



Joint IMR / NAMMCO
Workshop on the Status of Harbour Porpoises in the North Atlantic
3 - 7 December 2018, FRAM Centre, Tromsø, Norway

Guidelines for area ambassadors
Ref. Background Data to be provided to the Workshop

Points 1 to 6 needs to be filled in, 7 to 9 can be tentatively filled in, but will be completed during the workshop, taking into account discussions at the WS and the result of any assessment.

1. Identification of assessment units within each sub-area

Information on population(s) identity and any possible sub-structures, as well as possible mixing (with other areas and between substructures)

using information from genetic studies, telemetry data, any other ecological signatures
Identify sub-structuring: populations/sub-populations/ecological stocks/management units/assessment units

For each assessment unit, the information on the following should be summarized:

2. Distribution, abundance and trends (essential)

Geographic range of the assessment unit
Robust estimates of abundance, e.g. from line transect sampling
Trends in relative abundance

3. Anthropogenic removals in time and space (essential)

Hunting statistics (including struck/lost) with uncertainties, where available
By-catch estimates (information from fisheries monitoring and other methods) with uncertainties, where available
Age structure removal information, where available
Trends in relative by-catch rates

4. Impacts from other indirect (sub-lethal) pressures including cumulative effects, where available

(e.g., pollution, noise, disturbance)

5. Life History parameters and health status

(e.g., growth, reproductive rates, survival rates, health data)

6. Diet (and prey availability if available)

7. Knowledge gaps and uncertainties in assessment parameters

8. Monitoring requirements, research priorities and opportunities for cooperation

9. Assessment unit status (i.e. depleted/non-depleted)

*Template headers for abundance and by-catch estimates and life history parameters can be found below.
Templates in excel format are provided as attachments.*

NAMMCO

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Abundance:

Area	SURVEY/ PROJECT	YEAR	SEASON	Area (map) code	AREA (nm ²)	A (km ²)	TYPE	MODE	D (N/nm ²)	D (N/km ²)	N	CV	95% CI		BIAS CORR		COMMENT	Reference
													LCL	UCL	PER	AVAIL		

By-catch:

Country	Year	Month	WS Area code	ICES fishing area code	Metier level 3	Metier level 4	Metier level 5	Days at sea (DAS)	Total by- catch	Method used	DAS observed (DASO)	Tot. no. of specimen caught in DASO	Bycatch rate observed (no./DASO)	By-catch estimate	Reference
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Life-history parameters: Biological parameters of harbour porpoise in the Assessment Unit/Sub-Area. ASM = average age at attainment of sexual maturity, LSM = average length at attainment of sexual maturity, APR = annual pregnancy rate based on proportion pregnant (with foetus) and excluding animals that died during the mating period; calving interval = gestation + lactation + resting periods, or 1/APR. If more than one sampling period/one reference/etc available for a parameter include additional rows. *Include details in the text on how this was calculated.

Area:	Value (CI, if available)	Sampling period	Sample size	Method used*	Reference
Newborn length (cm)					
Female ASM ± SE/SD (yrs)*					
Female maximum age (yrs)					
Male ASM ± SE/SD (yrs)*					
Male maximum age (yrs)					
Female LSM ± SE/SD (cm)*					
Female maximum body length (cm)					
Male LSM ± SE/SD (cm)*					
Male maximum body length (cm)					
Female asymptotic length at physical maturity ± SE/SD (cm)*					
Male asymptotic length at physical maturity ± SE/SD (cm)*					
APR (%)					
Ovulation rate/yr					
Gestation period (yrs)					
Lactation period (yrs)					
Resting period (yrs)					
Calving interval (yrs)					
Calving season					
Mean birth date					
Mating season – Activity of mature males					
Mating season – Ovulation/conception period in females					
Mean conception date in females					