unreported fishing in EEZs and throughout much of CCAMLR Area 48. There was a significant reduction of landings from South Georgia as the UK began enforcing its EEZ, causing the fishing effort to disperse. Fishing vessels would be at sea for about 45 to 60 days at a time, mainly in the Argentinian and Chilean EEZs and in the waters

around South Georgia, the South Sandwich and South Orkney Islands. Those longliners which were poaching would routinely declare their catches as having been caught in international waters outside the CCAMLR Area and any EEZs.

In 1995, the Undersecretary of Fisheries developed a tender process for a 'scientific' exploratory fishing cruise in sub-Antarctic waters. The tender was won by Pesquera Frío Sur and their factory vessel caught 260 tonnes of Patagonian toothfish which they sold for \$590M Pesos (approx. US\$1.3 million).

In 1996, there were 25 industrial fishing vessels based in Punta Arenas. Of these, 6 longliners spent 26 days in African waters. They were the "Maria Tamara" (owned by Concar), the "Faro de Hércules" and the "Magallanes III" (Pesca Chile S.A), the "Frío Sur III" (Pesquera Punta Arenas), the "Isla Camila" and the "Isla Sofia (Suribérica). Pesca Chile's two longliners were working the Africana II Rise to the north of the Prince Edward Islands outside the South African EEZ and the CCAMLR Area and were thus operating legally without licences in unregulated waters. Most of the others, however, were sighted on fishing grounds in the Indian Ocean sector of the Southern Ocean within the EEZs around South Africa's Prince Edward & Marion Islands and the France's Crozet Islands and Kerguelen. They were part of a longliner fleet, estimated at 50 vessels, from various countries, flying various flags.

In the 1997 fishing season, some 15 Chilean vessels fished around South Georgia and Shag Rock in the South Atlantic while others, operating out of ports in southern Africa, continued to fish illegally around South African, French and Australian sub-Antarctic islands. In 1998, the UK allocated toothfish licences to the following longliners - despite several of them being known to be involved in toothfish poaching - some of which were undoubtedly tempted to stay on when the season ended:

**Table 5.5: South Georgia and South Sandwich Islands
- Maritime Zone Toothfish Licence Allocations - 1998**

Vessel	Call sign	Agent/Charterer/Owner	Flag
Koryo Maru 11	ZR 4521	Argos Ltd	South Africa
Isla Camila	CB 4234	Gairloch Seafoods	Chile
Argos Helena	ZHHC	Argos Ltd.	British
Jacqueline	ZDLF1	Quark Fishing Ltd.	British
Northern Pride	ZU1048	JBG Ltd.	South Africa
Illa de Rua	CXV2	Lingoni S.A.	Uruguay
Tierra del Fuego	CB5998	Polar Ltd.	Chile
Isla Sofia	CB4233	Pesca Suriberica S.A.	Chile
Sudur Havid ^[1]	V56W	Eagle Trading Ltd.	South Africa
Arctic Fox 1	ZU1045	Eagle Trading Ltd.	South Africa

^[1] The Sudur Havid was tragically lost at sea last year with considerable loss of life.

5.2 The Southern Industrial Fishing Fleet

At the present, 94% of Patagonian toothfish catch in the Chilean EEZ is caught by the industrial fishing fleet with only 6% now being caught by local community artisanal fishing boats. Longliner factory vessels account for 82% of total catch by this industrial fishing fleet. Most of these longliners are owned and operated by Chilean companies with strong linkages to Spanish interests.

In 1996, the Chilean southern industrial fishing fleet constituted of 32 vessels totalling 31,075 gross registered tonnes (grt) and 26,037 m³ of total hold capacity. 14 of these were trawlers (6 factory vessels and 8 freezer vessels) and 18 were longliners (16 refrigerated freighters and 2 freezer vessels). 23 of these fishing vessels had fishing permits to take austral hake and golden kingclip. Just two companies, one with 11 vessels and the other with 5, have all the refrigerated freighter trawlers for the austral hake and golden kingclip fisheries. The freezer longlining fleet of 16 vessels has developed fishing operations far beyond the Chilean EEZ into CCAMLR waters and other EEZs and international waters in the Southwest Atlantic.

These fishing vessels are mainly based at Puerto Chacabuco, Aysén region (2 freezer longliners of one company); and Punta Arenas, Magellan region, (longliner freezers and occasionally some refrigerated longliners). Depending on fishing grounds location and vessel processing capacity, they may also use the alternative ports of Valparaíso, Puerto Montt and Talcahuano.

The longliner freezers are the most common fishing vessel in the fleet. In general, they have similar characteristics with length ranges from 39m to 53.6m and gross registered tonnages (grt) between 500 and 750 tonnes. The refrigerated longliners have similar characteristics with freezer capacities of about 500 m³.

The freezer longliners began operating in the southern bottom fishery in 1986 with two vessels active that year. The fleet had grown to 23 longliners in 1991 and has since diminished to 6 in 1998. These longliners are somewhat older boats fitted with plate freezers and are operated mainly by Spanish companies but often with Argentinian and Chilean officers. The crews are mostly Chileans who have the added advantage of low wage costs and good experience with operating the Spanish longline system at depths around 1,500m to 1,800m. It is said that, customarily, on the Spanish vessels, effective control of fishing operations rests with the fishing master, who is usually Spanish, not the skipper, who is usually Argentinian or Chilean.

5.3 Labour Conditions

SITONER, the Industrial Fishing Fleet Crews' Union based in Punta Arenas in southern Chile, estimates that there are about 150 Chilean citizens working as crew on longliners fishing for toothfish in South Atlantic and Southern Ocean waters. Crew working conditions in the Chilean industrial fishing fleet are poor and deteriorating for a number of reasons. SITONER identifies the main problems as:

- Workers have no right of collective negotiation, through SITONER or otherwise.
- Shipowners do not always make social security payments.
- Shipowners do not always respect workers' leave and holiday entitlements, sometimes refusing to pay holiday pay accumulated while crews work seven days a week while at sea.

The situation is exacerbated by inadequate labour laws; growing unemployment exacerbated by rationalisation in the fishing industry (and in the economy in general); and declining fish stocks.

SITONER describes conditions on the older factory vessels as inhuman. When at sea, the crew habitually work long shifts of 14 to 16 hours a day and reports of officers resorting to physical violence, psychological pressure, withholding pay are common. Maintenance of these conditions amount to flagrant violation of both national and international labour laws. Pay rates are around US\$600-800 per month for 40-50 day cruises.

In some extreme cases, on landing their toothfish catches from illegal fishing operations, poachers have been known to abandon their crews in the port of landing, occasionally without paying them at all. Foreign crew 'laid off' in such circumstances have little chance of pursuing a complaint against the vessel's operator.

In a recent situation, in July of 1998, the South African longliner, Arctic Fox, operated by the Hout Bay Fishing Co. of South Africa, picked up a Chilean crew in Punta Arenas for a 60 day cruise in the South Atlantic around South Georgia. After 40 days, however, the Arctic Fox abandoned the cruise and returned to Punta Arenas where the crew were summarily fired by the skipper.

The ensuing dispute saw the South African longliner detained in Punta Arenas by the court for three days while the dispute was settled.

On top of all this, crews of toothfish poachers are expected to work in some of the most arduous and dangerous conditions to be found anywhere on earth.

In an interesting sideline to their fish poaching operations, these operators are known to deal with the informal system of shipping agents which exists in the southern Chilean ports of Valparaíso and Punta Arenas, called 'enganchadores' - or 'hookers', which arrange crews for these fishing vessels. They often hire workers with passports from one country and, for a price, land them in a second country. These indentured crew members are usually sent to Punta Arenas or Montevideo, in Uruguay, for embarkation onto unlicensed fishing vessels which could take them anywhere.

In a piece of rare publicity given to their plight, the following article appeared in Fishing News International in June 1998 (with minor editorial changes):

We're Slaves

"Slaves at the end of the 20th Century without agreements or guarantees of international minimum standards for working hours, rest, repatriation and social security". This is how representatives of several South American fish workers' unions have described their members' conditions. Their plight was highlighted during talks to bring in international agreements but, while the fish were protected, the fish workers were not.

Codes which could help have still to come into effect, says Lewis Clifton (Falklands Islands Councillor). The Torremolinos Convention for the Safety of Fishing Vessels deals with protection of crew [but:] "It has not entered into force. Why? Because at least 15 states ratifying the Convention which, between them, have at least half of the world's fishing fleet is required to bring the Convention into force. The International Maritime Organisation attempted to fast track this process in 1993 with a protocol to the Convention but only two states have ratified it to date."

5.4 The Punta Arenas Free Trade Zone

The port of Punta Arenas is a free trade zone, with legal, economic and political services to support industrial facilities for manufacturing, packaging and exporting fish products. Duty rebates are available on all raw materials, semi-processed items or parts brought into the zone as inputs into the production of export goods. Additionally, "domestic" firms that are solely devoted to exporting or to the production of exports are exempted from all duties on machinery and equipment.

The extent to which Punta Arenas is being used to offload Patagonian toothfish caught in illegal and unregulated operations remains unclear. More work is necessary to follow up stories that Punta Arenas, or other ports in the region, is being used as the main base of operations for Chilean, Argentinian, South African and South Korean illegal fishing activities, including toothfish landing, processing and exporting operations.

Reports from late 1998 indicate that, during the preceding few months, many South Korean and some South African flagged vessels, possibly with Norwegian or Israeli investment, are landing Patagonian toothfish catches in Punta Arenas where port controls are known to be very lax. Information from some crew member indicates that there is a succession of vessels transporting frozen fish from the fishing grounds to processing plants in Punta Arenas.

For example, the South African based, and apparently US owned, Hout Bay Fishing Co. has been using Punta Arenas for landing illegal Patagonian toothfish catches from its longliner, Arctic Fox, and to pick up Chilean crews. The Arctic Fox, which used to be Belize flagged, now flies the South African flag.

6. Toothfish Exporters, Trade & Markets

The Patagonian toothfish is a similar product to, and substitutes for, black cod (or sablefish, *Anoplopoma fimbria*) on the Japanese and North American markets where the white flesh of these species is highly valued by the restaurant trade. Subsequently, a much larger market was developed in Japan. The market dynamics for Patagonian toothfish are highly sensitive to landings and prices of black cod (which is caught in the Gulf of Alaska between January and September). Markets are also highly sensitive to overall economic conditions in importing countries and relative changes in Yen and US\$ exchange rates.

The first toothfish market to be developed by Chilean exporters was East Coast USA where toothfish was sold as 'Chilean Sea Bass' or 'Chilean Grouper'.

Patagonian toothfish is usually exported with only minimal local processing. Pressure to minimise processing at points of landing in coastal states in favour of further processing within importing countries is exerted by setting import permit conditions which encourage reprocessing and other value adding processing in the port of destination. Additionally, high import tariffs are often set to discourage imports of processed and finished fish products from coastal states.

Mainly Japanese, Spanish and Icelandic transnational companies are selling Patagonian toothfish as "south hemisphere cod" as a premium quality white meat fish, with "natural advantages" over other "cod species", mainly because it has a whiter than average colour and larger fillet size. Its main competition, the Canadian black cod which is marketed in Japanese as "gin dara" while, in US, it is called sablefish (*Aqua fibria*). Black cod is mainly exported to Japanese with peak volumes in the marketplace around June and July.

In the 1993 season, US exporters provided 88% and Canada 11% of black cod imports to Japan. The Japanese consume an average of 28,000 tonnes/year and black cod imports are subject to import quota restrictions. The black cod harvest in Alaska has a 1998 production quota of 13,714 tonnes. The overall level of black cod supply has been decreasing in recent years. While the price fluctuates between seasons, the supply throughout the year is relatively steady at about 1,000 tonnes per month. The price on the Japanese market for smaller sizes was in the 900-1,000 Yen/kg (US\$7.56-8.40/kg) range in 1995 and 850-1,000 Y/kg (\$7.14-8.40/kg) in 1996.

In the US market, Patagonian toothfish is sold as "Chilean sea bass" or "Chilean grouper" but in the Japanese market, it is sold as "gin mutsu", "maman masu" or "mero".

In 1997, Chilean Patagonian toothfish exports grew by 9.6% over 1996 levels while import markets in the US and Hong Kong also increased, the US market growing by a remarkable 60% compared to 1996. Japan, however, continues its traditional domination of Patagonian toothfish markets, taking 75.4% of total Chilean exports by value compared to 82% in 1996. Surprisingly, Namibia has emerged as a new, minor market for Chilean exports, taking 3.5% of total exports by value worth some US\$3.1M.

The Chilean processing industry produced US\$88.6M worth of frozen Patagonian toothfish exports in 1997, 88.1% of total earnings from Patagonian toothfish exports. The Chilean frozen fish products industry earned a total income of US\$725M in export revenue in 1997. This is 14.7% up on 1996 earnings. The species composition of these frozen fish exports for 1997 was: trout, 22.1%; coho salmon, 22.0%; Patagonian toothfish, 12.2%; Atlantic salmon, 10.1%; and hake, 6.4%.

The reason that frozen products dominate the export trade is one of consumer preference and market conditions. Frozen fillets are suitable for reprocessing in final retail destination markets, mainly Japan, USA and Hong Kong. The reprocessing industry presently produces a wide range of final products. Frozen fillets account for 73.1% of export value, with HGT fish (with tail attached) accounting for a further 18.1%. Virtually all toothfish is landed as HG or HGT. Notably, unprocessed HG and HGT toothfish exports have increased substantially over the 1996 level.

Japan is the most important market for all Chilean frozen fish product exports, not just toothfish. In 1997, frozen fish exports to Japan earned Chile a total of US\$451M which was 62.3% of total frozen fish exports to all countries. Meanwhile, frozen fish exports to USA, Spain and Germany represented an additional 19.4% between them.

The main Chilean frozen fish exporting companies were: the Verdugo Group's Integración de Actividades S.A.(Intesa) (7.6%); Pesca Chile (6.8%); Empresa de Desarrollo Pesquero (EMDEPES) (4.1%); Compañía Camanchaca S.A.(3.7%); Aguas Claras S.A (3.4%) and Pesquera El Golfo S.A. (3.1%). These top six companies have almost 30% of the export trade with many others making up the rest.

6.1 Export Companies, Products & Prices

In 1997, Patagonian toothfish products were exported from Chile to 20 different countries (up from 17 in 1996). Japan imported 75.4 % by value of total exports while the top four importing countries took 90.7 % of total exports. The number of exporting companies decreased in 1997 to 31, 6 less than in 1996. Of these 31 exporting companies, however, just three companies (Integración de Actividades S.A; Pesca Chile; and Pesquera Grimar S.A.) accounted for 81.3% of total Patagonian toothfish export income and 86.5 % of Patagonian toothfish frozen product export income.

Table 6.1: Export ranking companies of frozen Austral hake and Patagonian toothfish by total value of company exports in 1997

Exporter	Fish stock	
	Merluza Austral [Austral Hake]	Bacalao de Profundidad [Patagonian toothfish]
Empresa de Desarrollo Pesquero S.A	20.2 %	
Pesca Chile S.A.	51.0 %	19.2 %
Pesquera Frío Sur S.A.	15.3%	
Integración de Actividades S.A		62.1 %
Pesquera Grimar S.A.		5.2 %

Table 6.2: Patagonian toothfish exports by processing method, 1996-1997

EXPORT	VOLUME (tonnes)		VALUE (US\$M)	
	1996	1997	1996	1997
FROZEN	12,759	14,289	79.759	88.577
FRESH	1,854	1,730	11.830	11.671
SMOKED	8	20	0.110	291
CANNED	-	1	-	3
TOTAL	14,621	16,040	91.699	100.542

[Source: IFOP/Boletín Informativo SIM No.42, 1998]

Note that this is a sizeable trade, almost 90% of which is of frozen products - toothfish products exported from Chile alone were worth more than US\$100M in 1997. This should more than justify establishment of an internationally recognised unique product code number for toothfish (both Patagonian and Antarctic toothfish - *Dissostichus eleginoides* and *D. mawsonii* respectively). Designation of such a product code is an essential precursor to effective national, regional and international efforts to monitor the toothfish trade and so curtail the illegal component of that trade.

Table 6.3: Frozen Patagonian toothfish exports by product type, 1996 & 1997

PRODUCT	FOB VALUE (US\$M)		PRICE (US\$/T)	
	1996	1997	1996	1997
FILLET	66.224	64.737	6.71	6.55
HGT	8.623	16.042	4.71	4.94
PORTIONS	3.952	5.825	6.52	8.37
NECKLACE	522	739	1.97	3.58
STEAK	0.3	414	3.19	7.56
FILLETE CENTER	-	321	-	5.41
WINGS	109	183	1.87	2.63
WHOLE	-	125	-	5.27
FILETE QUINQUÍÑO	-	94	-	6.38
CHEEKS	95	61	2.04	3.20
HAMBURGER	-	12	-	2.61
HG/TRNCO	-	11	-	4.57
FILLETE TROZADO	6	8	8.63	8.99
BACK	169	1	2.19	1.50
TOTALS (US\$M)	79.700	88.573		

[Source: IFOP/Boletín Informativo SIM No.42 (1998)]

Note the enormous range of frozen toothfish products now in trade - although three quarters is still as basic fillets. All this is assiduously monitored by Chilean authorities and documented by SERNAPESCA, the National Fisheries Service. 14 separate toothfish products are identified with 1997 sale values ranging from US\$9 to US\$1.50.

Companies committed to this level of sophistication in processing and marketing a product cannot hope to rely on supplies from unsustainable and illegal fishing effort. It is therefore hoped that these companies will exert domestic pressure on toothfish poachers and authorities responsible for stopping them - if only to protect their own investments. Pesca Chile, for

instance, has been known to conduct its own private overflights of Chilean and CCAMLR waters (in Areas 48.3 & 48.4) with SERNAP Inspectors on board.

Table 6.4: Chilean fresh chilled toothfish exports by company and country (1997)

EXPORTER Destination Country	Value (fob) [US\$M]	%	Volume (t) [tonnes]	%	Price [US\$/Kg]
FRESH CHILLED	11,671	12	1,730	11	6.77
IMP. Y EXP. NANAIMO	2,303	20	414	24	5.57
USA	2,300	100	413	100	5.57
Canada	-	0.2	-	0.1	7.70
PESQUERA ISLA DEL REY S.A.	1,875	16	251	14	7.47
USA	1,849	99	248	99	7.47
Japan	0.024	1	3	1	7.22
31 OTHER COMPANIES	7,492	64	10,649	62	

Table 6.5: Ranking of Patagonian toothfish Chilean export companies by share of export market by product (1997)

PRODUCTS	COMPANY	%
FROZEN	INTEGRACION DE ACTIVIDADES S.A. [INTESA]	62.1
	PESCA CHILE S.A.	19.2
	PESQUERA GRIMAR S.A	5.2
FRESH REFRIG (CHILLED)	IMPORTADORA Y EXPORTADORA NANAIMO	19.7
	PESQUERA ISLA DEL REY S.A.	16.1
	7.460.052-2	15.5
SMOKED	CHISAL S.A	52.0
	SOCIEDAD PESQUERA RALUN LTDA.	40.3
	Others 78.708.940-2	6.7
CANNED	SOCIEDAD GARCES Y FERNANDINO Y CIA.	98.8
	Others 84.671.700-5	1.2

[Source: IFOP from Chilean Customs Service Information (1998)/SIM No.42]

Note that the Verdugo Group's INTESA dominates the export trade in frozen toothfish despite Pesca Chile having about a third of the entire 1997 quota for Chilean waters (2,030/6,000 tonnes). Assuming Pesca Chile only processes and exports toothfish landed under its quota of 2,030 tonnes to gain 19.2% of the frozen toothfish export market, then one might expect Intesa, with 62.1% of that export market to be processing around 6,600 tonnes (2,030x62.1/19.2) of toothfish landed by other companies and from elsewhere. Note also that no such domination occurs in the emerging trade in fresh refrigerated/chilled products where some 35 companies are active and landings are mainly from the artisanal fishery. In the undeveloped markets for smoked and canned products, however, these very small trade flows are dominated by those companies committed to pioneering their development.

Nevertheless, the Chilean toothfish trade remains dominated by frozen products - the only option available to deep sea fishing fleets, which includes all toothfish poachers. It is this trade in frozen fish and fish products which needs more detailed company-by-company, factory-by-factory investigation to clarify which exporters are dealing in illegal fish products - either knowingly or unknowingly.

Table 6.6: Chilean exports of Patagonian toothfish by exporting company and importing country (1997)

EXPORTER	Destination Country	Value (fob)		Volume		Price
		US\$M	(%)	Tonnes	(%)	(US\$/Kg)
INTESA		54.990	62.1	8,426	59.0	6.53
	Japan	50.367	91.6	7,667	91.0	6.57
	USA	3.910	7.1	644	7.6	6.07
	Hong Kong	0.294	0.5	44	0.5	6.64
	China	0.258	0.5	47	0.6	5.46
	South Korea	0.161	0.3	24	0.3	6.85
PESCA CHILE S.A.		16.981	19.2	2,971	20.8	5.72
	Japan	9.146	53.9	1,480	49.8	6.18
	China (mainland)	2.611	15.4	493	16.6	5.30
	Hong Kong	2.443	14.4	477	16.0	5.13
	USA	1.707	10.0	321	10.8	5.31
	Canada	0.687	4.0	129	4.3	5.32
	Taiwan (Formosa)	0.115	0.7	20	0.7	5.80
	Thailand	0.115	0.7	21	0.7	5.50
	Malaysia	0.108	0.6	22	0.7	5.00
	Singapore	0.049	0.3	9	0.3	5.23
	Brasil	0.001	-	-	-	7.01
PESQUERA GRIMAR S.A.		4.632	5.2	618	4.3	7.49
	Japan	3.713	80.2	488	79.0	7.61
	Brasil	0.531	11.5	75	12.2	7.05
	USA	0.137	3.0	21	3.3	6.67
	Hong Kong	0.129	2.8	20	3.2	6.43
	UK	0.123	2.6	14	2.3	8.74
PESQUERA ISLA DEL REY		2.758	3.1	354	2.5	7.77
	Japan	1.261	45.7	173	48.6	7.31
	USA	1.166	42.3	142	39.9	8.23
	Brasil	0.153	5.6	20	5.7	7.58
	Hong Kong	0.093	3.4	11	3.0	8.87
	China (mainland)	0.084	3.1	10	2.8	8.49
PESCA SURIBERICA		2.370	2.7	601	4.2	3.94
PESQUERA PUNTA ARENAS		2.045	2.3	475	3.3	4.30
CONCAR		1.573	1.8	373	2.6	4.22
PESQUERA DE LOS ANDES		951	1.1	153	1.1	6.21
OTHERS			2.5			
Total Frozen Product Exports		88.577	88.1	14,289	89.1	6.20
Total All Exports		100.541	100.0	16,039	100.0	6.27

[Source: IFOP and Chilean Customs Service Information (1998)]

Note the extent to which the Verdugo Group's exports of toothfish (by Intesa) dominate the whole trade - fully half of all Chile's toothfish exports, worth more than \$50M in 1997.

At these prices, toothfish trading is worth a lot of money. As of October 1998, Japan's major toothfish importer, Maruha Corporation, has set the following guideline prices for purchasing toothfish, with other companies following suit (for comparison, Pesca Chile's equivalent prices are given in brackets): 0.5-1 kg fillets: 900 Y/kg (880); 1-2 kg: 950 Y/kg (950); 2-3 kg: 1,030 Y/kg (1,020); 3-4 kg: 1,050 Y/kg (1,040); 4-6 kg: 1,050 Y/kg (1,050); and over 6 kg: 980 Y/kg (950). [Fish Info Service (www.sea-world.com)]. In recent months, prices have recovered and held at record highs.

Table 6.7: Destination Markets for Chilean frozen Patagonian toothfish product Exports, 1997 by value, volume & price.

Destination Market	No. of Exporters	FOB Value US\$M	(%age)	Volume tonnes	(%age)	Price US\$/t
Japan	15	66.825	75.4	10,222	71.5	6.54
USA	9	7.364	8.3	1,210	8.5	6.09
Namibia	2	3.111	3.5	760	5.3	4.09
Hong Kong	5	3.062	3.4	574	4.0	5.33
China (mainland)	3	2,953	3.3	549	3.8	5.37
Others		5,260	5.7	972	6.9	5.41
TOTAL	31	88.577	100.0	14,289	100.0	6.20

[Source: IFOP/Boletín Informativo SIM No.42, 1998, Table 11.]

6.2 Japanese Imports

The following table summarises the extent of imports of toothfish products into Japan in 1997. Almost three quarters of all toothfish imports in 1997 came from Chile.

Table 6.8: Imports of Toothfish products into Japan, 1997

Exporting country	Volume (tonnes)	Value (US\$M)	Unit Price (US\$/kg)	% of Total Imports
Chile	10,116.1	74.9	7.4	73.5
Argentina	1,167.7	8.6	7.3	8.5
South Africa	941.8	6.5	6.9	6.8
China	658.9	5.1	7.8	4.8
France	545.3	3.8	7.0	4.0
Reunion	136.2	0.9	6.7	1.0
Namibia	80.8	0.6	7.3	0.6
Malvinas/Falkland	52.4	0.4	6.9	0.4
Australia	27.9	0.2	5.5	0.2
USA	19.3	0.2	8.1	0.1
UK	9.2	0.1	7.8	-
Mauritius	5.9	0.1	1.0	-
Uruguay	2.4	-	7.4	-
Belize	1.6	-	6.3	-
St Helena	1.3	-	3.8	-
Total	13,766.9	101.2	7.4	100.0

[Source: Japanese Imports of Marine Products statistics published by Japan Marine Products Importers Assn., Tokyo for Mero (*Dissostichus eleginoides*) for frozen fillets.]

There is some ongoing problems with using Japanese import statistics, however, insofar as this particular data set only covers imports of fillets (and presumably other similarly untransformed cuts and parts, including whole fish). Where elaborately transformed toothfish products turn up in the Japanese import statistics remains a mystery. There are also major difficulties with reconciling some of the entries in this table with anecdotal information from other sources. For instance, reported volumes of imports from Australia and Mauritius and prices paid for imports from Mauritius are both far too low.

FAO has attempted to differentiate these statistics as best they can and in, a recent report, they provide the following figures for Japanese imports for the first eight months of 1998.

In January 1998, Japan changed its categories for import statistics covering mero such that, henceforth, the volume (gross weight of packaged product at customs) and cost of 'mero (frozen)' (excluding fish fillet, other fish meat, livers and roes) and 'fillet of mero (frozen)' imports are now reported monthly. Previously, a single category of 'mero frozen' of rather uncertain coverage was reported.

Table 6.9: Imports of Toothfish products into Japan, January-August 1998

Exporting country	Frozen		Fillets		Total	
	Volume (tonnes)	Value (MYen)	Volume (tonnes)	Value (MYen)	Volume (tonnes)	Value (MYen)
Chile	988.9	402.8	5,343.2	4,258.3	6,332.1	4,651.1
Mauritius	2,707.5	1,602.3	-	-	2,707.5	1,602.3
France	1,166.2	682.3	241.4	170.6	1,407.6	852.9
Argentina	418.6	214.0	406.4	317.6	825.0	531.6
South Africa	630.3	354.6	70.1	46.7	700.4	401.3
Australia	626.9	291.2	72.2	44.4	699.1	335.6
Uruguay	460.4	211.4	3.4	3.2	463.6	214.6
Belize	454.6	233.1	-	-	454.6	233.1
Reunion	94.0	49.3	221.6	161.4	315.6	210.7
Namibia	230.0	100.6	73.4	60.9	303.4	161.5
Norway	223.5	143.5	-	-	223.5	43.5
China	6.7	3.4	173.6	159.1	180.3	162.5
Malvinas/Falklands	20.2	6.5	89.8	60.5	110.0	67.0
Gambia	86.6	44.5	-	-	86.6	44.5
St Helena	81.2	43.3	-	-	81.2	43.3
Spain	55.0	22.5	-	-	55.0	22.5
Canada	21.5	15.4	-	-	21.5	15.4
Panama	21.5	15.4	-	-	21.5	15.4
USA	20.7	13.3	-	-	20.7	13.3
Korea (South)	19.8	13.8	-	-	19.8	13.8
Mauritania	8.0	5.7	-	-	8.0	5.7
Netherlands	6.0	3.4	-	-	6.0	3.4
New Zealand	3.6	1.0	-	-	3.6	1.0
UK	-	-	-	-	-	-
8-month totals	8,627.6	4,614.2	6,695.0	5,282.8	15,322.6	9,897.0

[Source: Japanese Imports of Marine Products statistics published by Japan Marine Products Importers Assn., Tokyo) for Mero (*Dissostichus eleginoides*) for frozen fillets.]

At these levels of importation, it is highly unlikely that all consignments are from licenced fishing operations. The high level of imported fillets from Chile also implies that substantial volumes of toothfish landed elsewhere are being transshipped and imported into Chile as freight to complement volumes of toothfish landed directly in Chile. Further work is needed to clarify and analyse the information being reported in Japanese trade statistics to reconcile it with information from Chile, USA and elsewhere.

On the one hand, the volume of trade from Chile is too high to be accounted for by processing of legally caught toothfish alone. 988.9 tonnes of HGT is equivalent to 1,648 tonnes of whole fish caught while 5,343 tonnes of fillets is equivalent to 12,820 tonnes of whole fish caught. In the first eight months of 1998, Japan had therefore imported a volume of toothfish products equivalent to 14,468 tonnes of toothfish landed while the Chilean domestic quota is down to 6,000 tonnes. Assuming 75% of this quota ends up in Japan (the proportion of Chilean exports going to Japan in 1997), more than 10,000 tonnes of toothfish sourced from outside the Chilean EEZ quota have ended up in toothfish products in Japan. While some of this 'surplus' may have come from the artisanal fishery and from South Georgia, most of it is likely to have come from illegal, unregulated and unreported fishing for toothfish within EEZs throughout the CCAMLR Area.

On the other hand, toothfish are landed in Mauritius are mostly from illegal, unregulated and unreported fishing operations within the Indian Ocean sector of the CCAMLR Area. 2,707.5 tonnes of HGT toothfish imported into Japan is equivalent to some 4,513 tonnes of whole fish — most of which will have been caught 'illegally'.

The substitutability of Mero and Black cod on the Japanese Market

Over the last ten years, Chile's position of dominance in the Japanese toothfish trade has declined from around 60% of total to about 40%. See Table 6.10, below. At the same time, the relative volumes of toothfish and black cod has changed from toothfish being 40% of the combined volume in 1988 to 70% in 1997. These two products are readily substitutable in the white fish restaurant trade. These trends are shown in Figures 6.1 & 6.2, below.

Figure 6.1: Imports of Mero (Patagonian Toothfish) and Black Cod into Japan, 1988-97

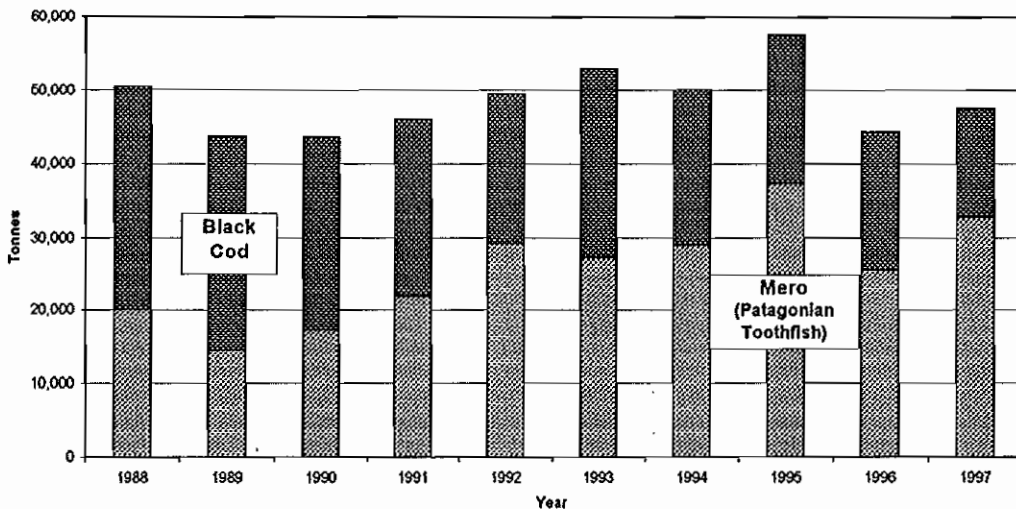
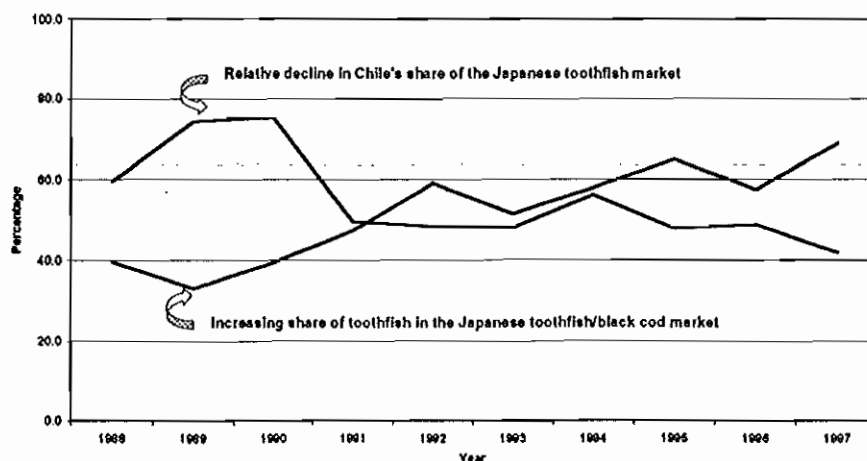


Figure 6.2: Toothfish market trends in Japan, 1988-1997



Source: Industry contacts

Table 6.10: Imports of Mero & Black Cod into Japan, 1988-1997 (tonnes)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Mero (toothfish)	20,013	14,431	17,208	21,849	29,209	27,215	29,048	37,429	25,495	32,788
Black Cod	30,558	29,354	26,449	24,277	20,258	25,720	21,056	20,256	18,840	14,809
Total	50,571	43,785	43,657	46,126	49,467	52,935	50,104	57,685	44,335	47,597
% Mero	39.6	33.0	39.4	47.4	59.0	51.4	58.0	64.9	57.5	68.9
Exports from Chile	11,899	10,726	12,956	10,842	14,129	13,036	16,349	17,870	12,434	13,697
Rest of the World	8,114	3,705	4,252	11,007	15,080	14,179	12,699	19,559	13,061	19,091
Mero (toothfish)	20,013	14,431	17,208	21,849	29,209	27,215	29,048	37,429	25,495	32,788
% from Chile	59.5	74.3	75.3	49.6	48.4	47.9	56.3	47.7	48.8	41.8
% Mero	39.6	33.0	39.4	47.4	59.0	51.4	58.0	64.9	57.5	68.9

7. Background Information on other Chilean Companies involved in the Patagonian toothfish fishery

7.1 Taiyo A & F Co. Ltd. (TAFCO)

"The industrial structure has changed dramatically. Moreover, there is a worldwide tendency of insisting one's own economical water territory, strong consciousness of national resources protection and foods security. As in the past, under this severe circumstances, we are strengthening our efforts to be aware of our role as food industry forwarding to 21st century."

[TAFCO advertising, 1998]

In October, 1996, TAFCO was set up by three companies: the New Nippon Corporation, the Kokai Corporation and the Daito Deep-Sea Fishing Company Ltd. It also has important links with the Maruha Group and is a diversified food company, handling various goods from agricultural to marine products: fishery, tuna cultivation, import of frozen fish, dealing frozen foods, producing and selling spices, dehydrated foods and health foods.

TAFCO is a major supplier of shrimp to the Japanese market. They have 16 shrimp boats fishing in the area of Paramaraibo, Suriname, French Guyana, in South America as well as Taiwan, Bangladesh and elsewhere. They are developing tuna aquaculture operations in Japan and overseas, in Kochi, Okinawa, Morocco, Spain and Australia. They also supply Japanese markets with various frozen fish such as conger eel from Perú, silver fish and Patagonian toothfish from Chile, and trout, cod and flatfish from North America.

TAFCO also produces various health foods and natural cosmetics. Their proprietary health food product, Squalene-G is an oxygen supplement made of Squalene, an extract of shark's liver. They also manufacture cosmetic goods, such as beauty oil and beauty soap, which are also based on Squalene.

"Eat well, live healthy. This has been the eternal theme human beings sought. We, Taiyo A&F (TAFCO), search for high quality foods among the world, provide them to the Japanese market. In order to secure a stable supply of foods, that is our theme, we are strengthening our efforts in aquaculture, development of value added processed foods under the worldwide network."

[Taiyo advertising, 1998]

TAFCO started 22 years ago in the white fish export trade in Chile, mainly producing Austral hake for the Spanish market. Given their association with Maruha, the main Patagonian toothfish importer into the Japanese market in association with the Verdugo Group and their investment in the modern "Frigorífico Tres Puentes" fish processing plant in Punta Arenas, there is a need for TAFCO to ensure that its policies and plant management are sufficient to ensure that no toothfish from unlicensed sources finds its way into their product streams.

7.2. Nippon Suisan Kaisha (NISSUI)

EMPLOYEES:	2,922 (1993)
SALES:	US\$4.3 billion (1993)
NET INCOME:	US\$40.5 million (1993)
TOTAL ASSETS:	US\$2.9 billion (1993)
PRESIDENT:	KATSUSUKE MINODA
HQ:	Nippon Building, 6-2 Ohtemachi 2-Chome, Chiyoda-Ku, Tokio 100, Japan Tel: +81 3 32 44 7196

Nippon Suisan Kaisha is Japan's largest fishing company. It also catches more fish than any other company in the world. Known as "Nissui", the company not only catches and processes fish from Japan's territorial waters, but also has an extensive distant water fleet distributed across the globe to catch a wide variety of fish for Japanese, North American and European markets. It is also engaged in fish farming, and has extended its operations beyond fish to other agricultural, livestock products, and pharmaceuticals.

History

The company saw its beginnings in 1901, when the Tamura Kisan Company established a fishery section in its operations. Following World War I, the fishery section was renamed Kyodo Gyogyo Kaisha Ltd., and saw ten years of extensive growth, benefiting from Japan's enhanced world status. As early as 1929, the company began to move beyond Japan's water by sending a trawler into the Bering Sea. By 1935, it was fishing for shrimp in the Mexican Gulf of California, and finfish in Argentine waters.

By 1937, the company, renamed NIPPON SUISAN KAISHA LTD., had become the largest Japanese fishing company, with a substantial fleet of distant water trawlers and factory ships. The latter were already capable of processing, canning and packaging the catch on board, and taking it directly to the company's distributions centres.

World War Two devastated the Japanese fishing industry and severely impacted on Nissui's ability to fish beyond Japanese waters. But the USA's administration of the country after the war, including significant financial assistance, and helped to relaunch the company. By 1952, when the US occupation was officially ended, Nissui had returned to some of its former fishing grounds, particularly in the Northern Sea. By the end of the 1950s, it had also resumed fishing in the South Pacific and extended its reach to Australia, New Zealand and Africa. In 1960, the company again took the lead in vessel innovation, launching a 2,500 tonne Japanese-built fish factory ship. Only ten years later, its fleet included 5,000 tonne trawlers and 20,000 tonne factory ships.

In the post World War II period, Nissui also began establish onshore fishing bases outside Japan. The first of these was in Las Palmas, Canary Islands, Spain in 1962. It set up a further two bases, one in Halifax on the Canadian East Coast, and a second in Seattle, on the US West Coast.

In the 1970s, Nissui began setting up joint ventures with companies in countries such as Indonesia, Spain, Chile and Argentina. This was in anticipation of entry into force of the United Nations Convention on the Law of the Seas [UNCLOS] which had been renegotiated to formally recognise exclusive economic zones [EEZs] being established by coastal states out to 200

nautical miles from their coastlines. UNCLOS finally entered into force in 1982 and its Article 55 formally recognized the right of coastal nations to establish 200 mile EEZs.

This agreement significantly altered the commercial and institutional climate in which Nissui and other distant water fishing companies operated. In the late '80s, the company took four main steps to counter the effects of the new rules on its operation:

- extending the vertical integration of its operations by opening a chain of restaurants in Japan;
- diversifying its operations into fine chemical, health foods and biotechnology;
- expanding its aquaculture operations (including establishment of large fish farms, commercial oyster beds and edible seaweed farms in Japanese coastal waters); and
- fishing for krill in CCAMLR waters (which it processes into animal feed. It is one of the few corporations to have made a profit from its krill fishing operations).

In the 1980s, Nissui established several subsidiaries and joint ventures in the United States. Its first subsidiary was Great Land Seafoods Inc., which manufactures and markets a crab-flavored fish paste. Perhaps its best known subsidiary in the United States was the Arctic Alaska Fisheries Corporation (Nissui and other shareholders sold the company to Tysons Foods, Inc. in the 1992). Founded in 1983, by the end of the decade, Arctic Alaska Fisheries Corporation had become the largest vertically integrated fishing company in the United States, owning the largest factory fleet in the country. Almost 50% of its product was exported to Japan and marketed by Nissui through a seafood supply agreement signed by the two companies in mid 1989.

Nissui continues to expand its operations through joint ventures. In 1987, it established the A&N Foods Company in Thailand, and the Dongil Frozen Foods Company in Korea. In 1991, Nissui formed a marine leisure joint venture with Nichii in Japan. The purpose of the joint venture was to operate very small cruise ships capable of carrying between 14 and 90 passengers. In 1992, the company extended an existing relationship with the Pillsbury Company of Minnesota, USA, by establishing a joint venture to sell "Green Giant" brand frozen vegetables in Japan.

Meanwhile, its joint venture in Argentina, **Pesantar**, purchased a new surimi processing factory ship, the Yamato. Pesantar's first ship the B/P Kongo, generated exports worth US\$25 million over just two years of operations.

Sales

In 1993, 89% of Nissui's revenue was derived from fresh and frozen fish and processed seafoods (including canned foods). In 1990, its frozen foods sales alone amounted to Y82.8Billion. This included about 8% of Japan catering market, and 15% of its retail market.

In 1978 in Chile, Nippon Suissan Kaisha América Latina, set up Empresa de Desarrollo Pesquero de Chile S.A. or "**Emdepes**". Nissui held 85% of the shares while local Chilean businessman, José Luis Del Río, owner of **Derco Holdings**, held the remaining 15% of Emdepes shares. In 1996, Emdepes produced 15,000 tonnes of fish products.

7.3. Companies organized under the "Federacion Gremial de Industriales Pesqueros de la Macro Zona X, XI & XII Region " (AFIPES A.G.)

AFIPES is an umbrella organization founded at a meeting of fishing companies owners operating in the Chilean southern zones on 4 August 1992 with a mandate to represent the interests of its members and existing trade associations through lobbying, information dissemination and communications, etc.. The Federation's regional association members are:

- Asociación de Industriales Pesqueros de la X and XI región
- Asociación Gremial de Industriales Pesqueros de la Pesquería Sur Austral
- Asociación de Industriales de Pesqueros de Magallanes y Antártica Chilena A.G.
- Asociación de Armadores Industriales Pesqueros de Barcos Fábricas Arrastreros e Industrias Conexas.
- Asociación Gremial de Pequeños y Medianos Armadores de la X y XI regiones.

AFIPES' lawyer is Sr Santiago Montt Vicuña, a most important and influential lawyer in the fisheries and aquacultures industry in Chile.

In the 1995 season, AFIPES member companies generated sales of US\$90M, creating 1,500 direct jobs and 390 indirect jobs in the Aysén and Magellan regions in southern Chile. Between them, these companies have 18 fishing vessels, 3 fish processing plants and 3 cold storage plants in southern Chile.

7.3.1 Pesca Chile S.A.

"Chile's Pacific ocean. A long and wide corridor of majestic waters where Pesca Chile has mastered the "art of fishing", a unique combination of patience, passion and perfection"

[Pesca Chile advertising, 1995]

General manager: José Gago Sancho
Head Office: Address: Paseo Presidente E. Echaurren 2361. Office 61, Santiago de Chile
Phone: +56-2233.7377; fax: +56-2233.6766
Southern Chilean Offices:
Address: Avenida Presidente Carlos Ibáñez. Km 5 1/2 Norte, Punta Arenas, Magallanes.
Phone: +56-1.213.116; fax: +56-1.212.907
Address: Patricio Lynch s/n., Puerto Chacabuco, Aysén, Chile.
Phone. +56-7.351.121 / 351182; fax: +56-7.351.114
Address: Km 5 1/2 Norte, Puerto Natales, Magallanes, Chile.
Phone: +56-1.411.993
Activites: Processing and export of frozen and fresh fish products
(95% of its production is for export)

Pesca Chile has 1,100 permanent employees and another 200-400 are employed seasonally. It operates 12 fishing vessels, 2 processing plants, and 3 cold storage plants as well as salmon farms.

Pesca Chile S.A. is a member of the Pescanova Group of companies which has its headquarters in Vigo, Spain. Pesca Chile was established in Chile on 14 April 1983 by:

- Pescanova which is based at Chapela Ría de Vigo, Vigo, NW Spain; and
- Víctor Tarigo Bonizzoni, of San José N° 978, Esc.103, Montevideo, Uruguay.

In establishing Pesca Chile, one of the assets contributed by Pescanova was the then modern and efficient fish factory vessel, the Betanzos. Pesca Chile has been the leading Chilean producer of frozen fish since its establishment. It presently operates 12 fishing vessels, 2 fish processing plants and 3 cold storage plants as well as a salmon farming venture. The fishing vessels are:

Betanzos (factory trawler)

Boston Blenheim & Boston Beverly (freezer trawlers)

Magallanes III, Puyuhuapi & Tuamapu (freezer longliners)

Chomapi Maru, Faro de Hercules, Pedrosa, Puerto Ballena & Tierra del Fuego (factory longliners)

In 1997, the company produced around 18,000 tonnes of fish products and estimated production for 1998 is 20,000 tonnes, including 7,000 tons of farmed salmon per year from the Aysén region. This makes it Chile's largest seafood production company.

In Punta Arenas, Pesca Chile has a fish factory capable of producing 50 tonnes of frozen fish per day which is principally dedicated to shellfish and groundfish processing from artisanal suppliers and the reprocessing of groundfish from its own fleet and an associated cold storage plant with a storage capacity of 1,600 tonnes. The Punta Arenas factory began operating in 1995 and some US\$3M has recently been spent upgrading it. It has a net and trotline factory and repair shop associated with it for servicing Pesca Chile fleet vessels.

In Puerto Chacabuco, in the Aysén region, Pesca Chile has an integrated complex including: a factory capable of processing 140 tonnes of fish a day; an ice factory; and a cold storage plant with a capacity of 2,600 tonnes. This is one of the largest and most modern fish processing facilities in Chile. The company also handles fish from artisanal boats and provides services to several nearby salmon farmers. The complex also includes salmon and trout breeding facilities.

In early 1995, Pesca Chile announced that its export performance for 1994 had increased by some 78% over the previous year, mainly as a result of increased exports to Spain. In the subsequent year, 1995, Pesca Chile became the fifth largest domestic fish exporting company with exports of US\$48M, establishing itself as a major player in Chile's fishing industry. In 1996, it earned US\$56M and, in 1997, US\$64M. It is now the leading company in catching, processing and export of Austral hake and Golden kingclip and also handles many other items like squid octopus, sea urchins, scallops, silver and blue warehou, red cod, skate, etc.. It is the second largest exporter of toothfish, and the largest holder of toothfish quota in Chilean waters. It is also one of the top ten Chilean exporters of salmon from its aquaculture farms.

At present, Pesca Chile exports 92% of production. The main markets are Japan (30%), Spain (32%), USA (15%), and Portugal (10%) with lesser volumes going to China, Brasil, and a suite of other countries.

Pesca Chile started its activities in 1983 with Pescanova's freezer trawler, Betanzos. Later, it ran a trial operation with the longliner, Pedrosa, targeting Austral hake and Golden kingclip, with

considerable success. Once this technology, new to Chile, had been proven at an industrial level, Pesca Chile acquired new longliners to add to its fishing and began building its factory complex in Chacabuco, where Friosur was also establishing a factory to service its fishing fleet.

By 1987, Pesca Chile had acquired four more factory longliners to join its original trawler. In 1988, another seven wet longliners and three wet trawlers were acquired. These were intended to service the Chacabuco plant and the refurbished plant in Punta Arenas. The success of Pesca Chile's longlining operations led to a rapid influx of competitors using the now established longlining system. This increased fishing pressure resulted in yields dropping in the southern zone bottom fishery and consequent overcapacity. As a result of this growing overcapacity in the Austral hake and Golden kingclip fisheries, in 1990 Pesca Chile began to reduce the size of its fleet in Chilean waters. By 1997, Pesca Chile was down to six freezer longliners, two wet longliners, one factory trawler and three wet trawlers.

At the same time that Pesca Chile reduced its fleet and consequently reduced its fishing effort over the resource, a new Fishing Law was enacted enabling fishing authorities to introduce new regulations to allow more efficient and effective management of, and control over, the fishery. A precautionary approach then prevailed over establishment of quotas. Some of the new shipowners attracted by high yields, began to have problems maintaining viability and abandoned the fishery and became involved in the toothfish fishery which was just beginning to be organised. Consequently, the Austral hake and Golden kingclip fisheries were saved from severe overfishing and are actually in good condition at present. The fisheries are presently managed with stable quotas and good catch per unit effort yields. Even the coastal artisanal fishery has reorganised and its catches have been increasing in recent years.

In the early 1990s, Pesca Chile applied for and was subsequently granted fishing permits for its longliners Faro de Hércules, Puerto Ballena, Chomapi Maru and Pedrosa to develop an exploratory fishery for tuna (*Thunnus* spp.) and associated species in distant waters of the southeast Pacific Ocean, 150 miles off the coast. The exploratory fishery included the remoter parts of the mainland EEZ and the EEZs around Chile's oceanic islands (Easter Island, Juan Fernández Archipélago and Salas y Gómez Islands). In March 1995, Pesca Chile made further applications to the Undersecretary of Fishery for a fishing permit for its longliner Magallanes III (Fishing Register N° 2683) for exploratory fisheries for tuna and swordfish around Chile's oceanic islands.

Pesca Chile in the toothfish Fishery

In 1992, Pesca Chile was one of the companies authorised to conduct an exploratory fishery in southern Chile, with good commercial results. In 1993, Pesca Chile bought 4% of the available quota and has been steadily increasing this share in subsequent years. Pesca Chile has purchased quota at government auctions and also from other quota-holders. In recent years, they have managed to accumulate more than a third of the total Chilean toothfish quota. Pesca Chile also held Chilean, UK and CCAMLR licences to operate in CCAMLR Area 48.3 within UK EEZs with CCAMLR inspectors on board. It has also caught toothfish in Malvinas/Falklands waters in joint venture with local company, Consolidated Fisheries Ltd., under UK licence.

In February 1998, Pesca Chile prospected in various CCAMLR statistical areas to a fishing plan, approved by CCAMLR at its 1997 meeting, pursuant to a research agreement with the Catholic Valparaíso University. The results of this research voyage were disappointing. A 10-day research trawl for icefish by the Betanzos was also conducted around South Georgia with UK and CCAMLR approval.

In response to these unexciting forays into CCAMLR waters, Pesca Chile's fleet now concentrates its fishing effort exclusively within waters subject to Chilean quota allocation where it has fish resources and quota allocations sufficient to match its fishing capacity. Concerned at poaching activities and to protect its own interests in these fisheries, Pesca Chile has publicly exposed illegal, unregulated and unreported fishing in waters subject to Chilean quota allocation and, together with Grimar, has even gone so far as to finance private air surveillance flights, with government inspectors on board, over areas where poachers subject to Chilean jurisdiction and control are suspected to be operating.

The following table and figure show how sales of toothfish products by Pesca Chile had grown rapidly during the 1990s such that, despite over all sales having increased over the same period, the proportion of total sales attributable to toothfish has increased from around 6% to around 30%. This demonstrates very clearly the extent to which Pesca Chile has a vested interest in ensuring the sustainable management of toothfish stocks.

Table 7.1: Sales of Patagonian toothfish by Pesca Chile, 1992-97

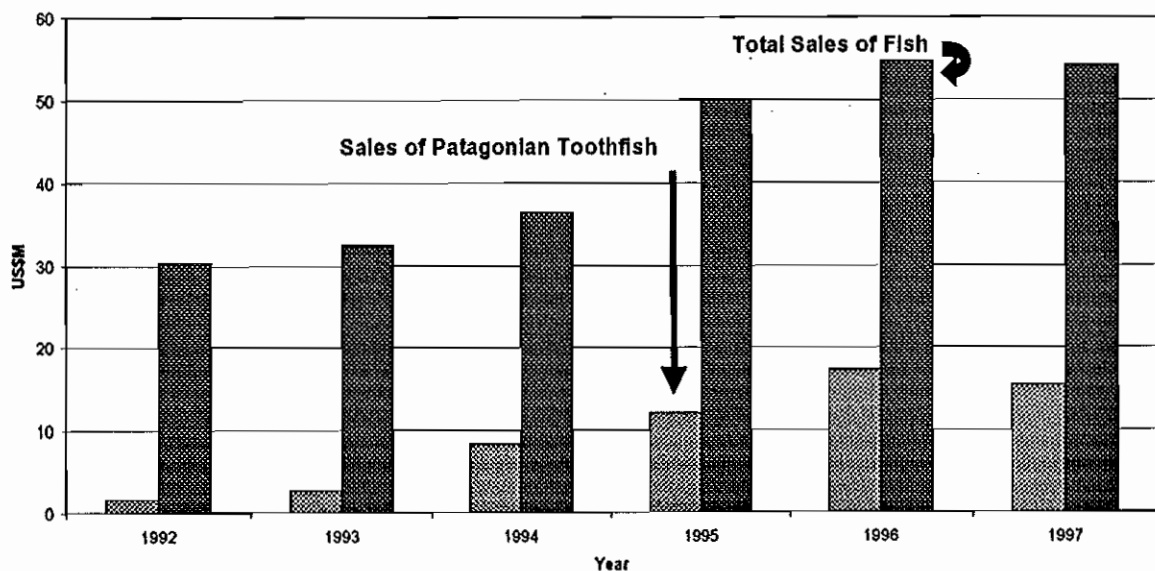
	UNITS	1992	1993	1994	1995	1996	1997
Finished product	tonnes	581	804	1,217	2,076	2,976	2,814
HGT equiv. ^[1]	tonnes	773	1,069	1,619	2,761	3,958	3,743
Whole fish ^[2]	tonnes	1,290	1,786	2,703	4,611	6,610	6,250
toothfish sales	US\$M	1.7	2.7	8.3	12.1	17.3	15.4
total PC sales ^[3]	US\$M	30.4	32.5	36.4	50.0	54.7	54.2
% of total sales	%age	5.6	8.3	22.8	24.2	31.6	28.4
Average sale price	US\$/kg	2.9	3.4	6.8	5.8	5.8	5.5

[1] HGT equivalent calculated as 133% of product weight

[2] Equivalent whole fish weight calculated as 167% of HGT weight

[3] Total sales for 1994 is an estimate

Figure 7.1: Sales of Patagonian Toothfish by Pesca Chile, 1982-1997



Companies Associated with Pesca Chile

Sarpesca S.A. was established by Pesca Chile to operate the two longliners, Puyuhuapi and Tuamapu, in the tuna fishery. In 1997, it exported 18.7 tonnes of frozen toothfish fillets with a value of US\$156,000 (fob) from Chile to Japan. This is at an average price of US\$8.34/kg.

Polar Ltd., registered in the Malvinas/Falkland Islands (ph: +500-22669; fax: +500-22670). It owns the longliner, Tierra del Fuego (call sign: CB5999) which is currently operating around South Georgia and the South Shetland Islands, in CCAMLR Areas 48.3 & 48.4, with a licence and quota from the UK. Polar Ltd. is controlled by Boanova which is, itself a Pescanova subsidiary. Pesca Chile is understood to use this company occasionally for operations in the South Atlantic.

Accusations of possible involvement in unlicensed Toothfish fishing by Pesca Chile

There are only two records of possible involvement in unlicensed toothfish operations by Pesca Chile — both of which relate to their longliner, the **Puerto Ballena**. In January 1997 she was reported to CCAMLR as having been sighted and filmed (by the French observer on the 'Anyo Maru 22') in the French EEZ around the Crozet Islands and, again in February 1997. In neither instance, was the Puerto Ballena observed fishing but the sightings were reported to CCAMLR by the French government. In response to a French 'verbal' diplomatic protest to Chile thorough investigations into the matter were held. Pesca Chile's explanation that she was only prospecting suitable grounds for licenced fishing operations at a later date was accepted. The Puerto Ballena is understood to have confined her future activities to bottom fishing within the Chilean EEZ.

Pesca Chile as a member of the Pescanova Group

The Spanish company, Pescanova is a well known integrated fishing company that has activities in many countries. The Pescanova Group operates in 16 countries and owns 102 fishing vessels and is split into two commercial areas, fisheries and food products, that operate largely independently of each other. The Group is investing heavily in aquaculture - salmon farms, turbot, prawns, dorado, Patagonian hake, and other species. They also have a strong involvement in the production of frozen fish products, ice cream and frozen vegetables. It is the largest trader in frozen fish products in Spain, the second largest in Portugal and also has a sizeable market share in France and Italy. Pescanova has operations in Spain, Portugal, France, Australia, Argentina, Chile, Malvinas/Falklands, Uruguay, Ireland, Italy, Mozambique, South Africa and Namibia.

Pescanova remains active in Latin America through its subsidiaries and in its own right. In May of 1993, Pescanova sold 40% of its share in South African company, Sea Harvest Corporation, diluting its shareholding from 50% to 10% to raise funds for investment in other regions, especially Europe and Latin America. In 1994, Pescanova invested in Ecuador and Uruguay and began operations in their tuna fisheries, operating one longliner in each country's waters. In May 1995, Pescanova raised US\$7M in Uruguay with a bond issue while its Argentinian subsidiary, Argenova, had raised US\$3M with a bond issue in 1994. This capital raising allowed Pescanova to further expand its operations in Latin America and elsewhere.

At present, Pescanova supplies 18% of the Spanish fish market and 20% of the Portuguese market. In Chile and Argentina, Pescanova plays a lead role in the export of fish and fish products with earnings of 21 billion Pesetas in 1996, up 3% on 1995.

Pescanova has a dedicated wharf in Vigo, Spain, where its main factory is located. This is where freighters unload various species of frozen fish for consignment not only to its own factory but also to other factories elsewhere for processing and packaging. As with all major company operations, like Frioya and Fandino which also have dedicated wharves in Vigo, it is hard to monitor Pescanova's activities as they are keen to ensure commercial confidentiality over product flows and possible market-related impacts of such information being made available to competitors and buyers. Even within the Pescanova Group, there is a high degree of compartmentalisation with Group member companies operating with a high degree of autonomy.

Pescanova Group member and associated companies (including joint ventures and companies where group members have shareholdings).

Pescanova is one of the world's largest fishing and fish processing companies. To give some idea of its size and spread — by both location and activity — Ecoceanos have collated together information on these companies, their principal activities and where they are based. This information is summarised below.

Pescanova's geographical spread — associated companies on four continents:

1. Spain

Acuinova Galicia	Airun	Boanova	Boapesca	Candelesa
Diprocosa	Frinova	Hasenosa	Insuiña	Pescafresca
Sofitransa				

2. Rest of Europe

Firanova Fisheries (Ireland)	Frumar Portugal	Pescanova Italy
Pescanova U.K.	Pescanova France	Interpeche

3. South America

Argenova (Argentina)	Pesca Chile S.A. (Chile)	Pesquerías Belnova (Uruguay)
Polar Ltd (Malvinas/Falklands)		

4. Africa

Afripesca (Guinea)	Novagroup (South Africa)	Pescamar (Mozambique)
PFI of Namibia	Sea Harvest Namibia	Sea Harvest South Africa
Skeleton Coast Trawling (Namibia)		

5. Australia

Austral Fisheries	Newfishing Australia
-------------------	----------------------

Pescanova is associated with the following companies:

Key: (1) fishing, processing and marketing of fish products;
(2) processing and marketing of fish products;
(3) processing and marketing of other food products;
(4) aquaculture company;
(5) other services
[The main Pescanova Group member involved in each company, where known, is noted in [square brackets]]

Acuinova Galicia (4) [Pescanova]
Afripesca S.A. (5) [Pescanova]
Airún (4) [Acuinova]
Argenova S.A. (1) [Pescanova]
Atlantic Trawling Co. Pty. Ltd. (4) [Sea Harvest]
Austral Fisheries Pty Ltd. (1) [Pescanova]
Boa Fisheries Trading Ltd. (1,5) [Boapesca]
Boanova S.A. (1) [Pescanova]
Boapesca S.A. (1,5) [Pescanova]
Boargen S.A. (1) [Argenova]
Candelesa (2,5) [Pescanova]
Cemasce
Diproco S.A. (2,3) [Pescanova]
Eurofisheries Trading Ltda.
Eiranova Ltd (1,2) [Pescanova]
Frigod (5) [Pescanova]
Frimercat
Friospain Frinova S.A. (2,3) [Pescanova]
Frumar S.R.L. (2,3) [Pescanova]
Harlus Fishing Co. Pty. Ltd. (1) [Sea Harvest]
Harvest Dawn Pty. Ltd. (1) [Sea Harvest]
Hasenosa (3) [Pescanova]
Hidevare Ltd. (1) [Boapesca]
Hildebrand Supplies P/L (5) [Novagroup]
I.G. Meroat del Peix (Fish market center)
Insuiña (4) [Acuinova Galicia]
Interpeche (1,2) [Pescanova France]
Knisna Oyster Co. Pty. Ltd. (4) [Sea Harvest]
Marlette Fishing Co. Ltd. (1) [Sea Harvest]
Mercabilbao (Fish market center)
Mercamadrid (Fish market center)
Newfishing Australia P/L (1,2) [Pescanova]
Novafreight Pty. Ltd. (5) [Novagroup]
Novagroup Pty. Ltd. (5) [Pescanova]
Novagroup Mgt. Services Ltd.(5) [Novagroup]
Novapesca S.A. (5) [Argenova]
Novatech Pty. Ltd. (5) [Novagroup]
Novatrading Pty Ltd. (5) [Novagroup]
Novatronics (5) [Novagroup]
Oremape S.A.
Paarbena Pty. Ltd. (5) [Novagroup]
Pesca Chile (1,2,4,5) [Pescanova]
Pescafresca S.A. (1,2) [Pescanova]
Pescamar (1) [Pescanova]
Pescanova S.A. (1,2,3,4,5)
Pescanova France S.A. (2,3) [Pescanova]
Pescanova Italy. S.R.L. (2,3) [Pescanova]
Pescanova U.K. Ltd. (previously Marcoat Ltd.) (5) [Pescanova]
Pesquera Beinova S.A. (1,5) [Pescanova]
PFI of Namibia Pty. Ltd. (1) [Pescanova]
Pharmamar (Marine products pharmaceutical research)
Playa de Caroso Fishing Ltd. (1) [Boapesca]
Polar Ltd. (1) [Boanova]
Rabit S.A. (5) [Beinova]
Rentkeep Ltd. (1) [Boapesca]
Sea Harvest Co. Pty. Ltd. (1,2,4,5) [Pescanova]
Sea Harvest Corpn. of Namibia Pty. Ltd. (1) [Pescanova]
Seaview (1) [Polar Ltd.]
SIP S.A.
Skeleton Coast Trawling Pty. Ltd. (1,2) [Pescanova & Frinova]
Soermar S.A.
Sofitransa S.A. (5) [Pescanova]
Southern Harvest P/L (1) [Sea Harvest of Namibia]
Superave S.A. (2,3) [Frumar]
Terminal Pesquero Metropolitano de Santiago de Chile (fish market center)
The Copper Kettle Kitchen Pty. Ltd. (1) [Sea Harvest]
United Container Depots (RSA) Pty. Ltd (5) [Novagroup]
Vefri S.A. (5) [Pescanova]

7.3.2 Pesquera Frio Sur S.A.

Head Office:

Address: Avenida Libertador Bernardo O'Higgins N°1980, 6th floor, Santiago de Chile

Phone: +56-2696.5627; fax: +56-2699.3417

President/Owner: José Luis Del Río Goudie

General Manager: Carlos Vial

Ownership: Icelandic & Chilean

Activities: processing and export of fresh and frozen products

Frio Sur had a turnover of US\$18.3M in 1995, employing 431 people full time and another 90, seasonally. It owns and operates 4 fishing vessels, one fish processing plant and one cold storage plant. Frio Sur started its operations in Chile in 1985 by processing headed and gutted fish for the Spanish markets. Its operations are presently based at Puerto Chacabuco harbour, some 1,500 km south of Santiago de Chile. It also sold into the US and the Australian markets. Sales in 1986 had already reached US\$6M and had doubled to US\$12M by 1989. In 1987 a 51 metre longliner was bought in Japan to diversify catches. A salmon farming venture for salmon coho and atlantic salmon was also started that year in the southern Chilean fjords for export to North American and Japanese markets.

Frio Sur's President is José Luis del Río Goudié. He is member of Chile's Consejo Nacional de Pesca (National Fisheries Council), an advisory body to the Undersecretary of Fisheries. As of 1998, he is also President of the Asociación Gremial de Industriales Pesqueros de la X - XI Región, the industrial shipowners and fishing companies' southern regional association. Frio Sur's General Manager, Carlos Vial, is also a member of the National Fishery Council.

Pesquera Frío Sur S.A., along with **Frío Aysén S.A.**, is part of **Derco Holdings**, which was established 37 years ago to import Suzuki Motor Co. vehicles and equipment for the Chilean market. In 1983, Derco holdings launched a study called "The Frío Sur project" to investigate creation of a model fishing company with a view to optimising production, marketing and administration which resulted in the creation of Del Rio Holdings. Table 7.1 sets out the extent of the Del Rio company holdings today.

The Del Rio Holding company has diversified investments in financial services, intensive agriculture, building & construction, cars, aquaculture, and fisheries companies. Its building and construction companies alone records profits of about US\$500M a year.

Table 7.1. Del Río Holdings Company Structure (as of 1998)

Company name	Del Rio's holding (%)
Dersa (Chile)	100.0
Derco (Chile)	100.0
Sodimac (Chile)	100.0
Maderas Sodimas (Chile)	88.6
Friosur (fishery) (Chile)	45.1
Emdepes (fishery) (Chile)	15.0
Salmones Fríosur (Aquaculture) (Chile)	70.4
Agrícola San José (Agriculture for export)	88.0
Empresas Conosur (Investment)	82.2
Financiera Conosur (Investment)	82.2
Imacruz (Bolivia)	60.0
Financiera Acceso (Investment) (Bolivia)	73.5
Suzuki (Perú)	100.0
Sodimac (Perú)	31.0
Banco del País (Perú)	82.2
Sodimac (Colombia)	35.0

In the summer of 1984/85, Frio Sur bought two deep water sister stern trawlers, 66 metres in length, and had them refitted in Germany, a large fish processing plant (59,000 sq.metres) at Puerto Chacabuco was bought and modernised, and markets in the European Union, Asia and North America were developed.

Pesquera Frío Sur is member of Sonapesca and the Federación de Industriales Pesqueros de Chile (AFIPES) through which it operates in strategic alliance with Pesca Chile and Emdepes, with Del Rio holding 15% of the latter's shares. Its legal advisor is Sr Santiago Montt Vicuña, a most influential lawyer on Chilean fisheries issues. Sr Montt is also a lawyer for Sonapesca, FIPES, and an advisor to the Economy Minister, to the Undersecretary of Fishery, and to the National Fisheries Council. Pablo Alvarez Tuza, who used to work for Frio Sur, is now Executive Director of Instituto de Fomento Pesquero (Fisheries Development Institute), IFOP and also a close advisor to the Undersecretary of Fisheries Andrés Couve, former Undersecretary of Fishery, and President of IFOP's Council, also represents Frío Sur's interests from time to time.

Frio Sur was one of the original entrants into the licenced toothfish fishery in Chile's southern zone in 1992, with the longliner, Frio Sur V but has held no quota in the fishery since 1994. In that year, Frío Sur, along with Pesquera Grimar went to court and to the media to attack Pesquera Mar Aul and Pesquera des Los Andes, accusing them of poaching toothfish both from within and outside the Chilean EEZ.

1994 was a bad year for Frio Sur - they lost two vessels at sea. In May 1994, the factory vessel, Frío Sur V suffered a fire on board while fishing in the South Atlantic. Its skipper, Federico Horn, and government official, Patricio Oyarzún, died. Then, on 20 September 1994, the factory vessel, Frío Sur IV, sank with 26 crews on board off Guafo Island, in the Chilean EEZ.

In 1995 companies operating factory longliners in southern Chile were invited to bid for the right to undertake an exploratory fishing cruise in the CCAMLR Area with a quota of 260 tons of Patagonian toothfish. Frio Sur's bid was successful and their factory longliner, Frío Sur III, was selected to undertake the research cruise - from which they earned a profit of some US\$1.3M.

Frío Sur's fishing fleet presently consists of:

Frío Sur II (factory trawler), **Frío Sur III** (factory longliner), **Frío Sur V** (factory trawler, formerly Japanese), **Frío Sur VI** (factory trawler), **Frío Sur VII** (factory trawler) and **Frío Sur VIII** (factory trawler). In 1995 the Undersecretary of Fisheries withdrew Pesquera Frío Aysén's (Co. Registration No. 96.548.630-5) permit to fish for toothfish within the Chilean EEZ (Resolution N° 1310 of 1992).

7.3.3 Pesquera Grimar

Head Office;

Company Registration No.: 96537880 - 4

Address: Monseñor Sótero Sanz 55. Office 90, Santiago de Chile, Chile.

Phone: +56-2362.1777; fax: +56-2233.2755

Manager: Alberto Elena

Ownership: USA

Activities: processing and export of fresh and frozen fish and algal products

Southern operations:

Address: Parque Industrial Escuadron Sur, Coronel, Chile.

Phone: 56-41-751.181; fax: +56-41-751.022

Pesquera Grimar was established in 1988 and is now the third largest buyer of toothfish and exporter of toothfish products in Chile with links to: Grainco Inversiones Martimas S.A., Comercial e Inmobiliaria Mykonos Ltda. & Mitchell Milton. It has no fishing vessels - it just buys, processes and trades toothfish and toothfish products.

It was one of the initial entrants into the southern zone toothfish fishery when it was developed in 1992 and, with 15% of the 1993 quotas, was the third biggest quota holder. It has continued to buy quota from time to time but at reducing levels - it being just as easy to buy someone else's catch as to contract someone else to catch your quota. In this respect, it has become a significant purchaser of toothfish caught by those few longliners operated by ANAPESCA member companies which are still Chilean flagged and hold permits and quota for fishing within Chilean waters.

Grimar is in strong competition with the Verdugo Group's companies and has developed a common strategy with Pesquera Frío Sur in an attempt to curtail illegal fishing for toothfish - within Chilean waters at least. Given this commitment to curtailing illegal fishing and its involvement with ANAPESCA member companies, some of which are known to be involved in illegal, unregulated and unreported fishing for toothfish outside Chilean waters, Grimar needs to adopt policies and factory management strategies to ensure that none of its toothfish product is derived from processing 'illegal' toothfish landed from longliners which have been poaching.

In 1997, Grimar exported 618 tonnes of frozen toothfish valued at US\$4.6M (fob) to Japan, Brasil, USA, Hong Kong and the UK as well as some 85 tonnes of fresh/chilled toothfish products valued at US\$0.6M (fob). Having started in the toothfish trade, it has subsequently diversified into processing and exporting fish and fish products from other fisheries such as jack mackerel, common hake, and swordfish.

7.3.4 Pesquera Isla del Rey

Address: Avenida Los Condestables 390, Niebla, Valdivia, Chile.

Fax: +56-63.21.90.32

Activities: processing and export of fresh and frozen fish, crustacea and molluscs

Isla del Rey deals in a wide range of seafood products including swordfish, golden kingclip, red kingclip, southern hake, seabass/Patagonian toothfish (fresh & frozen) and mussels, limpet, Chilean abalone, king crab, snow crab and stone crab (frozen). It is the fourth largest exporter of frozen toothfish products in Chile with about 50% of its trade going to Japan and 40% to the USA. It holds no Chilean quota for toothfish and the source of the toothfish it processes is unknown.

7.4 Amerop Co.

Amerop is a fish trading company owned by the French trading company, Sucudem, which has offices in Santiago, Chile and Japan. It is a relative newcomer to the fish trading scene in Chile and has been growing very quickly since 1996 in competition with the Verdugo Group. In 1997, it traded some 3,000 tonnes of unprocessed, HG toothfish exports from Chile, mainly to the USA and East Asian markets. It has been reported as a buyer of toothfish in ports in southern Africa.

8. Fish Processing Plants

It is likely that fish processing plants somewhere in the Chile/Argentina southern cone region process a large proportion of the frozen toothfish caught illegally in the CCAMLR Area. It seems that most of the landings of frozen toothfish in Argentina are re-exported, probably to Chile, rather than processed locally. There have even been reports of toothfish having been freighted overland to Chile from Argentinian ports. There is a complex network of processing and cold storage plants on Chile's Navarino Island (in the Beagle Channel opposite the Argentinian port of Ushuaia), in Punta Arenas, and in Puerto Montt. These fish processing plants mainly fillet fish and the then refrozen fillets are exported mainly to Japan (75%), Hong Kong and US markets.

Puerto Montt is the principal landing point for freezer longliners working out of southern Chile. Some of these freezer longliners landing toothfish in Puerto Montt are returning from toothfish poaching in the CCAMLR Area and in the South Atlantic. Indeed, it is understood to be the principal landing port for toothfish poachers working out of Chile. The favoured toothfish poaching trip seems to involve picking up crew and supplies from Ushuaia in Argentina on the way out and then returning to Puerto Montt to land the catch.

Punta Arenas is a strategic transshipment point for commercial shipping from the Chile/Argentina southern cone region to Asian markets.

The main companies owning and operating fish processing plants in Chile's southern cone region are:

ACTIVIDADES INTEGRADAS S.A. (INTEGRA)

Principal shareholder: Roberto Verdugo

Address: Irrazabal 05, Casilla 81, Chonchi, **Chiloe Island**

Phone/fax: +56-5.671.298

Activities: processing and export of frozen and fresh/chilled fish products

PESQUERA MAR DEL SUR S.A.

Principal shareholders: Roberto Verdugo & Jetex S.A. of Panama City

Address: Andina 062, Parque Industrial, **Puerto Montt**, Chile

Phone/fax: +56-5.257.984 / 5.258.620

Activities: processing and export of frozen fish products

Address: Avenida Presidente Carlos Ibanez del Campo No.05757, **Punta Arenas**, Chile

PESQUERA DEL MAR ANTARTICO S.A.

Established in 1987 by Pesmar S.A.; principal shareholders:

Importador & Exportador FINCAR Ltda.;

Raul Yokota Bernet;

Marcia del Carmen Gallinato;

Hans Fritz Muller Comop;

Roberto Augustin Verdugo Gomez; and

Pedro Erich Pizarro Baltz.

Address: Bima 330, Barrio Industrial, **Puerto Montt**, Chile.

Phone: +56-5.256.875; fax: +56-5.257.961

Activities: processing and export of frozen and fresh/chilled fish products

FRIGORIFICO "TRES PUENTES" MAGALLANES

Address: Avenida Presidente Ibáñez 05741. Casilla 66 - D, **Punta Arenas**,
Magallanes

Phone: +56-1.214767 / 1.211483; fax: +56-1.211483

Activities: processing and export of frozen fish products

This company is has sale contracts with Japanese companies such as Taiyo Fisheries Co. Ltd., which are arranged through Shin Nihon Global, a Japanese/Chilean brokerage firm (which, interestingly, has the same Tokyo address as "ProChile Japan", the government funded body for promoting Chilean exports to Japan.

Frigorifico "Tres Puentes" de Magallanes Ltd, spent US\$ 300,000 in 1993 on upgrading the facilities of their plant at Punta Arenas to allow it to produce top quality toothfish fillets. This was part of a general trend away from on-board processing to shore-based processing to allow production of higher quality products as demanded by the Japanese market.

"Tres Puentes" produces very high quality fillets to produce a first class export product. Blood stains in the meat, caused by hooks, are being cut off; jelly meat, a gelatinous substance found in parasited toothfish, especially south of latitude 50, is being removed; as are scales. The result is a fillet which is 10-15% smaller than traditional fillets but earns as much as US\$1/kg more than prices paid to other companies.

PESQUERA DES LOS ANDES S.A

Address: Avenida Costanera 836-a, **Punta Arenas**, Magallanes, Chile

Phone: +56-1.224.089 / 1.247.289; fax: +56-1.247.298

General Manger: Aldo Alvarez

Ownership: Spanish & Chilean

Activities: processing and export of frozen fish products

It employs about 160 people and, in 1997, it exported 153.1 tonnes of frozen toothfish worth US\$951,000 (fob) to Japan and Hong Kong.

PESQUERA CISNE S.A.

Address: Avenida Los Flamencos 700 [Casila 124-D], **Punta Arenas**, Magallanes, Chile.

Phone/fax: +56-1.212.432

Activities: processing and export of frozen fish products

PESQUERA PUNTA ARENAS S.A.

Address: Avenida Carlos Ibanez Km 6.5 Norte, **Punta Arenas**, Magallanes, Chile.

Phone: +56-1.211271 / +56-1.212.377; fax: +56-1.214.216

EDUARDO VIEIRA S.A.(Vieirasa)

In 1993, Vieirasa invested US\$1.5M in a cold storage plant in the 'Tres Puentes' area of **Punta Arenas** with a storage capacity of 2,500 tonnes for storing surimi and fillets of Austral hake and Patagonian toothfish and pink cusk eel. Vieirasa also operates other freezer plants in the remote harbour of Puerto Williams on the Chilean island of Navarino Island in the Beagle Channel on the Chile/Argentina border, across from Ushuaia.

PESQUERA Y CONSERVERA "CANAL BEAGLE"

Address: Camino sur 6403 km. 6,5 CAS 483, **Punta Arenas**, Magallanes, Chile.

Phone/fax: +56-1.261032

Activities: processing and export of fresh and frozen fish products

PESCA CHILE S.A.

Address: Avenida Presidente Carlos Ibanez, Km 5.5 Norte, **Punta Arenas**,
Magallanes

Phone: +56-1.213.116; fax: +56-1.212.907

Address: Patricio Lynch s.n, **Puerto Chacabuco**, Aysen, Chile.

Phone: +56-7.351.121; fax: +56-1.351.182

Address: Km 5.5 Norte, **Puerto Natales**, Magallanes, Chile

Phone: +56-1.213.116; fax: +56-1.212.907

Other Companies with Fish Processing Plants operating in Southern Chile in 1997

Puerto Montt

Dipromar S.A.

Pesquera Aguamar S.A.

Pesquera Jaalmar Ltda.

Sociedad Blue Ocean Ltda.

Sociedad Pesquera Aquasur Fisheries

Multiexport Alimentos Ltda.

Pesquera del Mar Antartico S.A.

Seabay Chile

Sociedad Commercial Invemar Ltda.

Quellon

Pesquera Deep Sea Food Ltda.

Pesquera Isla Magan Ltda.

Punta Arenas

Commercial Androc y Cia. Ltda.

Pesquera Cabo de Hornos S.A.

Pesquera Garay y Cia. Ltda. (Pescafina)

Pesquera Triple J S.A.

Sociedad Colectiva Comercio e Industria de
Responsabilidad Ltda.

Comercial de Production Agropecuarios

Copra Ltda.

Galindo y Vergara Ltda. Antarfish

Pesquera del estrecho S.A.

Pesquera Torres del Paine S.A.

Pesquera y Conserva Isla Lennox Ltda.

R.V. Seafood S.A.

Pesca Chile S.A.

Puerto Natales

Comercial McLean y Cia. Ltda.

Pesquera Eden Ltda.

Puerto Williams

Cia de Comercio y Desarrollo Pesquera Magallanes Ltda.

Construcciones y Carpinteria Navale Ltda. (CONCAR)

Sociedad Industrial Pesquera McLean y Cia. Ltda.

The following fish processing companies have also been identified (but the extent of their involvement in the toothfish trade - if any - is unknown): Sociedad de Exportaciones Multiples; Empacadora del Pacifico; Cia. de Comercio Montemar S.A.; Frigorifico Copra. Much more work needs to be done to detail this network of fish processing plants and their trade and transport links.

8.1 Shipping Companies

In addition to further investigation of processing plants, shipping companies need close attention. While shipping companies may have limited legal responsibility to ensure that the goods they carry are 'legal' (it being the responsibility of the consignor, consignee and national customs agencies), it is time to assert that such companies have a moral responsibility. This responsibility clearly exists not only in circumstances where they can reasonably be expected to suspect that 'illegal' goods are being consigned but also when such illegality does such enormous environmental harm.

Two shipping companies, active in the region have been identified so far. Trans Ocean Express Co. operates refrigerated freighters (reefers) and is represented in Chile by Agunsa S.A. with offices in the ports of Puerto Montt, Punta Arenas and Talcahuano. It transports block frozen fish to East Asia, including Japan. Meanwhile Nissui's shipping corporation, Oceanic Navigations S.A., is also active in the area.

All shipping companies handling cargo from companies and ports mentioned in this report (in association with involvement in illegal, unreported and unregulated fishing for toothfish) are urged to adopt policies and ship management strategies to ensure that none of toothfish and toothfish products they transport are derived from landings, transshipment or processing of such 'illegal' toothfish caught by unlicensed longliners.

Appendix 1.

Key People & Institutions

Governmental Officials & Agencies

Sr. Jaime Toha
Ministro de Economía
Teatinos 120, Santiago de Chile.
Fax: (562) 6726040

Sr. Juan Manuel Cruz.
Subsecretario de Pesca (Subpesca)
Teatinos 120, Santiago de Chile.
Fax: (562) 6718143 Santiago,
(532) 212790 Valparaíso.

Sr. Juan Rusque
Director
Servicio Nacional de Pesca (Sernapesca)
Teatinos 120, Santiago de Chile.
Fax: (562) 6960784 Santiago
(532) 259564 Valparaíso.

Sr. Pablo Alvarez
Director
Instituto de Fomento Pesquero (IFOP)
José Domingo Cañas 2277, Santiago de Chile.
Fax: (562) 2254362

Consejo Nacional de Pesca
Bellavista 168, Piso 19, Valparaíso, Chile.
Fax: (532) 212790

Ministerio de Relaciones Exteriores
Morandé 441, Santiago de Chile.
Chile

Sr. Rodrigo Egaña
Director, Comisión Nacional de Medio Ambiente
(National Environment Commission - CONAMA)
Obispo Donoso 6, Santiago de Chile.
Fax: (562) 2441262

Sr. Rolando Stein B.
Director de Medio Ambiente
Ministerio de Relaciones Exteriores de Chile.
Catedral 1158, Santiago de Chile
Fax: (562) 6725071

Ministers/Lobby Groups

Diputado Víctor Barrueto
Presidente Comisión de Medio Ambiente
Cámara de Diputados de Chile.
Fax: (562) 6715815, (5632) 232657

Diputado Juan Pablo Letelier
Comisión de Agricultura, Silvicultura y Pesca
Cámara de Diputados de Chile.
Fax: (5632) 232657, (562) 6970022

Dirección de Promoción de Exportaciones
(ProChile)
Alameda 1315, Piso 2, Santiago de Chile.
Fax: (562) 6960639

ProChile (Argentina)
Florida 981, Piso 2 (1005),
Buenos Aires, Argentina.
Fax: (541) 3124303

ProChile (Australia)
44 Market Str. Level 24
National Mutual Centre, Suite 2401,
Sydney, N.S.W. 2000. Fax: (612) 2992868

ProChile (Spain).
Lagasca 88, Piso 6.
28001, Madrid, Spain.
Fax: (341) 4350413

ProChile (UK)
12 Devon Shire Street, London,
UK
Fax: (4471) 2551848

ProChile (Japan)
Nihon Seime Akabaneba Shi Bldg. 1 - 4 ,
Shiba, 3 Chome, Minato-Ku,
Tokyo 105, Japan.Fax: (813) 37690551

ProChile (South Africa)
6th floor, Munich Re Centre
54 Sauer Street, Johannesburg 2001.
P.O.Box 61534, Marshalltown 2107
South Africa. Fax: (2711) 8395642

Asociación de Buques Factoría
Arrastreros e Industrias conexas
Balmaceda 325, Punta Arenas,
Magallanes, Chile. Fax: (561) 248111

Asociación de Industrias Pesqueras de
Magallanes y Antártica Chilena A.G.
Camino Río Seco 011810, Punta Arenas,
Magallanes, Chile. Fax: (561) 214599

Asociación Gremial de Industriales Pesqueros
y Buques Palangreros XII región.
Avda. 11 de Septiembre 1860, Piso 17, Oficina
142, Santiago de Chile, Chile.

John Liscombe, Vice Presidente
Asociación Industriales Pesqueros de Punta
Arenas

Confederación de Gente de Mar, Marítimos,
Portuarios y Pesqueros de Chile.
(Congemar). Tomás Ramos 172, Valparaíso.
Phone / Fax: (532) 255430

Confederación Nacional de Pescadores
Artesanales de Chile.
Fono/fax: (5632) 232602 / 232603

Sociedad Nacional de Pesca (Sonapesca)
Ahumada 254 Oficina 1107, Santiago de Chile.
Fax: (562) 6962019

Non Governmental Organizations

Casa de la Paz, Ximena Abogabir, Antonia
Lopez de Bello 024,
Providencia /Santiago. F: (562) 5218262

CIPMA (Centro de investigación y
planificación del medio ambiente)
Holanda 1109, Providencia/ Santiago. F: (562)
2310602

CODEFF (Comité pro defensa de la fauna y
flora)
Bilbao, Providencia /Santiago. F: (562)
2510262

Observatorio de Conflictos Ambientales, Lucio
Cuenca, Seminario 776
Providencia /Santiago. F: (562) 2746192

Red Nacional de Acción Ecológica.
(RENACE), Luis Mariano Rendon
Seminario 774. F: (562) 2239059

Fundación Skyring, Johann Luis Canto, Ciudad
de Punta Arenas
E-mail: pliopont@entelchile.net

FIDE XII (Fundación para el desarrollo de
Magallanes)
Fagnano 630, Piso 3, Ciudad de Punta Arenas

Acción Ciudadana por el medio ambiente,
Antonia Lopez de Bello 024
Providencia / Santiago. E-mail:
casapaz@netup.cl

Appendix 2.

Vessels owned by companies with Chilean and/or Spanish connections and suspected or convicted of involvement in Illegal, Unregulated or Unreported Fishing for Toothfish

Longliner Name	Owner	Notes
Antonio Lorenzo	Concar (Vieira Group)	
Arbumasa XX	Arbumasa Group	
Arbumasa XXI	Arbumasa Group	
Arbumasa XXII	Arbumasa Group	
Arbumasa XXIII	Arbumasa Group	
Arbumasa XXV	Arbumasa Group	
Chacabuco	Pesquera Punta Arenas (Arbumasa Group)	
Chamiza	Pesquera Punta Arenas (Arbumasa Group)	
Charrua	Pesquera Punta Arenas (Arbumasa Group)	
Chaval	Pesquera Punta Arenas (Arbumasa Group)	
Cisne Azul	Pesquera Cisne (Marabal Group)	
Cisne Blanco	Pesquera Cisne (Marabal Group)	
Cisne Rojo	Pesquera Cisne (Marabal Group)	
Cisne Verde	Pesquera Cisne (Marabal Group)	
Cristal Marino	Pescom (Verdugo Group)	
Elqui	Pesquera de Los Andes	
Ercilla	Pesquera de Los Andes	
Esamar I	Compania Pesquera Argentina	
Esamar III	Compania Pesquera Argentina	
Estela	Argenova (Pescanova Group)	
Frio Sur III	Pesquera Punta Arenas (Arbumasa Group)	Now the Mar del Sur III
Fuji	Argenova (Pescanova Group)	
Iber I	Marabal Group	Now the Liberty
Ilsa V	Pesquera Cisne (Marabal Group)	
Isla Camila	Pesquera Suriberica (Arbumasa Group)	

Isla Dolores	Pesquera Suriberica (Arbumasa Group)	
Isla Guamblin	Integra (Verdugo Group)	
Isla Guafo	Integra (Verdugo Group)	
Isla Sofia	Pesquera Suriberica (Arbumasa Group)	
Isla Isabel	Pesqueras Punta Arenas (Arbumasa Group)	
Jacqueline	Friermar	
Kinsho Maru	Compania Pesquera Argentina	
Liberty	Marabal Group	Previously the Iber I
Magallanes I	Argenova (Pescanova Group)	
Mar Azul	Pesquera Mar Azul	
Mar Azul X	Pesquera Mar Azul	
Mar Azul XI	Pesquera Mar Azul	
Mar Azul XII	Pesquera Mar Azul	
Mar Azul XIV	Pesquera Mar Azul	
Mar Azul XV	Pesquera Mar Azul	
Mar del Sur I	Pesquera Mar del Sur (Verdugo Group)	
Mar del Sur II	Pesquera Mar del Sur (Verdugo Group)	
Mar del Sur III	Pesquera Mar del Sur (Verdugo Group)	Previously the Frio Sur III
María Tamara	Concar (Vieira Group)	
Marunaka	Argenova (Pescanova Group)	
Ons	Marabal Group	Previously the Liberty
Orense	Argenova (Pescanova Group)	(reefer —sunk)
Praia do Rostelo	Portuguese flagged	
Puerto Madryn	Marabal Group	
Salvora	Marabal Group	
Santa Isabel	Pesquera Suriberica (Arbumasa Group)	
Torres del Paine	Pesquera de Alta Mar	
Vieirasa IV	Vieirasa (Vieira Group)	
Vieirasa XII	Vieirasa (Vieira Group)	
Vieirasa VIII	Vieirasa (Vieira Group)	

[50 longliners in all]

Appendix 3.

Table Ax3.1 Historical Chilean catches of Patagonian toothfish from Chilean and CCAMLR waters, 1986-1997 [tonnes/year]
Total catches.

Fishing Region	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL
I	861	182	131	217	508	611	32	37	24	282	476	36	3,397
II	1,586	340	211	178	101	108	84	4	130	270	245	58	3,315
III	213	121	261	177	125	252	101	70	222	297	124	49	2,012
IV	305	51	42	140	122	238	84	101	88	88	180	73	1,512
V	1,300	671	670	764	613	434	618	1,800	821	277	321	117	8,406
VI	0	0	0	0	0	458	0	0	0	0	0	0	458
VII	486	796	348	818	257	661	200	480	761	340	383	223	5,753
VIII	1,368	1,280	1,622	1,860	3,598	621	2,800	3,150	2,015	868	1,401	1,083	21,666
IX	0	0	0	10	0	1,073	1	0	0	0	2	1	1,087
X	311	733	892	2,388	2,977	1,044	2,697	1,902	2,091	1,996	2,338	2,112	21,481
XI	67	40	57	70	81	2,382	27	44	180	158	58	54	3,218
XII	0	0	0	0	1	2,168	15	61	362	880	197	610	4,294
RM	0	0	0	0	0	0	0	0	0	0	0	0	0
BF	15	61	79	487	1,218	0	7,344	4,387	4,702	4,401	1,287	3,813	27,794
Georgias	0	0	0	0	0	0	2,817	2,125	151	1,578	3,080	1,275	11,026
Other CCAMLR	0	0	0	0	0	0	13,089	8,634	9,998	5,388	1,589	804	39,502
TOTAL	6,512	4,275	4,313	7,109	9,601	10,050	29,909	22,795	21,545	16,823	11,681	10,308	154,921

Note: table transcribed from refaxed SERNAP table. There may be some transcription errors

Table Ax3.2: Historical Chilean catches of Patagonian toothfish from Chilean and CCAMLR waters, 1986-1997 [tonnes/year]
Artesanal catches (from Chilean waters only)

Fishing Region	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL
I	492	102	385	217	335	280	30	37	24	282	476	36	2,696
II	391	305	184	178	151	198	48	4	136	270	220	62	2,147
III	340	171	88	177	128	142	77	58	213	268	124	47	1,833
IV	305	51	78	106	100	223	53	61	68	86	177	57	1,365
V	338	671	123	768	444	519	477	1,078	671	208	272	98	5,667
VI	488	0	154	0	0	0	0	0	0	0	0	0	642
VII	582	0	112	114	5	0	131	298	638	190	238	118	2,426
VIII	706	1,254	227	1,658	2,623	1,501	2,108	1,111	1,520	1,347	1,398	1,077	16,530
IX	532	0	472	10	0	0	1	0	0	0	2	1	1,018
X	238	609	827	1,482	1,189	830	741	807	1,974	1,996	1,800	1,803	14,296
XI	673	21	571	8	28	0	1	0	41	51	22	22	1,438
XII	376	0	741	0	0	0	0	48	411	296	83	83	2,038
RM	0	0	0	0	0	0	0	0	0	0	0	0	0
BF	0	0	0	0	0	0	0	0	0	0	0	0	0
Georgias	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	5,461	3,184	3,962	4,718	5,003	3,693	3,667	3,502	5,696	4,994	4,812	3,404	52,096

Note: table transcribed from refaxed SERNAP table. There may be some transcription errors

Table Ax3.3: Historical Chilean catches of Patagonian toothfish from Chilean and CCAMLR waters, 1986-1997 [tonnes/year]
Industrial catches (as difference between Table Ax3.1 & Table Ax3.2)

Fishing Region	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL
I	369	80	-254	0	173	331	2	0	0	0	0	0	701
II	1,195	35	27	0	-50	-90	36	0	-6	0	25	-4	1,168
III	-127	-50	173	0	-3	110	24	12	9	29	0	2	179
IV	0	0	-36	34	22	15	31	40	20	2	3	16	147
V	962	0	547	-4	169	-85	141	722	150	69	49	19	2,739
VI	-488	0	-154	0	0	458	0	0	0	0	0	0	-184
VII	-96	796	236	704	252	661	69	182	123	150	145	105	3,327
VIII	662	26	1,395	202	975	-880	692	2,039	495	-479	3	6	5,136
IX	-532	0	-472	0	0	1,073	0	0	0	0	0	0	69
X	73	124	65	906	1,788	214	1,956	1,095	117	0	538	309	7,185
XI	-606	19	-514	62	53	2,382	26	44	139	107	36	32	1,780
XII	-376	0	-741	0	1	2,168	15	13	-49	584	114	527	2,256
RM	0	0	0	0	0	0	0	0	0	0	0	0	0
BF	15	61	79	487	1,218	0	7,344	4,387	4,702	4,401	1,287	3,813	27,794
Georgias	0	0	0	0	0	0	2,817	2,125	151	1,578	3,080	1,275	11,026
Others	0	0	0	0	0	0	13,089	8,634	9,998	5,388	1,589	804	39,502
TOTAL	1,051	1,091	351	2,391	4,598	6,357	26,242	19,293	15,849	11,829	6,869	6,904	102,825

Note: some negative numbers result from larger tonnages being given for landings from the artesanal fishery than for total landings. This may be partly transcription errors but there appear to be other inconsistencies

Appendix 4.

Future Work

With the publication of this Chile Report, following publication of the Norway and Mauritius Reports last year, ISOFISH has, for the first time, sketched out the sheer scale and extent of the toothfish poaching problem in the Southern Ocean. The sixty or so longliners which have been involved in poaching toothfish in these waters within the last two or three years have been identified and the dozen or so companies which own and operate these longliners have also been identified.

Much work remains to be done to expose details of the trade links between these toothfish poaching longliners and the fish processing plants they service, especially in southern Chile – and between the processors and destination markets, especially between Chile and Japan. The role of traders servicing US and EU markets also needs to be understood. The significant role played by Spanish interests in Chilean companies owning and operating longliners poaching toothfish is also a major subject for investigation.

The picture is by no means perfect or complete but the priority is now to persuade these identified companies, and the individuals responsible for them (many of whom are yet to be identified, including most of the beneficial owners), to abandon toothfish poaching operations in favour of legitimate, licenced, fishing operations. ISOFISH will be seeking to identify and directly and personally seek out these people with a view to persuading them to accept the special conservation status of Antarctic waters and so act to curtail activities causing the destruction of toothfish stocks and albatross populations in the Southern Ocean.

Furthermore, the vast and complex network of fish trading companies, which materially benefit from handling the trade in 'illegally caught' toothfish, can no longer claim to be ignorant of the unfolding moral turpitude and legal 'minefield' into which they are now falling. ISOFISH, will also be identifying and approaching these companies and the individuals responsible for them with a view to persuading them to forego the profits to be made from handling 'illegally caught' toothfish.

Most importantly, however, ISOFISH will be seeking out ways to help CCAMLR Party governments to adopt, implement and enforce effective conservation and control measures based on port and market state responsibilities (to complement existing measures based on flag state responsibility). Such measures are essential to ensure collection and dissemination of comprehensive and accurate information to scientists, agencies and the public to allow its scale and its participants to be identified. These measures are also essential to enable governments to discriminate between 'illegal' and legitimate toothfish products in trade and thence stop the 'illegal' trade.

Additionally, ISOFISH will seek to identify and expose those who ultimately and indirectly benefit from the 'illegal' toothfish trade and who bear a moral, if not yet legal, responsibility to avoid and frustrate this 'illegal' trade. In particular, shipping companies and their agents must be persuaded not to handle such cargoes and private and institutional financial backers and insurers of toothfish poachers must be persuaded to withdraw their support.