STANDARDIZED PROTOCOLS FOR PELAGIC SEABIRD SURVEYS FROM MOVING AND STATIONARY PLATFORMS

(Experienced Observers)

VERSION 1.2 – JULY 2006

Canadian Wildlife Service
Environment Canada – Atlantic Region
Dartmouth, Nova Scotia

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Environment Canada Environnement Canada
Atlantic Region Région de l'Atlantique

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Record sheet for a stationary platform

Scan Information:

Company/agency		Scan type	180° or other (specify:)
Platform name and type		Scan direction	
Observer (s)		Visibility (kilometres)	
Date (Day Month Year)		Sea state code	
Time at start (UTC or L)		Swell height (m)	
Time at end (UTC or L)		Wind speed (knots) **OR** Beaufort code	
Latitude at start		Wind direction	
Longitude at start		Observer's height (meters)	
Platform activity		Outdoors or Indoors	Out or In

Notes:

Bird Information:

*this field must be completed for each record

* Species	* Count	* Fly or Water?	* In semi-circle?	* Distance[1]	Assoc.	Behav.	Flight Direc.[2]	Age[3]	Plum.[4]	Sex	Comments

[1] *A* = 0-50m, *B* = 51-100m, *C* = 101-200m, *D* = 201-300m, *E* = > 300m, *3* = within 300m but no distance.
[2] Indicate compass direction (*N*, *NE*, *E*, *SE*, *S*, *SW*, *W*, or *NW*); *ND* = no apparent direction
[3] *J*(uvenile), *I*(mmature), or *A*(dult)
[4] *B*(reeding), *NB*(non-breeding), *M*(oult)

Ten-minute period record sheet for a moving platform

Observation Period Information:

Company/agency		Sea state code	
Platform name and type		Swell height (m)	
Observer (s)		Wind speed (knots) **OR** Beaufort code	
Date (Day Month Year)		Wind direction	
Time at start (UTC or L)		Platform speed (knots)	
Time at end (UTC or L)		Platform direction	
Latitude at start		Observation side	Starboard Port
Longitude at start		Observer's height (m)	
Platform activity		Outdoors or Indoors	Out or In
Visibility (kilometres)		Snapshot Used?	Yes or No

Notes:

Bird Information:

*this field must be completed for each record

* Species	* Count	* Fly or Water?	* In transect?	* Distance[1]	Assoc.	Behav.	Flight Direc.[2]	Age[3]	Plum.[4]	Sex	Comments

[1] ***A*** = 0-50m, ***B*** = 51-100m, ***C*** = 101-200m, ***D*** = 201-300m, ***E*** = > 300m, ***3*** = within 300m but no distance.
[2] Indicate compass direction (***N***, ***NE***, ***E***, ***SE***, ***S***, ***SW***, ***W***, or ***NW***); ***ND*** = no apparent direction
[3] ***J***(uvenile), ***I***(mmature), or ***A***(dult)
[4] ***B***(reeding), ***NB***(non-breeding), ***M***(oult)

Appendix XIV

Blank record sheets for moving and stationary platforms

Appendix XIII. Check-list of materials required while conducting seabird surveys.

- ☐ Multiple pens or sharp pencils **(required)**
- ☐ Multiple copies of blank recording sheets **(required)**
- ☐ Binoculars **(required)**
- ☐ Hand-held Global Positioning System (GPS) to determine platform position, vessel speed and vessel direction **(required)**
- ☐ Watch or clock **(required)** - with countdown timer that can beep on snapshot intervals would be preferred
- ☐ Compass or GPS to determine flight direction of birds **(required)**
- ☐ Copy of protocol (recommended)
- ☐ Spotting telescope (recommended)
- ☐ Seabird identification guide (recommended)
- ☐ Slide calliper or range finder (recommended)
- ☐ Warm and waterproof clothing (recommended)
- ☐ Calculator if using slide calliper to determine 300m observation distance (recommended)

Appendix XII. Example of completed record sheet for a stationary platform.

Record sheet for a stationary platform

Scan Information:

Company/agency	Canadian Superior	Scan type	180° or other (specify:)
Platform name and type	Drill Rig RG-5	Scan direction	SW
Observer (s)	Jason Snipe	Visibility (kilometres)	1
Date (Day Month Year)	15 August 2005	Sea state code	4
Time at start (UTC or L)	12:50 UTC	Swell height (m)	1
Time at end (UTC or L)	12:54 UTC	Wind speed (knots) **OR** Beaufort code	5 (Beaufort scale)
Latitude at start	43° 54.086N	Wind direction	NW
Longitude at start	63° 26.391W	Observer's height (meters)	15
Platform activity	Not drilling	Outdoors or Indoors	Out or In

Notes:

Bird Information:

*this field must be completed for each record

* Species	* Count	* Fly or Water?	* In semi-circle?	* Distance[1]	Assoc.	Behav.	Flight Direc.[2]	Age[3]	Plum.[4]	Sex	Comments
HERG	1	F	N	E			NW				
HERG	6	F	Y	C	18		ND	I			
BLKI	3	W	Y	C		60		A	B		
BLKI	1							J			
COMU	1	W	Y	A		65		A	B		
COMU	1							J	B		
GBBG	9	F	N	B	50	41	ND	A	B		
GBBG	5							I			
NOFU	4							A	B		light morph
ALCI	1	W	Y	W				A	B		

[1] *A* = 0-50m, *B* = 51-100m, *C* = 101-200m, *D* = 201-300m, *E* = > 300m, *3* = within 300m but no distance.
[2] Indicate compass direction (*N*, *NE*, *E*, *SE*, *S*, *SW*, *W*, or *NW*); *ND* = no apparent direction
[3] *J*(uvenile), *I*(mmature), or *A*(dult)
[4] *B*(reeding), *NB*(non-breeding), *M*(oult)

XI.3. Datasheet Ten-minute period record sheet for a moving platform

Observation Period Information:

Company/agency	**DFO**	Sea state code	**3**
Platform name and type	**Teleost, DFO Research**	Swell height (m)	**2**
Observer (s)	**Carina Gjerdrum**	Wind speed (knots) **OR** Beaufort code	**17 knots**
Date (Day Month Year)	**15 May 2006**	Wind direction	**SSE**
Time at start (UTC or L)	**0800 L (NLT)**	Platform speed (knots)	**10**
Time at end (UTC or L)	**0810 L**	Platform direction	**E**
Latitude at start	**45° 02.535**	Observation side	**Starboard** (Port)
Longitude at start	**45° 33.751**	Observer's height (meters)	**12**
Platform activity	**steaming**	Outdoors or Indoors	Out or (**In**)
Visibility (kilometres)	**15 km**	Snapshot Used?	(**Yes**) or No

Notes:

Crab fishing activity in area

Bird Information:

*this field must be completed for each record

* Species	* Count	* Fly or Water?	* In transect ?	* Distance[1]	Assoc.	Behav.	Flight Direc.[2]	Age[3]	Plum.[4]	Sex	Comments
a)	1	W	Y	C							
	1	W	Y	D							
	2	W	Y	A							
	1	F	Y	D			SW				
	1	F	N	D			SE				
b)	1	W	Y	D							
	1	F	N	C			SW				
c)	3	F	Y	B			NW				
	1	W	Y	B							
	1	W	N	E							
d)	1	F	Y	D			SW				
	4	F	N	3			S				
f)	1	F	N	D			SE				
	1	W	Y	B		33		I			
	1							A			
g)	1	F	Y	D							
	1	W	Y	D							
h)	1	F	N	A	18						

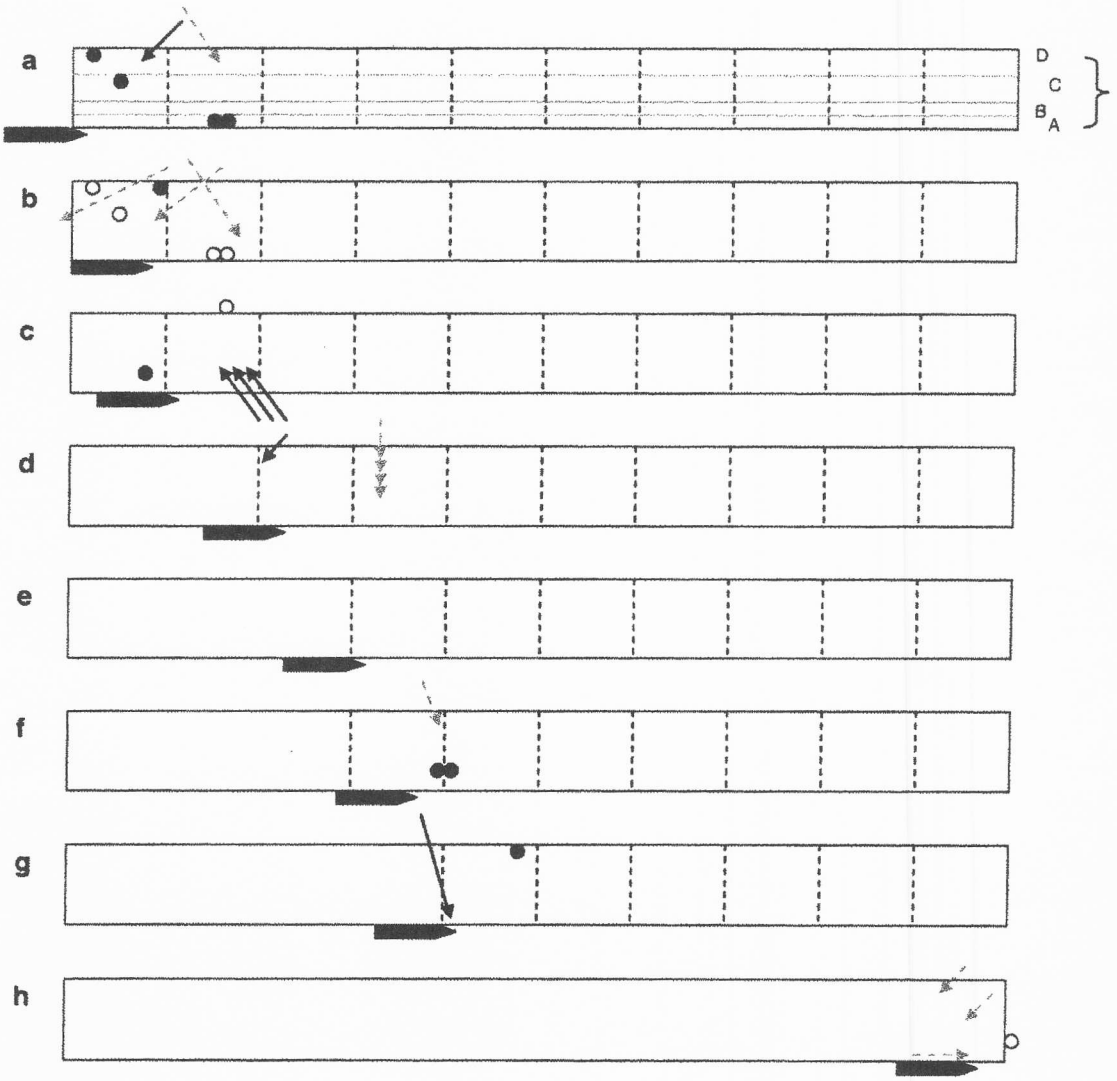
[1] ***A*** = 0-50m, ***B*** = 51-100m, ***C*** = 101-200m, ***D*** = 201-300m, ***E*** = > 300m, ***3*** = within 300m but no distance.

[2] Indicate compass direction (***N***, ***NE***, ***E***, ***SE***, ***S***, ***SW***, ***W***, or ***NW***); ***ND*** = no apparent direction

[3] ***J***(uvenile), ***I***(mmature), or ***A***(dult)

[4] ***B***(reeding), ***NB***(non-breeding), ***M***(oult)

XI.2. Scenario Figure **(adapted from Tasker et al. 1984).** An example of a 10 min observation period with birds shown on the water (points) and flying (arrows). Open points and arrows with dashed lines are meant to show those birds that are not to be counted as "in transect". Based on the speed of the vessel, instantaneous counts (snapshots) will be made for flying birds at 1-min intervals, represented here by the vertical dashed lines. The horizontal lines shown in '**a**' represent the bands for distance categories.



g) At minute 4, our next 'snapshot' takes place, and we see that the bird we saw earlier (see frame f) can now be recorded as "in transect", as it is within 300m of the vessel AND observed during the snapshot. We record the flying distance as D, as that is the distance that we first saw the bird. If we know for certain that this is the same individual we previously recorded as NOT in transect (frame f), we can cross the previous observation out. If we are not certain that this is the same individual we do not cross anything out. There is also a new bird on the water at distance D.

This procedure continues throughout the 10 min period, counting birds observed on the water continuously, and counting flying birds during 1 min snapshots. Recording birds on the water outside of the 300m wide transect, and flying birds in between snapshots can be done if it does not affect observations within the transect.

h) As we approach the end of the 10 min observation period, we note the bird at distance A that has been following us. Remember, you must record ship-followers as "associated with platform" (code 18). And we do not include the bird we can see about 350m ahead of the vessel, because by the time we reach it, the 10 min observation period will be over, and the bird will be counted in the next period.