Table 1 *DASSH Data Quality assessment (QA) criteria*

Level	Spatial accuracy	Taxonomic accuracy	Methodological consistency	Temporal accuracy	QA procedure	Overall QA
High	Accurate positioning system used. i.e. dGPS, GPS. Spatial reference system documented	Surveyors with expert knowledge, surveyors accredited e.g. NMBAQC trained, or record verified by taxonomic expert, very few errors expected	A standard methodology used and documented in detail	Accurate dates and times available for all records	Rigorous internal (and possibly external) QA procedures documented	Very high quality data, internally data quality assessed, high confidence of accuracy and position and species identification of all records.
High-Medium	Positions estimated from charts or OS maps by surveyor but with reference to easily identifiable features and detailed descriptions, e.g. End of pier, rocky outcrop on beach etc	Trained surveyors with good natural history background potential for a small number of potential errors in difficult to identify groups.	A standard methodology used and documented in detail, some minor details unclear.	Most records have accurate date (and time if appropriate), but some records may be recorded to month only.	Data Collection and QA procedures in place including training of data collectors and use of standardised methodologies. Post processing QA of data on a more ad hoc basis not necessarily documented or standardised e.g. data entry not QA'd.	High quality data, most data with high confidence of accuracy of position and species identification.

Level	Spatial accuracy	Taxonomic accuracy	Methodological consistency	Temporal accuracy	QA procedure	Overall QA
Medium	Positions estimated from charts or OS maps by surveyor but no easily identifiable featured to QA against.	Surveyors are volunteers, MSc students or professionals with good natural history background. Potential errors in difficult to identify groups.	A standard methodology used but not supported fully by full documentation or references.	All records recorded. To minimum of month and year but often not day.	Some internal (or external) QA on a more ad hoc basis not necessarily documented or standardised.	Good quality data may lack internal QA, full documentation or may have. Some spatial/taxonomic ambiguity.
Medium-Low	Positions estimated by third party from map provided by surveyor.	Volunteer or other non-expert surveyors with some background in marine identification Errors possible for non-common and difficult to identify species.	Indications that a standard methodology was used but poorly documented.	Some dates recorded to month and year but many only recorded to month range, e.g. summer 1984 or year only.	It is possible that some ad hoc internal (or external) QA has taken place during data collection, e.g. verification of species identification but no documentation available ad it is unlikely that post sample processing QA has occurred.	Some good quality data present but lacking internal QA and/or full documentation. Inaccuracies expected in a number of records.

Level	Spatial accuracy	Taxonomic accuracy	Methodological consistency	Temporal accuracy	QA procedure	Overall QA
Low	Description only. Positions estimated from charts or OS maps by third party.	Volunteer, other non-expert surveyors. Errors possible for all except very easy to identify species.	No information on methodology or indications that a set methodology was not. Used. Includes records from casual observations.	Only vague dates recorded. Large date ranges e.g. summer 1984, year only or year ranges 1977-1979.	No QA procedures documented; ad hoc QA unlikely.	Data with spatial/taxonomic ambiguities and/or little documentation.
Data deficient	Insufficient information available to make an assessment.	Insufficient information available to make an assessment.	Insufficient information available to make an assessment.	Insufficient information available to make an assessment.	Insufficient information available to make an assessment.	Insufficient information available to make an assessment.

Data are graded on survey quality using the following three categories with respect to field surveyors:

- Professional
- Academic
- Naturalist
- Volunteer with expert ID
- Volunteer

For each dataset, an assessment is made on the quality of the data developed from criteria set out in the ISO 19115 standard for geospatial metadata (ISO, 2006) and using guidelines set out in Rackham & Walker (2006).

Rackham L. & Walker R. (2006). Metadata Guidelines for Geospatial Datasets in the UK. Part 3 Metadata Quality commissioned by the Department for Communities and Local Government.
http://www.gigateway.org.uk/pdf/guidelines/MetadataGuidelines3.pdf