

Table 4: Constant Effort Shore watches and Harbour porpoise encounters

Ref	Date	Site ¹	Watch Time	Encounter duration (min)	Group Size	Behav	Comments
x ₁	16/08/02	Limekiln Point (3)	11.45-	94 (12.30)	5	HS; RP	Moderate swell, sea state 1, W F 3. 1 Boat (fb) anchored @200m. Moving around vicinity occasionally. 2 canoeists
x ₂			15.45	4 (14.35)	3	RP; FL	
	31/12/02	Port Eynon (3)	8.00-11.00				Moderate swell, sea state 3, SW F 4. Weather deteriorated. (WA ²)
x ₃	21/06/03	Port Eynon (3)	14.00-	5(14.30)	3	T	Moderate swell sea state 2, NE F 2. 14 boats (fbs) anchored in Bay
x ₄			16.00	8 (15.45)	4	T	
	21/06/03	Limekiln Point (3)	14.00-16.00				Lt swell, sea state 2, E F2
x ₅	02/08/03	Port Eynon (3)	10.15-	16	1	T	Light swell, SW F2, sea state 2, 15 (fbs) boats passing through. 4 jet skis passing back and forth. Trawler
x ₆			14.15	22	4	T	
x ₇	09/08/03	Mumbles (1)	08.00-12.00	8	2	SS	Light swell, sea state 1, S F2. 22 small fishing boats moving through. 1 boat anchored @ 100m, from porpoises. Cork ferry
x ₈	23/08/03	Mumbles (1)	08.00-	6 (10.35)	2	T; RP	Light swell, sea state 1, SW F2. 3 speed boats and 3 jet skis
x ₉			12.00	12 (13.05)	1	T; RP	
x ₁₀	14/02/04	Mumbles (1)	08.00-12.00	2 (08.50)	1	RP	Light swell, sea state 1, SE F2. 6 speed boats and 5 small fishing boats
x ₁₁				7(08.55)	2	RP	
x ₁₂				4 (10.11)	1	RP	
x ₁₃	28/05/04	Mumbles Cg (1)	09.45-13.45	3(10.17)	4	RP	Light swell, sea state 1, E F2. 6 speed boats and 8 small fishing boats.
x ₁₄				7(10.38)	2	B	
x ₁₅				4(11.19)	1	SS; FL	
x ₁₆				30(12.30)	3	SS; HS	
x ₁₇	22/07/04	Mumbles Cg (1)	13.30-	16(15.15)	3	RP; LU	Moderate swell, sea state 2, SW F3 Weather deteriorated. (WA)
x ₁₈			16.00	4(15.55)	1	RP; LU	
x ₁₉	31/07/04	Limekiln Point (3)	09.45-	6(10.06)	1	SS; SB	Moderate swell, sea state 2, W F3. Weather deteriorated. (WA)
x ₂₀			12.45	11(10.45)	3	SS; SB	
x ₂₁	05/09/04	Mumbles (1)	08.00-	20(10.10)	1	SS	Light swell, sea state 1, E F2 35 small fishing boats, 5 speed boats. An armada at 9.30!
x ₂₂			12.00	5(10.30)	1	SS	
x ₂₃	09/09/04	Mumbles (1)	07.30-	6(9.56)	1	RP; LU	Moderate swell, sea state 3, E F3 19 speed boats, 14 small fishing boats
x ₂₄			11.30	3	1	RP; FL	

¹ Zones 1-3 are given in brackets – Zone 4 (Carmarthen Bay) had no shore watch site² WA - watch abandoned

Ref	Date	Site	Watch Time	Encounter duration (min)	Group Size	Behav	Comments
x ₂₅	21/09/04	Mumbles (1)	09.45-11.30	3 (09.50)	1	RP; LU	Moderate swell, seas state 3W F4. 3 speed boats - weather deteriorating and wind increasing
x ₂₆	05/11/04	Mumbles Cg (1)	08.30-10.30	20 (09.30)	1	HS; LU	Moderate swell, sea state 2, N F3, 12 small fishing boats
x ₂₇	05/11/04	Port Eynon (3)	10.30-12.30	9 (11.00)	2	T	Moderate swell, sea state 2, N F3, 1 speed boat, 1 yacht
x ₂₈	05/11/04	Limekiln Point (3)	10.45-14.45	16 (12.20)	1	SS	Light swell, sea state 2, N F3
x ₂₉				9 (14.30)	2	SS	
x ₃₀	29/01/05	Mumbles (1)	08.20-12.20	2 (08.20)	1	SS	Light swell, sea state 1, NE F2. 13 small fishing boats anchored off Mixon Bank. Cork ferry
x ₃₁				5 (10.50)	1	SS	
x ₃₂				16 (11.05)	1	RP	
x ₃₃				11 (11.35)	2	SS	
	20/02/05	Mumbles (1)	08.45-12.45				Light swell, sea state 2, NE F2 to 3 throughout watch, 12 boats (fbs)
x ₃₄	20/02/05	Mumbles CG (1)	08.45-12.45	14 (09.10)	2	SS	Light swell, sea state 2, NE F2 to 3 throughout watch, 5 boats (fbs)
	27/02/05	Mumbles (1)	07.00-11.00				Light swell, sea state 2, E F4 21 boats (fbs)
	27/02/05	Mumbles (1)	11.00-15.00				Light swell, sea state 2, E F4 3 boats (fbs)
	18/03/05	Oxwich Point (2)	10.00-14.00				Light swell, sea state 2, S2 sea mist rolling in 2 boats (fbs)
x ₃₅	25/03/05	Mumbles Cg (1)	08.15 – 12.15	18 (08.40)	1	TS; RP	Light swell, sea state 1, SE F3 16 boats (fbs)
x ₃₆				8 (11.07)	2	SS	
x ₃₇	05/04/05	Oxwich Point (2)	08.15-12.15	30 (08.40)	1	LU; RP	Light swell, sea state 1, SE F3 8 speed boats, 3 canoeists
x ₃₈	12/04/05	Mumbles (1)	10.15-14.15	4 (11.43)	1	SS; FL	Light swell, sea state 2, SW F3-4 19 boats
x ₃₉	14/04/05	Mumbles (1)	09.30-13.30	8 (11.37)	1	SS; RP	Moderate swell, sea state 2, SW F3. Lots of birds diving - 2 boats
	16/04/05	Oxwich Point (2)	08.00-12.00				Light swell, sea state 1, N F2 6 (fbs) boats anchored, 1 speed boat

Ref	Date	Site	Watch Time	Encounter duration (min)	Group Size	Beh	Comments
X ₄₀	16/04/05	Mumbles (1)	08.00-12.00	4 (08.34)	1	RP	Light swell, sea state 1, N F2 8 fishing boats, 2 sailing boats. Lots of bird activity, 2 canoeists
X ₄₁				9 (08.41)	1	RP	
X ₄₂	20/04/05	Mumbles Cg (1)	07.45-11.45	4 (07.45)	1	SS	Light swell, sea state 1, NE F2. Storm last night. High sediment levels visible. 24 fishing boats anchored. 3 speed boats racing each other, 2 jet skis and 2 canoeists
X ₄₃				4 (07.59)	1	RP	
X ₄₄				8 (08.06)	2	HS; SS	
X ₄₅				11 (08.12)	2	SS	
X ₄₆				2 (08.16)	1	SS; SB	
X ₄₇				15 (08.24)	1	SS; SB	
X ₄₈				36 (09.01)	1	SS	
X ₄₉				22 (11.02)	2	HS; SS	
X ₅₀				6 (11.40)	1	SS	
	20/04/05	Mumbles (1)	17.30-19.30				Light swell, sea state 1, NE F1 Light fading. 2 yachts
X ₅₁	21/04/05	Mumbles (1)	07.30-11.30	13 (08.02)	2	HS	Light swell, sea state 1, SE F3-4 17 small fishing boats anchored. Water very clear unlike yesterday. 2 canoeists
X ₅₂				4 (08.43)	1	SS	
X ₅₃				11 (09.00)	1	HS;SS	
X ₅₄				2 (09.27)	1	RP	
X ₅₅	25/04/05	Mumbles Cg (1)	08.00-12.00	8 (10.53)	1	LU; RP	Low visibility. Murky conditions. Light swell, sea state 1, SE F2 15 boats (fbs)
X ₅₆				38 (11.23)	2	LU; RP	
X ₅₇				12 (11.34)	1	SS; T	
X ₅₈				13 (11.47)	1	RP; T	
X ₅₉	29/04/05	Mumbles Cg (1)	16.15-20.15	30 (18.30)	4	RP; SB	Light swell, sea state 1, SW F2. 3 jet skis buzzing around for 20 minutes, otherwise little boat traffic. Gannets diving in vicinity
X ₆₀				4 (19.26)	1	HS;LU;SB	
X ₆₁	30/04/05	Mumbles (1)	08.00-10.00	6 (09.54)	2	SS; LO	Moderate swell, sea state 2, S F4. Very choppy & heavy rain last night. Trawler fishing, 2 tankers, 19 small fishing boats. (WA)
X ₆₂	04/05/05	Mumbles (1)	07.30-11.30	16 (08.36)	3	RP;LU	Light swell, sea state 1, N F3. Gannets circling and diving 11 boats anchored and moving. Cork ferry
X ₆₃				16(10.00)	4	RP;B;LU;SB	
X ₆₄				5 (10.12)	1	SS;T	
X ₆₅				2 (10.17)	1	SS;T	
X ₆₆				7 (10.27)	4	RP;T	
X ₆₇				30 (10.41)	2	RP;LU;F;SB	
X ₆₈				14 (11.30)	1	SS;HS	

Ref	Date	Site	Watch Time	Encounter duration (min)	Group Size	Behav	Comments
X ₆₉	05/05/05	Mumbles Cg (1)	08.30-12.30	8 (08.44)	3	T	Light swell, sea state 2, NW F4 8 boats (fbs)
X ₇₀				4 (09.00)	1	SS;FL	
X ₇₁				8 (09.24)	1	SS	
X ₇₂				4 (09.33)	4	RP;LU;SB	
X ₇₃				6 (09.43)	1	RP;SB	
X ₇₄				24 (10.00)	3	SS;SB	
X ₇₅				46 (10.10)	2	RP;T	
X ₇₆				12 (10.29)	3	RP;SB	
X ₇₇				4 (10.46)	1	RP;B;T	
X ₇₈				14 (11.02)	2	RP	
	17/05/05	Mumbles (1)	16.30-20.30				Moderate swell, sea state 2, NW F4
	08/06/05	Mumbles (1)	16.00-20.00				Light swell, sea state 1, NE F2 29 boats
	09/06/05	Mumbles (1)	06.00-10.00				Light swell, sea state 1, NE F2, 28 fishing boats anchoring and moving around frequently, Cork ferry offshore
	10/06/05	Mumbles (1)	16.15-20.15				Light swell, sea state 1, N F1 No birds! 5 boats
	11/06/05	Mumbles (1)	08.00-09.45				Moderate swell, sea state 1, E F3 increasing F5 (WA)
	12/06/05	Mumbles (1)	10.30-12.30				Light swell, sea state 1, NW F2 No birds! 30 boats
X ₇₉	12/06/05	Oxwich Point (2)	10.30-12.30	20 (10.30)	4	RP;HS	Light swell sea state 1, NW F2. Gannets diving. 13 small fishing boats, 4 RIBs moving through, 6 yachts
X ₈₀				6 (10.40)	2	RP	
X ₈₁				4 (11.05)	1	SS	
X ₈₂				18 (11.10)	4	SB;RP	
	12/06/05	Port Eynon (3)	10.30-12.30				Moderate swell, sea state 2, NW F2 17 (fbs) boats passing through, 6 yachts
	22/06/05	Mumbles (1)	16.30-20.30				Moderate swell, sea state2, SW F3.
	23/06/05	Mumbles (1)	08.00-12.00				Light swell, sea state 1, W F2 Gulls sitting on water. Gannets flying west, 15 speed boats, 5 fishing boats passing through

Ref	Date	Site	Watch Time	Encounter duration (min)	Group Size	Behav	Comments
x ₈₃	24/06/05	Mumbles (1)	10.00-14.00	4 (10.12)	1	RP	Light swell, sea state 1, NW 3. 31 boats
x ₈₄				18 (10.57)	1	LU;RP	
	26/06/05	Mumbles (1)	10.00-14.00				Thunder showers. Moderate swell, sea state 1, SW F2
x ₈₅	30/06/05	Oxwich Point (2)	09.30-13.30	64 (11.55)	3	SS;SB	Light swell, sea state 1, NE F1 25 fishing boats at anchor, 3 small fishing boats underway & 3 yachts. Gannets circling and diving
x ₈₆	30/06/05	Oxwich Point (2)	13.30-17.30	84 (14.22)	5	RP;B;HS;LU	
x ₈₇	07/07/05	Mumbles Cg (1)	07.30-11.30	2 (09.02)	1	SS;SB	Light swell, sea state 1, N F2. 3 fishing boats laying pots. Gannets diving for first hour but then change behaviour to just sitting on water. Mussel dredger & Cork ferry
x ₈₈				30 (09.12)	3	T;LU;RP	
x ₈₉				12 (09.24)	1	T;SS	
x ₉₀				44 (10.35)	2	F;HS;SS	
x ₉₁				32 (10.57)	3	SS;SH	
x ₉₂	09/07/05	Oxwich Point (2)	07.15-11.15	32 (08.58)	3	SS;B;F	Light swell, sea state 1, NE F2. Many gannets diving, 200+ Common dolphin during first hour and no HP's visible then. 18 boats (fbs)
x ₉₃				6 (09.50)	4	SS;T	
x ₉₄				56 (09.56)	5	RP;B;T	
	10/07/05	Mumbles (1)	07.00-11.00				Light swell, sea state 1, N F2. 69 vessels underway (8 at anchor), 8 speed boats at anchor, 4 jet skis
x ₉₅	13/07/05	Oxwich Point (2)	07.00-11.00	14 (07.50)	1	SS;T	Light swell, sea state 1, N F2 Trawler underway, 3 speed boats passing through at speed, 3 fishing boats anchored, 5 small fishing boats underway
x ₉₆				26 (08.04)	3	SS;T	
x ₉₇				3 (08.10)	1	RP;T	
x ₉₈				12 (08.15)	3	RP;R	
x ₉₉				10 (10.05)	2	F;LU;RP	
x ₁₀₀				2 (10.07)	3	LO	
x ₁₀₁				6 (10.25)	3	SS;T	
x ₁₀₂				20 (10.40)	2	SS;HS	
x ₁₀₃	13/07/05	Oxwich Point (2)	11.00-15.00	28 (12.00)	3	RP;T;HA	Light swell, sea state 1, N F2 19 boats (7 speed; 12 fbs)
	15/07/05	Mumbles (1)	08.00-12.00				Light swell, sea state 1, W F3 11 fishing boats, 2 RIBs, 1 yacht
	17/07/05	Oxwich Point (2)	06.00-10.00				Light swell, sea state 1, SE F2, gannets flying west 22 fishing boats, 3 boats at anchor, 3 RIBs

Ref	Date	Site	Watch Time	Encounter duration (min)	Group Size	Behav	Comments
	23/07/05	Limekiln Point (3)	16.15-19.15				Light swell, sea state 1, E F2. 23 fishing boats passing through
	26/07/05	Mumbles (1)	07.45-08.45				Moderate swell, sea state 3, E F4. Very choppy (WA)
	26/07/05	Limekiln Point (3)	12.45-16.45				Light swell, Sea state 1, SE F 3 4 fishing boats underway
	26/07/05	Mumbles (1)	16.30-20.30				Moderate swell, sea state2, SE F3
X ₁₀₄	09/08/05	Mumbles (1)	07.00-11.00	6 (08.00)	1	T;SS	Light swell, Sea state 1, NW F1. Light but not smooth. 9 fishing boats underway, 1 anchored off the Mixon
X ₁₀₅				10 (08.12)	1	T;SS	
X ₁₀₆				22 (08.35)	2	T;SS	
X ₁₀₇	18/08/05	Oxwich Point (2)	06.00-10.00	34 (06.23)	1	RP;B;T	Light swell, sea state 1, NW 2. Boats further offshore 3 inshore (fbs)
X ₁₀₈	18/08/05	Oxwich Point (2)	10.00-14.00	56(10.20)	2	SS;T	Light swell, sea state 1, NW 2. 2 jetskis
X ₁₀₉	06/09/05	Mumbles (1)	15.45-19.45	4 (17.45)	1	RP;HS;FL	Light swell, sea state 1, SE F2. 3 fishing boats underway, Lifeboat doing manoeuvres, 2 RIBs , 3 speed boats
X ₁₁₀				10(18.14)	3	SS;FL	
X ₁₁₁				2 (18.30)	1	RP;LU	
X ₁₁₂				3 (18.31)	1	RP;B;LU	
X ₁₁₃				9 (18.51)	3	SS;FL	
X ₁₁₄				2 (19.10)	1	SS;FL	
	21/09/05	Port Eynon (3)	13.00-14.30				Light swell, sea state 1, NE 1 (volunteer illness)
X ₁₁₅	04/10/05	Mumbles CG (1)	09.00-13.00	10 (09.40)	1	HS;SS	Light swell, sea state 2, E F2. Mussel dredger and 4 fishing boats off Mixon. 5 RIBs
	04/10/05	Mumbles (1)	09.00-13.00				Light swell, sea state 2, E F2 4 speed boats
	04/11/05	Mumbles CG (1)	10.45-13.00				Light swell, sea state 1, W F2 3 fishing boats off Mixon, 2 speed boats underway, Mussel dredger dredging off the Mixon
X ₁₁₆	28/11/05	Oxwich Point (2)	10.45-14.45	146 (12.05)	3	SS; HS	Light swell, sea state 1, NE F1 no boat activity
X ₁₁₇				10 (13.45)	5	RP;T	

Ref	Date	Site	Watch Time	Encounter duration (min)	Group Size	Behav	Comments
x ₁₁₈	28/12/05	Oxwich Point (2)	08.30-13.30	140 (10.45)	3	SS;HS	Light swell, sea state 1, NE F1 no boat activity
	29/12/05	Mumbles (1)	11.00-13.30				Light swell, sea state 1, SE F1. Reduced visibility & light snow. No boat activity