

CAPTAIN ' GAME

Orienteering course on the port of Fontvieille



Distance about
2,5 km



Duration about
2h



Level
Beginner

The National Strategy for Biodiversity is the Principality of Monaco's contribution to achieving the objectives of the Convention on Biological Diversity and reflects its commitment to preserving, restoring and enhancing biodiversity.

To find out more, visit www.gouv.mc

Fifty years ago, Fontvieille was just a narrow strip of sand where the Rocher was falling steeply into the sea. The birth of this new district is directly linked to the economic development of the Principality.

Located at the foot of the Rocher of Monaco in its eastern part, the port of Fontvieille is certainly one of the most sheltered in the region. Indeed, it is protected from the east winds by the Rocher and from the south and west swell by the large breakwater that protects the entire Fontvieille district.

Concerned about preserving the quality of water and restoring the marine environment, the Princely Government and the SEPM of Monaco make their users, boaters and visitors aware of the protection of the environment, the management of water and energy resources as well as good waste management.

Would you like to know more about the environment of the port of Fontvieille and its biodiversity? Follow this discovery trail and answer these 10 questions. Then simply punch the document to find out the right answers.



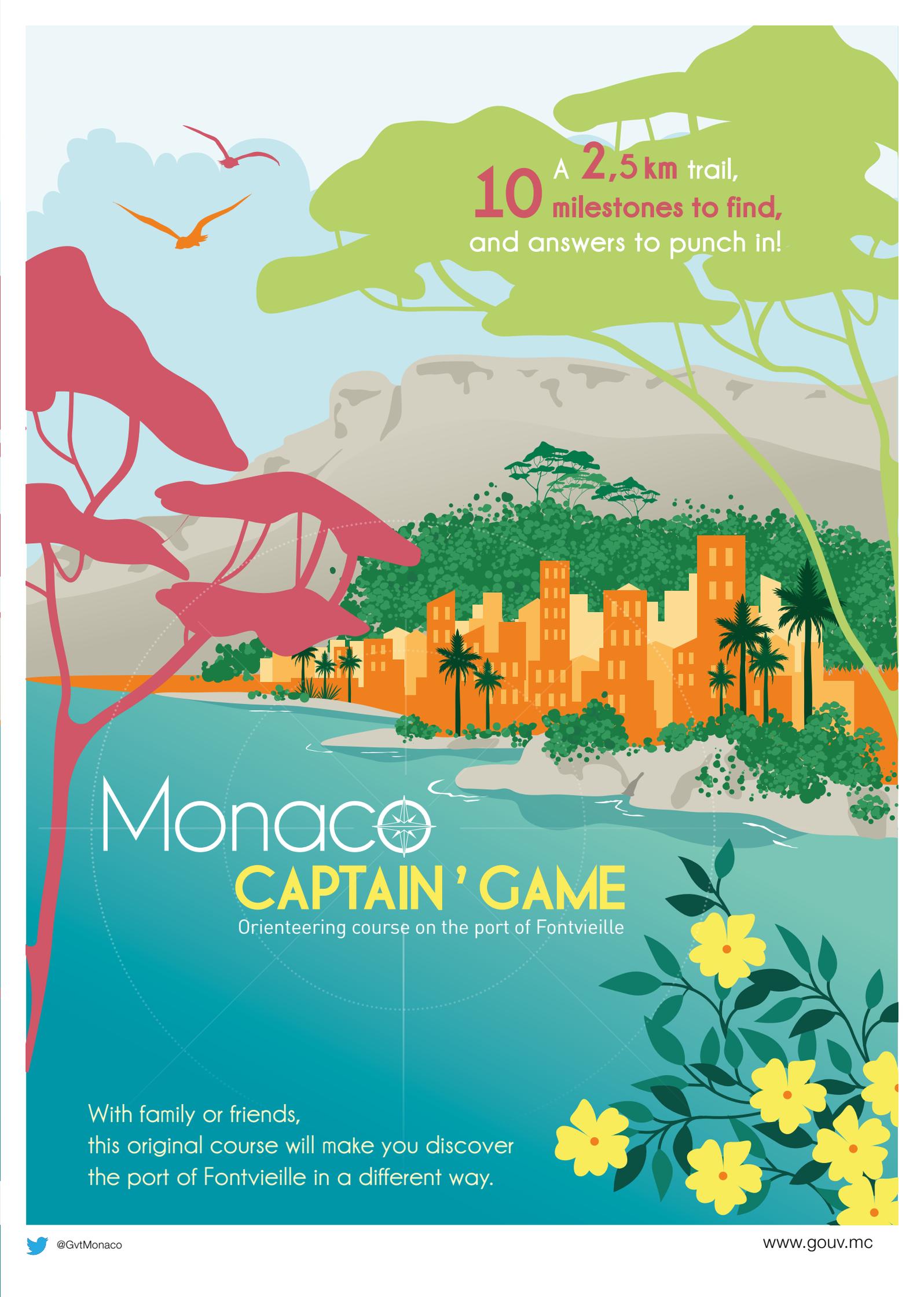
Don't hesitate to share your experience on social networks and use the hashtag **#captaingame** to allow others to discover it!
To go further, find our sources by flashing this code.

This document is distributed at the Tourist Office's reception points, at the Oceanographic Museum and at the harbour masters' offices in Monaco.

Information on www.ports-monaco.com
Harbour master's office number **+377 97 77 30 15**

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10 A **2,5 km** trail,
milestones to find,
and answers to punch in!

Monaco



CAPTAIN' GAME

Orienteering course on the port of Fontvieille

With family or friends,
this original course will make you discover
the port of Fontvieille in a different way.

The BIOHUT® installed in the ports of Monaco since 2014 are made of steel and oyster shells. **But what exactly are they used for?**



-  **The ports can be loaded with pollution of all kinds. They allow to clean the water thanks to the presence of the natural shell substrate.**
-  **In search of a refuge and food, the juvenile animals find themselves in an environment where natural habitats are lacking. They therefore naturally move towards these artificial nurseries.**
-  **They allow the breeding of Mediterranean shellfish in the ports of Monaco whose harvest is carried out each autumn.**

Monaco has two Marine Protected Areas : the Larvotto (1976) and the slope of the Spélugues (1986) *managed by the Monaco association for the protection of nature.* Their implantation in a strongly urbanized environment represents a major challenge for their preservation.



- How are they protected?**
-  **It is a zone at sea delimited by information panels to raise public awareness. Anchors are installed so that fishing boats can fish there without damaging the seabed.**
 -  **An environmental experiment has been in place since 2016 to install fishing nets all around these areas as protective bell.**
 -  **Recreational fishing and anchoring are strictly forbidden. Their protection is ensured by the maritime police and the maritime affairs.**

Monaco's green spaces are managed in an eco-responsible way by taking care to preserve water resources and to limit chemical treatments. This is why for this reason, 6 green spaces have been labelled EVE (Ecological Green Space). **But how much of its territory does Monaco devote to green spaces?**



-  **Approximately 7% of its territory**
-  **Approximately 15% of its territory**
-  **Approximately 20% of its territory**



The Principality of Monaco has always looked for additional building space for its development. This is

why in 1965, on the initiative of Prince Rainier III, the extension of Fontvieille where you are now. **But how many hectares has Monaco gained on the sea with this extension?**

-  **5 hectares or about 7 soccer fields**
-  **21 hectares or about 30 soccer fields**
-  **34 hectares or about 48 soccer fields**

GAME RULES

10 locations are identified and numbered on the map.

You will find a **recycled plastic landmark with a button to punch your document** in the box reserved for the subject.

Compare your answer to the solution that the puncher will reveal to you...

Go at your own pace, in the order that suits you and in respect of the environment.

The Tide-pools reefs under your eyes are small pools where sea water stagnates. They imitate the natural rock pools typical of the rocky coasts. **What are they for?**

-  **They increase the ecological value of the coastal infrastructure and contribute to the structural performance of structures.**
-  **They contribute to the creation of basins dedicated to seabirds, which come to live there in winter because the waters are warmer.**
-  **Numerous species such as seabass or sea bream find refuge there and reproduce in these ponds.**



Monaco is home to many species of birds, such as the crested cormorant which is recognizable by its blackish feathers with bottle green reflections and its long neck. It is an outstanding swimmer who feeds on fish that it hunts under water.

To what depth can the crested cormorant dive?

-  **3 meters**
-  **10 meters**
-  **30 meters**

For more information on the the fauna and flora of the Principality, go to the "biodiversity trail" located in the Jardins St Martin.



The Saint-Nicolas rocks are coralligenous rocks located at the exit of the port of Fontvieille. Their growth is very slow, from 1 to 4 mm/year.

But what is the coralligenous?

-  **It is an accumulation of shell sand forming a calcareous rock serving as nursery.**
-  **It is an accumulation of Aquatic flower plants living underwater and fixed on the rocks.**
-  **It is an underwater ecosystem characterized by the abundance of calcareous algae serving as support and habitat for many marine organisms.**



As early as 1993, protection measures of the dusky grouper have allowed a strong progression of its population in the Monaco waters.

But what is the particularity of the grouper ?



-  It increases the temperature of its body to help hunting its preys in cold water.
-  It has four eyes and can see above and under water at the same time.
-  It changes sex during its life, it is at first female then becomes male at the age of 10 to 14 years.

Global warming and the loss of biodiversity that we are currently experiencing may cause the disappearance of corals. This is why the Scientific Center of Monaco and the Oceanographic Museum have created a world coral conservatory in order to study them and potentially re-implant them.

But what is coral?



-  Corals are in fact small animals making a common skeleton which, for certain species, become founding bases of a coral reef.
-  An alga that creates a calcareous skeleton forming small natural trees.
-  A sedimentary calcareous rock bioconstructed from oceanic origin.



In Monaco, seawater is pumped between -40 and -110 meters, at which depth temperature is constant (13° and 14°). This water is brought up to a device which cools the water circuit in summer and in the winter: this is what is called a "heat pump".

What is the name of this renewable energy that can heat or cool buildings?

-  Thalassothermal energy
-  Thermodynamics
-  Hydroponics



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