

Marine Biology - An Insight for Divers

with Jamie Watts 7th/8th June 2008

Ocean Optics and Mavericks Diving are delighted to announce our special introduction to marine biology course for divers with Jamie Watts. Jamie is an old and valued friend who can rarely be tied down to the UK. He has quite a resume including stints for British Antarctic Survey (BAS) and Marine Resources and Fisheries Consultants (MRAG). Outside of his work with these leading scientific bodies, he is also writing for one of the world's leading natural history titles, "BBC Wildlife Magazine" and Michael Aw's acclaimed magazine "Ocean Geographic". You may have already enjoyed Jamie's fascinating, informative and passionate presentation last year on how to be in the right place at the right time for the big marine life events. We are very pleased that Jamie can, during a short stay in England, present his one day introduction to marine biology course on our behalf. This course will be invaluable to anyone wanting to have a greater understanding of the marine environment and derive greater pleasure from exploring it. Underwater photographers keen to achieve better natural history images will be rewarded from the insights into marine ecosystem events and marine life behaviour. Let us be clear on one thing: this is the real deal given by a professional marine ecologist and not a hyped up fish ID "speciality". Which is why Steve isn't teaching this one... (seriously, though, it's in keeping with our policy of using experts to teach specialist subjects instead of bluffing it ourselves).

Jamie Watts' day of marine life presentations and workshops is intended as an introduction to marine life worldwide. The objective is to inform, to build an understanding of the living marine environment, and to inspire an ongoing fascination with, and understanding of, the world we dive in. As an optional extra, there will be a guided visit of the London Aquarium the following day.

The aim is to provide a brief overview of every group of animal and plant life, and put them in the context of the global big picture. It is based around five presentations and two group sessions.

1) Reefs of all kinds - The most productive environment on earth, and the one that forms the most popular and commonly visited dive areas. This presentation is an overview of the animal and plant organisms making up the structure of the reef, how they fit together, and what makes these incredible systems so productive. A brief summary of other reef types worldwide, including rocky reefs, kelp forests and peripheral areas such as mangroves, gives context.

2) Critters and fish - Everything from sea urchins to colossal squid to jellyfish to crabs - what it is you're looking at and where it fits into the ecological scheme of things. Combined with a brief look at the lives of fish - and the ecology of fisheries.



3) Productivity and Plankton - The Big Picture - Bringing marine environments together with a global context. Plankton is the foundation that drives almost every ocean ecosystem - every high-productivity system besides coral reefs is heavily reliant on plankton. Here we look at large scale patterns of productivity, and the plankton they support - and what this means, for example, for climate change and the distribution patterns of large marine animals. Morning workshop - Our interactions with the marine world - a diver's perspective. Timing, equipment and skills. Low impact diving - a discussion group on how we interact with marine life. Also a discussion on the ecology of dive travel.

4) Form and function - the 'charismatic megafauna' - the Reptiles, Birds and Mammals, how they have evolved to live in the marine environment, where they thrive best and how and where to go looking for them.

5) The truth about Sharks and Rays - a realistic look at the global context of this maligned group of efficient hunters. The radiation in diversity of the group, from skates to makos to mantas to sawfishes, and a surprising look at what it means to be a typical shark.

Afternoon Workshop - Roundup, feedback and Q and A - Planning trips to put yourself at the right place at the right time, and a general question and answer session (may retire to somewhere with pizza and red wine if this session is prolonged...).

The fee for the day is £99.00, which includes lunch and teas, coffees and soft drinks. The course is held at our new location with Action Underwater Services. The optional day at London Aquarium includes entry, but not refreshments.

To book your place get in touch with Mark or Steve: (Phone 01268 523 786 Email: optics@oceanoptics.co.uk) Please be aware that once you have paid for your place, there are no refunds! Looking forward to an exceptional learning experience with Jamie...

Best wishes – the Optics/Mavericks team.



Ocean Optics



Jamie Watts BSc (Hons)

I am a 35 year old biologist, and have worked in a variety of marine fields. I am currently working part of the year as a fisheries consultant and researcher, working on offshore fisheries management, research cruises, observer programmes and illegal fishing issues, and the rest of the year as an assistant expedition leader, marine biology and climate change lecturer, logistics coordinator and zodiac driver on expedition vessels working in the Antarctic and Arctic regions. I have recently completed a two year posting as a fisheries scientist for the British Antarctic Survey on the remote subantarctic island of South Georgia. My job on the island was widely varied, including anything from writing scientific papers (two papers published), to aging, diet analysis and plankton work, to creating the identification guides used by fisheries observers, to giving presentations on marine life and fisheries work to visitors. The job allowed and required total immersion in all aspects of Southern Ocean ecology. The two year posting on an isolated island (year round population 13 people and several million seals and penguins), included everything involved in keeping the base running and being part of a small base community.



My passion is marine life, and I am a published author, most recently in BBC Wildlife magazine, but in a variety of media ranging from the new Ocean Geographic magazine to scientific papers and of two chapters, on marine organisms and ecology zones, in a textbook for 16 year olds. I have created a marine life course, adaptable from college level downwards.

I am a keen wildlife and underwater photographer, and illustrator. I have had photographs, (including the BAS Calendar), illustrations, scientific papers, identification guides and species lists published.

I have previously acted as an offshore fisheries observer off Newfoundland and South Georgia, and have worked on fish, plankton and benthos identification and coral reef impacts. I have also taught biology and marine life, both in the classroom and as a guide, producing and presenting multi-media presentations to groups from kindergarten to adults.

Additionally, I have a broad range of inshore and offshore boat-based experience, with hundreds of days logged at sea. I am an experienced SCUBA Instructor, with PADI MSDT rating and over 1200 dives logged all over the world.

Experience and Qualifications

Biology

Assistant Expedition Leader, Marine Biology lecturer, Quark Expeditions, October 2007-March 2008. Talks on Southern Ocean ecology, plankton, fisheries, marine mammals, climate change, glaciology and remote island life. Zodiac driving, helicopter operations, camp master, expedition planning and operations. Fisheries Consultant, Marine Resources Assessment Group. August-September 2007. Catches, bycatch, illegal fisheries mitigation, administration, government and observer briefings, debriefing and reporting. Marine Biology lecturer, Oceanwide Expeditions, June-August 2007. Talks on Arctic marine ecology, food webs and marine mammals. Marine

Biology lecturer, Quark Expeditions, January-March 2007. Talks on Southern Ocean ecology, plankton, fisheries, marine mammals and remote island life. Fisheries Ecologist, British Antarctic Survey, September 2004- December 2006. All aspects of fisheries research; Producing scientific papers, research and observer cruises, fishing, sampling, zooplankton research, stock assessment, aging, stomach contents analysis, data management, live rearing, PR, identification guides and species lists for bycatch, including invertebrate benthos and zooplankton. Fisheries Observer, 2004, 2006. CCAMLR (Antarctic, South Georgia) Toothfish and Krill monitoring, biological sampling, bycatch monitoring, conservation measures, acoustic observations, seabird bycatch and killer and sperm whale interactions. Fisheries Observer, 2000-1. NAFO regulatory area, off Newfoundland, on board Spanish and Portuguese fishing vessels, monitoring by-catch levels and compliance with regulations. Produced the fish ID guide currently used by NAFO observers. BSc. Applied and Human Biology, Aston University, Birmingham, 1990-'94. Placement year, 1992-'93. Researched coral reef ecology during a placement year at the Marine Science and Fisheries Centre, Muscat, Oman. Produced fish ID guides, wrote draft reports on impacts to local coral reefs and pilot study outline for mangroves. Private study. Researching marine life / marine ecology and producing ID slates. Working towards: Scientific papers based on my South Georgia work; Further research work on zooplankton; producing Marine Biology courses for students and divers, with guided trips.

Boating

Over 45,000 sea miles, 850 days at sea since 1992. Quark Expeditions, January-March 2007. Antarctic Peninsula and Scotia Sea. Zodiac driver for landings and cruises. British Antarctic Survey, South Georgia 2004-2007 Skipper and crew of RIBs and 10 m Jet Harbour launches. Boardings, government and base support, and search and recovery training. 44 international crossings of over 400 miles as crew; four with watch keeping. (Ushuaia-Antarctic Peninsula/South Georgia 2006-7 and 2007-8, Chile to South Georgia 2004, Atlantic crossings 2000-2001, Turks and Caicos to Miami, 1997 and 1998, Dubai-Muscat Sail Races, 1992 and 1993) MCA approved Personal Sea Survival Techniques certificate, 2001. Flamingo Divers Turks and Caicos 1999-2000. Skipper, diesel maintenance work, daily trips, 28-30' hardtop day boats. 'Sea Dancer' Turks and Caicos 1997-8. Six day trips on liveaboard dive vessel, watch duties, maintenance, dive work and guest care. RYA Powerboat Handler Level 2, 1994. Working towards: Offshore skipper and commercial ratings.

Diving

PADI Master Scuba Diver Trainer. Naturalist, Deep, Nitrox, Photo and Drift Diving Instructor. Over 1200 logged dives. Operations Manager, Flamingo Divers 1999-2000. Providenciales, Turks and Caicos. Boat captain, guide, briefings, instruction and diesel maintenance. Dive Deck Operations Manager, Peter Hughes' 'Sea Dancer', 1997-8. Instructor, guide and crew. Site mapping, mooring installation, tour guiding, technician.

Travel

Have lived and worked in Svalbard (2007), the Antarctic Peninsula (2007-8), South Georgia (2004-8), Oman ('92-3, '96-7), Turks and Caicos (97-8 and '99-00), Peru ('98-9) Germany (2001-3) and Malaysia (2003-4) and visited countries worldwide.