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A Guide to Best Practice for Watching Marine Wildlife

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Introduction

The Scottish Marine Wildlife Watching Code is designed to be simple and concise, and easily understood by anyone who wants to watch marine wildlife. It is important that anyone who watches marine wildlife on a regular basis, or who takes others out to watch marine wildlife, is familiar with the Code. Disturbance can have serious long-term impacts – to the detriment of the animals themselves, to wildlife watching businesses, and to future generations of people who will enjoy seeing wildlife in its natural habitat.

In practice, avoiding disturbance of marine wildlife is far from simple. For example, what may be disturbing to an otter in the water may not be disturbing to a seal hauled out on the rocks. Some basic knowledge and understanding of different species groups is useful. This Guide seeks to address this need while at the same time offering more detailed advice on best practice for watching marine wildlife.

This Guide is intended to complement the Scottish Marine Wildlife Watching Code. The first section addresses the nature of "disturbance" and what it means in practice. The second section offers guidance on wildlife watching for the following major species groups:

- cetaceans (whales, dolphins and porpoises)
- basking sharks
- seals
- birds
- otters
- turtles.

For each of these groups we consider:

- the status of some key species in Scotland
- the kinds of disturbance that can occur and implications for the animals' welfare
- signs of stress or agitation
- sensitive times and places identified.

Practical guidance is offered on how to behave responsibly, in more detail than is provided in the Code itself. We also highlight the law as it applies to each group.

The Scottish Marine Wildlife Watching Code deals mainly with minimising disturbance from individual encounters. There will inevitably be times and places

where the number of encounters with wildlife increases to the point where the longer term well-being and survival of animals is compromised. We need mechanisms to deal with this. This Guide therefore also includes a section which provides information on **Dealing with cumulative impacts** through the development of local wildlife management initiatives and improved marine planning. The annexes provide additional advice on what to do if you encounter injured or stranded animals, reporting and recording your sightings of marine wildlife, and a list of more specialist codes of conduct and guidance targeted at particular users or species groups.

The more you know about the animals, the better you will be able to avoid disturbance. Reading this booklet is a start, but it is important to learn as much as you can before you venture out. Ask local guides and other knowledgeable people about local wildlife and about sensitive times and places.

Knowledge makes wildlife watching more enjoyable for you and helps you to avoid disturbing wildlife.

What is disturbance?

The Scottish Marine Wildlife Watching Code is primarily concerned with minimising disturbance. Different people interpret the term “disturbance” differently. A working definition has therefore been developed based on a review of literature and discussions with scientists, wildlife operators and other user groups.

The term “disturbance” as used in the Code means:

“The result of direct or indirect interaction with people that changes the behaviour of an animal or changes the environment, which in turn affects the well-being or survival of an animal in the short, medium or long term.”

This might include, for example:

- Direct injury (e.g. collisions, propeller damage).
- Changes in distribution.
- Disruption of communication, migration, breathing, breeding, nursing, feeding or resting.
- Excessive use of energy and eventual loss of condition caused by continual or repeated avoidance or flight.
- Increased vulnerability of an individual or population to predators.
- Damage to habitat.
- Chronic stress, which can impact on an animal’s health (e.g. immune, digestive and reproductive functions).

Indicators of disturbance are discussed in each of the species group sections below, but typically include signs of being startled (e.g. heads up, freezing, sudden diving, and swimming or flying away).

Many forms of disturbance will have little detectable impact on marine wildlife. However, several factors can transform what appears to be minor into significant disturbance which can have serious long-term impacts:

- Repeated disturbance (which can also constitute harassment).
- Disturbance associated with large numbers of people watching.
- Disturbance at sensitive times or in sensitive places.

Whales, dolphins and porpoises

Twenty-three species of **whales, dolphins and porpoises** (collectively known as cetaceans) have been recorded in Scotland over the last hundred years. Of these, seven species are relatively common: harbour porpoise, bottlenose dolphin, white-beaked dolphin, common dolphin, Risso's dolphin, killer whale, and minke whale. However, if you are lucky you could see several other species, especially if you go further offshore. The waters around Scotland are amongst the best in Europe for whale watching.

Why we need to be careful

In places where wildlife watching has become very popular whales, dolphins and porpoises can suffer. They may use a good deal of precious energy interacting with humans – or avoiding them. The presence of boats can disrupt communication, make them move more, rest and feed less, and nurse their calves less. There is also a risk of collision between boats and animals. All of these factors may affect an animal's well-being and/or survival.

Evidence from around the world shows that cetaceans may respond to the presence of boats or swimmers by simply moving away – to the detriment of wildlife businesses and recreational water users alike. This can also be detrimental to the animals – if they are forced to move from an area due to disturbance they may end up in another area which provides less food, shelter or safety for their young.

Direct boat impacts

Collisions are not uncommon with all types of vessel, and some animals show scarring caused by propellers. Calves can be separated from their mothers, especially if there are several boats around. Animals can feel trapped if they are surrounded in any way, or feel hunted if they are being actively followed.

Noise

Sound is the primary sense used by cetaceans to interpret their environment. It is essential for communication, feeding and navigation. Engine and other noise may interfere with communication between animals, and drown out sound from predators or prey. In severe cases, resonance may occur in the balance organs causing disorientation or injury to the ear. Porpoises in particular may avoid boats with echo sounders.

Different species of cetaceans are sensitive to different types of sound. Much engine noise is actually below the hearing range of small cetaceans, but high-pitched noises – mainly associated with speedboats and personal water craft, or caused by cavitation due to damaged or incorrectly specified propellers, for example – may be disturbing. Whales are more sensitive to the low frequency sounds usually produced by boat engines.

Noise is usually thought of as a form of disturbance, but some noise is not necessarily a bad thing. It warns the animals that you are coming, and lets them know where you are. This in turn can reduce the chances of the animals being startled.

Speed

Collisions can occur. Speed increases the likelihood of collisions, the severity of injury to the animals, and the danger to the boat users. Noise and other forms of disturbance may also be associated with increased speed. We recommend less than 6 knots as an appropriate speed through the water when close to marine animals.

However, there are occasions when boats travelling faster than this are approached by dolphins or whales, for example to bow ride. In this case, the recommendation is to maintain a steady speed and course, and let the animals break off the engagement when they choose.

Feeding

Feeding cetaceans is not recommended for several reasons:

– The animals may seem tame but can become aggressive close-up and potentially harmful to humans.

– They may become dependent on feeding – and therefore vulnerable when food is no longer available.
– The food offered may be unsuitable.
– They learn to come too close to boats, risking collision and propeller damage, or may even swamp a small vessel.
– There may be transmission of disease between humans and cetaceans.

Swimming

Swimming with cetaceans is not considered best practice. There are several good reasons for this:

– Cetaceans are wild animals and therefore potentially dangerous. They have been known to bite and strike people.
– Swimming is likely to increase the time that people spend with cetaceans and increase the chances of significant disturbance through cumulative impacts.

– If people are swimming close to marine animals, support vessels are likely to be operating close by, and the risk of general disturbance, collision and propeller damage is increased.
– There may be transmission of disease between humans and cetaceans.

Signs of disturbance

The most obvious sign of disturbance is if the animals move away, but there are also more subtle signs:

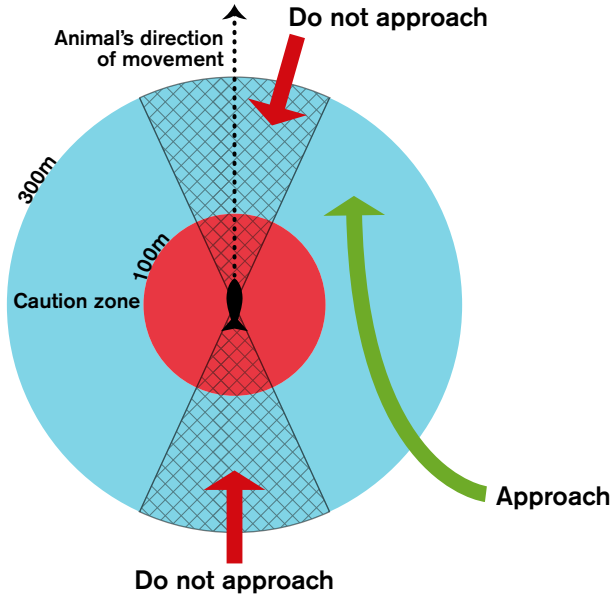
– Sudden and erratic movements (although these may also be associated with play or feeding).
– Ceasing previous behaviour such as feeding or socialising.
– Bunching together.
– Tail or head slaps on the water surface.
– Changes in diving behaviour and less frequent surfacing.
– Changes in breathing patterns.
– Increased vocalisation (which you will be able to hear if you have a hydrophone).
– Aggression directed at the people watching or at each other.
– Females manoeuvring to shield their calves.
– Increased swimming or travelling speed.
– “Trumpet blows” in the case of whales (loud, sharp exhalations).

Sensitive times and places

Most cetaceans range over very large areas. At certain times of year they may aggregate to take advantage of abundant food supplies. The length of breeding cycles and seasonality of breeding vary between species, and areas used specifically for breeding have not been identified in Scottish waters. Cetaceans should be considered as being particularly sensitive whenever young are present. Cetaceans are slow to reproduce and invest a great deal of energy in pregnancy and rearing of an individual calf. Disturbance can affect calf survival rates.

Cetaceans may also be more sensitive to disturbance in shallow and/or semi-enclosed waters. Sometimes they can become disorientated and head inshore from where they may find it difficult to escape. In these conditions it is particularly important not to approach the animals as it may increase the risk of them stranding on the shore.

Some species, such as bottlenose dolphins, are coastal inhabitants and occupy favoured inshore areas for long periods. As a result they are particularly vulnerable to too much attention from passing boats, and all boats should carefully observe the recommended minimum approach distances and duration of encounter.



How to watch whales, dolphins and porpoises responsibly

Remember that there are lots of good places around Scotland's coast to sit and watch cetaceans. You do not have to go out in a boat. To ensure the best views, you should use binoculars or a telescope.

In some places there are local wildlife management schemes or initiatives aimed at protecting particularly vulnerable species or populations. Make yourself aware of these and follow their guidance.

The key to good practice when watching cetaceans from a vessel is the manner of the approach and behaviour while watching the animals. Distance is an issue, but

specifying exact distances is problematic, not least because distances are difficult to judge on the water, and whales and dolphins often actively approach vessels.

The key is to let the animals be in control of the entire encounter. They should choose how close to approach. If they choose not to interact, or to depart, this should be respected. A good encounter is one which is enjoyable for you and neither threatening nor harmful to the animals. There are times when cetaceans will appear not to be disturbed by your presence, and other times when it is best to leave them alone.

On sighting a cetacean, first slow down and take time to assess what the animal(s) are doing and, if possible, what the group composition is. If they are feeding, the impacts of you approaching could be more serious as you could disrupt this important behaviour. If they are with young, this may affect their willingness to engage. Knowing what their original behaviour is can help you determine if you cause a disturbance, i.e. if the behaviour significantly changes.

Always approach cautiously. In practice this means slowing down to less than 6 knots when you are a good distance away - at least 300 metres though some recommend as much as 1 km. This is sometimes called the caution zone.

Once in the caution zone, do not approach directly. This is more threatening to the animals, and they are more likely to move off. Approach at an oblique angle and keep above the recommended minimum approach distance. If animals are moving in a consistent direction, maintain a steady parallel course.

Do not approach from directly behind, and do not cut them off by moving across their path.

Do not go too close. Use your judgement according to species and circumstance and the behaviour of the animals. Widely accepted rules of thumb for minimum approach distances are:

- 50 metres for dolphins and porpoises
- 100 metres for whales
- 200–400 metres for mothers and calves, or for animals that are clearly actively feeding or in transit (moderate to fast swimming in a single direction).

However, these must be applied flexibly according to circumstances. Factors to consider are listed below:

- Are there any signs of agitation?
- The size of your vessel and the number of people watching.
- The number of other vessels.
- Are there mothers and calves in the group? They may be nursing.
- Are you particularly vulnerable (e.g. in a kayak or on a personal water craft)?
- Are they used to being watched? Are they accustomed to your boat?
- Are they clearly going somewhere or doing something (e.g. feeding, nursing or resting) and are you about to get in the way?
- Are the animals in shallow water or enclosed in a bay?

If you find yourself unexpectedly close to whales, slow down or stop, if it is safe to do so, and allow them to pass. Put the engine into neutral to ensure there is no danger of propeller injury. Remember to have a good look around before re-engaging the propellers.

If dolphins or other cetaceans approach your vessel and bow ride, maintain a steady course and speed, and remain vigilant. Try not to present propellers to approaching animals.

Never chase them. If they move off faster than you, they probably don't want you around.

Never cut across or go through a group. Some animals – e.g. the elderly, calves – are less manoeuvrable and collisions can occur. Be particularly careful not to interfere with mothers and calves and never separate them.

Be predictable. Minimise changes in direction, speed, gear or engine noise so that the animals are not surprised or startled. Avoid turning a motoring boat stern-on to a group of cetaceans, as they may be startled by the sudden increase in propeller noise or come too close to the propellers.

If you are in a sailing vessel try to minimise sudden noises from snatching and flapping sails and be particularly careful to keep your distance and avoid collision – without engine noise the animals have fewer clues as to your whereabouts.

Don't crowd them. It is not possible to say how many vessels are acceptable near whales and dolphins, but a rule of thumb is probably a maximum of two at any one time within the caution zone, as long as they keep to one side and do not encircle the animals. This is especially important if the animals are in a bay or harbour, where they may feel trapped by boats approaching them. It is important for boat operators to communicate with each other to ensure careful watching and minimise any negative interactions.

Do not feed whales, dolphins or porpoises.

Swimming with cetaceans is not recommended, for your own safety and that of the animals. If you are diving, snorkelling or swimming and have a chance encounter, follow the **In the sea** user code, which can be found in the accompanying Scottish Marine Wildlife Watching Code and do not directly approach cetaceans.

Minimise your time with the animals. This allows others to watch as well, while reducing the total amount of disturbance. Again there is no science to help here – it all depends on the species, the nature of the encounter, whether the animals are used to the presence of boats, the number of vessels present and the intensity of the "watching pressure" over the longer term. A good rule of thumb is 15 minutes if there is more than one boat and 30 minutes if you are alone. But if at any time you see signs of agitation or stress you should depart as slowly and carefully as you can. Make sure you take a good look before making any change of direction. There may be animals all around you.

If you have your own boat, keep the engine and propellers well maintained to minimise noise. If you are a regular wildlife watcher you should consider fitting a propeller guard.

Avoid flash photography, especially at close range. Flash is rarely needed but is a default setting on many cameras. Check your settings before your trip.

Neither fixed wing aircraft nor helicopters should be used for whale watching. Never "buzz" them. Keep a minimum of 300 m (1000 ft) altitude when over cetaceans, as long as it is safe and legal for you to do so.

Unmanned aerial vehicles (UAVs or "drones") are increasingly being used for filming and photographing wildlife. We know very little about whether drones will cause disturbance to cetaceans or what is a safe distance to fly at. However, care should always be taken not to disturb cetaceans by flying too close above them. There should be no need to get close as cameras are able to get excellent pictures from a considerable distance away.

In the UK, the operation of all aerial vehicles is governed by the Civil Aviation Authority (CAA) and there are some restrictions on where and how drones may be used. Contact the **CAA** for more information before setting off to fly your drone.

The law

In **Scottish inshore waters**, cetaceans are protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and are known as European protected species. In offshore waters (greater than 12 nautical miles from land) cetaceans are protected by other laws including the Offshore Marine Conservation (Natural Habitats, &c.) **Regulations 2007** (as amended).

It is an offence:

- to deliberately or recklessly capture, kill, injure, harass or disturb any whale, dolphin or porpoise;
- to damage or destroy a breeding site or resting place of any whale, dolphin or porpoise;
- to possess, sell or offer for sale any part of a cetacean (for example, taken from a dead cetacean on a beach);
- to knowingly cause or permit any of the above offences.

Bottlenose dolphin and harbour porpoise are both listed on Annex II of the Habitats Directive 1992 as species of Community interest whose conservation requires the designation of Special Areas of Conservation (SACs).

All whales, dolphins and porpoises are listed on Annex IV of the Directive as species of Community interest in need of strict protection. If you are proposing to undertake an action that might otherwise constitute an offence, you may need a licence and should refer to the guidance on **The protection of Marine European Protected Species from injury and disturbance**, published by Marine Scotland.

This is a summary of the legislation that applies to cetaceans in Scotland and is intended as a guide only. For more detail on the offences, exceptions and defences, you should consult the actual legislation.

Basking sharks

At up to 11 metres in length the basking shark is the largest fish in UK waters, and the second largest fish in the world. Basking sharks are seasonal visitors, mainly along the west coast in the summer months. They are generally seen near tidal fronts where mixing water generates the abundant plankton (tiny plants and animals that drift freely in water) on which they feed. Sightings usually peak around August but are very variable depending on the location and amount of food.

Basking sharks are usually observed moving slowly at or near the surface, and can generally be distinguished from cetaceans by the lack of surfacing and diving, and the oddly shaped tail which often appears above the water.

Why we need to be careful

Basking sharks are long-lived and don't breed until they are around 20 years old. They are slow-moving and appear to be relatively unaware of other water users. This combination makes them vulnerable, and historically it has taken a long time for over-exploited populations to recover.

Basking sharks can weigh up to seven tonnes, so collisions can result in serious injury to both parties. Users of personal water craft, rigid inflatable boats (RIBs) and other fast powerboats should be particularly vigilant, irrespective of whether or not they are specifically seeking or watching them.

Swimming

Swimming with basking sharks is not considered best practice. There are several good reasons for this:

- Basking sharks are wild animals and potentially dangerous. Although not aggressive, they are known to lash their tails and occasionally to jump out of the water (breach).
- Swimming is likely to increase the time that people spend with basking sharks and increase the chances of significant disturbance through cumulative impacts.
- If people are swimming close to marine animals, support vessels are likely to be operating very close to them, and the risk of general disturbance, collision and propeller damage is increased.
- Several places where sharks occur predictably and in high numbers are where they engage in courtship behaviour, which if disturbed could affect reproductive success.

Signs of disturbance

The most obvious sign of disturbance is if a basking shark ceases to feed (closes its mouth) and/or dives, in which case your vessel is too close and should move away. Individuals will usually resurface quickly and continue feeding. Keep your distance to avoid basking sharks performing multiple dives or breaking off from feeding.

You should also watch out for tail lashes. Most of the time basking sharks' movements are fairly predictable, but sudden movements of the tail may indicate that they are about to breach. For your own safety you should make sure that you keep your vessel clear.

Sensitive times and places

Basking sharks are usually seen in Scottish waters between May and October, with a peak in August. They occur mainly along the **west coast**, although sightings appear to be increasing in waters around the Shetland Isles and they are occasionally seen on the east coast.

Basking sharks often aggregate at the surface at a number of discrete sites – these sites may be important for feeding and reproduction. Basking sharks may be observed swimming nose-to-tail and touching each other, in what is believed to be courtship behaviour. Particular care should be taken at these sites in order to avoid disturbing this important behaviour. If courtship behaviour is repeatedly disrupted, this could affect their reproductive success.

How to watch basking sharks responsibly

The key to good practice on the water is the manner of approach and your behaviour while you are watching the animals. Distance is an issue, but specifying exact distances is problematic, not least because distances are difficult to judge on the water. The distance will also vary depending on the amount of plankton in the water – when basking sharks are busy feeding in dense plankton they do not appear to react as readily to the presence of boats.

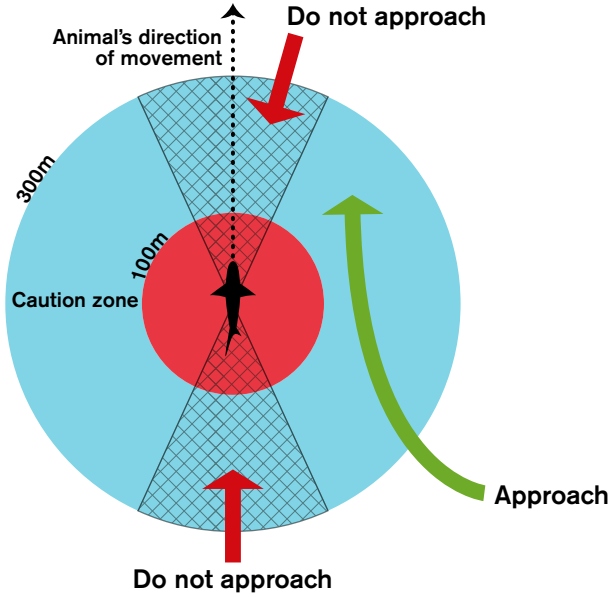
Be aware that if you can see one basking shark at the surface there will likely be others in the vicinity, perhaps just below the surface of the water. If you can see one, slow down and keep a very careful watch for others nearby to reduce the risk of collision.

The key is to let the animals be in control of the encounter. Vessels should stay a good distance from the animals and let them decide whether to come closer or not. A good encounter is one which is enjoyable for you, and neither threatening nor harmful to the animals. There are times when basking sharks will appear not to be disturbed by your presence, and other times when it may be best to move away or keep your distance, such as when breaching is observed or groups are present.

Always approach cautiously. In practice this means slowing down to less than 6 knots when you are a good distance away – at least 300 metres though some recommend as much as 1 km. This is sometimes called the caution zone.

Once in the caution zone, do not approach directly. This is more threatening to the animals, and they are more likely to move off. Approach at an oblique angle and keep above the recommended minimum distance. If animals are moving in a consistent direction, maintain a steady parallel course.

Do not approach from directly behind, and do not cut them off by moving across their path.



Do not go too close. A widely accepted rule of thumb for minimum approach distance is 100 metres. However, this must be applied flexibly according to circumstances. Where the animals are displaying courtship behaviour, a greater minimum approach distance should be observed – a distance of 500 m is advised. Other factors to consider are listed below.

- Are there any signs of agitation?
- The size of your vessel or the number of people watching.
- The number of other vessels.
- Are young present?
- Are you particularly vulnerable? (e.g. in a kayak or on a personal water craft).
- Are they used to being watched? Are they accustomed to your boat?
- Are they clearly going somewhere or doing something (e.g. feeding, resting) and are you about to get in the way?
- Are there any signs of courtship behaviour (nose-to-tail swimming, close following, touching each other)?

If you find yourself unexpectedly close to sharks, slow down or stop, if it is safe

to do so, and put the engine into neutral to ensure there is no danger of propeller injury. Remember to have a good look around before re-engaging the propellers. Avoid disturbing dense groups of sharks, particularly where animals are swimming very close together nose-to-tail, as you may disrupt courtship behaviour.

Do not approach areas where basking sharks have been observed breaching.

Never chase them. If they move off faster than you, they probably don't want you around.

Be predictable. Minimise changes in direction, speed, gear or engine noise so that the animals are not surprised or startled. Avoid turning a motoring boat stern-on to a group of sharks, as they may be startled by the sudden increase in propeller noise or come too close to the propellers.

If you are in a sailing vessel try to minimise sudden noise from snatching and flapping sails and be particularly careful to keep your distance and avoid collision – without engine noise the animals have fewer clues as to your whereabouts.

Don't crowd them. It is not possible to say how many vessels are acceptable

near basking sharks, but a rule of thumb is probably a maximum of two at any one time within the caution zone, as long as they keep to one side and do not encircle the animals. It is important for boat operators to communicate with each other to ensure orderly watching and minimise any negative interactions.

Do not try to feed basking sharks. They feed on plankton – tiny plants and animals that drift freely in water. Any other type of food could cause them harm.

Swimming with basking sharks is not recommended, for your own safety and that of the animals. If you are diving, snorkelling or swimming, and have a chance encounter with basking sharks, follow the **In the sea** user code, which can be found in the accompanying Scottish Marine Wildlife Watching Code, and do not directly approach basking sharks. In these circumstances, the advice offered in the **Basking Shark Code** is also useful:

- Restrict the number of swimmers in the water at any one time.
- Groups of swimmers should stay together and ideally remain at the surface.
- Maintain a distance of at least four metres from each shark and be wary of the tail.
- Avoid entering the water if visibility is less than four metres.
- Do not try to touch the sharks.
- Avoid flash photography.
- Do not use underwater propelled devices.

Minimise your time with the animals. This allows others to watch as well, while reducing the total amount of disturbance. Again there is no science to help here – it all depends on the nature of the encounter, whether the animals are used to the presence of boats, the number of vessels present and the intensity of the "watching pressure" over the longer term. A good rule of thumb is a maximum of 15 minutes. But if at any time you see signs of agitation or stress, depart as slowly and carefully as you can. Make sure you take a good look before making any change of direction. There may be animals all around you.

If you have your own boat, keep the engine and propellers well maintained to minimise noise. If you are a regular wildlife watcher you should consider fitting a propeller guard.

Avoid flash photography, especially at close range. Flash is rarely needed but is a default setting on many cameras. Check your settings before your trip.

Neither fixed wing aircraft nor helicopters should be used for watching basking sharks. Never "buzz" them. Keep a minimum of 300 m (1000 ft) altitude when over basking sharks, as long as it is safe and legal for you to do so.

Unmanned aerial vehicles (UAVs or "drones") are increasingly being used for filming and photographing wildlife. We know very little about whether drones will cause disturbance to basking sharks or what is a safe distance to fly at. However, care should always be taken not to disturb basking sharks by flying too close above them. There should be no need to get close as cameras are able to get excellent pictures from a considerable distance away.

In the UK, the operation of all aerial vehicles is governed by the Civil Aviation Authority (CAA) and there are some restrictions on where and how these may be used. Contact the **CAA** for more information before setting off to fly your drone.

The law

Basking sharks are protected under the Wildlife and Countryside Act 1981 (as amended).

It is an offence:

- to intentionally or recklessly capture, kill, injure, take, harass or disturb any basking shark;
- to intentionally or recklessly damage, destroy or obstruct access to any structure or place a basking shark uses for shelter or protection;
- to possess, sell or offer for sale any part of a basking shark (for example, taken from a dead basking shark on a beach);
- to knowingly cause or permit any of the above offences.

This is a summary of the legislation that applies to basking sharks in Scotland and is intended as a guide only. For more detail on the offences, defences and exceptions, you should consult the actual legislation.

Seals

There are more seals in Scotland than anywhere else in Europe. We have more than a third of the world's grey seal population, and more than half of the European population. We have around 5% of the world population of harbour seals (also known as common seals) and about a third of the European sub-population.

Grey seals breed on wave-exposed rocky coasts, sometimes on sand or shingle beaches at the foot of cliffs, often on relatively remote islands. Large groups of pregnant females return to traditional breeding sites each year to give birth. They disperse once the breeding season is over. The pups have white hair that thins steadily over the first three weeks of life. At this age, they cannot swim and are very vulnerable to disturbance.

Harbour seals prefer more sheltered waters, and adults are more faithful to a particular area. Females usually give birth in shallow water, sometimes on land, and their pups are born without a white coat. In the last decade there have been significant declines in harbour seal populations on the east coast of Scotland and the Northern Isles, whilst numbers on the west coast are increasing. The reason for these changes is not known.

Why we need to be careful

Seals represent a tremendous resource for wildlife tourism, and a means to reconnect people with nature. Unnecessary disturbance undermines the opportunities – by making seals more nervous, and in turn more easily disturbed. So it is in both our interests and theirs to be as careful as possible.

When on land, seals are usually resting to conserve energy or may be nursing young. There are important thermoregulation benefits of being on land and staying dry which help seals to moult and replace their fur, which is important for their health. Disturbing seals into the water costs them energy, creates stress and can lead to impacts on health, especially during the annual moult.

If you get too close to mothers and pups they may get frightened and agitated. Nursing can be interrupted which is serious as mothers do not stay with pups for long and the pups must achieve a certain level of body condition to have the best chance of survival. Pups can even be injured by stampeding adults.

Equally, pups are often left alone while their mothers forage out at sea, and a lone seal pup may be distressed by people close by. In response, the pup may move to a new location, making it difficult for the mother to find.

When hauled out along the coast, seals may be disturbed by being closely approached from the sea or land, including by people on foot. They are particularly sensitive to the presence of dogs, even if the dogs are on a lead. In practice, however, much will depend on the situation and location, and the degree to which the seals are used to the presence of humans. Seals do get used to visitors, and indeed may learn to recognise particular boats.

Seals have poor vision but excellent senses of smell and hearing. The distance at which seals show signs of agitation varies tremendously, depending on the location, the direction of approach (e.g. upwind or downwind), whether the animals are used to being watched and whether or not they have pups with them.

Susceptibility to disturbance is site-specific – a relatively close approach may be tolerated at one site while at an adjacent site there may be no tolerance at all. You should always be alert to signs of agitation before individuals start to move away or show aggression.

Swimming

Swimming with seals is not considered best practice. There are several good reasons for this:

- Seals are wild animals and therefore potentially dangerous. They have been known to bite and strike people.
- Swimming is likely to increase the time that people spend with seals and increase the chances of significant disturbance through cumulative impacts.
- If people are swimming close to marine animals, support vessels are likely to be operating close by, and the risk of general disturbance, collision and propeller damage is increased.
- There may be transmission of disease between humans and seals.
- Swimming near a haul-out site may result in higher levels of disturbance and risk of harm, especially if pups are present.

Signs of disturbance

Seals are one of the easiest species in which to identify disturbance. They have a clear three-stage response which has been documented in a number of studies. When approaching seals, stop at a safe distance away and observe them through binoculars or a telescope. Determine their current behaviour and, as you approach, look for any changes to this behaviour.

The first sign that seals are becoming disturbed is the “heads up” response. This is associated with vigilance and means seals are starting to perceive you as a potential threat. If you notice this behaviour, back off and/or change your method and speed of approach. If the animals relax again you can approach a little closer.

The second stage of disturbance is usually shifting around and becoming agitated. At this point you are getting too close and should back off carefully. If you don’t, this may then lead to the third stage – flushing or stampeding into the water. This undoubtedly constitutes disturbance and should be avoided whenever possible.

If the seals slip gently into the water one by one, this may be just curiosity – to get a better look at you – but it may be to ensure that they are safe and that you are not threatening. In most cases this is not a problem, although it may become so if seals are repeatedly leaving their haul-out sites as a result of disturbance.

Sensitive times and places

Seals spend a large proportion of their time in the open sea, but come ashore to pup, moult and rest.

Both harbour and grey seals return to traditional breeding sites to give birth. Harbour seals produce their pups in early summer (June to July), and spend a lot of time ashore during their annual moult in August. Grey seals produce their pups in autumn (October to December) and the pups stay ashore for several weeks. Adults and pups disperse in the spring, once the moult is completed and pups have been weaned.

Nursing mothers with pups tend to be found in relatively isolated locations, and boats venturing into these areas should take particular care or, if possible, avoid these areas during the respective pupping seasons.

How to watch seals responsibly

In some places there are local wildlife management schemes or initiatives aimed at protecting particularly sensitive animals. Find out about these and follow their guidance. Be aware of the local pupping seasons and avoid visiting breeding sites during these periods.

The key to good practice when watching seals is the manner of the approach and behaviour while watching the animals. Distance is an issue, but specifying exact distances is problematic, not least because distances are difficult to judge, and seals sometimes actively approach vessels.

The key is to let the animals be in control of the entire encounter. They should choose how close to approach. If they choose not to interact, or to depart, this should be respected. A good encounter is one which is enjoyable for you and neither threatening nor harmful to the animals. There are times when seals will appear not to be disturbed by your presence, and other times when it is best to leave them alone.

Do not approach directly, whether they are on land or at sea. Pass by at an oblique angle and at a reasonable distance. On land, don't creep up silently and directly towards them; they may be startled when they finally do see you.

Use your judgement to decide how close to go according to circumstances and experience, and be responsive to the behaviour of the animals. When one or two heads come up, that's close enough. If several scramble into the water, that's too close. In some cases seals have become habituated to the presence of people and some boats in particular, and relatively close approaches may be possible without undue disturbance. Always remember that the best way to get a good view is by using binoculars. Other factors to consider are listed below.

- Are there any signs of agitation?
- The size of your vessel and/or the number of people watching.
- The number of other vessels, groups or individuals watching.
- Are there mothers and pups in the group? They may be nursing.
- Are you particularly vulnerable? (e.g. in a kayak or on a personal water craft).
- Are they used to being watched? Are they accustomed to your boat?
- Are they clearly going somewhere or doing something (e.g. feeding, nursing or resting) and are you about to get in the way?

On land, and especially at breeding sites, keep your distance and don't try to touch or feed seals. Seals can move surprisingly fast even on land and may bite if they feel threatened.

Never separate pups from mothers. Leave lone pups alone – the mother may only be foraging for food.

Don't stay too long. Other people may wish to see them, and they need some peace.

Don't crowd or encircle seals. If there are other boats present, keep to the same side of the animals and don't encircle them. Likewise, if there are a number of people on foot, keep to one side of the animals and leave them an escape route to the sea.

Remain as quiet as possible, especially if you are in a group, and avoid sudden movements.

Never land or camp near a haul-out site or at a breeding site. Avoid taking dogs close to seal haul-outs as they are likely to disturb the seals.

If you are exploring the coastline, or intend to camp on remote beaches, ask around locally (for example, local wildlife operators or SNH) before you go, and put a map together of places to go and places to avoid.

Swimming with seals is not recommended, for your own safety and that of the animals.

Avoid flash photography, especially at close range. Flash is rarely needed but is a default setting on many cameras. Check your settings before your trip.

Neither fixed wing aircraft nor helicopters should be used for watching seals. Never “buzz” them. Keep a minimum of 300 m (1000 ft) altitude when over haul-outs as long as it is safe and legal for you to do so.

Unmanned aerial vehicles (UAVs or “drones”) are increasingly being used for filming and photographing wildlife. Drones should never be flown directly at or through seals hauled out on land, especially if pups are present. Care should be taken not to disturb seals, either on land or in the water, by flying too close above them. There should be no need to get close as cameras are able to get excellent pictures from a considerable distance away.

In the UK, the operation of all aerial vehicles is governed by the Civil Aviation Authority (CAA) and there are some restrictions on where and how these may be used. Contact the **CAA** for more information before setting off to fly your drone.

The law

Under **Part 6** of the Marine (Scotland) Act 2010 (as amended) – Conservation of Seals, it is an offence to intentionally or recklessly kill or take a live seal without a licence. It is also an offence to intentionally or recklessly injure a live seal. The Act allows for exceptions for animal welfare reasons only. More information on the Act and seal licensing is available on the **Marine Scotland website**.

Under the same Act, it is also an offence to recklessly or intentionally harass seals on land at 194 designated haul-out sites around Scotland. Seal haul-outs are locations where significant numbers of seals come ashore to rest, moult or breed regularly. Marine Scotland is the relevant authority for these sites, and maps and guidance can be found on their **website**.

Both species of seal are listed on Annex II and Annex V of the EC Habitats Directive 1992. Species listed on Annex II are those considered to be of Community interest whose conservation requires the designation of Special Areas of Conservation (SACs). A number of SACs have been designated for harbour and grey seals around Scotland to protect particularly important sites. Species listed on Annex V are those which may not be taken or killed in certain ways outlined in the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

This is a summary of the legislation that applies to seals in Scotland and is intended as a guide only. For more detail on the offences, defences and exceptions, you should consult the actual legislation.

Birds

Scotland is an exceptional place to watch seabirds, waders and waterfowl. Almost six million seabirds nest on our sea cliffs in summer. We are host to more than half the world's great skuas, almost half the world's northern gannets and one third of the Manx shearwaters. We are also home to more than 10% of the European or Atlantic populations of seven other species.

Many species of seabird have stable populations or are increasing in numbers, but the picture is not universally positive. Some seabird populations in the Northern Isles, for instance, have suffered severe declines in recent years.

Eighteen species of wader regularly over-winter in Scotland. Some of these such as black-tailed godwit are increasing in numbers but others appear to be in decline. These include curlew, knot and bar-tailed godwit.

Scotland also supports internationally important populations of over-wintering ducks, swans and geese, many of which frequent our shores and estuaries. Although the populations of some species have increased since the mid-1970s, others such as pintail duck, red-breasted merganser and goosander, are declining.

In recent years, many wildlife watchers in Scotland have been fortunate enough to see the **white-tailed eagle** (or sea eagle). This bird is an impressive sight, with a wingspan over 2 metres. The species has been re-introduced to Scotland, with releases in the west of Scotland in the 1970s –1990s, and in the east of Scotland between 2007 and 2013. It has bred successfully in Scotland since the mid-1980s and there are now around 79 pairs (as of 2013) on the west coast alone, with pairs now known to be nesting in Orkney and on the east coast.

Why we need to be careful

Many birds are accustomed to the presence of humans and live in harmony with us. But as more and more people venture out on the water and visits to isolated islands increase, birds may be subject to higher levels of disturbance. This applies in particular to breeding sites, which may be on cliffs, in burrows or directly on the ground, where they can be either hidden in vegetation or in the open but well camouflaged.

Birds can be very protective of their eggs and young, and some species are known to dive bomb people who approach too closely. This can result in injury from beak or talon strikes.

Possible direct and indirect impacts of people on birds include:

- Disturbance at breeding grounds resulting in delayed and less successful breeding, reduced fledging weight, and lower juvenile survival. In extreme cases this may lead to a site being deserted permanently.
- Increased destruction or predation of eggs or chicks when parent birds are disturbed from nests, or death of eggs due to exposure.
- Attraction of potential predators such as gulls through food litter.
- Introduction of non-native or feral predators such as mink and rats.
- Changes to breeding habitat, such as loss of cover or erosion.

Burrow-nesting species (such as Atlantic puffins, shearwaters and petrels) are vulnerable to trampling and burrow collapse, and disturbance when they arrive and leave burrows – for shearwaters and petrels this is typically at dawn and dusk. Many burrow-nesters are especially vulnerable because they usually lay only a single egg with a long incubation period. Burrows may be in use for three to six months.

Ground-nesting species (such as terns) are very sensitive to approach, and will leave the nest readily. If this happens regularly, they may abandon disturbed sites. Seabirds may shift to less favourable zones within a breeding site if the more favourable areas are disturbed too often. The “critical approach distance” at which breeding seabirds will leave the nest varies from species to species, and also depends on how accustomed the birds are to people, but is typically 50-150 metres and up to 300 metres for very sensitive species.

The effects of disturbance on feeding depend greatly on the species. Larger birds such as northern gannets feed their chicks around twice per day whilst terns are fed as often as every hour. Disruption of feeding may have serious effects particularly on chicks that require more frequent feeding.

Many birds feed in flocks or groups, and when a patch of food has been found – a shoal of fish for example – they will gather from far and wide. If you frighten the birds away – or the fish on which they are feeding – they may not get a similar chance to feed for some time.

Birds offshore, whether alone, in small groups or large rafts on the water, may also be vulnerable. In addition to feeding they may be engaged in other essential activities – resting, preening, courtship and moulting. Interrupting these behaviours can have significant impacts on health and survival. Young birds that have recently left the nest will be particularly vulnerable.

Signs of disturbance

Birds at sea will usually paddle gently away from an approaching boat or swimmer. If you get uncomfortably close, birds will begin to paddle more rapidly, typically turning their heads from side to side to keep you in view before finally taking off or diving. If this happens, you have been too close.

Birds on the land typically take off as you approach and usually settle again behind you as you pass. Some birds make a loud alarm call and may circle a nest site calling repeatedly or become aggressive, diving at anyone considered to be too close. Others may remain on the ground in an attempt to draw you away from

the nest by pretending to be injured, the so-called “broken wing” display. If this happens, you are too close to a nest site. Some birds will lie low and freeze until the last possible moment, offering little warning of disturbance.

Signs of imminent flight by cliff-nesting birds include head turning, bobbing and wing flapping. If you go any closer or create further disturbance they are likely to leave their nests.

Sensitive times and places

The seabird breeding season is typically from April to mid-July, although burrow-nesting Atlantic puffins, shearwaters and petrels may not fledge and leave their burrows until August, while gannet chicks may remain on the cliffs until September or October.

The effects of disturbance at the time of courtship can be particularly severe, disrupting the whole breeding cycle. Abandonment of nests tends to occur more often earlier in the breeding season, before the chicks have hatched. Disturbance when chicks are close to fledging may also be severe as older chicks will disperse from the nest and even jump from cliff ledges when disturbed.

There are particularly sensitive times at most seabird colonies when disturbance can have more serious effects:

- late afternoon and early evening
- during the hottest part of the day
- during wet and/or cold weather
- on moonlit nights
- when eggs or chicks are in their nests.

In summer, birds at sea may be moulting and unable to fly, for example the large groups of eider seen in coastal waters in summer.

Birds are also vulnerable during the winter when disturbance of feeding or roosting can be costly. They may be more prone to disturbance whilst at their roosts and extra care should be taken when approaching them. In the winter, birds need to conserve their energy to keep warm. If disturbed they may have to expend more energy getting away from you than they are able to replace, especially if their food is covered by the high tide. When seriously disturbed, some wader flocks may simply continue to fly throughout high tide, using precious energy.

How to watch birds responsibly

In some places there are local wildlife management schemes or initiatives aimed at protecting particularly vulnerable species or populations. Find out about these and follow their guidance. Be aware of local breeding sites and avoid them during the nesting season.

How you approach and how close you can go without causing significant disturbance depends on the species, local circumstances, and how used to people the birds are. Some birds, such as nesting terns, are very sensitive and disturbance may make them abandon a nest site altogether. Puffins are sometimes more tolerant and may approach and leave burrows in the close presence of humans, but you should avoid walking through colonies as this can cause burrows to collapse.

Where possible:

- Use binoculars or a telescope.
- Understand the birds' situation and behaviour and recognise signs of stress. If you are disrupting their behaviour in any way, back off carefully.
- Use bird hides or observe from a vehicle or boat at a distance.
- Approach birds slowly and quietly and, if on foot, adopt a prone position whilst observing.

Be careful that the size of your group does not in itself disturb the birds, particularly if they are not used to people watching them. Always keep noise and sudden movements to a minimum.

Dogs often cause alarm to birds so if you do take your dog with you keep it on a lead and under close control.

Be very careful not to leave any litter, and don't leave food "for the birds". It is likely to attract predatory gulls and do more harm than good.

Avoid flash photography, especially at close range. Flash is rarely needed but is a default setting on many cameras. Check your settings before your trip.

Neither fixed wing aircraft nor helicopters should be used for watching birds. Keep a minimum of 300 m (1000 ft) altitude when close to colonies or large groups of birds.

Unmanned aerial vehicles (UAVs or "drones") are increasingly being used for filming and photographing wildlife. Drones should never be flown directly at or through nesting, foraging or rafting birds. Care should be taken not to disturb birds by flying too close to them.

In the UK, the operation of all aerial vehicles is governed by the Civil Aviation Authority (CAA) and there are some restrictions on where and how these may be used. Contact the **CAA** for more information before setting off to fly your drone.

Birds on the shore

On approach, try to establish what the birds are doing. If they are feeding or resting, try to keep at least 50 metres away. If they are moving, try not to deflect them from their path – move in the same direction parallel to the birds.

Be alert to the possibility that birds may have eggs or young – and these may be

on the shore, in the dunes, or in adjacent grassland. Some parent birds may show signs of alarm, for example a loud call and agitated circling flight. Others give no warning until seconds before flight.

Look around to determine where the birds are – don't separate young from parents. You may disturb some birds unwittingly while carefully watching another group, so be aware of birds all around you.

Don't get close to areas where you know birds nest. You may inadvertently trample on nests as both eggs and chicks can be extremely well camouflaged. Try to keep at least 200 metres from colonies of ground-nesting birds.

Birds at sea

Seabirds can form large groups, or rafts, on the sea both in summer and in winter. If you see a raft of birds ahead, reduce speed to less than 6 knots as you approach. We recommend a minimum approach distance of around 50 metres, although this may be varied according to species and circumstance. Avoid driving your boat through rafts of birds – navigate around them where practicable and safe to do so. Breaking up rafts can make them more vulnerable to predators and uses up precious energy.

Birds nesting on cliffs

If you are watching from a boat, reduce speed to the minimum compatible with safety as you approach. We recommend a minimum approach distance of around 50 metres, although this may be varied according to species and circumstance. If you go too close and cause panic departure, eggs or chicks may be dislodged from nesting sites.

Birds nesting in burrows

Look out for and keep your distance from burrows. If you walk over an area with burrows you may cause them to collapse, and you may deter birds from entering or leaving the burrows. Please follow any agreed information aimed at avoiding damage and disturbance. In some cases and/or at certain times of year this may include keeping to specific routes to protect the burrows.

The law

All **birds** are protected by law under the Wildlife and Countryside Act 1981(as amended). Some species are awarded additional protection under the Conservation (Natural Habitats &c) Regulations 1994 (as amended) and the Nature Conservation (Scotland) Act 2004.

It is an offence intentionally or recklessly:

- to kill or injure or take any bird (alive or dead, or part of one) or its egg;
- to take, damage, destroy or otherwise interfere with any bird's nest whilst it is in use or being built;
- to disturb any specially protected bird on Schedule 1 of the 1981 Act at its nest, or its young before they are wholly independent;
- to obstruct or prevent any wild bird from using its nest;
- at any time to take, damage, destroy or otherwise interfere with any nest of a white-tailed eagle or golden eagle;
- at any time to harass a white-tailed eagle or golden eagle.

It is also an offence to possess or control any live bird or part of one, or egg and knowingly cause or permit any of the above offences.

This is a summary of the legislation that applies to birds in Scotland and is intended as a guide only. For more detail on the offences, defences and exceptions, you should consult the actual legislation.

Otters

The **Eurasian otter** belongs to the same family as the badger, weasel, stoat, pine marten and mink. The species is found throughout much of Europe and Asia and part of North Africa.

Otters hunt in both fresh water and sea water. The Scottish coastline, with a mix of sea and freshwater lochs and rivers is ideal habitat for them.

Following a major decline in the UK as a whole in the 1960s and 1970s, otters have recovered and have now re-colonised most of their original range. Otters in the northern half of Scotland were not affected by this decline and the region has remained a long-term stronghold for the species. The total Scottish population is estimated at around 8,000 individuals.

A male otter can grow to over 1 metre and weighs about 9 kg. Otters have a long tail, thick at the base and tapering to the end, which is used for steering and balance when swimming. They swim very flat on the water surface and when diving for prey the long tail flips over and can be seen clearly. Otters have a high-pitched squeak or whistle when calling to other otters and a “whickering”, loud angry chatter when threatening. When on land, otters run with a lolloping gait, holding their tail off the ground.

Otters are territorial and their territories can be as small as 1-3 km of shoreline in the best coastal habitats, and 20-30 km or more in length along rivers and lochs. Males occupy larger territories than females and frequently overlap the territories of more than one female. They live on land and will shelter in a “holt” (den) – a hole or hollow under tree roots, in a peat bank, under rocks, or even in an old rabbit warren. Above ground resting sites known as “couches” are also commonly used.

The diet of otters in coastal habitats comprises mainly fish and crabs, but they will eat birds and small mammals if their preferred prey is scarce. Amphibians can also form an important component of the diet of coastal otters, especially in the spring, and they can move some distance inland to find them. Coastal otters also use inland lochs to wash salt out of their fur. On catching a small fish in the sea the otter may tread water and eat – this is sometimes mistaken for “lying on its back” but is actually more vertical in the water. It will carry larger prey to shore to eat.

Why we need to be careful

The otter is listed in the International Union for the Conservation of Nature’s (IUCN) Red Book as “near threatened”.

The main threats to otters in Scotland come from humans, through incidental capture in fishing gear and lobster creels and from being hit by vehicles when crossing roads. In some areas otters have suffered from contamination with pesticide residues and heavy metals, although this is far less of a problem than it was formerly.

Otter populations build up slowly and take time to recover. The average life expectancy in the wild is only 3-4 years and they first breed when they reach two years old. Typically one to three young are born in a litter, but not all survive to adulthood. Cubs become independent at around 18 months.

Signs of stress and disturbance

The most obvious sign of disturbance is if the animals move away. The first sign of disturbance is “head up” behaviour. If in water, the otter will stop swimming to raise itself higher out of the water whilst looking around and even at you. The otter may dive then disappear from view. If on land, the animal’s first reaction is again “head up” when disturbed. If under stress when on land the animal may vocalise by “whickering” its threatening call. In either situation back off. You may have disturbed a female with dependent cubs hidden nearby. If you hang around she may abandon them.

Sensitive times and places

There is no set breeding season and cubs can be born at any time of the year, although in Shetland there is a peak in births during the summer months. In other areas a peak in births has been observed in the winter. It depends on the availability of food.

Females with cubs are extremely sensitive to disturbance, so look out for these at any time of year.

Holts and couches may not be noticed and can be damaged easily.

How to watch otters responsibly

In some places there are local wildlife management schemes or initiatives aimed at protecting particularly vulnerable populations. Find out about these and follow their guidance.

The key to good practice when watching otters is the manner of the approach and behaviour while watching the animals. Distance is an issue, but specifying exact distances is problematic because they are difficult to judge, and because circumstances vary enormously. For example, females with cubs will be much more alert, cautious and vulnerable. The key is to be quiet and still, and to let the animals decide how close they want to be to you.

Otters’ strongest senses are those of smell and hearing. Otter eyesight is better under water than above but they do have good visual memory of their territories so camouflage and remaining below the skyline are essential.

Females with cubs are extremely vulnerable to disturbance. If a female is aware of you, back off. Do not attempt to follow if she moves away. Do not get between mother and cubs and do not attempt to approach cubs.

If you are camping, look out for otters and their paths and holts. In coastal areas, otter paths can be very obvious. They are typically 12-15 cm wide, often marked with otter droppings (spraints) and run from the seashore inland into areas of dense vegetation or to freshwater pools. Avoid camping near these paths, if possible, as they comprise the otters’ main routes to the water. If you have a dog with you, be sure to keep it under control at all times.

To minimise disturbance:

- Remain quiet and keep your distance. Use binoculars or a telescope to get a better view.
- When watching from on land, move only during the otter’s hunting dive. This is usually between 10 and 20 seconds but sometimes as much as 60 seconds.
- If you see any signs of agitation stop moving or back off quietly. Do not attempt to follow if the animal moves away from you.
- Do not get between mother and cubs and do not attempt to approach cubs.
- Do not encircle or entrap – if there are several groups or boats, all should keep to the same side of the animal.
- If you are camping, look out for otters and their holts and avoid camping near their main route to water.

Otters are not easy to spot even if you are in their territory. However, if you do see one and you follow this simple guidance, you will be able to see it behaving normally in its day-to-day activities, and your encounter may be prolonged and memorable.

The law

Otters are listed on Annex II of the EC Habitats Directive 1992 as a species of Community interest whose conservation requires the designation of Special Areas of Conservation (SACs). Otters are also listed on Annex IV as a species of Community interest in need of strict protection.

In Scotland, otters are protected by the Conservation (Natural Habitats &c) Regulations 1994 (as amended) and are known as European protected species.

It is an offence:

- to deliberately or recklessly capture, kill or injure an otter, disturb one under certain circumstances, harass one or a group of otter, or obstruct access to a breeding site or resting place;
- to damage or destroy a breeding site or resting place howsoever done (note that holts and couches are protected whether or not an otter is present);
- It is also illegal to possess, transport, sell or exchange or offer for sale or exchange any wild otter (dead or alive) or any part of one and to knowingly cause or permit any of these offences.

This is a summary of the legislation that applies to otters in Scotland and is intended as a guide only. For more detail on the offences, defences and exceptions, you should consult the actual legislation.

Turtles

Five of the world's seven species of marine turtle have been found in UK and Irish waters, but they are rarely seen.

The leatherback turtle is the largest of the seven marine species of turtle and is the most widely distributed reptile in the world. It nests on tropical beaches but forages in tropical and temperate waters, feeding mainly on jellyfish. It is easy to identify because of its large size, the black coloration with white spots, and the pronounced longitudinal ridges along the back. They are spectacular animals and the largest specimen ever recorded became stranded on a Welsh beach in 1988, weighed 960 kg and was 2.9 metres in length.

Unlike other turtle species, the leatherback is able to feed in cooler waters as it is better able to control its body temperature. The large adults are regular migratory visitors to the coastal waters around the UK and Ireland and most sightings occur in late summer and autumn. Peak numbers occur in August. Juvenile leatherback turtles have not been recorded in UK waters and tend to be restricted to warm climates with sea surface temperatures warmer than 26°C.

While in UK waters, leatherbacks are known to feed on species such as moon jellyfish, compass jellyfish, lion's-mane jellyfish, blue jellyfish, mauve stinger, barrel jellyfish and sea firs.

Three other species of marine turtle have also been recorded around Scotland: the loggerhead, Kemp's ridley and green turtles. The hawksbill turtle has been recorded off southern Ireland. Unlike the leatherback,

the occurrence of these species in Scottish waters is not a normal part of their life history – they are effectively strays. UK waters in general, and Scottish waters in particular, are too cold for them.

Although the number of marine turtles occurring around Scotland is relatively low, they are likely to be very under-recorded because they are hard to spot. Until recently, there was no co-ordinated recording effort. However, from the mid-1990s this changed with the introduction of Scotland-wide, and then UK and Ireland-wide, turtle recording schemes. Between 2010 and 2013, there were 13 sightings of live marine turtles recorded in the waters around Scotland.

Why we need to be careful

Turtle populations worldwide are declining and we need to protect them. In UK waters turtles are at risk from:

- Marine litter, especially plastic, which turtles can mistake for jellyfish. Once swallowed, plastic can block a turtle's throat or gut leading to starvation.
- Fishing gear discarded at sea which may entangle and kill turtles.
- Some turtle species are prone to entanglement in static fishing gear such as creels and gillnets, which often leads to drowning.
- Boat collisions. Turtles need to surface to breathe and often bask on the surface, leaving them vulnerable to boat strike.

Signs of disturbance

Leatherback turtles will dive rapidly if approached too closely or at speed.

How to watch turtles responsibly

If you encounter a healthy turtle at sea, don't chase or harass it in any way. Be aware that they have very powerful flippers, and can bite. Don't follow the turtle if it swims away. If you don't know what sort of turtle it is and you have a camera, take a photograph for identification (without getting too close) and report your sighting to the **Marine Conservation Society**.

The law

Turtles are listed on Annex IV of the EC Habitats Directive 1992 as species of Community interest in need of strict protection. In Scotland, turtles are protected by the Conservation (Natural Habitats &c) Regulations 1994 (as amended) and are known as European protected species.

It is an offence:

- to deliberately or recklessly capture, kill, injure, harass or disturb (under certain circumstances) any marine turtle;
- to possess, transport, sell or exchange or offer for sale or exchange turtles (dead or alive) including their shells.

This is a summary of the legislation that applies to marine turtles in Scotland and is intended as a guide only. For more detail on the offences, exceptions and defences, you should consult the actual legislation.

Dealing with cumulative impacts

Whenever you walk along a beach or go out in a boat you have the potential to disturb wildlife. Occasional disturbance is a natural part of life and may be insignificant. As water sports and wildlife watching increase, however, there is the danger that repeated minor disturbance will begin to have a bigger impact. Minor disturbance incidents, by an individual or group, repeated over a short space of time (e.g. within the space of a day or less) could be defined as harassment. For many species, this could constitute a criminal offence.

The Scottish Marine Wildlife Watching Code deals mainly with minimising disturbance from individual encounters. We try to deal with cumulative effects by urging people not to stay with wildlife too long, especially when there are others who also wish to watch. However, there will inevitably be times and places where the number of encounters with wildlife increases and has an effect on the well-being and survival of animals. There are many other pressures from human activity which may also add to the overall impact. We need mechanisms to deal with this.

The most appropriate mechanism will depend on local circumstances and will need to be dealt with at a local level. For example, there are particular locations – such as National Nature Reserves – which attract larger numbers of visitors, where specific local guidance has been developed with the full support of local wildlife tour operators.

A range of different kinds of measures or protocols may be introduced at the local level including, for example:

- Information and educational materials to raise awareness of marine life, both on and off site including information boards, leaflets and interpretation centres.
- Ranger services and reporting initiatives.
- Agreement on particular routes for boats or walkers observing marine wildlife, taking account of the interests of wildlife, the safety of the observers, and the interests of other groups.
- Provision of other supporting infrastructure such as hides.
- Permanent or seasonal exclusion zones to protect wildlife in critical places or at critical times.
- Minimum approach distances or other protocols appropriate to local circumstances, perhaps for particular species at sensitive times or places.
- Limits on the total number of boats, groups or individuals observing marine

wildlife at any one time, or within a specified period, or at a particular location.

- Licensing schemes for commercial wildlife watching.
- Local byelaws (which can be introduced by both local government and a range of public bodies) consistent with the Land Reform (Scotland) Act 2003 (as amended).

Different stakeholders may see the need to initiate or facilitate measures or protocols:

- Training and accreditation schemes are available for skippers and crew who may encounter marine wildlife during the course of their trips, for example the **WiSE (Wildlife Safe) Scheme**.
- Commercial wildlife operators are often well placed to monitor and assess the need for local measures.
- Environmental NGOs, marine biologists, and members of the general public may also see the need or opportunity to initiate local management in response to particular issues.
- Recreational user groups, for example kayaking, power boat or personal water craft clubs, have shown increasing interest and initiative in developing best practice guidelines.
- Local Coastal Partnerships are well placed to facilitate marine management initiatives, especially where the number of stakeholders is large, and where there are differing perspectives.
- Local Authorities, as well as other public bodies, have a duty under the Nature Conservation (Scotland) Act 2004 (as amended) to further biodiversity and promote sustainable development, and may identify particular needs and opportunities.
- As the government's statutory conservation adviser, Scottish Natural Heritage has a role in promoting and advising on local conservation and sustainable development initiatives.

By working together, these various interests can develop local management measures which ensure the health of wildlife, sustainability of commercial wildlife watching, and enjoyable encounters with wildlife for many people now and in the future.

Annex 1: Reporting and recording

We can only look after our marine life and understand the impacts that we are having, if we understand the status and trends of populations. Wildlife watchers can provide invaluable information on these issues.

Reporting live stranded or injured marine wildlife

Emergency number for live stranded marine wildlife:
Scottish SPCA: 03000 999 999 or British Divers Marine Life Rescue (BDMLR) 01825 765546 (Office hours) and 07787 433412 (Out of office hours). The BDMLR website (**www.bdmlr.org.uk**) includes valuable information on what to do if you find a live stranded marine mammal.

Animals with tags should also be reported to the Sea Mammal Research Unit on 01334 463446 (**www.smru.st-andrews.ac.uk**) or email **smru@st-andrews.ac.uk**.

Reporting dead animals

Please report dead cetaceans, basking sharks, seals and turtles to the Scottish Marine Animal Stranding Scheme (SMASS). There are a number of ways to do this:
Telephone: 01463 243030 or 07979 245893 (out of hours).
Tweet: @strandings
Facebook: **www.facebook.com/Strandings**
Email: **strandings@sruc.co.uk**
Online: **www.strandings.org**

SMASS are part of the UK Cetacean Strandings Investigation Programme
http://ukstrandings.org/csip-background

Please report dead otters to the International Otter Survival Fund
Telephone: 01471 822 487
Online: **www.otter.org/Public/AboutOtters_OtterWatch.aspx**

Recording Schemes

Providing information on sightings to particular institutions or projects helps conservation, management, education and public awareness. It also promotes identification skills. We suggest the following recording schemes, but sightings can also be sent to the appropriate Local Biological Records Centre – see **www.brisc.org.uk/Sources.php** to find your local centre.

Basking Sharks

Marine Conservation Society: **www.mcsuk.org/sightings/baskingshark.php** or 0131 226 6360

The Shark Trust Basking Shark Project **www.sharktrust.org/en/sightingform**

Birds

British Trust for Ornithology: **www.bto.org/volunteer-surveys**
This site contains information and links to various bird survey and recording schemes.

Cetaceans

Seawatch Foundation: 01545 561227
or email **sightings@seawatchfoundation.org.uk**
www.seawatchfoundation.org.uk/sightingsform

Hebridean Whale and Dolphin Trust
www.whaledolphintrust.co.uk/sightings-report-a-sighting.asp

Egg cases (skate and ray)

The Great Egg-case Hunt, Shark Trust: **www.sharktrust.org/greateggcasehunt** or 01752 672020

Fish

The Marine Biological Association: **www.mba.ac.uk/recording** or 01752 275216

Jellyfish

Marine Conservation Society: **www.mcsuk.org/sightings/jellyfish.php** or 0131 226 6360

Molluscs

Conchological Society Marine Recording Scheme: **marine@conchsoc.org**
www.conchsoc.org/recording/recording.php

Seashore Wildlife

Porcupine Marine Natural History Society: **www.pmnhs.co.uk**
The Marine Biological Association: **www.mba.ac.uk/recording** or 01752 275216

Turtles

Marine Conservation Society: **www.mcsuk.org/sightings/turtles.php** or 0131 266 6360

Annex 2:
Other more specialist codes

The following codes are compatible with the Scottish Marine Wildlife Watching Code, in that they are at least as stringent. Some offer very specific advice for particular areas, particular users, or particular species. To find a copy of these codes, or to find out more about the organisations promoting them, follow the contact details below.

Aberdeen Harbour Dolphin Code

Advice for vessels in and around Aberdeen Harbour
01224 597000 or **info@aberdeen-harbour.co.uk**

Basking Shark Code

The Shark Trust has developed basking shark codes of conduct for swimmers and divers, kayakers and boat operators.
www.sharktrust.org/en/basking_shark_resources

The Birdwatchers' Code

RSPB **www.rspb.org.uk/advice/watchingbirds/code**

The Divers' Code of Conduct

British Sub-Aqua Club. 0151 350 6200 **www.bsac.com**

The Green Blue

The Green Blue is the joint environment programme created by the Royal Yachting Association and British Marine for anyone who enjoys getting out on the water or whose livelihood depends on it:
http://thegreenblue.org.uk/Boat-Users/Wildlife

The Nature Photographers' Code of Conduct

www.rps.org/special-interest-groups/nature/about/the-nature-photographers-code-of-practice

Partnership for Action Against Wildlife Crime in Scotland (PAW Scotland)

Provides information and advice on wildlife crime in Scotland. Also tells you who to contact if you think a wildlife crime has been committed.
www.paw.scotland.gov.uk

The Scottish Outdoor Access Code

Scottish Natural Heritage **www.outdooraccess-scotland.com**

Sea Kayaking – a guide to good environmental practice

Scottish Canoe Association. 0131 317 7314
http://canoescotland.org/where-go/protecting-environment

The Turtle Code

www.euroturtle.org/turtlecode/turtlecode.pdf

The Underwater Photographers Code

British Society of Underwater Photographers
www.bsoup.org/Code.php

WDC Watching Whales and Dolphins Wisely

Whale and Dolphin Conservation (0870 870 0027)
www.wdcs.org/national_regions/scotland/shorewatch/code.php

Wild Scotland Best Practice Guidelines

Separate guidelines for watching wildlife by vehicle, foot, boat and sea kayak:
www.wild-scotland.org.uk/about-us/wild-scotland-best-practice-guidelines

WiSe Scheme

Delivers training and accreditation to marine wildlife tour operators
www.wisescheme.org or 07836746197
There are separate, detailed codes for cetaceans, otters, basking sharks, seals and solitary dolphins. All can be found at: **www.wisescheme.org/?page_id=1128**

Scottish Natural Heritage

Scottish Natural Heritage (SNH) is a government body responsible to the Scottish Government and, through them, to the Scottish Parliament.

Our mission

All of nature for all of Scotland

Our aim

Scotland's natural heritage is a local, national and global asset. We promote its care and improvement, its responsible enjoyment, its greater understanding and appreciation and its sustainable use now and for future generations.

Our operating principles

We work in partnership, by co-operation, negotiation and consensus, where possible, with all relevant interests in Scotland: public, private and voluntary organisations, and individuals.

We operate in a devolved manner, delegating decision-making to the local level within the organisation to encourage and assist SNH to be accessible, sensitive and responsive to local needs and circumstances.

We operate in an open and accountable manner in all our activities.

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www.snh.gov.uk
www.facebook.com/ScottishNaturalHeritage
https://twitter.com/SNH_Tweets
https://scotlandsnature.wordpress.com

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