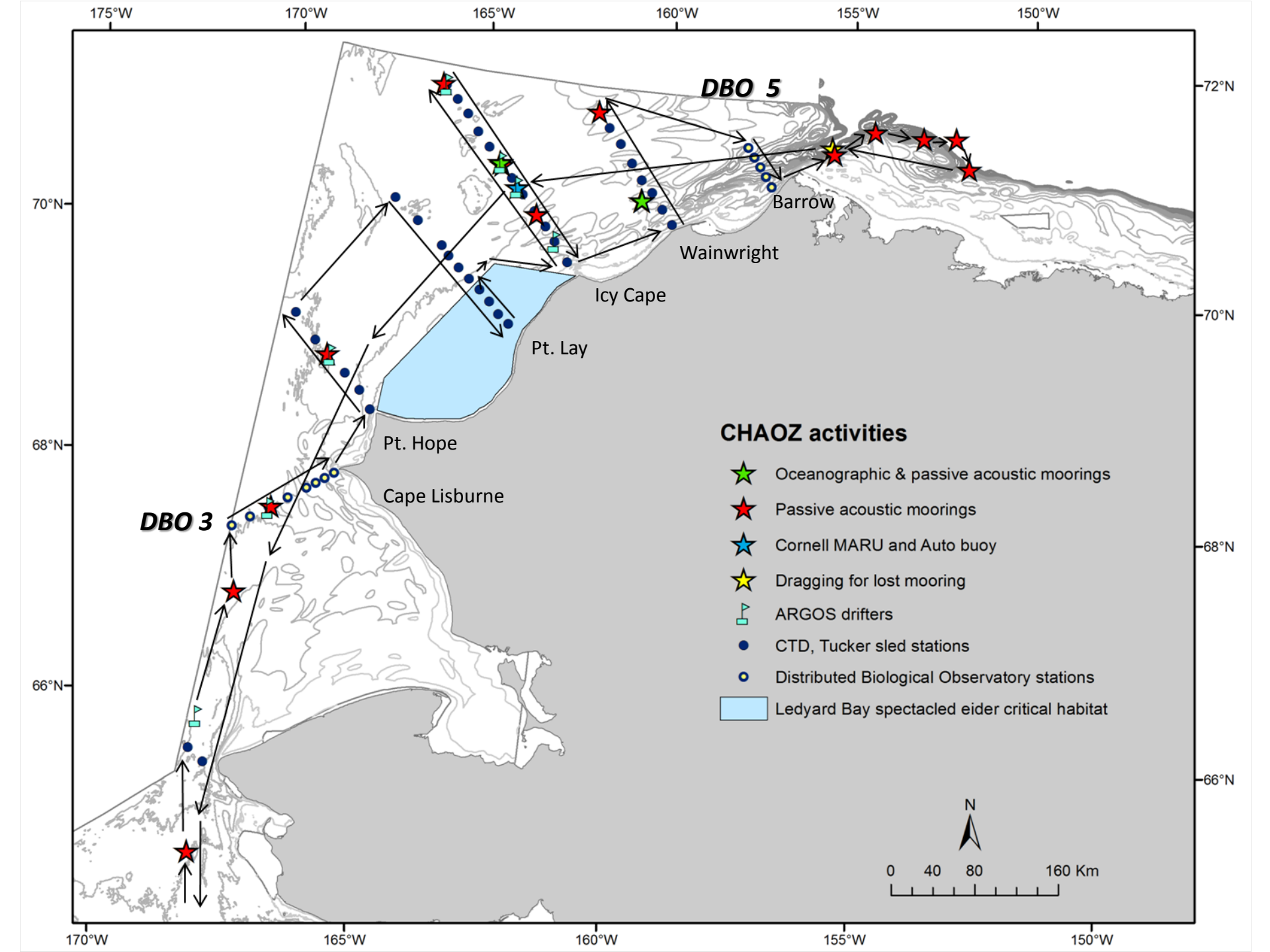
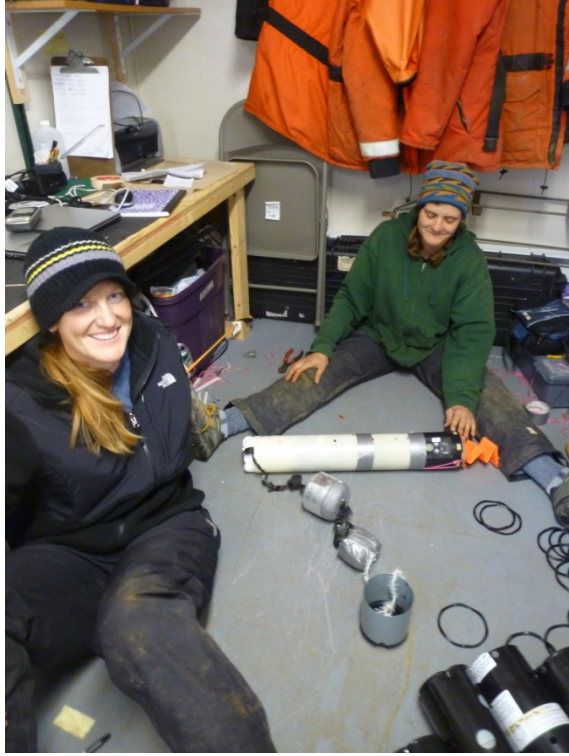
CHAOZ
Marine Mammals
NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
BOEM
Bureau of Ocean Energy Management

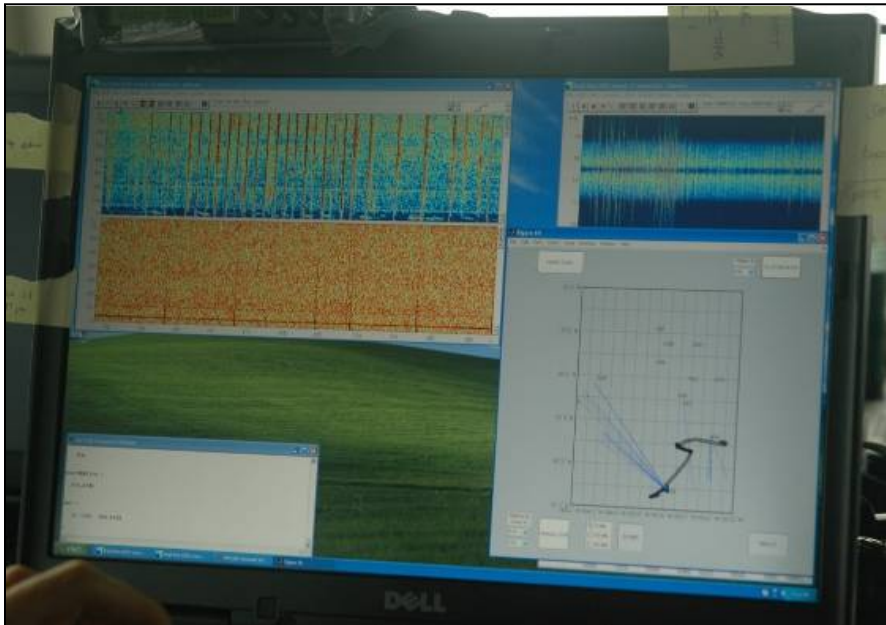

175°W
170°W
165°W
160°W
155°W
150°W
72°N
70°N
68°N
66°N
DBO 5
DBO 3
Barrow
Wainwright
Icy Cape
Pt. Lay
Pt. Hope
Cape Lisburne
CHAOZ activities
Oceanographic & passive acoustic moorings
Passive acoustic moorings
Cornell MARU and Auto buoy
Dragging for lost mooring
ARGOS drifters
CTD, Tucker sled stations
Distributed Biological Observatory stations
Ledyard Bay spectacled eider critical habitat
N
0 40 80 160 Km

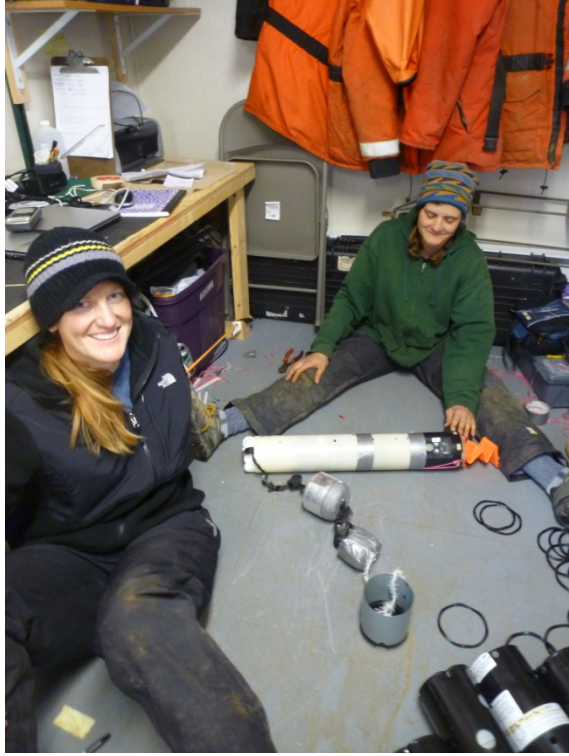


Visual surveys

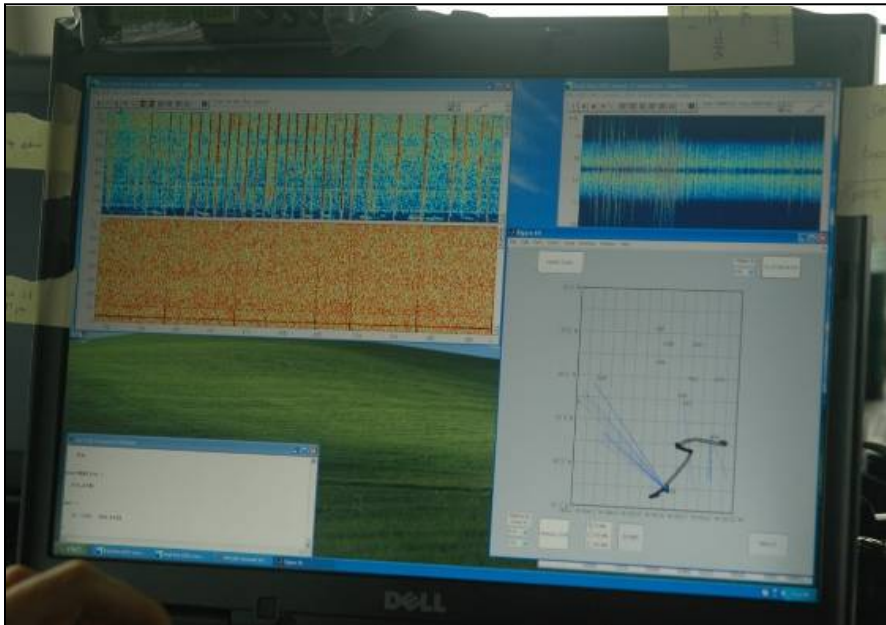
&

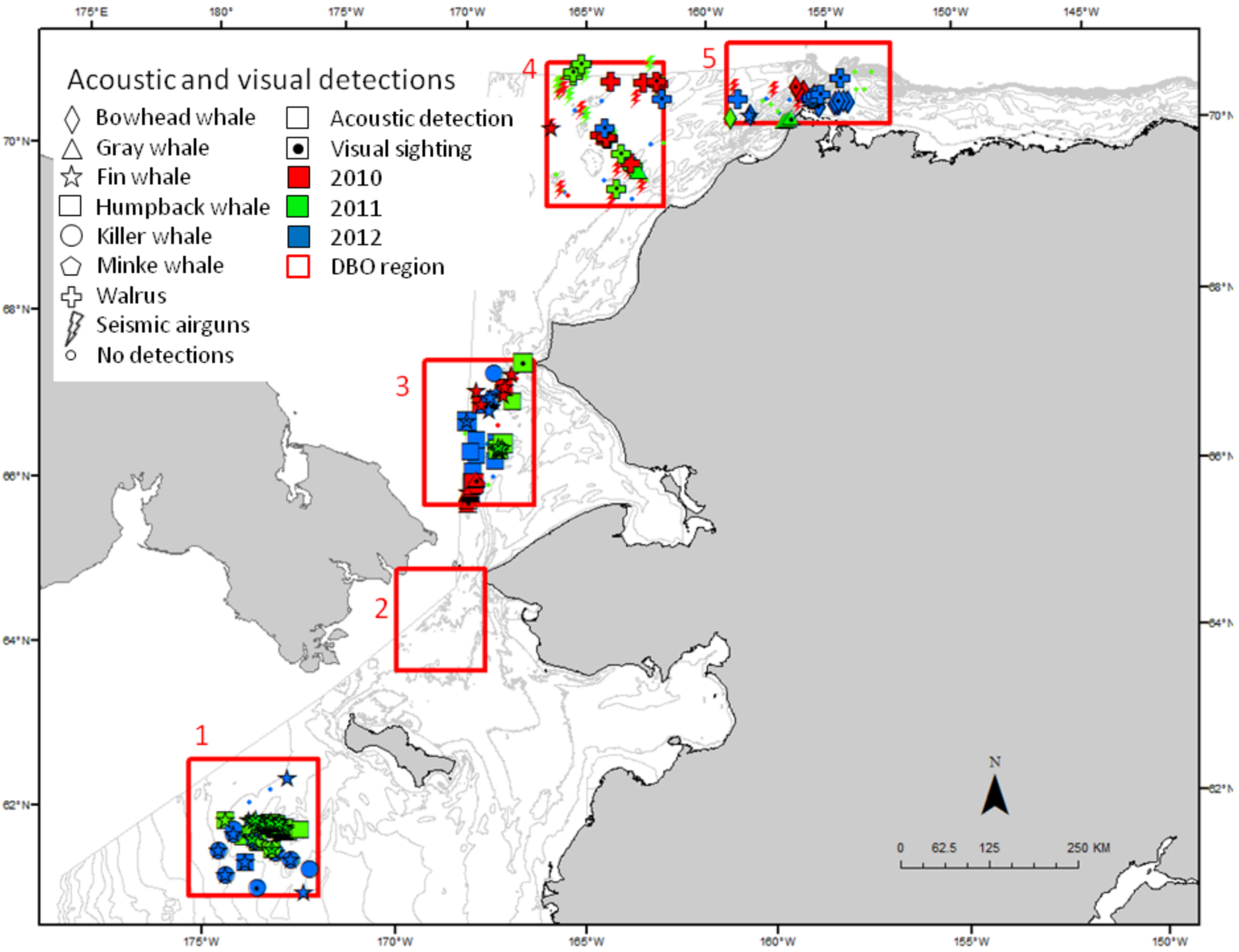
Passive acoustic monitoring

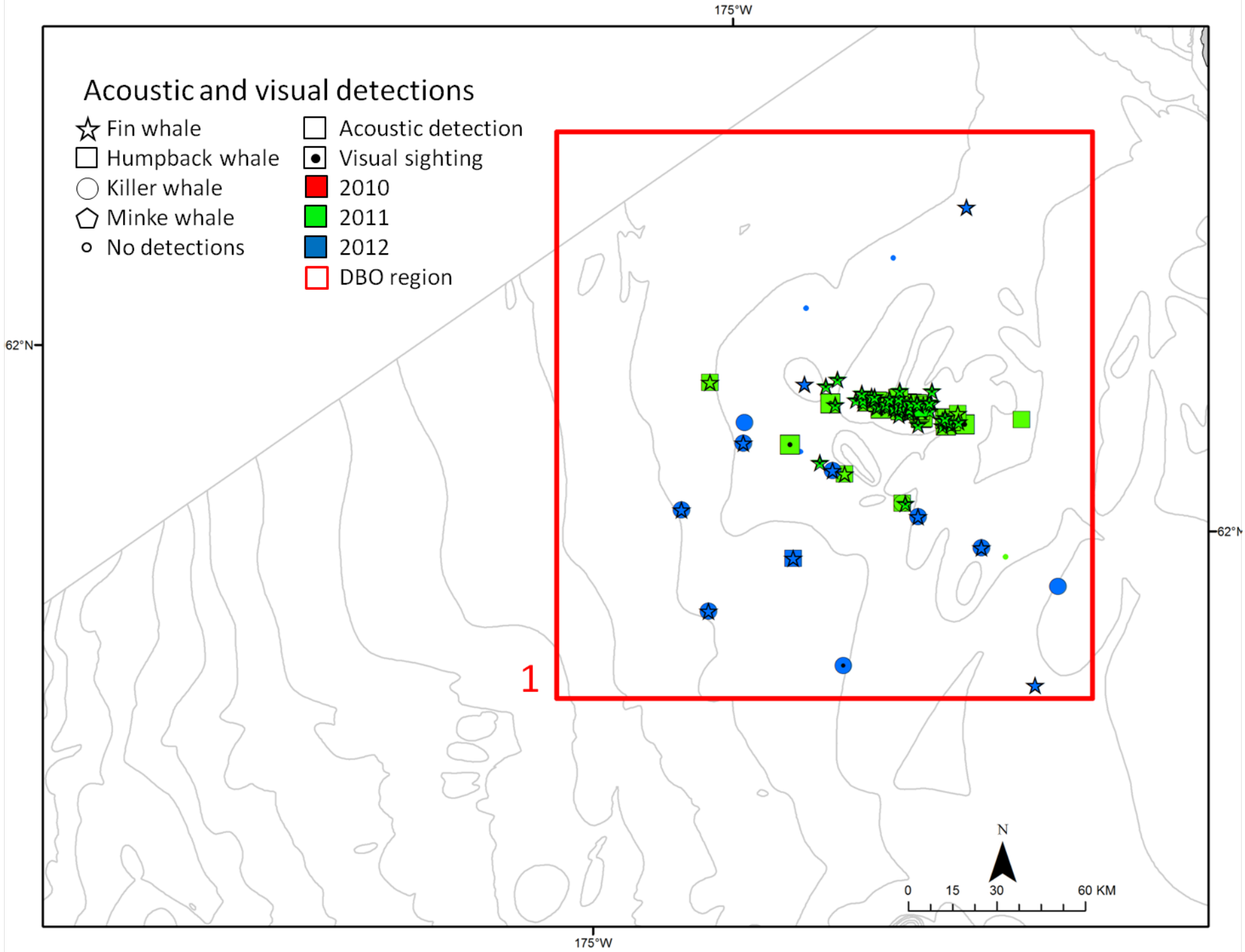


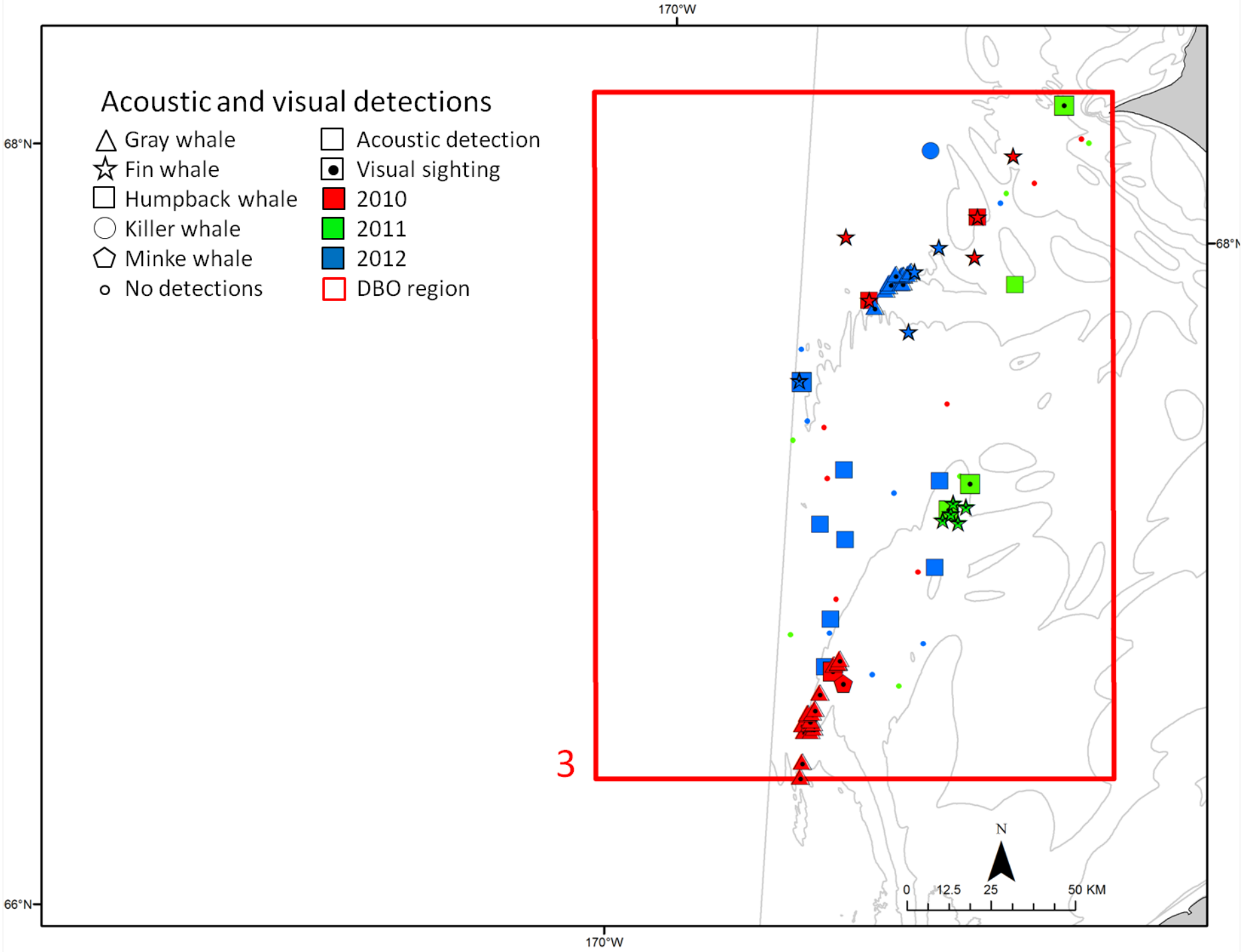


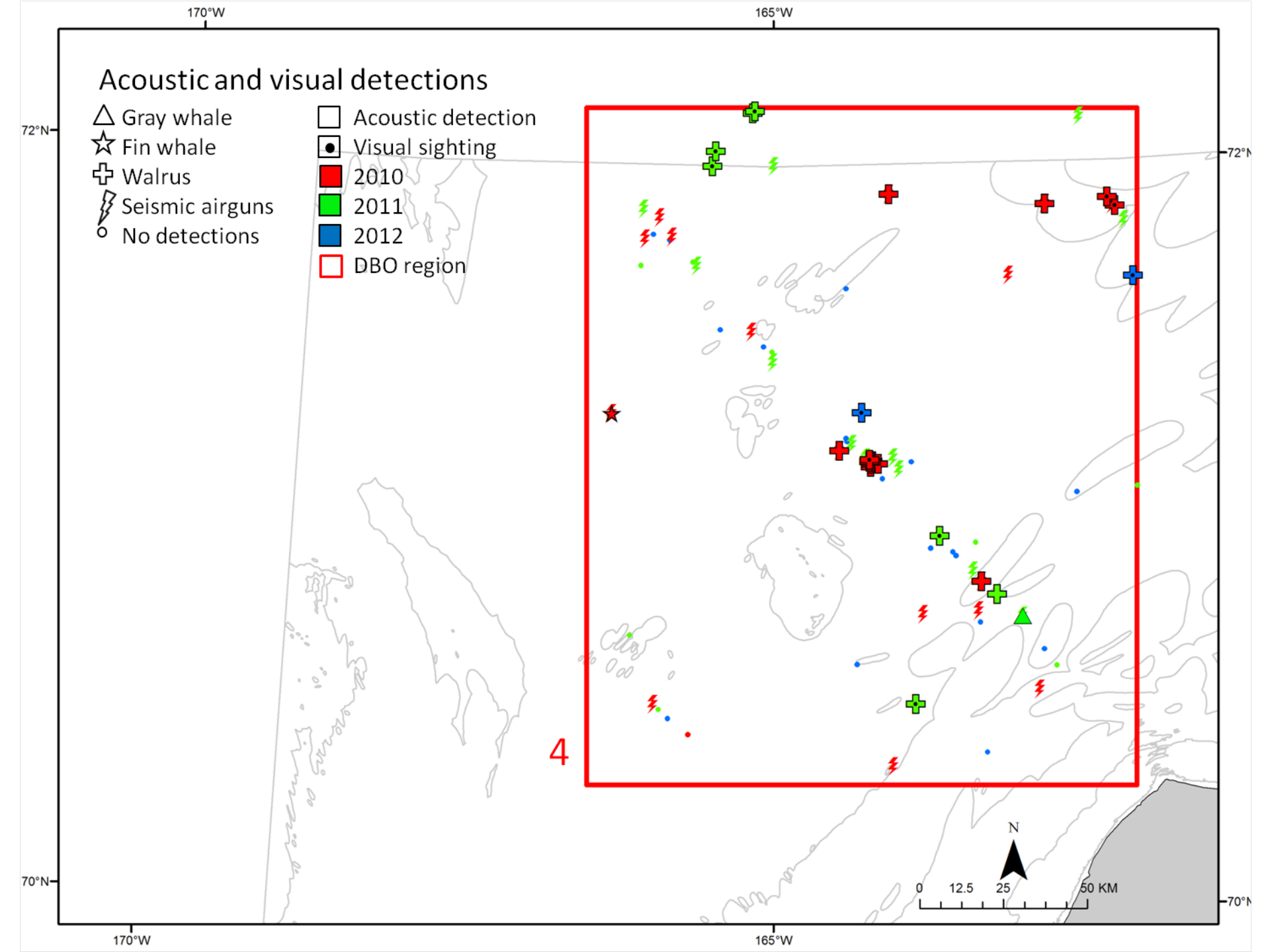
BIG EYES
&
SONOBUOYS

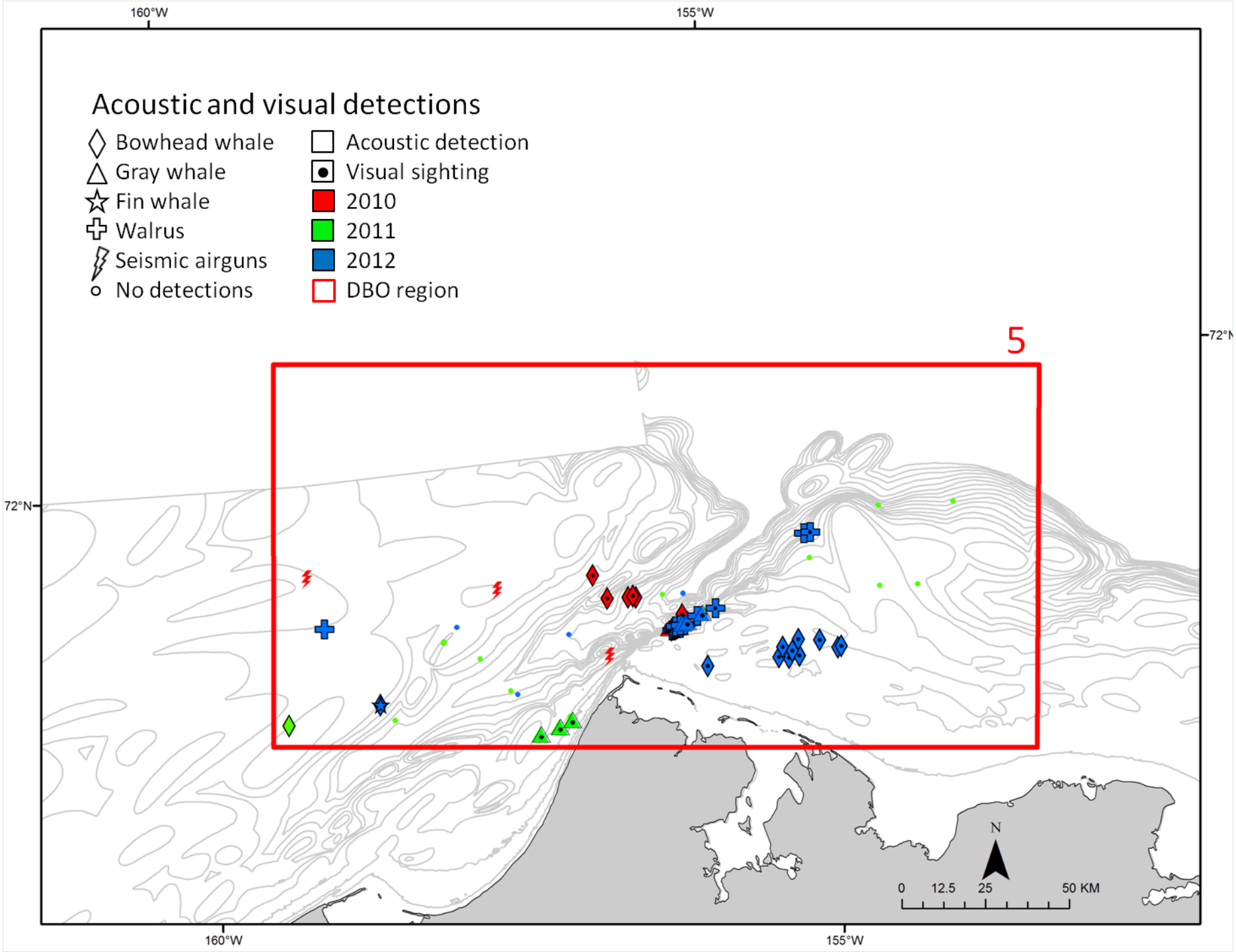


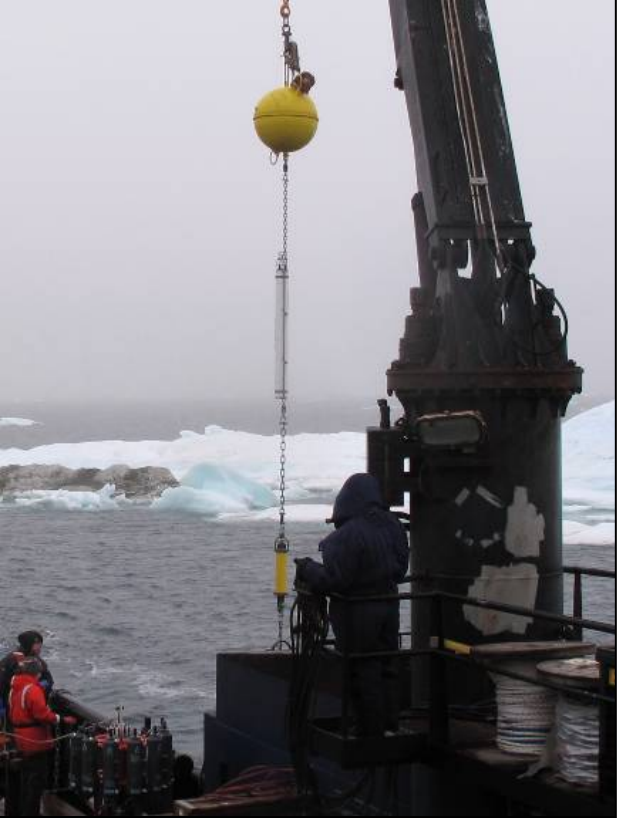

Acoustic and visual detections
Bowhead whale
Gray whale
Fin whale
Humpback whale
Killer whale
Minke whale
Walrus
Seismic airguns
No detections
Acoustic detection
Visual sighting
2010
2011
2012
DBO region
1
2
3
4
5
N
0 62.5 125 250 KM
175°E
180°
175°W
170°W
165°W
160°W
155°W
150°W
145°W
70°N
68°N
66°N
64°N
62°N


Acoustic and visual detections
Fin whale
Humpback whale
Killer whale
Minke whale
No detections
Acoustic detection
Visual sighting
2010
2011
2012
DBO region
175°W
62°N
62°N
175°W
1
N
0
15
30
60 KM


Acoustic and visual detections
Gray whale
Fin whale
Humpback whale
Killer whale
Minke whale
No detections
Acoustic detection
Visual sighting
2010
2011
2012
DBO region
170°W
68°N
66°N
3
N
0
12.5
25
50 KM

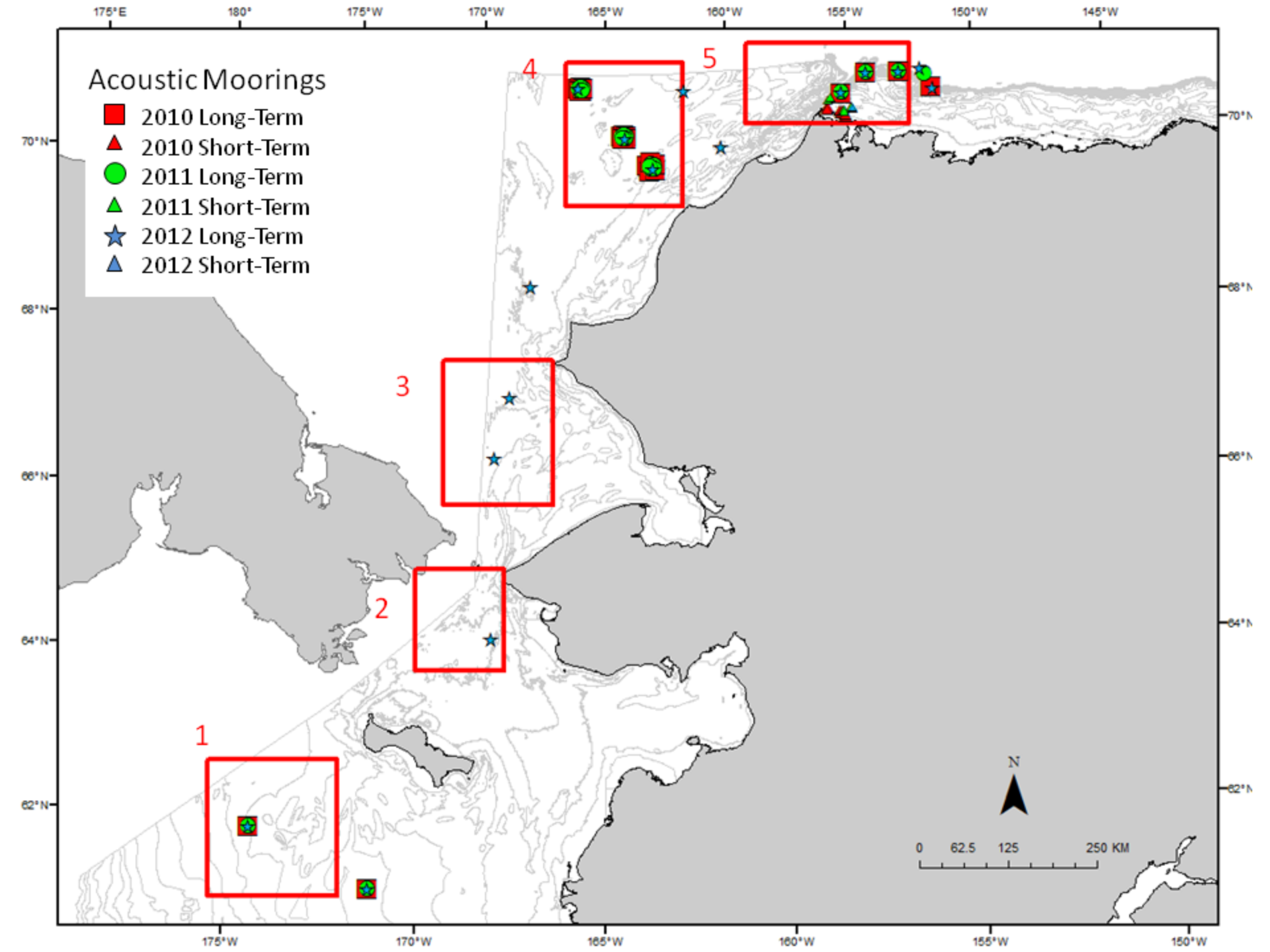

Acoustic and visual detections
Gray whale
Fin whale
Walrus
Seismic airguns
No detections
Acoustic detection
Visual sighting
2010
2011
2012
DBO region
170°W
165°W
72°N
70°N
4
N
0
12.5
25
50 KM


160°W
155°W
Acoustic and visual detections
Bowhead whale
Gray whale
Fin whale
Walrus
Seismic airguns
No detections
Acoustic detection
Visual sighting
2010
2011
2012
DBO region
5
72°N
72°N
N
0
12.5
25
50 KM
160°W
155°W

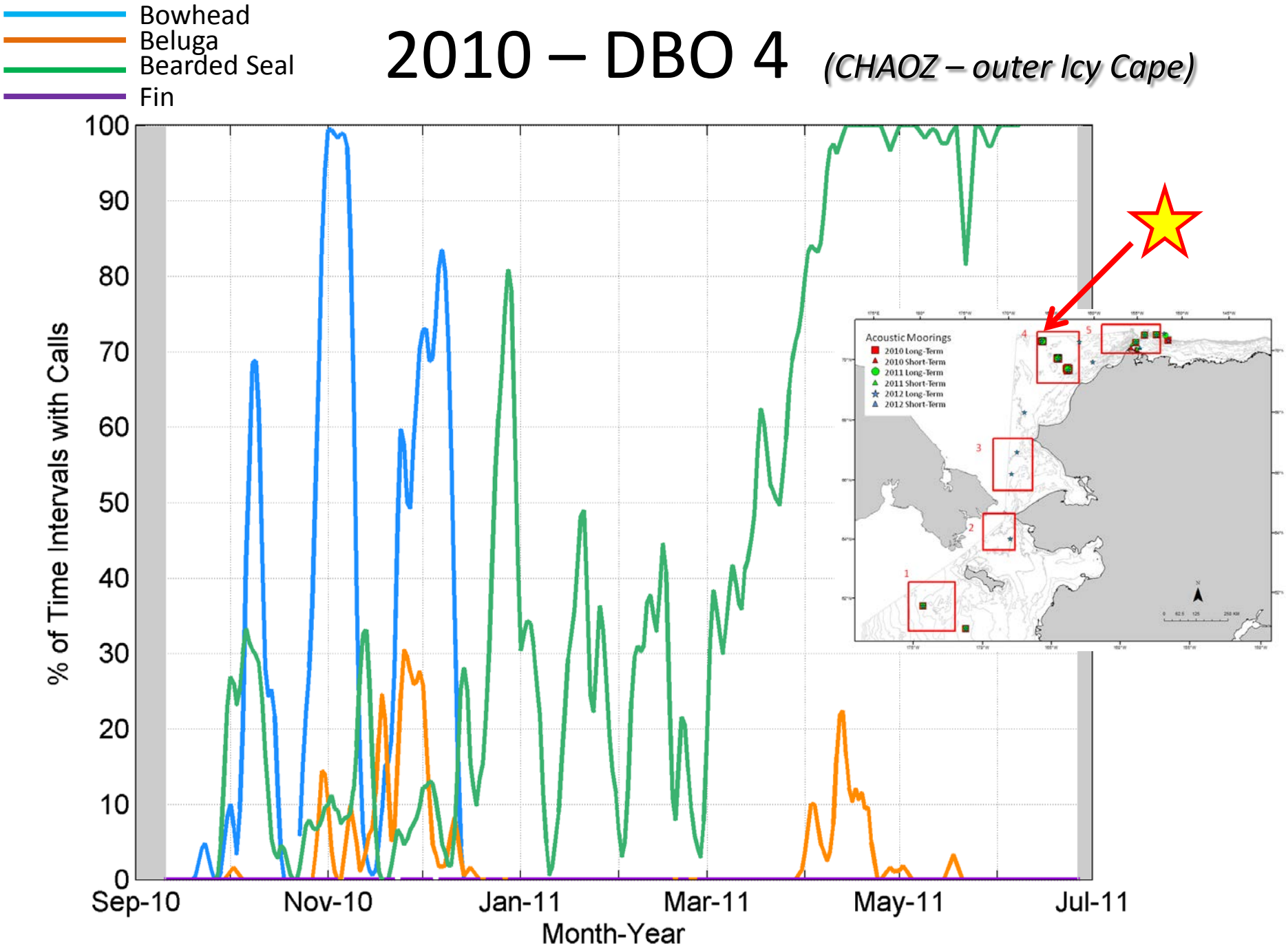


Long-Term Passive Acoustic Recorders

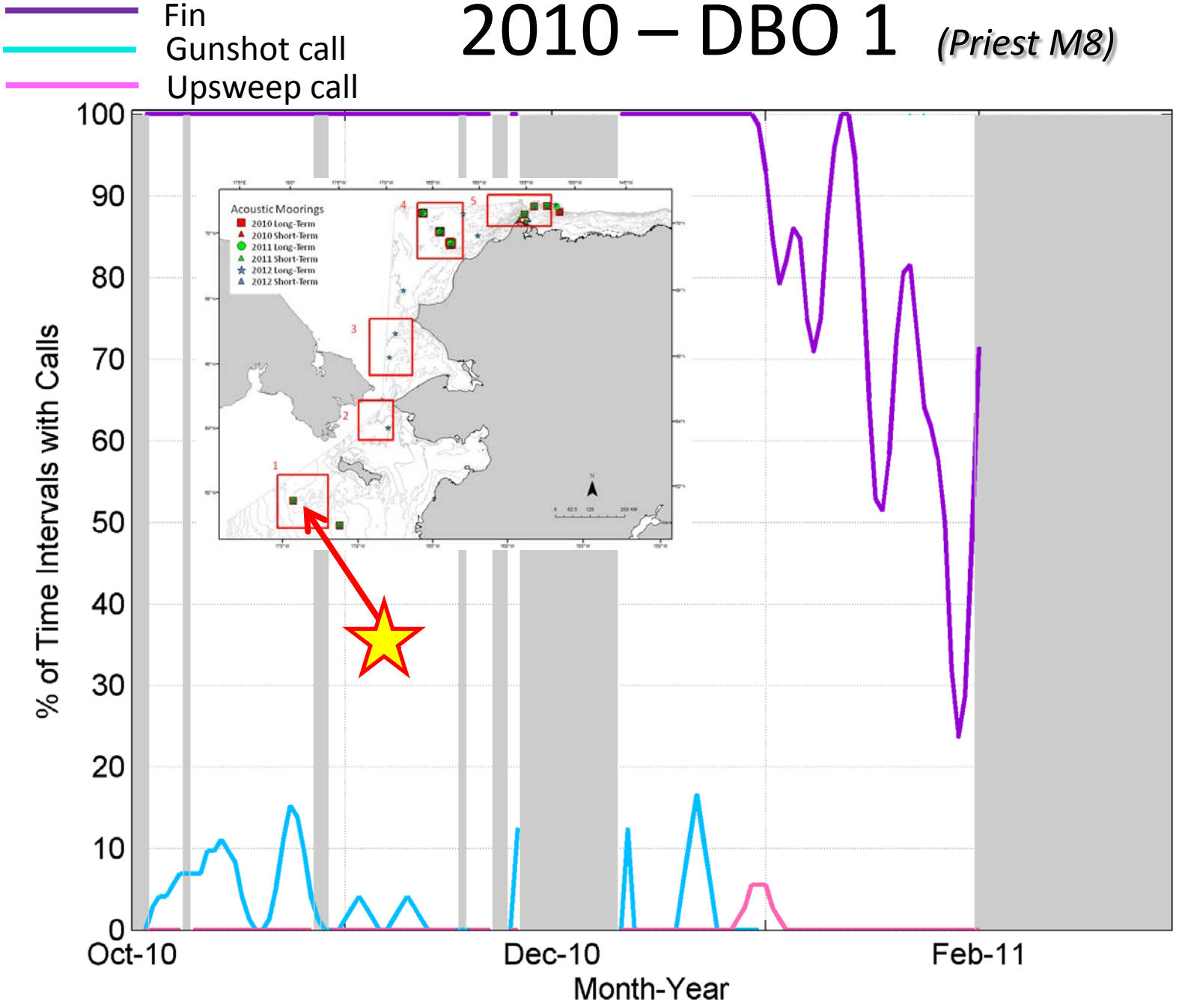
CHAOZ/BOWFEST/PRIEST


Acoustic Moorings
2010 Long-Term
2010 Short-Term
2011 Long-Term
2011 Short-Term
2012 Long-Term
2012 Short-Term
1
2
3
4
5
175°E
180°
175°W
170°W
165°W
160°W
155°W
150°W
145°W
70°N
68°N
66°N
64°N
62°N
N
0
62.5
125
250 KM

2010 – DBO 4 *(CHAOZ – outer Icy Cape)*

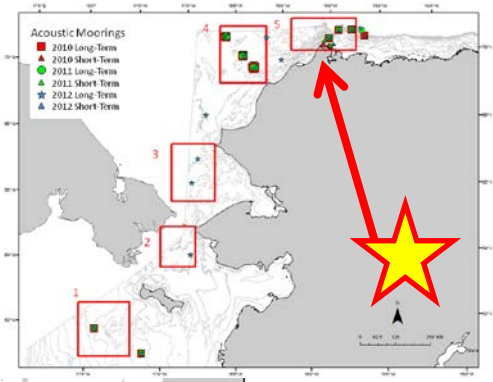


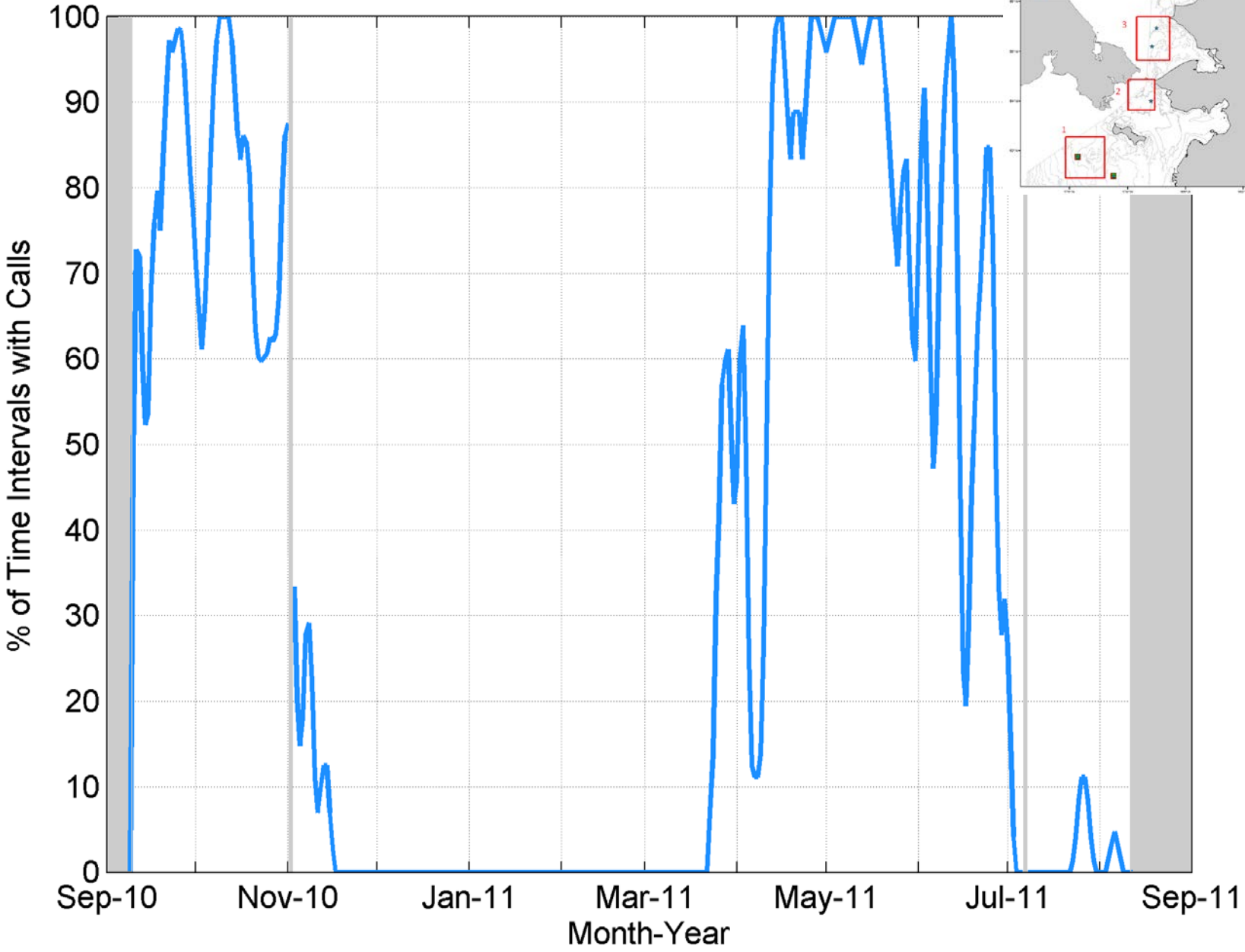
2010 – DBO 1 *(Priest M8)*



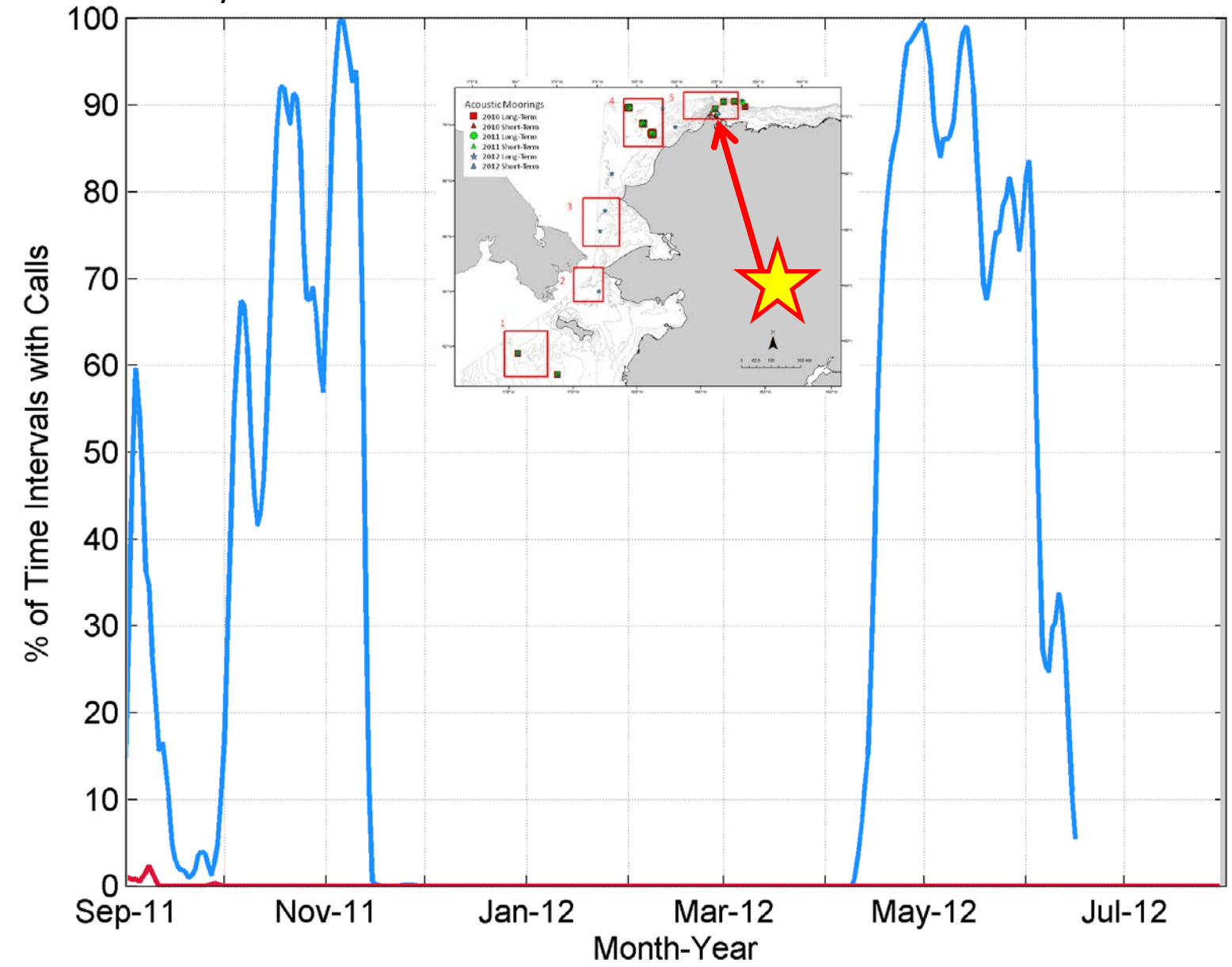
Bowhead

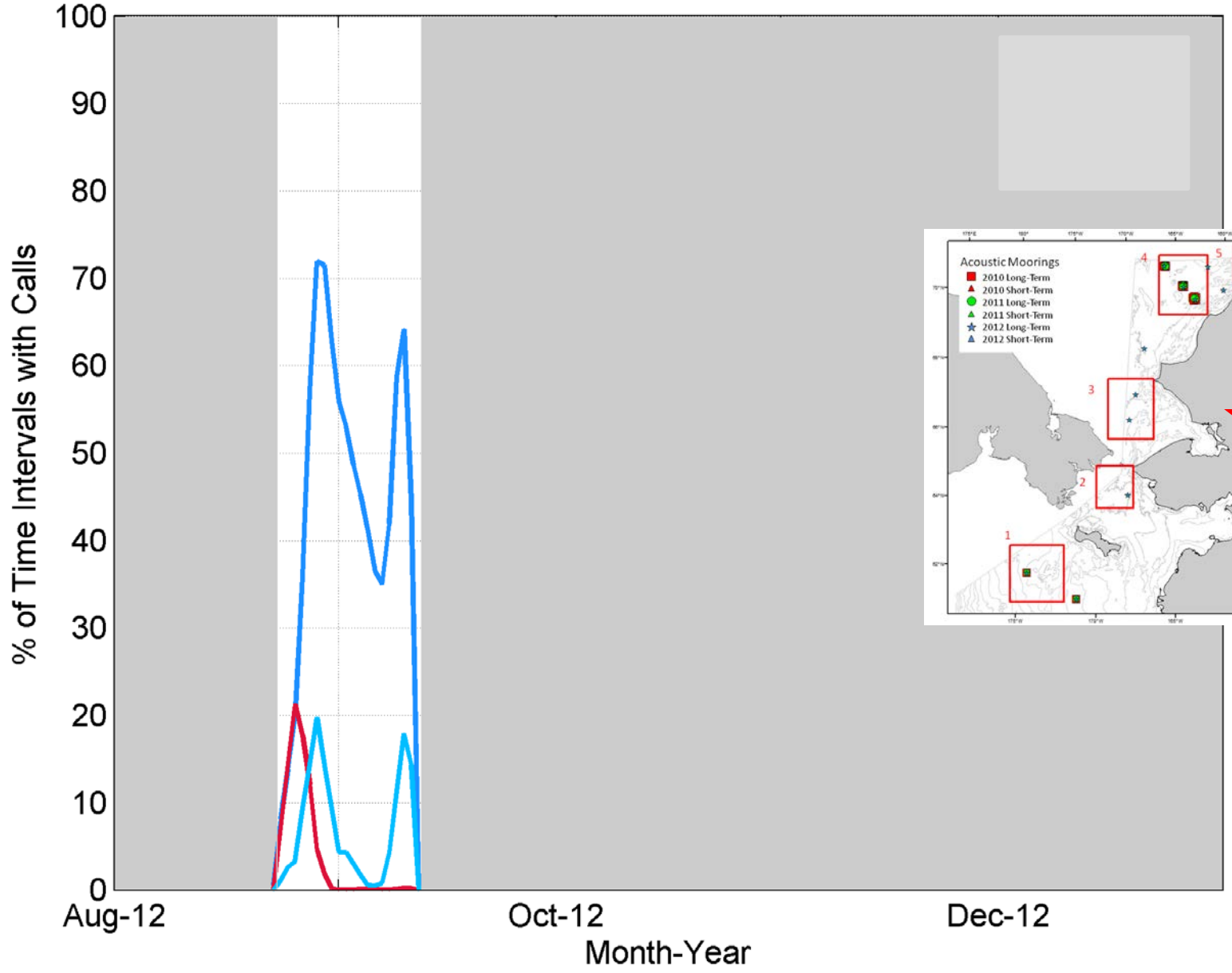
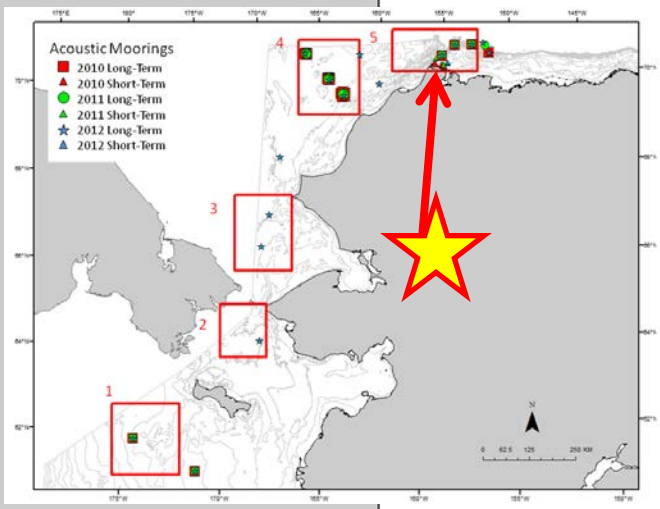
2010 – DBO 5 *BOWFEST*





2011 – DBO 5


Bowhead
Gray
% of Time Intervals with Calls
100
90
80
70
60
50
40
30
20
10
0
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Month-Year
Acoustic Moorings
2010 Long-Term
2010 Short-Term
2011 Long-Term
2011 Short-Term
2012 Long-Term
2012 Short-Term
1
2
3
4
5

2012 – DBO 5

Bowhead
Gray
Gunshot call