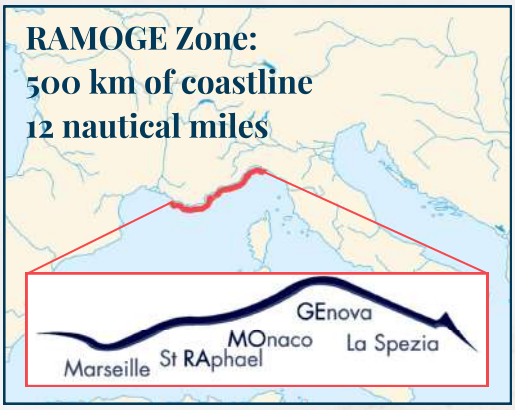
Your observations matter !

Have you spotted a heritage species ?

The RAMOGE Agreement

Established in 1976, the RAMOGE Agreement is an intergovernmental cooperation agreement between France, Monaco, and Italy for the protection of the marine environment. Its actions aim to preserve ecosystems and biodiversity, raise awareness among marine stakeholders and the general public, and enhance efforts to combat pollution.



In partnership with scientific institutions, RAMOGE conducts **awareness campaigns** focused on Mediterranean **heritage species**. These species are considered indicators of a healthy ecosystem and are often under threat.

The Mediterranean :

- **represents 1% of the world's ocean surface**
- **hosts 10% of known marine species**
- **Between 25 and 30% of its species are endemic**
- **Around 15% of its species are threatened**

Main causes :
Human activities, sometimes illegal despite protective measures ; Pollution ; Climate change

To support the preservation of these species, we need to expand our knowledge of their distribution. **Heritage species records** collected through **citizen science** provide valuable data for the scientific community. Your observations will be compiled and forwarded to the relevant experts.

How to share your observations with us :

Take **photos** or **videos** of the species

Record details about the **observation site** : date, location, depth, habitat type, signs of pollution

Gather as much information as possible:
Abundance
Size (small, medium, large — relative to the species' maximum size)
For some species: **adult or juvenile**?
Behavior (shy, curious, passive)
Distinctive features or markings

Report your observations at
ramoge.org or **cromis.ffessm.fr**

FFESSM CROMIS

Your observations matter !

Have you spotted a heritage species ?

Species Factsheet

Brown meagre
Sciaena umbra

Characteristics

Size : Up to 70 cm in length.
Description : High-bodied with an arched back and flat belly ; pelvic and anal fins are edged in white at the front ; two large yellow dorsal fins ; yellow caudal fin with a black outline.
Diet : Carnivorous (feeds on crustaceans, polychaetes, and fish).
Did you know? Like all Sciaenidae, the brown meagre can produce sounds to communicate by vibrating its swim bladder.

Living environment

Distribution area : Mediterranean Sea, Black Sea, Western Atlantic.
Habitat : Groups of dozens of individuals ; Sedentary ; Sandy bottoms, rocky substrates, and seagrass beds.
Depth range : 1 to 200 meters.

Adult vs. juvenile distinction

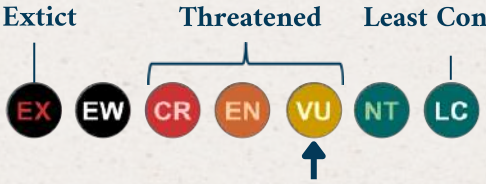
Juveniles are brown-orange with numerous dark spots. In their post-larval stage and up to 4 cm in length, their caudal and pelvic fins appear oversized in proportion to the body.

At around 10 cm, they display adult coloration, though their fins remain slightly disproportionate.

They are most commonly seen in July.

Threats and Regulations

IUCN Red List of Threatened Species : **Vulnerable** – Species threatened by illegal fishing.



Fishing prohibited

Minimum catch size : 20 cm

Fishing prohibited

Census form :

- Observation site
- Abundance
- Size (small, medium, large)
- Adult or Juvenile
- Behavior
- Distinctive features or markings

And take photos if possible !

We value your observations !
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FFESSM CROMIS

Your observations matter !

Have you spotted a hetirage species ?

Species Factsheet

Dusky Grouper
Epinephelus marginatus

Characteristics

Size : Up to 1.40 m in length.

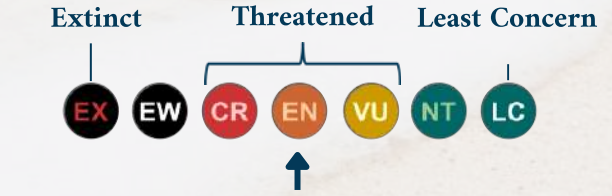
Description : Oval-shaped, thick, and robust body ; large head with prominent eyes ; brownish coloring with pale spots ; a single dorsal fin ; rounded tail with a white edge ; rear parts of dorsal and anal fins are dark.

Diet : Apex predator (feeds on cephalopods, crustaceans, and fish).

Did you know ? Groupers change sex during their lifetime. They are female until around 10–15 years of age, then become male for the rest of their lives. They can live up to 50 years.

Threats and Regulations

IUCN Red List of Threatened Species :
Endangered — species threatened by illegal fishing.



Fishing prohibited

Minimum catch size : 45cm

Fishing prohibited

Living environment

Distribution area : Mediterranean Sea, Atlantic Ocean, Indian Ocean.

Habitat : Solitary and territorial ; rocky bottoms with cavities ; sandy bottoms with Posidonia seagrass.

Depth : From 5 to over 100 meters. Juveniles stay shallower, up to 15 meters deep.

Adult vs. juvenile distinction

From 2 days to 2 months : juveniles are light-colored with vertical brown bands ; translucent caudal fin.
After 2 months : juveniles (around 3.5 cm) already display adult morphological features.
Most commonly observed from July to September.

Census form :

- Observation site
- Abundance
- Size (small, medium, large)
- Adult or Juvenile
- Behavior
- Distinctive features or markings

And take photos if possible !

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Your observations matter !

Have you spotted a haeritage species ?

Species factsheet : other Groupers

Groupers in the Mediterranean belong to the Serranidae (*Epinephelus* sp. and *Mycteroperca* sp.) or the Polyprionidae families.

Common characteristics

Lower jaw always protrudes beyond the upper jaw ; robust, large-bodied fish. The first part of the dorsal fin is smaller and spiny, the second part is larger, more uniform, and softer.

Solitary, bottom-dwelling apex predators

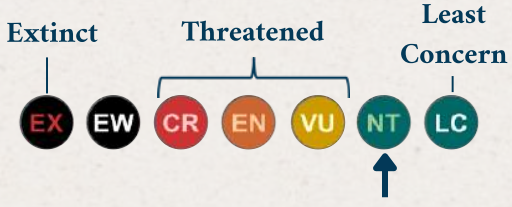
Regulations

Fishing is prohibited (except for wreckfish, for which only spearfishing is banned)

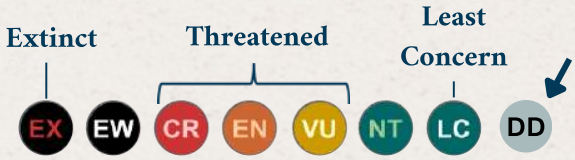
Minimum catch size: 45 cm (except for the mottled grouper)

Minimum catch size: 45 cm (except for the mottled grouper)

Maximum size : 1,20 m
Distribution area : Southern Mediterranean (northern limit: Corsica), Eastern tropical Atlantic (African coasts).
Habitat : Rocky or muddy bottoms ; depths from 20 to 200 m.
Biology : Females until age 10-13, males for the rest of life (up to 30 years).
Juveniles' distinction : Brown with white stripes or white with brown stripes.
IUCN status : **Near threatened.**



Maximum size : 1,60 m
Distribution area : Mediterranean, Northeastern tropical Atlantic.
Habitat : Rocky bottoms ; depths from 30 to 400m.
Biology : Females until age 10-14, males for the rest of life (uo to 55 years).
Juveniles' distinction : Grey with brown stripes.
IUCN status : **Data deficient.**



We value your observations ! Share them at **ramoge.org** or **cromis.ffessm.fr**

Your observations matter !

Have you spotted a heritage species ?

Species factsheet : other Groupers

Groupers in the Mediterranean belong to the Serranidae (Epinephelus sp. and Mycteroperca sp.) or Polyprionidae families.

Maximum size : 1,40 m

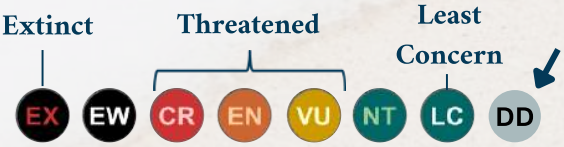
Distribution area : Mediterranean, Eastern Atlantic.

Habitat : Rocky or sandy bottoms ; depths from 10 to 300 m.

Biology: Females until age 9-14, males for the rest of life(up to 50 years). *NB* : males have a golden spot behind the head.

Juveniles' distinction : 2 dark lines on the operculum, horizontal brown stripes.

IUCN status : Data deficient.



Maximum size : 1,40 m

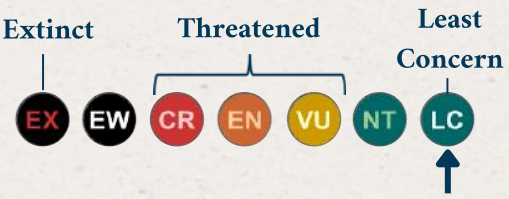
Distribution area : Mediterranean, Eastern Atlantic

Habitat : Rocky, sandy bottoms, seagrass meadows ; depths from 15 to 20 0m.

Biology : Females until age 9-13, males for the rest of life.

Juveniles' distinction : 3-4 dark lines on the operculum, black spot before the caudal fin.

IUCN status : Least concern.



Maximum size : 1,80 m

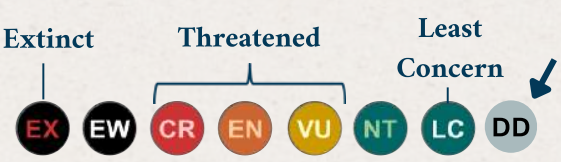
Distribution area : Non-tropical Atlantic, Mediterranean, Southern Indian Ocean, Southwestern Pacific.

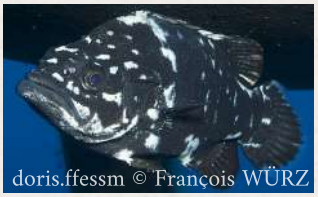
Habitat : Rocky or sandy bottoms ; depths from 40 to 400 m. Juveniles are gregarious and swim in open water, often under floating objects.

Biology : Gonochoric (separated sexes) ; can live up to 80 years.

Juveniles' distinction : White spots on the body.

IUCN status : **Data deficient.**





Census form :

- Observation site
- Abundance
- Size (small, medium, large)
- Adult or Juvenile
- Behavior
- Distinctive features or markings

And take photos if possible !

Your observations matter !

Have you spotted a heritage species ?

Species Factsheet

Noble pen shell
Pinna nobilis


doris.ffessm © Stephane JAMME

Characteristics

Size : Up to 1 m tall.

Description : A large bivalve ; triangular ; a brown shell ; the tapered anterior end is buried ; the posterior end is rounded ; gutter-like folds along the shell edge (which disappear in older individuals) ; often covered with attached organisms ; smooth, pearly interior.

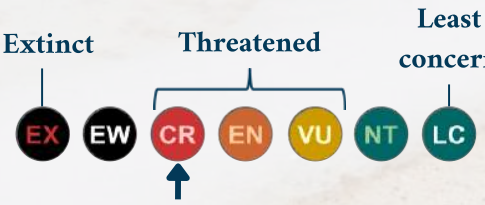
Diet : Filter-feeding mollusk (organic matter and plankton).

Did you know ? 90% of the noble pen shell population in the Mediterranean has been decimated by a protozoan parasite, originating from the Atlantic (*Haplosporidium pinnae*) and affecting digestive glands. It spreads more rapidly as waters warm. *NB* : the parasite struggles to survive in lagoons with variable salinity, where *Pinna nobilis* can still thrive. These areas may allow for repopulation.

Threats and regulations

IUCN Red List : Critically Endangered.

Previously threatened by illegal fishing, habitat loss, and boat anchoring. Now severely endangered due to *Haplosporidium pinnae*.



Collection strictly prohibited

Collection strictly prohibited

Collection strictly prohibited

It is also prohibited to collect the shells of dead individuals.

Living environment

Distribution area : Endemic to the Mediterranean.

Habitat : Muddy-sandy seabeds, seagrass beds of posidonia or common eelgrass.

Depth : 5 to 40 m.

Juvenile vs. Adult Distinction

Juveniles grow rapidly ; their shells are smoother, thinner, and sometimes transparent. The groovy folds are more pronounced than in adults. Juveniles may be notably found in lagoons, estuaries, or river mouths.


© Kersting *et al.* 2020, Frontiers in Marine Science

Census form :

- Observation site
- Abundance
- Size (small, medium, large)
- Adult or Juvenile
- Distinctive features or markings
- Dead or alive (dead indivuals' shells are open)

And take photos if possible !

We value your observations !
Share them at :
ramoge.org or **cromis.ffessm.fr**

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Your observations matter !

Have you spotted a heritage species ?

Species Factsheet

Rough pen shell
Pinna rudis

Characteristics

Size : Up to 50 cm tall.

Description : Large bivalve ; triangular ; a reddish-brown, orange-tinted shell ; buried tapered anterior end ; a rounded posterior end ; the shell has ridges and tile-like protrusions ; shell often covered with attached organisms.

Diet : Filter-feeding mollusk (organic matter and plankton).

Did you know ? The *Haplosporidium pinnae* appears uncapable to affect *Pinna rudis*. Moreoever, hybrids between the two *Pinna* species may exist and seem to be resistant to the parasite. This information is yet to be confirmed.

Threats and regulations

IUCN Red List : Not Evaluated.
Previously threatened due to its ressemblance with the noble pen shell.

Collection prohibited

No specific regulations apply

Collection prohibited

Living environment

Distribution area : Red Sea, Eastern and Western Atlantic, rare in the Mediterranean.
Habitat : Rocky seadebs, crevices and dark areas.
Depth : From the surface down to around 60 m.

Juvenile vs. Adult distinction

Juveniles grow quickly; their shells are smoother, thinner, sometimes transparent, and less colorful. Protrusions on the shell are less developed.

Census form :

- Observation site
- Abundance
- Size (small, medium, large)
- Adult or Juvenile
- Distinctive features or markings
- Dead or alive (dead indivuals' shells are open)

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Have you spotted a heritage species ?

Species factsheet

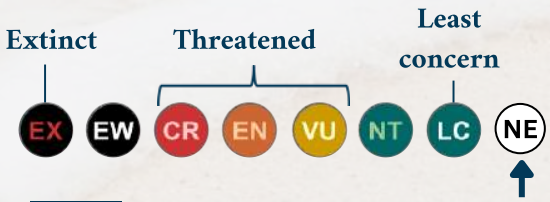
Large brown algae marine forests (*Cystoseira s.l.*)

Cystoseira s.l. (*sensu lato*) are brown algae belonging to the Sargassaceae family and classified into 3 genera: *Ericaria*, *Cystoseira*, and *Gongolaria*. They have the remarkable ability to form true marine forests, sometimes emerging above the water, and serve as habitats for a rich biodiversity. These algae thrive in rocky environments at varying depths. However, data on deep-water species remains particularly scarce.

Threats and Regulations

IUCN Red List of Threatened Species: Not evaluated.

Historically, these algae have been very rare throughout the Mediterranean, and in some cases, they have even gone locally extinct. Surface-dwelling species are particularly sensitive to pollution, making them excellent environmental indicators. Deep-water species also face threats from fishing equipment.



Collection prohibited

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Cystoseira sp. and *Gongolaria* sp.

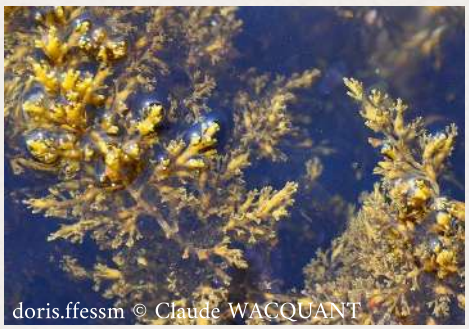
Characteristics

These brown-yellow algae attach to their substrates using a basal disk, from which upright axes (cylindrical or flattend) emerge. The buoyancy of *C. compressa* and *G. barbata* is facilitated by aerocysts (floating structures) located along their stipes (or "stems"). However, these structures are absent in *G. mantagnei*.

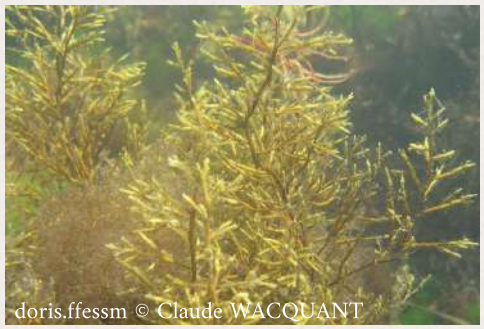
Distribution area

Mediterranean, Black Sea, Northeastern Atlantic.

Cystoseira compressa 0-2 m



Gongolaria barbata 0-10 m



Gongolaria montagnei 0-35 m

We value your observations ! Share them at **ramoge.org** or **cromis.ffessm.fr**

Your observations matter !

Have you spotted a heritage species ?

Species factsheet | Large brown algae marine forests (*Cystoseira s.l.*)

Ericaria sp.

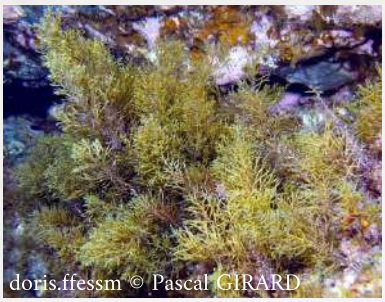
Characteristics

Algae of the *Ericaria* genus typically have brown-colored primary stipes that emerge from an extended encrusting base.
They do not possess aerocysts (floating structures).
Their stipes feature numerous branches, with short secondary ramifications arranged irregularly along the main axis.

Distribution area

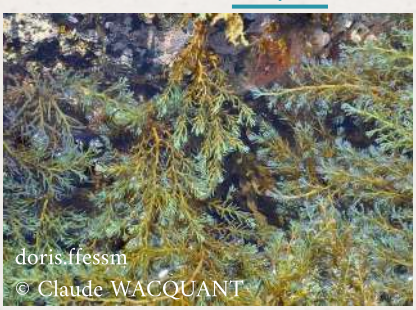
Most *Ericaria* species are endemic to the Mediterranean. Only *Ericaria selaginoides* is also found in the Northeast Atlantic.

Ericaria balearica 0-30 m

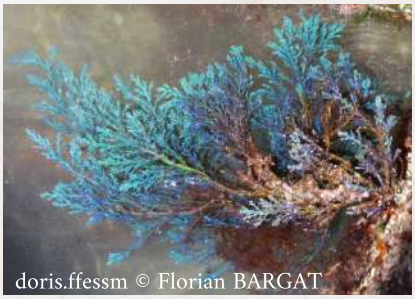


Ericaria crinita 0-3 m

Ericaria amentacea 0-30 cm



Ericaria selaginoides 0-3 m



Ericaria zosteroides 30 - 100 m

Taking photos is highly recommended for species identification

Census form :

- Observation site
- Abundance
- Distinctive features or markings

Assess the abundance on a radius of 10 m

Your observations matter !

Have you spotted a heritage species ?

Species factsheet

Ferreous limpet
Patella ferruginea


doris.ffessm © Cecil LAURENS

Living environment

Distribution area : Endemic to the Mediterranean. Found in Corsica, Liguria, Sardinia, Sicily, and a few isolated areas in North Africa. Possible observations around Monaco, Cannes and the islands off Hyères.

Habitat : Turbulent intertidal zones, between 0 and 1 m above sea level.

Characteristics

Size : Up to 11 cm of diameter.

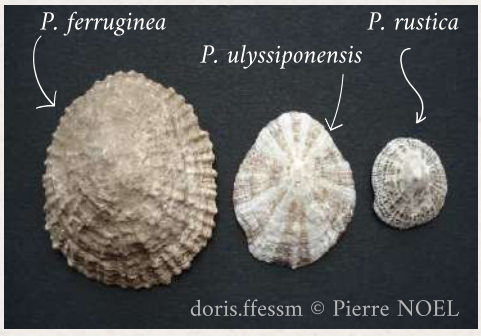
Description : Gastropod mollusk ; flattened, oval-shaped shell ; 30 to 50 pronounced and wide radial ribs forming a crenulated edge ; highly marked growth striations ; yellowish outer shell with a rusty appearance ; inner shell white-blue with a brown border.

Diet : A sedentary mollusk that feeds on algae (herbivore), scraping them from rocky surfaces as it moves.

Did you know ? The ferreous limpet is a protandrous hermaphrodite, meaning it first develops as a male before transitioning into a female. Male sexual maturity is reached when the shell measures 2 to 3 cm, and the animal becomes female when the shell reaches 6 cm.

How to differenciate the species from other limpets ?

Larger in size ; more deeply serrated edge with more pronounced striations, darker patterns ; thicker shell ; iridescent inner surface.

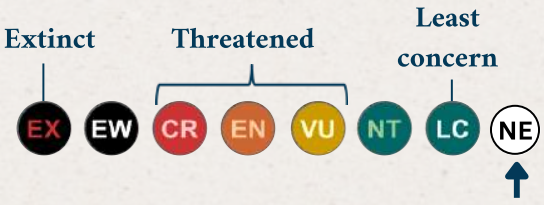


doris.ffessm © Pierre NOEL

Threats and regulations

IUCN Red List of Threatened Species: Not evaluated.

Considered the most endangered marine invertebrate, primarily due to harvesting — both for its culinary value and as bait by fishermen.



Collection prohibited

Collection prohibited

Collection prohibited

Census form :

- Observation site
- Abundance
- Size (small, medium, large)
- Distinctive features or markings

And take photos if possible !

We value your observations !
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Your observations matter !

Have you spotted a heritage species ?

Species Factsheet

Lithophyllum rims
Lithophyllum byssoides


doris.ffessm © Frédéric ANDRE


© GIS Posidonie


doris.ffessm © Sylvain LE BRIS

Description

Lithophyllum rims, found along rocky shores in the wave impact zone, are structures built by the alga *Lithophyllum byssoides*. Ranging in color from white to deep pink, this alga forms calcareous thalli that, by accumulating over time, create formations as solid as rocks.

These rims are characterized by their surface, which is covered in upright lamellae approximately 1 cm high. The cavities within these formations provide shelter for numerous marine organisms, fostering rich biodiversity.

Requiring several centuries—or even a millennium—of stable sea levels to develop, these formations are vital for coastal protection and play a crucial role in marine ecosystems.

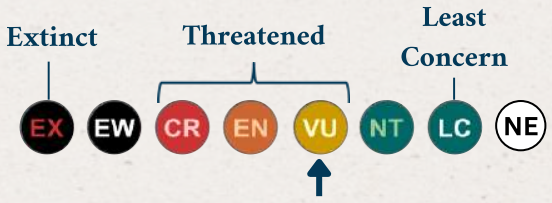
Distribution area

Mediterranean and adjacent Eastern Atlantic

Threats and Regulations

European Red List of Marine Habitats: Vulnerable.

This habitat is threatened by climate change, trampling, pollution, and coastal development.



Collection strictly prohibited

Collection strictly prohobited

Collection strictly prohibited

Taking photos is highly recommended

Census form :

- Observation Site (Specify the habitat type: cove, sun-exposed site, shaded area, etc.)
- Abundance (Continuity of the Lithophyllum rim, estimation of its length and thickness)
- Distinctive features or markings (Specify if associated life—such as fish, crabs, etc.—is abundant)

We value your observations !
Share them at
ramoge.org or **cromis.ffessm.fr**

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