

JULY 2010

# WAVEFORM

DISCOVER ~ EXPLORE ~ PROTECT

## SEA LOCH LOGBOOK

Colour and splendour in Scotland

GREAT EXPLORERS



HAMMERHEAD



CLEAR COMMS



MARK & MEERKAT



Main Image: Dead Man's Finger soft coral, photographed by Kelvin Murray





Kelvin submerges in Scotland.  
Image by George Grassie.

Hello and welcome to WAVEFORM. I received a lot of very positive feedback on the format of the last issue. It has been said that a picture paints a thousand words and although I often argue that photographs never do some of these incredible locations justice, I have to agree that evocative images do give some sense of exploration, of discovery, and hopefully encourage a few to protect these important places and species. I have been extremely fortunate to dive in a number of exotic and remote locations all over the world. I am often asked where is my favourite place to dive, and hand on heart I have to profess my love for the waters of Scotland. Many are incredulous, often doubting that anything can be seen, that the waters are cold and dark. Hopefully the images in the following pages will help dispel these rumours.

WAVEFORM is free. Please share it with your friends. Back issues are available via the Silvertip website: <http://www.silvertipworld.com>

Stay safe, happy trails!

*Kelvin*

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~DIVE BRIEF~

~DISCOVER THE OCEAN~

Google Earth is an invaluable tool for exploring our planet, including the oceans. Kelvin Murray is an Invited Contributor to the programme and has uploaded video and stills footage from various expeditions as part of a worldwide campaign to increase conservation of our precious blue planet.

Through Google Earth, you can dive into ocean trenches, follow the work of researchers, investigate shipwrecks and swim with a variety of undersea life. Directions on the SILVERTIP website lead you to some of the work uploaded by Kelvin. Go to the video page and follow the directions on how you can 'Fly to' various destinations around the globe. Happy exploring!

*Coordinates can be found on the video page however we encourage you to simply explore the various icons within the Ocean layer of Google Earth!*



**Kelp Shores of St. Kilda:** This island is the most westerly point of the British Isles. Explore some of the life to be found along these storm-washed shores.

📍 Search the south side of St. Kilda, 57.796 -8.567 .



Visit the website for more bear information:

[www.ursusinternational.org](http://www.ursusinternational.org)

Bear images ©Kelvin Murray



*Above: Huge male with '55' painted on his rump.*

*Left: Last month's cover star with two plastic ear tags - essential for gathering vital information.*

Sharp-eyed readers of the June issue will have noticed the polar bear cub on the front cover had an ear tag – in fact it had one in each ear. Researchers employ a number of techniques to track and monitor bear populations across the Arctic. Once an adult bear is sedated, scientists take body measurements plus blood, fat and hair samples to evaluate diet, disease and contaminant levels. A small, unused tooth is extracted to determine age and the bear will be given an identifying mark. This may be a tattoo inside the lip, or a marking painted on the fur, which will disappear when the bear moults. Plastic tags may be attached to the ear, or a satellite radio collar is fitted, which is designed to drop off after 14 months. Only adult females are given the collars, as a male's neck is as broad as its head and collars simply slip off. Advances in technology have led to smaller ear-mounted transmitters, which facilitates identifying and monitoring the animals at a distance. Although invasive procedures, these are the only method currently available for learning what bears do when wandering the sea ice and throughout the harsh winter months.

~PAWS FUR THOUGHT~

~LOOK FORWARD~

## NEWS & INFORMATION

### Every issue

Do you have any news or information that may be of interest to readers of WAVEFORM? Please forward your ideas, stories, expedition news or conservation updates to the address below:

[info@silvertipworld.com](mailto:info@silvertipworld.com)

## SOUTHAMPTON BOAT SHOW

10-19 September 2010

This event offers people of all ages a fun-filled, action-packed day out, whatever your marine interest or skill level. Over 300 vessels will be afloat in the marina, plus a wide range of over 500 exhibitors, each presenting their very latest products and services, from boats and fashion to electronic gadgets and equipment.

[www.southamptonboatshow.com](http://www.southamptonboatshow.com)





# Sea Loch Logbook

This month I had the opportunity to dive in a sea loch on the west coast of Scotland. Similar to the fjords of Norway and Iceland, these lochs are long fingers of sea reaching inland between steep-sided hills and mountains. The combination of sheltered shoreline, deep and nutrient-rich water plus regular tidal flow provides a haven for numerous species and excellent diving conditions. Exploring the cracked cliffs and rocky shores of these lochs reveals a diverse undersea carnival of life, rich in colour and form and confirming Scotland as a fascinating diving destination.

Words and sea life images by Kelvin Murray;  
Diver images by George Grassie.




Wading into the water from a shingle beach, we descend into the cool, green but clear waters of the loch. Dropping down a rockface clad in kelp blades we are met by the pulsating bodies of harmless moon jellyfish, swept inshore by wind and tide.




The kelp gives way to other life branching out into the current. Like fireworks captured in freeze-frame, the spectacular but delicate fans of peacock worms emerge from protective tubes to filter food and absorb oxygen. On the anemone, multitudes of tentacles armed with stinging cells also capture plankton drifting by.








This world of delicate beauty is patrolled by equally colourful yet aggressive predators, which scour the rockface and seabed at a seemingly slow pace yet with unrelenting attention.



The aptly named Sun Star 'tastes' the seabed with chemoreceptors in hundreds of sticky feet, tracking down and devouring live prey or scavenging the dead.




Tritonia sea slugs, each the size of a man's fist, graze on the abundant yellow soft corals known, ironically, as Dead Man's Finger.



Further colour is added by a variety of anemone species in a range of guises. Some close up their tentacles while digesting larger meals or to rest, or to help retain moisture when exposed to air by the dropping tide. Some anemones attached to a solid surface with their basal foot, while others burrow in soft sediment.





The seafloor changes from sand and pebbles to a strange, bristling meadow of life. The multi-coloured arms of thousands of brittlestars, cousins to the starfish, dance and writhe to an unheard song.



Heading back up the shore, we see urchins grazing algae from the rockface. Related to the starfish and brittlestars, they too have tube-like podia, which they use to move around, clinging to vertical surfaces with surprising ease. A large crack seems too small for a fully-grown Conger eel, which must be at least three metres long.



Continuing our ascent a shoal of Saithe flash their silvery sides, reacting as one when we noisily exhaust our bubbles. The green waters of the loch support a profusion of life, to be admired, cherished and protected. Ends.



Small-ship expedition company Cruise West has devised an exciting itinerary following the sea routes of famous explorers from throughout the ages.

From Asia to the Mediterranean, from Northern Europe to the Americas and across the South Pacific, all Voyages of the Great Explorers adventures take place on the spectacular flagship, Spirit of Oceanus. Travellers can choose to join for one voyage, consecutive voyages, and even multiple voyages to different parts of the world at different times of the year. It's all up to your imagination, desire, and schedule. Full details are on the Cruise West website.

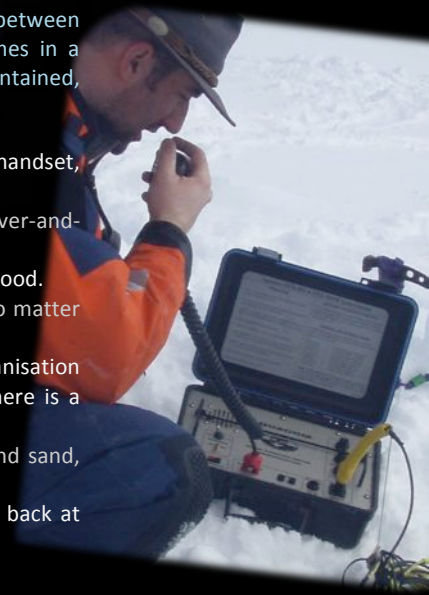


Adventurous travellers can follow in the footsteps of Marco Polo, Leif Eriksson, James Cook and Ferdinand Magellan...with just a bit more comfort!

[www.cruisewest.com](http://www.cruisewest.com)

Expeditions can involve working in remote places across a variety of locations, require coordination between ships, boats, aircraft, and ground transport plus installations, organisations and people, sometimes in a number of languages. Complicated tasks can be made simpler, greater safety cover can be maintained, operations kept effective and efficient if you maintain good communication skills:

- Know the equipment - the features, abilities and limitations of the telephone, radio, handset, microphone, keypad, electronics or software you are using.
- Agree upon a protocol for messages with your team beforehand and use accepted phrases. 'Over-and-out' is a misnomer from the movies!
- Keep your message concise during voice calls, and try to ensure it has been received and understood.
- Listening is just as important as speaking – always pay attention to broadcasts or messages, no matter what type of equipment is used and be aware of other users on the same frequency.
- Ensure intelligibility of voice signals over radio links. Know the International Civil Aviation Organisation [ICAO] spelling alphabet [a.k.a. NATO phonetic alphabet], e.g. A = Alpha, B = Bravo, etc. There is a corresponding pronunciation protocol for numbers.
- Equipment suitable for the working environment. Cold and heat, fresh and saltwater, dust and sand, jolts and impacts, are all the enemies of sensitive electronics.
- Have a backup – whether a spare battery, handset, alternative device or plan with the team back at base. Prepare for the event of a complete failure of communications.



Common name: Scalloped Hammerhead  
 Scientific name: *Sphyrna lewini*  
 Max. length: 4.3 m/14 feet  
 Max. weight: 150 kg/330 lb  
 Location: Coastal pelagic, warm temperate and tropical waters worldwide

This distinctive shark is one of eight species of the genus *Sphyrna*, a Greek word that translates to English as 'hammer' – the body shape of this shark leaving no doubt whatsoever as to the origin of the name. As with all hammerheads the eyes and nostrils are at the tips and the Ampullae of Lorenzini - special electroreceptors used to detect prey and possibly navigate the Earth's magnetic fields - are distributed across the 'hammer'.

They feed primarily on fish such as sardines, herring and mackerel, but occasionally take octopus and squid. Larger adults are also known to hunt smaller sharks such as the Blacktip reef shark. The sharks tend to stay closer inshore during the day, before moving offshore to hunt at night. Adults are often seen alone or in small groups, however younger sharks can congregate in large schools of hundreds or thousands at offshore islands and seamounts. As with a large number of shark species, these hammerheads have been extremely heavily hunted, primarily to satisfy the Asian shark fin trade. Because of this the IUCN, the world's main authority on the conservation status of species, has listed this shark as Globally Endangered.

Kelvin has dived with these sharks a number of times: *While filming at Cocos Island one of the Marine Park Rangers led me to a certain spot on the reef. He swam off with the other divers after directing me to stay still. Within minutes I saw the unmistakable shape of hammerheads swimming out of the blue and directly to where I was. The sharks slowed down, almost stalling, and angelfish rose off the reef to clean dead skin and parasites from the sharks. It was a privilege to have such a thrilling encounter with these unusual and striking sharks.*





Mark Hannaford is the co-founding director of both *Across the Divide Expeditions* and *Expedition Medicine Ltd*, plus works as a freelance expedition boat handler. A published travel photographer, he has travelled and worked on every continent as well as taking part in over 500 expeditions both large and small. *Across the Divide* provides specialised logistical support for outdoor events in the UK and remote overseas locations but is perhaps best known for its charity challenges and charity treks ranging from sea kayaking down the coast of Norway to trekking and project work in Namibia. *Expedition Medicine* provides advanced Expedition, Polar, Desert, Diving and Marine medical training for professional medics. They also provide event medical support for media and event companies.



#### What is the nature of your job?

It is pretty varied, which suits me down to the ground given my peripatetic nature. It varies between visiting new locations to set up new expeditions and events, to working on the marketing of *Across the Divide*, and keeping my eye open for great photographs to feed my ever-hungry agent – John Warburton Lee photography, who are great at getting my images into the likes of the Sunday Times and Wanderlust

#### What does a typical day consist of?

There isn't really a typical day but can vary from having a day full of business meetings to sitting in the middle of the Jordanian Desert breaking bread with a Bedouin having spent the day trekking in Wadi Rum looking at new routes. My most extreme day was flying from northern Norway having led a dogsledding charity challenge where it was -30, to Mali to check a new route near Timbuktu where it was +35 – my body didn't quite know what had hit it!

#### What are the greatest challenges of the job?

The greatest challenge of my job is ensuring that I always put my two utterly wonderful kids before everything else.

#### What are the rewards of the work?

For over a decade *Across The Divide* has helped to raise over £40 million for charitable causes and along the way helped thousands of individuals achieve personal goals that they thought were beyond them – these results speak for themselves. Both *Across The Divide* and *Expedition Medicine* are full of highly inspiring individuals who in their own right have achieved incredible things and it is great to be surrounded by this sort of positive energy.

#### What makes it special? Is it as cool as it sounds?

The overwhelmingly positive way in which we contribute to the society in which we live combined by our passion for what we do is what makes it so special. Is anything ever as cool as it sounds? An immense amount of effort goes into making what we do – hard work, long hours, and uncomfortable living conditions but would we change any of it? No!

#### Greatest/funniest/hardest/saddest thing you last experienced at work?

A few years ago I travelled with two Toureg nomads through the Erg Chebbi in southern Morocco for three weeks during Ramadan. As they were observing the fast I decided to join them. The simplicity of walking to the day's end to join together at sunset to break our fast with food and water was amazingly cathartic.

#### What one thing do you need more than anything else in your job?

More time!

#### What is your current or next project?

*Across The Divide* has just launched an amazing sea kayaking trip in Norway next year so I am working on promoting this adventure as well as charity dog sledding challenges, which begin again at the start of 2011

#### Do you think economic or climate changes might affect your work?

People love to travel and if they can do this in a more ethical, sustainable manner and in a way that makes a positive contribution to society via fundraising adventures then our challenges fit the bill perfectly!

#### What do you eat when you are on the job?

When I am dog sledding – raw salmon, as it's so cold no one gets close enough to smell your breath and my dogteam love the leftover skin! Trekking in Morocco – tajine cooked over a campfire; camping in Namibia – huge steak brai with rum and coke, life at its best; sea kayaking – beach-barbecued fish caught off the back of the kayak. When I am home – noodles, as I am lazy home cook!

#### Is there a particular piece of equipment you find indispensable?

My EOS 5Ds – amazing, amazing! I never leave home without it.

#### How much does a torch cost for your line of work?

I will need to check my last tax return to ensure consistency here!

#### What do you do to unwind in your spare time?

I spend as much time with my kids as I can and really get a massive kick out of them enjoying being in the outdoors as I do – life really would be very black and white without them. Being down on the Devon coast I try to get out in my sea kayak as much as I possibly can, or running along the coastal paths near Lyme Regis - the views are just stunning. When I really do have time to spare then Namibia and Morocco are the places where I like to put down my rucksack.

#### Is there a movie that portrays what you do and how well?

Fawlt Towers springs to mind!

#### Do you have a favourite quote or book that inspires you?

Wilfred Thesiger's *Arabian Sands* inspired me towards desert travel. My favorite quote? *Look the tiger in the eye...*



[www.acrossthedivide.com](http://www.acrossthedivide.com)

[www.expeditionmedicine.co.uk](http://www.expeditionmedicine.co.uk)