

Tab. 1 – Stands of *E. nebrodensis* subsp. *nebrodensis* in Calabria.

n°	locality	munic.	prov.	stand features	source	protection	stand
1	Monte Sellaro	Cerchiara di Calabria	CS	N 39° 51' 01" E 16° 22' 03"; organogenic limestone (Miocene), alt. 1200 a.s.l.; about 5 individuals;	<i>Luigi Troccoli</i> , VI.1992 (CLU); <i>Luigi Troccoli</i> , 24.IX.1992 (CLU); BERNARDO <i>et al.</i> 1995; GARGAGLIONE 2001; <i>Caruso</i> , 11.08.2004;	Pollino National Park	confirmed
2	Timpa di Cassano	Civita	CS	N 39° 53' 07" E 16° 18' 20", organogenic limestone (Cretaceous);	<i>Puntillo Domenico</i> , 07/1984, (CLU); GARGAGLIONE 2001; <i>Caruso</i> , 10.08.2004;	Pollino National Park	confirmed
3	Timpa di Porace	Civita	CS	N 39° 52' 56" E 16° 17' 51", organogenic limestone (Cretaceous); alt. 1250 m a.s.l.	14/10/1982, <i>Puntillo Domenico</i> (CLU); BERNARDO <i>et al.</i> 1995; GARGAGLIONE 2001; <i>Caruso</i> , 10.08.2004;	Pollino National Park; SCI IT 9310009 Timpone di Porace	confirmed

Tab. 2 – Main stands of *E. distachya* subsp. *distachya* in Calabria.

n°	locality	municipality	prov.	stand features (coordinates, substrate, altitude, field notes)	species threats and altering ecosystem factors	protection status	source	stand
1	Villapiana Lido	Villapiana	CS	N 39° 49' 03" E 16° 29' 75", pebbly beach, 2 m a.s.l.;	tourism, erosion,	-	Caruso, 28.IX.2003	new
2	Millepini	Cassano allo Ionio	CS	N 39° 45' 97" E 16° 29' 22", reforested sandy beach, 1 m a.s.l.;	tourism, infrastructures, erosion	-	Bernardo & Grasso, 24.III.1997 (CLU); Caruso, 01.VIII.2006	confirmed
3	La Bruscata	Cassano allo Ionio	CS	N 39° 45' 45" E 16° 29' 32", sandy beach, 4-6 m a.s.l.;	tourism, infrastructures	-	Caruso, 01.VIII.2006	new
4	Casoni di Sibari	Cassano allo Ionio	CS	N 39° 44' 12" E 16° 30' 36", sandy beach close to a saltish depression, 4 m a.s.l.;	tourism, infrastructures, erosion	SCI IT9310052 Casoni di Sibari	Caruso, 01.VIII.2006	new
5	Crati	Cassano allo Ionio	CS	N 39° 43' 30" E 16° 31' 33", sandy beach north of Crati river mouth; 2 m a.s.l.;	tourism, grazing, erosion	SCI IT9310044 Foce del Fiume Crati	REGIONE CALABRIA 2003, MAIORCA <i>et al.</i> 2005; Caruso, 05.VIII.2006	confirmed
6	Crati	Corigliano Calabro	CS	N 39° 43' 20" E 16° 31' 45", sandy beach south of Crati river mouth, 2 m a.s.l.;	tourism, grazing	SCI IT9310044 Foce del Fiume Crati	MAIORCA <i>et al.</i> 2005; Caruso, 05.VIII.2006	confirmed
7	S. Angelo W	Rossano	CS	N 39° 37' 15" E 16° 40' 09", sandy beach, 10 m a.s.l.; small relict stand;	infrastructures, erosion	-	Caruso, 28.IX.2003	new
8	S. Angelo E	Rossano	CS	N 39° 37' 35" E 16° 36' 84", sandy beach, 4 m a.s.l.; small stand close to ENEL power station;	infrastructures, tourism, erosion	-	Caruso, 28.IX.2003	new
9	Torrente Colognati	Rossano	CS	N 39° 34' 06" E 16° 39' 16", sandy river bank, 50 m a.s.l.;	grazing	-	BIONDI <i>et al.</i> 1994; Caruso, 16.VIII.2008	confirmed
10	Fiumara Trionto	Cropalati	CS	N 39° 34' 03" E 16° 45' 25", sandy river bank, 72 m a.s.l.;	grazing	SCI IT9310047 Fiumara Trionto	Bernardo & Gangale, 10.VI.1993 (CLU); BERNARDO <i>et al.</i> 1994; BIONDI <i>et al.</i> 1994	confirmed
11	Macchia della Bura	Crosia	CS	N 39° 36' 00" E 16° 47' 57", sandy beach, 2 m a.s.l.;	tourism	SCI IT9310045 Macchia della Bura	REGIONE CALABRIA 2003	confirmed
12	S. Giacomo – Marinella – Stazione di Calopezzati	Calopezzati	CS	N 39° 34' 52" E 16° 49' 15", sandy beach, 2 m a.s.l.;	tourism	partially SCI IT9310051 Dune di Camigliano	BARBAGALLO & FURNARI 1970; Caruso, 24.V.2007	confirmed
13	Camigliano	Pietrapaola	CS	N 39° 32' 43" E 16° 51' 33", sandy beach, 2 m a.s.l.;	tourism, infrastructures	partially SCI IT9310051 Dune di Camigliano	BIONDI <i>et al.</i> 1996; Caruso, 24.V.2007	confirmed
14	Pietrapaola – Marina di Mandatoriccio – Stazione di Mandatoriccio	Mandatoriccio	CS	N 39° 31' 55" E 16° 52' 51", sandy beach, 2 m a.s.l.;	tourism, infrastructures	SCI IT9310051 Dune di Camigliano	REGIONE CALABRIA 2003, Caruso, 24.V.2007	confirmed
15	Fiume Nicà	Cariati	CS	N 39° 28' 58" E 17° 00' 89", clayey-sandy-gravelly river bank at roadside, 6 m a.s.l., developing plants after fire;	fire, infrastructures, grazing	-	Caruso, 28.IX.2003	new
16	Contrada Godano-Torchia	Cirò	KR	N 39° 25' 94" E 17° 03' 58", sandy paleodunes on inland side of national road S.S. 106, 16 m a.s.l., the site is the only ionian stand of continental Italy of <i>Retama gussonei</i> Webb; developing plant after fire	tourism, fire, exotic weeds, grazing, erosion	-	Caruso, Uzunov, Gangale, 22.I.2007	new
17	Marinella	Cirò	KR	N 39° 25' 16" E 17° 05' 02", sandy beach, 3 m a.s.l.;	tourism, infrastructures, erosion	SCI IT9320100 Dune di Marinella	Caruso, 28.IX.2003	new
18	Punta Alice – Faro	Cirò Marina	KR	N 39° 23' 93" E 17° 09' 27", sandy beach, 3-5 m a.s.l., north and south from the lighthouse wide stand;	tourism, infrastructures, erosion	-	Caruso, 21.IX.2003	new
19	Marina di Strongoli	Strongoli	KR	N 39° 13' 98" E 17° 07' 24", sandy beach, 6 m a.s.l.;	tourism, infrastructures, grazing, erosion	SCI IT9320095 Foce Neto	Caruso, 21.IX.2003	new
20	Gabella Grande	Crotone	KR	N 39° 09' 08" E 17° 07' 17", N 39° 08' 57" E 17° 06' 95", sandy beach, 8-10 m a.s.l., wide stand;	tourism, infrastructures, grazing, agriculture, erosion	-	REGIONE CALABRIA 2003; Caruso, 21/09/2003	confirmed
21	Sovereto (different named: Dune di Sovereto, Bosco Sovereto - Isola Capo Rizzuto)	Isola Capo Rizzuto	KR	N 38° 55' 15" E 17° 03' 51", sandy dune, 5-30 m a.s.l.;	tourism, infrastructures, grazing, erosion, garbage abandonment	SCI IT9320102 Dune di Sovereto	Bernardo & Passalacqua, 11.VI.1994 (CLU); VIII Iter <i>Mediterraneum</i> , 12.VI.1997, (CLU); Cesa, VII.2001 (CLU); Caruso, 02.I.2004	confirmed
22	San Giuliano	Cutro	KR	N 38° 56' 36" E 16° 57' 81", sandy beach, 5 m a.s.l.;	tourism, infrastructures, erosion	-	Caruso, 21.IX.2003	new
23	Steccato di Cutro	Cutro	KR	N 38° 56' 07" E 16° 55' 64", sandy beach, 5 m a.s.l.;	tourism, infrastructures, grazing, erosion	SCI IT9320106 Foce del Crocchio - Cropani	Bernardo, Grasso & Passalacqua, 11.VI.1994 (CLU); REGIONE CALABRIA 2003; Caruso 02.IX.2003	confirmed

n°	locality	municipality	prov.	stand features (coordinates, substrate, altitude, field notes)	species threats and altering ecosystem factors	protection status	source	stand
24	Belcastro: part of Costa del Turchese (Belcastro and Botricello beaches)	Belcastro	CZ	N 38° 55' 69" E 16° 53' 18", sandy beach, 5 m a.s.l.;	tourism, infrastructures, grazing, erosion	SCI IT9320106 Foce del Crocchio - Cropani	REGIONE CALABRIA 2003; <i>Caruso</i> , 26.VIII.2005	confirmed
25	Botricello: part of Costa del Turchese (Belcastro and Botricello beaches)	Botricello	CZ	N 38° 55' 31" E 16° 51' 63", sandy beach, 7 m a.s.l.;	tourism, infrastructures, erosion	SCI IT9320106 Foce del Crocchio - Cropani	<i>Leone</i> , 03.VII.1992 (FI); REGIONE CALABRIA 2003; <i>Caruso</i> , 21.IX.2003	confirmed
26	Cropani Marina	Cropani	CZ	N 38° 54' 55" E 16° 48' 78", sandy beach, 5 m a.s.l.;	tourism, infrastructures, erosion		<i>Caruso</i> , 21.IX.2003	new
27	Catanzaro Lido N	Catanzaro	CZ	N 38° 49' 95" E 16° 38' 82", sandy beach, 3 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Fiori</i> , 09.VI.1883 (FI); <i>Micheletti</i> , 04.VI.1895 (FI); <i>Caruso</i> , IV.2000	confirmed
28	Roccelletta di Borgia (right bank of Corace river)	Borgia	CZ	N 38° 48' 74" E 16° 36' 26", sandy beach, 7 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Caruso</i> , 16.VII.2004	new
29	Oasi Scolacium	Borgia, Squillace	CZ	N 38° 47' 30" E 16° 35' 18", sandy beach, 2 m a.s.l.; many small fragmented stands north and south of Pharmacy Faculty and Camping Calabrisella (some sectors developing after fire);	tourism, infrastructures, erosion, grazing, fire	SCI IT9330098 Oasi di Scolacium	REGIONE CALABRIA 2003; <i>Caruso</i> , 16.VII.2004; <i>Caruso & Uguino</i> , 28.V.2006	confirmed
30	Squillace Lido	Squillace	CZ	N 38° 46' 29" E 16° 34' 19", sandy beach, 3 m a.s.l., small stand close to reforested area;	tourism, erosion	-	<i>Caruso</i> , 13.III.2005	new
31	Copanello (Burrone Lamia)	Staletti	CZ	N 38° 45' 41" E 16° 33' 98", rocky place at roadside on sandy substrate, 65 m a.s.l., small stand;	infrastructures, garbage abandonment	-	<i>Caruso</i> , 08.VIII.2009	new
32	S. Caterina dello Ionio N	S. Caterina dello Ionio	CZ	N 38° 33' 21" E 16° 34' 28", sandy beach, 3 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Caruso</i> , 12.IV.2004	new
33	S. Caterina dello Ionio S	S. Caterina dello Ionio	CZ	N 38° 31' 94" E 16° 34' 29", sandy beach, 3 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Caruso</i> , 13.IV.2004	new
34	Borgorosso (Guardavalle N)	Guardavalle	CZ	N 38° 29' 46" E 16° 34' 71", sandy beach, 6 m a.s.l., stand close to railroad;	tourism, erosion	SCI IT9330108 Dune di Guardavalle	BIONDI <i>et al.</i> 1996; <i>Caruso</i> , 13.IV.2004	confirmed
35	Guardavalle S (Dune di)	Guardavalle	CZ	N 38° 28' 72" E 16° 34' 82", sandy beach, 9 m a.s.l.;	tourism, infrastructures, erosion	SCI IT9330108 Dune di Guardavalle	REGIONE CALABRIA 2003; <i>Caruso</i> , 10.VII.2003	confirmed
36	Tempio Kaulon	Monasterace	RC	N 38° 26' 76" E 16° 34' 75", sandy beach, 7 m a.s.l.;	tourism, erosion	-	<i>Caruso</i> , 10.VII.2003	new
37	Riace Marina	Riace	RC	N 38° 24' 16" E 16° 32' 67", sandy beach, 11 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Caruso</i> , 10.VII.2003	new
38	Bamonte	Ardore	RC	N 38° 09' 65" E 16° 11' 66", sandy beach, 8 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Caruso</i> , 10.VII.2003	new
39	Bianco	Bianco	RC	N 38° 05' 17" E 16° 09' 17", sandy beach, 4 m a.s.l.;	tourism, erosion	-	SCHNEIDER & SUTTER 1982; <i>Caruso</i> , 10.VII.2003	confirmed
40	Brancaleone	Brancaleone	RC	N 37° 58' 39" E 16° 06' 58", sandy beach, 3 m a.s.l.;	tourism, erosion	SCI IT9350160 Spiaggia di Brancaleone	BRULLO <i>et al.</i> 2001; REGIONE CALABRIA 2003; <i>Caruso</i> 17.IX.2003	confirmed
41	Galati	Brancaleone	RC	N 37° 56' 10" E 16° 04' 39", sandy beach, 2 m a.s.l.;	tourism, infrastructures, erosion, exotic weed	-	BRULLO & SPAMPINATO 1999; BRULLO <i>et al.</i> 2001; <i>Caruso</i> , 28.VI.2004 (Esc. Soc. SBI Aspromonte)	confirmed
42	Nicotera Marina (Camping Sabbia D'Oro)	Nicotera	VV	N 38° 31' 53" E 15° 55' 48", sandy beach, 4 m a.s.l.;	tourism, infrastructures, erosion	-	<i>Caruso</i> , 09.III.2008	new
43	Nicotera Marina	Nicotera	VV	N 38° 32' 06" E 15° 55' 86", sandy beach, 6 m a.s.l.;	tourism, infrastructures, erosion	-	BIONDI <i>et al.</i> 1996; <i>Caruso</i> , 17.IX.2003	confirmed

Tab. 3 – Not confirmed previously recorded stands of *E. distachya* subsp. *distachya* in Calabria.

n°	locality	municipality	prov.	reason of species absence	source	stand
1	Capo Colonna	Crotone	KR	mistakenly considered the only Ionian Calabrian stand of <i>Retama gussonei</i> Webb;	REGIONE CALABRIA 2003	not confirmed
2	Capo Rizzuto	Isola Capo Rizzuto	KR	species absent in this locality but occurring in bordering areas;	REGIONE CALABRIA 2003	not confirmed
3	Isca (Dunes of)	Isca sullo Ionio	CZ	species recorded in the corresponding SCI but not found by present work;	REGIONE CALABRIA 2003	extinct
4	Roccella Ionica	Roccella Ionica	RC	species mistakenly recorded as <i>E. fragilis</i> then specimen determined as <i>E. distachya</i> , this stand is extinct probably because of built-up area growth;	<i>Chiarugi, Barazzano & Contardo</i> , 01.VI.1955 (FI); CHIARUGI 1955	extinct
5	Marina di Gerace (today named Locri)	Locri	RC	species mistakenly recorded as <i>E. fragilis</i> then specimen determined as <i>E. distachya</i> , this stand is extinct probably because of built-up area growth;	PORTA 1879; <i>Huter, Porta & Rigo</i> , 347, 2.VI. 1877 ex <i>itinerare italico III sp. p. (sub. E. fragilis Desf.)</i>	extinct
6	Capo Spartivento	Palizzi	RC	the site today doesn't show features seemingly compatible with ecology of studied species: maybe in the past here the coast was sandy or the record has general meaning probably referred to a bordering locality;	<i>Arangeli</i> , 09.VI.1877 (FI)	not confirmed
7	Gioia Tauro	Gioia Tauro	RC	today here occurs Gioia Tauro port, so the stand could be gone extinct;	<i>Franke</i> , V.1882 (FI)	extinct
8	S. Ferdinando N	San Ferdinando	RC	<i>E. distachya</i> not found by present work;	<i>Pasquale</i> , VII.1850 (FI); PASQUALE 1904;	extinct

Tab. 4 – Stands of *E. fragilis* in Calabria.

n°	locality	municipality	prov.	absence of species	source	stand
1	Rocca Imperiale	Rocca Imperiale	CS	No <i>Ephedra</i> sp. found	GÉHU <i>et al.</i> 1984	not confirmed
2	Roccella Ionica	Roccella Ionica	RC	<i>E. distachya</i> , mistakenly recorded as <i>E. fragilis</i> , stand disappeared.	Chiarugi, <i>Bavazzano & Contardo</i> , 01.VI.1955 (FI); CHIARUGI 1956	not confirmed
3	Marina Gerace (today Locri)	Locri	RC	<i>E. distachya</i> , mistakenly recorded as <i>E. fragilis</i> , stand disappeared.	PORTA 1879; <i>Huter, Porta & Rigo</i> , 347, 2.VI. 1877 <i>ex itinere italicum III sp. p. (sub. E. fragilis Desf.)</i>	not confirmed
4	S. Ferdinando N	S. Ferdinando	RC	<i>E. fragilis</i> , mistakenly recorded as <i>E. distachya</i>	<i>Anonimo</i> , s.d. (FI); PASQUALE 1904; <i>Caruso</i> , 17.IX.2003	new

