



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE ITA040008
SITENAME Maccalube di Aragona

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1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code ITA040008	Back to top
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1.3 Site name

Maccalube di Aragona

1.4 First Compilation date 1998-06	1.5 Update date 2019-12
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1.6 Respondent:

Name/Organisation: Regione Siciliana Ass.to Territorio e Ambiente Servizio 4°
Address: Via Ugo La Malfa 169 - 90146 Palermo
Email:

1.7 Site indication and designation / classification dates

Date site classified as SPA:	0000-00
National legal reference of SPA designation	No data
Date site proposed as SCI:	1995-09
Date site confirmed as SCI:	No data
Date site designated as SAC:	2015-12
National legal reference of SAC designation:	DM 21/12/2015 - G.U. 8 del 12-01-2016

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

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Longitude 13.5931 **Latitude** 37.3767

2.2 Area [ha]: 436.0 **2.3 Marine area [%]** 0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name

2.6 Biogeographical Region(s)

Mediterranean (100.0
%)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

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Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
1410			0.9		M	A	C	B	B
1430			4.73		G	A	C	B	B
3140			0.52		G	D			
3150			0.16		M	D			
3170			0.1		G	A	C	B	B
6220			36.99		M	B	C	C	C
92D0			4.05		M	D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site assessment				
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D. qual.	A B C D	A B C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A298	Acrocephalus arundinaceus			c				P	DD	C	B	C	B
B	A247	Alauda arvensis			w				P	DD	C	B	C	B
B	A229	Alcedo atthis			w				P	DD	C	B	C	B
B	A229	Alcedo atthis			c				P	DD	C	B	C	B
B	A255	Anthus campestris			r				P	DD	D			
B	A257	Anthus pratensis			c				P	DD	C	B	C	B
B	A257	Anthus pratensis			w				P	DD	C	B	C	B
B	A226	Apus apus			r				P	DD	D			
B	A028	Ardea cinerea			w				P	DD	D			
B	A028	Ardea cinerea			r				P	DD	D			
B	A029	Ardea purpurea			p				P	DD	C	B	C	B
B	A169	Arenaria interpres			c				P	DD	D			
P	1757	Aster sorrentinii			p				R	DD	C	B	B	B
B	A133	Burhinus oedicnemus			r				P	DD	C	B	B	B
B	A243	Calandrella brachydactyla			r				P	DD	C	B	C	B
B	A147	Calidris ferruginea			c				P	DD	D			
B	A136	Charadrius dubius			c				P	DD	D			
B	A137	Charadrius hiaticula			c				P	DD	D			
B	A031	Ciconia ciconia			c				P	DD	C	B	C	B
B	A081	Circus aeruginosus			c				P	DD	D			
B	A082	Circus cyaneus			c				P	DD	C	B	C	B
B	A083	Circus macrourus			c				P	DD	D			
B	A084	Circus pygargus			c				P	DD	C	C	C	C
B	A208	Columba palumbus			r				P	DD	D			
B	A231	Coracias garrulus			r				P	DD	B	B	B	B
B	A253	Delichon urbica			r				P	DD	C	B	C	B
B	A026	Egretta garzetta			w				P	DD	D			
B	A101	Falco biarmicus			c				P	DD	C	B	C	B
B	A095	Falco naumanni			c				P	DD	C	B	C	B

B	A103	Falco peregrinus			p				P	DD	C	B	C	B
B	A099	Falco subbuteo			c				P	DD	C	B	C	B
B	A097	Falco vespertinus			c				P	DD	C	B	C	B
B	A359	Fringilla coelebs			w				P	DD	C	B	C	B
B	A123	Gallinula chloropus			c				P	DD	C	B	C	B
B	A135	Glareola pratincola			c				P	DD	D			
B	A131	Himantopus himantopus			c				P	DD	D			
B	A251	Hirundo rustica			r				P	DD	D			
B	A341	Lanius senator			r				P	DD	C	B	C	B
B	A246	Lullula arborea			c				P	DD	C	B	C	B
B	A271	Luscinia megarhynchos			c				P	DD	C	B	C	B
B	A242	Melanocorypha calandra			p				P	DD	C	B	C	B
B	A230	Merops apiaster			c				P	DD	C	B	C	B
B	A073	Milvus migrans			c				P	DD	D			
M	1310	Miniopterus schreibersii			p				P	DD	D			
B	A319	Muscicapa striata			c				P	DD	D			
B	A023	Nycticorax nycticorax			c				P	DD	C	B	C	B
B	A278	Oenanthe hispanica			c				P	DD	D			
B	A277	Oenanthe oenanthe			c				P	DD	C	B	C	B
B	A337	Oriolus oriolus			c				P	DD	D			
B	A151	Philomachus pugnax			c				P	DD	D			
B	A273	Phoenicurus ochruros			w				P	DD	C	B	C	B
B	A315	Phylloscopus collybita			w				P	DD	C	B	C	B
B	A266	Prunella modularis			c				P	DD	D			
B	A266	Prunella modularis			w				P	DD	D			
B	A210	Streptopelia turtur			r				P	DD	C	B	C	B
B	A351	Sturnus vulgaris			w				P	DD	C	B	C	B
B	A304	Sylvia cantillans			r				P	DD	D			
B	A303	Sylvia conspicillata			r				P	DD	D			
B	A308	Sylvia curruca			c				P	DD	D			
B	A048	Tadorna tadorna			c				P	DD	C	B	C	B
B	A166	Tringa glareola			c				P	DD	C	B	C	B
B	A165	Tringa ochropus			c				P	DD	D			
B	A162	Tringa totanus			c				P	DD	D			
B	A285	Turdus philomelos			w				P	DD	C	B	C	B
B	A232	Upupa epops			r				P	DD	C	B	C	B
B	A142	Vanellus vanellus			c				P	DD	C	B	C	B
B	A142	Vanellus vanellus			w				P	DD	C	B	C	B

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation						
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories				
					Min	Max		C R V P	IV	V	A	B	C	D	
P		Allium agrigeninum						R			X				
B	A218	Athene noctua						P					X		
P		Barlia robertiana						C					X		
R	1274	Chalcides ocellatus						P	X						
B		Coturnix coturnix						P			X				
A	1189	Discoglossus pictus						P	X						
R		Elaphe lineata						P						X	

P		Lavatera agrigentina								C			X		
M		Lepus corsicanus								R				X	
R		Natrix natrix								P					X
P		Nigella arvensis subsp. glaucescens								C			X		
P		Ophrys bertolonii								P				X	
P		Ophrys bombyliflora								P				X	
P		Ophrys ciliata								P				X	
P		Ophrys fusca								P				X	
P		Ophrys incubacea								P				X	
P		Ophrys lutea								P				X	
P		Ophrys sicula								P				X	
P		Ophrys sphecodes subsp. garganica								P				X	
P		Ophrys tenthredinifera								P				X	
P		Orchis italica								P				X	
P		Orchis papilionacea								P				X	
R	1244	Podarcis wagleriana								P		X			
P		Salsola agrigentina								C			X		
P		Serapias parviflora								P				X	
P		Serapias vomeracea								P				X	
B		Tyto alba								P				X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see [reference portal](#))
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories:** IV, V: Annex Species (Habitats Directive), A: National Red List data; B: Endemics; C: International Conventions; D: other reasons

4. SITE DESCRIPTION

4.1 General site character

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Habitat class	% Cover
N12	45.0
N03	20.0
N20	2.0
N09	33.0
Total Habitat Cover	100

Other Site Characteristics

L'area del SIC ricade nei comuni di Joppolo Giancaxio e Aragona. Il paesaggio è caratterizzato da fenomeni di vulcanesimo sedimentario, i cosiddetti vulcanelli di fango freddi, di notevole interesse geomorfologico. Il sito comprende pendii dolci, costituiti da depositi argillosi, attraversati da incisioni torrentizie alimentate dalle piogge. Sotto l'aspetto stratigrafico l'area è caratterizzata da un complesso marnoso e argilloso miocenico e dalla Formazione Terravecchia del Miocene Superiore, costituita da conglomerati, sabbie, arenarie, ecc. Il vulcanesimo sedimentario per cui l'area è nota si esprime attraverso vulcanelli di varia dimensione che emettono acqua, fango e gas. Diffuse sono anche polle d'acqua con emissioni di gas e pozze temporanee. In superficie il suolo è spesso biancastro per la presenza di sali e gesso. Bioclima Mesomediterraneo inferiore subumido inferiore con precipitazioni medie annue 670 mm; per la stazione di Racalmuto è riportata una temperatura media annua di 17°C. Sotto l'aspetto vegetazionale l'area è caratterizzata da consorzi dei calanchi (praterie, fruticeti dei Pegano-Salsoletea e briovegetazione), da comunità igrofile ed idrofile dei torrenti, delle polle e delle pozze temporanee (sia a carattere erbaceo che arbustivo) e da cenosi nitrofilo-ruderale.

4.2 Quality and importance

Periodicamente la zona è interessata da "eruzioni esplosive" con fuoriuscita di materiale argilloso misto a gas ed acqua. Le peculiarità geologiche, oltre alle caratteristiche climatiche e all'elevata salinità del substrato, determinano la presenza di particolari fitocenosi a cui partecipano taxa di interesse fitogeografico, oltre che una elevata diversità faunistica. Per la flora vascolare sono stati censiti circa 250 taxa, diversi dei quali di interesse fitogeografico.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
L	G05.04		b
H	J01.01		b
L	L01		i
L	D02.01.01		b
L	D02.02		b
M	A06.01		b
M	A04.02.02		b
M	A04.02.04		b
M	K01.01		i

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside /outside [i o b]
M	A06.04		i
H	B01.01		i

Rank: H = high, M = medium, L = low
 Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
 T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
 i = inside, o = outside, b = both

4.4 Ownership (optional)

4.5 Documentation

AA.VV. 2004 - Il contributo dei Parchi e delle Riserve Naturali alla conservazione della natura in Sicilia - Naturalista sicil., Vol. XXVIII: 810 pp. BULGARINI F., CALVARIO E., FRATICELLI F., PETRETTI F. & SARROCCO S. (Eds), 1998 - Libro Rosso degli Animali d'Italia. Vertebrati - WWF Italia, Roma. FAVARA R., GIOIA C., GRASSA F., INGUAGGIATO S., PROIETTO F. & VALENZA M., 2001 - Studio geochimico delle manifestazioni fluide presenti nell'area della Riserva Naturale "Macalube di Aragona" - Naturalista Sicil., S.IV, XXV (suppl.): 137-154. IAPICHINO C. & MASSA B., 1989 - The Birds of Sicily - B.O.U. Checklist n.11, London. INTERLANDI M., 2001 - La Riserva Naturale "Macalube di Aragona" - Naturalista Sicil., S.IV, XXV (suppl.): 131-135. LO VALVO F. & LONGO A.M., 2001 - Anfibi e rettili di Sicilia - WWF-SSSN, 58 pp. LO VALVO M., MASSA B. & SARÀ M., 1993 - Uccelli e paesaggio in Sicilia alle soglie del terzo millennio - Naturalista sicil., XVII: 1-376. PASTA S., 2001 - Recenti acquisizioni flogistico-vegetazionali sull'area delle Macalube di Aragona - Naturalista Sicil., S.IV, XXV (suppl.): 155-196. PASTA S., LA MANTIA T., 2001 - L'impatto dell'attività agricola e la gestione delle aree protette: il caso della Riserva Naturale "Macalube di Aragona" - Naturalista Sicil., S.IV, XXV (suppl.): 197-215. PAVAN M. (a cura), 1992 - Contributo per un "Libro Rosso" della fauna e della flora minacciate in Italia - Ist. Entom. Univ. Pavia, 720 pp.

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
IT13	15.0	IT05	57.0		

5.2 Relation of the described site with other sites:

designated at national or regional level:

Type code	Site name	Type	Cover [%]
IT05	R.N.I. Macalube di Aragona		

5.3 Site designation (optional)

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

6.2 Management Plan(s):

An actual management plan does exist:

<input checked="" type="checkbox"/>	Yes	Name: Piano di gestione Macalube di Aragona decreto n. 857 del 15/11/2010 Link:
<input type="checkbox"/>	No, but in preparation	
<input type="checkbox"/>	No	

6.3 Conservation measures (optional)

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

Yes No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).