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Continuing Threats
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plus

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Supporting the
European Environmental
Movement Association

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Issue 43 March 2012
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During European Shark Week a total of 164,404 signatures were collected across Europe with a staggering contribution from the UK. On top of the 60,000 British signatures included in this total, a further 55,090 were collected on UK soil representing over 100 nationalities. Thank you for all your support and for signing the petition – see page 9 for the latest updates on the review of the finning regulation and watch this space for further results!

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DEMONISED DARLINGS: Addressing the Plight of the Cownose Ray

No conservation group does more than the Shark Trust to remind us of the overfishing risks faced by sharks also threaten their cousins, the rays. Organisations like the Shark Trust and Shark Advocates International, working to conserve all elasmobranchs, try to balance the attention we give to the revered, charismatic sharks (like White and Basking Sharks) with that we offer to the underappreciated species, too often deemed “pests” (including dogfish and skates). Perhaps no elasmobranch species fits into both categories better than the Cownose Ray Rhinoptera bonasus.

Contrasting perceptions

Few species engender such disparate reactions as the Cownose Ray. Children delight at watching their “smiling” bioluminescent streams flow across their refractions of light. While experts harbour anxiety for the species’ future.

In actuality, Cownose Rays are among the oceans’ most biologically fascinating animals. Females reach sexual maturity at about age eight and usually produce just one baby (or pup) per year, after a gestation period of nearly a year. Leading shark and ray scientists agree that the species is biologically incapable of the reported population “explosions.” Clearly, such reproductively-challenged species are exceptionally vulnerable to overfishing and slow to recover once depleted. We already know that overfished populations of many South American ray species (Rhinoptera brasiliensis) led rapidly to depletion and an Endangered classification from the International Union for Conservation of Nature (IUCN).

Cownose Rays. © Sandra Critelli.

Eat a Ray, Save the Bay

Most notably, realised interests from the state of Virginia have supported a campaign called “Eat a Ray, Save the Bay” to promote new markets for what they now call the more palatable “ Chesapeake” or “Sunshine” ray. The initiative, featured on CNN and in other major news outlets, notably promotes Cownose Rays as an exciting new seafood choice, but also asserts that eating the species is one’s environmental responsibility, key to helping to conserve them and thereby improving the health of Chesapeake Bay. Images of Cownose Rays as destructive animals have since been perpetuated through many channels, including state agencies and sustainable food groups as well as environmental organisations and wildlife societies. Reporters from all backgrounds suggest, without backing up, that Cownose fisheries are “productive,” while some have gone so far as to label this native animal as an “invasive” species.

Vulnerability

The next step...

All of this is to say that Cownose Rays don’t feed on the claims and oxygen grown in aquaculture operations. They do. Promoting unrequited fishing of the species, however, is not a responsible response, nor will population depletion address this problem (as remaining rays would continue to be used at such high density levels). The good news is that most commercially valuable shelffish can outgrow the risk posed by Cownose Ray predation. Techniques involving delayed planting, decreased densities, and physical barriers to protect small clams and oysters are being studied and held promise as alternatives to depleting the Cownose Ray population.

Meanwhile, the consequences of delaying limits on slow-growing elasmobranchs are all too familiar to fishery managers around the world, including those in this region. In the U.S. Atlantic, fishing restrictions lagged behind development of fisheries for large coastal sharks and Spiny Dogfish. As the number of fishermen entering the new ventures grew, so did the obstacles to agreeing and imposing effective regulations. Population damage increased with management delays, creating the need for increasingly drastic action, and resulting in recovery periods that span decades. It is high time we learned the lessons from these experiences and ensured a more cautious approach to elasmobranch fisheries.

To that end, Shark Advocates International is working with sharkfish scientists and concerned conservationists to educate the public about the other side of the Cownose Ray story. We’re also appealing to fishery managers for population assessments and precautionary limits on catches, and asking seafood retailers to stop promoting consumption of the species until associated fishers are listed and demonstrably sustainable. We’re hopeful that these efforts, along with new findings from groundbreaking research, will result in more balanced messages and a brighter future for the Cownose Ray.

Main image: Cownose Rays schooling. © Sandra Critelli.

Image 2: Cownose Rays. © Sandra Critelli.


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Main image: Cownose Rays schooling. © Sandra Critelli.

Image 2: Cownose Rays. © Sandra Critelli.

As CEO for one of the largest producer organisations in England, Wales and Northern Ireland, Paul is responsible for managing the majority of UK quota opportunities in the Baltic Sea, North Sea and Irish Sea – including anchovies and herring catches and Celtic Sea, as well as marketing catches.

**RP** What are the key elasmobranch species for Cornish commercial fishermen?

**PT** The species which make up bycatch are Spurdog, skate, Porbeagle and occasionally Tope.

**RP** What are the economic values, number of jobs, and tonnages landed each year?

**PT** For the last two years there has been a ban on landing Spurdog, Porbeagle and skate. Before the ban, 20 tonnes a year was enough to prevent Porbeagle discarding, so the value of 20 tonnes a year is the financial value of Porbeagle. With Spurdog it’s a bit harder, but in 2009 it was 50 tonnes, which was less than two per cent of the total fish landed. The main fishing method producing this bycatch was Gill netting.

**RP** So with Spurdog representing only two per cent of the fish landed, what has been the economic impact of the ban?

**PT** Although they are not targeted they are part of a boat’s gross catch. Spurdog averaged £1 per kilogram, so 50 tonnes was £50,000 – £60,000. The ban would have impacted on jobs, but on particular trips. If fishing for hake was poor and all that came up was Spurdog, then on that trip they made a difference.

**RP** You said £1 per kilogram for Spurdog, what was the value of Porbeagle?

**PT** What could land it was £2.50 – £3.00 per kilogram.

**RP** What about discarding, particularly Porbeagle?

**PT** We’ve been working with CEFAS, Defra and the Shark Trust trying to find a way of dealing with Porbeagle which doesn’t involve discarding the dead ones. We agree Porbeagle need careful management, but if you asked most fishermen they’d say there have been more around in the last couple of years than for a long time. We’ve agreed there would be no targeting of Spurdog and Porbeagle, but if they are bycatch we believe live ones should go back and dead ones come ashore. This would be sensible rather than this blanket ban which results in waste and is nonsensical.

**RP** Do you know how many fish, or what tonnage, was discarded in 2011?

**PT** 2011 was the last unrestricted year. The feeling is that there are more Porbeagle and Spurdog around now, so as we increase the 2005 figures to allow for stock improvement I would say maybe 20–80 tonnes of Spurdog and 20 tonnes of Porbeagle are being discarded.

**RP** I heard of one or two quite large Porbeagle bycatches reported last summer by Padstow boats.

**PT** There were sharks caught in tangle and drift nets.

**RP** What are your thoughts on the health of Spurdog and Porbeagle stocks?

**PT** As I said, there seem to be more around. There also seem to be more fish feeding around – herring, pilchard and mackerel dominance that is helping the Porbeagle. If the stock is improving we need careful management that doesn’t allow people to target them. I think if it was justifying the French who targeted Porbeagle.

**RP** Does the CFPO accept that serious declines have occurred in elasmobranch stocks?

**PT** I don’t think anyone could argue that everything was okay going back to the 1980s. There were no restrictions and Spurdog were targeted. Porbeagle were less targeted and I think there is a debate population quite a bit as clear cut as with Spurdog. I don’t think they were overfished like Spurdog, it was up and down.

**RP** If it’s not fishing, what are the threats to sharks in our waters?

**PT** Probably habitat degradation, pollution, food sources, temperature and other environmental conditions must all play a part.

**RP** How has your industry reacted to the increasing threat of sharks to fisheries management in recent years?

**PT** At first the attitude was ‘why are these people interfering with what we do’, but has changed now and at the CFPO have been involved in a lot of work with CEFAS, Defra, the Shark Trust and others. Our membership is keen to work with scientists and conservationists to understand the stocks, and if possible reduce discards based on improved knowledge.

**RP** You mentioned scientists and conservationists. Where do politicians fit into this in your opinion?

**PT** Politicians! Politicians could well be part of the problem. We are at the moment, with a ban on landing without understanding the underlying issues of stock, catching and discards, is a classic example of politicians being involved. Bycatch rates are unknown because there is a ban on landing. This hampers advancing scientific knowledge, and politicians tend to be interested inheadline or cosmetic gestures. If they are seen to be doing something, they think their job is done rather than tackling the real issue, which is sensible management leading to healthy shark stocks. That is the objective of fishermen and shark conservationists alike, politicians tend to be more interested in the media exposure rather thanaddressing the problem.

**RP** On your website you note that the most disappointing outcome from the 2011 Fisheries Council was the continuation of a zero TAC* for Porbeagle, Spurdog and skate – particularly in relation to these lucrative, though critically endangered, species having to be discarded.

**PT** Given that elasmobranchs demonstrate much higher discard survival rates than bony fish, how do you justify placing a complete ban that is helping the Porbeagle. If the stock is improving we need careful management that doesn’t allow people to target them. I think if it does justify the French who targeted Porbeagle.

**RP** I don’t think we would ever say ‘lucrative’ fishery on our website. Anyway you get the point; I think it’s justified in the sense that simply having a zero TAC for a healthy species does not materially affect how many sharks or skate are discarded dead, the ban on landing is why they are discarded. We agree the survival rate of elasmobranchs is better than that of bony fish, and our proposal would be to return the ones that are alive after measuring and collecting any data required. Those that are dead we land and we make use of them. I don’t see any contradiction between that position and wanting to understand and better manage our stocks.

**RP** There have recently been a whole lot of celebrity TV programmes looking at fisheries issues. Do you believe that TV celebrity endorsement of fisheries management issues has been beneficial to addressing long standing and complex problems with the Common Fisheries Policy (CFP), or has it clouded things?

**PT** I think a mixture of both, but I think one thing it does which is positive is raise the issue of fisheries management with the public as well as with people directly involved in it. The thing that doesn’t make it complete is that nearly all of these programmes highlight problems but don’t then move on to suggest how the problems can be tackled. We are all governed by the CFP which is a bureaucratic politically-driven bit of regulation, you would think you did one as sensible and logical steps to improve never quite comes out like that. Once it goes through the Brussels machine it’s very hard to get things to come out the other end as being sensible. So celebrity chefs raise important issues and put pressure on us all which is good, but it would be better if some answers were suggested.

**RP** Do you feel that fishing to maximum sustainable yield (MSY)* is appropriate for elasmobranchs?

**PT** As a concept I think MSY is incredibly difficult to implement. It sounds good in principle, but in the Southern Ground our mixed fisheries with boats landing up to 30 – 40 species a trip. That makes it very difficult to get all species at MSY at the same time. We can aspire to it but one of the problems of the CFP is trying to manage things by species, whether it is elasmobranchs, cod, plaice or whatever. I think we need to look at fisheries as a whole and say ‘is the fleet operating at a level which is sustainable?’ One of the measures in that kind of approach could be monitoring how far we are then MSY. If we are moving in the right direction I think that’s a measure of success. I think MSY targets on individual species tends to be a little artificial. You can end up getting one species to MSY at the detriment of others. So I’m not convinced that it’s the best or only measure or objective of fisheries management – it’s something to be bear in mind.

**RP** What can fishermen do to help manage or possibly reverse the impacts of population declines? What strengths, skills and contributions can you bring to the table?

**PT** We’ve got a fleet of boats working in the Southwest from the shore to 120 – 150 miles out so that’s a good research platform to be used. We have the Fishermen have a unique understanding of the movements of these fishes, where and where they turn up, and species why they are not there. Ultimately I will be the fishing industry that will contribute most to improving the understanding of the stocks. Science is expensive at sea and our gars are there anyway. Even before the zero TAC on Spurdog it was our guys who were catching them, and if they don’t want them then they would shift for five or four miles and try and get clear of them, and this responsible action by skippers has been underestimated. God is a good example. It was the fishing industry that proposed a seasonal closure to protect cod and it was us who persuaded the French, the Belgians and the Irish to sign up to it. That was six or seven years ago and this year we’ve seen an increase in the cod quota and the stock is improving.

**RP** It’s estimated that, on an inshore basis, recreational angling is worth more than commercial fishing. Do you think commercial fishing is the most beneficial use of elasmobranch resources – how about the likes of catch and release angling, shark watching, cage diving and eco-tourism? Should these activities be encouraged whilst at the expense of commercial fishing?

**PT** I wouldn’t encourage it at the expense of inshore commercial fishing, but I do think that the two have co-exist and probably if they are going to be beneficially, they both are. Given that elasmobranchs are a by-catch I don’t think they’d say there have been more around in the last couple of years than for a long time. We’ve agreed there would be no targeting of Spurdog and Porbeagle, but if they are bycatch we believe live ones should go back and dead ones come ashore. This would be sensible rather than this blanket ban which results in waste and is nonsensical.

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* MSY – Maximum Sustainable Yield

** TAC – Total Allowable Catch
Shark Trust Displays
An eye-catching series of panels initially developed for the Selfridges ‘Project Ocean’ event have spent the winter on display in several high-profile aquaria. At display in Bristol Dried Reef Aquarium, the panels have been on public view since Living Coasts in Torquay, and are now being exhibited at Plymouth Blue Reef Aquarium as part of their Shark Week. In addition, the National Marine Aquarium in Plymouth will be purchasing its own set of the panels for permanent display.

Blue Sound
In late November the Shark Trust again teamed up with the Marine Biological Association’s Blue Sound Project, at engage at Plymouth University in hands-on marine science. The turnout was excellent, and a presentation titled “Shark...in England” provoked lots of shark-related questions that kept Shark Trust staff on their toes. The Blue Sound Project was created to bring local people into contact with the marine environment, and encourage careers in marine science for kids with little or no exposure to this field.

National Aquarium Workshop
In November the Shark Trust attended the 14th National Aquarium Workshop (NAW), conferences held at Living Coasts, Torquay. Over 100 delegates discussed the latest developments in husbandry, animal health and enrichment, as well as research and conservation projects. Ali and Cat presented an informative talk titled ‘Shark Conservation: Changing Times’ which provided an update on all of the Shark Trust’s latest policy work with a particular focus on the campaign to tighten European shark finning regulations, as well as resources available from the Trust to aid aquaria in their conservation and education goals.

Tavistock Group – Devon Wildlife Trust
In early February the Trust was invited up to Tavistock to speak to Wildlife Trust members about the Trust, and part of their Wildlife Awareness program. As in previous years there was a good turnout to hear the trust present ‘Assessing the footprint of the UK and its importance to marine science’.

Citizen Science
Also in February, the Trust attended a workshop at the Looe River. Looe, entitled ‘Citizen Science Engaging with Change in the Marine Environment’ A wide range of organisations attended the workshop – including the Marine Biological Association, National Oceangraphy Centre, National History Museum and Museum Search. Participants discussed the role of volunteers in gathering marine environmental data, including how greater involvement can be encouraged and data quality improved.

OCTOBER
Shark Massacre Reported in Colombian Waters
Carnivorous environmental authorities reported a huge shark massacre in the Malpelo Wildlife Sanctuary, where as many as 2,700 humpbacks, Galapagos and Silky Sharks may have been slaughtered for their fins. Divers counted a total of ten fishing boats entering the zone illegally, all of whose were flying the Costa Rican flag.

Observationalists Found on Chinese Whale Shark Aquarium
Since opening, over 30,000 visitors have flock to the Whale Shark Aquarium in the northern Chinese city of Yantai. But conservationists have accused the aquarium of capturing, killing and transferring the Whale Sharks to tanks in order to try and capture them. When they reach maturity, each of the five Whale Sharks is likely to be 311 long, while their tank measures just 606 by 526.

November
Bil Badger: Bring Sharks that Bite People
Science should reconsider its use of the phrase “shark attack” on humans. Such language creates a one-dimensional perception of these events and makes protecting threatened sharks more difficult. Human-shark encounters are always coded attacks even when there is no contact, artificially amplifying the numbers. What’s more, no distinction is made for more bite from non-threatening species.

Shark Dies after Release from Monterey Aquarium
A White Shark that had been on exhibit at the Monterey Bay Aquarium died soon after being released back into the wild. The young male shark – probably less than a year old and weighing about 500 lbs – had been taken from the aquarium on August 31st. It was the sixth White Shark exhibited since 2004, and the first to have died shortly after release.

December
New Research Reveals Physics Behind White Shark Attacks
A paper in the latest Marine Biology Research Journal, reveals how the physics of light-scattering in ocean waters helps the White Shark maintain stealth as it hunts seals. Due to the physics of light-scattering in ocean waters, seeing seals from below is much easier than seeing sharks from above.

Shark bites: the one to avoid
When non-threatening species...

January
Go! Gulf Tiger Sharks on Walk?...in)
Researchers from Alabama’s Dauphin Island Sea Lab have published a new study examining the remains of land birds in the stomachs of Tiger Sharks. Researchers suspect the sharks were moving closer to shore previously Thought, although strong winds may blow some birds offshore inviting easy pickings for nearby sharks.

Kajaki Shark Spotted in South Devon...in January!
Walkers on Combeshead Beach were amazed to see a Kajaki Shark cruising just metres off the beach in early January. Although common around the Southwest between April and October, Kajaki Sharks are rarely seen in UK waters during winter months.

Grays Reef in Great Barrier Reef
Shark populations on the Great Barrier Reef are dropping at an alarming rate, posing a serious risk to the ecology of the reef. Research by James Cook University has found that some reef shark populations are decreasing by up to 90% per year.

References
2. Shark Advocates International Press release 2/1/11
3. Citrus.org

With the Shark Finning Regulation on the EU legislative agenda, the Shark Trust is working closely with the UK Government, Shark Alliance colleagues, and Members of the European Parliament (MEPs) and Council to secure a shark finning policy with no compromise or exceptions.

Action to date:
2006: The European Parliament urged the European Commission to tighten the EU Finning Regulation.
2007: Options for amending the regulation were laid out in the White Paper on Sharks from the Council and Parliament. The trust welcomed the involvement of stakeholders as part of the public consultation on the EU Plan of Action for Sharks.
2008: IUCN World Conservation Congress adopted a global policy on finning that amounted to a call on all States to ban all-sea-fin removal.
2010: Members of the European Parliament launch a written declaration calling on the European Commission to deliver a proposal to prohibit the removal of shark fins on-board vessels. The written declaration was endorsed as a resolution of the Parliament in December 2010. In November the EU the European Commission initiated a public consultation on options for amending the EU finning regulation, including a ban on all-sea-fin removal.
2011: In November the European Commission proposed the adoption of a ban naturally attached (FNA) policy.
2012: The Legislative Process. European Council and Parliament formulate their positions as part of the co-decision process.

The European Commission has proposed ending special fishing permits which allow the fishermen to remove shark fins at sea and bring families and fins to port separately. As a direct result of Shark Trust campaigning, the EU ceased approval of these permits in 2009, until Spain and Portugal continue to issue them to their extensive long-line fleet. As expected, Spain is leading the opposition to the Commission’s proposed improvements in the fishing ban which would allow all sharks to be landed with their fins “naturally attached.”

The Shark Trust is supporting the UK Government in its efforts to engage other Member States in support of FNA.

Co-decision:
The Shark Finning Regulation will be the first experience that the European Parliament’s Fisheries Committee (PECH) has of ‘co-decision’. As a result of co-decision, or the ‘ordinary legislative procedure’ as it is also known, the Commission submits a legislative proposal to both the Council and Parliament, giving MEPs a vote, and, crucially, the role in the formulation of legislation. Currently the Commission’s proposal is being considered by the Council and Parliament and written reports and opinions are being compiled. However, it is inevitable that certain MEPs will act in opposition to the Commission’s proposal for FNA, reflecting the views of the Spanish and Portuguese fishing industries. It is clear that the removal of the opportunity for ‘high grading’. In fact, there is no contact, artificially amplifying the numbers. What’s more, no distinction is made for more bite from non-threatening species.

In Shark Focus 43 and 44 the complete nature and extent of the fin trade and the associated attempts at regulation were discussed. In summary however, the Shark Trust believes that requiring sharks are landed FNA is by far the simplest and most reliable method to ensure an end to shark finning through

- an obvious performance barrier as there is no requirement for ensuring compliance with the fin carcass ratio and the associated complicated conversion factor calculations.
- the ability to ensure the species-specific landings data required for population monitoring and associated species specific management measures.
- the removal of the opportunity for ‘high grading’.

UK Fisheries Minister Richard Benyon receives a presentation on behalf of over 60,000 British citizens (See page 2). © Shark Trust.

The Shark Trust continues to actively advocate for the adoption of FNA and strongly supports the Commissioner’s proposal. The Trust is working closely with the UK Government and the Devolved Administrations to ensure strong UK support and leadership.

Following a recent meeting with the Shark Trust, the UK Fisheries Minister, Richard Benyon, reported in an article: “The UK has been successfully enforcing this best practice for sharks since 2009 and urges all Member States to adopt the Commission’s proposals. As well as closing the loopholes in the EU shark finning regulation, it is essential that we ensure shark fisheries are sustainably managed, based on sound science, acting long before populations collapse, and that we provide specialist protection for endangered shark and ray species at national, EU and international levels.”

In the same week Scotland continues its call for a complete ban on the removal of shark fins at sea, and in a letter to the Trust stated: “We would like to see European legislation brought in with Scottish policy and the proposals for sharks to be landed with fins naturally attached.”

The Shark Trust is supporting the UK Government in its efforts to engage other Member States in support of FNA.

After consultation with other interested CITES Parties, Denmark, as current holder of the Presidency of the Convention on International Trade in Endangered Species (CITES), has submitted a proposal for the inclusion of the Porbeagle Cetorhinus and thetis in Appendix III of the Convention. Appendix III includes those species that any Party has identified as being subject to regulation of exploitation within its jurisdiction and as needing the cooperation of other Parties to monitor international trade in the species’.

The proposal is based on EU requests, and the cooperation is achieved primarily by the issuance of export permits by a state which has included the species in Appendix III. It is expected that Germany will support the Appendix III proposal at the 2013 Conference of Parties.

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A Visit to the Maldivian Manta Ray Project Team
August 2011

I have wanted to snorkel or dive with manta rays and Whales Sharks forever! I have also wanted to visit Hanifaru Bay in the Maldives, since it was recognised as the world’s best site for viewing feeding manta rays. Having watched Martin Clarke’s “Sharks of the Manta to Tuna” program in January 2011, I knew that I had to visit Hanifaru. I contacted Guy Stevens, founding director of the Maldivian Manta Ray Project who very kindly advised me of the best time to visit for manta rays, but was also able to tell me about North Ari Atoll, a small island on which he had decided to stay, close to Hanifaru. The only time to see manta rays in numbers at Hanifaru is during the monsoon season between June and November, and Guy informed me that August was a very good month to visit.

My arrival in the Maldives coincided with a tropical storm and I wondered if I had made the right decision to visit in late August. However when I rang Guy I was very relaxed about the weather and he invited me to join his team on their research boat the next day. Things were looking up! Guy and his research team collected me from the resort the following morning. The weather had improved and Guy was heading for Hanifaru. Even though the researchers are only allowed to visit the bay on every other day as their vessel was categorised as a research boat. On the other days, liveaboard operators are permitted to visit, and, unlike resort boats, are still allowed to dive in the bay and the end of the year.

My arrival at Hanifaru, one of the researchers always watches the wind direction and speed and also records the amount of plankton in the water and the water temperature. The team continually monitor the boat traffic in and around the bay in order to report the numbers of boats in the area at any one time, and more importantly their behaviour whilst in this conservation zone. As I was to discover, despite the fact that Hanifaru is policed by a research liveaboard operators especially, do not adhere to the voluntary code of practice for visitors to Hanifaru.

Unfortunately, on my first visit the wind direction was not conducive to plankton accumulating in the bay, so the team decided to search for manta rays on the mounds surrounding Hanifaru. Within an hour there was a shout that a manta ray was in front of the boat and a panting routine followed. A researcher dived off the boat with a camera in hand and snorkelled in the direction of the manta. I was allowed to follow Emily from the research team. The researchers then dived down, washed, and returned to the surface to get a photo of the undersurface of the ray. Manta rays have unique spots on their underside, like human fingerprint prints – the research team have over two thousand individual manta rays on their database. We snorkelled with a further five rays that afternoon.

Two days later I went back to Hanifaru with the researchers, this time the wind direction was good for plankton in the bay. Five manta rays entered the bay and I spent a wonderful twenty minutes watching a manta ray being cleaned at a cleaning station. Unusually for the Maldives, the manta had a missing tail and a shark bite wound which was being treated twenty minutes watching a manta ray being cleaned at a cleaning station. Unusually, some individuals were harassing the shark. The decision was made to go straight to Hanifaru and drop off one researcher, Bec, so we could identify the Whale Shark. I was allowed to join her. Unlike some operators, the research boat always enters the bay using the approved channel, so that meant that there was a twenty minute snorkel to where the shark was last seen. When we arrived my heart sank as there was no sign of the shark and the diving operators were leaving. Bec massaged me that the shark might still be in the area. Sure enough, five minutes later, I heard Bec shouting “Whale Shark!”

I looked above the water to see a huge dorsal fin heading my direction. Then under the water I saw a magnificent seventeen foot Whale Shark coming towards me. For the next two and half hours I snorkelled with a feeding Whale Shark and over forty mantas also feeding, barrel rolling and breaching. It was utterly incredible to see a Whale Shark feeding vertically in a water column, its giant gills swimming in perfect rhythm. Guy said to me “Paul, experiences with marine megafauna don’t get any better than this”. I couldn’t imagine anyone not enjoying it and I definitely only one of the best days of my life. When I returned to the boat deck there was Doug Allan, the marine photographer who filmed “Ocean Giants”, the recent wonderful BBC series. Doug was filming for a new Chris Packham show to be seen next year. He was so excited about the footage he shot that day would be in the show. Doug said to me “I knew that if I spent five minutes in the bay then our conservation problems would be solved”.

I sincerely hope that the proposed legislation to protect Hanifaru is passed and that Guy, who is so passionate about the bay, is involved in its conservation. Judging by my experience of a few days watching the bay, many dive boats especially liveaboard operators are abusing Hanifaru, whether that meant visiting the bay on resort days, entering the bay across the pinnacle – of the food chain and therefore essential to the harmonious existence of life on this planet. We are threatening that existence with the slaughter of tens of millions of sharks every year. This passion led me to visit one of the Chinese restaurants in Oxford which listed “Shark Fin Soup” on its menu.

My first problem was trying to open up a discussion. Easier said than done, when you are faced with unfeelingly, carismatic staff who can’t decide whether the message is available to talk to or not. Managers who were initially free to talk were, after I gave the staff details about what I wanted to discuss, subsequently unavailable. I returned a couple of days later, but was once again refused. I decided that they would not take notice of me, I would bring notice to them.

Now, believe it or not, standing on a public path outside a restaurant in broad daylight, dressed in full scuba kit – cylinder and all – pointing a picture of a shark, does attract a certain amount of attention. As it happened, the first car that passed was a police car, but as I was not doing anything wrong, had to settle with driving slowly on – that suited me! Others walking by asked what on earth I was doing. My local paper, the Oxford Mail, arrived to take photos and hear my story. The session was completed without any angry interruptions from Chinese chefs. Before the story was printed, the paper contacted the restaurant to get their side of the story. This proved difficult, but eventually, the restaurant claimed the shark mustn’t have been there. I followed the article with a phone call, with the intention of reporting them to the trades description act on the grounds of misleading customers. They informed me they were taking it off the menu and were not prepared to talk about the matter any further. A week after the article was published in the paper I was invited by BBC Radio Oxford to discuss shark-finning and the supply of shark fin soup in local restaurants. It seemed the people were really interested to know more about it, and, equally, were horrified to discover the facts behind the ruthless practice of finning sharks for soup. My little campaign was snowballing...
A Critically Endangered shark

There are eighteen different species of angelshark found worldwide. Historically, the distribution of this particular species (Squatinus) included the temperate waters of the Northeast Atlantic; from southern Norway and Sweden to the Western Sahara and the Canaries Islands, including around the British Isles and in the Mediterranean and Black Seas.

The International Union for the Conservation of Nature (IUCN) list of Threatened Species first listed the Angelshark as ‘Vulnerable’ in 2000. In 2006, this was upgraded to ‘Critically Endangered’, at the same time the species was declared extinct in the North Sea. In 2008, they were afforded additional protection within the Wildlife and Countryside Act (1981) – essentially prohibiting intentional capture, and making it mandatory that any bycatch be released without harm. Angelsharks are highly valuable to being caught as bycatch in bottom trawls, set nets and bottom long-lines. Historically, they have been used for human consumption, both fresh and salted (dried), and in the production of oil and fishmeal. They grow very slowly and mature only at a large size, at around eight to twelve years of age. They can live for as long as thirty-five years in the wild.

In 2002, one of our male Angelsharks was transferred to Hastings, which at the time held the female. In 2004, by reciprocal agreement, the male shark was transferred to Deep Sea World where she was introduced to the second male within our 4.5 million litre shark tank. Since then both mating and breeding behaviour has been recorded. In April 2007, it was first suspected that the female may be pregnant, when she visibly changed shape underneath. In July 2007, with two vets in attendance, we performed an ultrasound scan to confirm that she was pregnant. This was thought to be the first ultrasound scan of an angelshark. Initial estimates put the age of the pups at around four months. The pups were born after almost twelve months and were around twenty to thirty centimetres length at birth. Angelsharks have been known to give birth to between nine and twenty pups, although unfortunately for the female she later produced only three stillborn pups between September and November of that year. This species is thought to be unique amongst angelsharks, in having a two year breeding cycle. It wasn’t until August 2011 that we again suspected the female may be pregnant. In November, following veterinary advice, the zoological team examined the female. During this examination a single premature (i.e. its egg sac still visible) pup was born. The female was removed from main display to an isolation tank to await the birth of her remaining pups.

Following several weeks of ‘contracting’, but with no pups born, it was decided that we would assist in the birth of the pups as by this time the female may have become weakened or distressed if left any longer. In early December, again with veterinary assistance, and with the use of a flexible endoscopic camera, a further fourteen pups were hand-delivered over two days. All the pups were measured at birth and photographed for identification. Following a month of recuperation the female shark has been returned to the main display. The pups continue to do well.

This, we believe, is yet another world first for this particular species – the world’s first captive conceived pups. This is great news for these sharks as a follows captive breeding successes in America with the Pacific Angelshark. It is, at the very least, highlights the potential to successfully breed pups within the captive environment.

A glimmer of hope

Leopard Shark v. Zebra Shark

As part of our Sightings Database project www.sharktrust.org/sd, divers often send the Shark Trust photos of sharks, skates and rays sighted on dives around the world. Most of the time their identification skills are spot-on, but occasionally confusion arises between some species. With this in mind the Shark Trust asked Chris Brown, Senior Curator for Sea Life Aquariums, to explain the confusion between the Zebra Shark and the Leopard Shark.

If you go scuba diving off California and see a group of spotted sharks it is more than likely that you have run into the aptly named Leopard Shark Triakis semifasciata (see image 1). These elegantly patterned sharks feed in shallow waters eating a variety of bottom dwelling creatures including crabs and shrimps. However a long trip across the ocean to the warmer seas around Thailand could leave you a little confused when you find another very spotted, but much larger shark also known locally as the Leopard Shark (see image 2). This charismatic shark is yellow with brown spots and has a tail that is almost as long as the rest of its body. It spends large amounts of the day time resting on the sea floor and feeds on molluscs, crustaceans, small fishes and even sea snakes. Despite the shark’s obvious spots and yellow-brown colouring, this is actually a Zebra Shark (see image 3). The reason for its correct name becomes clear when you see a baby Zebra Shark (see image 3). Last month, aquarists at Loch Lomond Sea Life were lucky enough to have one of these beautiful sharks emerge from an eggcase that has been its home for the last five months. It has a striking black and yellow pattern that resembles that of a zebra (see image 3). The shark will soon be moved to a nursery display at Scarborough Sea Life where its patterning will begin to give way to the spotted leopard-like print that is characteristic of the adults (see image 4).

Spot the Difference

There are 8 differences between the first and second image below. Can you find them all? If so, circle the differences on the second image and post it to us, along with your name and address.

If you get all of the 8 differences correct, you’ll be entered into a prize draw to win an Oscar the Bouncing Shark tank. Please send us your answers by Monday 30th April 2012.

Good luck!
**A MOST PECULIAR FISH**

**INSIGHTS INTO THE RARELY ENCOUNTERED SAWFISH**

Rachel Graham

Wildlife Conservation Society

**Taxonomic confusion**

The lack of scientific knowledge of sawfish reinforces their mystique. In fact, the number of species of sawfish extant is still unclear. Until recently this group was thought to comprise seven species, including the Smalltooth Sawfish (Pristis pectinata), Largetooth Sawfish (Pristis pectinata), Pristis pectinata, Freshwater Sawfish (Pristis pectinata) and Green or Narrownosed Sawfish (Pristis pectinata) have been split into two separate species, P. pectinata and P. pectinata. This is due to the recent recognition of three new species.

**An uncertain future**

Unfortunately, the future is not rosy for the sawfish – a lack of political will and local interest in creating sustainable fishing techniques such as the use of nets and longlines in most range countries is likely to blacken any conservation efforts. Outside of the USA and Australia, countries that have protected sawfish either through species-specific measures such as gear bans (Panama, Belize) and species bans (Peru) have few, if any, recent records of capture due to low or extirpated populations. Complicating management measures further is the isolation of remaining populations – a situation that could contribute to local extinctions, as may have already occurred in Central America. Nevertheless, recent genetic analyses of samples taken from historic roosts in Australia suggest that relatively small extant populations (250-350 individuals) could be viable. This finding could be of particular importance to small isolated remnant populations if they are allowed to recover. As such, there is a continued and critical need for information on sawfish species, their distribution, populations and habitat in range states outside of the USA and Australia.

**References**


*This issue is online for full references: www.sharktrust.org/members*
The Maldives: 1,192 islands, strung like a necklace across the equator. Idyllic yes, but it’s anything but peaceful! Stick your face under the water — the throb of life pulsating through the reefs and channels literally guarantees. Divers throughout the years have been shocked as prime shark spots were devastated by the enforcement of any regulation is sure to throw up smaller catches. Numerous theories have been bandied around to try and explain why — including one that claims global warming and rising sea temperatures are forcing the sharks into deeper, cooler water. However, the harsh reality for all parties was the fact that shark populations were in severe decline. This was reflected in expert figures which almost halved between 2004 and 2007.

Shark-safe sanctuary

With pressure mounting, the government in 2003 that the ban on shark fishing would be extended to include all adults during 2010. They simultaneously announced to the world that the Maldives would also phase out the export of all shark-related products, making it extremely difficult for local Maldivian fishermen to continue making a living this way. Sensitivity but also huge losses (taking up to $400 a pair) which are regarded as a delicacy in China. While farming of the latter, to feed the jewellery boom arising from the influx of tourists, was proving to have a devastating impact on the growth and coverage of the species.

Also in 1995, Whole Shark became the first species to be actively protected. Whole Shark live oil was commonly used by Maldivians as a way of treating the wood lust that would later be used to build their (still) halls (traditional style of build). The oil offered both water protection and was used as a sealant to help prevent parasites. As stinky as the substance is, it was also used as a traditional treatment for muscle and joint aches and pain. Head on the list came the five different species of turtles that can be found in the Maldives. A ten year ban on killing Greens, Hawksbills, Loggerhead, Olive Ridley and Leatherback Turtles came into effect in June 1995, and was later renewed every three years until 2005.

Live value

It was starting to look like the shark was not a priority but in 1998 a regulation was implemented prohibiting shark fishing within a twelve mile radius of atolls. As the local fishermen depleted shark populations across the atolls, it was becoming more noticeable that sharks were being disappearing. Divers were seeing less and less, but at the same time, Maldivian shark fishermen were also reporting smaller catches. Numerous theories have been bandied around to try and explain why — including one that claims global warming and rising sea temperatures are forcing the sharks into deeper, cooler water. However, the harsh reality for all parties was the fact that shark populations were in severe decline. This was reflected in expert figures which almost halved between 2004 and 2007.

The Maldives: as one of the world’s top destinations for seeing sharks in their natural habitat. The currents that run through the reefs provide an adrenaline rush that will satisfy the craving of the most addicted junkie, and it’s these currents that bring the sharks in.

Twenty-nine species of shark have been recorded in Maldivian waters, ranging from the largest fish in the water, the Whale Shark, right through to hammerheads, Oceanic, thresher and Tiger. The most common seen sharks while diving are the Grey Reefs and the WhiteTip. Probably the most common shark in the Maldives through has to be the juvenile Blacktip Reef Sharks that have made countless islands their hunting grounds, patrolling the lagoons and perfecting their skills for later on in life. But the Blacktip’s remain a mystery in the Maldives: encounters with adults are extremely rare, and nobody is quite sure what direction they go once they are large enough to fend for themselves.

Shark heaven

The incredible opportunities to see sharks are numerous, and there are not many divers that leave the Maldives without having had their first hit of the action. Indeed, Producers, based in Kuredu Island Resort, and the largest diving centre in the Maldives, boasts regular shark sightings on over half of the thirty dive sites it frequently visits.

Top of the list includes Kuredo Express, a dive site that certainly lives up to its name, with the chance to drift along, and hold in on-current and enjoy the action. Although the resident population of sharks do not compete in terms of numbers with some other dive sites, what makes Express incredible is how curious the Grey Reef Sharks are and how close they can often be to divers. Fushivaru and Felikaru Kandos, on the other hand, often throw up huge numbers of Grey Reefs. Fifty to sixty sightings on a forty minute dive are not uncommon, together with schooling eagle rays, barracudas, jacks and stingrays. Its alternative central, and its dive sites like this that have embraced the Maldives in the hearts of all big fish fans.

A recent discovery two hours away from Kuredu is rapidly becoming a firm favourite with the divers visiting the resort. With a resident population of twenty to twenty-five Grey Reef Sharks,芝麻 Thila triple up as breeding ground, nursery and cleaning station for the locals.

Grey Reef Sharks, Orimas Thila triples up as breeding

In 1995 the list of protected species was extended to include Napoleon Wrasse and Black Coral. The former was being caught to exploit not only its abundant flesh, but also its huge lips (teaching up to $400 a pair) which are regarded as a delicacy in China. While farming of the latter, to feed the jewellery boom arising from the influx of tourists, was proving to have a devastating impact on the growth and coverage of the species.

As an example, in 1995, Whole Shark became the first species of shark to be actively protected. Whole shark live oil was commonly used by Maldivians as a way of treating the wood lust that would later be used to build their (still) halls (traditional style of build). The oil offered both water protection and was used as a sealant to help prevent parasites. As stinky as the substance is, it was also used as a traditional treatment for muscle and joint aches and pain. Head on the list came the five different species of turtles that can be found in the Maldives. A ten year ban on killing Greens, Hawksbills, Loggerhead, Olive Ridley and Leatherback Turtles came into effect in June 1995, and was later renewed every three years until 2005.

Live value

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Reality check

Although this sounds impressive and suggests that the Maldives has a healthy shark population, the reality is that certainly lives up to its name, with the chance to drift along, and hold in on-current and enjoy the action. Although the resident population of sharks do not compete in terms of numbers with some other dive sites, what makes Express incredible is how curious the Grey Reef Sharks are and how close they can often be to divers. Fushivaru and Felikaru Kandos, on the other hand, often throw up huge numbers of Grey Reefs. Fifty to sixty sightings on a forty minute dive are not uncommon, together with schooling eagle rays, barracudas, jacks and stingrays. Its alternative central, and its dive sites like this that have embraced the Maldives in the hearts of all big fish fans.

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Regular sightings of guitarfish are also made throughout the wider Maldives shark population. Food underwater is magnified, with sharks being one of the larger than life creatures on show. It’s an island chain full of superfuracies.
WANTED! DEAD or ALIVE?  

In April 1991 the White Shark Conservation carcass was granted protection by the South African government. This move was welcomed and applauded all over the world by those interested in marine conservation. 

Soon after this case driving off of 21 years ago, the White Shark established itself as an increasingly valuable eco-tourism asset for the Western Cape.

The economic fortunes of the small town of Gansbaai and its neighbour Kleinbaai were transformed as anglers turned gamekeeper and yesterday’s fishermen became today’s cage diving operators, and the power of money turned a whole community into an active interest network. On the surface of this success story, there is a classic wildlife success story, yet evidence is mounting that the White Shark is in danger of being ‘sportfished’ and trophy hunted, with the authorities making little or no attempt to enforce the protection granted 21 years ago.

“Shark Warrior” Lesley Rochat, through her organisation Afrikoans, is running a campaign ‘WANTED DEAD OR ALIVE?’ to increase public awareness and encourage the authorities to act. Lesley’s campaign has already attracted the support of Chris and Monique Fallows, Wilfred Chivel of the Dyer Island Conservation Trust and the UK-based Shark ALIVE? to increase public awareness and encourage the enforcement of the protection granted 21 years ago.

According to Rochat this type of photoshoen action taken in South Africa is not grounds to prosecute. © Ryan Johnson.

An up and down motion, send the bait down the line to where you had caught a Great White by mistake and cut it loose in evidence enough, witness statements are also needed.”

Chris Fallows had a view on photographic evidence, “It’s a mockery, the camera doesn’t lie. How can you not be able to take action when the guy has physically beached the animal and the photo clearly shows him and the shark.”

Lesley Rochat added “I’ve told photographers that photographic evidence alone would not stand in a court of law. Maybe intent has to be proved.”

Chris continued “Intent shouldn’t need proving because the very fact they have landed the animal is a clear breach of the law. I was told that photographic evidence alone would not be considered.”

If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them. If you speak to them they’ll tell you they are trying to catch Great Whites and they slide out very large baits specifically for them.

The evidence has increased and continues to increase, as photographic evidence is being used more and more, and has been presented to the authorities but to date no prosecutions have been brought. 

Chris Fallows states “I have been in contact with angling clubs advising on good practice and ensuring the law is understood, and are considering the ban on the use of the slider devices which enable large baits to be taken out long distances. They do not believe the number of White Sharks being caught each year is anywhere like the 50-100 suggested by Fallows and Bucella."

Fallows has recorded the deaths of over twenty White Sharks and believes that between 50 and 100 sharks are being caught each year. Anglers have taken Great White carcasses to Marine & Coastal Management on two occasions asking for action. In both cases the heads had been removed and White or white point could be said. However in most cases the sharks are being targeted for sport and are being released by the anglers, so, Fallows and Bucella believe that mortality in high by those interested in marine conservation.

Private funding. For these actions the EEA-SC will look for public financial support as well as private funding.

In the next issue of Shark Focus, the EEA-SC hopes to inform you of the projects and research to be carried out in the forthcoming months! E. Sear EEA Scientific Chair On behalf of the EEA-SC Contact: serrel@eulasmo.nl

15th Anniversary

This year is the 15th anniversary of the founding of the Shark Trust. We’re looking forward to celebrating this at the November 2012 NEC Dive Show in Birmingham, as well as producing a series of reports highlighting just how far the Trust – and shark conservation – has come during this time.

On 2nd March Conservation Assistant Call Garden will be presenting her work on the Basking Shark Photo-ID Database at the Southampton Marine Ecosystems Conference, at the Marine Biological Association, Plymouth.

On 7th June the Shark Trust will be attending the Polzeath Marine Discovery Day, run by the Cornwall Wildlife Trust. Attendance last year was massive, so if you’re in Cornwall it’s worth a look.

On 27th July the Shark Trust will again be joining the Cornwall Wildlife Trust for their Shark Day at Porthleven – including an escape hunt, as well as presentations on sharks, skates and rays by marine biologists and other experts.

Without an official launch date for the new website has not yet been set, these shark characters, along with their friends, will be making an appearance on the Shark Trust website soon...

Users: Nervous, Password: Shark Please Note: These membership login details are shared by all Shark Trust members, therefore when logged in under these details no items should be purchased from the Shark Shop, username and password details should not be changed, and the shark forum shouldn’t be used. (Please note the Shark Trust takes no responsibility for the content of third party links.)

Members AREA Login Details

WEB NEWS

New Shark Trust Website

We are very excited to announce that we’re currently working on a new Shark Trust website, to be launched later this year, as part of our 15th anniversary celebrations. Over the past couple of months we’ve been meeting regularly and liaising with a number of website developers and designers to bring you a new and improved website that will reflect the Shark Trust as it exists today. We have combined your feedback with our own website goals to create a more dynamic and engaging website, the new site will feature an exciting contemporary design, fresh new content, updated resources and additional interactive features.

Other features will include: a new state-of-the-art Shark Shop, an enhanced press area, providing readily available factual information about sharks, as well as position statements from the Trust, updated campaign and project areas; a revamped menu bar to provide easy access to all information on the site and improved subscription facility when supporters can sign up to receive our new e-newsletter, which will deliver all the latest campaign and shark research news directly to your inbox.

Juniors Section

We’re also working on developing the current juniors section and can’t wait to give our younger members a fun and creative space to explore the fascinating world of sharks. This area will include lots of interactive online games, as well as downloadable resources and interesting shark facts. You’ll also be able to meet an array of shark characters, including: Wendy the White Shark, who loves to travel to tropical and moist locations; Eagle Eye Ray, the astute young Spotted Eagle Ray with excellent vision; Chloe, the mysterious and shy chimaera and finally Flo the Basking Shark, the vegetarian philosopher!

The EEA Scientific Committee is Born!

Since the European Elasmobranch Association (EEA) was formed in 1996 it has been its scientific chair, providing advice and promoting scientific activities within EEA activities. The recent growth in research into chondrichthyan fishes all around the world, along with the implementation of the European Plan of Action for Sharks, is creating new opportunities and perspectives for the EEA, while highlighting the need to strengthen the EEA’s scientific core.

At the last EEA meeting held in Berlin (November 2011), the board entrusted me to set up an EEA scientific committee (EEA-SC). As a result of the consultations, the EEA-SC is composed of the following members: Paddy Walker from Nederlandse Elasmobranchen Vereniging (Netherlands), Claudia Junge from Hai Norge (Norway), Fabian Simon from Gruppe Ricercenti Italiani squai, Ruzze e Chimere (Italy), Edward Farrell from the Irish Elasmobranch Group, and Michael-George from Deutsche Elasmobranchen Gesellschaft e.V. (Germany).

The main function of the EEA-SC is to propose scientific activities to be undertaken under the EEA umbrella. These actions could be related to sustainable management of shark fisheries, the conservation of chondrichthyan species and populations, and to educational projects. Some ideas have already been proposed – including the production of an educational kit on sharks in the main European languages and the creation of a bibliographic database on all chondrichthyan fishes occurring in European waters.

Other research projects – including field work – are also planned. For these actions the EEA-SC will look to provide public financial support as well as private funding.

In the next issue of Shark Focus, the EEA-SC hopes to inform you of the projects and research to be carried out in the forthcoming months!

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Do not approach within 100m of Basking Sharks – but if you do find yourself close to Basking Sharks:

- Remain calm and quiet.
- Never paddle your kayak directly towards the sharks or allow several kayaks to surround them, as such actions will probably frighten them and make them dive or act unpredictably. Stay in a group, rather than stringing out around the sharks.
- Kayakers should not cross the path of the shark so the sharks can maintain their course without changing direction or speed.
- Avoid sudden movements which will disturb the sharks. Never use your paddle or kayak to touch a shark.
- Avoid pairs or large numbers of sharks following each other closely. This may be courting behaviour and they should not be disturbed.
- Although Basking Sharks are filter-feeders and mostly placid, they can startle if disturbed, often thrashing their tail with enormous power. Also be aware that Basking Sharks do breach.
- Sharks appear attracted to kayaks and often swim alongside and below, very close to the hulls. If you stay calm, still, and observe, there is a good chance they will come to you.

Tips

- Take time to observe the direction(s) of movement of the sharks and then quietly position your kayak alongside their anticipated course for a safe and enjoyable view. Wait for them to come to you.
- Don’t forget to take pictures of the fins for the photo-identification project.

As a kayaker, you should also be aware that Basking Sharks are legally protected under Schedule 5 of the Wildlife and Countryside Act 1981, the Nature Conservation (Scotland) Act 2004 and the Northern Ireland Wildlife Order 1985, making it illegal to kill, injure or recklessly disturb Basking Sharks in British waters. Further protection against disturbance and harassment is provided by the Countryside and Rights of Way Act 2000. Any person committing such an offence could face up to 6 months in prison and a large fine.

Internationally, Basking Sharks are listed under CITES Appendix II, CMS Appendix I and II and UNCLOS Annex I.