



Instructions for Completing Sea Watch Recording Forms

INTRODUCTION

Sea Watch uses a number of recording forms divided into three categories as listed below:

Casual Sightings Recording Form

Casual Sightings Recording Form (SWF/RF 1): For recording of any casual sighting (boat/land)

Land-based Sightings & Effort Record Forms

Land-based Effort & Sightings Recording Form (SWF/RF 2): For recording of sightings & effort from land

Vessel-based Sightings & Effort Record Forms

Vessel-based Effort Recording Form (SWF/RF 3): For recording of vessel-based effort

Vessel-based Sightings Recording Form (SWF/RF4): For recording of sightings associated with vessel-based effort

The **Casual Sightings Form** is used to record details of animals sighted whether from a chance observation.

Effort Forms keep account at regular intervals of the time spent watching whether any animals were seen or not, and in the case of vessel-based observations, the GPS position of the vessel at regular intervals.

NOTE: Wherever possible, please record the time you spend watching, i.e. the effort you put in. Effort information is critical to our analyses: If we do not know how many hours were spent watching, we do not know if the absence of animals at a particular time of year simply means that no watching was conducted. Likewise, during watches at sea the need for recording distances travelled and the vessel track is very important. However, all sightings are extremely valuable, so please send in your sighting anyway.

WHICH FORMS SHOULD YOU USE?

Casual sightings forms (RF1) can be used on their own to record chance observations when your situation prohibits the recording of effort.

When conducting a timed survey from land you should have the relevant Effort and Sightings form (RF2) to hand. Please complete both sections, recorded effort and environmental conditions every 15 minutes and indicate 0 sightings if none are seen, otherwise record details of sightings including the time of the sighting. As noted above, data that tell us that no animals were present during a timed watch, are just as important as data that tell us there were many. There is also an Excel spreadsheet available on the Sea Watch website that includes tables for effort and sightings from land if you prefer to enter the information digitally.

For watches from a vessel, use the Effort form (RF3) in combination with a separate Sightings form (RF4). Log positions (coordinates taken from a GPS) every 15 minutes or if there is a course change, as well as vessel speed and heading, and environmental conditions. Sea state is important to log as this has a large effect on the ability to spot animals at the surface. There is also an Excel spreadsheet available to digitally enter vessel effort and sightings.

Please send forms to formsswf@gmail.com (as jpg or pdf);

For more information please email Sea Watch at formsswf@gmail.com, telephone 01407 832892,

or visit our Website: <http://www.seawatchfoundation.org.uk>

GUIDELINES FOR DATA COLLECTION (For all forms)

IMPORTANT!! Please complete as many fields as you can. Do not be discouraged if you can only complete some of these. **All data are helpful!**

Who Are You? Please give us your **Name, Address, Telephone Number** and **E-mail address** whenever you submit forms. We may need to contact you for more information about your sighting.

When Was It? State the exact **Time** (24hr-clock) notifying whether BST or GMT, and complete **Date** (day/month/year) of your sighting or effort. If recording timed watches, cruises or long-term encounters, be sure to record both **Start Time** and **End Time**.

Animal Descriptions The most important information is **Species Identification**. Although Sea Watch is primarily interested in cetaceans, please record any of the following species:

Seals Sharks Sun fish Turtles

Record what species you see, but also provide relevant description details so that we can confirm your identification. Sea Watch has a number of Field Guides and Identification Charts available to help you learn the key characteristics of the species you are likely to see. However, sometimes you will find yourself in situations where you simply cannot be sure of what species you've seen. Depending on how sure you are about the species, record the confidence you have in your identification as **Definite, Probable** or **Possible**. In all cases, please give the key features which you did see. There are a number of general categories with regard to **Head & Beak Shape, Body Length, Position & Size of Dorsal Fin, Flank Markings** and **Blow Size & Shape** which help verify the species. **Photos** or **Drawings** will also help, including notes of any **Distinguishing Features** (e.g. fin tip missing, etc.) to help recognise individual animals. If, however, you are unsure of the identification then you can record it as "dolphin sp." for example.

Group Size Getting an accurate count of the numbers of whales, dolphins and porpoises in groups is difficult. The animals rarely come to the surface at the same time. For this reason record your judgment of the **Minimum** and **Maximum Group Size**. Minimum group size is the greatest number of animals you see at the surface all at once. Maximum group size could be your estimate from the number of surfacings over a five or ten second period. This period would be long enough to allow all animals travelling together to surface, but not so long that the same animal will be counted several times. Also, very large groups of dolphins may be estimated as "100+", for example. Always try to give us your **Best Estimate of Group Size**. If there are both adults and juveniles in the group, try to record their numbers separately. For this it is best to count the number of juveniles first and then estimate the total. The number of adults will then be found by subtracting the number of juveniles from the total. Differentiation of adults from juveniles is most reliably achieved by relative size but can be due to colour differences in certain species.

Location Sea Watch prefers locations in degrees and decimal minutes of **Latitude** and **Longitude**. However, the following are also acceptable if decimal degrees are not available: degrees, minutes and seconds, or if land-based, National Grid co-ordinates. If these are not available, give a verbal description of the location, making reference to the nearest landmarks. Whatever system you use please be very clear.

Behaviour Assessing behaviour can be difficult. Animals must be watched for a short period before behaviour can be interpreted. A few behavioural categories are listed and defined on the Sighting Recording Form. If these categories don't fit, describe what you saw in the **Other Behaviours** category.

Environmental Conditions Weather and sea conditions at the time of observation are extremely important to us. Poor weather affects observer ability to see and identify cetacean species. Recording the weather data helps us to assess the "sighting efficiency". A record of other environmental values at the time of a sighting can tell us the type of habitat in which a species occurs. If you can record **Depth, Water Temperature** and **Salinity**, at the time of sighting, it will give us better data than those obtained from oceanographic records and charts.

For more information please email Sea Watch at formsswf@gmail.com, telephone 01407 832892, or visit our Website: <http://www.seawatchfoundation.org.uk>

DATA DEFINITIONS: *use categories provided where possible**a) Land-based Effort & Sightings Form*

Sea State	0 = mirror calm; 1 = slight ripples, no foam crests; 2 = small wavelets, glassy crests, but no whitecaps; 3 = large wavelets, crests begin to break, few whitecaps; 4 = longer waves, many whitecaps; 5 = moderate waves of longer form, some spray; 6 = large waves, whitecaps everywhere, frequent spray; 7 = sea heaps up, white foam blows in streaks
Wind force	Use Beaufort Scale value given for Sea State as indicator unless the observed water is in lee of prevailing sea (otherwise see https://en.wikipedia.org/wiki/Beaufort_scale)
Swell height	Light = <1 m; Moderate = 1-2 m; Heavy = >2 m
Cloud coverage	Record as eighths fraction of sky covered by clouds
Visibility	< 1 km; 1-5 km; 6-10 km; >10 km
Species confidence	DEF = Definite; PROB = Probable; POSS = Possible
Boat Activity	Record number of each boat and type: NB = No boats, VE = unspecified vessel, YA = yacht, RB = rowboat or kayak, JS = jet ski, SPB = speed boat, VPB = visitor passenger boat, MB = motorboat, FI = fishing boat, FE = ferry, LS = large ship, SV = seismic vessel, WA = warship
Group composition	Cetaceans are assigned to the following age classes by estimating the relative body length of each individual, by association with conspecifics, and on colouration in some cases: ADULT : apparently mature at full length; JUVENILE : length is about 2/3 to 3/4 of adult length, and swimming independently or associated with an adult; CALF : Length is <2/3 of adult length, and consistently escorted by an adult
Behaviour	SURF = Surfacing; SS = Slow, NS = Normal, FS = Fast Swim; FEED = Feeding; SOCIAL = Socialising; SEX = Mating/Sexual; LOG = Logging; MILL = Milling; LEAP = Leap/Breach; BOWR = Bow-Ride; BODSL = Body Slap, TAILSL = Tail Slap; FLIPSL = Flipper Slap, SH = Spy-hop; BOT = Bottling (in seals)
Animal heading	Record the general direction (e.g. NW, E) towards which the animal is heading
Associated birds	Exact counts are usually possible if a flock contains fewer than c. 30 birds. For larger flocks a technique called “blocking” should be used. This approach entails counting the birds in a “block” of typical density from the trailing end of the flock (so that birds are not flying into the observer projection) and then visually superimposing this block into the rest of the flock to see how many times it will fit in. Associated birds are those sighted within 100 m from whales/dolphins/porpoises

b) Vessel-based Effort Form

Vessel	Give vessel name & type (using appropriate code from Boat Activity codes listed below)
Time	24-hour clock; specify GMT or BST
Obs. Height	Give estimated eye height of observer above sea level (in metres)
Field of View	Encircle the field of view that is being searched: 180° forward of the vessel; 90° to the left; 90° to the right; or 360° (all around the vessel)
Location	Record position (as degrees decimal minutes, or as decimal degrees) every 15 minutes or when course changes
Boat Course and Speed	Record bearing (as deg. magnetic), speed (in knots, if available) and whether primarily under motor or sail during the 15-minute period
Effort Type	DS = Dedicated Search; LT = Line Transect; CW = Casual Watch; ID = Photo ID
Sea State	0 = mirror calm; 1 = slight ripples, no foam crests; 2 = small wavelets, glassy crests, but no whitecaps; 3 = large wavelets, crests begin to break, few whitecaps; 4 = longer waves, many whitecaps; 5 = moderate waves of longer form, some spray; 6 = large waves, whitecaps everywhere, frequent spray; 7 = sea heaps up, white foam blows in streaks
Swell Height	Light = <1 m; Moderate = 1-2 m; Heavy = >2 m
Visibility	< 1 km; 1-5 km; 6-10 km; >10 km
Sighting Reference	Refer to No. on Sightings Recording Form
Boat Activity	Record boats within 5 km, giving number of each boat and type: NB = No boats, VE = unspecified vessel, YA = yacht, RB = rowboat or kayak, JS = jet ski, SPB = speed boat, VPB = visitor passenger boat; MB = motorboat (unspecified), FI = fishing boat, FE = ferry, LS = large ship, SV = seismic vessel, WA = warship

c) Vessel-based Sightings Form

Reference number	Number each sighting sequentially to allow for cross-reference with effort or additional notes. If a repeat sighting, use the same number as for the first sighting of the group
Location	Record latitude and longitude (degrees decimal minutes); if unavailable, note location in relation to local landmarks
Time	24-hour clock; circle BST or GMT
Species	Give the best judgement of species ID; use general categories if unsure (e.g. dolphin species); use initials: HP = Harbour Porpoise; BND = Bottlenose Dolphin, CD = Common Dolphin, WBD = White-beaked Dolphin, AWSD = Atlantic White-sided Dolphin, RD = Risso's Dolphin, SD = Striped Dolphin, KW = Killer Whale, LFPW = Long-finned Pilot Whale, SPW = Sperm Whale, MW = Minke Whale, FW = Fin Whale, HW = Humpback Whale,
Species confidence	DEF = Definite; PROB = Probable; POSS = Possible
Total number	Give range if unsure of exact number
Group composition	Cetaceans are assigned to the following age classes by estimating the relative body length of each individual, by association with conspecifics, and on colouration in some cases: ADULT : apparently mature at full length; JUVENILE : length is about $\frac{2}{3}$ to $\frac{3}{4}$ of adult length, and swimming independently or associated with an adult; CALF : Length is $<\frac{2}{3}$ of adult length, and consistently escorted by an adult
Sea State	0 = mirror calm; 1 = slight ripples, no foam crests; 2 = small wavelets, glassy crests, but no whitecaps; 3 = large wavelets, crests begin to break, few whitecaps; 4 = longer waves, many whitecaps; 5 = moderate waves of longer form, some spray; 6 = large waves, whitecaps everywhere, frequent spray; 7 = sea heaps up, white foam blows in streaks
Bearing to animal	Degrees (magnetic)
Distance to animal	Estimate distance in metres from vessel to animal
Behaviour	SURF = Surfacing; SS = Slow, NS = Normal, FS = Fast Swim; FEED = Feeding; SOCIAL = Socialising; SEX = Mating/Sexual; LOG = Logging; MILL = Milling; LEAP = Leap/Breach; BOWR = Bow-Ride; BODSL = Body Slap, TAILSL = Tail Slap; FLIPSL = Flipper Slap, SH = Spy-hop; BOT = Bottling in Seals
Animal heading	Record the general direction (e.g. NW, E) towards which the animal is travelling
Reaction	POS = Positive, NEG = Negative, NONE = Neutral/none to vessel
Associated seabirds	Exact counts are usually possible if a flock contains fewer than 30 birds. For larger flocks a technique called "blocking" should be used. This approach entails counting the birds in a "block" of typical density from the trailing end of the flock (so that birds are not flying into the observer projection) and then visually superimposing this block into the rest of the flock to see how many times it will fit in. Associated birds are those sighted within 100 m from whales/dolphins/porpoises