

Australian/French citizen
born: 1976



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Summary

Frederique Olivier, PhD

Originally trained in France as an environmental engineer with a strong background in media and communication, Fred has been involved as a marine scientist in a variety of remote field based projects ranging from tropical reef monitoring to Antarctic ecology in a broad range of fields. Fred's PhD research focused on monitoring signals of climate change in the breeding habitats of Antarctic seabirds and gave her a wealth of experience with both Antarctic and Sub - Antarctic environments and operations, with 13 consecutive summers (2 Antarctic and 1 Sub Antarctic winter).

In parallel, she worked as an environmental engineer, wilderness photographer, expedition guide, lecturer and commercial skipper. She became involved in documentary production as logistic support/camera/sound, all projects field based as she enjoys team work and the challenge of being autonomous in remote conditions.

From 2009 to 2012, she was mostly involved in logistics for Antarctic resupply operations as watercraft operator, coordinator and voyage manager during the summers and freelance videographer during the winters. February 2013, Fred has just returned from a second overwintering year-long trip in Antarctica filming Emperor Penguins for BBC series "Spy in the Huddle".

Field logistic support and Documentary production

Recent projects

Jan12 - Feb13



BBC 3 part series "Spy in the Huddle - Penguins" Camera operator/DOP, Antarctica

11 months shoot overwintering in Adelie Land, Antarctica intimately following the entire life cycle of Emperor Penguins with a variety of remote controlled robotic cameras, the Spy-cams, together with standard shooting techniques.

Australian Antarctic Division Various logistic positions supporting the summer resupply of Antarctic stations (cargo and passenger operations). Watercraft operator (Barge/IRB), watercraft team coordinator, Deputy voyage leader, Voyage Leader.



Jan 09-Jan12

May-Sept 10



Macquarie Island Pest Eradication Project - Camera Operator, media producer and trainer. Ensuring media coverage of all project operation for news and documentary purposes.

Nov 07-July 08



BBC NHU 5 parts series "South Pacific" 4 months as charter skipper/2nd camera in the Solomon Islands, followed by 12 months project with local communities involving production of educational DVDs on primary resources conservation.



BBC "South Pacific" Field logistics on Sub Antarctic Macquarie Island, 2 months

March-May 06



Solomon Islands
3-part series for SBS. Australian police helps restoring and maintaining peace in pacific neighbouring countries.

Sound recordist

ABC documentary Mawson beyond human limits

Filming the historical reenactment of Mawson's 500km epic survival journey back to Commonwealth Bay and support it with an icecap skiddoo traverse expedition



Sound/exped logistics

Nov 06- March 07

Nov 04-Nov05



BBC Natural History Unit. Field assistant/biologist wintering at Mawson station, Antarctica. Digital video, stills and sounds for the ground breaking documentary series "Planet Earth". Collection of scientific data on Emperor populations and GPS surveys.

Logistic support - Camera assistant - photographer









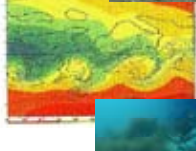



Dec 03-Feb 04



Expedition staff

Quark expeditions Guide-Lecturer - zodiac driver onboard Antarctic tourist icebreaker Kapitan Khlebnikov. Several visits to the Ross Sea area and New Zealand/Australian Sub Antarctic islands.

Research and Engineering

GIS Consultant	Jan-Apr 06		Southern Right Whale monitoring project , GIS Consultant. Building information layers to analyze historic and current habitat selection by Southern Right Whales Australia wide. Field identification and matching of animals using telephotography.
Field Antarctic ecology	2002-2005		ACE-CRC . PhD project involving differential GPS field surveys of snow petrel and Wilson's storm petrel nesting areas at Casey and Mawson. Modeling distribution and abundance of nesting seabirds in relation to habitat characteristics to help monitoring signs and potential effects of climate change.
	2003		Australian Antarctic Division, AMLR Program . Experimental work on mitigation measures limiting seabird bycatch in the Southern Ocean by longline fisheries. Field work onboard New Zealand boats.
	2001-2003		2 summers at Casey . Study on long term trends in Adelie penguins populations ; monitoring of several petrels species for plastic ingestion ; systematic collection of rubbish escaped from two Antarctic stations for a waste management study. Mapping of moss beds. Participation in Weddell behavioural studies on human disturbance. Seabird and marine mammals observations at sea.
	2000-2001		Summer at Davis Collection of lake invertebrates in the Laresemann and Vestfold Hills. Aerial surveys and ground counts of Weddell seals along 250 km of coast west of Davis. AAD Human Impacts Branch - Research Assistant. Fuel composition and sediment invertebrate biota and metal analysis
	1999-2001		Marine biologist . Sea ice coring for Dimethyl Sulfide and phytoplankton measurements (spatial survey in the pack ice, 160 ° E - 70 ° E). Looking at the relationships between the production of Sulphur compounds (cloud formation nuclei) in seawater and zooplankton grazing rates helps understanding global climate issues. Seabird and mammal observations (pack-ice seal surveys, APIS program) at sea.
Tropical Marine Science	2000		James Cook University/Australian Institute of Marine Science, Townsville. Research fellow (Australian European Awards Program) investigating the fate of Cadmium in North Queensland coastal ecosystems involving the use of bioindicators (oysters, fish, macroalgae), ultratrace metal water analysis (voltammetry, GFAAS, ICP MS) and survey methods. Fish monitoring studies in reef and mangrove ecosystems: recruitment, bioindicator species, etc..
	1999		Consultant to set up a collaborative study on the impacts of mining on benthic fauna of reef ecosystems in New Caledonia.
	1998		MSc Marine Biogeochemistry . Carbon and Nitrogen cycling in the central equatorial Pacific Ocean - a review of oceanographic studies
	1997		Scientific Diver - Ecological study on the nutrient status of reef macro algae and sediment substrate in the central section of the Great Barrier Reef. " Can algae be good bioindicators of reef eutrophication status ? "Project involved field surveys and sampling, chemical analyses and statistical interpretations.
Environmental Engineering	1998 - 8 months		CIRAD FLHOR, Martinique. French West Indies. Environmental engineer . Diagnosis on the human environmental impacts and sustainability of banana cropping systems in the French West Indies. Managed teams of local technicians collecting data for crop research and environmental monitoring to contribute to an island scale management system (set up a G.I.S. and other monitoring tools).
	1995 - 5 months		CIPCRE, Cameroon. Environmental engineer . Cameroonian Non Governmental Organisation funded by the French cooperation. Sociologic study of tropical agricultural systems through the management of agronomic project with farming communities in Western Cameroon. Work followed by a 600 km solo trek through the Western Ranges - youngest woman sponsored by the "Guilde Europeenne de l'Aventure".

Skills and qualifications

Practical tickets

Marine



- STCW95 certificate
- Marine Radio operator's licence
- Coxwains and Master V internationally recognized commercial skipper certificate (boats up to 25 m)
- Marine Engineer (MED3)
- sea time on fishing, re-search, charter expedition yachts, icebreaker, cargo ships and own 12m sailing yacht

Diving



- Scientific diver (over 300 hours) and instructor (French level III – FFESSM - Decompression) + PADI Dive-master (Commercial Level 1 equivalent)
- Oxygen resuscitation
- Underwater photo and videography

Outdoors,



- First aid Workplace Level II
- Firefighting
- Glacier travel
- Search and Rescue Training
- Helicopter operations passenger briefings and handling, cargo experience
- Experienced in bushwalking, rock climbing, kayaking, ski touring, cold environment survival
- Forklift

Academic records

- 2006 **PhD** **UNIVERSITY of TASMANIA** Institute of Antarctic and Southern Ocean Studies. Antarctic ecology / nominated for Dean's Commendation Award.
- 2000 **MSc** **JAMES COOK UNIVERSITY** Townsville. French-Australian Collaborative research project in marine environmental sciences/biogeochemistry under a fellowship awarded by the highly selective Australian European Awards Program.
- 1999 **MSc** **MARSEILLE INSTITUTE of OCEANOGRAPHY**, France. "General Oceanography and Marine Environment Biogeochemistry".
- 1995-998 **MSc** **NATIONAL INSTITUTE OF AGRONOMY**, Paris. Engineer of the I.N.A, the leading Agronomy University in France. Master's degree in Environmental Sciences and engineering specialized in Spatial Analysis (GIS) systems. Courses in ecology, statistics, environmental management, media and communication, complex systems problem solving, conflict resolution, economics, sociology, etc.
- 1993-995 **BSc** **LYCEE SAINT LOUIS**, Paris, France. Many intensive courses in general and marine biology, zoology, botany, ecology, geology, chemistry, physics, mathematics, languages, philosophy,... in preparation for competitive selection to Engineering Schools.

Services

- Field support/logistics
- High quality digital and film photo/videography
- Marine crew
- Antarctic ecology and marine biology
- Conservation, community education
- Location sound recording
- Graphics design
- Accustomed to be self-sufficient in order to conduct work in isolated places with a team of people and demonstrated ability to manage a field project in extreme conditions.
- Experienced team project management from engineering background and efficient communication skills with various media.

Publications

Research Papers

- Olivier F, Wotherspoon SJ (2005) In Press Nest selection by snow petrels in East Antarctica. Validating habitat selection models at the continental scale. *Ecological Modelling*
- Robertson G, McNeill M, Smith N, Wienecke B, Olivier F (2006) Fast sinking (integrated weight) longlines reduce mortality of white-chinned petrels (*Procellaria aequinoctialis*) and sooty shearwaters (*Puffinus griseus*) in demersal longline fisheries. *Biological Conservation* 132:458-471
- Olivier F, Wotherspoon SJ (2006) Distribution and abundance of Wilson's storm petrels *Oceanites oceanicus* at two locations in East Antarctica: testing habitat selection models. *Polar Biology* 29:878-892
- Olivier F, Wotherspoon SJ (2005) Modelling habitat selection using presence-only data: case study of a colonial hollow nesting bird, the snow petrel. *Ecological Modelling* 195:187-204
- Olivier F, and Wotherspoon SJ (2005) GIS based applications of resource selection function to the prediction of snow petrel distribution and abundance in East Antarctica: comparing models at multiple scales. *Ecological Modelling* 189: 105-129
- Olivier F, van Franeker JA, Creuwels J, Woehler EJ (2004) Breeding performance variability of snow petrels *Pagodroma nivea* at Casey (East Antarctica) in relation to large scale environmental factors. *Polar Biology* 28: 687-699
- Olivier F, Lee AV, Woehler EJ (2003) Distribution and abundance of snow petrels *Pagodroma nivea* in the Windmill Islands, East Antarctica. *Polar Biology* 27: 257-265
- Olivier F, Ridd M, Klumpp D (2002) The use of transplanted cultured tropical oysters to monitor metal Cd levels in North Queensland coastal waters (Australia). *Marine Pollution Bulletin* 44(10):1051-1062
- Jones GBJ, Mercurio P, Olivier F (2000) Zinc in fish, crabs, oysters, and mangrove flora and fauna from Cleveland Bay. *Marine Pollution Bulletin*, 41(7-12):345-352

Reports

- Olivier F, (2002) A report on the collection of rubbish at Casey during the 2001-2002 summer. Internal AAD report for the Environmental management unit. 15 p
- Olivier (2000) Activity report for the Australian European Awards Program addressed to the French Ministry of Foreign Affairs and the Australian Embassy in Paris and for the Australian Department of Education in Canberra. 30 p
- Olivier F (2000) Biomonitoring of cadmium using oysters in North Queensland coastal waters. Report for the Great Barrier Reef Marine Park Authority, Townsville. 67 p
- Olivier F, Fernandez C (1999) Carbon and Nitrogen cycling in the central equatorial Pacific Ocean: a review. Research Report. University of Marseille, France, 52 p.
- Olivier F (1998) Diagnosis on environmental impacts and sustainability of banana plantations in the French West Indies. CIRAD internal report addressed to Martinique and Guadeloupe Islands management councils.
- Olivier F (1996) Sociological study on farming communities in Western Cameroon, Report for the CIPCRE Cameroon, INAPG consultant, Paris
- Olivier F (1996) Exploitation and conservation of peatlands in Ireland. Report for Dublin's Conservation Council. 23 p.

Maps and Metadata

- Olivier F (2003) Detailed information on 196 grid sites used for snow petrel and Wilson's storm petrel surveys in the Windmill Islands during the 2002/2003 season , Australian Antarctic Data Centre - SnoWhite Metadata (<http://wwwaadc.aad.gov.au/metadata/>).
- Olivier F (2005) Detailed information on the location and characteristics of Wilson's storm petrel nests found during systematic surveys in the Mawson and Casey regions. Australian Antarctic Data Centre - SnoWhite Metadata (<http://wwwaadc.aad.gov.au/metadata/>).
- Olivier F (2003) Snow Petrel activity on Reeve Hill: long term monitoring data set (1984-2003) Australian Antarctic Data Centre - SnoWhite Metadata (<http://www-aadc.aad.gov.au/metadata/>)
- Olivier F (2003) Marine Debris Bibliography Australian Antarctic Data Centre - SnoWhite Metadata (<http://www-aadc.aad.gov.au/metadata/>)
- Olivier F (2002) Rubbish collection around the Casey area Australian Antarctic Data Centre - SnoWhite Metadata (<http://www-aadc.aad.gov.au/metadata/>)
- Olivier F (2002) Number and characteristics of dead bird specimens and remnants in the Casey area Australian Antarctic Data Centre - SnoWhite Metadata (<http://www-aadc.aad.gov.au/metadata/>)
- Olivier F (2001) Zooplankton grazing experiments conducted at Davis in 2000/01 Australian Antarctic Data Centre - SnoWhite Metadata (<http://www-aadc.aad.gov.au/metadata/>)

Magazine Articles

- Predicting snow petrel nesting habitats in Antarctica. *Australian Antarctic Magazine*. 9 – Spring 2005.

Abstracts and Posters

- Olivier, F, Wotherspoon, S. (2004) Modelling habitat selection by snow petrel in Antarctica, a tool for better population estimates ? Poster presented at the IAPC, August 2004 and ACE Symposium. Sept 2004.
- McCook, L. Olivier, F. (1997) Are algae good bioindicators of reef nutrient status? Abstract in: 1997 ACRS conference.