How to complete SWF Recording Forms: instructions

Introduction

Sea Watch uses several recording forms divided into two categories 1) **Sightings** and 2) **Effort**.

Sightings Forms are used to record details of animals sighted whether from a chance observation or during a timed watch. **Effort Forms** keep account at regular intervals of the time spent watching whether any animals are seen or not.

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 is very important. However, all sightings are extremely valuable, so please send in your sighting anyway.

The forms are listed per category here below:

1) SIGHTING Forms

Cetacean Sighting Form (SWF/RF1): For detailed recording of a single sighting
Vessel-based Sightings Form (SWF/RF2): For brief recording of multiple sightings

2) EFFORT Forms

Land-Based Form (SWF/RF4): For land-based timed watches
Vessel-Based Effort Form (SWF/RF5): For boat-based timed watches

For more information please write or telephone: Sea Watch Foundation, Paragon House, Wellington Place Tel: 0749 875 0310.
Email: sightings@seawatchfoundation.org.uk
Visit our Website: http://www.seawatchfoundation.org.uk

Which recording forms to use

When conducting a timed survey, you should have the relevant Effort and Sightings forms to hand. The Effort form will be used whether animals were seen or not, but the Sightings form will only be used if animals were seen.

Data that tell us that no animals were present during a timed watch, are equally important as data that tell us there were many. Sightings forms can be used on their own to record chance observations when your situation prohibits the recording of effort.

AT SEA: If you expect to see many animals of the same species or have very little time for recording (i.e. watch duties at sea), use the Vessel-based Sightings Form (SWF/RF2). If, however, you expect smaller numbers of sightings or a variety of species and time is not at a premium, then use Cetacean Sighting Form (SWF/RF1).

If you can conduct a timed survey at sea, use the Vessel-based Effort Form (SWF/RF5) for recording effort and the Vessel-based Sightings Form (SWF/RF2) for related sightings data.

ON LAND: The sighting form you use is largely down to your situation and the area in which you are observing. For all land-based watches use the Land-based Recording Form (SWF/RF4). This is a useful form as it records the effort and sightings on a single sheet. For a single opportunistic sighting use the Cetacean Sighting Form (SWF/RF1).

Guidelines for data collection: all forms

Please complete as many fields as you can. Do not be discouraged if you can only complete a few fields. All data are helpful!

WHO: Please give us your **Name**, **Address**, **Telephone Number** and **E-mail address** when you submit your forms. You may need to be contacted for more information about your sighting.

WHEN: 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**.

SPECIES SIGHTED: The most important information is **Species Identification**. Although Sea Watch is primarily interested in cetaceans, please also record sightings of seals, sharks, sun fish or 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 us information (on the form or via email) of the key features which you did see. There are several general categories about **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 recognize 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 in groups are 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 surfacing 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**.

AGE CLASS: Cetaceans are assigned to three age classes on the forms (**ADULT, JUVENILE, CALF**) by estimating the relative body length of each individual, by association with conspecifics, and on colouration in some cases.

JUVENILE: length is about ⅔ to ¾ of adult length, and swimming independently or associated with an adult.

CALF: Length is <⅔ of adult length, and consistently escorted by an adult

If there are immatures (JUVENILE, CALF) 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 immatures from the total.

WHERE: It is preferred **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, referring to the nearest landmarks. Whatever system you use please be very clear.

Please do remember that Latitude and Longitude are for the location where your sighing took place NOT from the location you conducted your watch. ***So, Latitude and Longitude need to point in the water not on land****.*

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 **Additional notes/ Behaviours** category.

Please contact Sea Watch's Sightings Officer (SO) to know more about behaviour.

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.

REMEMBER: *The best way you can help is to join your local Regional Coordinator and their Regional Group of volunteer observers. This will be the most efficient way to develop local support for your whale-watching activities. Everyone can make an important contribution!*

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
Swell height	**Light** = < 1m; **Moderate** = 1-2 m; **Heavy** = > 2m.
Visibility	< 1 km; 1-5 km; 6-10 km; >10 km
Glare/Lighting	**0** = no glare, excellent lighting; **1** = mild glare, good lighting; **2** = moderate glare, moderate lighting; **3** = strong glare, poor lighting
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
Species confidence	**DEF** = Definite; **PROB** = Probable; **POSS** = Possible
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 ⅔ to ¾ of adult length, and swimming independently or associated with an adult; **CALF**: Length is <⅔ of adult length, and consistently escorted by an adult
Bearing to Animal	Compass bearing in degrees
Distance from shore	Estimate distance from nearest piece of coast (express whether metres or kilometres)
Animal heading	Record the general direction (e.g. NW, E) towards which the animal is heading
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)

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 (Lat/Long)	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** = < 1m; **Moderate** = 1-2 m; **Heavy** = > 2m.
Visibility	< 1 km; 1-5 km; 6-10 km; >10 km
Glare/Lighting	**0** = no glare, excellent lighting; **1** = mild glare, good lighting; **2** = moderate glare, moderate lighting; **3** = strong glare, poor lighting
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
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
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 ⅔ to ¾ of adult length, and swimming independently or associated with an adult; **CALF**: Length is <⅔ of adult length, and consistently escorted by an adult
Location (Lat/Long)	Record latitude and longitude (degrees decimal minutes); if unavailable, note location in relation to local landmarks
Time	24-hour clock; circle BST or GMT
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