



17 août 2018

CIRCULAIRE CTOI

2018-38

Madame/Monsieur,

CONCERNANT LA SÉLECTION D'UN CONSULTANT CHARGÉ D'ÉLABORER DES MODÈLES D'ALLOCATION

À sa 22^e Session, la Commission a convenu d'un *Programme de travail consolidé pour l'allocation des opportunités de pêche (2018-19)*, dans le cadre duquel le Secrétariat de la CTOI élaborera les termes de référence provisoires pour le recrutement d'un consultant indépendant chargé d'élaborer des modèles d'allocation et le Président de la Commission transmettra aux CPC les termes de référence et la sélection du consultant pour accord.

Les termes de référence se basent sur les exigences définies au paragraphe 64 et à l'Appendice 6 du rapport de la 22^e session de la Commission. Ils sont joints à la présente Circulaire et je vous saurais gré de bien vouloir me soumettre tout commentaire à ce titre.

En outre, le Programme de travail prévoit aussi la soumission aux CPC d'une liste de candidats appropriés. Malheureusement, bien qu'ayant contacté un grand nombre d'experts (à la fois connus du Secrétariat et issus d'une liste de candidats présentés par les principaux promoteurs des propositions d'allocations), deux seuls sont disponibles pour effectuer les estimations. En conséquence, je vous prie de bien vouloir trouver, ci-après, les noms (les CV sont fournis en pièce jointe) de deux candidats potentiels, qui ont été identifiés avec l'aide des principaux promoteurs des propositions d'allocations.

- M. Joel Rice (consultant indépendant, des États-Unis)
- Mme Jo Gascoigne (consultante indépendante, de France)

Vos commentaires sur les termes de référence doivent être reçus avant la fermeture des bureaux le 31 août 2018 et doivent être adressés à iotc-secretariat@fao.org.

Vos votes pour la sélection du consultant doivent être reçus avant la fermeture des bureaux le 31 août 2018 et doivent être soumis à iotc-secretariat@fao.org. Veuillez classer les candidats de 1 à 2, 1 étant votre candidat préféré. Les votes seront comptabilisés par le Secrétaire exécutif et par moi-même, et le candidat sélectionné sera le candidat ayant le score global le plus bas, indépendamment du nombre de votes reçus. L'éligibilité au vote sera conformément à l'Art. XIII.8 de l'Accord CTOI.

Je vous remercie d'avance pour votre assistance à cet égard.

Cordialement,

Mme Susan Imende Ugandi
Présidente

Pièces jointes :

- Appendice 6 - Programme de travail consolidé pour l'allocation des opportunités de pêche (2018-19)
- Termes de référence pour le recrutement d'un consultant indépendant
- CVs

Distribution

Parties contractantes de la CTOI : Australie, Bangladesh, Chine, Comores, Érythrée, Union européenne, France (Territoires), Guinée, Inde, Indonésie, Iran (Rép. Islamique d'), Japon, Kenya, Rép. de Corée, Madagascar, Malaisie, Maldives, Maurice, Mozambique, Oman, Pakistan, Philippines, Seychelles, Sierra Leone, Somalie, Afrique du sud, Sri Lanka, Soudan, République Unie de Tanzanie, Thaïlande, Royaume-Uni (TOM), Yémen. **Parties coopérantes non-contractantes :** Liberia, Sénégal. **Organisations intergouvernementales, organisations non-gouvernementales. Président de la CTOI. Copie :** Siège de la FAO, Représentants de la FAO auprès des CPC.

Ce message est envoyé uniquement par email.

IOTC-2018-S22-R, APPENDICE 6.
PROGRAMME DE TRAVAIL CONSOLIDE POUR L'ALLOCATION DES OPPORTUNITES DE PECHE
(2018-19)

La Commission A **CONVENU** du Programme de travail suivant pour l'allocation des opportunités de pêche (2018-2019) :

1. **Historiques de captures.** Le Secrétariat de la CTOI fournira des estimations sur les prises historiques de chaque CPC de 1950 à 2016 pour le germon, patudo, listao, albacore et espadon à toutes les CPC pour examen, conformément :
 - a. Au paragraphe 15 de la Proposition K Rev1 ou toute révision ultérieure soumise au Secrétariat de la CTOI, le 15 juin 2018 au plus tard.
 - b. Au document IOTC-2018-S22-INFO01 ou toute révision ultérieure soumise au Secrétariat de la CTOI, le 15 juin 2018 au plus tard.

1a. Les estimations finales de l'historique de capture de chaque CPC, détaillées ci-dessus, seront diffusées à toutes les CPC pour examen. Toutes les CPC devraient fournir des commentaires au Secrétariat le 1^{er} juillet 2018 au plus tard.

2. **Consultant indépendant.** Le Secrétariat de la CTOI élaborera les termes de référence provisoires pour le recrutement d'un consultant indépendant chargé d'élaborer des modèles d'allocation basés sur les documents visés au point 1 ci-dessus ou toute version révisée ultérieure (à soumettre par les promoteurs dès que possible). Les termes de référence provisoires ainsi qu'une liste des trois candidats appropriés seront diffusés à toutes les CPC, d'ici la fin juin, pour commentaires et accord d'ici le 15 juillet 2018. Le Président de la Commission transmettra aux CPC l'accord sur les Termes de référence et la sélection du consultant. Les termes de référence provisoires incluront une exigence pour le consultant indépendant à approuver par la Commission. Le rapport du consultant et les simulations associées utilisant les modèles d'allocation à développer par le consultant seront remis et présentés au CTCA05 (qui se tiendra à la fin mars 2019 aux Seychelles), pour commentaires, conformément au règlement intérieur de la CTOI (2014).

Processus administratifs : Le Secrétariat de la CTOI développera et documentera les processus administratifs pour tout élément des propositions visées au point 1 ci-dessus, y compris mais sans s'y limiter un mécanisme de comparaison des prises pour comparer les prises déclarées par rapport aux allocations des CPC et la gestion des sanctions pour les prises excessives associées sera élaboré par le Secrétariat de la CTOI, pour présentation et décision au CTCAC05.



ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE

Termes de référence pour Consultant Catégorie B *

Nombre minimum d'années d'expérience pertinente requise : 1an 5ans 12+ans

Nom:	
Intitulé du poste :	Halieute – modélisation de l'allocation
Division/Département :	FIDTD
Programme/Projet N°:	Commission des Thons de l'Océan Indien - MTF/INT/661/MUL – TF.FIDTD.TFAA970097099
Lieu :	Basé dans son pays d'origine avec déplacements aux Seychelles
Date d'affectation prévue (date de début) :	lundi 24 septembre 2018
Durée :	20 jours - date limite 31 mars 2019
Supérieur hiérarchique :	Chris O'Brien
Titre :	Secrétaire exécutif de la CTOI

DESCRIPTION GÉNÉRALE DES TÂCHE(S) CONFIEES ET DES OBJECTIFS À ATTEINDRE

La Commission des Thons de l'Océan Indien (CTOI) est une organisation intergouvernementale chargée de la gestion des thons et espèces apparentées dans l'Océan Indien. La CTOI a été établie en 1993 en vertu de l'Article XIV de l'Acte constitutif de la FAO. La CTOI est chargée de la gestion des thons et espèces apparentées dans l'Océan Indien.

À sa 22^e Session (IOTC-2018-S22-R), la Commission a convenu d'un Programme de travail consolidé pour l'allocation des opportunités de pêche (2018-19) qui comprenait l'exigence de recruter un consultant indépendant chargé d'élaborer des modèles d'allocation basés sur les estimations des historiques de captures, tel que décrit à l'Appendice 6 du rapport de la réunion. Les termes de référence ci-après se basent sur les exigences définies au paragraphe 64 et à l'Appendice 6 dudit rapport.

Un ensemble de méthodes visant à déterminer les allocations de quotas a été proposé. Ces méthodes alternatives doivent être codifiées et exécutées pour fournir un avis sur l'allocation, dans le cadre de scénarios d'allocation et d'historiques de captures potentiels différents.

À cette fin, le Secrétariat de la CTOI offre une mission de conseil à court terme pour les activités suivantes :

1. Développer la méthodologie requise et les modèles associés pour les calculs de l'allocation basés sur les procédures énoncées à l'Appendice 6 du rapport de la Commission de la CTOI de 2018 (IOTC-2018-S22-R).

2. Conduire des simulations à l'aide des modèles développés afin de fournir des propositions/un avis sur l'allocation.
3. Documenter intégralement et faire rapport sur le processus de modélisation de l'allocation et ses résultats.
4. Discuter et évaluer toute hypothèse utilisée dans le processus d'estimation et son impact associé sur les résultats de l'allocation.

Le rapport du consultant et les simulations associées utilisant les modèles d'allocation à développer par le consultant devront être soumis et présentés à la prochaine réunion du Comité Technique sur les Critères d'Allocation (CTCA05), qui se tiendra en mars 2019 aux Seychelles.

PRINCIPAUX INDICATEURS DE RÉSULTATS

1. Un rapport complet sur le processus de modélisation : code Open Source de modélisation et équations intégralement documentées qui pourront être utilisées pour les futures estimations des allocations ; et scénarios et options des estimations d'allocation actuelles, avant le 1^{er} décembre 2018.
2. Un projet de présentation au CTCA, avant le 1^{er} mars 2019
3. Soumission de la présentation, avant fin mars 2019.

REMUNERATION

Évaluation des termes de référence conformément aux directives de PSA/Consultants

En fonction des qualifications et de l'expérience, conformément aux directives de la FAO.

Remarque :

Le consultant travaillera en vertu d'un contrat-cadre limité à un maximum de 20 jours.

Le paiement des travaux réalisés sera effectué dès réception des résultats convenus, achevés de manière satisfaisante.

Tout déplacement sera réalisé selon les règles et procédures de la FAO.

Joel S. Rice

1690 Hillcrest Avenue
St. Paul, MN 55116 USA
joelrice@uw.edu
1 (651) 442 6500

Professional Experience

Statistician, Modeler, Senior Consultant. Joel Rice Consulting, Saint Paul MN (January-2015-Present)

- Fisheries Science, data analysis, statistical modeling and report writing.
- Clients: Council for Independent Experts, Indian Ocean Tuna Commission, Secretariat of the Pacific Community, PEW, The Ocean Foundation, Atlantic States Marine Fisheries Commission, Ocean Associates,

Statisticien, Modélisateur, Consultant senior. Joel Rice Consulting, Saint Paul MN (de janvier-2015 jusqu'à cette date)

- Sciences halieutiques, analyse des données, modélisation statistique et rédaction de rapports.
- Clients: Centre pour les experts indépendants, Commission des thons de l'Océan, Secrétariat de la communauté du Pacifique PEW, The Ocean Foundation, Atlantic States Marine Fisheries Commission, Ocean Associates

Senior Fisheries Scientist. Secretariat of the Pacific Community, Noumea, New Caledonia (December 2013-January 2015)

- Research and Development for stock assessment including length based methods, tagging
- Stock Assessment (blue shark in the north Pacific, skipjack tuna in the western Pacific)
- Communication of scientific and management advice

Fisheries Scientist - Shark Assessment. Secretariat of the Pacific Community, Noumea, New Caledonia (June 2011-December 2013)

- Performed stock assessments for silky, oceanic whitetip and blue sharks in the western Pacific ocean using statistical, length-based, age-structured models.
- Developed models of catch and effort, size, and tagging data for inputs for stock assessment.
- Characterized the sensitivity / robustness of stock assessment results to alternative structural assumptions.
- Developed and refined methods for the analysis of undocumented bycatch.
- Contribute to the development of the software used in stock assessment.
- Researched population structure likely to affect stock assessment results.
- Contributed to research into reference points for shark stocks.
- Estimated key reference points for shark stocks in the western central Pacific ocean.
- Evaluated effectiveness of conservation and management measures, with research into potential mitigation alternatives.

Statistician, Modeler, Senior Consultant. Joel Rice Consulting, New York City, NY (December 2009- June 2011)

- Created multi-species fisheries assessment models and evaluated various management strategies.
- Delivered data analysis, stock assessment summarization and status reports east coast (US) fisheries.
- Wrote, analyzed and delivered computer code for ecosystem models.
- Presented verbal and written results of academic research to diverse audiences.
- Managed projects, sub-contractors and clients.
- Clients: Stony Brook University, Natural Resources Defense Council, Operation Wallecea.

Senior Fisheries Scientist, Operation Wallecea, Indonesia, (April 2009 – September 2009)

- Project Management, Organization and Execution
- Data processing, analysis, and summarization
- Facilitated Stakeholder Interaction, Action Coordination with Indonesian and Western NGO's
- Report Writing, Fisheries Survey Coordination and Implementation
- Supervised students, volunteers and local staff
- Preparation of scientific reports for publication

Education

University of Washington, Seattle, Washington (September 2003 – December 2007)

- M.S. Quantitative Ecology and Resource Management. October, 2007.
- Thesis “Bayesian and Maximum Likelihood Estimation of Spiny dogfish abundance in the Gulf of Alaska.”

The Colorado College, Colorado Springs, Colorado (September 1997 - May 2001) B.A., Mathematics.

Publications & Presentations

Rice, J., (2017) Stock assessment of blue shark (*Prionce glauca*) in the Indian Ocean using Stock Synthesis. IOTC–2017-WPEB13-33.

Rice, J., Stock assessment of sandbar sharks in the Gulf of Mexico and Atlantic Ocean (SEDAR 54).

Rice, J., Sharma, R. (2015) Stock assessment of blue shark (*Prionce glauca*) in the Indian Ocean using Stock Synthesis. IOTC–2015–WPEB11–28, Olhao, Portugal.

Rice, J., L. Tremblay-Boyer, R. Scott, S. Hare and A. Tidd.(2015) Analysis of stock status and related indicators for key shark species of the Western Central Pacific Fisheries Commission.. WCPFC SC11-EB-WP-04, Pohnpei, Federated States of Micronesia .

Rice, J., Harley, S, and Kai, M. (2014) Stock assessment of blue shark in the north Pacific Ocean using stock synthesis. WCPFC SC10-SA-WP-09, Majuro, Republic of the Marshall Islands, 6 – 14 August 2014.

Rice, J., Hampton, J., Davies, N., and McKechnie, S. (2014) Stock assessment of skipjack tuna in the western and central Pacific Ocean. WCPFC SC10-SA-WP-05, Majuro, Republic of the Marshall Islands, 6 – 14 August 2014.

Rice, J., and Semba, Y. (2014) Age and Sex Specific Natural Mortality of the Blue Shark (*Prionace glauca*) in the North Pacific Ocean. WCPFC SC10-SA-IP-13, Majuro, Republic of the Marshall Islands, 6 – 14 August 2014.

Rice, J., and Harley, S. (2014) Standardization of blue shark catch per unit effort in the North Pacific Ocean based on deepset longline observer data for use as an index of abundance. WCPFC SC10-SA-IP-14, Majuro, Republic of the Marshall Islands, 6 – 14 August 2014.

Pilling, G. M., Harley, S. J., Davies, N. , Rice, J. and Hampton, J. (2014) Status quo stochastic projections for bigeye, skipjack, and yellowfin tunas. WCPFC SC10-SA-WP-06, Majuro, Republic of the Marshall Islands, 6 – 14 August 2014.

Rice, J. (2013) Catch and catch per unit effort of silky sharks in the Western and Central Pacific Ocean. WCPFC-SC9-2013/SA-IP-02

Rice J. and Harley, S. (2013) Updated Stock assessment of silky sharks in the western and central Pacific Ocean. WCPFC-SC9-2013/SA WP-03

Rice J. and Harley, S. (2013) Potential catch and CPUE series to support a stock assessment of blue shark in the south Pacific Ocean. WCPFC-SC9-2013/SA WP-04

Rice J. and Harley, S., Maunder, M., Aires Da-Silva, A. (2013) Stock assessment of blue sharks in the north Pacific Ocean using Stock Synthesis, WCPFC-SC9-2013/SA-WP-02.

Bromhead, D., J. Rice and S. Harley. (2013) Analyses of the potential influence of four gear factors (leader type, hook type, “shark” lines and bait type) on shark catch rates in WCPO tuna longline fisheries. WCPFC-SC9-2013/EB-WP-02

Clarke, S.C., Harley, S.J., Hoyle, S.D., Rice, J.S (2013). Population Trends in Pacific Oceanic Sharks and the Utility of Regulations on Shark Finning. Conservation Biology, Volume 27, Issue 1, pages 197–209, February

Harley, S. P. Williams and J. Rice (2013). Spatial and temporal distribution of whale sharks in the WCPO based on observer data and other data sources. WCPFC-SC9-2013/EB-WP-01

Rice J. and Harley, S. (2012) Stock assessment of silky sharks in the western and central Pacific Ocean. WCPFC-SC8-2012/SA WP-07

Rice J. and Harley, S. (2012) Stock assessment of oceanic whitetip sharks in the western and central Pacific Ocean. WCPFC-SC8-2012/SA WP-06

Rice, J. (2012) Alternative catch estimates for silky and oceanic whitetip sharks in the Western and Central Pacific Ocean. WCPFC-SC8-2012/SA-IP-12.

Rice, J. (2012) Standardization of catch per unit effort for silky sharks in the Western and Central Pacific Ocean. WCPFC-SC8-2012/ SA-IP-11

Clarke, S., Harley, S., Hoyle, S., Rice, J. (2011) An Indicator based analysis of key shark species based on data held by SPC-OFP. WCPFC-SC7-EB –WP-04.

Rice, J.S. and V. F. Gallucci. 2008 “Statistical Evaluation of Ageing Error for Spiny Dogfish.” Transactions of the American Fisheries Journal Special Edition Biology and Management of Dogfish Sharks.

Jo Gascoigne Curriculum Vitae

Position / Titre: Consultant in fisheries science and sustainability / Consultant en sciences halieutiques et durabilité

Birth: 4 May 1971, Leamington Spa, UK. British citizen

Contact details: Gwernfor, Spring Hill, Dinas Cross, Wales, SA42 0XA
Home phone: +44 (0)1348 811748 or +33 (0)296 255108
Email: jo.gascoigne@cantab.net
Mobile : +44 (0)7496 468968

**Key skills /
Compétences clés:** PhD in marine conservation biology (population dynamics and stock assessment); expert in: fisheries evaluation and sustainability; fisheries stock assessment; marine ecology and conservation biology; fishing techniques and practices / Doctorat en biologie de la conservation marine (dynamique des populations et évaluation des stocks) ; expert dans : évaluation des pêches et durabilité ; évaluation des stocks des pêcheries ; écologie marine et biologie de la conservation ; techniques et pratiques de pêche.

**Languages /
Langues:** English (native), French (fluent spoken and written), Spanish (medium reading, low spoken) / Anglais (natif), français (parlé et écrit couramment), espagnol (moyen lu, niveau bas parlé)

Employment

2007 – date: Independent expert in fisheries evaluation, marine ecology and shellfish culture.

Marine Stewardship Council (MSC) fisheries assessments

Expert for MSC Principle 1 (stock status and assessment) and Principle 2 (bycatch/ecosystem impacts) and Team Leader for MSC Certification Bodies MacAlister Elliott Certification (MEC), now Control Union Pesca (CU Pesca); as well as Vottunarstofan Tún ehf ('on loan'). Assessments conducted in English and French.

Fisheries MSC certified subject to ongoing auditing:

- Europe: Scottish and French saithe, cod and haddock; Normandy whelks; Welsh cockles; Normandy and Jersey lobster; Boulogne herring; Atlanto-Scandian herring (EU fleet); Dutch and German mussels; Icelandic redfish, saithe and lumpfish
- Pacific Ocean: American Samoa, Cook Islands and French Polynesia albacore and yellowfin longline; Walker Seafoods Australia albacore, yellowfin and swordfish longline; Vietnam Ben Tre clams
- Atlantic Ocean: Tristan da Cunha rock lobster
- Indian Ocean: Kerguelen and Crozet toothfish

Fisheries currently undergoing first MSC assessment:

- Bahamas spiny lobster (Principle 2)
- Namibia hake trawl and longline (P2)
- North Sea combined demersals (20 target stocks, 15 gear types; member of P2 team)
- Japan pole and line skipjack and albacore (P1)
- Micronesia yellowfin and bigeye longline (P1)
- Japan Atlantic bluefin longline (P1)
- French bluefin handline (P1)

Note: Details of all these assessments, including project reports where available, are available here: <http://www.msc.org/track-a-fishery>

MSC pre-assessments (2008-date)

MSC pre-assessment studies for numerous fisheries, including demersal fish, tunas, small pelagics, highly migratory species, molluscs, crustaceans, freshwater fish; locations including France (including DOMs), UK, Spain, Germany, Greece, Croatia, Mauritius, Southern Africa, West Africa, India, Japan, Pacific Ocean, Indian Ocean, Southern Ocean, South America, East Asia, transboundary (various clients – details and reports confidential to the clients). Include assessment of the fishery in relation to the MSC standard, stakeholder evaluation and review of the supply chain.

Consultant for Fisheries improvement projects (FIPs)

- Consultant and FIP manager for Fisheries Improvement Programme (FIP) for Moroccan sardine (client: Aldi and others, 2014 ongoing). Activities to date – pre-assessment updated and improved, action plan prepared and agreed, including an overall project workplan and a more detailed workplans for Years 1-3; annual review and benchmarking; facilitation of bilingual FIP meetings twice a year; US\$15,000 grant for ecosystem modelling obtained; FIP graded 'A' on fisheryprogress.org (advanced progress). See <https://fisheryprogress.org/fip-profile/morocco-sardine-pelagic-trawl-and-seine-maroc-sardine-chalut-p%C3%A9lagique-et-senne>.
- Consultant for FIP for Kavala sardine and anchovy purse seine fishery, Greece (MEP, WWF Greece, 2013-14). Activities – pre-assessment and draft scoping document prepared, FIP workshop held, detailed action plan finalised.
- Consultant for FIP for tuna pole-and-line fishery in Lakshadweep islands, India (WWF, 2014-16). Activities – pre-assessment and draft scoping document prepared, FIP workshop held, detailed work plan finalised.
- Consultant for global tuna FIP by Spanish purse seine group OPAGAC. 2016: Review, revision and updating of pre-assessment, preparation of draft action plan, facilitation of Scientific Advisory Group meeting and finalisation of action plan; 2017: End of Year 1 evaluation and preparation of Year 2 action plan following Scientific Advisory Group meeting; the same work planned for end Year 2.

- Consultant for FIP for tuna handline fishery, Pakistan (WWF, 2017). Pre-assessment and draft scoping document prepared, FIP workshop held, detailed action plan finalised.
- Consultant for FIP for sardine purse seine fishery, Croatia (WWF, 2017-18). Activities as above.
- Consultant for FIP for tuna pole-and-line fishery, Senegal (2017); pre-assessment and scoping document prepared (P1 and P2).
- Consultant for FIP for small pelagics, Mauritania (2017 ongoing); workplan prepared, Year 1 review pending (mid-2018)
- Consultant for FIP for a range of shrimp and cephalopod fisheries, Kerala, India; pre-assessment site visit pending (mid-2018)

Ongoing projects – not MSC-related:

- Saudi Arabia: Fisheries data analysis for an area of the Red Sea coast – review of existing fisheries data, design of a catch/effort questionnaire, analysis of questionnaire data, conclusions drawn as to stock trends as far as possible, with evaluation of key data gaps and recommendations on how to fill them (Five Oceans LLC, 2018 ongoing).

Recent, selected completed projects:

- Evaluation of ‘choose wisely’ seafood consumer education project with recommendations for the next phase (Emirates Wildlife Society, UAE, 2015)
- Auditor for ISSF Proactive Vessel Register (for responsible tuna fisheries) (MRAG Americas, 2015-16)
- Study for WWF on traceability issues in tuna FIPs and how traceability can be successfully incorporated into these projects (WWF, 2015)
- Peer reviewer for ISSF six-monthly evaluation of tuna stocks against the MSC standard (2016), co-author (2017)
- Consultant for development of improvement fisheries assessment methodology for the FishSource online assessment system (SFP, 2014 www.fishsource.org)
- Evaluation of turtle bycatch in fisheries around Masirah Island, Oman, by use of fishermen questionnaires (Five Oceans LLC, Environment Society of Oman, 2013-15).
- Review of UK nephrops, scallop, crab and whelk fisheries (MEP, 2014)
- Preparation of management plans for all the main marine fisheries in Guyana, following a participatory methodology – including review of available data, consultations with stakeholders, facilitation of community workshops and validation workshop for all stakeholders. Training also provided to the Fisheries Department on fisheries management strategies, the content and role of fisheries management plans and the ecosystem approach to fisheries management (Sofreco / EU, 2013).
- Drafting of 25-year Policy and 5-year Action Plan for fisheries sector in Dominica, as part of EU ACP Fish II programme. Includes stakeholder and fisher consultations and harmonisation with similar work in St. Vincent and Grenada, as well as with regional Caribbean initiatives (Sofreco / EU, 2012).

- Review of issues around management of scallop fisheries as part of revision of scallop regulations in Scotland (Poseidon Ltd, 2013).
- Assessments of sustainability and management of various fisheries for fisheries improvement programmes and 'good fish guide' for WWF Hong Kong (MEP 2012-13).
- Evaluation of fisheries losses (oyster and shellfish growers and shellfish fishermen) following wrecking of TK Bremen at Erdeven, South Brittany (Homarus, 2012-14).
- Review of impact of a shipping accident on the Tristan da Cunha lobster fishery – panel chair (Govt. of Tristan da Cunha, 2011, 2012)
- Evaluation of Scottish nephrops, crab and scallop industries and fisheries: current situation and future prospects under various political scenarios (MacAlister Elliott and Partners, 2011);
- Review of environmental benefits of the MSC programme (part of consortium led by MRAG, 2011)
- Review of application procedures and requirements for aggregate dredging in France (Homarus, 2011).
- Review of sustainability issues in European eel fisheries and production, including drafting of sustainability standard and evaluation of eel fisheries and farms under the standard (see www.sustainableeelgroup.org, 2010-2014).
- Report on policy hurdles and tools to support EU fisheries in moving towards low-carbon, low-impact practices – part of CFP reform consultation process (Seas at Risk, 2010).
- Review of the Omani lobster fisheries with a view to improving management practices and economic output per lobster (MacAlister Elliott and Partners, Five Oceans LLC, 2009-10).
- Rapid fisheries assessments for various fish and shellfish species in Asia, Europe and North and South America (WWF Japan, Singapore, UK);

2003 – 2007: Postdoctoral Research Fellow / Research Lecturer, School of Ocean Sciences, University of Wales Bangor.

Research projects:

- Carrying capacity of the Menai Strait for mussel culture (includes informal co-supervision of a PhD student). Combining the study of physical processes (net flow, turbulent mixing and sediment transport) and biological processes (chlorophyll concentration and depletion, mussel feeding behaviour, density dependence and self-organised patterning, interspecific competition between suspension feeders) to assess the carrying capacity of the system for shellfish culture in the Menai Strait. Collaborations developed with Johan van de Koppel (Netherlands Institute for Ecology), John Widdows (Plymouth Marine Lab), Andrew Folkard (Lancaster Univ.), Rom Lipcius (Virginia Institute of Marine Science) and the Countryside Council for Wales.
- The ecology of seed mussel beds: assessing the importance of ephemeral seed mussel settlement for vertebrate and invertebrate predator populations and the ecological consequences of partial harvesting of these beds by the mussel industry. Collaboration with the NW and N Wales Sea Fisheries Committee.

- Recovery of populations of scallops, sea fan and other benthic species in fisheries closed areas, Lyme Bay (NERC grant with two collaborators).

Teaching:

- M.Sc. Physical Oceanography, Marine Biology and Shellfish Biology: Module on the interaction of physical oceanography and biology (lectures, field trip and data analysis)
- M.Sc. Conservation and Resource Management: Population consequences of rarity, extinction risk (lectures)
- Undergraduate Marine Biology: Fisheries science (2nd year lectures), Invertebrate fisheries and management of artisanal fisheries (3rd year lectures).

2002 – 2003: Teaching assistant, Virginia Institute of Marine Science, USA

Teaching assistant to post-graduate core courses in statistics and experimental design, marine ecology and oceanography. Gave lectures and ran practicals and Q&A sessions, gave tutorials, set and marked assignments and exams and helped students plan project field work.

1995 – 1999: Marine biologist, MacAlister Elliott and Partners Ltd. UK

Biologist in the environment department of a marine consultancy.

1994 – 1995: Intern, European Commission, Brussels and Tanzania

Unit for natural resources development projects for Eastern and Southern Africa.

Bilingual working environment (English and French).

Education

Ph.D. 1999 – 2003

A theoretical and experiment study of Allee effects. A study on population dynamics, reproductive biology, sustainability of fisheries and extinction risk in marine populations, with specific focus on the queen conch *Strombus gigas*.

Marine Conservation Biology Group, Virginia Institute of Marine Science (VIMS), College of William and Mary, USA. Field work at the Caribbean Marine Research Centre, Bahamas, with extensive scientific diving. Also field assistant on project on physical-biological interactions in coral metabolism, involving saturation diving.

M.Phil. 1994

Ecological and economic impacts of forestry in the Flow Country, Scotland.

Department of Geography, University of Cambridge, UK.

M.A. 1990 – 1993

Natural Sciences (Zoology), Corpus Christi College, University of Cambridge, UK.

Grants, fellowships and awards

- British Ecological Society Small Grant for study of self-organisation in seagrass beds, 2006
- Double Allee effects in the endangered island fox – successful postdoc application to French govt. with Franck Courchamp, 2003 (accepted post in Bangor instead)
- Zeigler Student Achievement Award, VIMS, 2003
- Winner, New Scientist / Wellcome Trust Millennium Essay Competition, 2002

- International Women's Fishing Association Ryan Kelley Memorial Scholarship, 2001
- International Society for Reef Studies PhD Fellowship, 2000
- Hargis Fellowship, VIMS, 2000
- Corpus Christi College Scholarship 1992-3

Field and data analysis skills

- Chief scientist on five research cruises on the *RV Prince Madog*.
- Experienced scientific diver (more than 300 dives including fish, benthos and habitat surveys). Training in saturation diving and two 7-day stays in the *Aquarius* underwater habitat. Nitrox certified.
- Experience of multiple marine field instruments and sampling techniques including towed and fixed camera gear, various fishing gears, coring, sidescan sonar, *in vivo* and *in vitro* fluorometry, ADCPs and CTDs.
- Data analysis and modelling in Matlab, R and Excel

Peer reviewed publications

Note: Non-peer reviewed publications such as project reports are not included here. More information about any of the projects listed above is available on request.

Gascoigne J., Berec L., Gregory S. and Courchamp F. 2009. Dangerously few liaisons: a review of mate-finding Allee effects. *Population Ecology* 51(3), 355-365.

Folkard A.M. and Gascoigne J.C. 2009. Hydrodynamics of discontinuous mussel beds: laboratory flume simulations. *Journal of Sea Research* 62, 250-257.

Van de Koppel J., Gascoigne J., Theraulaz G., Rietkerk M., Mooij W.M. and Herman P.M.J. 2008. Experimental evidence for spatial self-organisation and its emergent effects in mussel bed ecosystems. *Science*, 322, 739-742.

Courchamp F., Berec L. and Gascoigne J. 2008. Allee effects in ecology and conservation. Oxford University Press. Favourably reviewed in *TREE* and *PLoS Biology*. See <http://www.oup.com/uk/catalogue/?ci=9780198570301>.

Gascoigne J., Beadman H.A., Saurel C. and Kaiser M.J. 2005. Density dependence, spatial scale and patterning in sessile biota. *Oecologia* 145, 371-381.

Gascoigne J. and Lipcius R.N. 2005. Periodic dynamics in a two-stage Allee effect model are driven by tension between stage equilibria. *Theoretical Population Biology* 68, 237-241.

Gascoigne J. and Lipcius R.N. 2004. Conserving populations at low abundance: delayed functional maturity and the Allee effect in reproductive behaviour of the queen conch *Strombus gigas*. *Marine Ecology Progress Series*, 284, 185-194.

Gascoigne J. and Lipcius R.N. 2004. Allee effects driven by predation. *Journal of Applied Ecology*, 41, 801-810.

Gascoigne J. and Lipcius R.N. 2004. Allee effects in marine systems. *Marine Ecology Progress Series* 269, 49-59.

Widdows J., Pope N. D., Brinsley M. D., Gascoigne J. and Kaiser M. J. 2009. Influence of self-organised structures on near-bed hydrodynamics and sediment dynamics

within a mussel (*Mytilus edulis*) bed in the Menai Straits. *Journal of Experimental Marine Biology and Ecology* 379, 92-100.

Krivtsov V., Gascoigne J. and Jones S.E. 2008. Harmonic analysis of suspended particulate matter in the Menai Strait (UK). *Ecological Modelling* 212, 53-67.

Rippeth T.P., Gascoigne J., Green J.A.M., Inall M.E., Palmer M.R., Simpson J.H. and Wiles P.J. 2007. Turbulent dissipation of coastal seas. *Science*, e-Letter 7 June 2007, see www.sciencemag.org/cgi/eletters/313/5794/1768.

Angulo E., Roemer G.W., Berec L., Gascoigne J. and Courchamp F. 2007. Double Allee effects and extinction in the island fox. *Conservation Biology* 21, 1082-1091.

Saurel C., Gascoigne J., Palmer M.R. and Kaiser M.J. 2007. In situ mussel feeding behaviour in relation to multiple environmental factors: Regulation through food concentration and tidal conditions. *Limnology and Oceanography* 52, 1919-1929.

Simpson J.H., Berx B., Gascoigne J. and Saurel C. 2007. The interaction of tidal advection and diffusion and mussel filtration in a tidal channel. *Journal of Marine Systems* 68, 556-568.

Medio D., Shepperd C.R.C. and Gascoigne J. 2000. The Red Sea. In *Coral Reefs of the Indian Ocean*. T.R. McClanahan, C.R.C. Shepherd and D.O. Obura (eds.), OUP: 231-255

Popular science writing

Gascoigne J. Sex and the Single Snail. *New Scientist*, 2002.

Gascoigne J. and van de Koppel J. Patterning in Attached Organisms: from Tiger Bush to Mussel Beds? *Ocean Challenge* 14, 2005.