(A) TORBIERA (ALKALINE FENS)

The "RISORGIVE" BIOTOPE is an environment typical of Veneto and South Friuli, characterized by outcropping water and marshes. It is very wet but sunny, without trees. For the variety of habitats in such a limited area, the flora of this SIC (Site of Community Importance) is extremely different and interesting, especially taking into consideration the great anthropization of the plains in the north of Italy.

FLORA OF THE "TORBIERA" BIOTOPE

For the geographical position of the sites, their geological history, the pedological peculiarities and the climatic characters of the habitats, such floristic richness can not be found in any other similar wet area. One of the most interesting features of this flora is the presence of numerous species which are typical of the mountainous areas. They appeared in the lowlands during glaciations and they still survive there thanks to the cool climate, which is due to the presence of spring water at an even temperature. There are 20 species included in the Red Data Book of Plants in Italy.

Can you see any of these species? Let's find them!!

1) Typha Latifoglia: Typha latifolia has been a part of many native North American cultures, as a source of food, medicine, and for other uses. The rhizomes are edible after cooking and removing the skin, while peeled stems and leaf bases can be eaten raw, or cooked.

2) Mentha acquatica: As the name suggests, water mint occurs in the shallow margins and channels of streams, rivers, pools, dikes, ditches, canals, wet meadows, marshes and fens. If the plant grows in the water, it rises above the surface of the water. It can be used to make herbal tea.

3) Pinguicola alpina: This is a small carnivorous plant widely present in the European mountains and in the northern part of this continent and of Asia. It is characterized by succulent involute sticky leaves with tiny glands whose aim is to attract and capture insects which are digested by enzymes so as to provide mineral nutritive substances. The presence of the Pinguilcola alpina in the Resurgence fens is of great importance from the naturalistic point of view: it is a relict of the alpine plants spread in the lowlands in the ice age and it is the one which best tolerate climatic changes.

1)

2)

3)

FAUNA OF THE "TORBIERA" BIOTOPE

The diversity of resurgence environments and their natural preservation favours many species of aquatic, terrestrial and amphibians animals. In a given area, the number of species largely depends on environmental quality, diversity and conservation, on the presence of specific vegetation and on the good chances the environment offers animals to find shelter, food and sites suitable for their breeding during winter.

(B) MAGREDI (DRY GRASSLAND)

The Dry Grassland is defined as a Site of Community Importance (SIC). It is an environment similar to the "steppe" of Northern Europe, marked by a very dry and gravelly topsoil, with fast drenage of the rain water and characterized by a rich biodiversity: up to 70 different species in 100 mq of field.

In Friuli there are 4 SIC : "Magredi del Cellina" , "Greto Tagliamento" (Tagliamento riverbed), "Medio Tagliamento" (middle Tagliamento) and "Confluenza Torre Natisone" (Torre and Natisone confluence of rivers).

The Tagliamento bed is significant for its **breadth and integrity**. It is a thick mattress of coarse alluvial calcareous-dolomitic sediments manily represented by pebbles, gravels and to a lesser extent sands, of fluvio-glacial origin. The most recent postwürmian floods have partly contributed to its formation. The main thrust erosion and subsequent deposition of these alluvial materials were caused by the glaciofluvial waters of the river Tagliamento, powered by the impressive melting ice from the end of the last glacial period.

FLORA OF THE "MAGREDI" BIOTOPE

The magredi (dry grassland) biotope is a typical dry meadow along the Friuli rivers.

The riverbed is the poorest and most primitive condition of the soil, which grows richer when it reaches the most peripheral fluvial terraces and alluvial plains (the most distant from the river). The glacial deposits have created a series of levels (river terraces) where soil and vegetation look more mature and developed: this is common in the areas far off/peripheral from the river. For this reason on the riverbed there are pioneer species, while far from the river the grassland becomes more complex and richer in biodiversity of species.

Can you see any of these species? Let's find them!!

1) Potentilla Pusilla: a genus containing over 300 species of annual, biennial and perennial herbaceous flowering plants in the rose family. Typical cinquefoils look very similar to strawberries, but differ in fruit (usually dry, inedible).

2) Euphorbia Brittingeri: Some are commonly cultivated as ornamentals, or collected and highly valued for the aesthetic appearance of their unique floral structures, coloured in yellow. The plants share the feature of having a poisonous, milky, white latex-like sap.

3) Globularia Bisnagrica: It is also called "fields widow" for the purple coloured flower.

1) **2)** **3)**

FAUNA OF THE "MAGREDI" BIOTOPE

Invertebrates, anphibians and birds above all.

Measure the data of the three different environments, and fill in the chart below:

	Light (lux)	Temperature (°C)	Humidity (% RH)
Torbiera			
Under the tree			
Magredo			

DATA COLLECTION

31/03/2015 TRIESTE:

	Light (lux)	Temperature (°C)	Humidity (% RH)
Dry Karstic grassland			
Under the tree			
Dolina			

17/04/2015 UDINE:

	Light (lux)	Temperature (°C)	Humidity (% RH)
Torbiera			
Under the tree			
Magredo			

Which differences can you see in the vegetal species observed, comparing the different environments?

Which differences can you observe between the arid and dry meadow and the wet and cold meadow?

How do physical conditions influence the shape and growth of plants?