

Marine Biology One Day Course

Saturday, 12 September, 2009, Action Underwater Studios, Essex

Jamie Watts' day of marine life presentations and workshops is intended as an introduction to the world's 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.

The day aims to provide a brief overview of every group of animal and plant life, then put them in the context of the global 'big picture'. It is based around five presentations and two group sessions. It is a one day course, but be warned - it is a long day. The scope of what we cover is vast - a lot to squeeze into one day, and interest and enthusiasm often take us into the evening. For this reason we plan to keep timings under control during the day, then for those who wish to stay and discuss things further, we will retire to a local eatery and talk marine life as late as we like.



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, climate change and food from the sea.

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.

An evening with Jamie - (optional!!) Those wishing to get advice on trips, finding or timing specific marine life events or just talk marine life will retire to a local restaurant for 'food and drinks with laptops'.

About Jamie

Jamie is a marine ecologist and fisheries biologist, and an old friend to Ocean Optics. He has a particular interest in high-productivity zones and the scope and scale of marine food webs. Jamie splits his time between fisheries research, consultancy and guiding trips to remote high-productivity regions, most recently polar regions. He has researched just about everything that lives under the sea, from coral reefs to copepods to leopard seals to king crabs to colossal squid, and in a former life worked on liveaboard and land-based dive boats all over the world.

After two years on the Antarctic island of South Georgia and then two seasons in the Antarctic Peninsula area, Jamie has just returned from a second season in the Arctic, acting as a naturalist, lecturer and guide.

Jamie has researched, taught and presented marine life - from coral reef ecology to Antarctic ecology to climate change - to audiences and students from all over the world. His work has been published in high school marine science textbooks, *BBC Wildlife* magazine, *Ocean Geographic* magazine, *Dive* magazine and *the Underwater Channel*.