

# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Project ID: 10255941

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

### D5.4.3

Local events (about a total of n. 10 guided tours and scuba diving for general public for scientific, tourist and recreational purposes; n. 10 Laboratories and didactical activities for schools)

PP in charge: all PPs

Report of the n. 10 laboratories and didactical activities – part 2

Final version

Public document

June, 2023



Project acronym	CASCADE
Project ID number	10255941
Project title	CoAStal and marine waters integrated monitoring systems for ecosystems protection AnD managemEnt
Priority axis	3 - Environment and cultural heritage
Specific objective	3.2 - Contribute to protect and restore biodiversity
Strategic theme	3.2.1 - Marine environment
Word Package number	WP5
Word Package title	Pilots for endangered species restoration and Integrated coastal/marine management system
Activity number	Activity 5.4
Activity title	Ocean literacy toolkit and events
Partner in charge	All PPs
Partners involved	All PPs



# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

Identikit eel
Thursday 25<sup>th</sup> August 4.00 PM



Work Package:	5. Pilots for endangered species restoration and Integrated coastal/marine management system
Activity	5.4 - Ocean literacy toolkit and events
Deliverable:	5.4.3 - Local events

Project Partner:	PP8 Delta2000
Name of event:	Identik-eel
Date:	Thursday 25 <sup>th</sup> August, 4.00 PM
Event type:	Guided tour and laboratory
Event venue:	Comacchio - Stazione Foce
Short description of the event:	Guided tour to discover the environment of the Comacchio "Valley"
Speakers speeches, brief summary and conclusion:	Walk and laboratory activities in the Comacchio "Valley" to discover this particular environment and the main characteristics of the Eels.
Role of CASCADE partner in the event:	Delta 2000 coordinated the event, providing contents and local institutional contacts, acting through the external expertise provided by Atlantide Soc. Coop.
Type of audience/ target groups involved:	Summer Centre "Estate con noi", from Mesolate (FE)

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	25	Summer Centre "Estate con noi": children and their teachers
Local, regional and national public authorities	0	
Associations	0	
NGOs	0	
Education and training organisations as well as universities and research institutes	0	



Photo

Participation list





# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

Tales from the sea
Thursday 25th August 9.00 AM



Work Package:	5. Pilots for endangered species restoration and Integrated coastal/marine management system
Activity	5.4 - Ocean literacy toolkit and events
Deliverable:	5.4.3 - Local events

Project Partner:	PP8 Delta2000
Name of event:	Tales from the sea
Date:	Thursday 25 <sup>th</sup> August, 9.00 PM
Event type:	Guided tour
Event venue:	Goro - Via del Mercato Nuovo
Short description of the event:	Guided tour of the fishing port of Goro
Speakers speeches, brief summary and conclusion:	Daytrip to discover the different ecosystems of the Po Delta. In the morning walk along the fishing port of Goro to learn about the different fishing systems practiced in the lagoon.
Role of CASCADE partner in the event:	Delta 2000 coordinated the event, providing contents and local institutional contacts, acting through the external expertise provided by Atlantide Soc. Coop.
Type of audience/ target groups involved:	Summer Centre "Estate con noi", from Mesolate (FE)

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	25	Summer Centre "Estate con noi": children and their teachers
Local, regional and national public authorities	0	
Associations	0	
NGOs	0	
Education and training organisations as well as universities and research institutes	0	



Photo Participation list





# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

Itinerari Azzurri Sunday 10<sup>th</sup> September 9.30 AM



Work Package:	5. Pilots for endangered species restoration and Integrated coastal/marine management system
Activity	5.4 - Ocean literacy toolkit and events
Deliverable:	5.4.3 - Local events

Project Partner:	PP8 Delta2000		
Name of event:	Blue itinerary		
Date:	Sunday 10 <sup>th</sup> September, 9.30 AM		
Event type:	Guided tour		
Event venue:	Cesenatico - Fish Market, west side harbour quay - via Carlo Matteucci 31		
Short description of the event:	Guided visit to the fishing port and the city center of Cesenatico to discover its marittime tradition and culture.		
Speakers speeches, brief summary and conclusion:	The guided tour started at the working harbour of Cesenatico, where the expert showed and explained the differences between the fishing vessels moored. The students showed interest in understanding the variations of machineries and tools in relation to their purpose and type of catch. The tour moved outside the fish market and explained how it works and giving informations about the seafaring, allowing a discussion on how each of us can improve their role as conscious consumers. The second part of the guided tour involved a walk along the canal port, which crosses the city centre. The students were lead around Cesenatico to discover the main points of interests linked to the sea: the Garibaldi's Statue, the byzantine columns, the old fish market and the "conserve" an ancient storage site. The external floating section of the Maritime Museum offered the opportunity to observe the ancient Adriatic fishing boats and their characteristic sail to the third, and have an insight on the evolution of seafaring. Both students and teachers were surprised to find so much history and tradition in Cesenatico, and expressed the will to attend other guided tour or activities that allow to explore and learn about our sea.		
Role of CASCADE partner in the event:	Delta 2000 coordinated the event, providing contents and local institutional contacts, acting through the external expertise provided by Atlantide Soc. Coop.		
Type of audience/ target groups involved:	School		



Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	120	120 kids aged beetwen 11 and 13 years old and their teachers
Local, regional and national public authorities	0	
Associations	0	
NGOs	0	
Education and training organisations as well as universities and research institutes	0	

Photo

Participation list, working tools





## STUDIAMO LA CARTA NAUTICA

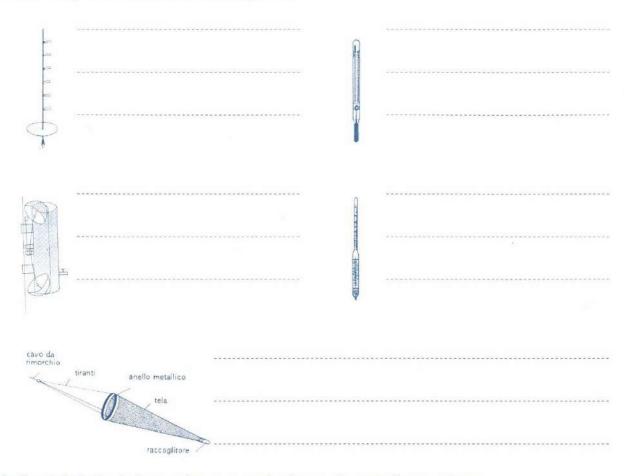
### COSTRUISCI LA LEGENDA DELLA TUA CARTA NAUTICA

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2.2		#	)
2.8	**********		
***************************************			
4	***************************************		<b>;</b>
DATI DI NAVIGAZIONE			
Ci stiamo dirigendo a:			
Devo seguire la rotta:			
A che distanza è dal porto canale	di Cesenatico? In m	niglia:	
	In Km	* = = = = = = = = = = = = = = = = = = =	***************************************
Stiamo viaggiando alla velocità di	nodi:		(1 nodo = 1 miglio in 1 ora)
Siamo partiti alle ore	per cui a	rriveremo a	lle ore

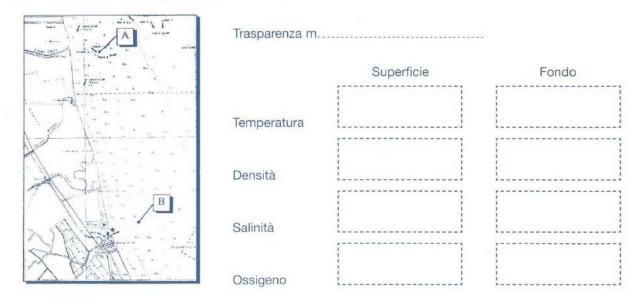


### IL LABORATORIO DI BORDO

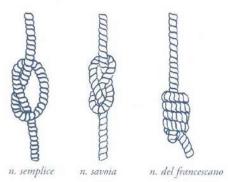
Per ogni strumento di seguito riportato indica a cosa serve e come lo si utilizza per i rilevamenti oceanografici



Indica i dati che hai raccolto, per ogni misura, durante l'escursione con il battello oceanografico



# and diamenanimeness ha

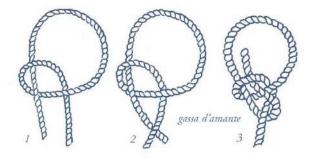


Nodi di arresto: si fanno ad una estremità del cavo per impedirne la corsa quando il cavo è al lavoro o per appesantimento nel lancio. Si usa anche nell'alpinismo, nel campeggio e nella pesca. Sono pure decorativi.

Nodi di avvolgimento: servono per ormeggiare, fissare, avvolgere. Vengono eseguiti direttamente sull'oggetto e ne seguono la forma.





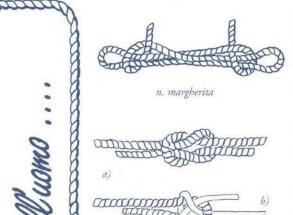


Nodi a occhio (gasse): vengono eseguiti, nelle mani, solitamente alle estremità del cavo e posti poi sull'oggetto. La gassa d'amante, il nodo per eccellenza, è impossibile non saper fare se si vuole navigare.

Nodi scorsoi (lacci o cappi): hanno la caratteristica di stringersi attorno agli oggetti sui quali sono eseguiti. Con essi si possono anche legare pacchi o costruire trappole.



n. scorsoio semplice



Nodi di accorciamento: riducono in base alle necessità del momento la lunghezza di un cavo che se tagliato perderebbe gran parte del suo valore.

Nodi di giunzione: uniscono le estremità di due cavi per formare un cavo più lungo.
a) nodo piano: per cavi dello stesso diametro.
b) nodo bandiera o di scotta: per cavi di diverso diametro.

da soli ma di essere sciolti con facilità

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# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

A mountain of sand Wednesday 14<sup>th</sup> September 9.30 AM



Work Package:	5. Pilots for endangered species restoration and Integrated coastal/marine management system
Activity	5.4 - Ocean literacy toolkit and events
Deliverable:	5.4.3 - Local events

Project Partner:	PP8 Delta2000		
Name of event:	A mountain of sand		
Date:	Wednesday 14 <sup>th</sup> September, 9.30 AM		
Event type:	Guided tour and laboratory		
Event venue:	Beach'dunes of Casalborsett, Ravennai		
Short description of the event:	Guided visit to the dunes of Casalborsetti to discover their biodiversity and ecological importance		
Speakers speeches, brief summary and conclusion:	The visit was conducted by an environmental guide who led the group of students of the Convitto Novara and their teachers in exploring the dune ecosystem. The students were divided in 10 groups and each group was equipped with didactical cards and a tablet on which there were applications for the recognition of plants from photos; moreover they had the possibility to learn how to approach a dichotomous key. The walk started from the pine forest and its history and then moved upon the walkways that allow to cross the dune and reach the beach. The walkways themeselves are a way to protect the fragile dune ecosystem, and their important function in avoiding trampling on the dune was the perfect starting point to discuss with the students the need to protect the integrity of the area. Using the teaching aids each group tryed to identify the vegetation, and the majority of them was surprised to discover the high biodiversity of the dune. The guide challenged the students not only to identify plants, but also to closely look at their morphological features in order to appreciate their evolutive adaptations to live under harsh conditions of wind stress, high salinity and temperatures. The second part of the guided walk envisaged a hunt on the beach: each group of students had to walk along the shoreline and find traces of marine life. Shells of mollusks such as clams and oysters were the main findings, but a group was lucky enough to find a fossil bivalve. Moreover they found some fishing nets, plastic packaging and cigarettes, allowing us to discuss on the impact of humans on the marine environment and the need of a more sustainable way of life. All the students were interested and actively involved in the guided tour, and the teachers expressed their will to bring other classes and students to discover the dune, since it is not so well known but rich in life and insights.		



Role of CASCADE partner in the event:	Delta 2000 coordinated the event, providing contents and local institutional contacts, acting through the external expertise provided by Atlantide Soc. Coop.
Type of audience/ target groups involved:	School - Convitto Novara

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	64	60 students of 13-15 years old and 4 teachers
Local, regional and national public authorities	0	
Associations	0	
NGOs	0	
Education and training organisations as well as universities and research institutes	0	

Photo

Participation list, working tools





### **DOVE LA TERRA INCONTRA IL MARE**

### **ESCURSIONE** TRA PINETA E DUNA

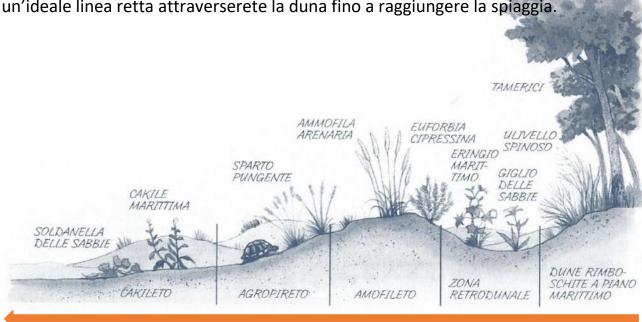
MEMBR	DELLA SQUADRA		
SCRIVETE QUI I VOSTRI NOMI			
LA NOSTRA SQUADRA SI CHIAMA:			
Data:	Ora:		
Nome del luogo in cui vi trovate			
Provincia	Regione		
Coordinate GPS (apri Google Maps dal tuo telefonino e seleziona il punto in cui ti trovi):			
Latitudine	_Longitudine		
Condizioni atmosferiche			
Vi trovate in ambiente 🔲 naturale	$\square$ antropizzato $\square$ misto		

Partendo dalla Pineta, proseguendo lungo la duna e arrivando fino alla spiaggia dovrete superare una serie di attività, domande e prove che serviranno per raccogliere dati e informazioni sull'ambiente del nostro litorale.

Come aiuto vi forniremo delle schede di riconoscimento delle principali specie vegetali e animali, che vi serviranno per completare le tappe lungo il percorso.



Cominciate il vostro percorso disponendovi, spalle al nostro punto di ritrovo, in prossimità delle prime piante che incontrerete andando verso la pineta, percorrendo un'ideale linea retta attraverserete la duna fino a raggiungere la spiaggia.



1.DESCRIVETE	BREVEMENTE	GLI ECOSI	TEMI CHE IN	CONTRATE	LUNGO IL
TRAGITTO: eler	menti fisici (sen	za la compo	nente biologica	) ed elemen	ti antropici,
condizioni gene	rali dell'ambien	te			
PINETA					
DUNA					
SPIAGGIA					
SIIAGGIA					



2 I CHONII E CHI ODODI DELLA DINIETA
2.I SUONI E GLI ODORI DELLA PINETA
Scrivete alcuni dei suoni e dei canti che avete ascoltato, ricordateli bene perché poi dovrete provare a imitarli davanti agli altri gruppi!
Esploriamo con il naso, cercate di qualche odore caratteristico e provate a descriverlo con le vostre parole
<b>3.CACCIA ALLA TRACCIA:</b> cercate le tracce lasciate dagli animali, disegnate almeno 1 PIANTA tipica della pineta, e raccogliete 1 rifiuto.
Nome della pianta



Qui rappresentala con un disegno

4.LE FASCE V	4.LE FASCE VEGETAZIONALI DELLA DUNA			
Collegate con una	a freccia a ciascuna fascia vegetazionale la descrizione corretta			
Tortuleto	Sono la fascia caratterizzata dalle specie pioniere, piante adattate a condizioni di vita estreme, sfuggo per un soffio dalla risacca del mare. Il mio nome deriva dalla <b>Ruchetta di mare</b> , dai fior dolcemente profumati e le foglie ricoperte di peli.			
Amofileto	Sono la parte della duna più "matura", qui le piante possono affondare le loro radici e consolidare meglio il terreno creando un'equilibrio tra i processi di accumulo ed erosione. La mia specie guida è lo <b>Sparto pungente</b> , caratterizzato da un lungo fusto e da spighe pallide, piumose e dense.			
Agropireto	Sono la zona più vicina agli arbusti di Olivello spinoso e Ginepro, il mio terreno è più stabile e la forza del vento meno violenta. La specie che mi caratterizza maggiormente è la <b>Tortula</b> , un muschio che con la sua presenza riduce l'evaporazione dell'acqua.			
Cakileto	Sono la zona ai confini della spiaggia dove il progredir del tuo passo sul mio suolo i tuoi piedi fa affondar. La <b>Gramigna delle spiagge</b> domina il mio paesaggio in tutte le stagioni con i suoi fusti flessibili al vento.			

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# Birdwatching

### Scheda di segnalazione e riconoscimento

Nome e cognome
Cittàprovprov.

Luogo osservazione..... Ora dell'osservazione..... Condizioni meteorologiche.....

### Le sagome



**Anatra** 

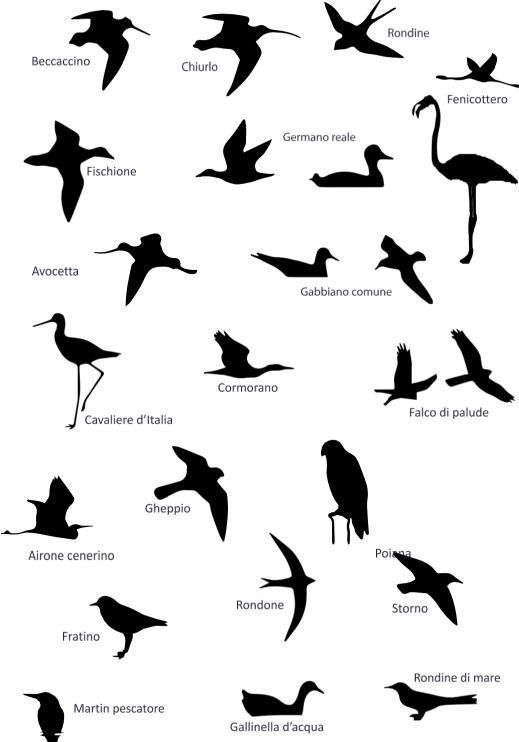


Gabbiano









nome comune italiano	
Svasso maggiore	Podiceps cristatus
Svasso piccolo	Podiceps nigricollis
Tuffetto	Tchybaptus ruficollis
Cormorano	Phalacrocorax carbo
Marangone minore	Phalacrocorax pygmaeus
Airone bianco maggiore	Ardea alba
Airone cenerino	Ardea cinerea
Airone guardabuoi	Bubulus ibis
Airone rosso	Ardea purpurea
Garzetta	Egretta garzetta
Nitticora	Nycticorax nycticorax
Sgarza ciuffetto	Ardeola ralloides
Tarabusino	Ixobrychus minutus
Tarabuso	Botaurus stellaris
Mignattaio	Plegadis falcinellus
Spatola	Platalea leucorodia
Fenicottero	Phoenicopterus roseus
Alzavola	Anas crecca
Canapiglia	Anas strepera
Cigno reale	Cygnus olor
Codone	Anas acuta
Germano reale	Anas platyrhynchos
Marzaiola	Anas querquedula
Mestolone	Anas clypeata
Moretta	Aythya fuligula
Moriglione	Aythya ferina
Volpoca	Tadorna tadorna
Albanella minore	Circus pygargus
Falco di palude	Circus aeruginosus
Gheppio	Falco tinnunculus
Martin pescatore	Alcedo atthis
Gruccione	Merops apiaster

	nome scientifico	numero
Folaga	Futica atra	
Gallinella d'acqua	Gallinula chloropus	
Porciglione	Rallus aquaticus	
Beccaccia di mare	Haematopus ostralegus	
Avocetta	Recurvirostra avosetta	
Cavaliere d'Italia	Himantopus himantopus	
Corriere piccolo	Charadrius dubius	
Fratino	Chardrius alexandrinus	
Pavoncella	Vanellus vanellus	
Albastrello	Tringa stagnatilis	
Beccaccino	Gallinago gallinago	
Combattente	Philomachus pugnax	
Pantana	Tringa nebularia	
Pettegola	Tringa totanus	
Piro piro boschereccio	Tringa glareola	
Piro piro piccolo	Actitis hypoleucos	
Pittima reale	Limosa limosa	
Totano moro	Tringa erythropus	
Gabbiano comune	Larus ridibundus	
Gabbiano corallino	Larus melanocephalus	
Gabbiano reale	Larus michahellis	
Gabbiano roseo	Larus genei	
Beccapesci	Sterna sandvicensis	
Fraticello	Sterna albifrons	
Sterna comune	Sterna hirundo	
Sterna di Rüppell	Sterna bengalensis	
Sterna zampenere	Sterna nilotica	



# CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt CASCADE

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

## Where the land meets the sea

Wednesday 14th September 9.30 AM



Work Package:	5. Pilots for endangered species restoration and Integrated coastal/marine management system
Activity	5.4 - Ocean literacy toolkit and events
Deliverable:	5.4.3 - Local events

Project Partner:	PP8 Delta2000
Name of event:	Where the land meets the sea
Date:	Wednesday 14 <sup>th</sup> September, 9.30 AM
Event type:	Guided tour and laboratory
<b>Event venue:</b>	Pineta Ramazzotti, Lido di Dante (RA)
Short description of the event:	Guided visit to the pine forest of Ravenna, with recognition of plants and animals to appreciate the biodiversity and ecological importance of the area
Speakers speeches, brief summary and conclusion:	Following the indications of the enviromental guide the group of partecipants explored the Pine forest of Punte Alberete, looking for plants and animals and learning about the history and this unique environment which is an important biotope in the system of protected areas of the Emilia-Romagna region. The forest is the ideal place for birdwatching and natural observation, with a lot of spots and didactic panels dedicated to the explanation of the biodiversity of the area. The students challenged themeselves in trying to detect birds and insects hiding into the vegetation, and with the help of the guide they managed to understand how to recognize some of the species commonly found there. All the students showed interest in exploring this peculiar ecosystem, and also the teachers were pleased to discover many hidden aspects and curiosities about an environment very different from that of the mountains typical of the areas of origin of the group from Convitto Novara and also expressed interest in replaying the experience in the future.
Role of CASCADE partner in the event:	Delta 2000 coordinated the event, providing contents and local institutional contacts, acting through the external expertise provided by Atlantide Soc. Coop.
Type of audience/ target groups involved:	School - Convitto Novara



Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	64	60 students of 13-15 years old and 4 teachers
Local, regional and national public authorities	0	
Associations	0	
NGOs	0	
Education and training organisations as well as universities and research institutes	0	

Photo

Participation list, working tools



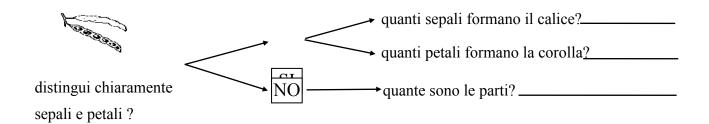


## Osservo una pianta

Nome dell'osservatore		
Data	Località	
Osservo una pianta di:		
FORMA FORMA arbusto	albero	
PORTAMENTO DEL FU	STO prostrato	
volubile	ascendente	
ALTEZZA APPROSSIMATIVA c	em SO	CHIZZO DELLA PIANTA
CONDIZIONI ATTUA	LI	
ci sono foglie	☐ ci sono gemme	☐ ci sono spine
ci sono fiori	ci sono frutti	ci sono s
DESCRIVI LA FOGLIA	<u>nervatur</u> picciol	
	□semplice	e ≥ composta
	forma	
	margine	
	colore	
	odore nervatur	re

☐ fiore singolo	☐ infiorescenza	stigma stigma petali
colore——gra	ndezza ————	petan
odorefor	rma ————	
ci sono stami?	— quanti?———	sepali
c'è l'ovario?		

### ovario



### **DESCRIVI IL FRUTTO E IL SEME**

colore odore
forma grandezza
consistenza
disposizione sulla pianta-
modalità di dispersione
contiene semi ?——— n° ————



# Birdwatching

### Scheda di segnalazione e riconoscimento

Nome e cognome
Cittàprov

Data.....

Luogo osservazione.....

Ora dell'osservazione.....

Condizioni meteorologiche.....

### Le sagome



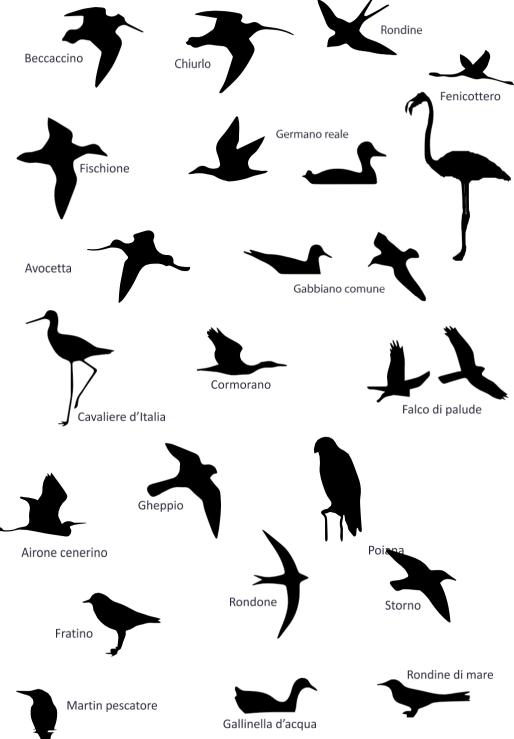
**Anatra** 



Gabbiano







nome comune italiano	
Svasso maggiore	Podiceps cristatus
Svasso piccolo	Podiceps nigricollis
Tuffetto	Tchybaptus ruficollis
Cormorano	Phalacrocorax carbo
Marangone minore	Phalacrocorax pygmaeus
Airone bianco maggiore	Ardea alba
Airone cenerino	Ardea cinerea
Airone guardabuoi	Bubulus ibis
Airone rosso	Ardea purpurea
Garzetta	Egretta garzetta
Nitticora	Nycticorax nycticorax
Sgarza ciuffetto	Ardeola ralloides
Tarabusino	Ixobrychus minutus
Tarabuso	Botaurus stellaris
Mignattaio	Plegadis falcinellus
Spatola	Platalea leucorodia
Fenicottero	Phoenicopterus roseus
Alzavola	Anas crecca
Canapiglia	Anas strepera
Cigno reale	Cygnus olor
Codone	Anas acuta
Germano reale	Anas platyrhynchos
Marzaiola	Anas querquedula
Mestolone	Anas clypeata
Moretta	Aythya fuligula
Moriglione	Aythya ferina
Volpoca	Tadorna tadorna
Albanella minore	Circus pygargus
Falco di palude	Circus aeruginosus
Gheppio	Falco tinnunculus
Martin pescatore	Alcedo atthis
Gruccione	Merops apiaster

nome comune italiano	nome scientifico	numero
Folaga	Futica atra	
Gallinella d'acqua	Gallinula chloropus	
Porciglione	Rallus aquaticus	
Beccaccia di mare	Haematopus ostralegus	
Avocetta	Recurvirostra avosetta	
Cavaliere d'Italia	Himantopus himantopus	
Corriere piccolo	Charadrius dubius	
Fratino	Chardrius alexandrinus	
Pavoncella	Vanellus vanellus	
Albastrello	Tringa stagnatilis	
Beccaccino	Gallinago gallinago	
Combattente	Philomachus pugnax	
Pantana	Tringa nebularia	
Pettegola	Tringa totanus	
Piro piro boschereccio	Tringa glareola	
Piro piro piccolo	Actitis hypoleucos	
Pittima reale	Limosa limosa	
Totano moro	Tringa erythropus	
Gabbiano comune	Larus ridibundus	
Gabbiano corallino	Larus melanocephalus	
Gabbiano reale	Larus michahellis	
Gabbiano roseo	Larus genei	
Beccapesci	Sterna sandvicensis	
Fraticello	Sterna albifrons	
Sterna comune	Sterna hirundo	
Sterna di Rüppell	Sterna bengalensis	
Sterna zampenere	Sterna nilotica	
	<u> </u>	