



Name of Fishery	Chile squat lobsters Camanchaca demersal trawl fishery
Assessment number	Initial full assessment
Reduced re-assessment (Y/N)	N
Statement that the fishery is within scope	<p>Statement from the CAB:</p> <ul style="list-style-type: none">• The CAB ensures that the fishery does not operate under a controversial unilateral exemption to an international agreement, use destructive fishing practices, target amphibians, birds, reptiles or mammals and is not overwhelmed by dispute. Therefore the fishery is within the scope.• A successful pre-assessment against the MSC environmental standard for sustainable fishing was completed in March 2015 (version 1.3). The CAB has reviewed the pre-assessment report and other updated information.• The CAB confirms the proposed units of assessment and certification.• The fishery has not failed an assessment within the last two years.• The client is not interested on sharing the certificate with fishers not initially part of the client group. Therefore the certificate is closed.• Not IPI stocks are caught.• The fishery is not enhanced.• The fishery overlaps with another MSC certified. The fishery is under assessment by Intertek with the name "Chile squat lobsters and nylon shrimp modified trawl fishery". The link is: https://www.msc.org/track-a-fishery/fisheries-in-the-program/in-assessment/pacific/chile-squat-lobsters-and-nylon-shrimp-modified-trawl-fishery.• The fishery is not based on an introduced species; and• The fishery does not include an entity that has been successfully prosecuted for violations against forced labour laws.
Certificate sharing statement	There are other eligible fishers (6) which are going to be fully assessed against the MSC's Fisheries Standard as part of the UoA. The client has prepared a certificate agreement. (See appendix 1)
Estimated Length of Full Assessment & Timeline	The timelines suggest that the assessment could be in 8 months.



Name of proposed Team Leader	<p>Virginia Polonio Povedano will be responsible of the coordination of the all team members and to comply with the timelines. On the other hand, she will be in charge of P2. She has a degree in Environmental Sciences (B.S.c. University of Cádiz). She has a master degree (M.Sc. University of Cádiz) in Fisheries management and aquaculture. She obtained her PhD in biodiversity and natural resources at the University of Oviedo and during her PhD she gained experience in the field of research of fisheries and how protect the Vulnerable Marine Ecosystems as coral reefs versus fishing. She wrote several articles describing new species of corals under her thesis and she developed skills in the fields of benthic ecology and management of ecosystems.</p> <p>Before her PhD, she was contracted as technician in the Spanish Oceanographic Institute where she realized work at sea and gained field experience to assessment fisheries stocks.</p> <p>She participated in the Spanish National Basic Plan of Data to collect and evaluate the fishing in the ICES and CECAF areas where Spanish fleets realize theirs activities. During this period, she carried out feeding habit studies of <i>Pagellus Bogaraveo</i> and others commercial species (hake, anchovy, sharks, mackerel, squid...) to know how the trophic level affects the ecosystems and the distribution of the species in the Gulf of Cadiz and the Strait of Gibraltar.</p> <p>As a member of BV, she has worked on several full assessments such as Cantabrian Sardine, North Atlantic Albacore, and Swordfish among others. She has participated in Surveillance and several pre-assessments.</p> <p>*CV attached in Appendix 2</p>
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Name(s) of proposed assessors	<p><i>Edith Saa Collantes,*</i> is fisheries engineer. She obtained her degree at the Universidad Católica de Valparaíso. She worked between 1976- 1991 at Servicio Nacional de Pesca. After that through 1993 to 2006, she developed her work at Subsecretaría de Pesca. First as manager of the Departamento de Estudios. After, as manager of División de Pesca.</p> <p>She has participated on the elaboration of several laws regarding to fisheries activities which they were set between 1991 and 2014.</p> <p>She gained experience as assessor of the Ministerio de Economía throughout 2008 to 2010 with her participation on the Salmon workshop. There, she collaborated to modify the fishery law and the normative regarding to fishing, aquaculture and impacts on the environmental.</p> <p>Nowadays, she is working as an independent assessor of fisheries activities.</p> <p><i>Julian Addison, *</i></p> <p>Currently he is working as independent fisheries consultant specializing in shellfish and inshore fisheries. After 28 years at the Centre for Environment, Fisheries and Aquaculture Science (Cefas), which is the UK Government's marine science agency for environment, fisheries and aquatic science, he left the organisation to move to France work independently.</p> <p>He has relevant skills and experience which includes nearly 30 years experience of stock assessment and provision of management advice on shellfish and inshore fisheries, an international reputation in the field of crustacean population dynamics and assessment, extensive knowledge of the shellfish and inshore fisheries industry and liaising with fishers and other stakeholder groups, knowledge of shellfisheries management regimes worldwide, effective oral and written communication skills and winning of contracts under competitive tender.</p> <p>In the year since leaving Cefas, my time has been split between consultancy work and collaborative research, primarily the completion of peer-reviewed manuscripts on shellfish population dynamics and inshore fisheries.</p> <p>Recent consultancy work includes</p> <ul style="list-style-type: none">• A review of the stock assessment model for blue crabs in Chesapeake Bay, USA as part of the Center for Independent Experts (CIE) peer review panel• Peer review of MSC assessments of lobster and coldwater prawn fisheries in Europe• Advice to ex-colleagues at Cefas and UK Government's Department for Environment, Food and Rural Affairs (Defra) on shellfish stock assessment and inshore fisheries management. <p>His research interests includes: development of methods for shellfish stock assessment, including fishery-independent methods of estimating abundance, crustacean behaviour in relation to capture in fishing gear, development of environmentally friendly fishing gear technology for both trawl and molluscan dredge fisheries and the environmental footprint of inshore fisheries.</p> <p>*CV attached in appendix 2</p>
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Assessment tree to be used	The default assessment tree will be used. No modification needed.
Site visit	<p>We are planning a site visit to Chile during the week of November 16th, 2015 with the purpose to collect information on the fishery and in particular to talk to representatives of the fishery, fishery management and environmental management bodies and other entities.</p> <p>We will be available over this period to meet with stakeholders. Private meetings can be arranged if required. Anyone wishing to provide comments or information to the assessment process (in terms of the status of the stock, ecosystem interactions or fishery management practices) is invited to contact BUREAU VERITAS Certification.</p> <p>A key purpose of the site visit is to collect information and to speak to stakeholders with an interest in the fishery. We encourage any stakeholders with experience or knowledge of the fishery to participate in these meetings or could write us with the following template:</p> <p>https://www.msc.org/documents/scheme-documents/forms-and-templates/template-for-stakeholder-input-into-fishery-assessments-v2.0/</p> <p>The announcement prepared for stakeholders will be updated in ecert.</p>
Tree modifications & stakeholder consultation	N/A

Submitted by: Bureau Veritas Iberia. Virginia Polonio

Date: 15th October 2015.



Appendix 1: Client certificate sharing statement



Chile, Tomé 14 de octubre de 2015

Acuerdo con pescadores elegibles sobre la certificación MSC

Pesquería de Langostino Colorado y Amarillo

Camanchaca Pesca Sur S.A. comunica a través de esta carta y de acuerdo al requisito 7.4.12.2 de la versión 2.0 del MSC Fishery Certification Requirements, su disposición de llevar a cabo acuerdos razonables para compartir el certificado de la pesquería.

Las embarcaciones elegibles, indicadas a continuación, serán evaluadas en el proceso de certificación de las pesquerías de Langostino Colorado, *Pleuroncodes Monodon* y Langostino Amarillo, *Cervimunida Jonhi* en las regiones V, VI, VII y VIII del territorio de Chile. Para los desembarques en los Puertos de San Antonio, Tomé u otro que Camanchaca Pesca Sur pudiera designar.

A los Sres.

Armador	Embarcación	Matrícula
Pesquera CMK Ltda	Pesquero Crusoe I	2060
Sr Jorge Cofré Reyes	Lancha Motor Tomé	606
Pesquera Sunrise S.A.	Pesquero Isla Orcas	1868
Sociedad Pesquera Genmar Ltda.	Lancha Motor Don Chelo I	538
Sociedad Pesquera Isladamas S.A	Pesquero Lonquimay	1840
Sociedad Pesquera Isladamas S.A	Cocha	1826

Mediante la revisión de la documentación y las consultas efectuadas a las empresas antes mencionadas, se determinó que dichos armadores cumplían con los requisitos para optar como pescadores elegibles, y objeto de la certificación de la pesquería MSC requisitos:

7.4.12; 7.4.12.1 y 7.4.12.2.- en los recursos anteriormente mencionados.

Para finalizar, Camanchaca como única dueña del certificado, cederá su cuota a las embarcaciones elegibles, según considere. Toda la captura llevada a cabo por los pescadores elegibles con la cuota de la empresa Camanchaca Pesca Sur, será propiedad de la misma y tan solo estos Crustáceos serán susceptibles de ostentar el logo MSC.

Ante cualquier duda contactar a:

Carlo Puga cpuga@camanchaca.cl

Lilian Martínez lmartinez@camanchaca.cl

Patricia VIGUERAS A.
Jefe Administrativo
Jefe de Administración

CARLO PUGA PIÑA
JEFE DE PESQUERIA
CAMANCHACA PESCA SUR S.A.
Jefe de Operaciones

Lilian Martínez De La F.
Jefe de Aseguramiento de Calidad

LILIAN MARTINEZ DE LA FUENTE
JEFE ASEGURAMIENTO DE CALIDAD
CAMANCHACA PESCA SUR S.A.



Appendix 2: CVs of team leader and team

Virginia Polonio- Team Leader BV IBERIA

1) PERSONAL DATA

First name: Virginia

Surname: Polonio Povedano

Sex: F

D.O.B. : 20/07/1981

Country: Spain

Contact: Mobile : +34 606018905

E-mail : virginia.polonio@es.bureauveritas.com

BV Qualification: Fishery expert (auditor, inspector and technical specialist)

2) ACADEMIC EDUCATION

2009-2014 PhD granted from the Spanish Ministry of Education

PLACE: Spanish Institute of Oceanography. THESIS TITLE: Cold-water corals: "Taxonomic and ecological study on Vulnerable Marine Ecosystems (VMEs) in the Southwestern Atlantic". SUPERVISOR: Dr. Francisco Javier Cristobo Rodríguez. Data of defence: 2014, May 30th.

2008-2009 MSc Aquaculture and Fisheries research: sustainable management of natural resources. University of Cadiz, Spain

2009 Thesis of MSc “Feeding habits of Pagellus Bogaraveo in Gibraltar strait waters”University of Cadiz and IEO institution

2000-2006 BSc Environmental Sciences. University of Cadiz, Spain

3) BV QUALIFICATION

STANDARD	BV QUALIFICATION
Program of Inspection of fish and aquaculture products	Inspector
MSC fisheries	Team Leader
MSC Chain of Custody (single and group)	
Gamba de Palamos	In process of qualification Auditor



4) PROFESSIONAL EXPERIENCE: SUMMARIZED

Since May 2015 Bureau Veritas Iberia: Fishery expert (Agrofood Department, South of Spain)

- **Lead auditor for:**

MSC fisheries full assessment. **Team member as scientific expert** for the following fisheries:

- North and South Atlantic swordfish & blue shark Spanish longline fishery
- North Atlantic albacore artisanal fishery.

Team Leader for the following MSC fishery:

- Chilean mussel fishery and suspended culture Toralla S.A and Cultivos Toralla S.A

MSC chain of custody: In process of qualification. Technical reviewer for MSC CoC report as part of the ICC.

Other quality labels: Gamba de Palamós.

2010-May 2015	Fishery Researcher at Spanish Oceanographic Institution (IEO), Gijon, Spain
2006-2009	Fishery Technician (DEEPER project IEO Institution, Cádiz, Spain
2006	Technician of Geographic Information Systems, GIS (Boslan Company 3 months, Madrid, Spain

5) PROFESSIONAL EXPERIENCE (RESEARCH):

Participation in research project

- 2010-2013 **ATLANTIS Project**, IEO Institution and Secretaria General del Mar of Spain. Duties: Evaluate the fisheries stocks of the commercial species in the Patagonian Region and evaluate Marine Protected Areas (MPAs) and management the conservation of these areas.
- 2006-2009 Development of Ecosystem Studies in Depth interdisciplinary approach (**DEEPER**), IEO Institution. Duties: Evaluation the status of the artisanal fishery of *Pagellus bogaraveo* in waters of Strait of Gibraltar and determinate the MPA in the area.
- **National Plan, I+D+I.** ICES area. IEO Institution and Ministry of Science. Duties: Evaluation of the commercial species in the North Atlantic area under ICES management.



- **National Plan of Basic Data** CECAF area, IEO Institution. Duties: Evaluation of the commercial species in the North Atlantic area under ICES management. **(16 months)**
- Studies of fisheries stocks in the **Gulf of Cadiz**, IEO Institution.
- Application and validation of the method of age pigment (lipofuscin) in natural populations and cultured shrimp (*Penaeus kerathurus*). University of Cadiz, Zoology department and IEO Institution.

Participation in Oceanographic cruises

- Aimed at the study of benthic communities and demersal fishery
- Aimed at the study of pelagic communities
- Aimed at the study of benthic communities of hard and soft substrate
- Aimed at the study of bycatch in commercial fisheries boards

Total days on board: around 200



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6) COMPLEMENTARY TRAINING/EDUCATION

RESEARCH VISITS	
2015	Internal Training and qualification as auditor for the quality label Gamba de Palamós. June 2015. Palamós, Cataluña MSC Fishery Team Leader. Online June 2015
2014	R Course at Spanish Institute of Oceanography (Centre of Gijon, 2 weeks)
2013	Department of Zoology, University of Oxford. Oxford, United Kingdom. (2months). Computing Data analysis with R (Coursera, 4 weeks) Primer training (Plymouth, 2 weeks)
2012	UFBA Benthic Ecological Lab, Federal University of Bahia, Salvador, Bahia, Brazil. (3 months). National Museum of Natural History, Smithsonian Institute. Washington DC, EEUU. (4 months).
2010	Zoology department, University of Malaga. Málaga, Spain. (4 months). Application of Geographic Information Systems (GIS) to the Management of Natural Resources (ESRI Madrid, 160 hours)
2008	Technical Digital Image Processing and Digital Photogrammetric (Geomedia, University of Madrid, 300 hours)
2006	Fellowship for a professional training stay in TRAGSA. Málaga, Spain. (3 months).
2005	Fellowship for a professional training stay in Spanish Oceanographic Institute Cádiz, Spain. (6 months).
2004	Seneca grant, University of Madrid. Madrid, Spain. (12 months).
2003	Collaboration fellowship in Department of Geology, University of Cadiz. Cádiz, Spain. (12 months).

6) LANGUAGES

LANGUAGE	LEVEL	OFFICIAL CERTIFICATES
Spanish	Native	No
English	High	
Portuguese (Brazil)	High	

7) OTHER DATA OF INTEREST

SCIENTIFIC PAPERS AND COMMUNICATIONS

Participation on the writing, editing and technical application of the MSC Requirements of the following fisheries assessments:

Cantabrian Sea purse seine anchovy

North Atlantic Albacore artisanal fishery

Chilean mussel fishery and suspended culture Toralla S.A and Cultivos Toralla S.A

Chile squat lobster Camanchaca demersal trawl fishery



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Portela, J., J. Cristobo, P. Ríos, J. Acosta, S. Parra, J.L. Del Río, E. Tel, V. Polonio, A. Muñoz, T. Patrocinio, R. Vilela, M. Barba and P. Marín. 2014. A First Approach to Assess the Impact of Bottom Trawling Over Vulnerable Marine Ecosystems on the High Seas of the Southwest Atlantic. In: Biodiversity in Ecosystems-Linking Structure and Function. (Accepted by Intech as provisional chapter of a book)

Cairns, S. D and V. Polonio. 2013. New records of deep-water Scleractinia off Argentina and the Falkland Islands. Zootaxa 3691:58.

Figuerola, B., D. P. Gordon, V. Polonio, J. Cristobo, and C. Avila. 2013. Cheilostome bryozoan diversity from the southwest Atlantic region: Is Antarctica really isolated? Journal of Sea Research 85:1–17. 4.

Muñoz, A., J. Acosta, J. Cristobo, M. Druet, E. Uchupi, V. Polonio and A. Group. 2013. Geomorphology and Shallow Structure of a Segment of the Atlantic Patagonian Margin. Earth Science Reviews:1–68.

Del Río, J.L., J. Acosta, J. Cristobo, S. Parra, J. Portela, E. Tel, L. Viñas, A. Muñoz, R. Vilela, T. Ibarrola, P. Ríos, B. Almón, R. Blanco, J. Murrillo, V. Polonio and Atlantis Team. 2012. Estudio de los Ecosistemas Marinos Vulnerables en aguas internacionales del Atlántico Sudoccidental. 242p (IEO, Ed.). IEO, Madrid.

Portela, J., J. Acosta, J. Cristobo, A. Muñoz, S. Parra, T. Ibarrola, J. L. Del Río, R. Vilela, P. Ríos, R. Blanco, B. Almón, E. Tel, V. Besada, L. Viñas, V. Polonio, M. Barba and P. Marín. 2012. Management Strategies to Limit the Impact of Bottom Trawling on VMEs in the High Seas of the SW Atlantic. 228p (Book; Intech, Ed.). Spanish Institute of Oceanography, TRAGSATEC and General Secretariat of the Sea, Spain.

Muñoz, A., J. Cristobo, P. Ríos, M. Druet, V. Polonio, E. Uchupi, J. Acosta, and A Group. 2012. Sediment drifts and cold-water coral reefs in the Patagonian upper and middle continental slope. Marine and Petroleum Geology: 1–13.

Polonio, V., M. Taylor and J. Cristobo. 2015. Five new species and checklist of the species of Primnoidae corals within South Western Atlantic Ocean. ZOOTAXA

Polonio, V. and S.D. Cairns, 2015. Distribution patterns of deep-sea corals (Anthozoa:Scleractinia) in the Patagonian region, Southwestern Atlantic Ocean. CORAL REEF.



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Edith Saa- Independent fisheries consultant

SINOPSIS CURRICULAR

Nombre : EDITH DEL CARMEN SAA COLLANTES

RUT : 6.916.462 - 5

Fecha nacimiento : 27 de Agosto de 1953

Estado civil : Casada.

Título Profesional : Ingeniero Pesquero.

Estudios Universitarios

Universidad Católica de Valparaíso

Escuela de Pesquerías y Alimentos

1971 -1976

Experiencia Profesional:

- 1975 - 1976, Profesor ayudante de cursos: Parámetro de Poblaciones; Calculo de Parámetros y Modelo de Poblaciones, Escuela de Pesquerías y Alimentos, Universidad Católica de Valparaíso.
- 1977 - 1979, Profesional del Departamento de Normas y Reglamentos, División de Protección Pesquera, Servicio Agrícola y Ganadero. (Actual Servicio Nacional de Pesca)
- 1980 - 1987, Jefe Sección Industrial, Departamento de Tecnología, Servicio Nacional de Pesca.
- 1987 – 1990, Jefe Departamento de Tecnología, Servicio Nacional de Pesca.
- 1991 -1992, Jefe Departamento Estudios, Subsecretaría de Pesca y Acuicultura.
- 1993 - marzo 2006, Jefe División Desarrollo Pesquero, Subsecretaría de Pesca y Acuicultura
- .
- 2006 - marzo 2010, Profesional del Servicio Nacional de Pesca, y asesor del Ministerio de Economía, para la tramitación de la modificación a la ley de Pesca en materias de acuicultura.
- Marzo 2010 a abril de 2014, Jefe de la División de Desarrollo Pesquero de la Subsecretaría de Pesca y Acuicultura.
- De mayo de 2014 a la fecha, asesor independiente en materias pesqueras y de regulación pesquera.
- 2015 participación en grupo de trabajo P3, que pre evaluó la pesquería de langostino amarillo y langostino colorado de la V-VIII región de Chile, efectuada por el Bureau Veritas de España.



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Actividades Relevantes en el desempeño del cargo.

De 1990 a marzo de 2014, participación activa en la elaboración de la mayoría de los proyectos de ley relativos al Sector Pesquero y Acuícola Nacional, apoyo técnico en la tramitación de las leyes en el Parlamento, participación en su difusión ante los agentes regulados e implementación y elaboración de sus respectivos reglamentos de las siguientes leyes:

- **Leyes 19.079 y 19.080 ambas de 1991**, Modificación de la Ley General de Pesca y Acuicultura N° 18.892, cuyo texto refundido coordinado y sistematizado corresponde al Decreto Supremo N° 430 de 1991, del Ministerio de Economía Fomento y Reconstrucción, en adelante la L.G.P.A.
- **Ley 19.210 de 1993**, Modificación del artículo 32, de la L.G.P.A. relativo a las condiciones para efectuar la sustitución de las naves industriales.
- **Ley 19.245 de 1993**, Establece normas especiales para el acceso de nuevas embarcaciones a pesquería de jurel por abastecimiento de plantas de proceso instaladas en la VIII región.
- **Ley 19.323 de 1994**, modificación del artículo 124 de la L.G.P.A., relativa a la competencia de los tribunales de justicia para conocer diversas infracciones a las normas legales y reglamentarias de la pesca.
- **Ley 19.348 de 1994**, modifica artículo 5º transitorio de la L.G.P.A., en aspectos relativos a la acuicultura.
- **Ley 19.364 de 1995**, modificación de diversos artículos de la L.G.P.A., en aspectos relativos a infracciones, sanciones y caducidades de las autorizaciones de pesca y concesiones de acuicultura.
- **Ley 19.384 de 1995**, modifica artículo 48º de la L.G.P.A., relativo al Régimen Bentónico de Extracción (cuotas individuales para recursos bentónicos).
- **Ley 19.397 de 1995**, Modificación de la L.G.P.A., para permitir la ocupación anticipada de las concesiones de acuicultura bajo condiciones especiales.
- **Ley 19.484 de 1996**, que exime de impuesto a la renta a los pescadores artesanales y modifica ley sobre Impuesto a la Renta, calificándolos como pequeños contribuyentes.
- **Ley 19.492 de 1997**, Modificación de la L.G.P.A., relativo al perfeccionamiento del Régimen de áreas de manejo de recursos bentónicos.
- **Ley 19.506 de 1997**, Adecuaciones de la ley de Impuesto a la renta en lo relativo al pago de los pescadores artesanales.
- **Ley 19.516 de 1997**, faculta a los armadores artesanales de naves con arte de pesca de arrastre para canjear su autorización artesanal por una autorización de pesca industrial.
- **Ley 19.520 de 1997**, Modificación de la L.G.P.A., otorgando competencia a Tribunales de Justicia sobre infracciones a los tratados internacionales cometidos en la alta mar por naves chilenas.
- **Ley 19.521 de 1997**, Modifica la L.G.P.A., estableciendo la exigencia del uso de un sistema de posicionamiento satelital a bordo de las naves pesqueras industriales, durante todo el desarrollo de su viaje de pesca.
- **Ley 19.577 de 1998**, condona el pago de patente de acuicultura a pequeños acuicultores en determinadas circunstancias.
- **Ley 19.624 de 1999**, Modifica la L.G.P.A., otorgando competencia a nuevos tribunales de justicia para el conocimiento de las infracciones a la Ley de Pesca.
- **Ley 19.713 de 2001**, Establece por 2 años, una nueva medida de administración denominada Límite Máximo de Captura por Armador (cuotas individuales por armador).
- **Ley 19.822 de 2002**, Incorpora a la medida de Límite Máximo de Captura por armador nuevas pesquerías.
- **Ley 19.849 de 2002**, prorroga por 10 años la aplicación de los límites máximos de captura por armador, aumenta el pago de la patente, e introduce diversas modificaciones a la L.G.P.A.
- **Ley 19.907 de 2003**, prohíbe la pesca de arrastre dentro de las cinco millas, estableciendo algunas excepciones a la captura de crustáceos bentónicos.
- **Ley 19.977 de 2004**, establece una rebaja de la patente de las áreas de manejo de recursos bentónicos.
- **Ley 19.984 de 2004**, establece la exigencia de ser propietario de las naves artesanales para calificar como armador artesanal.



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- **Ley 20.091 de 2006**, establece modificaciones a la L.G.P.A., en materias relativas a la acuicultura.
- **Ley 20.116 de 2006**, modifica la L.G.P.A., con el fin de prohibir o regular, la importación de especies hidrobiológicas genéticamente modificadas.
- **Ley 20.187 de 2007**, modifica la L.G.P.A., de manera de regular el reemplazo o Transferencia de los derechos de pesca de los pescadores artesanales.
- **Ley 20.434 de 2010**, modifica la L.G.P.A., incorporando regulaciones más exigentes desde el punto de vista ambiental, sanitario y de ordenamiento territorial de la acuicultura, en especial de la salmonicultura.
- **Ley 20.437 d3e 2010**, modifica la L.G.P.A., en aspectos relativos a las áreas de manejo de recursos bentónicos y registro pesquero artesanal.
- **Ley 20.451 de 2010**, modifica L.G.P.A., en materias artesanales para enfrentar la catástrofe en el sector como consecuencia del terremoto y maremotos acontecido en febrero de 2010.
- **Ley 20.509 de 2011**, modifica la L.G.P.A., incorporando sanciones a los nacionales que cometan infracciones en áreas de la Comisión para la Conservación de los Recursos Vivos Marinos Antárticos.
- **Ley 20.525 de 2011**, modifica la L.G.P.A., prohibiendo el corte de aletas a los tiburones en la zona de pesca.
- **Ley 20.528 de 2011**, modifica la L.G.P.A., en materias relativas a la definición de las características de las embarcaciones artesanales, exigencias para el reemplazo o transferencia de los derechos de pesca de los pescadores artesanales.
- **Ley 20.560 de 2012**, modifica la L.G.P.A., en materias relativas al desarrollo de la pesca de investigación e incorpora la exigencia de los planes de manejo para las pesquerías bentónicas.
- **Ley 20597 de 2012**, modifica la L.G.P.A., en materias relativas al Fondo de Fomento para la Pesca Artesanal y creación de la Comisión Nacional de Acuicultura como organismo auxiliar de la administración des Estado.
- **Ley 20.625 de 2012**, modifica la L.G.P.A., estableciendo una regulación que permita cuantificar el descarte y sus razones para luego establecer un plan de reducción del descarte, incorporando la exigencia de cámaras a bordo de las naves.
- **Ley 29.657 de 2013**, modifica la L.G.P.A., en materias de relativas a la protección de los ecosistemas marinos vulnerables, la sustentabilidad de los recursos hidrobiológicos, incorporando la supremacía de la ciencia en la administración de los recursos hidrobiológicos, mediante la creación de los comités científicos técnicos, la participación de los agentes a través de la creación de los comités de manejo y el establecimiento de las cuotas individuales transferibles, para la administración de las principales pesquerías nacionales para el sector industrial a través de la creación de las licencias transables de pesca, entre las materias mas importantes.

Otras Actividades desarrolladas en el marco de Jefe de División de Desarrollo pesquero de la Subsecretaría de Pesca:

- De 1992, a marzo de 2006, Secretaria Ejecutiva y Ministro de Fe del Consejo Nacional de Pesca, organismo auxiliar de la administración del Estado de carácter nacional.
- De 1998, a marzo de 2006, 1º Subrogante legal del Subsecretario de Pesca y Acuicultura.
- 2005 Invitación del Departamento de Estado de Estados Unidos para conocer la regulación pesquera de ese país.
- De 2008 a 2010, integrante de la Mesa del Salmón, que asesoró al Ministro de Economía en la elaboración y tramitación de la modificación de la ley de Pesca y acuicultura y los reglamentos sanitarios y ambientales, ante la crisis de la salmonicultura por el efecto de la introducción y diseminación de la enfermedad anemia infecciosa del salmón, ISA.
- De marzo de 2010 a marzo de 2014, 2º Subrogante legal del Subsecretario de Pesca y Acuicultura.
- Participación en representación de la Subsecretaría en diversas reuniones de la Comisión Permanente del Pacífico Sur, CPPS.
- Participación en la delegación de Chile en diversas reuniones del Comité de Pesca de la FAO, COFI.



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- Participación dentro de la delegación de Chile en diversas reuniones ante la Organización Mundial del Comercio, por el contencioso de nuestro país con España por el pez espada.
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Julian Anderson- Independent fisheries consultant

Full Name: Julian Thomas Addison

Date of Birth: 6 March 1956

Place of Birth: Leeds, England Nationality: British

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Current Employment: Independent Fisheries Consultant

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Relevant Educational History:

Institution Date(s) Degree(s) or Diploma(s) obtained

Imperial College of Science and Technology, University of London

1978 – 1982 Ph.D. in population ecology and modelling. Kings College, University of London

1975 – 1978 BSc Zoology

Employment History:

Date(s) Employer Role

2011 - Self-employed-Independent Fisheries Consultant

2000 - 2010Cefas, Lowestoft Senior Shellfish Advisor to UK Government policy advisors

2007 – 2010 Cefas Head of Coastal and Freshwater Fisheries Group

2005 – Present University of East Anglia Honorary Reader in the School of Environmental Sciences

1995 – 1998 Cefas Scientific Advisor to UK Government policy advisors on International Whaling Commission issues

1993 – 2005 University of East Anglia Honorary Lecturer in the School of Biological Sciences

1992 (Cefas) Visiting scientist at National Marine Fisheries Service, Woods Hole, Massachusetts, USA

1991 (Cefas) Visiting scientist at Department of Fisheries and Oceans, Halifax, Nova Scotia, Canada

1985 – 2000 Cefas Shellfish research and stock assessment scientist

1982 – 1985 Cefas Shellfish stock assessment biologist

1982 MAF Scientific assistant on bird population biolog

Chile squat lobster Camanchaca demersal trawl fishery



Current Employment

I am currently an independent fisheries consultant specialising in shellfish and inshore fisheries. After 28 years at the Centre for Environment, Fisheries and Aquaculture Science (Cefas), which is the UK Government's marine science agency for environment, fisheries and aquatic science, I left the organisation to move to France with my family and to work for myself. Relevant skills and experience include nearly 30 years experience of stock assessment and provision of management advice on shellfish and inshore fisheries, an international reputation in the field of crustacean population dynamics and assessment, extensive knowledge of the shellfish and inshore fisheries industry and liaising with fishers and other stakeholder groups, knowledge of shellfisheries management regimes worldwide, effective oral and written communication skills and winning of contracts under competitive tender.

In the year since leaving Cefas, my time has been split between consultancy work and collaborative research, primarily the completion of peer-reviewed manuscripts on shellfish population dynamics and inshore fisheries.

Recent consultancy work includes –

A review of the stock assessment model for blue crabs in Chesapeake Bay, USA as part of the Center for Independent Experts (CIE) peer review panel

Peer review of MSC assessments of lobster and coldwater prawn fisheries in Europe

Advice to ex-colleagues at Cefas and UK Government's Department for Environment, Food and Rural Affairs (Defra) on shellfish stock assessment and inshore fisheries management

Research interests include development of methods for shellfish stock assessment, including fishery-independent methods of estimating abundance, crustacean behaviour in relation to capture in fishing gear, development of environmentally friendly fishing gear technology for both trawl and molluscan dredge fisheries and the environmental footprint of inshore fisheries.

Previous Roles and Responsibilities:

As Senior Shellfish Advisor to the UK Government's Department for Environment, Food and Rural Affairs (Defra) my responsibilities included:

Management of a Government contract worth £650,000 per annum

Provision of advice on the status, sustainable management and development of wild shellfish stocks to Government policy customers and Government Ministers

Oversight of the monitoring, stock assessment and associated biological studies on wild shellfish stocks in England and Wales

Assessing the potential impacts of other seabed uses, such as aggregate dredging and wind farm development, on shellfish stocks, and collaboration with the Cefas

Weymouth laboratory on the interaction between wild shellfish stocks and shellfish cultivation, aquaculture and disease

Liaison with marine managers and legislators, fishers and industry bodies, other fisheries scientists and research institutions, the Government's Statutory Nature Conservation Agencies, environmental NGOs and the media

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Representing Cefas and UK Government at national and international meetings

Project management of specific Research and Development (R&D) contracts worth approximately £600,000 per annum.

In addition, whilst Head of the Coastal and Freshwater Fisheries Group at Cefas I held responsibility for 45 staff working on shellfish and recreational fisheries, salmon and freshwater fisheries, and environmentally friendly fishing gear technology with an income for 2009/10 of £4.7 million generated from a wide range of customers.

Other previous responsibilities and experience included:

Chair of the Working Group on the Biology and Life History of Crabs (WGCRAB) of the International Council for the Exploration of the Sea (ICES)

Member of the ICES Working Group on Crangon Fisheries and Life History (WGCRAN)

Member of the ICES Steering Group on Ecosystems Function and previously UK delegate to the Living Resources Committee

Member of the Crustacea Committee of the Shellfish Association of Great Britain, the association which represents the UK shellfish industry

Honorary Reader in the School of Environmental Sciences at the University of East Anglia

Appointed Buckland Professor 2004 giving a series of lectures on 'Science and the Management of UK Crab Fisheries' and currently writing a book on crab fisheries in conjunction with the Buckland Professorship

From 1995-98, member of International Whaling Commission (IWC) Scientific Committee and UK Delegation to IWC providing scientific advice to UK Commissioner to IWC, and liaising with a large range of environmental NGOs in relation to whaling science and the UK's whaling policy

Peer review of MSC assessments in North American fisheries

Reviewer of manuscripts for a range of scientific journals and guest editor for editions of e.g. 'Fisheries Research' and 'Crustaceana'

Reviewer of research proposals for UK Government Departments and other organisations, e.g. Natural Environment Research Council

Supervision of MSc and PhD students from University of East Anglia, Southampton University, Swansea University, National Oceanography Centre

Extensive teaching experience including:

13 years organising and teaching a course on Fisheries Biology in The School of Biological Sciences at University of East Anglia

15 years teaching mathematics to Open University technology students

4 years teaching population ecology and quantitative biology to undergraduates at Imperial College, London.

Previous projects include:

Chile squat lobster Camanchaca demersal trawl fishery



Date(s) Customer Project

- 2000 – 2010 UK Government Shellfish monitoring, assessment & management advice
- 2007 – 2012 UK Government Improved understanding and management of shellfish fisheries
- 2008 – 2010 UK Government Environmentally Responsible Fishing – a pilot research project to quantify the environmental footprint of inshore fisheries
- 2008 UK Government Baseline surveys of scallops in Fal & Helford SAC
- 2008 – 2009 UK Government Baseline habitat mapping in the London Array proposed wind farm site
- 2007 Black and Veatch Ltd. The effect of Ely Ouse flows on shellfish and fish in The Wash
- 2007 Scottish Natural Heritage Scallop dredging in the Firth of Lorn SAC: a review of scallop fishing activity
- 2007 North Western & North Wales SFC Status of lobster stocks in North Wales – an analysis based on CPUE data collected during
- 2002-05-2006 Natural England Impacts of cockle suction dredging in The Wash and north Norfolk EMS – Part II Analysis of existing data
- 2005 Natural England Assessment of the impacts of cockle suction dredging in The Wash and north Norfolk European Marine Site
- 2005 European Commission (FIFG) Development of a suitable razorfish dredge in The Wash
- 2006 UK Government Investigation of potential fisheries for razorfish and other bivalves in the eastern Irish Sea
- 2003 – 2005 UK Government Fishing gears with mitigating ecological impacts
- 2002 – 2004 UK Government Edible crab spawning grounds in the English Channel
- 2000 – 2003 European Commission European decapod fisheries assessment and management (EDFAM)
- 2000 – 2002 European Commission Collection and evaluation of crab assessment data
- 1999 – 2003 UK Government Development of shellfish modelling, assessment and management methods
- 1999 – 2001 UK Government Edible crab spawning grounds off the east coast of England
- 1997 – 2001 Environment Agency Impact of beach replenishment on shrimp populations
- 1996 – 2000 UK Government Estimating Nephrops abundance from underwater TV surveys
- 1995 – 2000 RMC Marine Ltd. Impact of dredging on shrimp populations



Papers currently in preparation

Lawler, A.R., Bell, M.C. and Addison, J.T. Fluctuations in brown shrimp (*Crangon crangon*) abundance in The Wash – climate, biological or anthropogenic factors?

Eaton, D.R., Fernand, L., Milligan, S.P. and Addison, J.T. Evidence from larvae surveys for the existence of separate populations of the edible crab (*Cancer pagurus* L.) in the English Channel.

Addison, J.T., Smith, I.P., Collins, K.J., Jensen, A.C. and Bannister, R.C.A. Variation between individual lobsters (*Homarus gammarus*) in vulnerability to trapping.

Elson, J.M. and Addison, J.T. Discard rates in trawl, net and line fisheries in the absence of catch restrictions.

Papers previously published

Bell, M.C.; Elson, J.M.; Addison, J.T.; Revill, A.S.; Bevan, D. 2008. Trawl catch composition in relation to Norway lobster (*Nephrops norvegicus* L.) abundance on the Farn Deeps grounds, NE England. *Fisheries Research* 90 (1-3) 128-137

Bell, E.D., Bell, M.C., Smith, M.T. and Addison, J.T. 2007. SpatMan: A spatial management modelling tool for shellfish stocks. *ICES CM 2007 O:08*.

Bell, E. D, Elson, J.M., and Addison, J. T. 2007. Sources of variation in *Nephrops* burrow counting schemes. *ICES CM 2007 Q:07*.

Bell, M.C., Elson, J.M. and Addison, J.T. 2005. The effects of spatial targeting of fishing effort on the distribution of the Norway lobster, *Nephrops norvegicus*, on the Farn Deeps grounds. *New Zealand Journal of Marine and Freshwater Research*, 39: 1023-1037.

Addison, J.T., Lawler, A.R and Nicholson, M.D. 2003. Adjusting for variable catchability of brown shrimps (*Crangon crangon*) in research surveys. *Fisheries Research*, 65: 285-294.

Smith, M. T. and Addison, J. T. 2003. Methods for stock assessment of crustacean fisheries. *Fisheries Research*, 65: 231-256.

Bell, M.C., Eaton, D.R., Bannister, R.C.A and Addison, J. T. 2003. A short-term mark-recapture experiment to estimate density of the edible crab *Cancer pagurus* from trap data. *Fisheries Research*, 65: 361-378.

Eaton, D.R., Brown, J., Addison, J. T., Milligan, S. P. and Fernand, L. 2003. Larvae surveys of edible crab (*Cancer pagurus*) off the east coast of England: implications for stock structure. *Fisheries Research*, 65: 191-199

Addison, J.T. and Lawler, A.R. 2003. Area 107 Monitoring Programme: distribution and abundance of brown shrimps in The Wash and adjacent areas 1995-2002. Final Report for RMC Marine Ltd.



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- Bell, M. C., Addison, J. T. and Bannister, R. C. A. 2001. Estimating trapping areas from trap catch data for lobsters and crabs. *Marine and Freshwater Research*, 52:1233-1242. 6
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- Debuse, V.J., Addison, J. T. and Reynolds, J.D. 2000. Battle within the sexes: the response to adult sex ratios. *Lobster Newsletter* 13(2), 4-6.
- Addison, J. T. & Bell, M.C. 2000. Report of a workshop held at CEFAS, Lowestoft to consider the use of estimates of Nephrops abundance derived from burrow counts. Working Document, Study Group on Life History of Nephrops. ICES CM 2000/.
- Collins, K.J., Smith I. P., Jensen, A. C., Addison, J. T. and Bannister, R.C.A. 2000. Measuring lobster (*Homarus gammarus* (L.)) catchability using electromagnetic telemetry. *Proceedings of the Conference on Telemetry*, Norwich (edited by A. Moore and I Russell) pp 185-192.
- Addison, J. T. 2000. National and Regional Management of lobster fisheries in the UK. *Management of Irish Lobster fisheries: a discussion with Industry*, Galway, November 2000. pp 42-49.
- Debuse, V. J., Addison, J. T. and Reynolds, J. D. 1999. The effects of sex ratio on sexual competition in the European lobster. *Animal Behaviour* 58: 973-981.
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Miller, R.J. and Addison, J.T. 1995. Trapping interactions of crabs and American lobsters in laboratory tanks. *Can. J. Fish. Aquat. Sci.* 52: 315-3247

Bannister, R.C.A., Addison, J.T. and Lovewell, S.R.J. 1994. Growth, movement, recapture rate and survival of hatchery-reared lobsters (*Homarus gammarus* (Linnaeus, 1758)) released into the wild on the English east coast. *Crustaceana* 67: 156-172.

Addison, J.T. and Bannister, R.C.A. 1994. Re-stocking and enhancement of clawed lobster stocks: a review. *Crustaceana* 67: 131-155.

Addison, J.T. and Bennett, D.B. 1992. Assessment of minimum landing sizes of the edible crab, *Cancer pagurus* L., on the east coast of England. *Fisheries Research* 13: 67-88.

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