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## **Sezione B: Eventi di mareggiata per settori e tratti costieri**

Nella sezione B di questo capitolo sono presenti informazioni relative ai parametri caratteristici delle mareggiate osservate lungo le coste italiane.

Sono state prodotte:

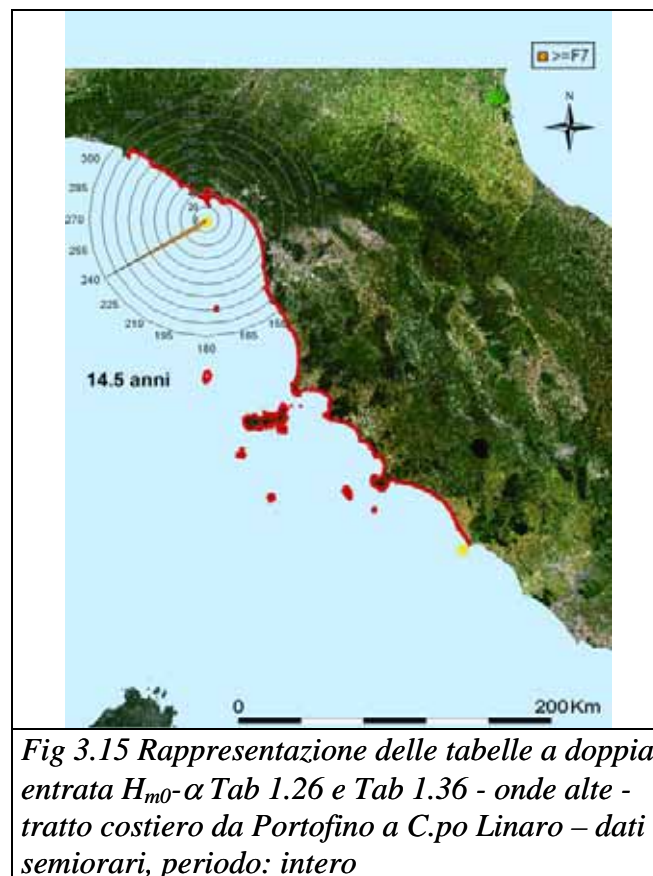
- a) le rappresentazioni polari dei massimi di tutte le mareggiate, per direzione, in tutti i tratti costieri monitorati direttamente dalla RON;
- b) le rappresentazioni grafiche del clima ondoso su base semioraria per le onde alte.

Sono state catalogate tutte le mareggiate registrate dalla RON in modo da facilitare la determinazione delle relazioni tra le mareggiate osservate presso diverse stazioni. Sulla base dello studio dell'autocorrelazione delle serie temporali triorarie sono state individuate l'inizio e la fine degli episodi di stato di mare mosso, e sono stati indicati i settori di costa associati ad ogni evento, le intensità dei massimi osservati, la direzione media di provenienza delle onde e la deviazione della direzione rispetto al valor medio durante la mareggiata.

Gli elenchi degli episodi sono stati classificati per:

- a) settore costiero (tutti gli eventi osservati 'simultaneamente' sull'intero settore considerato);
- b) tratto costiero (tutti gli eventi con  $H_{m0} > 2.0\text{m}$  registrati presso la stazione).

## Onde Alte per il settore costiero C1: Portofino – C.po Linaro



## Mareggiate per il settore costiero C1: Portofino – C.po Linaro

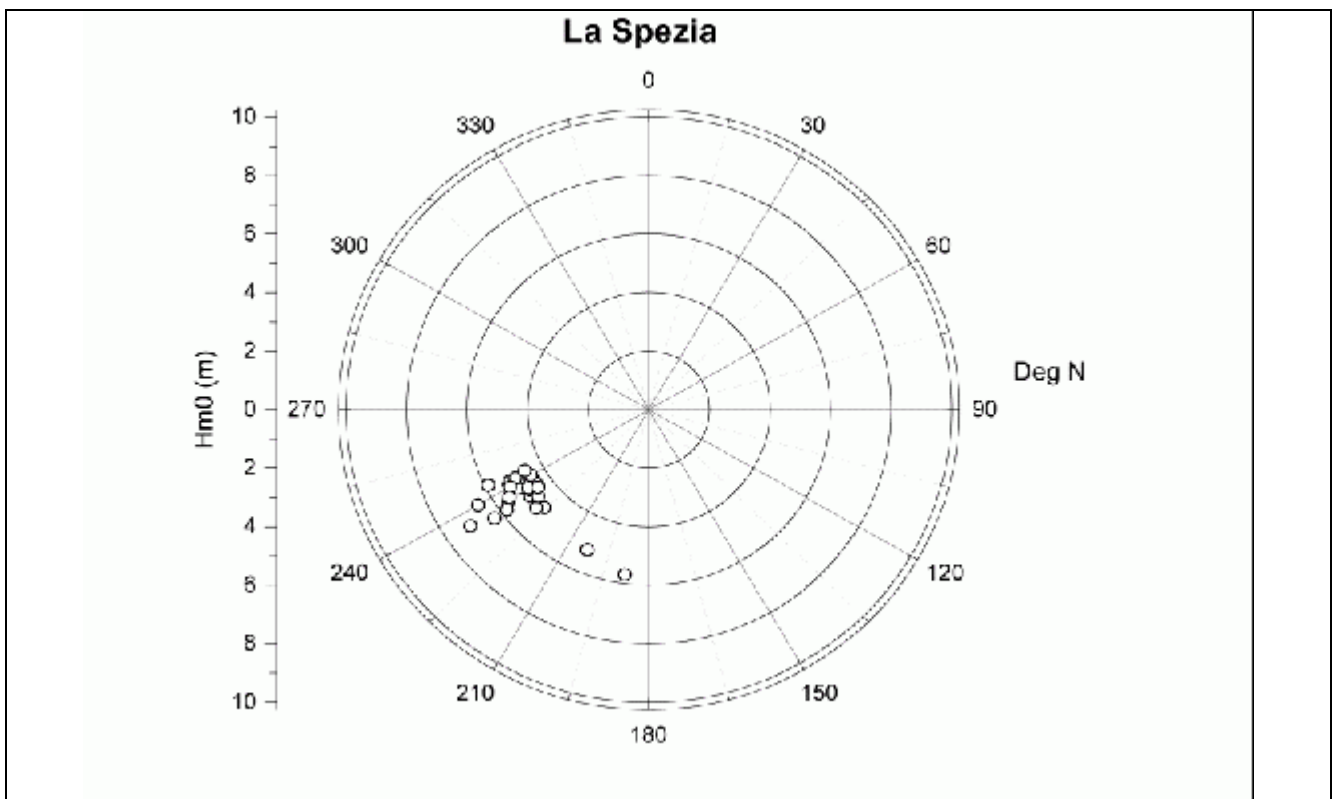


Fig 3.18 Altezze d'onda massime registrate dalla stazione di La Spezia

Tab 34 Elenco delle mareggiate per il settore costiero da Portofino a C.po Linaro

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Lig2	2002-08-12	15:00	0	4	2.1	10	6.3	233	233	1	0.00%
	Laz1	2002-08-11	10:30	1	10	3.1	8	6	304	246	85	79.70%
2	Lig2	2002-09-22	22:30	0	2	2.3	7.4	5.5	205	206	3	0.00%
	Laz1	2002-09-22	20:30	3	0	3.7	8	6.5	238	239	9	0.00%
3	Lig2	2002-12-28	02:00	0	2	2.3	6.9	5	174	174	6	0.00%
	Laz1	2002-12-27	23:00	0	8	2.9	6.5	5.4	170	166	4	0.00%
4	Lig2	2003-01-02	01:30	3	21	4.4	9.1	7	237	235	6	0.00%
	Laz1	2003-01-03	05:00	5	21	4.4	9.1	6.8	241	223	37	0.00%
	Lig2	2003-01-08	01:00	0	0	2	7.7	5	174	174	0	0.00%
	Laz1	2003-01-03	05:00	5	21	4.4	9.1	6.8	241	223	37	0.00%
5	Lig2	2003-01-21	11:30	1	16	3.5	7.7	6.2	177	217	46	0.00%
	Laz1	2003-01-21	13:30	1	10	3.2	7.7	5.9	206	220	23	0.00%
6	Lig2	2003-04-02	09:30	0	14	3.4	8	6.3	228	233	15	27.60%
	Laz1	2003-04-02	14:30	1	3	3.5	8.3	6.3	236	205	52	0.00%
7	Lig2	2003-05-20	11:00	0	7	2.4	7.4	5.6	223	228	11	0.00%
	Laz1	2003-05-20	14:30	0	14	3.1	8.3	6.1	241	240	7	4.20%
8	Lig2	2003-08-29	07:00	2	18	4	8.3	6.8	233	229	23	2.40%
	Laz1	2003-08-29	05:30	0	21	3.1	7.1	5.4	149	176	40	0.00%
	Lig2	2003-08-29	07:00	2	18	4	8.3	6.8	233	229	23	2.40%
	Laz1	2003-08-31	17:00	0	4	2.3	7.7	5.2	244	244	2	0.00%
9	Lig2	2003-10-03	23:30	4	14	6.5	10.5	7.9	240	232	12	6.10%
	Laz1	2003-10-04	04:30	1	21	3.7	8.7	6.6	247	248	5	0.00%
	Lig2	2003-10-03	23:30	4	14	6.5	10.5	7.9	240	232	12	6.10%
	Laz1	2003-10-07	12:30	0	22	3.8	9.5	6.9	238	242	11	0.00%

10	Lig2	2003-10-20 22:30	3	13	4.4	9.1	7	235	229	13	2.50%
	Laz1	2003-10-20 13:30	0	13	2.4	6.5	5.4	221	214	11	0.00%
	Lig2	2003-10-20 22:30	3	13	4.4	9.1	7	235	229	13	2.50%
	Laz1	2003-10-23 14:00	1	5	3.1	7.7	5.7	241	244	6	3.10%
11	Lig2	2003-10-30 01:30	2	21	4.4	10	7.3	243	225	23	1.50%
	Laz1	2003-10-29 20:30	0	13	2.4	6.1	5.1	234	232	10	0.00%
12	Lig2	2003-11-27 13:00	1	3	4.4	9.5	7.4	230	220	24	0.00%
	Laz1	2003-11-26 02:30	2	19	4.2	8.7	8	233	203	40	2.00%

## Onde Alte per il settore costiero C2: C.po d'Uomo-Acquamorta



*Fig 3.17 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.36 e Tab 1.46- onde alte - tratto costiero da Capo d'Uomo ad Acquamorta – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C2: C.po d'Uomo-Acquamorta

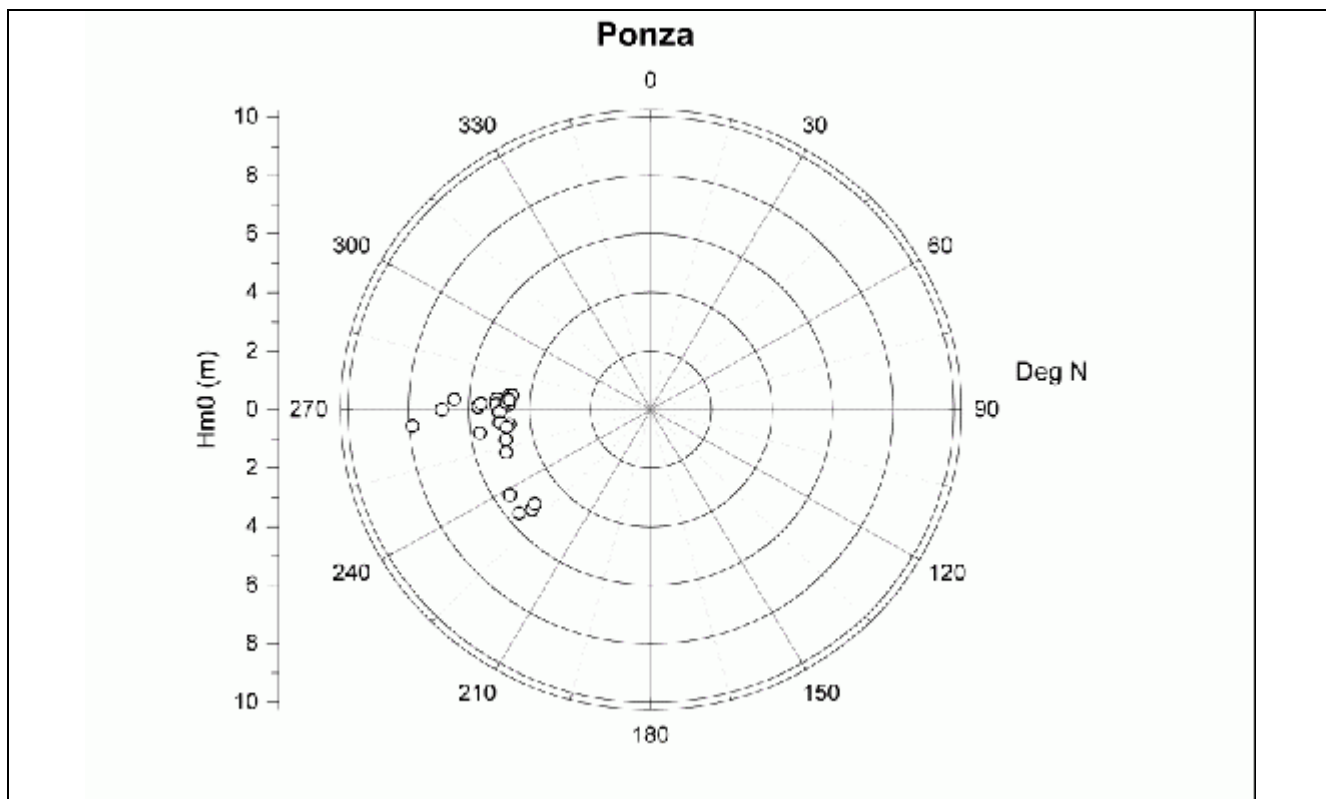


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Ponza

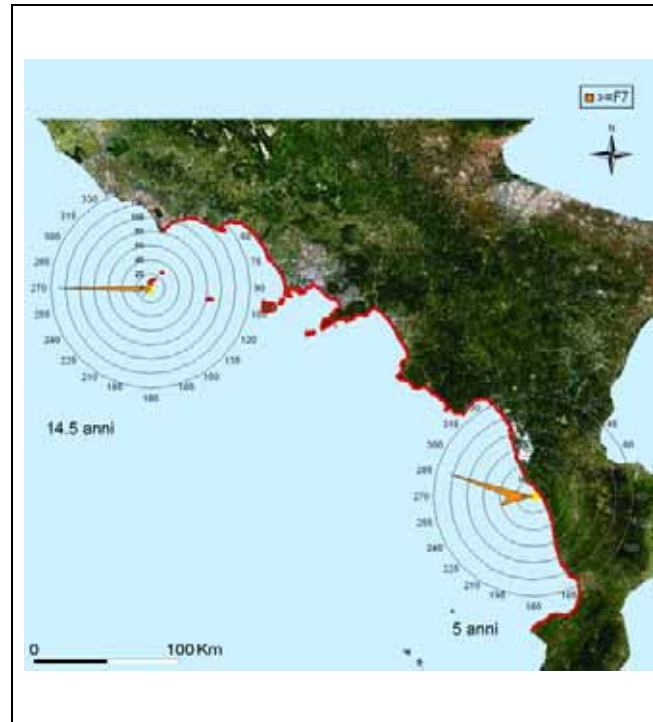


Tab 35 Elenco delle mareggiate per il settore costiero da C.po d'Uomo ad Acquamorta

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Laz1	2002-08-11	10:30	1	10	3.1	8	6	304	246	85	79.70%
	Laz2	2002-08-11	05:30	2	0	2.8	8	6.7	248	256	15	8.60%
2	Laz1	2002-10-18	00:00	0	13	3.7	8.7	6.4	251	245	8	0.00%
	Laz2	2002-10-18	04:30	0	20	3	8.3	6	278	273	6	5.60%
3	Laz1	2002-10-23	22:00	0	14	2.1	6.3	5.1	250	240	12	0.00%
	Laz2	2002-10-24	02:30	0	18	3.2	8	6	271	266	8	5.90%
4	Laz1	2002-12-27	23:00	0	8	2.9	6.5	5.4	170	166	4	0.00%
	Laz2	2002-12-28	03:30	4	9	3.1	7.7	5.9	254	241	30	3.60%
5	Laz1	2003-01-03	05:00	5	21	4.4	9.1	6.8	241	223	37	0.00%
	Laz2	2003-01-03	13:30	6	1	5	9.5	7.7	253	241	33	0.50%
6	Laz1	2003-01-21	13:30	1	10	3.2	7.7	5.9	206	220	23	0.00%
	Laz2	2003-01-21	18:00	1	6	3	7.7	5.7	224	239	23	1.90%
7	Laz1	2003-04-02	14:30	1	3	3.5	8.3	6.3	236	205	52	0.00%
	Laz2	2003-04-03	09:30	0	10	2.4	8.3	5.6	194	187	9	0.00%
8	Laz1	2003-04-10	11:00	0	11	2.1	6.3	4.8	167	191	34	0.00%
	Laz2	2003-04-09	23:30	1	3	2.1	8	5.3	144	179	52	0.00%
9	Laz1	2003-05-20	14:30	0	14	3.1	8.3	6.1	241	240	7	4.20%
	Laz2	2003-05-20	21:30	0	17	2.8	8.7	6.1	276	278	5	0.00%
10	Laz1	2003-08-29	05:30	0	21	3.1	7.1	5.4	149	176	40	0.00%
	Laz2	2003-08-29	16:00	0	7	2.4	8	6.4	202	190	14	0.00%
11	Laz1	2003-10-04	04:30	1	21	3.7	8.7	6.6	247	248	5	0.00%
	Laz2	2003-10-05	05:00	3	17	4.7	9.5	7.2	274	266	15	23.10%
	Laz1	2003-10-07	12:30	0	22	3.8	9.5	6.9	238	242	11	0.00%
	Laz2	2003-10-05	05:00	3	17	4.7	9.5	7.2	274	266	15	23.10%

12	Laz1 Laz2	2003-10-18 12:00 2003-10-15 16:00	0 0 3 8	2 10 2.9 6.3	7.6 178 5.7 114	178 94	0 23	0.00% 68.80%			
13	Laz1 Laz2	2003-10-20 13:30 2003-10-20 14:00	0 13 0 6	2.4 6.5 2.3 6.7	5.4 221 4.9 220	214 214	11 10	0.00% 8.30%			
14	Laz1 Laz2	2003-10-23 14:00 2003-10-23 23:00	1 5 1 2	3.1 7.7 2.6 7.4	5.7 241 6.8 276	244 275	6 7	3.10% 3.80%			
15	Laz1 Laz2	2003-10-26 21:30 2003-10-26 22:00	0 9 0 12	3.2 7.7 2.4 6.5	6.1 167 5.4 200	176 199	18 21	5.30% 16.00%			
16	Laz1 Laz2	2003-11-26 02:30 2003-11-26 01:00	2 19 3 8	4.2 8.7 3.9 8.3	8 233 6.9 263	203 228	40 47	2.00% 12.20%			
17	Laz1 Laz2	2003-12-04 01:30 2003-12-04 00:00	0 11 0 12	2.5 8.3 2.5 8	5.9 171 5.5 141	165 150	7 13	0.00% 42.30%			

## Onde Alte per il settore costiero C3: Anzio – C.po Vaticano



*Fig 3.20 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.46 e Tab 1.56 - onde alte - tratto costiero da Anzio a C.po Vaticano – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C3: Anzio – C.po Vaticano

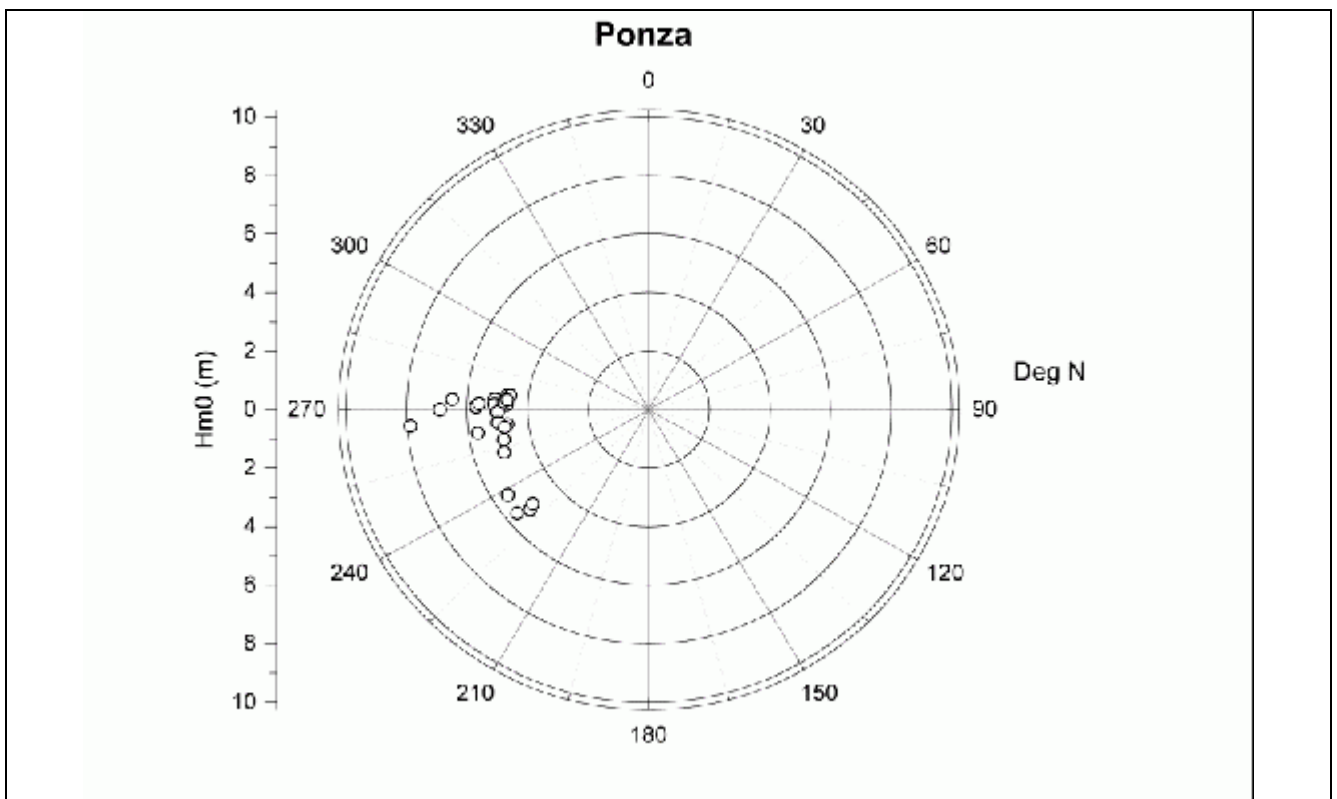


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Ponza

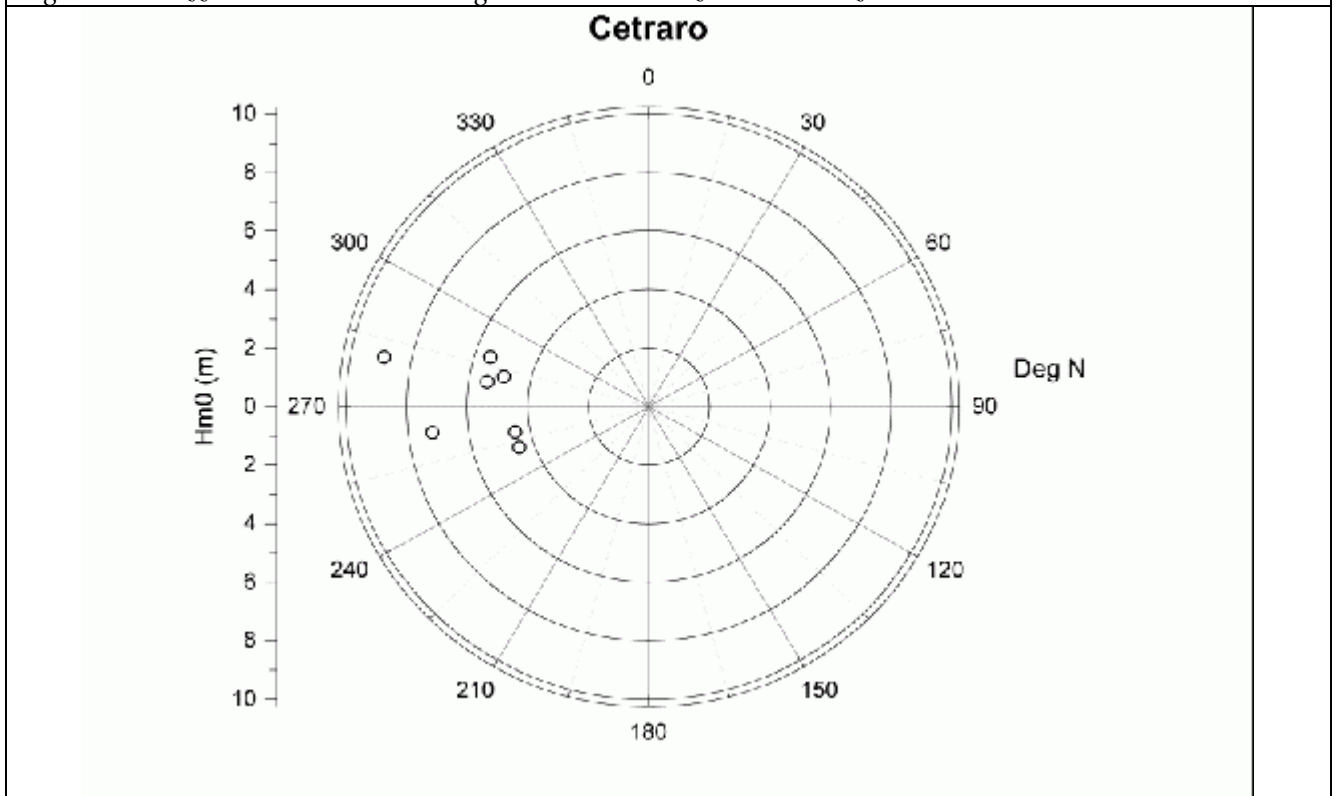


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Cetraro

Tab 36 Elenco delle mareggiate per il settore costiero da Anzio a C.po Vaticano

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Laz2	1999-03-05	00:00	3	0	3.3	8.3	6.4	240	247	15	0.00%
	Cal1	1999-03-05	15:00	1	15	3.1	10	7.9	264	263	2	0.00%
2	Laz2	1999-04-12	21:00	1	12	3.8	9.1	6.5	273	267	9	0.00%
	Cal1	1999-04-13	06:00	1	9	2.6	8.7	6.9	277	273	7	0.00%
3	Laz2	1999-04-17	00:00	2	6	3.5	8.3	6.3	261	257	20	0.00%
	Cal1	1999-04-18	06:00	0	21	3.1	8.3	7.3	270	270	5	12.50%
4	Laz2	1999-06-22	00:00	0	9	3.6	9.1	6.5	280	275	8	0.00%
	Cal1	1999-06-22	09:00	0	9	3	8.3	7.1	278	274	10	0.00%
5	Laz2	1999-11-17	09:00	4	9	5.5	10	7.7	238	238	38	0.00%
	Cal1	1999-11-17	18:00	2	18	4.1	10.5	8.5	264	270	12	0.00%
6	Laz2	1999-11-23	09:00	0	12	2.1	6.3	5	301	287	19	0.00%
	Cal1	1999-11-23	00:00	1	3	3.1	9.5	8.1	272	259	18	0.00%
7	Laz2	1999-12-05	12:00	1	0	3.8	9.1	6.6	268	328	97	0.00%
	Cal1	1999-12-06	03:00	0	6	2.6	10	8.7	288	281	11	0.00%
8	Laz2	1999-12-09	21:00	1	18	2.3	6.7	5.3	201	225	35	0.00%
	Cal1	1999-12-11	03:00	5	12	3.8	10.5	8.6	277	265	14	0.00%
	Laz2	1999-12-15	18:00	0	15	2.9	8.3	6	224	230	10	0.00%
	Cal1	1999-12-11	03:00	5	12	3.8	10.5	8.6	277	265	14	0.00%
9	Laz2	1999-12-26	12:00	3	9	7.9	11.1	9.1	266	264	12	0.00%
	Cal1	1999-12-26	18:00	3	9	8.9	13.3	11.6	281	272	15	1.40%
10	Laz2	2000-01-23	00:00	1	0	4.2	10	7	266	268	13	0.00%
	Cal1	2000-01-21	18:00	2	15	4.9	11.1	9.4	282	267	18	0.00%
11	Laz2	2000-02-16	18:00	3	15	3.9	9.1	6.9	272	273	13	0.00%
	Cal1	2000-02-17	06:00	3	12	4.1	10.5	8.6	282	271	14	0.00%

12	Laz2	2000-03-02 12:00	1	6	3.9	9.1	7.1	262	230	44	0.00%
	Cal1	2000-03-02 06:00	1	3	3	8.7	8.6	266	262	6	0.00%
13	Laz2	2000-04-05 15:00	1	9	2.5	8.3	6	254	247	13	0.00%
	Cal1	2000-04-04 21:00	2	0	2.9	6.9	6.7	255	252	19	0.00%
14	Laz2	2000-04-24 09:00	0	15	2.8	8.3	6.1	277	270	11	0.00%
	Cal1	2000-04-24 21:00	0	0	2	9.5	7.6	269	269	0	0.00%
15	Laz2	2000-07-11 21:00	4	9	3.5	9.1	6.7	273	273	9	0.00%
	Cal1	2000-07-15 15:00	0	21	2.4	9.1	7.6	268	264	5	0.00%
16	Laz2	2000-11-06 12:00	2	9	3.7	7.7	6.3	201	220	25	0.00%
	Cal1	2000-11-07 18:00	0	21	2.8	12.5	9.7	260	261	2	0.00%
17	Laz2	2000-11-26 12:00	0	15	4.8	10	7.2	273	271	8	0.00%
	Cal1	2000-11-25 18:00	2	6	5.5	10	9.1	282	280	7	0.00%
18	Laz2	2000-12-16 00:00	2	9	3.5	9.1	6.4	277	271	14	0.00%
	Cal1	2000-12-16 03:00	1	21	2.7	10	7.6	287	271	17	0.00%
19	Laz2	2000-12-24 18:00	6	21	4	9.1	7.1	265	215	66	0.00%
	Cal1	2000-12-26 06:00	5	18	4.5	11.8	9.7	259	255	9	0.00%
20	Laz2	2001-01-03 03:00	2	6	3.7	10	6.7	277	247	39	0.00%
	Cal1	2001-01-05 00:00	0	21	2.9	8	7.2	267	268	6	0.00%
21	Laz2	2001-01-08 18:00	1	3	4.3	9.1	6.9	270	262	12	0.00%
	Cal1	2001-01-09 00:00	1	0	4.1	10	8.5	280	276	8	0.00%
22	Laz2	2001-01-27 18:00	1	6	2.8	8.3	6.2	217	219	25	0.00%
	Cal1	2001-01-28 03:00	0	6	2	8.3	6.6	242	250	13	0.00%
23	Laz2	2001-02-03 18:00	0	21	2.8	9.1	6.1	272	261	19	0.00%
	Cal1	2001-02-04 03:00	0	9	2.4	7.4	6.6	265	267	5	0.00%
24	Laz2	2001-02-25 21:00	5	15	4	10	7	272	230	56	0.00%

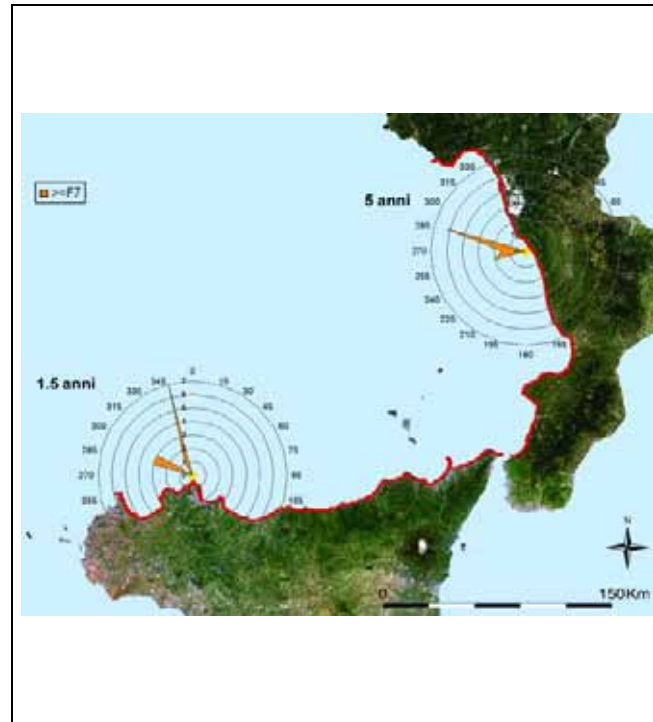
	Cal1	2001-02-24 12:00	2	21	5.4	10	9.1	279	277	8	0.00%
	Laz2	2001-02-25 21:00	5	15	4	10	7	272	230	56	0.00%
	Cal1	2001-03-01 06:00	1	3	2.5	7.4	7.3	261	256	6	0.00%
25	Laz2	2001-03-13 15:00	1	9	3.7	10	6.8	271	268	7	0.00%
	Cal1	2001-03-13 21:00	1	3	3.3	11.1	8.8	291	280	14	0.00%
26	Laz2	2001-05-05 18:00	1	9	2.4	7.7	5.6	272	272	9	0.00%
	Cal1	2001-05-05 21:00	0	18	2.6	7.7	6.9	272	278	7	0.00%
27	Laz2	2001-07-20 00:00	1	3	3.4	9.1	6.6	252	261	22	0.00%
	Cal1	2001-07-20 18:00	0	9	2.3	9.1	7.5	277	275	3	0.00%
28	Laz2	2001-09-05 06:00	0	15	3.9	8.3	6.4	274	285	19	0.00%
	Cal1	2001-09-05 09:00	0	18	3.4	9.1	7.7	276	275	5	0.00%
29	Laz2	2001-09-09 15:00	0	21	3.3	9.1	6.2	270	272	3	0.00%
	Cal1	2001-09-10 03:00	1	0	2.9	8.7	7.3	273	272	4	0.00%
30	Laz2	2001-11-07 00:00	2	3	3.4	9.1	6.5	277	273	6	0.00%
	Cal1	2001-11-09 03:00	0	6	2.1	7.4	7.1	284	279	9	0.00%
31	Laz2	2001-11-13 18:00	2	6	2.7	6.7	5.2	85	132	99	0.00%
	Cal1	2001-11-12 18:00	2	0	3.4	8.7	7.8	256	254	7	0.00%
32	Laz2	2001-11-23 09:00	0	15	3.3	10	6.7	275	294	37	0.00%
	Cal1	2001-11-23 18:00	0	18	2.8	6.9	6.4	255	269	17	0.00%
33	Laz2	2001-12-22 09:00	1	6	2.6	9.1	6.3	274	267	11	0.00%
	Cal1	2001-12-23 03:00	0	6	2.1	7.4	6.6	269	272	5	0.00%
34	Laz2	2001-12-26 21:00	5	21	3.9	9.1	6.7	277	297	64	0.00%
	Cal1	2001-12-27 06:00	4	0	4.2	10.5	8.6	286	274	14	0.00%
35	Laz2	2002-01-24 15:00	0	21	3.2	9.1	7	259	243	28	0.00%
	Cal1	2002-01-25 09:00	0	3	2.3	8.7	8.3	270	266	9	0.00%
36	Laz2	2002-02-21 00:00	0	18	3.1	8.3	6.2	274	264	17	0.00%

	Cal1	2002-02-21 11:00	0	17	3	9.1	6.2	268	272	6	17.10%
37	Laz2	2002-02-23 18:00	1	6	3.1	9.1	6.9	266	263	5	0.00%
	Cal1	2002-02-24 02:00	1	11	3.7	10.5	7.7	267	268	3	29.90%
38	Laz2	2002-04-03 18:00	1	12	2.4	5.9	5	90	158	92	0.00%
	Cal1	2002-04-04 14:00	1	14	3.2	13.3	8.4	262	261	3	1.40%
39	Laz2	2002-08-07 02:00	0	21	3.7	8.7	6.6	287	277	12	3.10%
	Cal1	2002-08-07 18:30	0	1	2	9.5	6.3	283	283	1	0.00%
40	Laz2	2002-10-24 02:30	0	18	3.2	8	6	271	266	8	5.90%
	Cal1	2002-10-24 07:00	0	0	2	6.7	5.2	257	257	0	0.00%
41	Laz2	2002-11-04 07:30	0	12	3.1	8	7.2	268	270	4	0.00%
	Cal1	2002-11-04 19:00	0	12	3	9.5	7.2	285	280	7	0.00%
42	Laz2	2002-11-14 13:30	5	2	4.1	8.7	6.9	142	166	41	1.60%
	Cal1	2002-11-19 06:00	0	5	2.2	8	5.8	260	260	1	0.00%
43	Laz2	2002-11-22 08:30	4	23	3.5	7.7	6.1	134	184	71	28.70%
	Cal1	2002-11-22 12:30	1	0	2.3	8	5.5	256	265	11	0.00%
44	Laz2	2002-12-28 03:30	4	9	3.1	7.7	5.9	254	241	30	3.60%
	Cal1	2002-12-29 07:30	3	22	4.5	10.5	7.5	256	261	7	0.00%
45	Laz2	2003-01-21 18:00	1	6	3	7.7	5.7	224	239	23	1.90%
	Cal1	2003-01-22 07:00	0	18	2.1	8.7	6.9	246	249	3	43.80%
46	Laz2	2003-01-29 01:30	3	9	3.5	7.7	6.5	264	242	47	11.10%
	Cal1	2003-01-29 12:30	3	4	3.5	10	7.4	272	262	16	0.00%
47	Laz2	2003-02-03 17:00	2	8	4.8	10	7.4	262	256	15	4.50%
	Cal1	2003-02-04 00:00	2	13	7.2	11.8	10.4	263	259	6	0.00%
48	Laz2	2003-10-05 05:00	3	17	4.7	9.5	7.2	274	266	15	23.10%
	Cal1	2003-10-05 23:00	0	17	2.7	9.5	6.7	279	271	12	0.00%
	Laz2	2003-10-05 05:00	3	17	4.7	9.5	7.2	274	266	15	23.10%



	Cal1	2003-10-08 03:00	1	1	4.1	9.5	6.9	278	268	14	0.00%
49	Laz2	2003-10-30 11:00	2	5	3.8	9.1	6.5	271	226	58	7.40%
	Cal1	2003-10-30 06:00	1	7	3.1	33.3	29.8	236	262	30	3.90%
50	Laz2	2003-11-26 01:00	3	8	3.9	8.3	6.9	263	228	47	12.20%
	Cal1	2003-11-27 03:30	2	13	3.2	8.7	6	261	250	14	1.30%
51	Laz2	2003-12-16 05:30	0	3	2.4	5.9	4.9	38	29	24	0.00%
	Cal1	2003-12-15 10:00	1	10	2	9.1	7.3	264	274	22	0.00%
52	Laz2	2003-12-21 22:30	1	13	3.9	9.5	6.8	269	279	42	0.00%
	Cal1	2003-12-22 03:30	1	10	2.9	10.5	8.4	282	264	21	0.00%

## Onde Alte per il settore costiero C4: C.po Palinuro–C.po S.Vito



*Fig 3.23 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.56 e Tab 1.64 - onde alte - tratto costiero da C.po Palinuro a C.po S.Vito – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C4: C.po Palinuro–C.po S.Vito

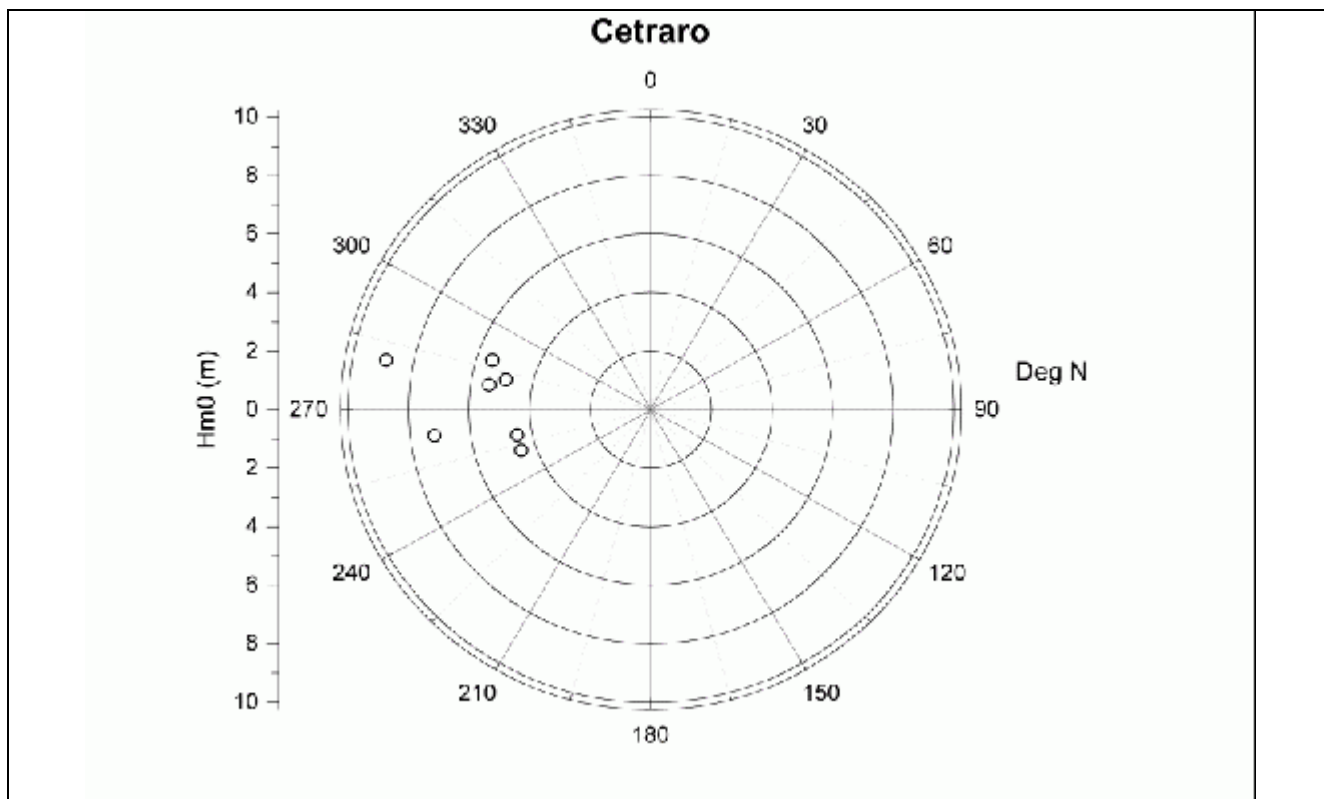


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Cetraro

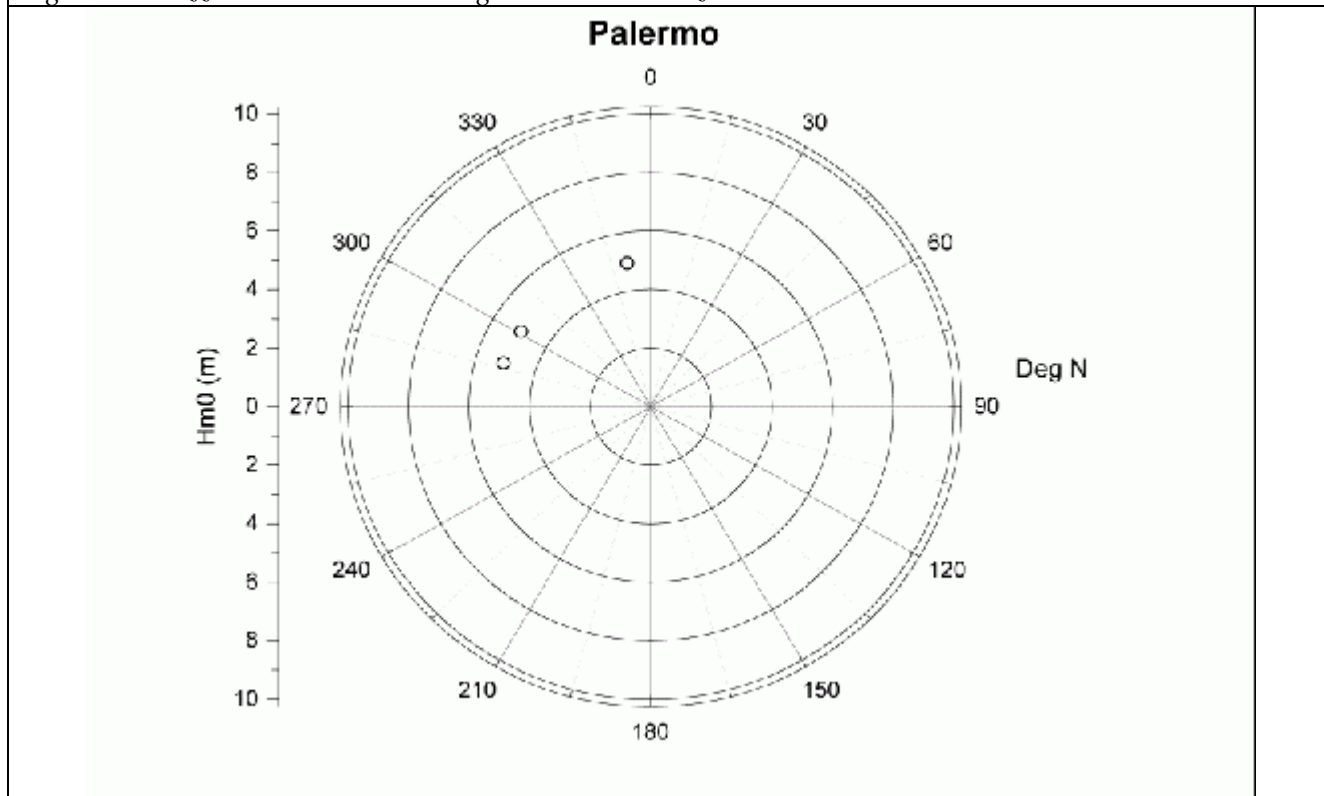


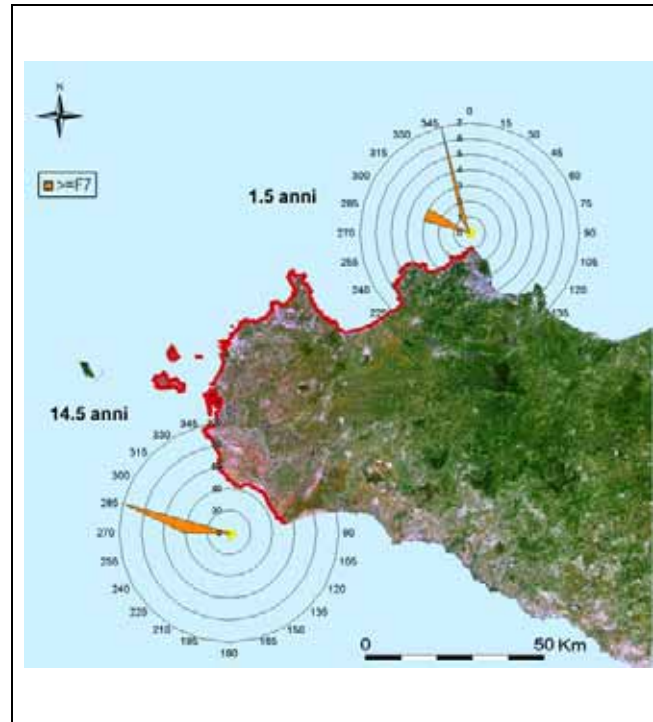
Fig 3.18 Altezze d'onda massime registrate dalla stazione di Palermo

Tab 37 Elenco delle mareggiate per il settore costiero da C.po Palinuro a C.po S.Vito

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Cal1	2002-08-07	18:30	0	1	2	9.5	6.3	283	283	1	0.00%
	Sic1	2002-08-07	12:00	0	9	2.6	7.7	5.9	307	302	7	5.60%
2	Cal1	2002-09-23	07:30	1	9	2.5	7.7	5.6	268	264	6	0.00%
	Sic1	2002-09-24	01:30	0	6	2.1	7.1	5.5	287	291	6	0.00%
3	Cal1	2002-09-26	10:30	0	9	2.3	7.7	5.7	270	268	3	0.00%
	Sic1	2002-09-25	14:30	1	3	2.8	7.7	5.4	293	288	8	0.00%
4	Cal1	2002-11-04	19:00	0	12	3	9.5	7.2	285	280	7	0.00%
	Sic1	2002-11-04	15:00	0	17	3.4	9.1	7	302	304	8	6.50%
5	Cal1	2002-12-29	07:30	3	22	4.5	10.5	7.5	256	261	7	0.00%
	Sic1	2002-12-31	15:30	1	1	5.1	10.5	7.8	287	283	9	51.00%
6	Cal1	2003-01-22	07:00	0	18	2.1	8.7	6.9	246	249	3	43.80%
	Sic1	2003-01-22	07:30	0	16	2.5	10	6.1	279	279	2	0.00%
7	Cal1	2003-01-29	12:30	3	4	3.5	10	7.4	272	262	16	0.00%
	Sic1	2003-01-29	03:30	1	6	3.7	10	7.4	288	297	15	0.00%
8	Cal1	2003-02-04	00:00	2	13	7.2	11.8	10.4	263	259	6	0.00%
	Sic1	2003-02-04	12:00	2	20	5	11.1	8.1	301	306	19	15.20%
9	Cal1	2003-03-03	17:30	0	13	2.2	7.4	6	272	270	3	0.00%
	Sic1	2003-03-03	11:30	0	23	2.8	8	7.2	284	294	21	0.00%
10	Cal1	2003-10-30	06:00	1	7	3.1	33.3	29.8	236	262	30	3.90%
	Sic1	2003-10-30	10:30	0	7	2.2	6.9	4.7	281	281	2	0.00%
11	Cal1	2003-11-27	03:30	2	13	3.2	8.7	6	261	250	14	1.30%
	Sic1	2003-11-26	21:00	2	10	3.3	9.5	6.9	282	286	8	25.30%
12	Cal1	2003-12-15	10:00	1	10	2	9.1	7.3	264	274	22	0.00%

	Sic1	2003-12-14 20:30	2	13	3.5	8.3	6.4	327	340	30	56.70%
13	Cal1	2003-12-22 03:30	1	10	2.9	10.5	8.4	282	264	21	0.00%
	Sic1	2003-12-22 16:30	3	0	5	9.5	7.2	351	332	28	4.30%

## Onde Alte per il settore costiero C5: C.po Gallo–C.po Granitola



*Fig 3.26 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.64 e Tab 1.74 - onde alte - tratto costiero da C.po Gallo a C.po Granitola – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C5: C.po Gallo–C.po Granitola

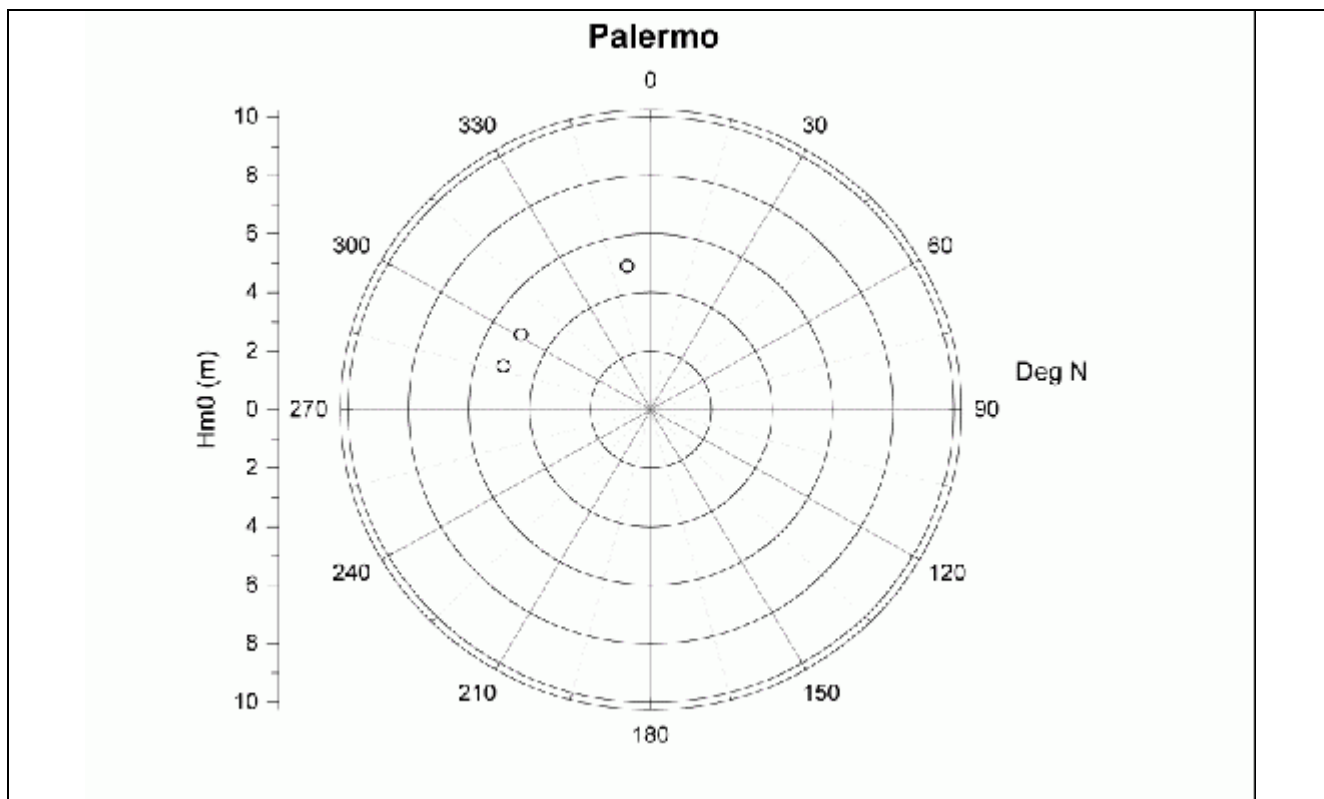


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Palermo

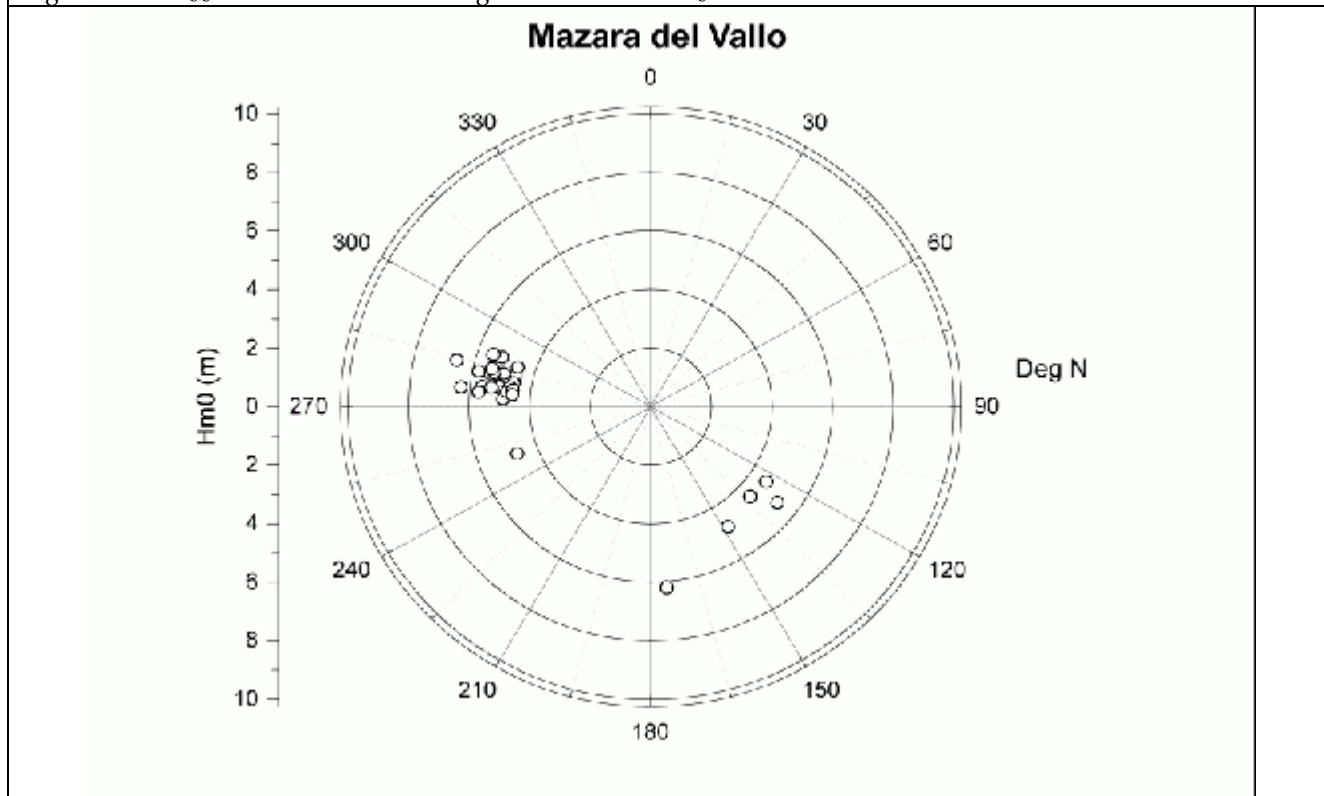


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Mazara del Vallo

Tab 38 Elenco delle mareggiate per il settore costiero da C.po Gallo a C.po Granitola

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Sic1	2002-08-07	12:00	0	9	2.6	7.7	5.9	307	302	7	5.60%
	Sic3	2002-08-07	10:30	0	11	2.3	7.1	4.9	277			
2	Sic1	2002-08-11	09:00	1	14	4.3	28.6	6.3	255	286	35	4.60%
	Sic3	2002-08-11	21:00	1	3	3	8.3	5.7	287			
3	Sic1	2002-08-29	13:00	0	15	2.9	7.7	5.5	292	295	9	6.70%
	Sic3	2002-08-29	16:00	0	13	2.8	7.7	5.8	286			
4	Sic1	2002-09-25	14:30	1	3	2.8	7.7	5.4	293	288	8	0.00%
	Sic3	2002-09-26	08:00	0	10	2.4	8	5.2	287			
5	Sic1	2002-10-07	04:00	0	9	2.6	7.4	5.3	285	278	8	35.00%
	Sic3	2002-10-07	04:00	0	7	2.4	7.4	5.5	285			
6	Sic1	2002-10-12	08:30	0	4	2.5	7.4	5.4	270	271	3	11.10%
	Sic3	2002-10-11	23:00	2	2	4.1	8.3	6.6	264			
7	Sic1	2002-11-04	15:00	0	17	3.4	9.1	7	302	304	8	6.50%
	Sic3	2002-11-04	11:00	0	22	2.9	7.7	5.9	279			
8	Sic1	2002-11-08	13:30	1	6	3.7	8.7	6.7	28	329	70	13.00%
	Sic3	2002-11-08	06:00	2	12	3.4	9.5	7	268			
9	Sic1	2002-12-31	15:30	1	1	5.1	10.5	7.8	287	283	9	51.00%
	Sic3	2002-12-28	01:00	4	15	5.7	11.1	9.8	275			
10	Sic1	2003-01-18	15:00	0	17	2.3	6.9	5.2	313	318	7	0.00%
	Sic3	2003-01-17	07:30	1	11	3.8	8.3	6.4	131			
11	Sic1	2003-01-22	07:30	0	16	2.5	10	6.1	279	279	2	0.00%
	Sic3	2003-01-22	06:00	2	16	2.6	7.7	8.3	279			
12	Sic1	2003-01-29	03:30	1	6	3.7	10	7.4	288	297	15	0.00%

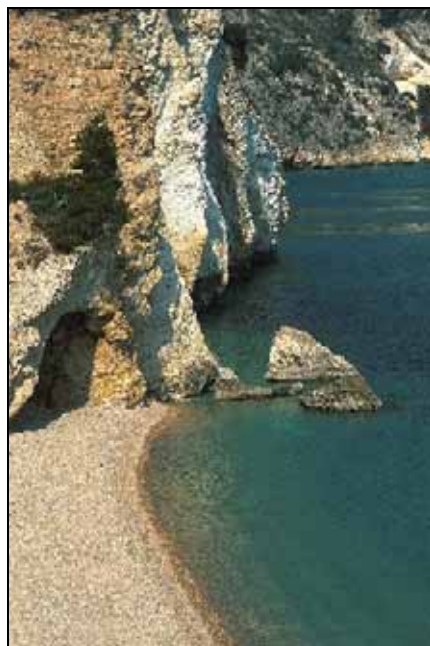


	Sic3	2003-01-28 23:00	6	11	4.6	9.1	7.2	275	270	21	8.20%
	Sic1	2003-02-01 17:30	1	9	4	9.1	6.8	326	332	13	1.50%
	Sic3	2003-01-28 23:00	6	11	4.6	9.1	7.2	275	270	21	8.20%
13	Sic1	2003-02-04 12:00	2	20	5	11.1	8.1	301	306	19	15.20%
	Sic3	2003-02-06 12:00	0	1	3.3	10.5	6.4	279	279	1	33.30%
14	Sic1	2003-03-03 11:30	0	23	2.8	8	7.2	284	294	21	0.00%
	Sic3	2003-03-03 12:00	0	23	2.8	8	5.5	288	287	6	0.00%
15	Sic1	2003-04-04 08:00	3	8	3	8.7	6.3	8	349	54	0.00%
	Sic3	2003-04-03 09:30	4	1	3.5	9.1	6.5	272	237	77	3.20%
16	Sic1	2003-05-21 10:30	1	8	3.1	8.3	6.2	301	297	9	0.00%
	Sic3	2003-05-21 14:00	0	18	3	8	6.3	275	277	3	2.80%
17	Sic1	2003-10-18 07:30	1	8	2.2	9.5	5.4	284	359	87	20.00%
	Sic3	2003-10-17 13:00	2	5	3.3	8	6.8	123	199	104	37.30%
18	Sic1	2003-10-30 10:30	0	7	2.2	6.9	4.7	281	281	2	0.00%
	Sic3	2003-10-30 08:00	0	7	2.4	8	5	279	274	6	0.00%
19	Sic1	2003-11-26 21:00	2	10	3.3	9.5	6.9	282	286	8	25.30%
	Sic3	2003-11-25 22:00	3	9	4.4	10	7.3	274	254	38	10.80%
20	Sic1	2003-12-11 22:00	1	6	2.4	6.4	6	44	55	13	0.00%
	Sic3	2003-12-09 23:00	2	18	3.8	9.1	6.8	125	127	6	17.00%
21	Sic1	2003-12-14 20:30	2	13	3.5	8.3	6.4	327	340	30	56.70%
	Sic3	2003-12-14 12:30	2	7	3.9	9.5	7.1	278	278	6	0.00%
22	Sic1	2003-12-22 16:30	3	0	5	9.5	7.2	351	332	28	4.30%
	Sic3	2003-12-22 22:00	2	12	4	9.5	6.7	285	294	12	0.00%
23	Sic1	2003-12-29 23:30	2	0	3.2	33.3	15.7	105	149	174	0.00%
	Sic3	2003-12-28 15:30	3	7	3.5	8.7	6.1	270	233	55	9.60%

## Onde Alte per il settore costiero C6: Marsala – C.po S.Alessio



*Fig 3.29 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.74 e Tab 1.84 - onde alte - tratto costiero da Marsala a C.po S.Alessio – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C6: Marsala – C.po S.Alessio

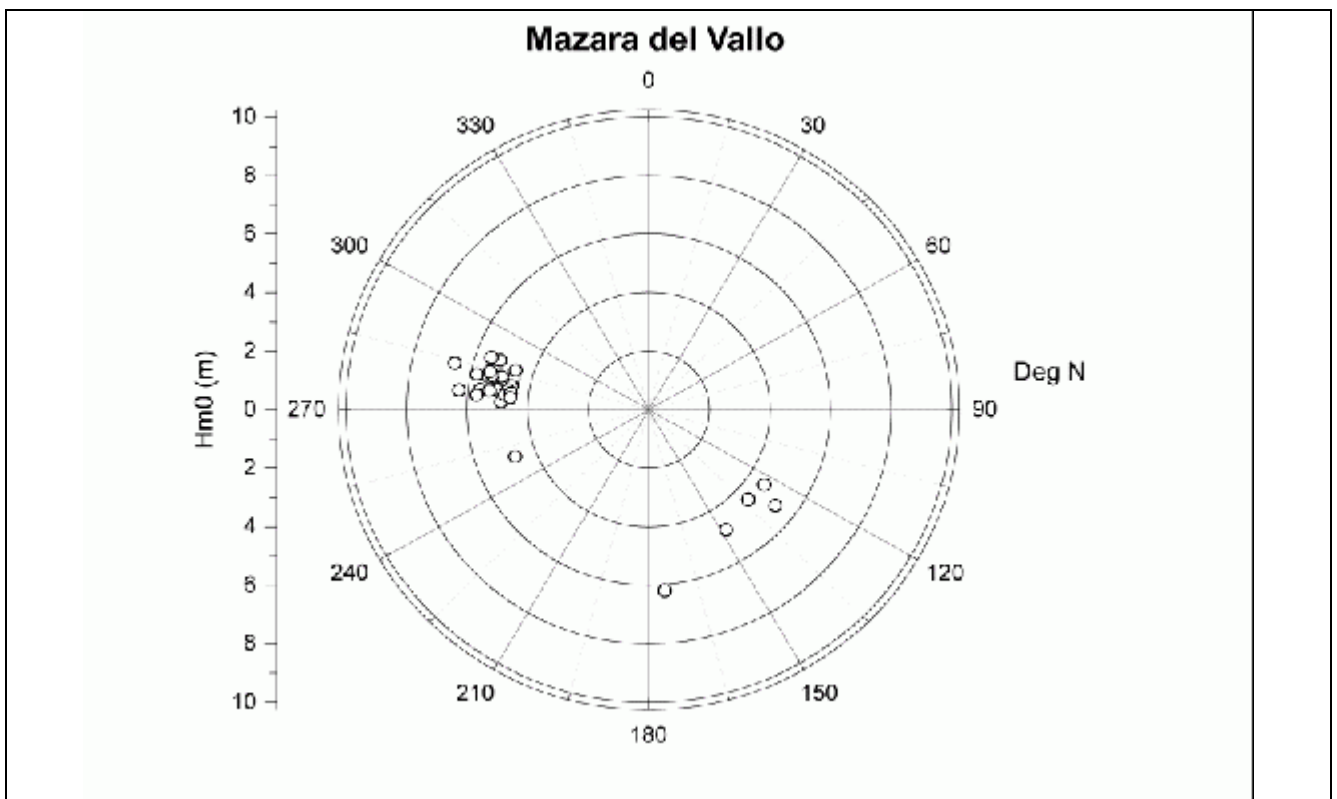


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Mazara del Vallo

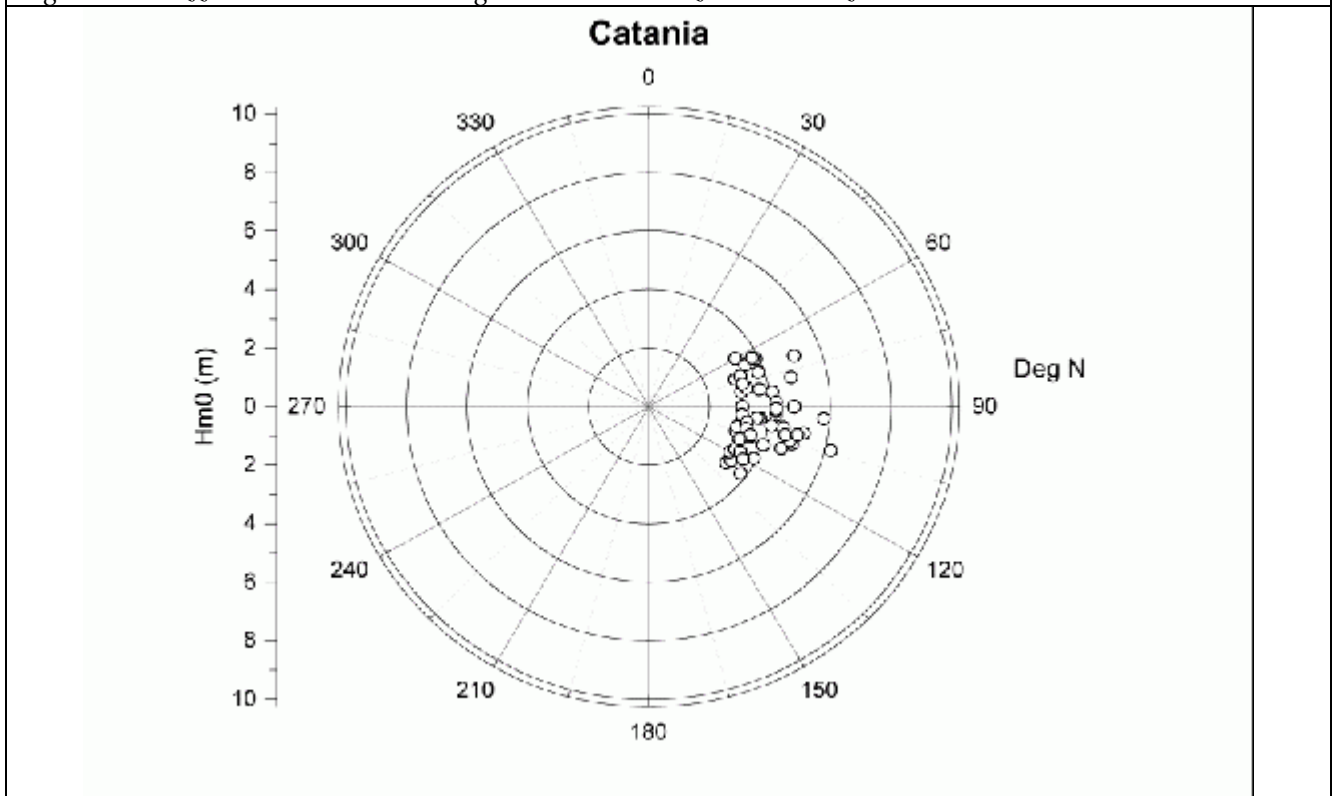


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Catania

Tab 39 Elenco delle mareggiate per il settore costiero da Marsala a C.po S.Alessio

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Sic3	1989-10-14	00:00	0	12	2	8.3	7.3	141	140	2	0.00%
	Sic5	1989-10-14	12:00	0	18	2.6	9.1	8.4	119	116	6	0.00%
2	Sic3	1989-11-30	15:00	4	0	2.7	8.3	7.3	125	132	11	0.00%
	Sic5	1989-12-01	15:00	2	15	4.9	11.1	9	105	97	13	1.00%
3	Sic3	1989-12-31	00:00	0	18	3	7.7	6.9	132	129	4	0.00%
	Sic5	1989-12-31	06:00	2	9	3.7	8.3	7.5	94	92	7	2.60%
4	Sic3	1990-12-22	12:00	2	18	4.6	9.1	8.1	125	143	35	0.00%
	Sic5	1990-12-22	15:00	3	21	4.5	12.5	11.2	100	92	14	73.00%
5	Sic3	1991-01-23	15:00	0	3	2.3	7.1	6.2	133	130	7	0.00%
	Sic5	1991-01-23	09:00	0	0	2	6.7	5.6	72	72	0	0.00%
6	Sic3	1991-01-26	09:00	1	3	3.2	9.1	8.1	134	131	7	0.00%
	Sic5	1991-01-27	00:00	1	9	3.2	8.3	7.2	127	104	30	0.00%
7	Sic3	1991-02-15	21:00	1	0	3.7	10	8.3	284	279	8	0.00%
	Sic5	1991-02-14	15:00	0	15	2.8	9.1	7.6	83	74	12	0.00%
8	Sic3	1991-02-19	18:00	1	9	3.8	8.3	7.3	132	135	5	0.00%
	Sic5	1991-02-20	18:00	1	9	3.5	11.1	10.1	107	108	5	55.60%
9	Sic3	1991-03-14	21:00	1	12	3	11.1	9.3	128	127	10	0.00%
	Sic5	1991-03-15	00:00	2	0	5.2	11.1	9.8	104	102	4	59.70%
10	Sic3	1991-03-31	06:00	0	15	2.4	9.1	7.8	139	135	8	0.00%
	Sic5	1991-03-31	06:00	1	6	5.1	9.1	8.3	70	79	12	51.60%
11	Sic3	1991-11-23	21:00	1	9	6.2	9.1	9.5	175	241	84	0.00%
	Sic5	1991-11-23	21:00	0	9	2.3	8.3	7.4	132	127	25	0.00%
12	Sic3	1991-12-03	03:00	0	21	2.5	9.1	7.3	132	134	2	0.00%

	Sic5	1991-12-02 06:00	3	6	3.9	9.1	8.1	117	107	14	2.60%
13	Sic3	1991-12-06 15:00	0	15	2.4	7.1	6	298	306	10	0.00%
	Sic5	1991-12-06 21:00	0	0	2.2	7.1	6	64	64	0	0.00%
14	Sic3	1991-12-18 21:00	6	18	5.8	11.1	10	282	283	7	0.00%
	Sic5	1991-12-19 18:00	0	3	2	6.3	5.7	38	37	2	0.00%
	Sic3	1991-12-18 21:00	6	18	5.8	11.1	10	282	283	7	0.00%
	Sic5	1991-12-23 12:00	0	3	2.3	8.3	6.2	60	63	5	0.00%
	Sic3	1991-12-18 21:00	6	18	5.8	11.1	10	282	283	7	0.00%
	Sic5	1991-12-25 06:00	1	12	3.5	7.7	6.9	66	62	7	0.00%
15	Sic3	1992-01-24 03:00	4	3	3.1	8.3	6	130	129	13	4.50%
	Sic5	1992-01-23 09:00	6	6	4.2	9.1	8.4	94	105	15	21.50%
16	Sic3	1992-02-20 03:00	0	15	2.3	8.3	5.8	128	122	8	16.70%
	Sic5	1992-02-20 09:00	2	9	2.6	10	6.6	76	70	16	0.00%
17	Sic3	1992-03-10 00:00	0	15	2.3	9.1	6.2	126	131	7	0.00%
	Sic5	1992-03-08 15:00	1	21	2.8	9.1	6.4	108	102	13	0.00%
18	Sic3	1992-03-24 21:00	5	0	4.1	8.3	5.7	222	220	68	12.80%
	Sic5	1992-03-26 06:00	1	6	2.7	9.1	6.3	134	148	22	0.00%
19	Sic3	1992-10-15 00:00	0	12	2.6	7.7	5.7	256	266	14	0.00%
	Sic5	1992-10-14 09:00	0	6	2.9	7.7	5.7	74	74	2	0.00%
20	Sic3	1993-01-25 12:00	3	0	4.6	9.1	8.4	283	281	4	4.50%
	Sic5	1993-01-27 00:00	0	0	2.1	6.3	5.8	74	74	0	0.00%
21	Sic3	1993-04-25 06:00	3	18	3.7	8.3	7.3	134	138	8	4.30%
	Sic5	1993-04-28 18:00	0	3	2.2	8.3	7.1	124	121	6	0.00%
22	Sic3	1993-11-27 09:00	0	3	2.3	6.7	6.3	266	270	7	0.00%
	Sic5	1993-11-24 09:00	5	6	4.6	10	8.8	108	101	11	37.50%

	Sic3	1993-11-29 21:00	0	18	2.9	7.7	6.6	274	280	8	14.30%
	Sic5	1993-11-24 09:00	5	6	4.6	10	8.8	108	101	11	37.50%
23	Sic3	1994-01-08 00:00	2	3	3.4	7.7	7.2	124	188	96	0.00%
	Sic5	1994-01-08 12:00	1	0	2.9	9.1	8.1	118	120	6	33.30%
24	Sic3	1994-01-20 00:00	1	18	2.8	7.7	6.6	133	214	107	0.00%
	Sic5	1994-01-19 12:00	1	9	2.3	7.7	6.2	81	102	31	0.00%
25	Sic3	1994-01-26 15:00	3	6	3.7	9.1	8.2	301	291	14	0.00%
	Sic5	1994-01-27 21:00	0	0	2.2	6.3	5.7	40	40	0	0.00%
26	Sic3	1994-02-05 00:00	3	6	4.6	12.5	9.9	280	207	97	73.70%
	Sic5	1994-02-06 00:00	1	3	4.8	11.1	9.8	104	111	12	30.00%
27	Sic3	1994-02-09 15:00	2	6	4	9.1	8.1	283	289	9	0.00%
	Sic5	1994-02-10 03:00	0	6	2.3	9.1	8.1	88	88	5	0.00%
28	Sic3	1994-02-18 00:00	3	21	3.7	8.3	7.3	298	277	63	0.00%
	Sic5	1994-02-16 18:00	2	12	4.6	10	9.5	102	100	9	36.80%
29	Sic3	1995-03-01 09:00	6	6	3.5	8.3	7.5	124	239	131	0.00%
	Sic5	1995-02-28 06:00	1	0	2.7	7.1	6.3	73	72	2	12.50%
30	Sic3	1995-03-11 18:00	1	18	4.1	9.1	8.3	140	139	7	0.00%
	Sic5	1995-03-12 18:00	2	0	5	12.5	11.7	101	101	3	18.20%
31	Sic3	1995-04-21 09:00	2	12	2.8	8.3	7.6	137	137	5	0.00%
	Sic5	1995-04-23 15:00	0	0	2.1	7.7	6.8	116	116	0	0.00%
32	Sic3	1995-09-28 18:00	1	6	3.1	9.1	7.6	283	282	2	11.10%
	Sic5	1995-09-27 21:00	0	15	2.2	6.7	5.9	74	74	3	0.00%
33	Sic3	1995-11-25 12:00	0	3	2.2	9.1	7.5	148	148	0	0.00%
	Sic5	1995-11-24 18:00	0	0	2	7.1	5.9	115	115	0	0.00%
34	Sic3	1996-02-01 18:00	0	6	2.7	7.1	6.3	123	123	2	0.00%
	Sic5	1996-01-31 09:00	1	9	3.8	9.1	8.1	72	75	5	0.00%

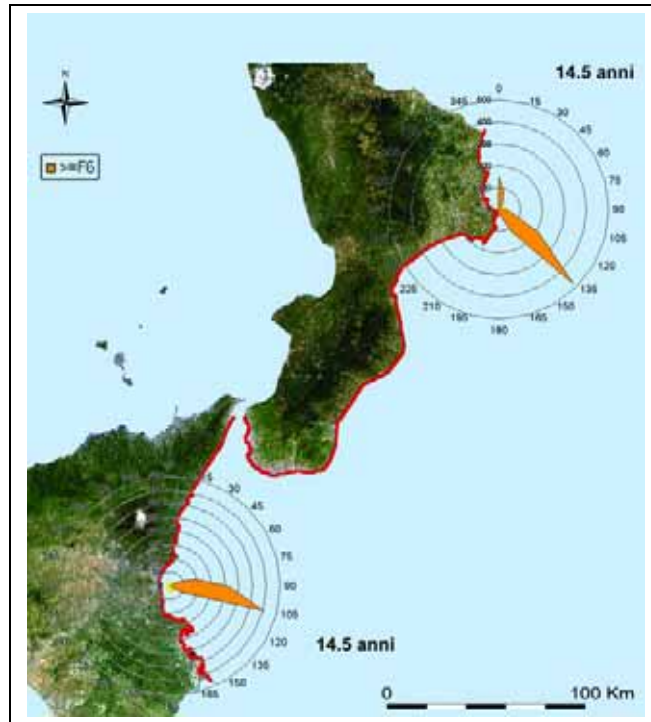
35	Sic3	1996-02-26 12:00	2	6	4.5	11.1	9.2	134	133	8	50.00%
	Sic5	1996-02-27 09:00	1	14	6.2	11.1	9.5	104	102	10	41.90%
36	Sic3	1996-03-07 15:00	4	6	3.3	7.1	6.6	136	140	30	16.70%
	Sic5	1996-03-08 00:00	1	22	3.8	10	9.2	127	120	9	40.60%
	Sic3	1996-03-07 15:00	4	6	3.3	7.1	6.6	136	140	30	16.70%
	Sic5	1996-03-11 09:00	1	15	3.2	10	8.8	113	108	10	0.00%
37	Sic3	1996-03-14 21:00	4	3	3.7	11.1	8.3	276	249	61	12.50%
	Sic5	1996-03-14 12:00	1	6	3.2	10	8.3	117	115	6	58.60%
38	Sic3	1996-04-22 21:00	4	9	4.1	9.1	7.8	125	144	21	22.90%
	Sic5	1996-04-26 09:00	2	3	3.4	10	8.7	117	112	10	21.70%
39	Sic3	1996-10-08 03:00	0	0	2	7.1	7.1	265	265	0	0.00%
	Sic5	1996-10-08 03:00	0	0	2	7.7	6.6	124	124	0	0.00%
40	Sic3	1996-12-07 12:00	3	21	4	8.3	7.5	136	160	45	17.40%
	Sic5	1996-12-09 09:00	1	6	3.6	10	8.8	129	123	10	3.20%
41	Sic3	1996-12-25 09:00	2	18	4.8	9.1	8.9	276	290	21	0.00%
	Sic5	1996-12-26 21:00	1	18	3.9	8.3	7.5	65	72	14	8.00%
42	Sic3	1997-02-19 09:00	0	12	2.6	8.3	6.9	290	290	5	0.00%
	Sic5	1997-02-19 18:00	0	3	2.3	5.9	5.6	24	26	4	0.00%
43	Sic3	1997-04-18 09:00	0	18	3	7.7	7	125	128	4	0.00%
	Sic5	1997-04-17 21:00	0	3	2.3	6.7	6	72	73	1	0.00%
44	Sic3	1997-10-29 06:00	1	18	2.7	7.1	6.1	117	92	132	9.10%
	Sic5	1997-10-29 00:00	4	6	3.6	10	8.4	87	91	14	36.30%
45	Sic3	1997-11-07 12:00	1	12	2.4	7.7	6.4	274	234	75	41.70%
	Sic5	1997-11-08 09:00	0	6	2.1	9.1	8.1	106	109	4	0.00%
46	Sic3	1997-11-24 12:00	0	0	2.5	9.1	7.2	295	295	0	0.00%
	Sic5	1997-11-23 03:00	0	18	2.2	9.1	8.5	127	125	4	0.00%





58	Sic3	2002-01-01 06:00	0	6	2.2	7.7	5.7	312	317	8	0.00%
	Sic5	2002-01-01 09:00	0	3	2	7.1	6.2	77	73	8	0.00%
59	Sic3	2002-04-02 15:30	3	10	4.3	8.3	6.8	276	232	76	38.60%
	Sic5	2002-04-03 12:30	0	6	2.2	8.7	5.9	116	114	3	0.00%
60	Sic3	2002-04-11 05:30	3	0	3.3	8.3	6.1	122	213	112	49.10%
	Sic5	2002-04-12 03:00	0	19	2.6	8.7	6.8	107	103	7	2.50%
61	Sic3	2002-05-07 10:00	0	4	2.5	7.7	5.6	136	135	2	40.00%
	Sic5	2002-05-07 13:00	1	21	3.5	10.5	7.4	106	95	20	4.30%
62	Sic3	2002-11-08 06:00	2	12	3.4	9.5	7	268	275	11	1.90%
	Sic5	2002-11-08 19:30	0	7	3	7.1	5.6	69	70	3	0.00%
63	Sic3	2002-11-24 18:00	2	16	3.6	8.3	5.9	131	144	27	40.40%
	Sic5	2002-11-26 10:00	2	7	2.3	9.1	6.8	104	111	13	0.00%
64	Sic3	2002-12-28 01:00	4	15	5.7	11.1	9.8	275	255	36	18.40%
	Sic5	2002-12-27 01:30	0	8	2.2	9.5	6.9	91	89	9	0.00%
65	Sic3	2003-01-17 07:30	1	11	3.8	8.3	6.4	131	188	83	0.00%
	Sic5	2003-01-17 18:30	0	3	2	5.9	4.7	109	116	10	0.00%
66	Sic3	2003-02-26 09:00	2	14	3.6	7.7	6.4	135	141	7	0.00%
	Sic5	2003-02-27 05:00	1	4	2.3	8	5.6	124	125	3	0.00%
67	Sic3	2003-04-03 09:30	4	1	3.5	9.1	6.5	272	237	77	3.20%
	Sic5	2003-04-04 06:30	0	6	3	8	5.9	104	102	4	0.00%
68	Sic3	2003-04-18 19:30	0	0	2	6.9	5.4	295	295	0	0.00%
	Sic5	2003-04-17 05:00	1	8	3.2	10	8.8	110	106	8	0.00%
69	Sic3	2003-12-09 23:00	2	18	3.8	9.1	6.8	125	127	6	17.00%
	Sic5	2003-12-10 20:30	0	14	2.8	9.1	6.8	97	100	4	20.70%
70	Sic3	2003-12-22 22:00	2	12	4	9.5	6.7	285	294	12	0.00%
	Sic5	2003-12-25 05:30	0	1	2.2	8.7	6.1	67	67	2	0.00%

## Onde Alte per il settore costiero C7: C.po Murro di Porco–P.ta Alice



*Fig 3.32 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.84 e Tab 1.93 - onde alte - tratto costiero da C.po Murro di Porco a P.ta Alice – dati semiorari, periodo: intero*



# Mareggiate per il settore costiero C7: C.po Murro di Porco–P.ta Alice

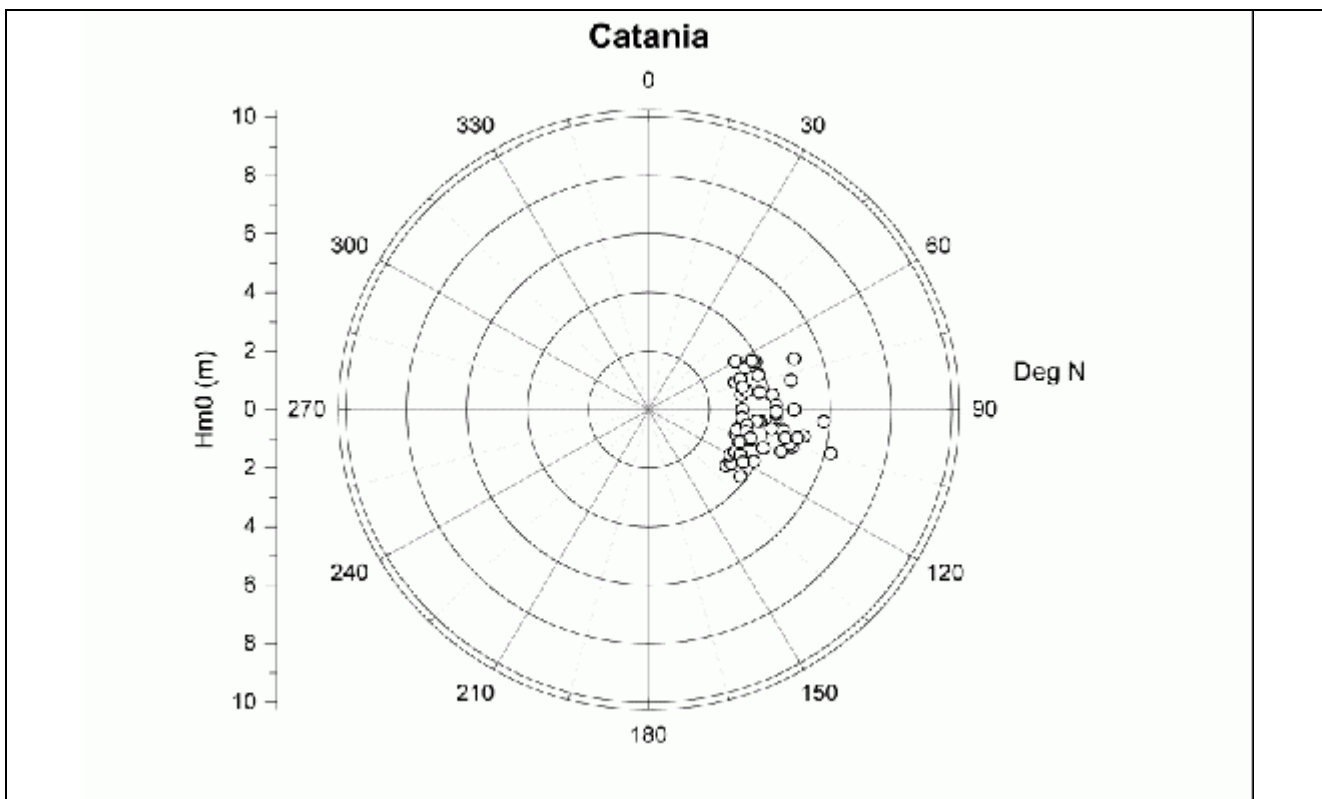


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Catania

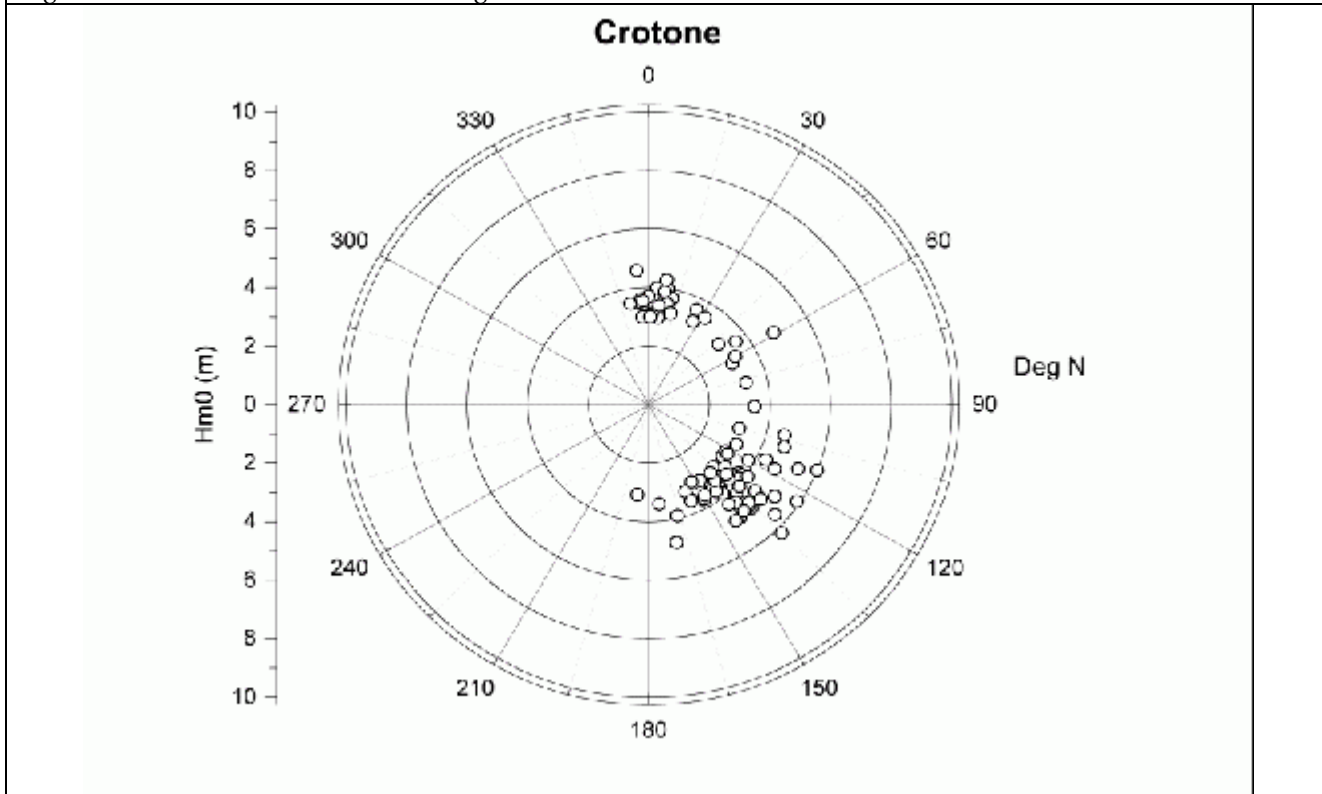


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Crotona

Tab 40 Elenco delle mareggiate per il settore costiero da C.po Murro di Porco a P.ta Alice

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Sic5	1989-10-14	12:00	0	18	2.6	9.1	8.4	119	116	6	0.00%
	Cal3	1989-10-14	21:00	0	15	2.8	9.1	8	154	150	6	0.00%
2	Sic5	1989-11-20	21:00	0	6	2.1	9.1	8.4	95	99	7	0.00%
	Cal3	1989-11-20	09:00	0	9	2	9.1	7.1	113	104	19	0.00%
3	Sic5	1989-11-27	00:00	0	18	2.6	7.1	6.2	69	69	2	0.00%
	Cal3	1989-11-27	18:00	0	6	2.2	5.9	5.6	23	25	4	0.00%
4	Sic5	1989-12-01	15:00	2	15	4.9	11.1	9	105	97	13	1.00%
	Cal3	1989-12-02	12:00	0	6	2.3	6.7	6.4	87	86	11	0.00%
5	Sic5	1989-12-31	06:00	2	9	3.7	8.3	7.5	94	92	7	2.60%
	Cal3	1989-12-31	21:00	1	6	3.7	9.1	8.1	139	129	13	0.00%
6	Sic5	1990-03-04	00:00	0	3	2.7	8.3	7	74	74	0	0.00%
	Cal3	1990-03-03	18:00	1	3	2.5	6.7	5.8	359	4	9	0.00%
7	Sic5	1990-11-14	12:00	1	15	2.8	11.1	8.9	84	100	18	0.00%
	Cal3	1990-11-14	08:00	2	19	4.7	10	8.6	122	123	7	10.00%
8	Sic5	1990-12-22	15:00	3	21	4.5	12.5	11.2	100	92	14	73.00%
	Cal3	1990-12-24	12:00	3	0	5.9	11.1	9.4	124	126	5	0.00%
9	Sic5	1991-01-27	00:00	1	9	3.2	8.3	7.2	127	104	30	0.00%
	Cal3	1991-01-27	09:00	1	6	3.1	6.7	6.8	63	105	60	0.00%
10	Sic5	1991-02-14	15:00	0	15	2.8	9.1	7.6	83	74	12	0.00%
	Cal3	1991-02-15	00:00	0	12	2.8	7.1	6.2	19	19	4	0.00%
11	Sic5	1991-02-20	18:00	1	9	3.5	11.1	10.1	107	108	5	55.60%
	Cal3	1991-02-21	00:00	1	3	4	11.1	9.1	137	132	15	0.00%
12	Sic5	1991-03-15	00:00	2	0	5.2	11.1	9.8	104	102	4	59.70%

	Cal3	1991-03-15 15:00	1	3	3.7	11.1	9.5	130	128	6	0.00%
13	Sic5	1991-03-31 06:00	1	6	5.1	9.1	8.3	70	79	12	51.60%
	Cal3	1991-03-31 12:00	1	9	2.3	6.3	6	30	43	21	36.40%
14	Sic5	1991-11-01 09:00	0	21	2.3	7.1	6.5	81	86	11	0.00%
	Cal3	1991-11-02 00:00	0	6	2	5.9	5.6	24	23	6	0.00%
15	Sic5	1991-11-23 21:00	0	9	2.3	8.3	7.4	132	127	25	0.00%
	Cal3	1991-11-24 00:00	0	21	4.8	9.1	8.3	169	163	10	0.00%
16	Sic5	1991-12-06 21:00	0	0	2.2	7.1	6	64	64	0	0.00%
	Cal3	1991-12-06 15:00	4	18	4.1	8.3	7.2	7	6	5	19.80%
	Sic5	1991-12-08 06:00	0	0	2.1	5.9	5.7	41	41	0	0.00%
	Cal3	1991-12-06 15:00	4	18	4.1	8.3	7.2	7	6	5	19.80%
17	Sic5	1991-12-19 18:00	0	3	2	6.3	5.7	38	37	2	0.00%
	Cal3	1991-12-19 09:00	0	9	4.6	9.1	7.8	353	360	8	0.00%
18	Sic5	1991-12-23 12:00	0	3	2.3	8.3	6.2	60	63	5	0.00%
	Cal3	1991-12-23 03:00	0	9	2.5	7.1	6	2	8	9	0.00%
19	Sic5	1991-12-25 06:00	1	12	3.5	7.7	6.9	66	62	7	0.00%
	Cal3	1991-12-25 06:00	1	15	4	7.7	7.1	4	5	5	0.00%
20	Sic5	1991-12-29 18:00	0	0	2	7.7	6.9	65	65	0	0.00%
	Cal3	1991-12-28 15:00	1	21	3.3	7.1	6.5	6	4	7	0.00%
21	Sic5	1992-01-01 06:00	0	3	2.2	8.3	5.8	70	69	3	0.00%
	Cal3	1991-12-31 21:00	0	12	2.6	7.1	5.3	19	15	7	0.00%
22	Sic5	1992-01-23 09:00	6	6	4.2	9.1	8.4	94	105	15	21.50%
	Cal3	1992-01-23 00:00	0	18	3.2	8.3	7.3	158	152	8	0.00%
	Sic5	1992-01-23 09:00	6	6	4.2	9.1	8.4	94	105	15	21.50%
	Cal3	1992-01-27 21:00	3	18	2.5	6.7	5.3	5	21	37	0.00%
23	Sic5	1992-02-02 03:00	0	18	2.4	8.3	5.3	58	70	18	0.00%
	Cal3	1992-02-01 21:00	0	12	2.9	7.1	5.5	20	21	5	0.00%

24	Sic5	1992-02-20 09:00	2	9	2.6	10	6.6	76	70	16	0.00%
	Cal3	1992-02-21 18:00	1	15	3.5	7.1	6.6	355	0	8	0.00%
25	Sic5	1992-03-08 15:00	1	21	2.8	9.1	6.4	108	102	13	0.00%
	Cal3	1992-03-08 09:00	1	0	3.1	8.3	7.6	105	108	10	0.00%
26	Sic5	1992-03-26 06:00	1	6	2.7	9.1	6.3	134	148	22	0.00%
	Cal3	1992-03-26 06:00	1	0	4.9	10	8.6	142	146	9	7.40%
27	Sic5	1992-05-06 06:00	0	21	2.3	10	8	105	114	15	0.00%
	Cal3	1992-05-07 00:00	0	0	2.1	10	6	67	67	0	0.00%
28	Sic5	1992-05-26 06:00	1	3	3.1	10	8.5	98	86	16	0.00%
	Cal3	1992-05-26 18:00	0	15	2.4	10	6.9	114	91	46	0.00%
29	Sic5	1992-10-14 09:00	0	6	2.9	7.7	5.7	74	74	2	0.00%
	Cal3	1992-10-14 21:00	0	3	2.5	8.3	5.5	42	52	20	0.00%
30	Sic5	1992-12-17 18:00	1	19	4.2	10	8.3	92	91	10	0.00%
	Cal3	1992-12-17 23:00	1	16	4.2	10	7.2	126	128	10	47.10%
31	Sic5	1992-12-26 09:00	2	17	5.8	11.1	9.4	94	95	9	26.70%
	Cal3	1992-12-25 09:00	5	9	4.6	10	8.5	103	111	28	19.70%
	Sic5	1992-12-30 06:00	0	0	2.7	10	7.2	96	96	0	0.00%
	Cal3	1992-12-25 09:00	5	9	4.6	10	8.5	103	111	28	19.70%
32	Sic5	1993-01-04 18:00	1	9	4.2	10	8.4	88	87	4	0.00%
	Cal3	1993-01-04 09:00	2	6	5.4	10	9.1	114	53	78	41.60%
33	Sic5	1993-01-31 09:00	1	3	2.4	7.1	6.7	81	76	8	44.40%
	Cal3	1993-01-31 09:00	0	0	2.1	6.3	5.5	7	7	0	0.00%
34	Sic5	1993-05-06 18:00	0	15	2.6	8.3	6.9	81	78	7	0.00%
	Cal3	1993-05-07 03:00	0	12	3.3	6.7	6.8	79	69	16	0.00%
35	Sic5	1993-10-28 03:00	0	0	2.2	7.7	6.5	92	92	0	0.00%
	Cal3	1993-10-28 00:00	0	0	2	5.6	5.3	10	10	0	0.00%

36	Sic5	1993-11-19 09:00	0	18	3.3	10	7.9	95	96	7	0.00%
	Cal3	1993-11-20 00:00	0	18	4.3	9.1	8.6	116	110	13	30.00%
37	Sic5	1993-11-24 09:00	5	6	4.6	10	8.8	108	101	11	37.50%
	Cal3	1993-11-25 09:00	4	12	4.9	10	8.5	137	131	9	50.40%
38	Sic5	1994-01-08 12:00	1	0	2.9	9.1	8.1	118	120	6	33.30%
	Cal3	1994-01-08 12:00	1	9	4.8	10	9.1	137	140	5	52.90%
39	Sic5	1994-01-19 12:00	1	9	2.3	7.7	6.2	81	102	31	0.00%
	Cal3	1994-01-20 09:30	1	8	3.6	7.7	7.1	156	137	36	0.00%
40	Sic5	1994-01-27 21:00	0	0	2.2	6.3	5.7	40	40	0	0.00%
	Cal3	1994-01-27 06:00	0	18	4	7.7	7.1	9	6	5	0.00%
41	Sic5	1994-02-06 00:00	1	3	4.8	11.1	9.8	104	111	12	30.00%
	Cal3	1994-02-05 12:00	2	9	5.6	11.1	9.4	135	138	13	28.40%
42	Sic5	1994-02-10 03:00	0	6	2.3	9.1	8.1	88	88	5	0.00%
	Cal3	1994-02-10 00:00	0	9	2.3	5.9	6.5	51	77	40	0.00%
43	Sic5	1994-02-16 18:00	2	12	4.6	10	9.5	102	100	9	36.80%
	Cal3	1994-02-17 00:00	2	15	6.2	11.1	10.3	135	128	11	63.50%
44	Sic5	1994-04-15 21:00	1	0	2.4	7.1	6.7	102	108	13	0.00%
	Cal3	1994-04-16 09:00	1	0	3.2	9.1	8.2	148	139	10	0.00%
45	Sic5	1994-10-19 18:00	0	12	2.6	11.1	8.1	103	100	4	0.00%
	Cal3	1994-10-19 15:00	0	0	2	8.3	6.8	128	128	0	0.00%
46	Sic5	1995-02-01 06:00	0	18	2.4	7.7	6.3	68	70	3	0.00%
	Cal3	1995-02-01 00:00	0	3	2.3	6.7	6	3	3	0	0.00%
47	Sic5	1995-03-12 18:00	2	0	5	12.5	11.7	101	101	3	18.20%
	Cal3	1995-03-13 12:00	0	6	4.7	12.5	9.2	108	123	29	33.30%
48	Sic5	1995-11-24 18:00	0	0	2	7.1	5.9	115	115	0	0.00%

	Cal3	1995-11-25 06:00	2	21	2.8	8.3	7.1	143	149	10	6.70%
49	Sic5	1995-12-18 09:00	0	0	2	8.3	8	96	96	0	0.00%
	Cal3	1995-12-17 09:00	1	9	3.4	9.1	7.6	142	136	12	63.00%
50	Sic5	1996-01-11 09:00	3	3	4	10	8.3	111	109	6	22.70%
	Cal3	1996-01-13 03:00	0	0	2.4	9.1	7.9	147	147	0	0.00%
51	Sic5	1996-01-25 21:00	1	3	3.3	10	9.3	126	117	12	0.00%
	Cal3	1996-01-24 12:00	2	18	4.4	11.1	9.4	139	144	12	2.60%
52	Sic5	1996-01-31 09:00	1	9	3.8	9.1	8.1	72	75	5	0.00%
	Cal3	1996-01-30 06:00	1	15	3.5	9.1	7.8	119	106	34	4.90%
53	Sic5	1996-02-27 09:00	1	14	6.2	11.1	9.5	104	102	10	41.90%
	Cal3	1996-02-27 21:00	4	0	3.1	10	8.2	123	96	68	34.60%
	Sic5	1996-03-01 00:00	0	10	4.8	11.1	9.3	90	92	3	4.50%
	Cal3	1996-02-27 21:00	4	0	3.1	10	8.2	123	96	68	34.60%
54	Sic5	1996-03-08 00:00	1	22	3.8	10	9.2	127	120	9	40.60%
	Cal3	1996-03-08 09:00	0	12	2.6	9.1	7.9	155	142	22	0.00%
55	Sic5	1996-03-11 09:00	1	15	3.2	10	8.8	113	108	10	0.00%
	Cal3	1996-03-11 15:00	1	7	4.9	8.3	8.2	139	138	3	79.30%
56	Sic5	1996-04-26 09:00	2	3	3.4	10	8.7	117	112	10	21.70%
	Cal3	1996-04-26 18:00	1	9	2.9	10	7.9	147	145	7	8.30%
57	Sic5	1996-10-04 00:00	1	3	2.1	8.3	7.6	122	100	36	0.00%
	Cal3	1996-10-04 00:00	1	21	3.5	8.3	7.2	140	135	16	22.20%
58	Sic5	1996-10-08 03:00	0	0	2	7.7	6.6	124	124	0	0.00%
	Cal3	1996-10-08 06:00	1	6	3.7	8.3	7.5	151	147	8	26.10%
59	Sic5	1996-12-09 09:00	1	6	3.6	10	8.8	129	123	10	3.20%
	Cal3	1996-12-09 18:00	1	3	3.7	9.1	8	153	143	14	6.90%
60	Sic5	1996-12-26 21:00	1	18	3.9	8.3	7.5	65	72	14	8.00%



	Cal3	1996-12-26 12:00	1	9	2.4	6.7	6	10	4	13	0.00%
61	Sic5	1997-01-12 18:00	1	3	2.7	8.3	7.5	83	81	2	0.00%
	Cal3	1997-01-11 00:00	3	0	2.8	8.3	7.4	147	99	72	0.00%
62	Sic5	1997-01-26 09:00	1	6	2.6	10	8.9	117	94	31	0.00%
	Cal3	1997-01-27 06:00	0	0	2.2	8.3	7.5	135	135	0	0.00%
63	Sic5	1997-02-19 18:00	0	3	2.3	5.9	5.6	24	26	4	0.00%
	Cal3	1997-02-19 18:00	0	6	2.7	7.1	6	10	10	1	0.00%
64	Sic5	1997-03-01 00:00	0	21	2.1	5.6	6.5	53	66	17	0.00%
	Cal3	1997-02-27 21:00	1	15	3.5	7.7	6.9	10	11	10	0.00%
65	Sic5	1997-03-09 12:00	0	21	2.9	7.7	6.7	69	71	4	0.00%
	Cal3	1997-03-09 06:00	0	3	2.2	6.3	5.4	33	32	3	0.00%
	Sic5	1997-03-09 12:00	0	21	2.9	7.7	6.7	69	71	4	0.00%
	Cal3	1997-03-10 21:00	1	12	2.6	6.7	6.3	35	65	42	0.00%
66	Sic5	1997-03-11 18:00	1	6	3.7	9.1	7.7	81	86	10	73.20%
	Cal3	1997-03-10 21:00	1	12	2.6	6.7	6.3	35	65	42	0.00%
66	Sic5	1997-03-26 21:00	0	9	2.2	9.1	7.5	100	105	8	0.00%
	Cal3	1997-03-25 18:00	1	9	2.7	8.3	7	91	126	39	0.00%
67	Sic5	1997-04-05 12:00	0	0	2	7.1	6.8	72	72	0	0.00%
	Cal3	1997-04-05 03:00	0	9	2.7	6.7	5.9	4	11	9	0.00%
68	Sic5	1997-04-08 03:00	0	0	2.1	9.1	6.7	60	60	0	0.00%
	Cal3	1997-04-07 06:00	1	6	3.2	7.1	6.4	13	8	7	0.00%
69	Sic5	1997-09-26 03:00	0	6	2.3	9.1	7.7	88	93	8	0.00%
	Cal3	1997-09-25 12:00	0	9	2.1	7.1	5.5	69	69	2	0.00%
70	Sic5	1997-10-29 00:00	4	6	3.6	10	8.4	87	91	14	36.30%
	Cal3	1997-10-28 21:00	2	9	4.6	10	8.7	130	113	40	2.00%
71	Sic5	1997-11-23 03:00	0	18	2.2	9.1	8.5	127	125	4	0.00%
	Cal3	1997-11-23 06:00	1	12	4.7	9.1	8.3	135	129	9	12.10%

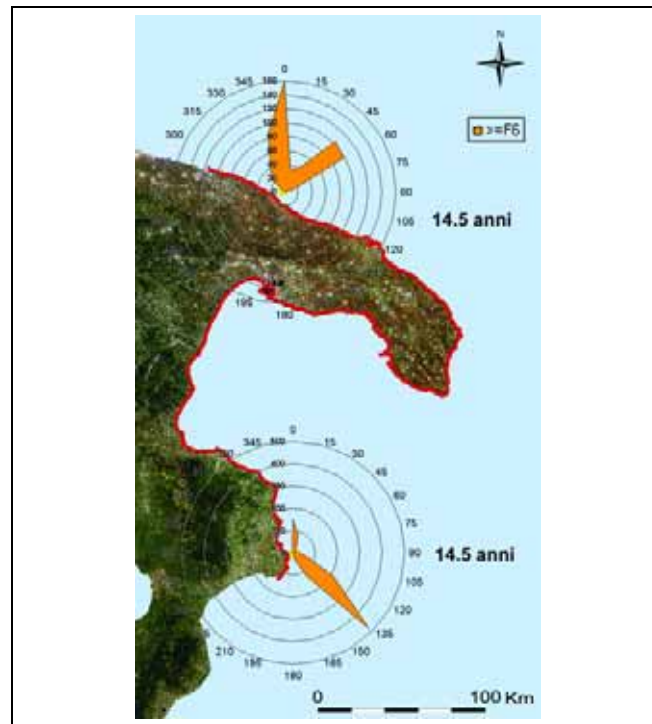
72	Sic5 Cal3	1997-12-06 06:00 1997-12-06 12:00	0 18 1 0	3 3	7.7 7.1	6.6 6.2	74 6	73 12	2 10	0.00% 0.00%	
73	Sic5 Cal3	1997-12-18 06:00 1997-12-17 21:00	2 6 3 6	2.9 3.6	8.3 9.1	8 7.8	113 149	101 144	15 14	0.00% 2.40%	
74	Sic5 Cal3	1998-01-26 00:00 1998-01-26 12:00	1 15 1 3	4.1 4.9	11.1 11.1	10.9 9.4	99 131	92 126	10 8	34.50% 0.00%	
75	Sic5 Cal3	1998-03-10 09:00 1998-03-10 06:00	0 0 1 3	2 3.5	6.7 7.7	5.7 6.6	67 350	67 353	0 5	0.00% 34.40%	
76	Sic5 Cal3	1998-03-16 12:00 1998-03-15 18:00	0 3 1 9	2.1 3.1	5.6 7.1	5.6 6.3	39 2	42 5	6 6	0.00% 0.00%	
77	Sic5 Cal3	1998-03-25 12:00 1998-03-25 00:00	1 6 2 21	4.8 6	11.1 11.1	9.9 9.2	78 112	74 55	5 71	0.00% 0.00%	
78	Sic5 Cal3	1998-04-23 15:00 1998-04-24 00:00	1 12 0 21	2.6 2.2	9.1 8.3	6.9 6.3	92 104	92 119	4 24	0.00% 0.00%	
79	Sic5 Cal3	1998-05-03 12:00 1998-05-03 18:00	0 3 0 21	2 2.4	8.3 9.1	7.4 7.6	103 155	105 140	3 20	0.00% 0.00%	
80	Sic5 Cal3	1998-11-19 12:00 1998-11-19 15:00	1 0 1 0	2.3 3.1	8.3 8.3	6.6 7.1	72 48	97 60	31 34	0.00% 0.00%	
81	Sic5 Cal3	1998-12-03 21:00 1998-12-03 18:00	0 15 1 18	2.3 4.8	9.1 9.1	8.3 8.1	105 139	108 142	5 10	0.00% 0.00%	
82	Sic5 Cal3	1999-03-17 06:00 1999-03-17 09:00	0 15 2 3	3.2 3.2	7.7 7.7	5.8 5.6	71 33	72 27	3 18	0.00% 0.00%	
83	Sic5 Cal3	1999-12-06 18:00 1999-12-06 12:00	0 3 0 18	2.2 3	7.4 6.7	6.5 5.3	67 3	69 3	4 3	0.00% 0.00%	
84	Sic5	2000-01-16 00:00	0 0	2.4	10.5	8.7	104	104	0	0.00%	



97	Sic5	2002-01-01 09:00	0	3	2	7.1	6.2	77	73	8	0.00%
	Cal3	2002-01-01 00:00	1	6	3.7	8.3	6	360	358	5	12.10%
98	Sic5	2002-01-03 18:00	0	0	2	5.7	5.4	64	64	0	0.00%
	Cal3	2002-01-03 18:00	2	3	4.3	8.3	6.4	8	9	8	5.40%
99	Sic5	2002-03-10 16:30	0	1	2	9.1	6.9	102	101	2	0.00%
	Cal3	2002-03-10 13:00	1	5	2.4	6.7	6.3	8	48	55	74.50%
100	Sic5	2002-04-03 12:30	0	6	2.2	8.7	5.9	116	114	3	0.00%
	Cal3	2002-04-03 13:00	0	22	3.5	9.5	7.1	133	132	5	0.00%
101	Sic5	2002-04-12 03:00	0	19	2.6	8.7	6.8	107	103	7	2.50%
	Cal3	2002-04-11 23:30	1	12	4.1	10.5	7.7	127	128	3	0.00%
102	Sic5	2002-05-07 13:00	1	21	3.5	10.5	7.4	106	95	20	4.30%
	Cal3	2002-05-08 09:00	0	18	3.1	9.5	7.2	139	136	5	0.00%
103	Sic5	2002-11-08 19:30	0	7	3	7.1	5.6	69	70	3	0.00%
	Cal3	2002-11-08 23:30	0	4	2.1	5.6	4.6	26	35	17	0.00%
104	Sic5	2002-11-26 10:00	2	7	2.3	9.1	6.8	104	111	13	0.00%
	Cal3	2002-11-26 04:30	2	12	2.9	8.3	6.1	146	145	11	40.20%
105	Sic5	2002-12-10 18:00	0	13	2.1	10	7.6	99	95	5	0.00%
	Cal3	2002-12-10 03:30	0	22	2.7	6.9	5.7	120	109	13	2.30%
106	Sic5	2002-12-27 01:30	0	8	2.2	9.5	6.9	91	89	9	0.00%
	Cal3	2002-12-26 07:00	0	17	2.8	8.3	5.8	94	111	22	0.00%
107	Sic5	2003-01-11 04:00	0	11	3.8	8.3	6.3	66	70	6	0.00%
	Cal3	2003-01-11 10:30	0	4	2.4	6.5	5.5	12	18	9	0.00%
108	Sic5	2003-01-17 18:30	0	3	2	5.9	4.7	109	116	10	0.00%
	Cal3	2003-01-17 18:30	0	3	2.2	5.9	5.1	111	114	7	0.00%
109	Sic5	2003-01-26 11:00	0	18	3.2	10	6.7	76	76	11	0.00%
	Cal3	2003-01-26 07:00	1	13	3.6	10.5	6.2	53	40	36	0.00%

110	Sic5	2003-03-17 05:00	0	19	4.2	12.5	8.6	91	93	4	0.00%
	Cal3	2003-03-16 22:30	1	7	3.5	6.7	6	32	46	18	0.00%
111	Sic5	2003-04-04 06:30	0	6	3	8	5.9	104	102	4	0.00%
	Cal3	2003-04-04 10:00	1	4	2.7	8	5.6	98	96	36	0.00%
112	Sic5	2003-04-11 08:30	0	5	2.1	9.1	7.4	107	105	3	0.00%
	Cal3	2003-04-10 14:00	1	0	2.9	10	7.3	130	132	4	0.00%
113	Sic5	2003-04-17 05:00	1	8	3.2	10	8.8	110	106	8	0.00%
	Cal3	2003-04-17 23:00	0	6	2.2	10	7.4	141	135	13	0.00%
114	Sic5	2003-09-04 05:30	0	1	2	6.9	4.9	66	64	3	0.00%
	Cal3	2003-09-04 07:30	0	0	2	6.5	4.6	3	3	0	0.00%
115	Sic5	2003-11-12 06:00	0	21	2.5	9.1	7.9	96	98	5	0.00%
	Cal3	2003-11-12 02:30	0	21	3	10	6.7	114	97	23	0.00%
116	Sic5	2003-12-07 23:30	0	0	2	8.3	6.3	62	62	0	0.00%
	Cal3	2003-12-07 13:30	6	11	4.3	11.1	8.4	142	95	66	12.00%
	Sic5	2003-12-10 20:30	0	14	2.8	9.1	6.8	97	100	4	20.70%
	Cal3	2003-12-07 13:30	6	11	4.3	11.1	8.4	142	95	66	12.00%
117	Sic5	2003-12-25 05:30	0	1	2.2	8.7	6.1	67	67	2	0.00%
	Cal3	2003-12-24 00:00	2	2	3.5	7.7	5.5	357	2	9	0.00%

## Onde Alte per il settore costiero C8: C.po Rizzuto–Bari



*Fig 3.35 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.93 e Tab 1.103 - onde alte - tratto costiero da C.po Rizzuto a Bari – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C8: C.po Rizzuto – Bari

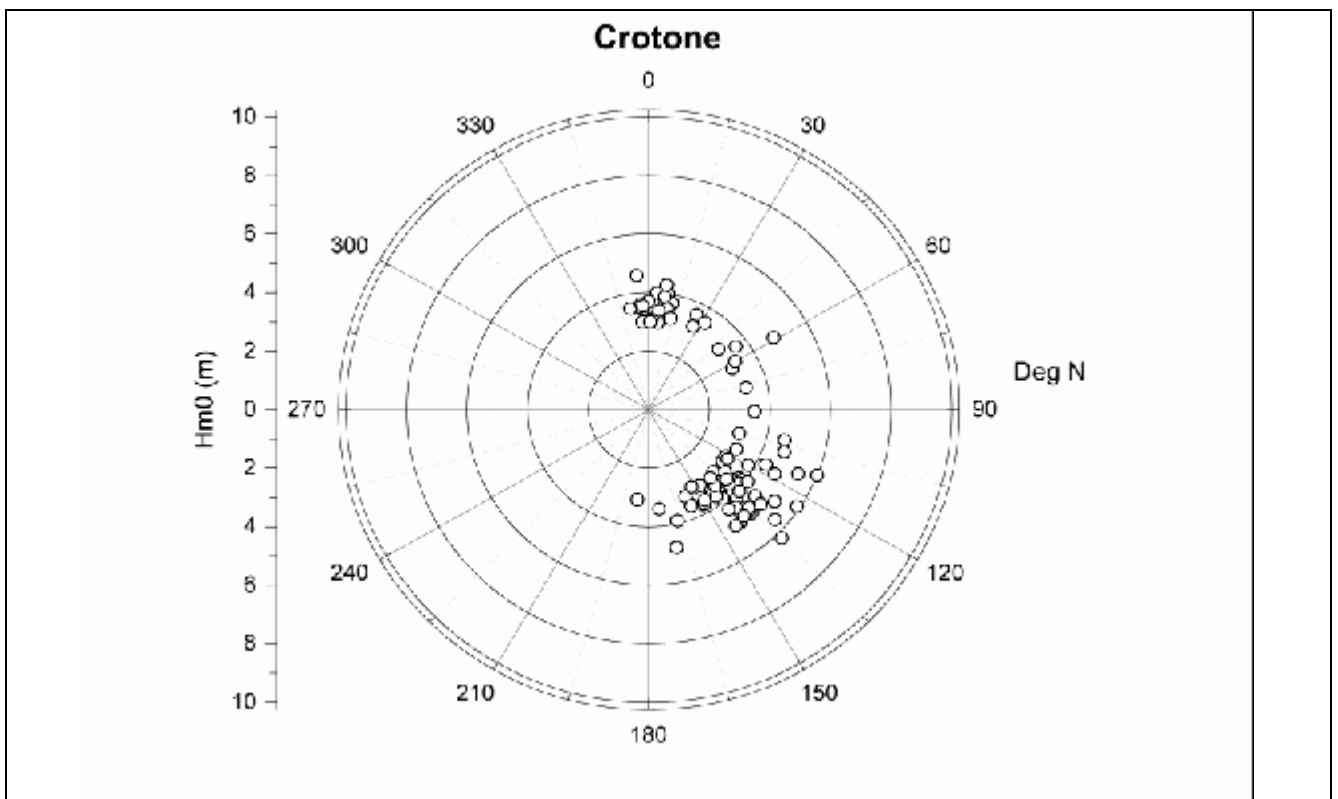


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Crotona

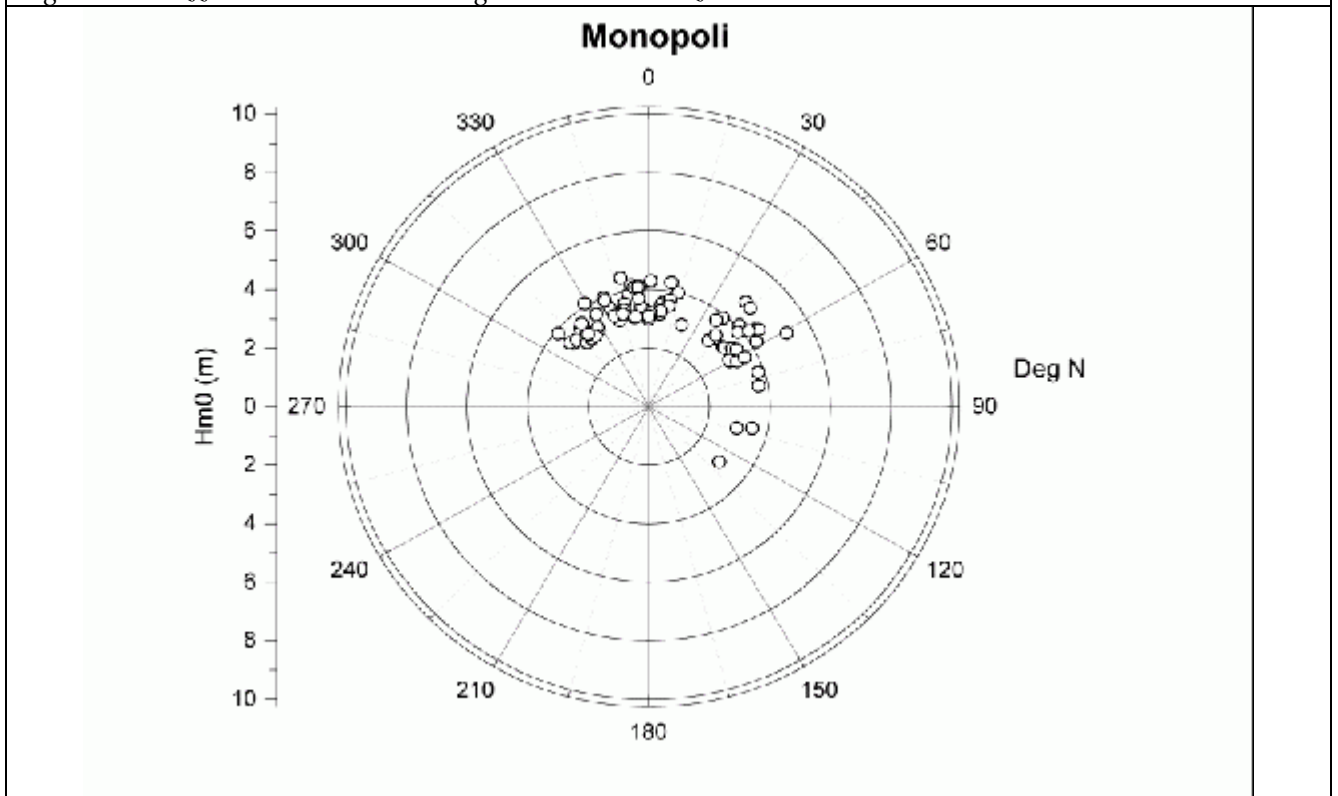


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Monopoli

Tab 41 Elenco delle mareggiate per il settore costiero da C.po Rizzuto a Bari

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Cal3	1989-10-04	06:00	1	3	2.7	7.7	6.3	20	9	12	0.00%
	Pug2	1989-10-04	06:00	0	21	2.2	7.1	6	32	36	13	0.00%
2	Cal3	1989-11-29	03:00	0	12	2.3	6.7	5.7	359	4	7	0.00%
	Pug2	1989-11-29	03:00	0	3	2.2	7.1	6	10	8	5	0.00%
3	Cal3	1989-12-10	06:00	0	18	2.6	6.7	5.9	3	1	4	0.00%
	Pug2	1989-12-11	00:00	0	6	2.6	8.3	6.8	52	57	7	0.00%
4	Cal3	1990-01-19	15:00	0	18	2.9	6.7	6.3	355	355	2	0.00%
	Pug2	1990-01-19	21:00	0	3	2.1	6.3	5.6	6	10	7	0.00%
5	Cal3	1990-02-10	09:00	0	9	2.7	7.1	6.2	349	352	5	0.00%
	Pug2	1990-02-10	12:00	0	6	2.4	6.7	5.9	359	359	6	0.00%
6	Cal3	1990-03-03	18:00	1	3	2.5	6.7	5.8	359	4	9	0.00%
	Pug2	1990-03-03	18:00	0	18	2.3	6.7	6.2	20	17	9	0.00%
7	Cal3	1990-08-23	15:00	0	6	2.5	7.1	6.1	19	19	2	0.00%
	Pug2	1990-08-23	06:00	0	15	2.5	7.1	6	7	1	15	0.00%
8	Cal3	1990-09-12	18:00	0	0	2.1	6.3	5.5	2	2	0	0.00%
	Pug2	1990-09-12	03:00	0	21	2.3	6.7	5.6	337	357	25	0.00%
9	Cal3	1990-11-08	03:00	0	6	2.4	7.7	6.3	10	11	1	0.00%
	Pug2	1990-11-08	00:00	0	6	2.3	6.7	5.8	23	11	18	0.00%
10	Cal3	1990-11-14	08:00	2	19	4.7	10	8.6	122	123	7	10.00%
	Pug2	1990-11-16	06:00	0	3	2.3	6.7	6.1	78	74	9	0.00%
11	Cal3	1990-12-02	12:00	0	6	3.7	7.7	6.8	8	6	3	0.00%
	Pug2	1990-12-01	18:00	1	6	2.9	7.7	6.8	54	41	20	9.10%
12	Cal3	1990-12-06	15:00	0	3	2.3	7.1	6.2	18	14	9	0.00%







37	Cal3	1993-01-04 09:00	2	6	5.4	10	9.1	114	53	78	41.60%
	Pug2	1993-01-04 09:00	1	21	3.7	8.3	7.4	79	64	27	0.00%
38	Cal3	1993-02-20 18:00	0	12	3.7	7.7	6.8	12	14	7	0.00%
	Pug2	1993-02-21 00:00	0	0	2	6.3	5.6	38	38	0	0.00%
39	Cal3	1993-02-22 12:00	0	6	2.4	6.7	5.9	3	3	1	0.00%
	Pug2	1993-02-22 14:30	0	18	3.5	7.7	7	2	352	12	0.00%
40	Cal3	1993-03-06 12:00	0	21	2.6	8.3	6.4	355	1	9	0.00%
	Pug2	1993-03-05 12:00	2	3	2.9	7.7	7	28	6	29	0.00%
41	Cal3	1993-10-22 18:00	1	0	3.2	9.1	8.4	144	141	7	0.00%
	Pug2	1993-10-23 00:00	0	0	2.2	6.7	6.2	116	116	0	0.00%
42	Cal3	1993-11-14 03:00	0	0	2.1	6.3	5.7	15	15	0	0.00%
	Pug2	1993-11-14 00:30	0	5	3.4	8.3	6.7	310	315	7	0.00%
43	Cal3	1993-11-25 09:00	4	12	4.9	10	8.5	137	131	9	50.40%
	Pug2	1993-11-26 12:00	0	6	2.1	6.7	5.7	92	93	8	0.00%
44	Cal3	1994-01-20 09:30	1	8	3.6	7.7	7.1	156	137	36	0.00%
	Pug2	1994-01-20 15:00	0	0	2	6.3	5.8	112	112	0	0.00%
45	Cal3	1994-01-27 06:00	0	18	4	7.7	7.1	9	6	5	0.00%
	Pug2	1994-01-27 05:30	0	15	3.5	7.7	7	7	0	11	0.00%
46	Cal3	1994-01-29 03:00	1	15	3.9	9.1	7.4	11	9	4	0.00%
	Pug2	1994-01-29 00:00	0	17	4.1	9.1	8.1	356	356	6	0.00%
47	Cal3	1994-02-14 00:00	1	0	3.3	10	8.4	74	66	30	11.10%
	Pug2	1994-02-14 09:30	0	14	3.5	7.7	8	102	76	49	40.00%
48	Cal3	1994-03-04 21:00	0	9	2.4	6.7	5.9	3	5	3	0.00%
	Pug2	1994-03-04 21:00	0	12	3.1	7.7	6.5	336	340	5	0.00%
49	Cal3	1994-03-27 21:00	0	21	2.3	6.7	5.7	4	3	4	0.00%
	Pug2	1994-03-28 06:00	0	9	2.2	5.9	5.5	357	1	6	0.00%

50	Cal3	1994-10-06 18:00	0	3	2	6.3	5.7	5	5	0	0.00%
	Pug2	1994-10-06 18:00	0	0	2	6.3	5.2	335	335	0	0.00%
51	Cal3	1994-10-21 09:00	1	0	3.9	8.3	7.7	127	127	3	0.00%
	Pug2	1994-10-21 15:00	0	18	2.3	7.7	6.3	60	67	13	0.00%
52	Cal3	1994-12-15 12:00	0	18	2.6	6.7	6	2	6	8	0.00%
	Pug2	1994-12-15 12:00	0	12	2.6	7.1	6.2	8	19	17	0.00%
53	Cal3	1994-12-20 03:00	1	12	3.3	9.1	8.7	130	143	20	0.00%
	Pug2	1994-12-20 18:00	0	0	2.3	6.7	5.9	114	114	0	0.00%
54	Cal3	1995-01-09 06:00	0	18	2.6	7.1	5.9	7	13	8	0.00%
	Pug2	1995-01-09 06:00	0	0	2	7.1	6	64	64	0	0.00%
55	Cal3	1995-01-13 03:00	2	21	4.8	11.1	8.5	59	20	42	54.40%
	Pug2	1995-01-13 21:00	2	6	5.2	10	9	61	58	7	38.80%
56	Cal3	1995-02-01 00:00	0	3	2.3	6.7	6	3	3	0	0.00%
	Pug2	1995-01-31 18:00	0	9	2.7	7.7	6.6	23	24	19	0.00%
57	Cal3	1995-02-06 03:00	0	0	2	5.9	5.4	9	9	0	0.00%
	Pug2	1995-02-06 00:00	0	3	2.4	7.1	6.2	10	9	2	0.00%
58	Cal3	1995-02-19 15:00	0	0	2.2	7.1	6	3	3	0	0.00%
	Pug2	1995-02-19 11:00	0	13	3.1	7.7	6.6	323	332	12	0.00%
59	Cal3	1995-03-13 12:00	0	6	4.7	12.5	9.2	108	123	29	33.30%
	Pug2	1995-03-13 06:00	0	21	2.4	7.1	6.1	71	67	14	0.00%
60	Cal3	1995-03-21 03:00	0	3	2.3	7.1	5.9	5	4	3	0.00%
	Pug2	1995-03-20 21:00	0	12	3.2	7.7	6.9	321	326	11	0.00%
61	Cal3	1995-03-22 09:00	1	0	2.5	6.7	5.9	19	9	13	0.00%
	Pug2	1995-03-22 18:00	0	18	2.7	7.1	6.5	9	20	23	0.00%
62	Cal3	1995-03-30 21:00	0	21	2.3	7.7	6.6	2	359	5	0.00%
	Pug2	1995-03-30 12:00	1	21	4.3	8.3	7.7	10	358	20	5.30%

63	Cal3	1995-04-09 06:00	0	18	2.3	6.3	5.5	1	359	5	0.00%
	Pug2	1995-04-09 03:00	1	0	2.8	6.7	6	334	353	31	0.00%
64	Cal3	1995-11-18 21:00	0	12	3	7.7	6.8	356	354	3	0.00%
	Pug2	1995-11-18 18:00	0	15	2.8	7.7	6.4	350	345	25	0.00%
65	Cal3	1995-11-21 00:00	0	21	2.5	7.1	6.2	4	7	8	0.00%
	Pug2	1995-11-21 00:00	0	15	2.7	7.1	6.1	359	9	22	0.00%
66	Cal3	1995-12-13 00:00	1	15	5.2	11.1	9.7	127	135	15	59.20%
	Pug2	1995-12-13 06:00	0	9	2.6	8.3	6.6	116	116	1	0.00%
67	Cal3	1995-12-31 12:00	0	9	2	6.7	6	149	148	5	25.00%
	Pug2	1995-12-31 12:00	0	0	2.1	7.7	6.6	119	119	0	0.00%
68	Cal3	1996-01-06 18:00	2	3	3.9	10	8.3	130	137	9	67.40%
	Pug2	1996-01-06 18:00	0	0	2.3	6.7	5.9	115	115	0	0.00%
69	Cal3	1996-01-30 06:00	1	15	3.5	9.1	7.8	119	106	34	4.90%
	Pug2	1996-01-30 15:00	1	0	3.1	8.3	6.9	60	56	5	15.40%
70	Cal3	1996-02-07 12:00	0	18	3.8	8.3	7.6	120	93	36	0.00%
	Pug2	1996-02-08 00:00	1	15	3.2	7.7	6.9	317	337	27	0.00%
71	Cal3	1996-02-27 21:00	4	0	3.1	10	8.2	123	96	68	34.60%
	Pug2	1996-03-02 09:00	1	1	3.9	9.1	7.4	350	358	11	0.00%
72	Cal3	1996-03-05 06:00	1	4	3	6.7	6.2	8	10	9	61.50%
	Pug2	1996-03-05 12:00	0	12	2	6.3	5.8	31	1	39	0.00%
73	Cal3	1996-04-15 00:00	0	18	2.5	6.7	5.9	352	357	7	0.00%
	Pug2	1996-04-14 18:00	1	21	3.6	7.7	6.9	322	340	23	47.60%
74	Cal3	1996-05-29 03:00	0	15	2.4	6.7	6	4	3	3	0.00%
	Pug2	1996-05-28 18:00	1	0	3.1	7.7	6.7	352	336	22	0.00%
75	Cal3	1996-10-08 06:00	1	6	3.7	8.3	7.5	151	147	8	26.10%

	Pug2	1996-10-08 12:00	0	0	2	5.9	5.4	121	121	0	0.00%
76	Cal3	1996-11-18 09:00	0	9	2.5	8.3	7.2	144	146	4	0.00%
	Pug2	1996-11-18 12:00	0	0	2	6.7	6.2	118	118	0	0.00%
77	Cal3	1996-12-03 09:00	0	6	2.3	6.7	5.6	3	2	4	0.00%
	Pug2	1996-12-03 06:00	0	12	2.6	6.7	6	3	355	11	0.00%
78	Cal3	1996-12-26 12:00	1	9	2.4	6.7	6	10	4	13	0.00%
	Pug2	1996-12-26 06:00	1	12	4.1	8.3	7.9	53	44	18	7.50%
79	Cal3	1997-01-11 00:00	3	0	2.8	8.3	7.4	147	99	72	0.00%
	Pug2	1997-01-12 21:00	0	15	2.3	6.7	6.2	7	17	15	0.00%
80	Cal3	1997-02-16 15:00	0	18	2.7	7.1	6.1	2	2	2	0.00%
	Pug2	1997-02-16 15:00	0	18	2.7	7.1	6.3	323	341	23	0.00%
81	Cal3	1997-02-19 18:00	0	6	2.7	7.1	6	10	10	1	0.00%
	Pug2	1997-02-19 15:00	0	12	3.3	7.1	6.7	340	345	8	0.00%
82	Cal3	1997-02-27 21:00	1	15	3.5	7.7	6.9	10	11	10	0.00%
	Pug2	1997-02-27 18:00	1	9	4.5	8.3	7.5	348	8	27	9.10%
83	Cal3	1997-03-09 06:00	0	3	2.2	6.3	5.4	33	32	3	0.00%
	Pug2	1997-03-09 00:00	0	12	2.8	7.7	6.6	60	59	4	0.00%
84	Cal3	1997-03-10 21:00	1	12	2.6	6.7	6.3	35	65	42	0.00%
	Pug2	1997-03-11 00:00	0	12	3.1	8.3	7.2	59	63	7	0.00%
85	Cal3	1997-03-30 00:00	0	0	2	6.7	5.9	2	2	0	0.00%
	Pug2	1997-03-29 12:00	2	3	3.4	7.7	6.8	356	358	14	35.70%
	Cal3	1997-03-31 09:00	0	3	2.1	6.7	5.3	13	9	8	0.00%
	Pug2	1997-03-29 12:00	2	3	3.4	7.7	6.8	356	358	14	35.70%
86	Cal3	1997-04-05 03:00	0	9	2.7	6.7	5.9	4	11	9	0.00%
	Pug2	1997-04-05 00:00	0	12	3.7	7.7	7.3	11	15	7	50.00%
87	Cal3	1997-04-07 06:00	1	6	3.2	7.1	6.4	13	8	7	0.00%







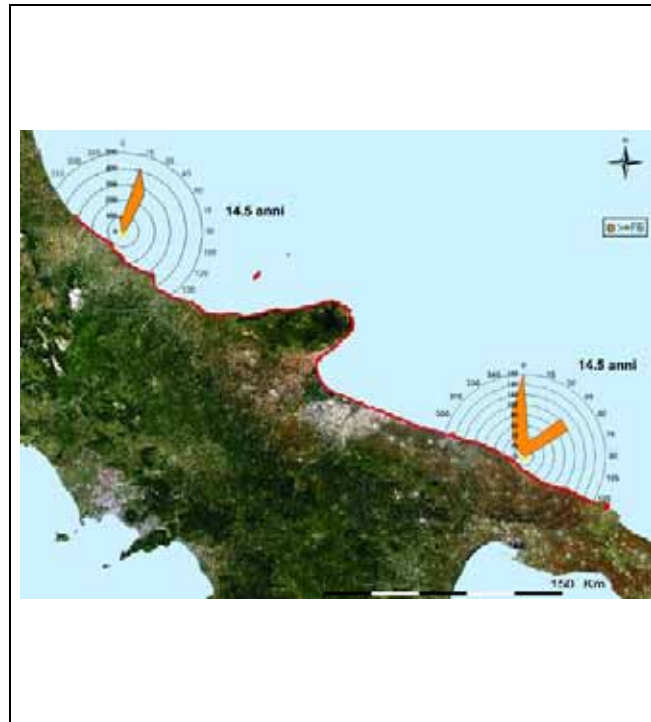
112	Cal3	1999-12-20 06:00	2	18	2.9	8.3	5.3	3	88	115	28.60%
	Pug2	1999-12-21 00:00	2	12	3.9	9.1	6.6	44	29	28	2.90%
113	Cal3	1999-12-31 06:00	0	6	2.6	7.1	5.1	3	5	4	0.00%
	Pug2	1999-12-31 06:00	0	12	2.6	6.3	5	12	16	19	0.00%
114	Cal3	2000-01-19 03:00	1	9	2.8	6.7	5.3	12	6	9	0.00%
	Pug2	2000-01-19 03:00	1	6	3	7.7	5.9	360	352	12	0.00%
115	Cal3	2000-01-24 18:00	0	0	2	7.1	4.8	355	355	0	0.00%
	Pug2	2000-01-24 03:00	1	0	3.1	7.7	5.7	322	328	11	0.00%
116	Cal3	2000-02-04 06:00	0	15	2.3	6.7	5	14	8	9	0.00%
	Pug2	2000-02-04 03:00	0	12	2.4	6.3	5.1	26	21	8	0.00%
117	Cal3	2000-02-18 09:00	0	9	2.2	7.7	5	2	6	6	0.00%
	Pug2	2000-02-18 00:00	0	21	3.1	7.1	5.5	351	335	21	0.00%
118	Cal3	2000-02-21 06:00	0	21	2.3	6.7	5.1	360	3	5	0.00%
	Pug2	2000-02-21 00:00	1	3	2.7	7.1	5.4	329	342	17	0.00%
119	Cal3	2000-03-01 15:00	1	12	2.1	7.7	5.7	179	166	86	0.00%
	Pug2	2000-03-02 21:00	0	9	3.1	7.7	6	352	356	7	0.00%
120	Cal3	2000-03-05 18:00	1	0	2.5	6.7	5.3	1	8	11	0.00%
	Pug2	2000-03-05 18:00	0	12	2.7	7.7	5.5	11	7	7	0.00%
121	Cal3	2000-03-17 06:00	0	3	2.5	6.7	5.2	360	0	1	0.00%
	Pug2	2000-03-17 06:00	0	3	2.3	6.3	5	348	351	5	0.00%
122	Cal3	2000-03-18 18:00	0	9	2.7	7.1	5.4	360	360	1	0.00%
	Pug2	2000-03-18 12:00	0	12	2.6	6.7	5.3	330	343	18	0.00%
123	Cal3	2000-06-18 03:00	0	9	2.5	7.1	5.2	18	14	9	0.00%
	Pug2	2000-06-17 21:00	0	9	2.5	7.1	5.8	38	25	24	0.00%
124	Cal3	2000-11-28 09:00	0	3	2.1	6.3	4.6	8	8	0	0.00%
	Pug2	2000-11-27 06:00	1	6	3	7.7	5.7	321	338	23	0.00%

125	Cal3	2000-12-22 09:00	0	18	2.5	8.3	5.5	104	111	12	0.00%
	Pug2	2000-12-22 06:00	1	15	3.3	7.7	5.8	11	1	14	5.00%
126	Cal3	2000-12-31 21:00	0	15	2.8	7.1	5.3	19	30	41	0.00%
	Pug2	2001-01-01 00:00	0	0	2.6	7.7	7.3	23	23	0	0.00%
127	Cal3	2001-01-14 00:00	1	18	4.7	11.1	7.4	118	115	19	1.60%
	Pug2	2001-01-14 18:00	1	6	2.3	6.3	6.9	355	358	13	0.00%
128	Cal3	2001-01-30 00:00	1	6	2.6	9.1	6	150	147	8	0.00%
	Pug2	2001-01-30 21:00	0	15	2.3	8.3	7.1	2	6	11	0.00%
129	Cal3	2001-02-02 12:00	0	0	2.1	5.9	4.7	360	360	0	0.00%
	Pug2	2001-02-01 21:00	0	21	2.2	7.7	6.8	346	359	17	0.00%
130	Cal3	2001-02-19 09:00	0	9	2.7	7.1	5.3	4	7	4	0.00%
	Pug2	2001-02-19 06:00	0	3	2.5	7.7	7.2	30	27	6	0.00%
131	Cal3	2001-11-02 09:00	2	12	3.6	8.3	6.1	26	26	11	2.30%
	Pug2	2001-11-02 06:00	1	21	3.7	7.7	6.4	32	36	14	0.00%
132	Cal3	2001-11-23 21:00	0	18	2.6	7.7	5.3	360	4	7	0.00%
	Pug2	2001-11-23 18:00	1	6	4.1	8.3	6.5	352	350	5	0.00%
133	Cal3	2001-12-01 05:30	1	18	3.6	7.7	5.9	356	0	7	3.80%
	Pug2	2001-12-01 00:00	0	15	3.1	7.1	5.8	360	8	20	0.00%
134	Cal3	2001-12-07 09:00	1	9	2.3	6.3	4.9	13	17	7	0.00%
	Pug2	2001-12-07 09:00	2	6	3.3	9.1	6.6	62	57	7	0.00%
135	Cal3	2001-12-16 18:00	1	21	2.9	7.7	5.5	360	3	6	7.10%
	Pug2	2001-12-16 12:00	2	0	4.1	8.3	6.4	355	20	32	14.00%
136	Cal3	2001-12-28 03:00	0	6	2.3	8.3	5.7	9	8	3	0.00%
	Pug2	2001-12-28 03:00	0	6	2.4	7.7	5.1	329	330	4	0.00%
137	Cal3	2002-01-01 00:00	1	6	3.7	8.3	6	360	358	5	12.10%
	Pug2	2001-12-31 18:00	1	6	3.7	8.3	6.3	355	358	12	0.00%

138	Cal3	2002-01-03 18:00	2	3	4.3	8.3	6.4	8	9	8	5.40%
	Pug2	2002-01-03 18:00	1	9	4.8	8.3	7	42	43	12	0.00%
139	Cal3	2002-03-10 13:00	1	5	2.4	6.7	6.3	8	48	55	74.50%
	Pug2	2002-03-11 00:00	1	3	3.3	7.7	6.3	42	55	17	0.00%
140	Cal3	2002-03-23 21:00	0	4	2	7.4	6.6	13	11	5	80.00%
	Pug2	2002-03-23 12:00	2	12	3.6	8.3	6	349	350	10	0.00%
141	Cal3	2002-12-06 17:00	1	4	2.3	7.4	5.9	163	150	22	0.00%
	Pug2	2002-12-05 13:00	3	11	2.5	7.7	5.7	106	88	29	0.00%
142	Cal3	2003-01-07 02:00	0	13	2.5	7.7	5.8	160	166	7	0.00%
	Pug2	2003-01-07 04:00	0	1	2.3	6.1	6.1	109	116	11	0.00%
143	Cal3	2003-01-11 10:30	0	4	2.4	6.5	5.5	12	18	9	0.00%
	Pug2	2003-01-11 15:00	0	23	3.9	9.1	6.7	33	40	16	12.80%
144	Cal3	2003-01-26 07:00	1	13	3.6	10.5	6.2	53	40	36	0.00%
	Pug2	2003-01-24 11:30	3	3	2.7	8	6.8	58	50	18	0.00%
145	Cal3	2003-02-01 19:00	0	10	2.8	7.1	5.2	356	3	8	0.00%
	Pug2	2003-02-01 15:30	0	22	2.3	7.1	5.4	54	15	49	0.00%
146	Cal3	2003-03-16 22:30	1	7	3.5	6.7	6	32	46	18	0.00%
	Pug2	2003-03-16 12:00	1	16	3.6	8.7	6.3	62	61	5	0.00%
147	Cal3	2003-04-04 10:00	1	4	2.7	8	5.6	98	96	36	0.00%
	Pug2	2003-04-04 23:30	2	21	2.8	7.4	6	55	7	59	0.00%
	Cal3	2003-04-07 04:00	0	4	2.3	6.9	5	19	16	5	0.00%
	Pug2	2003-04-04 23:30	2	21	2.8	7.4	6	55	7	59	0.00%
148	Cal3	2003-04-10 14:00	1	0	2.9	10	7.3	130	132	4	0.00%
	Pug2	2003-04-10 15:00	0	0	2	6.9	4.7	109	109	0	0.00%
149	Cal3	2003-09-04 07:30	0	0	2	6.5	4.6	3	3	0	0.00%
	Pug2	2003-09-04 04:00	0	8	2.4	6.9	5.7	30	25	8	0.00%

150	Cal3	2003-09-12 20:30	0	2	2.1	6.7	4.6	4	1	4	0.00%
	Pug2	2003-09-12 12:30	0	8	2.6	8.3	5.3	317	319	3	41.20%
151	Cal3	2003-10-15 21:00	0	13	2.3	7.1	5	40	52	23	0.00%
	Pug2	2003-10-15 17:00	0	20	2.8	8.3	5.6	51	55	6	0.00%
152	Cal3	2003-11-01 13:00	1	21	2.3	6.3	5.1	169	137	43	0.00%
	Pug2	2003-11-01 19:30	0	1	2	6.1	5.1	113	112	3	0.00%
153	Cal3	2003-11-05 08:30	1	0	2.6	6.9	5.1	9	5	5	0.00%
	Pug2	2003-11-06 00:00	0	9	2.2	8	5.3	63	59	7	0.00%
154	Cal3	2003-12-07 13:30	6	11	4.3	11.1	8.4	142	95	66	12.00%
	Pug2	2003-12-07 08:30	2	4	4.2	9.1	6.8	52	58	12	0.00%
155	Cal3	2003-12-16 06:30	1	5	2.4	6.5	4.8	11	8	5	0.00%
	Pug2	2003-12-16 03:30	1	10	3.3	7.4	5.8	345	354	15	21.70%
156	Cal3	2003-12-24 00:00	2	2	3.5	7.7	5.5	357	2	9	0.00%
	Pug2	2003-12-23 13:30	1	22	4.8	9.5	8.4	45	47	11	37.30%

## Onde Alte per il settore costiero C9: Brindisi – Foce del Saline



*Fig 3.38 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.103 e Tab 1.113 - onde alte - tratto costiero da Brindisi a Foce del Saline – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C9: Brindisi – Foce del Saline

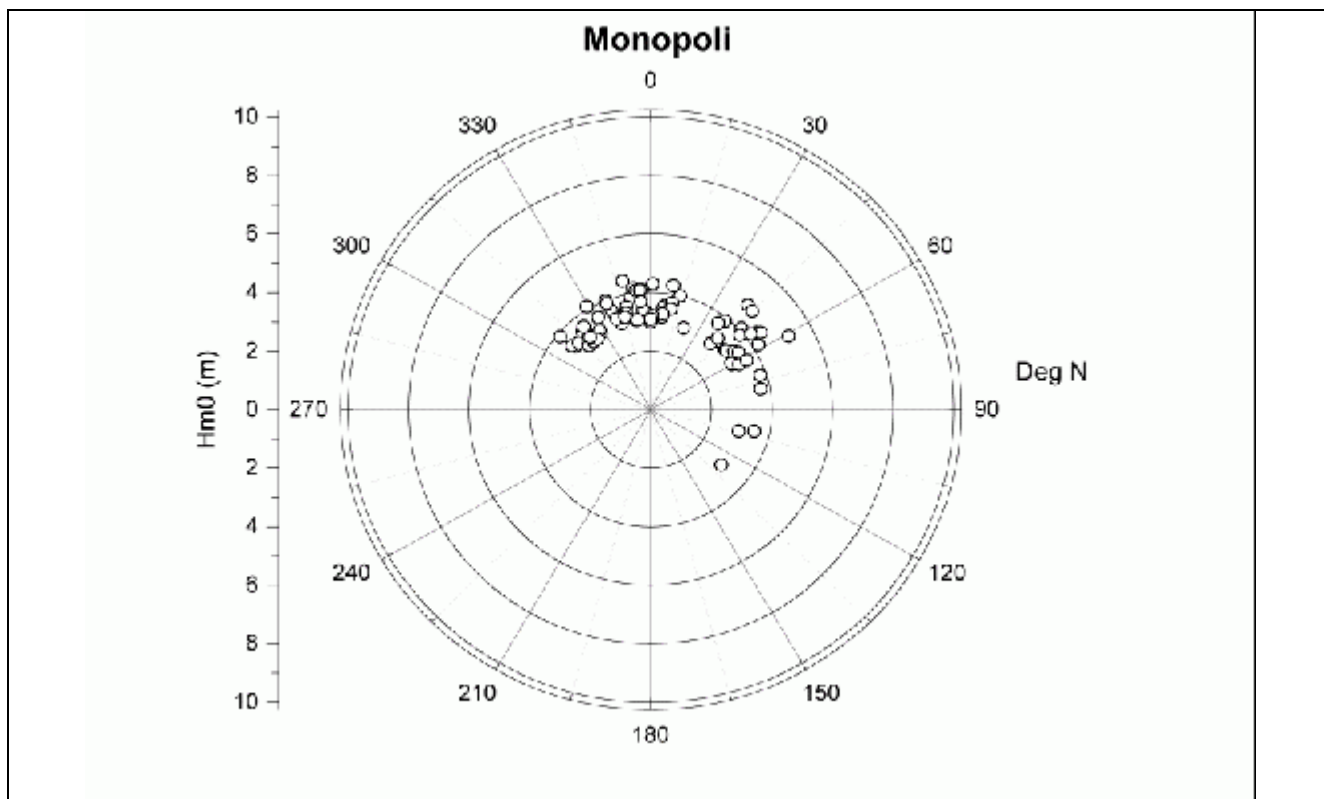


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Monopoli

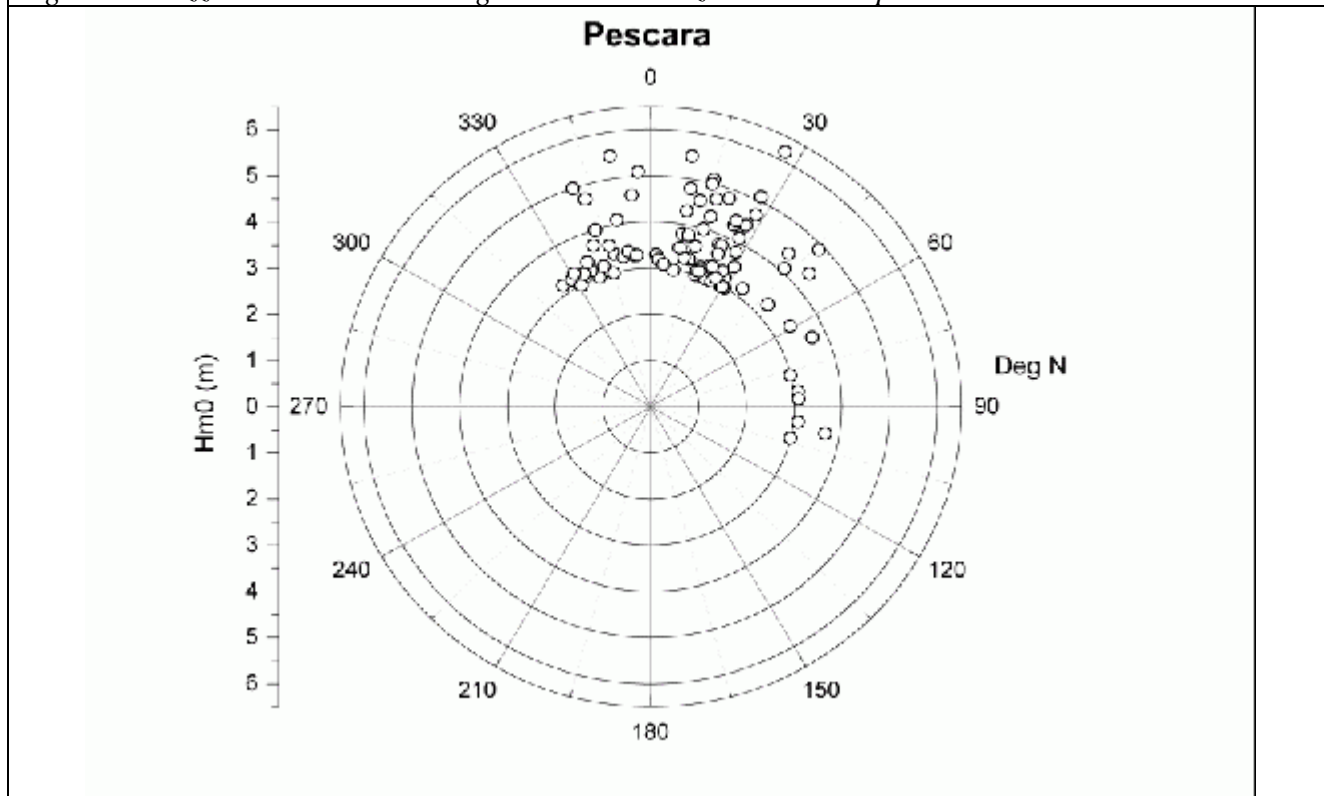


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Pescara

Tab 42 Elenco delle mareggiate per il settore costiero da Brindisi alla Foce del Saline

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Pug2	1989-08-29	12:00	0	15	2.8	7.7	6.4	318	323	10	0.00%
	Abr1	1989-08-28	21:00	0	18	4.1	8.3	7.3	350	350	7	0.00%
2	Pug2	1989-10-04	06:00	0	21	2.2	7.1	6	32	36	13	0.00%
	Abr1	1989-10-04	06:00	0	3	2.2	7.1	6.2	36	35	2	0.00%
3	Pug2	1989-11-29	03:00	0	3	2.2	7.1	6	10	8	5	0.00%
	Abr1	1989-11-29	03:00	0	3	2.2	7.1	6.2	40	39	3	0.00%
4	Pug2	1989-12-11	00:00	0	6	2.6	8.3	6.8	52	57	7	0.00%
	Abr1	1989-12-10	03:00	0	9	3	7.7	6.9	30	30	1	0.00%
5	Pug2	1990-02-10	12:00	0	6	2.4	6.7	5.9	359	359	6	0.00%
	Abr1	1990-02-09	15:00	3	15	2.8	7.1	6.1	10	13	48	0.00%
	Pug2	1990-02-13	06:00	0	12	3.1	10	7.6	322	325	4	0.00%
	Abr1	1990-02-09	15:00	3	15	2.8	7.1	6.1	10	13	48	0.00%
6	Pug2	1990-03-03	18:00	0	18	2.3	6.7	6.2	20	17	9	0.00%
	Abr1	1990-03-03	09:00	0	12	2.6	7.1	6.5	22	16	12	0.00%
7	Pug2	1990-04-10	18:00	0	6	3.3	8.3	7	314	317	5	0.00%
	Abr1	1990-04-10	06:00	1	0	3.4	7.7	6.8	347	356	16	62.50%
8	Pug2	1990-08-23	06:00	0	15	2.5	7.1	6	7	1	15	0.00%
	Abr1	1990-08-22	21:00	0	12	3	7.7	6.7	31	29	3	0.00%
9	Pug2	1990-09-12	03:00	0	21	2.3	6.7	5.6	337	357	25	0.00%
	Abr1	1990-09-11	09:00	0	15	2.1	5.9	5.4	32	19	19	0.00%
10	Pug2	1990-11-08	00:00	0	6	2.3	6.7	5.8	23	11	18	0.00%
	Abr1	1990-11-07	12:00	0	9	2.4	5.9	5.6	341	344	6	0.00%
11	Pug2	1990-11-16	06:00	0	3	2.3	6.7	6.1	78	74	9	0.00%
	Abr1	1990-11-16	05:30	0	12	3	7.1	6.6	13	24	15	0.00%

12	Pug2	1990-12-01 18:00	1	6	2.9	7.7	6.8	54	41	20	9.10%
	Abr1	1990-11-30 09:00	10	0	3.8	8.3	7.5	22	21	39	0.00%
	Pug2	1990-12-06 06:00	0	12	3.2	8.3	7.1	50	49	3	0.00%
	Abr1	1990-11-30 09:00	10	0	3.8	8.3	7.5	22	21	39	0.00%
	Pug2	1990-12-10 00:00	0	9	2.3	6.3	6.2	123	120	6	0.00%
Abr1	1990-11-30 09:00	10	0	3.8	8.3	7.5	22	21	39	0.00%	
13	Pug2	1991-01-02 09:00	0	9	2.6	6.7	6	317	323	7	0.00%
	Abr1	1991-01-01 21:00	0	9	2.1	5.9	5.4	336	334	6	0.00%
14	Pug2	1991-01-15 06:00	1	6	2.9	8.3	7.2	62	62	6	0.00%
	Abr1	1991-01-14 12:00	1	6	2.9	7.1	6.6	58	67	24	0.00%
15	Pug2	1991-02-15 06:00	0	18	3.3	7.7	6.7	321	324	6	41.70%
	Abr1	1991-02-13 21:00	2	0	2.7	6.7	6	341	343	12	0.00%
16	Pug2	1991-04-06 15:00	0	0	2	6.3	6.2	114	114	0	0.00%
	Abr1	1991-04-06 09:00	0	0	2	6.3	5.9	83	83	0	0.00%
17	Pug2	1991-04-12 09:00	0	0	2.3	7.1	6.3	95	95	0	0.00%
	Abr1	1991-04-11 06:00	0	0	2.1	7.1	6	62	62	0	0.00%
18	Pug2	1991-05-03 12:00	0	0	2.3	5.9	5.6	124	124	0	0.00%
	Abr1	1991-05-03 12:00	0	3	2.5	9.1	7.6	100	100	1	0.00%
19	Pug2	1991-05-25 12:00	0	12	3.3	7.7	6.7	311	320	13	0.00%
	Abr1	1991-05-25 03:00	0	3	2.1	6.7	5.8	31	30	3	0.00%
20	Pug2	1991-10-21 18:00	0	0	2.1	7.1	6.3	330	330	0	0.00%
	Abr1	1991-10-21 09:00	0	12	2.4	7.1	6	11	16	7	0.00%
21	Pug2	1991-11-07 21:00	0	9	2.2	6.3	5.5	341	335	9	0.00%
	Abr1	1991-11-07 09:00	0	0	2.1	6.7	5.9	19	19	0	0.00%
22	Pug2	1991-12-19 08:00	0	13	4	9.1	7.6	356	4	17	0.00%
	Abr1	1991-12-19 00:00	2	18	5.1	9.1	8	357	15	47	69.80%



	Pug2	1991-12-21 09:00	0	15	3.8	8.3	7.1	356	350	9	0.00%
	Abr1	1991-12-19 00:00	2	18	5.1	9.1	8	357	15	47	69.80%
	Pug2	1991-12-23 06:00	0	0	2.1	6.3	5.7	13	13	0	0.00%
	Abr1	1991-12-19 00:00	2	18	5.1	9.1	8	357	15	47	69.80%
23	Pug2	1991-12-25 06:00	1	9	3.6	8.3	7.2	8	8	5	0.00%
	Abr1	1991-12-24 21:00	4	9	3.8	8.3	7.2	23	25	34	32.30%
	Pug2	1991-12-28 09:00	0	21	2.4	6.7	5.9	353	14	34	0.00%
	Abr1	1991-12-24 21:00	4	9	3.8	8.3	7.2	23	25	34	32.30%
24	Pug2	1992-01-30 12:00	2	18	4.4	9.1	7	53	23	42	12.00%
	Abr1	1992-01-28 12:00	4	12	3	7.7	5.7	29	352	44	0.00%
25	Pug2	1992-02-17 18:00	0	21	2.4	7.1	5.2	320	323	12	0.00%
	Abr1	1992-02-17 09:00	1	3	3	7.1	5.5	339	354	25	0.00%
26	Pug2	1992-03-17 00:00	1	6	4.3	9.1	6.7	1	2	6	0.00%
	Abr1	1992-03-17 03:00	0	6	2.1	6.7	4.9	36	33	5	0.00%
27	Pug2	1992-04-09 21:00	0	3	2.1	7.7	5.5	65	67	3	0.00%
	Abr1	1992-04-10 00:00	1	18	3.4	8.3	6.2	59	33	39	35.30%
	Pug2	1992-04-11 06:00	0	6	2.6	7.1	5.6	57	51	9	0.00%
	Abr1	1992-04-10 00:00	1	18	3.4	8.3	6.2	59	33	39	35.30%
28	Pug2	1992-04-19 06:00	0	9	2.2	6.7	5.2	355	5	15	0.00%
	Abr1	1992-04-18 00:00	1	18	3.2	8.3	6	22	2	28	0.00%
29	Pug2	1992-10-04 06:00	0	0	2.6	7.1	5.3	118	118	0	0.00%
	Abr1	1992-10-04 03:00	0	3	2	6.3	4.6	120	119	2	0.00%
30	Pug2	1992-11-13 03:00	0	0	2	7.1	4.9	318	318	0	0.00%
	Abr1	1992-11-12 15:00	1	15	2.7	6.7	5.1	335	15	77	0.00%
	Pug2	1992-11-14 05:30	0	6	3.5	7.7	6.9	320	323	4	0.00%
	Abr1	1992-11-12 15:00	1	15	2.7	6.7	5.1	335	15	77	0.00%
31	Pug2	1992-12-07 00:00	0	0	2	6.7	4.6	316	316	0	0.00%
	Abr1	1992-12-06 12:00	2	15	3	8.3	6.5	112	75	70	0.00%

32	Pug2	1992-12-28 06:00	1	12	4.2	9.1	8	58	55	6	0.00%
	Abr1	1992-12-27 23:30	1	3	4.7	9.1	13.9	28	29	6	7.10%
33	Pug2	1993-01-01 18:00	1	3	3.2	6.7	6.5	11	30	29	0.00%
	Abr1	1993-01-01 16:30	3	10	4.9	9.1	8	46	14	36	4.80%
	Pug2	1993-01-04 09:00	1	21	3.7	8.3	7.4	79	64	27	0.00%
	Abr1	1993-01-01 16:30	3	10	4.9	9.1	8	46	14	36	4.80%
34	Pug2	1993-02-19 03:00	0	0	2.2	6.7	6.2	41	41	0	0.00%
	Abr1	1993-02-18 18:00	7	0	4.6	9.1	7.7	355	18	38	1.50%
	Pug2	1993-02-21 00:00	0	0	2	6.3	5.6	38	38	0	0.00%
	Abr1	1993-02-18 18:00	7	0	4.6	9.1	7.7	355	18	38	1.50%
35	Pug2	1993-03-05 12:00	2	3	2.9	7.7	7	28	6	29	0.00%
	Abr1	1993-03-05 03:00	3	18	3.5	8.3	7.1	16	5	18	2.20%
36	Pug2	1993-03-27 12:00	1	6	4.1	9.1	7.7	329	328	7	25.00%
	Abr1	1993-03-25 21:00	2	15	4.3	9.1	7.9	17	2	20	11.30%
37	Pug2	1993-07-07 06:00	0	6	2.8	6.7	6.3	317	319	14	0.00%
	Abr1	1993-07-07 00:00	0	12	3	8.3	7.1	22	22	3	0.00%
38	Pug2	1993-09-05 18:00	0	0	2	6.7	5.8	330	330	0	0.00%
	Abr1	1993-09-05 06:00	0	3	2.1	6.3	5.3	335	337	3	0.00%
39	Pug2	1993-11-14 00:30	0	5	3.4	8.3	6.7	310	315	7	0.00%
	Abr1	1993-11-13 12:00	7	3	4.7	9.1	7.7	343	6	46	5.00%
	Pug2	1993-11-18 00:00	0	0	2.2	7.7	6.6	63	63	0	0.00%
	Abr1	1993-11-13 12:00	7	3	4.7	9.1	7.7	343	6	46	5.00%
40	Pug2	1993-11-30 18:00	0	6	2	7.1	5.9	324	330	12	33.30%
	Abr1	1993-11-27 00:00	6	9	3.2	7.1	6.3	329	7	55	17.90%
	Pug2	1993-12-02 09:00	0	0	2.2	8.3	6.7	110	110	0	0.00%
	Abr1	1993-11-27 00:00	6	9	3.2	7.1	6.3	329	7	55	17.90%

41	Pug2	1993-12-12 06:00	0	3	3	8.3	7	327	325	5	0.00%
	Abr1	1993-12-11 21:00	0	3	2.3	6.7	5.7	360	355	11	0.00%
42	Pug2	1993-12-27 15:00	0	3	2.3	8.3	6.4	327	328	1	0.00%
	Abr1	1993-12-26 03:00	1	15	3.6	7.1	6.7	346	15	58	0.00%
43	Pug2	1994-01-02 12:00	0	3	2.2	6.3	5.7	337	339	4	0.00%
	Abr1	1994-01-01 23:30	0	12	5.1	9.1	8.5	15	10	9	0.00%
44	Pug2	1994-01-27 05:30	0	15	3.5	7.7	7	7	0	11	0.00%
	Abr1	1994-01-27 00:00	3	6	5	7.7	7.3	341	360	38	11.90%
	Pug2	1994-01-29 00:00	0	17	4.1	9.1	8.1	356	356	6	0.00%
	Abr1	1994-01-27 00:00	3	6	5	7.7	7.3	341	360	38	11.90%
45	Pug2	1994-02-14 09:30	0	14	3.5	7.7	8	102	76	49	40.00%
	Abr1	1994-02-11 12:00	3	12	2.6	6.7	5.8	6	349	24	14.30%
46	Pug2	1994-03-28 06:00	0	9	2.2	5.9	5.5	357	1	6	0.00%
	Abr1	1994-03-27 06:00	0	0	2.3	7.7	6.7	35	35	0	0.00%
47	Pug2	1994-10-21 15:00	0	18	2.3	7.7	6.3	60	67	13	0.00%
	Abr1	1994-10-21 21:00	0	3	2.4	7.7	6	72	62	21	0.00%
48	Pug2	1994-11-19 15:00	0	9	2.2	6.3	5.6	12	18	13	0.00%
	Abr1	1994-11-19 12:00	0	0	2	6.3	5.6	27	27	0	0.00%
49	Pug2	1994-12-15 12:00	0	12	2.6	7.1	6.2	8	19	17	0.00%
	Abr1	1994-12-15 09:00	0	9	2.6	7.1	6.3	37	34	11	0.00%
50	Pug2	1994-12-23 21:00	0	0	2.2	7.1	6.4	81	81	0	0.00%
	Abr1	1994-12-21 00:00	3	6	3.7	7.7	7	332	16	58	22.60%
51	Pug2	1995-01-03 21:00	1	9	3.2	8.3	7.2	51	53	5	0.00%
	Abr1	1995-01-02 15:00	2	18	4.4	8.3	7.9	41	23	25	1.60%
52	Pug2	1995-01-09 06:00	0	0	2	7.1	6	64	64	0	0.00%
	Abr1	1995-01-09 00:00	0	0	2	5.9	5.2	330	330	0	0.00%

53	Pug2	1995-01-13 21:00	2	6	5.2	10	9	61	58	7	38.80%
	Abr1	1995-01-12 00:00	3	21	4.4	8.3	7.6	19	21	11	3.20%
54	Pug2	1995-01-31 18:00	0	9	2.7	7.7	6.6	23	24	19	0.00%
	Abr1	1995-01-31 09:00	0	15	3.6	8.3	7.7	23	20	8	0.00%
55	Pug2	1995-02-19 11:00	0	13	3.1	7.7	6.6	323	332	12	0.00%
	Abr1	1995-02-16 21:00	2	15	3.3	7.7	6.8	350	11	64	0.00%
56	Pug2	1995-03-08 06:00	0	0	2.3	7.7	6.3	321	321	0	0.00%
	Abr1	1995-03-07 12:00	2	3	2.2	6.7	5.6	325	28	91	0.00%
57	Pug2	1995-03-20 21:00	0	12	3.2	7.7	6.9	321	326	11	0.00%
	Abr1	1995-03-20 14:00	2	13	3.2	7.1	6.4	341	4	29	0.00%
	Pug2	1995-03-22 18:00	0	18	2.7	7.1	6.5	9	20	23	0.00%
	Abr1	1995-03-20 14:00	2	13	3.2	7.1	6.4	341	4	29	0.00%
58	Pug2	1995-03-28 15:00	0	9	3.9	8.3	7.4	336	326	15	5.90%
	Abr1	1995-03-28 08:30	3	6	6.2	10	9.1	21	17	21	0.00%
	Pug2	1995-03-30 12:00	1	21	4.3	8.3	7.7	10	358	20	5.30%
	Abr1	1995-03-28 08:30	3	6	6.2	10	9.1	21	17	21	0.00%
59	Pug2	1995-08-29 09:00	0	6	2.2	7.1	6	321	323	3	0.00%
	Abr1	1995-08-28 18:00	0	3	3.4	7.1	6.7	337	341	7	0.00%
60	Pug2	1995-11-18 18:00	0	15	2.8	7.7	6.4	350	345	25	0.00%
	Abr1	1995-11-18 12:00	3	0	3.1	8.3	6.5	6	12	35	0.00%
	Pug2	1995-11-21 00:00	0	15	2.7	7.1	6.1	359	9	22	0.00%
	Abr1	1995-11-18 12:00	3	0	3.1	8.3	6.5	6	12	35	0.00%
61	Pug2	1995-12-29 15:00	0	6	2.2	6.3	5.4	333	329	6	0.00%
	Abr1	1995-12-27 18:00	0	3	2.4	6.7	6.2	345	346	2	0.00%
62	Pug2	1995-12-31 12:00	0	0	2.1	7.7	6.6	119	119	0	0.00%
	Abr1	1995-12-31 12:00	0	0	2.1	7.1	6	100	100	0	0.00%
63	Pug2	1996-01-30 15:00	1	0	3.1	8.3	6.9	60	56	5	15.40%

	Abr1	1996-01-30 12:00	0	12	2.6	7.7	6.4	27	31	6	0.00%
64	Pug2	1996-02-08 00:00	1	15	3.2	7.7	6.9	317	337	27	0.00%
	Abr1	1996-02-08 12:00	1	9	3.7	7.7	6.7	339	338	9	0.00%
65	Pug2	1996-03-02 09:00	1	1	3.9	9.1	7.4	350	358	11	0.00%
	Abr1	1996-03-02 03:00	3	6	3.8	8.3	7.7	28	40	34	35.70%
	Pug2	1996-03-05 12:00	0	12	2	6.3	5.8	31	1	39	0.00%
	Abr1	1996-03-02 03:00	3	6	3.8	8.3	7.7	28	40	34	35.70%
66	Pug2	1996-03-28 12:00	0	3	2.1	7.1	5.9	311	317	11	0.00%
	Abr1	1996-03-28 00:00	0	9	2.5	8.3	6.7	24	20	6	0.00%
67	Pug2	1996-05-28 18:00	1	0	3.1	7.7	6.7	352	336	22	0.00%
	Abr1	1996-05-29 00:00	0	15	3	8.3	7	30	17	22	0.00%
68	Pug2	1996-09-08 06:00	0	6	2.8	7.7	6.6	338	337	3	0.00%
	Abr1	1996-09-07 11:30	0	0	3.1	7.7	6.5	19	18	3	0.00%
69	Pug2	1996-11-24 18:00	0	6	2.3	6.7	5.9	324	323	3	0.00%
	Abr1	1996-11-22 21:00	4	12	2.8	7.7	6.4	352	29	64	0.00%
	Pug2	1996-11-27 09:00	0	9	2.6	6.7	6	326	325	3	0.00%
	Abr1	1996-11-22 21:00	4	12	2.8	7.7	6.4	352	29	64	0.00%
70	Pug2	1996-12-01 18:00	0	15	2.8	7.1	6.5	30	30	7	0.00%
	Abr1	1996-11-30 21:00	2	15	5	9.1	8.1	15	18	14	11.10%
	Pug2	1996-12-03 06:00	0	12	2.6	6.7	6	3	355	11	0.00%
	Abr1	1996-11-30 21:00	2	15	5	9.1	8.1	15	18	14	11.10%
71	Pug2	1996-12-26 06:00	1	12	4.1	8.3	7.9	53	44	18	7.50%
	Abr1	1996-12-25 21:00	4	3	4.8	10	8.2	20	11	15	0.00%
72	Pug2	1997-01-12 21:00	0	15	2.3	6.7	6.2	7	17	15	0.00%
	Abr1	1997-01-11 15:00	1	9	2.5	5.9	5.3	346	355	20	0.00%
73	Pug2	1997-02-16 15:00	0	18	2.7	7.1	6.3	323	341	23	0.00%
	Abr1	1997-02-16 03:00	1	0	5.5	10	8.6	9	17	11	0.00%

74	Pug2	1997-02-27 18:00	1	9	4.5	8.3	7.5	348	8	27	9.10%
	Abr1	1997-02-27 09:00	1	12	4	7.7	7.3	16	10	13	0.00%
75	Pug2	1997-03-11 00:00	0	12	3.1	8.3	7.2	59	63	7	0.00%
	Abr1	1997-03-11 12:00	0	0	2.2	6.7	6.2	77	77	0	0.00%
76	Pug2	1997-03-20 12:00	0	0	2.1	6.3	5.7	351	351	0	0.00%
	Abr1	1997-03-20 12:00	0	21	2.2	7.1	6.1	26	16	22	0.00%
77	Pug2	1997-03-29 12:00	2	3	3.4	7.7	6.8	356	358	14	35.70%
	Abr1	1997-03-29 03:00	2	18	3.8	7.7	7.3	12	9	10	62.50%
78	Pug2	1997-04-05 00:00	0	12	3.7	7.7	7.3	11	15	7	50.00%
	Abr1	1997-04-04 21:00	3	9	2.6	7.7	6.5	43	68	45	0.00%
	Pug2	1997-04-07 03:00	1	3	3.6	7.7	6.9	347	358	16	33.30%
	Abr1	1997-04-04 21:00	3	9	2.6	7.7	6.5	43	68	45	0.00%
79	Pug2	1997-04-13 09:00	0	15	2.6	6.3	5.9	337	350	19	0.00%
	Abr1	1997-04-12 09:00	0	0	2.5	7.7	6.7	41	41	0	0.00%
80	Pug2	1997-04-16 03:00	0	3	2.3	6.3	6	339	346	14	0.00%
	Abr1	1997-04-15 21:00	0	3	2.3	7.7	6.7	42	39	7	0.00%
81	Pug2	1997-05-29 03:00	0	0	2.2	7.1	5.9	354	354	0	0.00%
	Abr1	1997-05-28 18:00	0	3	2.2	6.3	6	28	26	5	0.00%
82	Pug2	1997-10-25 03:00	0	12	3	7.7	6.7	21	18	4	0.00%
	Abr1	1997-10-24 21:00	0	12	2.7	7.7	6.8	37	30	10	0.00%
83	Pug2	1997-12-06 15:00	1	0	2.2	5.6	5.9	26	19	19	0.00%
	Abr1	1997-12-07 00:00	1	0	2.1	5.9	5.4	339	335	5	0.00%
84	Pug2	1998-01-20 12:00	1	12	2.5	9.1	7.4	322	3	61	0.00%
	Abr1	1998-01-17 18:00	4	21	4.8	8.3	7.7	10	14	29	0.00%
85	Pug2	1998-02-01 09:00	0	12	3	7.7	7.2	104	83	35	0.00%
	Abr1	1998-02-01 12:00	5	0	3	7.1	6.4	9	6	32	0.00%







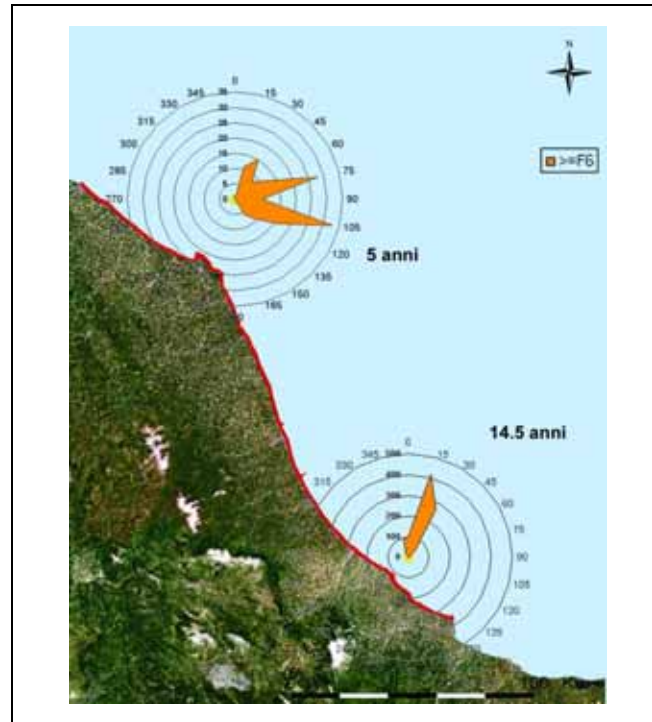
109	Pug2	2000-02-10 04:30	0	16	4.5	9.1	7.1	54	51	5	0.00%
	Abr1	2000-02-09 21:00	0	18	3.5	7.7	5.9	30	21	16	58.80%
110	Pug2	2000-02-18 00:00	0	21	3.1	7.1	5.5	351	335	21	0.00%
	Abr1	2000-02-17 18:00	3	15	2.5	6.7	5	350	18	59	0.00%
	Pug2	2000-02-21 00:00	1	3	2.7	7.1	5.4	329	342	17	0.00%
	Abr1	2000-02-17 18:00	3	15	2.5	6.7	5	350	18	59	0.00%
111	Pug2	2000-04-07 18:00	0	3	2.2	6.7	5	328	329	1	0.00%
	Abr1	2000-04-07 06:00	0	0	2.3	7.7	5.2	27	27	0	0.00%
112	Pug2	2000-07-09 15:00	0	3	2.3	7.1	5.3	317	317	0	0.00%
	Abr1	2000-07-09 06:00	0	9	2.7	7.7	5.5	340	340	2	0.00%
113	Pug2	2000-11-27 06:00	1	6	3	7.7	5.7	321	338	23	0.00%
	Abr1	2000-11-27 03:00	0	9	3.2	7.1	5.5	342	349	10	0.00%
114	Pug2	2001-01-01 00:00	0	0	2.6	7.7	7.3	23	23	0	0.00%
	Abr1	2000-12-31 09:00	0	21	3	7.7	5.7	77	29	64	12.50%
115	Pug2	2001-01-13 12:00	0	3	2.2	6.7	6.4	355	15	41	0.00%
	Abr1	2001-01-13 09:00	1	18	2.6	7.1	5.4	25	41	18	0.00%
	Pug2	2001-01-14 18:00	1	6	2.3	6.3	6.9	355	358	13	0.00%
	Abr1	2001-01-13 09:00	1	18	2.6	7.1	5.4	25	41	18	0.00%
116	Pug2	2001-01-30 21:00	0	15	2.3	8.3	7.1	2	6	11	0.00%
	Abr1	2001-01-30 18:00	3	0	3.3	7.7	5.7	2	15	20	22.70%
	Pug2	2001-02-01 21:00	0	21	2.2	7.7	6.8	346	359	17	0.00%
	Abr1	2001-01-30 18:00	3	0	3.3	7.7	5.7	2	15	20	22.70%
117	Pug2	2001-02-19 06:00	0	3	2.5	7.7	7.2	30	27	6	0.00%
	Abr1	2001-02-19 06:00	0	6	2.4	7.7	5.3	40	34	10	0.00%
118	Pug2	2001-02-27 00:00	0	0	2.3	8.3	7.2	30	30	0	0.00%
	Abr1	2001-02-26 15:00	0	12	2.7	6.7	5	345	346	4	0.00%
119	Pug2	2001-07-21 12:00	0	0	2.3	7.1	5	317	317	0	0.00%
	Abr1	2001-07-21 03:00	0	3	2.3	7.7	4.9	343	342	3	0.00%



130	Pug2	2002-02-24 21:00	0	3	2.6	6.7	5.3	333	332	3	0.00%
	Abr1	2002-02-22 03:00	2	12	3.1	8.3	5.5	26	48	48	20.00%
131	Pug2	2002-03-11 00:00	1	3	3.3	7.7	6.3	42	55	17	0.00%
	Abr1	2002-03-11 12:00	0	6	2.7	6.7	5.2	342	344	3	0.00%
132	Pug2	2002-03-23 12:00	2	12	3.6	8.3	6	349	350	10	0.00%
		Abr1	2002-03-23 18:00	2	18	4	8.3	6.3	345	359	19
	Pug2	2002-03-27 03:00	0	0	2	7.1	5.5	53	53	0	0.00%
		Abr1	2002-03-23 18:00	2	18	4	8.3	6.3	345	359	19
133	Pug2	2002-07-26 23:30	0	10	2.3	6.5	5.3	52	50	4	14.30%
	Abr1	2002-07-26 22:30	0	18	2.4	7.1	5	24	8	19	76.20%
134	Pug2	2002-12-05 13:00	3	11	2.5	7.7	5.7	106	88	29	0.00%
	Abr1	2002-12-04 09:30	5	15	2.7	6.9	6.6	39	65	31	44.60%
135	Pug2	2002-12-19 01:00	1	0	2.4	7.4	5.2	4	4	7	31.10%
	Abr1	2002-12-18 19:00	0	19	3	7.1	5.8	20	21	5	15.40%
136	Pug2	2003-01-01 21:00	0	0	2	6.3	4.8	317	317	0	0.00%
	Abr1	2003-01-01 05:30	0	9	2.3	7.1	5.8	27	15	19	42.90%
137	Pug2	2003-01-24 11:30	3	3	2.7	8	6.8	58	50	18	0.00%
	Abr1	2003-01-24 08:00	3	13	3.3	7.4	7	48	24	39	19.50%
138	Pug2	2003-02-01 15:30	0	22	2.3	7.1	5.4	54	15	49	0.00%
	Abr1	2003-02-01 04:30	1	3	3.8	8.3	7.5	28	18	21	7.10%
139	Pug2	2003-02-07 01:00	0	17	2.2	6.5	5.2	12	358	17	5.30%
	Abr1	2003-02-05 07:30	0	13	3.1	8	5.8	22	3	23	15.40%
140	Pug2	2003-03-04 17:30	0	2	2.2	6.1	5.4	318	321	4	0.00%
	Abr1	2003-03-04 03:00	0	0	2	6.3	4.6	353	356	6	0.00%
141	Pug2	2003-03-14 00:00	0	7	2.3	6.9	5	26	19	10	0.00%
	Abr1	2003-03-14 00:00	4	9	3.3	7.7	5.8	23	22	15	66.40%
	Pug2	2003-03-16 12:00	1	16	3.6	8.7	6.3	62	61	5	0.00%

	Abr1	2003-03-14 00:00	4	9	3.3	7.7	5.8	23	22	15	66.40%
142	Pug2	2003-04-04 23:30	2	21	2.8	7.4	6	55	7	59	0.00%
	Abr1	2003-04-04 00:30	0	3	2.1	6.3	5.1	328	334	10	0.00%
143	Pug2	2003-05-22 01:30	0	22	2.7	8	5.6	323	326	11	7.10%
	Abr1	2003-05-21 14:30	0	14	2.3	6.1	4.7	346	330	21	83.30%
144	Pug2	2003-09-04 04:00	0	8	2.4	6.9	5.7	30	25	8	0.00%
	Abr1	2003-09-04 01:30	0	0	2.1	6.7	5.8	29	28	3	0.00%
145	Pug2	2003-10-08 11:30	0	3	2.5	6.4	5.9	310	316	8	0.00%
	Abr1	2003-10-08 07:30	0	4	2.7	6.9	6.1	330	338	9	0.00%
146	Pug2	2003-10-15 17:00	0	20	2.8	8.3	5.6	51	55	6	0.00%
	Abr1	2003-10-15 10:30	0	0	2	6.4	5.8	25	25	0	0.00%
147	Pug2	2003-10-27 14:00	0	10	2.7	7.1	5.4	326	330	6	5.60%
	Abr1	2003-10-27 07:00	0	10	2.3	6.1	4.9	346	337	16	33.30%
148	Pug2	2003-12-23 13:30	1	22	4.8	9.5	8.4	45	47	11	37.30%
	Abr1	2003-12-23 04:30	2	17	4.6	9.1	6.5	13	355	31	88.50%

## Onde Alte per il settore costiero C10: P.ta Penna – Pesaro



*Fig 3.41 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.113 e Tab 1.123 - onde alte - tratto costiero da P.ta Penna a Pesaro – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C10: P.ta Penna – Pesaro

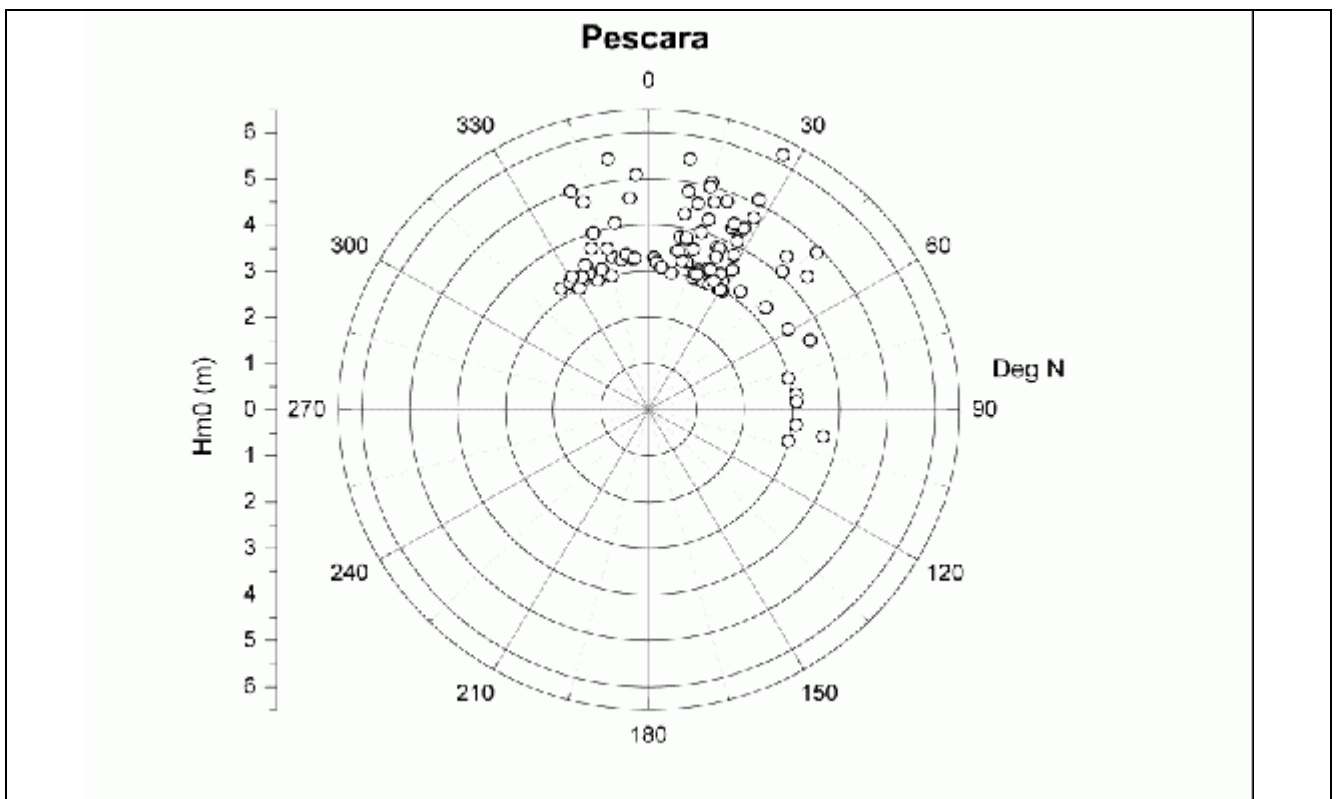


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Pescara

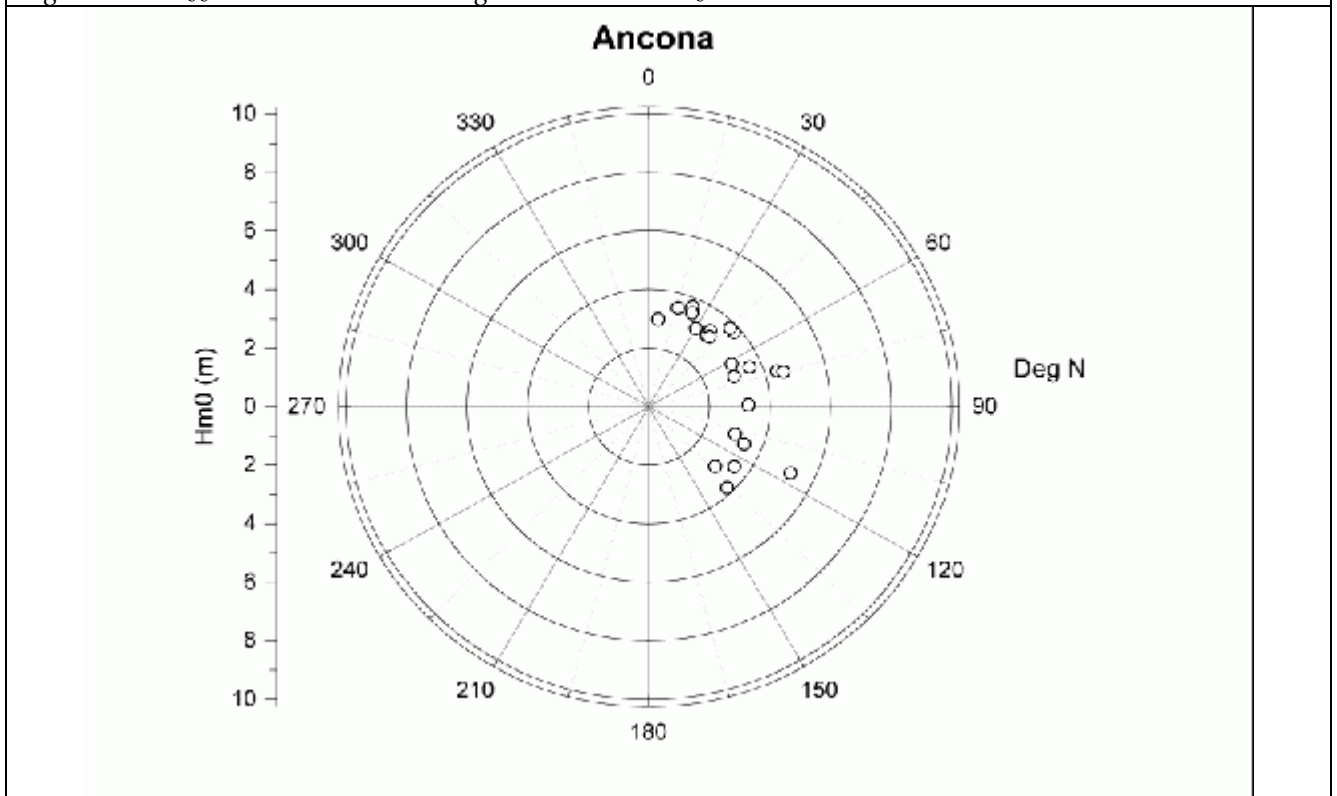


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Ancona

Tab. 43 Elenco delle mareggiate per il settore costiero da P.ta Penna a Pesaro

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Abr1	1999-03-17	18:00	3	0	2.6	7.1	5.3	18	9	14	0.00%
	Mar1	1999-03-17	15:00	2	18	3.1	6.9	6.6	38	27	17	0.00%
2	Abr1	1999-06-22	06:00	0	6	3	8.3	5.6	344	344	4	0.00%
	Mar1	1999-06-22	03:00	0	3	2.9	7.1	6.1	293	318	50	0.00%
3	Abr1	1999-09-02	06:00	0	0	2.1	7.1	5.3	32	32	0	0.00%
	Mar1	1999-09-02	03:00	0	0	2.1	6.5	5.8	45	45	0	0.00%
4	Abr1	1999-09-20	18:00	0	0	2	6.7	5.1	84	84	0	0.00%
	Mar1	1999-09-20	15:00	0	3	3	8	6.9	133	126	11	0.00%
5	Abr1	1999-11-07	03:00	2	3	4.1	8.3	6.4	43	51	30	46.70%
	Mar1	1999-11-06	21:00	2	18	4.4	8	7.5	74	71	32	1.80%
6	Abr1	1999-11-19	18:00	0	3	2.4	7.1	5.1	336	342	12	0.00%
	Mar1	1999-11-18	06:00	5	0	3.5	9.1	7.2	9	359	64	0.00%
	Abr1	1999-11-23	12:00	0	3	2.5	7.1	4.7	334	339	9	0.00%
	Mar1	1999-11-18	06:00	5	0	3.5	9.1	7.2	9	359	64	0.00%
7	Abr1	1999-12-05	18:00	0	18	3	7.7	5.7	25	26	9	0.00%
	Mar1	1999-12-05	18:00	0	15	3	7.1	6.7	70	44	33	0.00%
8	Abr1	2000-01-17	03:00	2	12	3.2	8.3	6.1	37	5	42	0.00%
	Mar1	2000-01-19	09:00	0	0	2.7	6.7	6.3	16	16	0	0.00%
9	Abr1	2000-01-24	09:00	0	21	2.5	8.3	5.6	21	359	28	0.00%
	Mar1	2000-01-23	09:00	1	6	2.8	7.7	6.5	8	19	15	0.00%
10	Abr1	2000-07-09	06:00	0	9	2.7	7.7	5.5	340	340	2	0.00%
	Mar1	2000-07-09	03:00	0	3	2.7	7.4	6.4	336	323	27	0.00%
11	Abr1	2000-11-06	21:00	0	3	2.1	6.7	5	118	120	3	0.00%
	Mar1	2000-11-06	15:00	0	18	3.8	8.7	12	118	123	22	4.00%

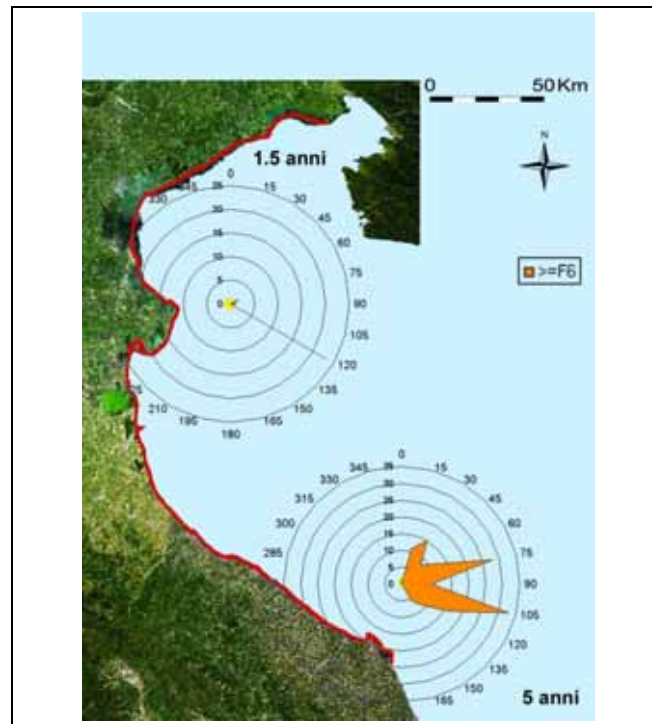
12	Abr1	2000-11-27 03:00	0	9	3.2	7.1	5.5	342	349	10	0.00%
	Mar1	2000-11-26 21:00	0	9	2.3	6.1	5.9	297	303	12	0.00%
13	Abr1	2000-12-31 09:00	0	21	3	7.7	5.7	77	29	64	12.50%
	Mar1	2000-12-30 03:00	1	15	2.7	7.1	6.3	289	27	119	0.00%
14	Abr1	2001-01-13 09:00	1	18	2.6	7.1	5.4	25	41	18	0.00%
	Mar1	2001-01-13 06:00	1	18	2.8	7.7	6.5	41	42	7	0.00%
15	Abr1	2001-01-30 18:00	3	0	3.3	7.7	5.7	2	15	20	22.70%
	Mar1	2001-01-29 21:00	3	12	4.6	8	7.7	75	56	28	2.00%
16	Abr1	2001-04-01 03:00	0	3	2.1	6.7	4.9	22	22	0	0.00%
	Mar1	2001-03-30 06:00	1	6	2.2	7.1	5.9	34	82	67	57.10%
17	Abr1	2001-07-21 03:00	0	3	2.3	7.7	4.9	343	342	3	0.00%
	Mar1	2001-07-20 18:00	0	6	2.2	6.9	5.7	301	307	9	0.00%
18	Abr1	2001-08-11 15:00	0	18	2.5	6.7	5.2	349	353	14	0.00%
	Mar1	2001-08-11 12:00	0	15	2.8	7.1	6.6	20	19	7	0.00%
19	Abr1	2001-09-05 15:00	0	6	2.4	7.7	5.1	333	331	4	0.00%
	Mar1	2001-09-05 09:00	0	0	2	6.5	5.5	294	294	0	0.00%
20	Abr1	2001-11-13 09:00	0	15	2.7	7.7	5	343	360	26	0.00%
	Mar1	2001-11-13 09:00	1	12	3.8	8	7.2	48	36	15	0.00%
21	Abr1	2001-11-23 12:00	0	18	3.3	7.7	5.9	22	11	20	0.00%
	Mar1	2001-11-23 15:00	0	9	2.7	6.7	6	28	19	13	0.00%
22	Abr1	2001-12-07 06:00	2	0	3.6	7.7	6.1	15	19	8	40.00%
	Mar1	2001-12-07 06:00	2	15	3.8	8.3	7.2	45	40	11	38.70%
23	Abr1	2001-12-12 15:00	4	18	4.4	9.1	6.6	24	15	24	52.00%
	Mar1	2001-12-13 18:00	0	18	3.6	7.7	7.1	68	64	9	5.60%
	Abr1	2001-12-12 15:00	4	18	4.4	9.1	6.6	24	15	24	52.00%
	Mar1	2001-12-16 03:00	2	9	3.7	8.7	7.3	23	31	12	0.00%



24	Abr1	2001-12-24 06:00	3	21	5.5	8.3	5.8	351	29	62	64.10%
	Mar1	2001-12-27 09:00	0	9	3.5	8	7	17	22	8	0.00%
25	Abr1	2001-12-31 12:00	4	18	3.2	7.7	5.7	3	3	26	55.60%
	Mar1	2001-12-31 12:00	0	12	2.5	6.7	5.9	20	22	7	20.00%
	Abr1	2001-12-31 12:00	4	18	3.2	7.7	5.7	3	3	26	55.60%
	Mar1	2002-01-03 15:00	0	3	2.5	7.4	6.1	33	38	10	0.00%
26	Abr1	2002-02-22 03:00	2	12	3.1	8.3	5.5	26	48	48	20.00%
	Mar1	2002-02-22 03:00	0	3	2.4	6.7	6.2	51	55	7	0.00%
27	Abr1	2002-03-23 18:00	2	18	4	8.3	6.3	345	359	19	57.70%
	Mar1	2002-03-23 09:00	2	0	3.1	7.4	6.7	31	35	21	26.70%
28	Abr1	2002-06-06 10:30	0	0	2	7.7	6.8	95	95	0	0.00%
	Mar1	2002-06-05 21:00	0	21	2.9	8.3	7.5	26	60	129	81.40%
29	Abr1	2002-11-05 00:30	1	4	2.2	7.7	5.2	28	9	24	21.40%
	Mar1	2002-11-04 09:30	0	1	2.1	7.1	4.7	15	13	4	0.00%
	Abr1	2002-11-05 00:30	1	4	2.2	7.7	5.2	28	9	24	21.40%
	Mar1	2002-11-06 01:30	0	0	2.1	6.5	5.1	37	37	0	0.00%
30	Abr1	2002-11-16 05:00	2	4	2.3	6.3	5.5	102	93	10	51.40%
	Mar1	2002-11-15 05:30	3	18	5.2	9.5	8.6	116	115	6	3.60%
31	Abr1	2002-11-25 00:00	2	4	2.4	8	6.7	96	93	4	2.50%
	Mar1	2002-11-24 13:30	2	19	3.4	8.7	6.6	108	112	7	0.00%
32	Abr1	2002-12-04 09:30	5	15	2.7	6.9	6.6	39	65	31	44.60%
	Mar1	2002-12-04 03:30	4	23	3.3	7.1	5.9	87	56	36	11.20%
33	Abr1	2002-12-18 19:00	0	19	3	7.1	5.8	20	21	5	15.40%
	Mar1	2002-12-18 17:30	0	10	2.3	7.4	5.1	17	33	19	0.00%
34	Abr1	2003-01-01 05:30	0	9	2.3	7.1	5.8	27	15	19	42.90%
	Mar1	2003-01-01 02:30	0	4	2.2	6.7	5.1	23	30	11	0.00%

35	Abr1	2003-03-04 03:00	0	0	2	6.3	4.6	353	356	6	0.00%
	Mar1	2003-03-03 15:00	0	3	2.1	6.7	5.8	75	59	22	0.00%
36	Abr1	2003-03-14 00:00	4	9	3.3	7.7	5.8	23	22	15	66.40%
	Mar1	2003-03-14 13:00	2	22	3.1	7.7	5.6	34	42	18	12.70%
37	Abr1	2003-04-04 00:30	0	3	2.1	6.3	5.1	328	334	10	0.00%
	Mar1	2003-04-02 20:00	1	22	2.6	7.1	6.4	47	36	58	0.00%
38	Abr1	2003-05-21 14:30	0	14	2.3	6.1	4.7	346	330	21	83.30%
	Mar1	2003-05-21 12:00	0	0	2	6.5	4.9	357	357	0	0.00%
39	Abr1	2003-09-13 13:00	0	16	2.2	6.3	5.2	19	6	19	50.00%
	Mar1	2003-09-13 20:00	0	19	2.4	6.5	5	45	29	18	7.70%
40	Abr1	2003-10-08 07:30	0	4	2.7	6.9	6.1	330	338	9	0.00%
	Mar1	2003-10-08 06:00	0	4	2.6	6.7	5.1	313	326	20	0.00%
41	Abr1	2003-10-27 07:00	0	10	2.3	6.1	4.9	346	337	16	33.30%
	Mar1	2003-10-27 03:00	0	8	2.3	5.7	4.7	73	74	16	22.20%

## Onde Alte per il settore costiero C11: Numana – Grado



*Fig 3.44 Rappresentazione delle tabelle a doppia entrata  $H_{m0}-\alpha$  Tab 1.123 e Tab 1.131 - onde alte - tratto costiero da Numana a Grado – dati semiorari, periodo: intero*



## Mareggiate per il settore costiero C11: Numana – Grado

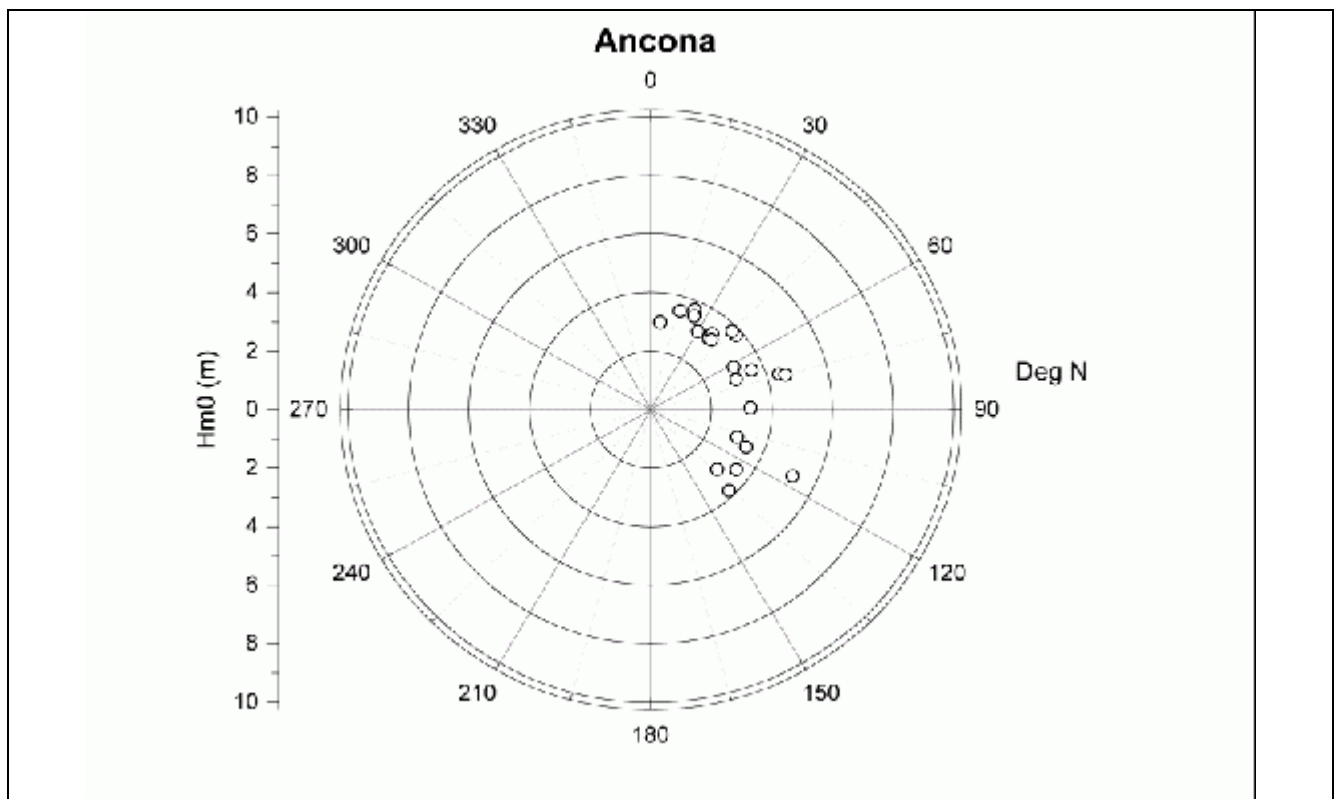


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Ancona

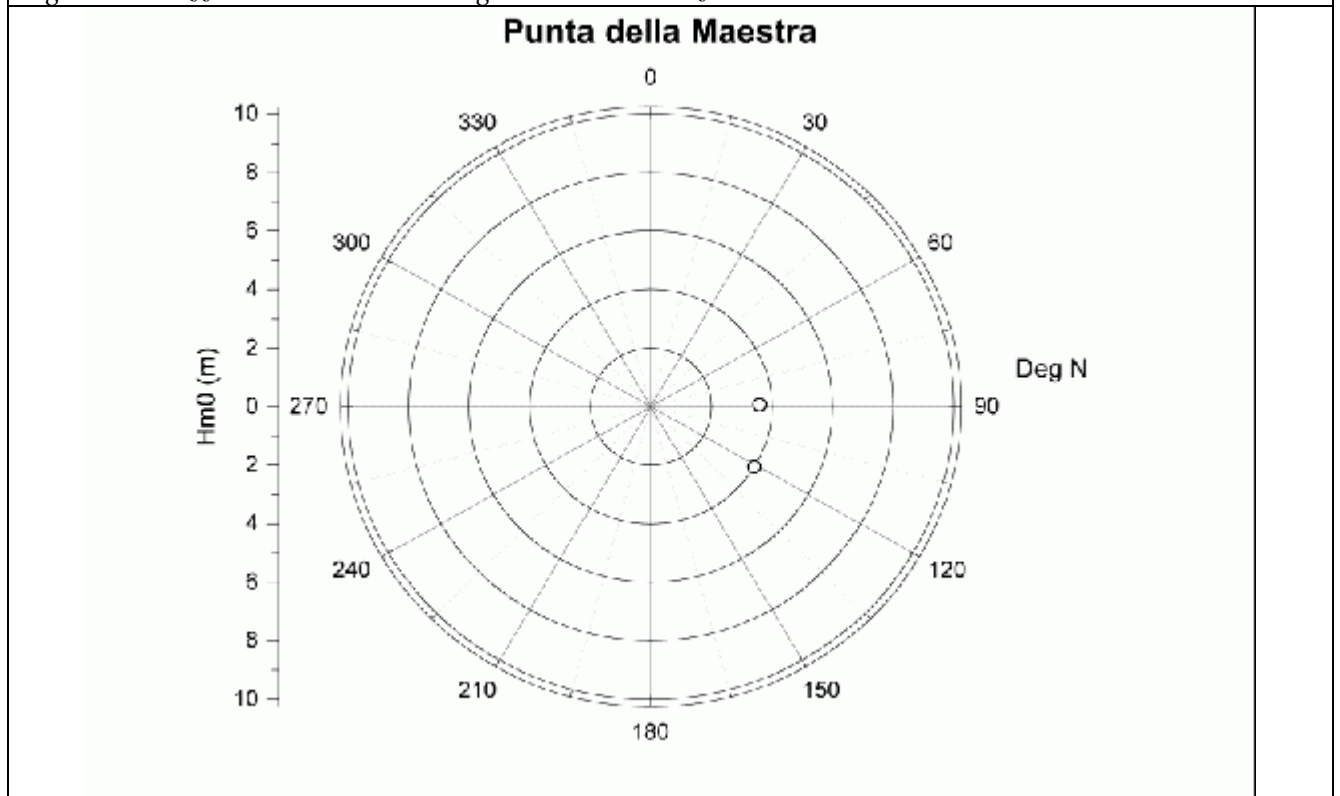


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Punta della Maestra

Tab. 44 Elenco delle mareggiate per il settore costiero da Numana a Grado

evento	settori costieri	data di inizio della mareggiata		durata della mareggiata		valori relativi al massimo della mareggiata				$\alpha$ media (degN)	deviazione standard dalla $\alpha$ del massimo	dati mancanti (%)
		data	ora	giorni	ore	Hm0 (m)	Tp (s)	Tm (s)	$\alpha$ (degN)			
1	Mar1	2002-11-15	05:30	3	18	5.2	9.5	8.6	116	115	6	3.60%
	Emi1	2002-11-15	08:30	3	12	4	10.5	6.9	122	117	15	0.00%
2	Mar1	2002-11-24	13:30	2	19	3.4	8.7	6.6	108	112	7	0.00%
	Emi1	2002-11-24	17:00	2	9	2.8	9.1	6.6	113	115	4	0.00%
3	Mar1	2002-12-04	03:30	4	23	3.3	7.1	5.9	87	56	36	11.20%
	Emi1	2002-12-02	22:30	7	2	2.9	6.7	5.3	49	67	23	0.00%
4	Mar1	2003-03-14	13:00	2	22	3.1	7.7	5.6	34	42	18	12.70%
	Emi1	2003-03-15	23:30	0	23	2.4	5.7	5.4	52	58	9	6.30%
5	Mar1	2003-04-02	20:00	1	22	2.6	7.1	6.4	47	36	58	0.00%
	Emi1	2003-04-03	01:30	0	11	2.8	5.9	5.1	49	49	13	0.00%
6	Mar1	2003-09-11	19:00	0	0	2	6.9	5.2	10	10	0	0.00%
	Emi1	2003-09-11	18:00	0	2	2.1	5.9	4.6	43	47	6	20.00%
7	Mar1	2003-09-13	20:00	0	19	2.4	6.5	5	45	29	18	7.70%
	Emi1	2003-09-14	06:00	0	19	2.4	6.3	5.1	53	80	35	0.00%
8	Mar1	2003-10-31	23:00	0	21	2.7	8	6.3	123	118	7	5.30%
	Emi1	2003-10-31	14:00	0	23	2.4	6.1	6	116	124	9	18.90%
9	Mar1	2003-11-08	13:00	0	5	2.3	7.4	5.6	105	110	6	0.00%
	Emi1	2003-11-07	15:30	1	4	2.8	6.7	5.5	92	96	15	0.00%

## Onde Alte per le coste della Sardegna: C.po del Falcone – C.po Altano e C.po Carbonara – C.po Ferro

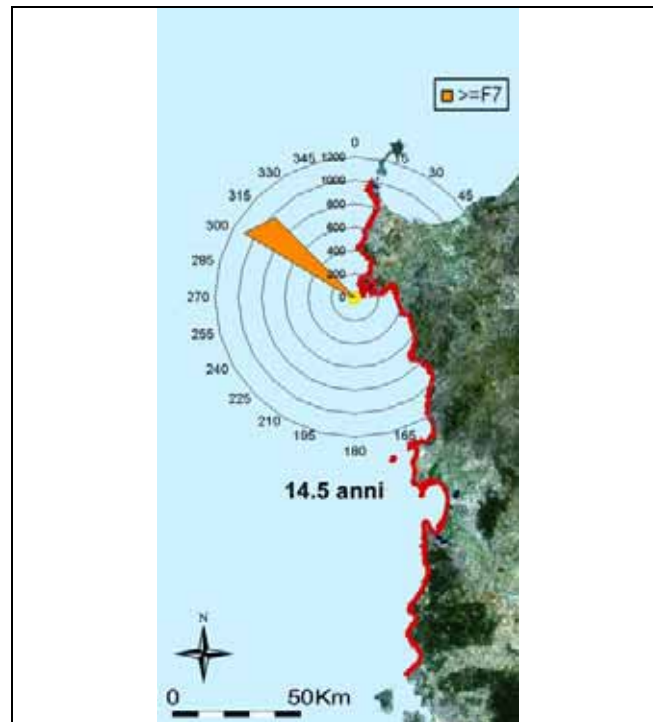


Fig 3.47 Rappresentazione della tabella a doppia entrata  $H_{m0}-\alpha$  Tab 1.6 - onde alte - tratto costiero da C.po del Falcone a C.po Altano– dati semiorari, periodo: intero

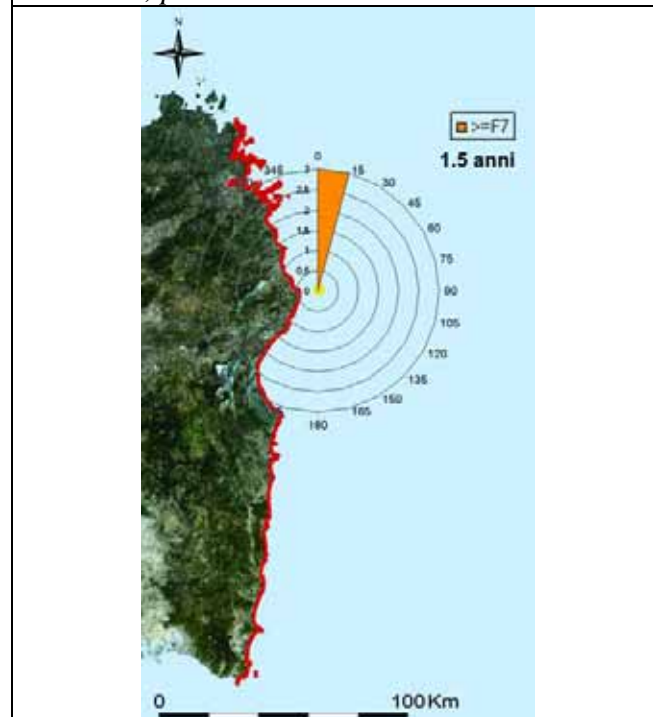


Fig 3.48 Rappresentazione della tabella a doppia entrata  $H_{m0}-\alpha$  Tab 1.16 - onde alte - tratto costiero da C.po Carbonara a C.po Ferro – dati semiorari, periodo: intero

# Mareggiate per le coste della Sardegna: C.po del Falcone – C.po Altano e C.po Carbonara – C.po Ferro

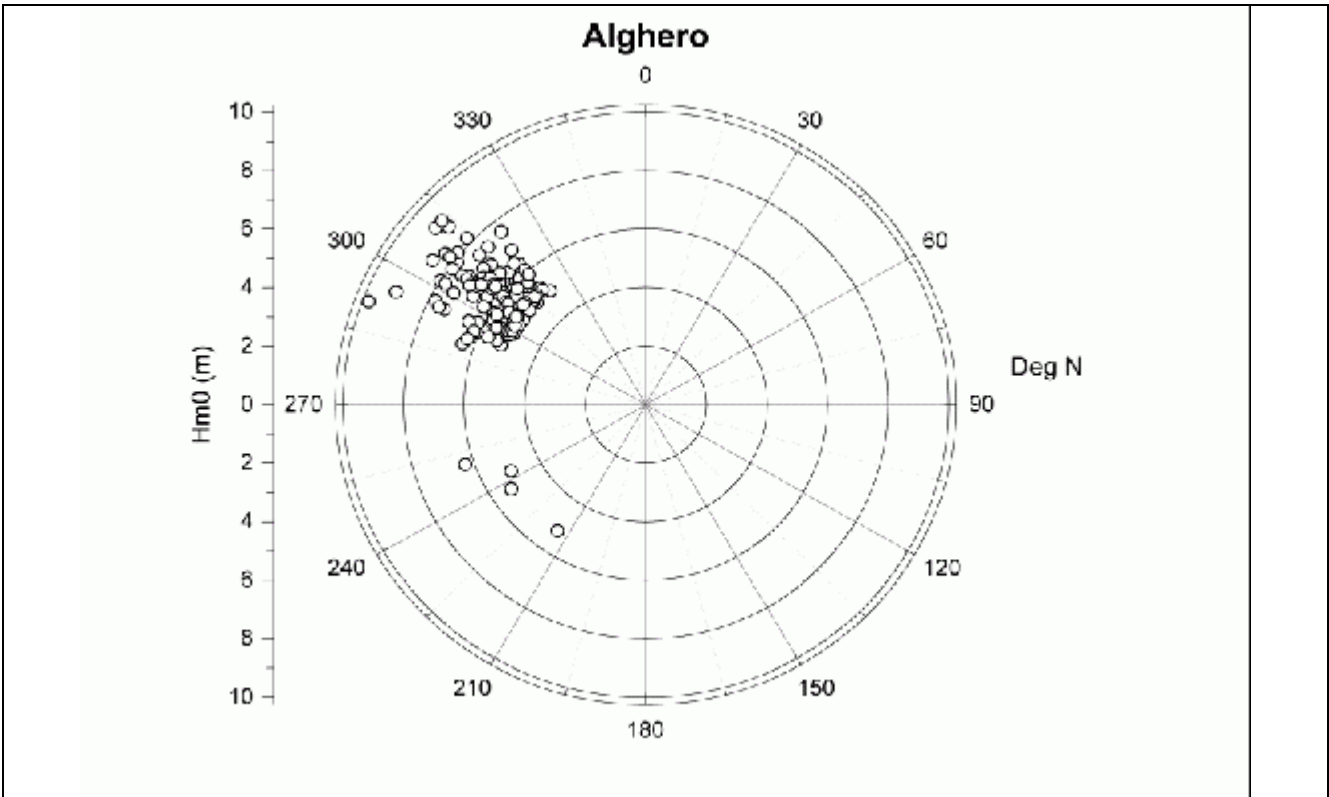


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Alghero

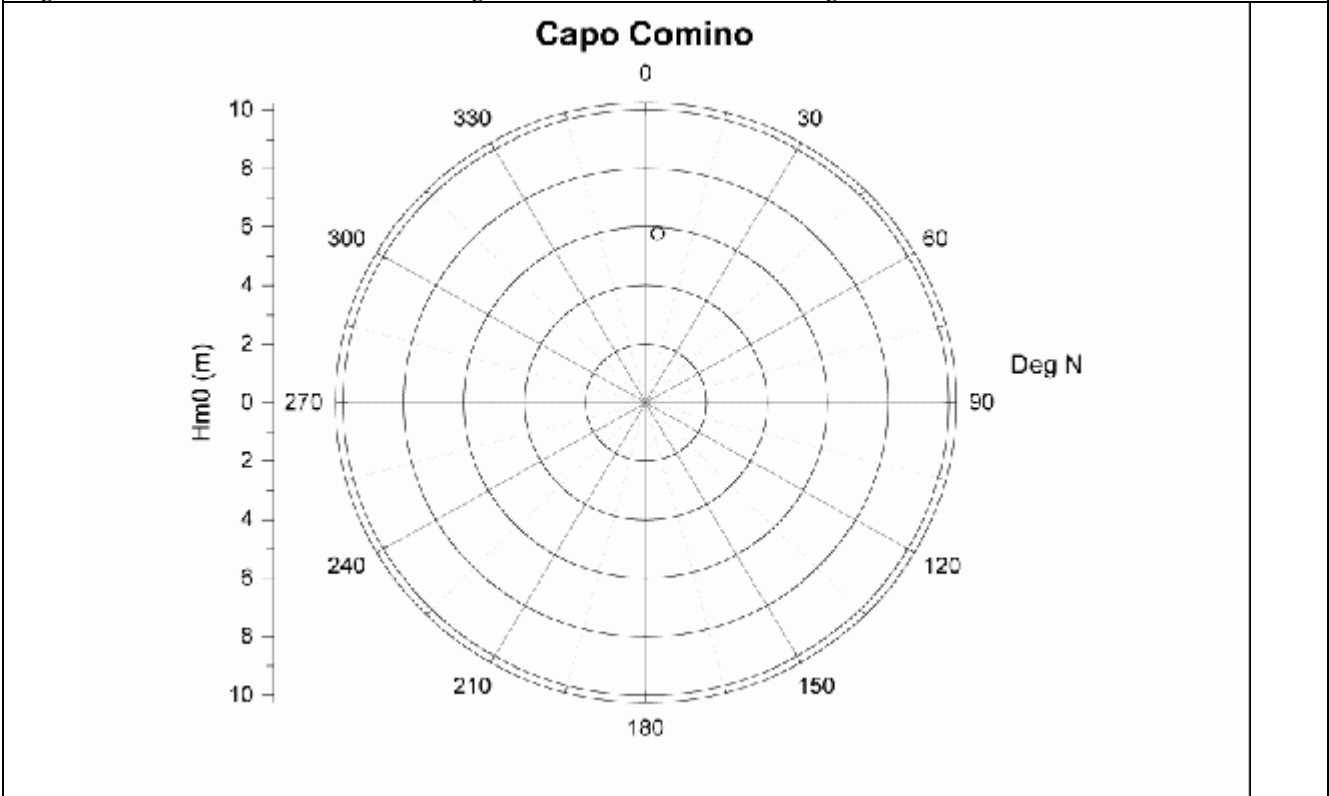


Fig 3.18 Altezze d'onda massime registrate dalla stazione di Capo Comino