

## **4. Wetlands**

### **4.1. Inland wetlands**

### **4.2. Coastal wetlands**

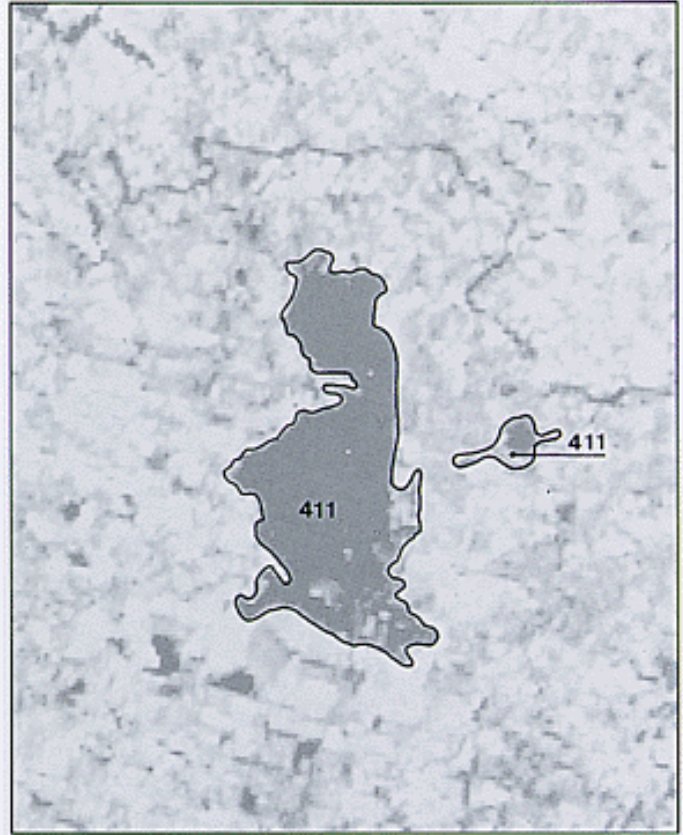
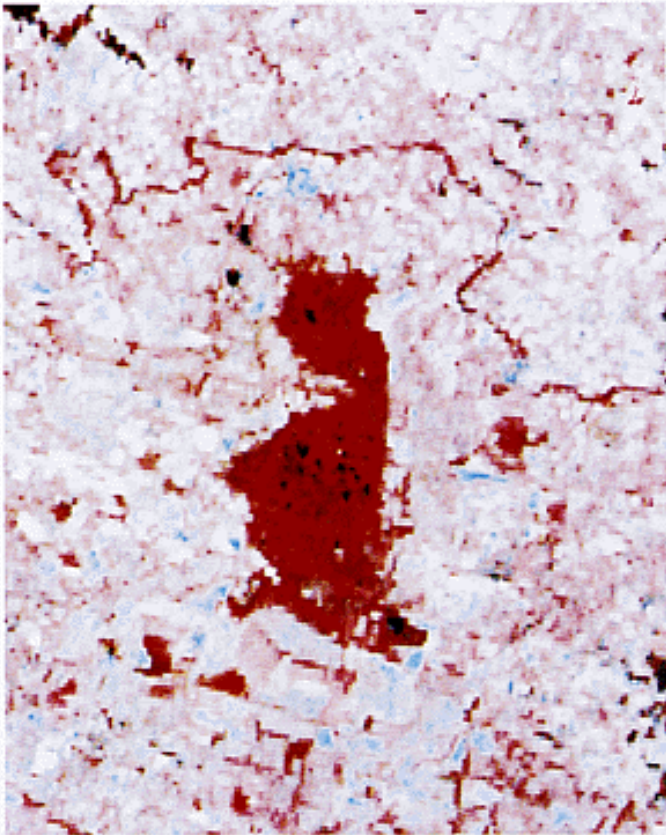
## **4.1. Inland wetlands**

### **4.1.1. Inland marshes**

### **4.1.2. Peatbogs**

### 4.1.1. Inland marshes

Low-lying land usually flooded in winter and more or less saturated by water all year round.



4.1.1. France/Area: Carcassonne  
Landsat TM 4.2.1. 1:100 000, July 1988

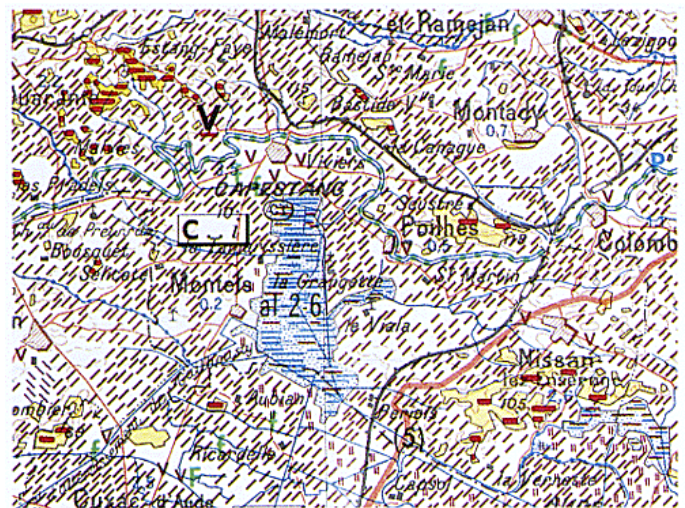
Interpretation

Marshes may be made up of river ox-bows, areas in which atterways shift from their course, depressions where the round water table reaches the surface permanently or seasonally, or basins where run off or drainage water accumulates.

Marshes adjacent to lagoons or near rivers flowing into lagoons should be classified under 4. 1. 1.

The most reliable criterion for characterising ground humidity is the water table level in winter. The agreed enchmark is winter waterlogging of between 0 and 1 0 em depth.

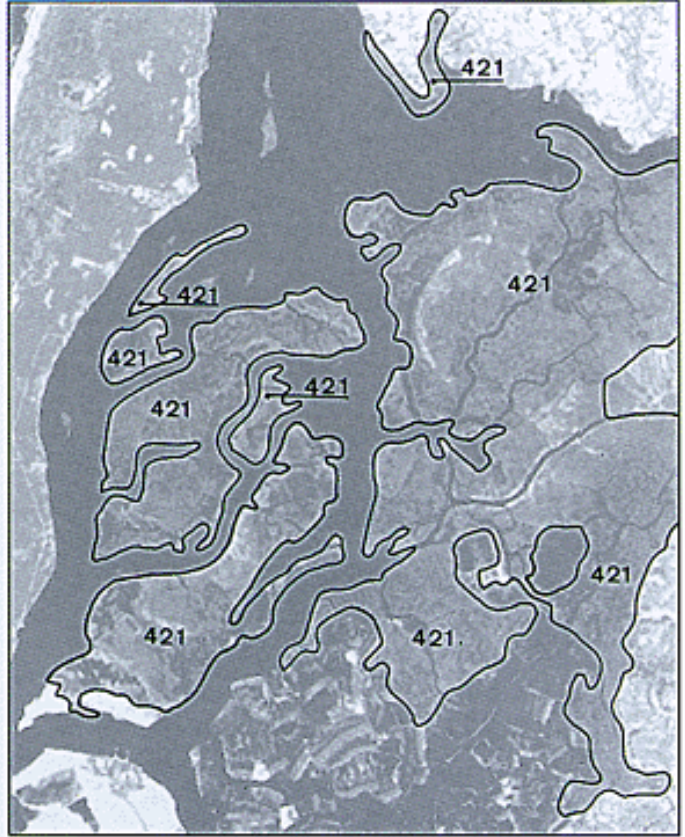
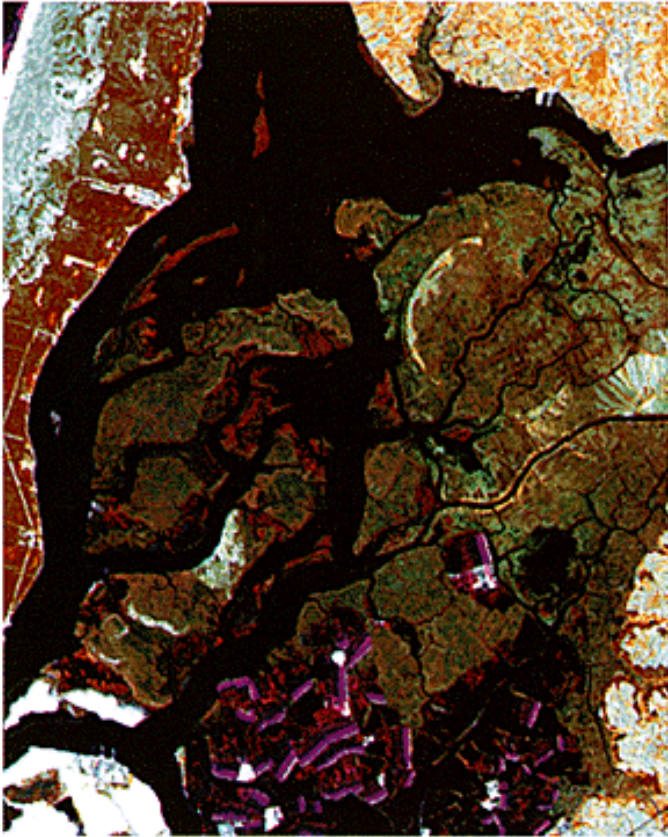
Waterlogging of between 10 and 30 cm characterises wet pasture, classified under 2.3.1



Vegetation map (scale 1:200 000)

### 4.1.2. Peatbogs

Peatland consisting mainly of decomposed moss and vegetable matter. May or may not be exploited.



4.1.2. Ireland/Area: Rathagan  
Landsat TM 4.5.3. 1:100 000, May 1990

Interpretation

Peatbogs are peaty ecosystems populated by higrophilous plants and developing either in flooded hollows in plains (lowland bogs, raised or flat) or at altitude in very rainy countries (blanket or sloping upland bogs). Under the effect of biochemical and mechanical factors, the accumulated vegetal mass is transformed into a compact, combustible matter made up of over 50% carbon: peat.

To qualify as a peatbog, the accumulated deposits must contain at least 30% organic matter if they are argillaceous and at least 20% in all other cases, and must be more than 40 cm thick. Peatbogs will remain active (produce peat) for as long as the water supply remains adequate. Any water shortage will kill them. Both categories - active bogs and dead bogs - can be exploited.

Lowland bogs which are being worked appear green on TM images (4.5.3). Signs of exploitation are visible on the example given here.

On the other hand, raised bogs are often difficult to distinguish from neighbouring heather moors. In these areas, use of ancillary documentation or a visit to the site will be essential.



Ground photograph

## **4.2. Coastal wetlands**

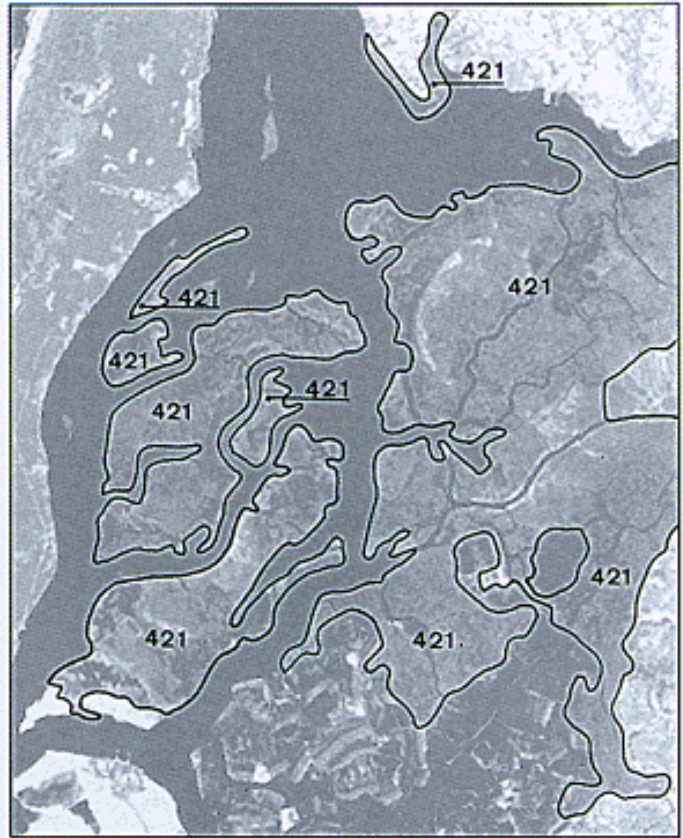
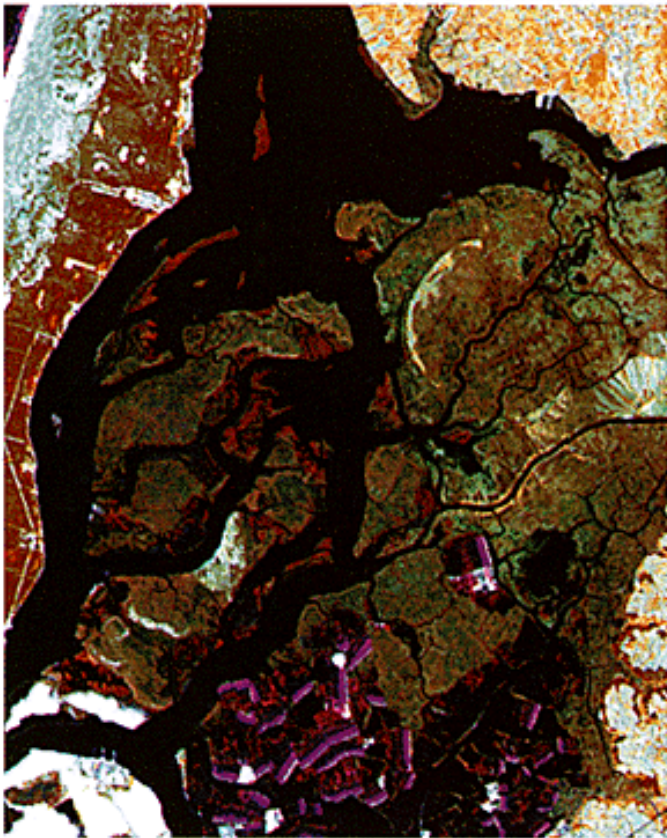
### **4.2.1. Salt marshes**

### **4.2.2. Salines**

### **4.2.3. Intertidal flats**

### 4.2.1. Salt marshes

Vegetated low-lying areas, above the high-tide line, susceptible to flooding by sea water. Often in the process of filling in, gradually being colonised by halophilic plants.

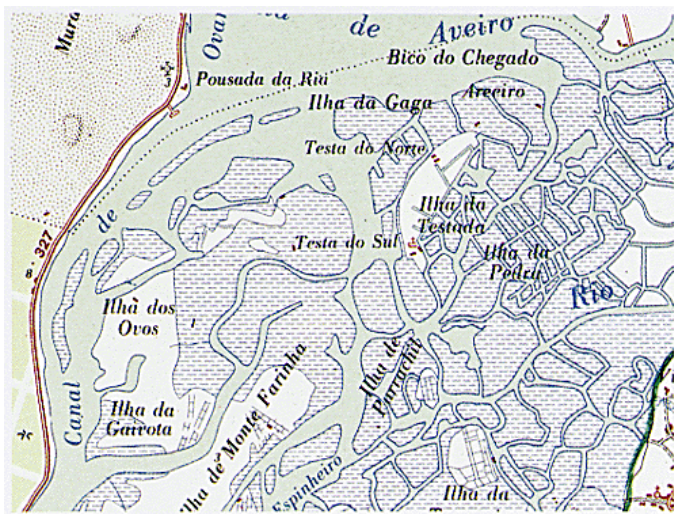


Portugal/Area: Aveiro  
Landsat TM 4.5.3., August 1985

Interpretation

This item includes estuary marshes receiving fresh or brackish water. Account should be taken of the high and low water marks indicated on topographic maps so as to avoid any risk of confusion between littoral marshes and coastal algal belts with high reflectance in the near infrared.

Topographic map (scale 1:100 000)



### 4.2.2. Salines

Salt-pans, active or in process of abandonment. Sections of salt marsh exploited for the production of salt by evaporation. They are clearly distinguishable from the rest of the marsh by their parcellation and embankment systems.

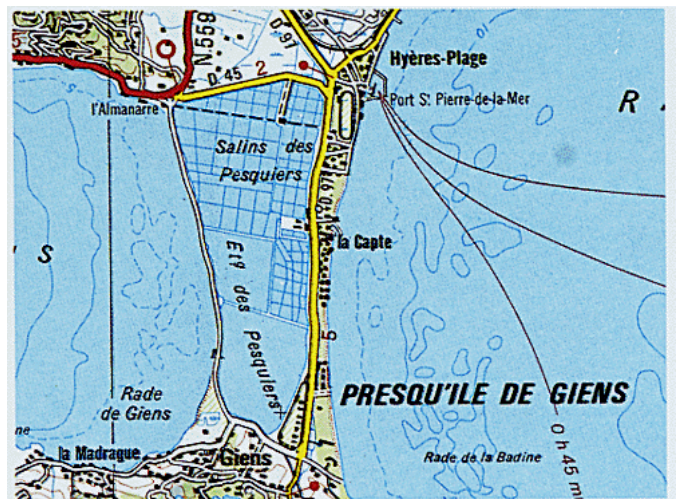


4.2.2. France/Area: Toulon  
SPOT 3.2.1. 1:100 000, March 1988

Interpretation

Very many salt-pans are now used for oyster farming (claires) or fish farming (ponds) or have been abandoned. Long-abandoned marshes invaded by vegetation are to be classified as wetlands.

Working salines cannot be detected on photographs or on the ground outside the periods of exploitation. Accordingly, working or converted salines are to be treated identically.



Topographic map (scale 1:100 000)

### 4.2.3. Intertidal flats

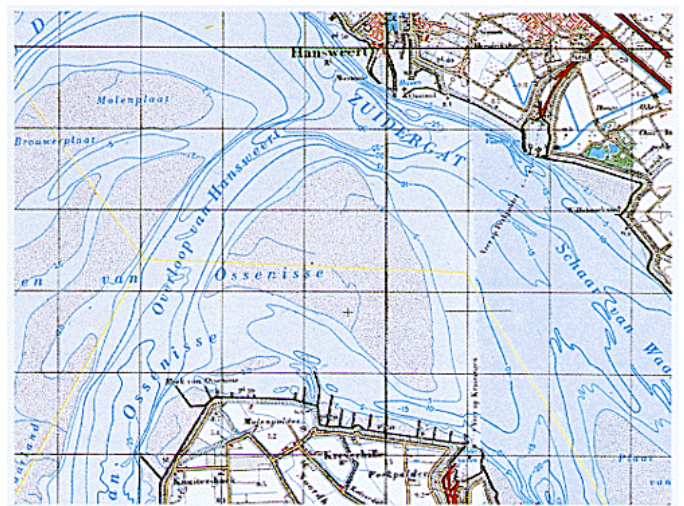
Generally unvegetated expanses of mud, sand or rock lying between high and low water marks. 0 m contour on maps.



Netherlands/Area: Hansweert  
Landsat TM 4.5.3. 1:100 000, May 1989

Interpretation

Since satellite images are recorded at varying tide levels, the coastline should be determined by reference to the most recent 1:100000 maps, though changes brought about by erosion, sedimentation or the construction of port areas or defensive sea walls should be taken into account.



Topographic map (scale 1:100 000)