



## Introducing the LIFE+ Haute-Dronne programme



## Results from 2014 to 2019 Ecological continuity & communication

International restitution symposium  
*Périgueux - 6 novembre 2019*

**LIFE 13 NAT/FR/000506**

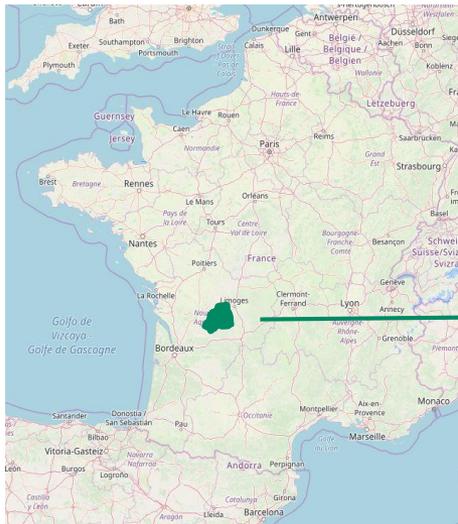
**Natali TOSTES DE SOUZA**  
**PNR Périgord Limousin**





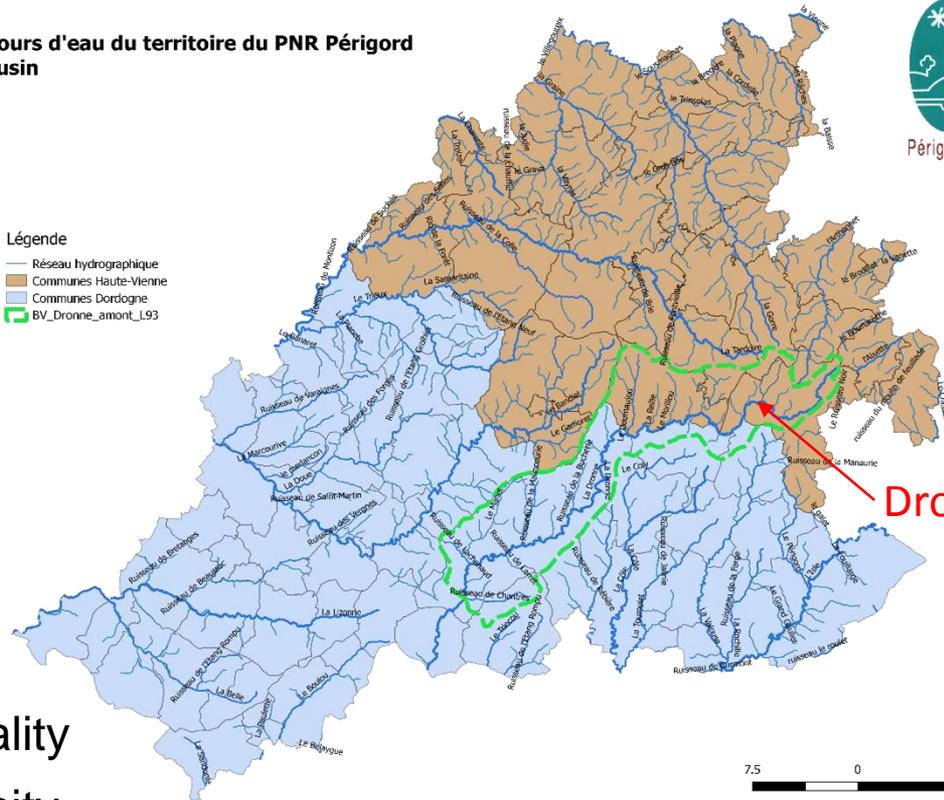
# Introduction

## Regional natural park of Périgord - Limousin



Les cours d'eau du territoire du PNR Périgord Limousin

- Légende
- Réseau hydrographique
  - Communes Haute-Vienne
  - Communes Dordogne
  - BV\_Dronne\_amont\_L93



Dronne river

CHARTER = Priorities axis

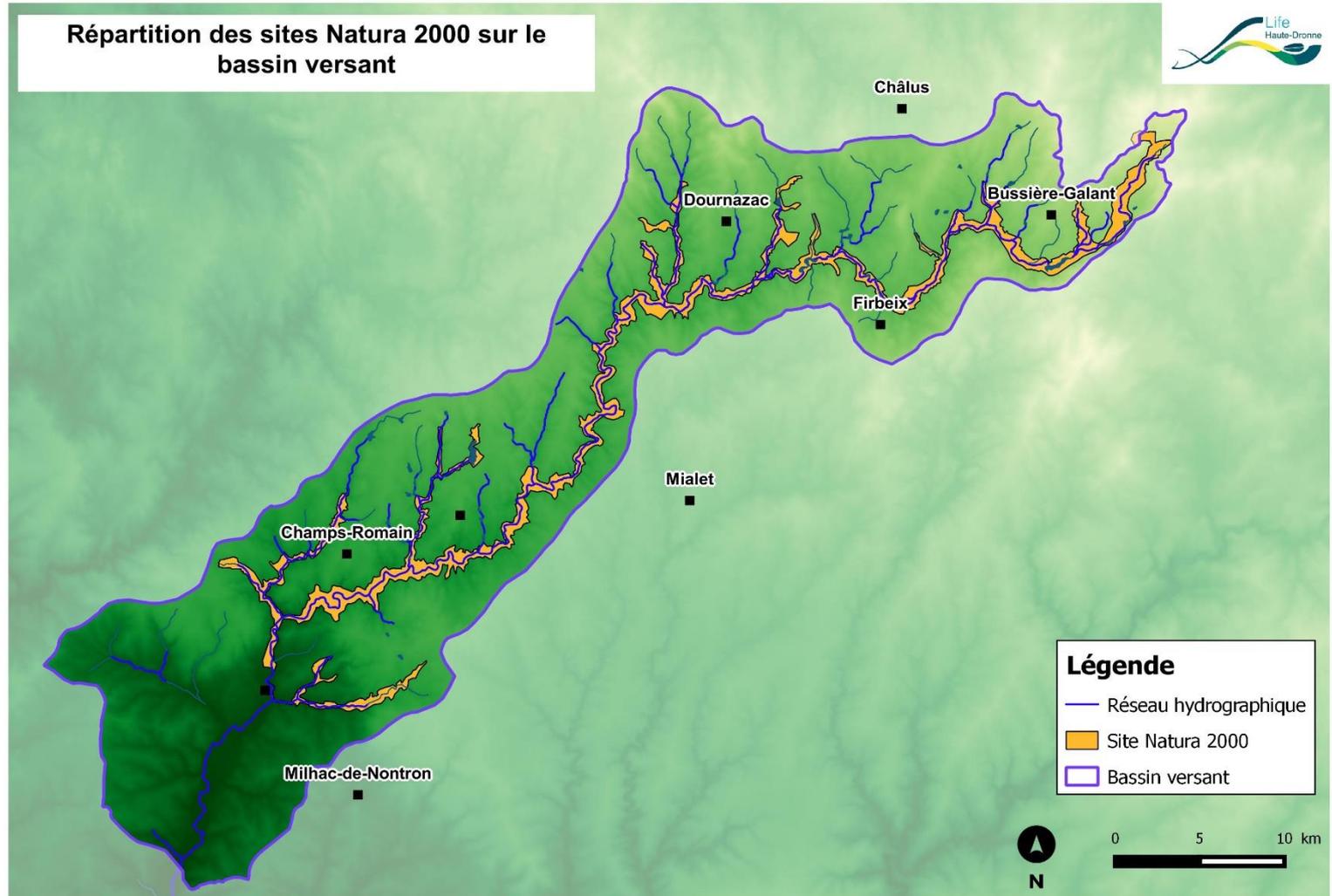
Axis 1: Improving water quality

Axis 2: Preserving biodiversity



## N2000 Network

### FR7200809 Hydrographic network of upper Dronne river



## The upper Dronne river

- 52 km long
- Presence of endangered and patrimonial species
- Presence of non natural barriers (mill dams, ponds, culverts) on the river and its tributaries



*Lutra lutra*



*Margaritifera margaritifera*



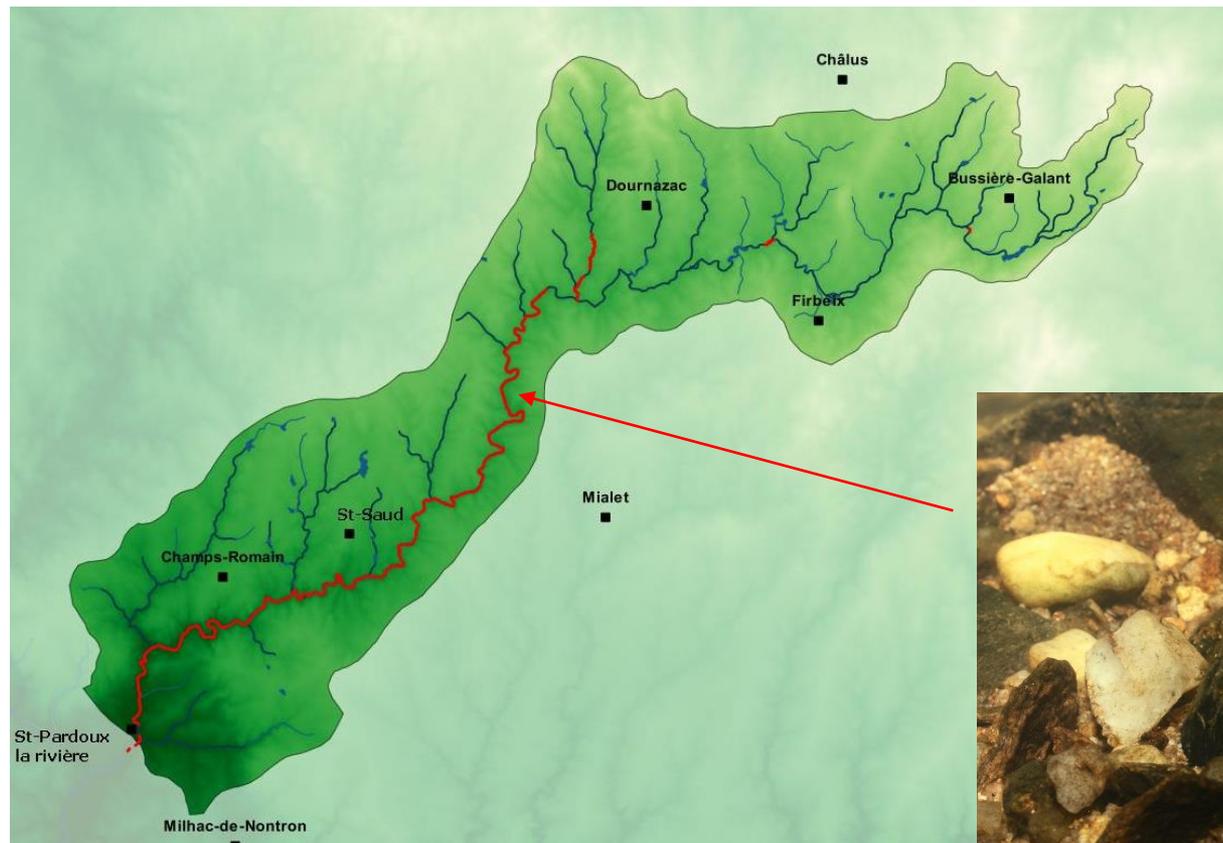
*Cottus gobio*

## The freshwater pearl mussel

*Margaritifera margaritifera* inventory in the upper Dronne river in 2003

= approx. 15 000 individuals

~ 15% of french *marga.* population



# 1. CONTEXT

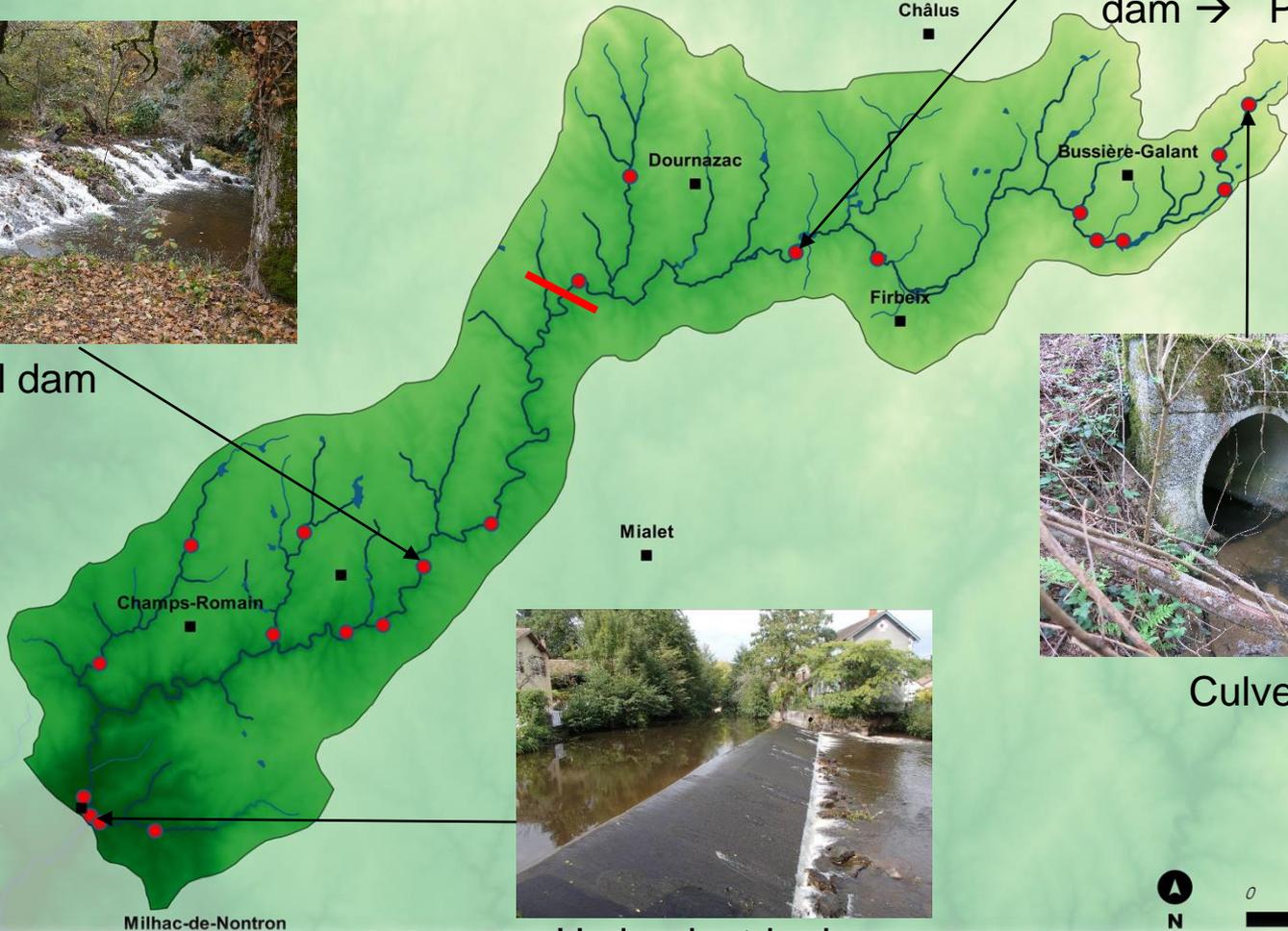
## Disruption of the river continuity



Mill dam



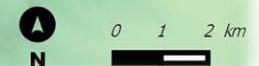
dam → Pond



Culvert



Hydroelectric dam

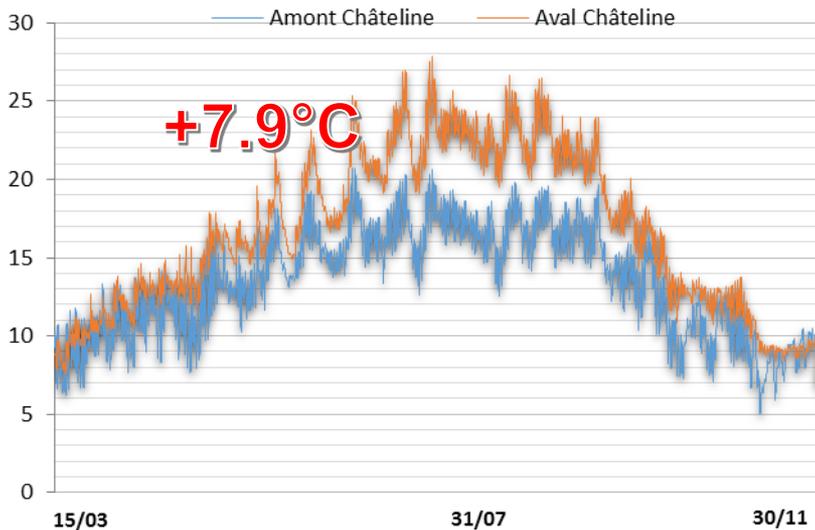


## Impacts on the river

Fragmentation of the river's ecosystems



Reservoir sedimentation and loss of habitat : 6.3 km (> 10% of the river length )



Water  
température

## The law

**EU:** Water Framework Directive (2000/60/EC)

**France:** Loi sur l'Eau et les Milieux Aquatiques (LEMA) 2006

« Good water status » ecological and chemical

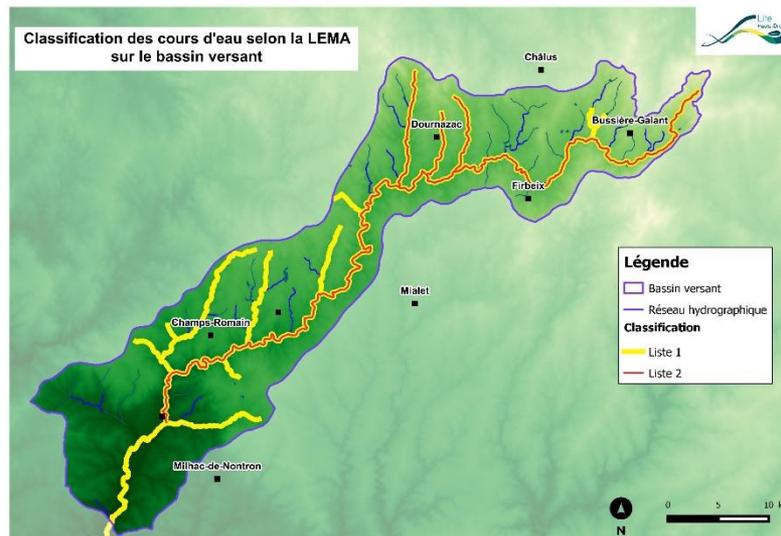


**River classification list 1 or 2**

**Dronne (L2)**

**L 214 - 17 of Environmental Code**

**« Arrêté du 7 oct. 2013 » for Adour-Garonne watershed**



**How?  
With which  
financing?**



## The LIFE programme

= EU's funding instrument for the environment and climate action

Between 2007 and 2013: Budget of € 2.143 billion

Split into 3 categories:

LIFE+ Environment Policy and Governance

LIFE+ Information and Communication

LIFE+ Nature and biodiversity



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**LIFE+ Nature and biodiversity**



+

EPOC

2014



**LIFE + Preservation of the freshwater  
pearl mussels and restoration of  
ecological continuity on the upper  
Dronne river**

# The LIFE+ Haute-Dronne programme: In figures

- 2 beneficiaries



- Budget € 5 855 204

- Duration 6 years, from June 2014 to May 2020

- Financial partners



50 %



# The LIFE+ Haute-Dronne programme: Objectives

- AXIS I – Restoration of the habitats for the ecological continuity
- AXIS II – Support of the *Marga*. population by setting up an ex-situ breeding farm for reintroduction and water quality monitoring
- AXIS III – Improving knowledge of biology and exotoxicology of *Marga*.
- AXIS IV – Communication and public awareness

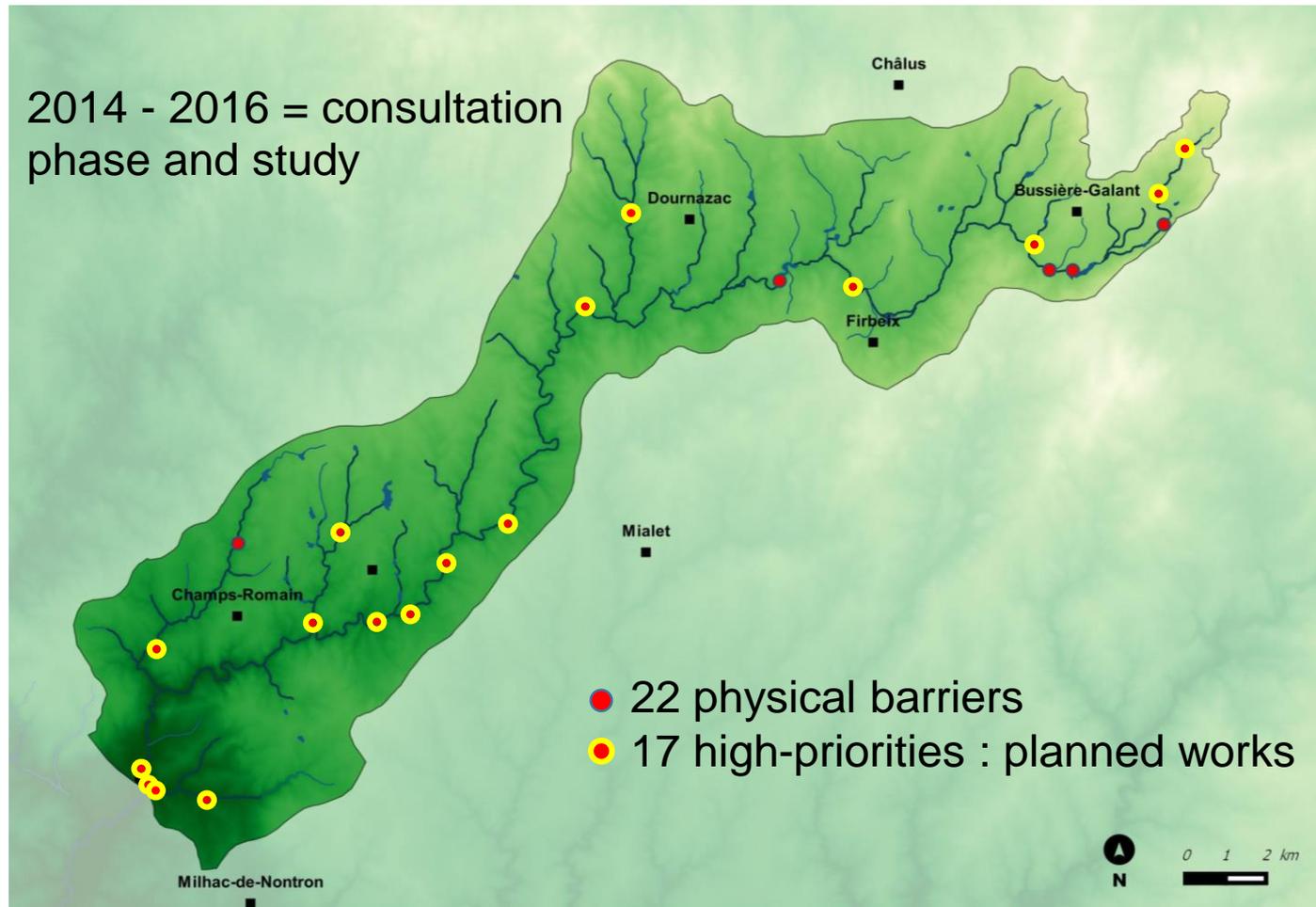
# The LIFE+ Haute-Dronne programme: Objectives

- **AXIS I – Restoration of the habitats for the ecological continuity**
- **AXIS II – Support of the *Marga*. population by setting up an ex-situ breeding farm for reintroduction and water quality monitoring**
  - ➔ Meriem GREGORI (PNRPL)
- **AXIS III – Improving knowledge of biology and exotoxicology of *Marga*.**
  - ➔ Magalie BAUDRIMONT (EPOC)
  - Tiare BELAMY
  - Alexia LEGEAY
  - Bruno MALAIZE
- **AXIS IV – Communication and public awareness**

# Habitats restoration for ecological continuity

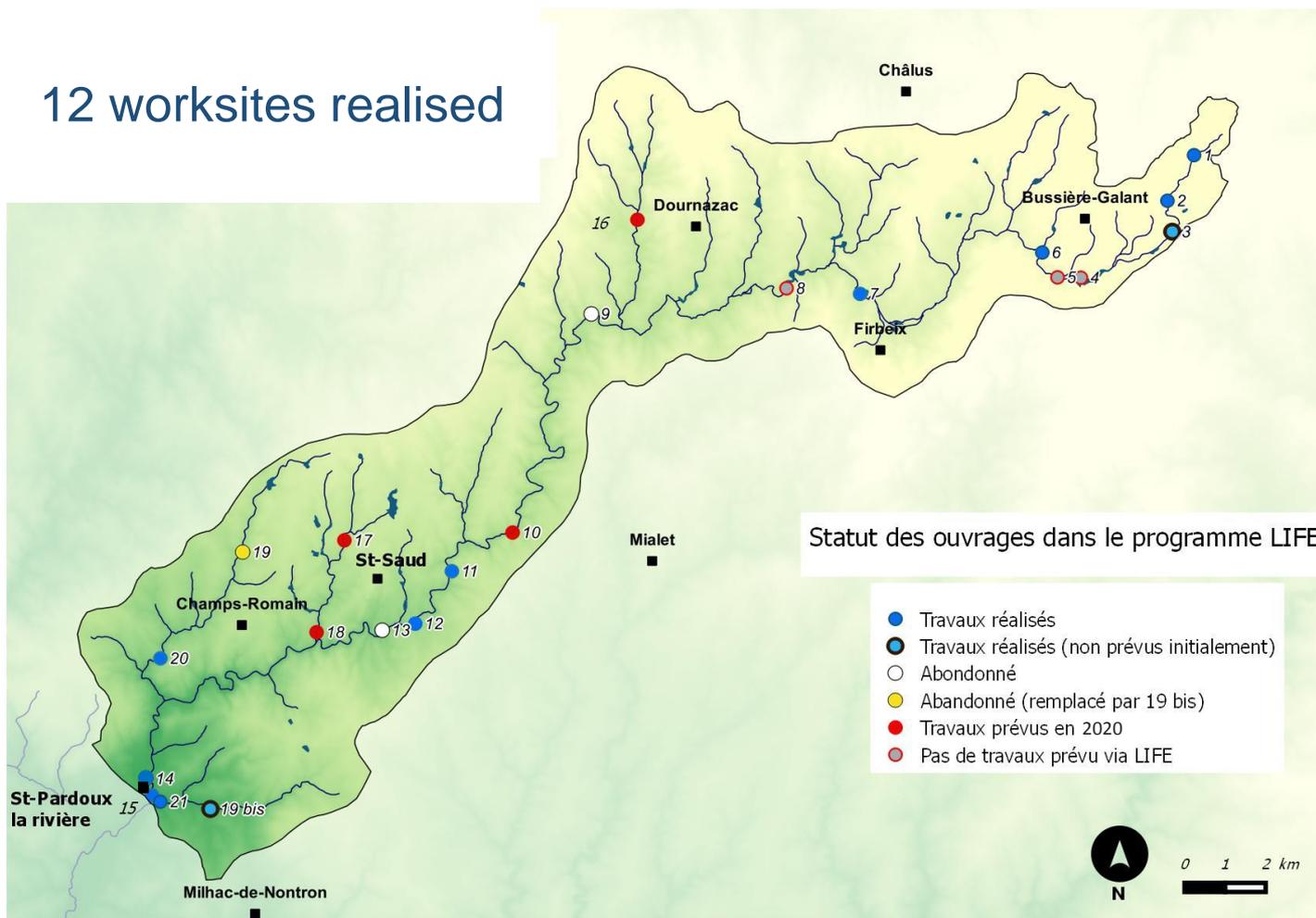
## AXIS I. Habitats restoration for ecological continuity

### *The beginning*



## AXIS I. Habitats restoration for ecological continuity: in 2019

12 worksites realised



## Site n°1 Buse de Passerieux



*Before*

## Site n°1 Buse de Passerieux



*After*

## Site n°7 Forges de Firbeix



*Before*

## Site n°7 Forges de Firbeix



**Before**

## Site n°7 Forges de Firbeix



*Before*

## Site n°7 Forges de Firbeix



*In progress*

## Site n°7 Forges de Firbeix



After

## Site n°7 Forges de Firbeix



*After*

## Site n°15 Tannerie de Chamont



*Before*

## Site n°15 Tannerie de Chamont



*Before*

## Site n°15 Tannerie de Chamont



*In progress*

## Site n°15 Tannerie de Chamont



**Archaeology**

## Site n°15 Tannerie de Chamont



**Archaeology**

## Site n°15 Tannerie de Chamont



*In progress*

## Site n°15 Tannerie de Chamont



*After*

## Site n°15 Tannerie de Chamont



*Before*

## Site n°15 Tannerie de Chamont



**After**

# Communication and public awareness

## AXIS IV. Communication and public awareness

- Website articles
- News / magazines / TV reports
- School animations – 1126 students in 2019



- Meeting with local authorities and neighbours
- Symposium participation



### Projection in 2020:

- 4 worksites to restore
- Reintroduction of *M.margaritifera* aged 0+ to 3+
- Close the programme (deliverables, financial statements, etc.)

### .... and after ?

- Creation of strictly protected area
- *M.margaritifera*, water and habitats quality monitoring

**What other actions are being taken  
on the upper Dronne river ?**

## N2000 Hydrographic network of upper Dronne river

2015 - 2020 new CAP: Direct payments for farmers

In watershed of the upper drone:

- Limit shaved cutting of tree in banks
- Set up water troughs for cattle
- Install riverside fences



# 5. TO GO FURTHER



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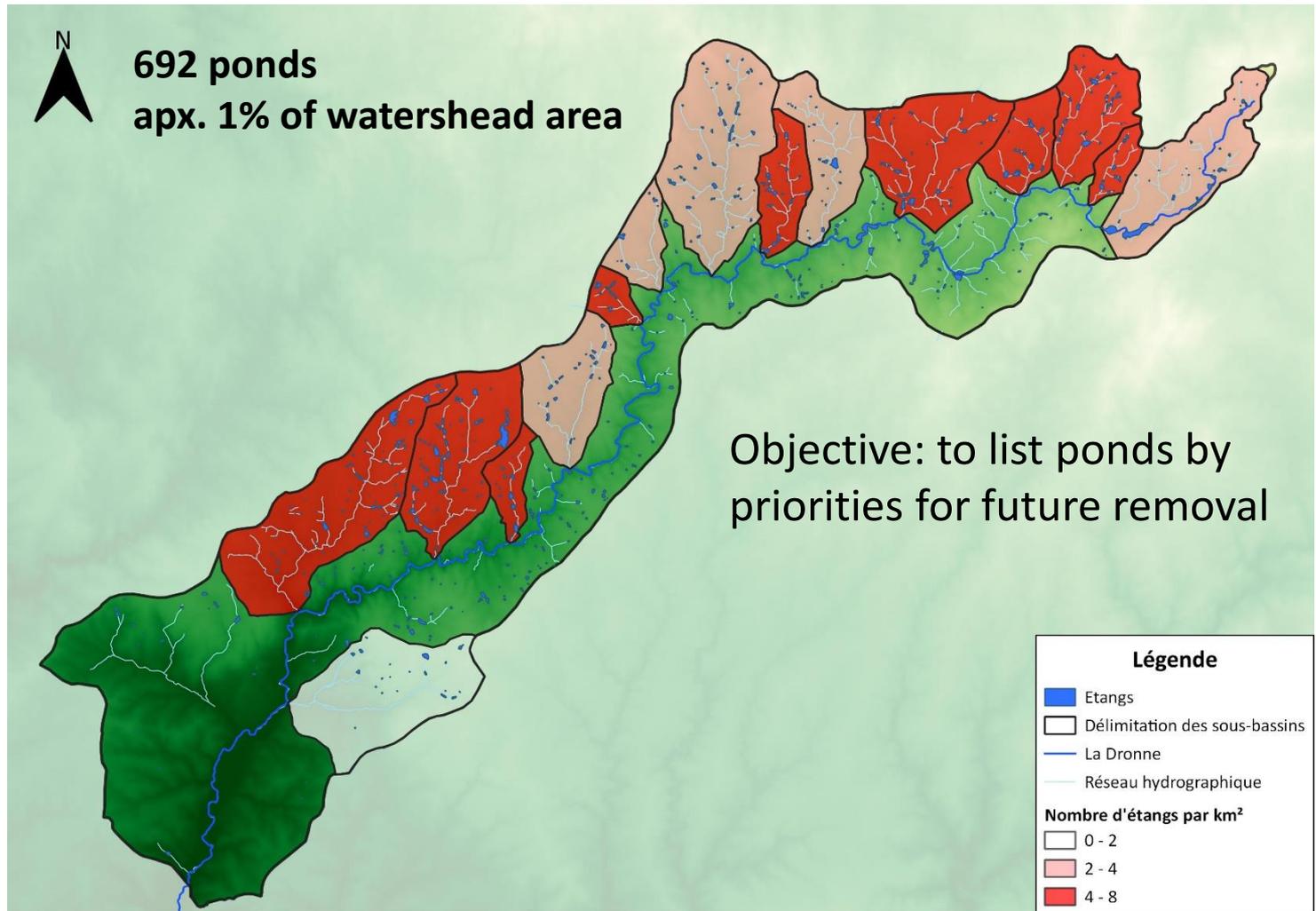


## CATZH: Wetland technical assistance cell

In Firbeix: land acquisition of 5.82 ha and restoration works



# Study of cumulative impact of ponds on the watershed

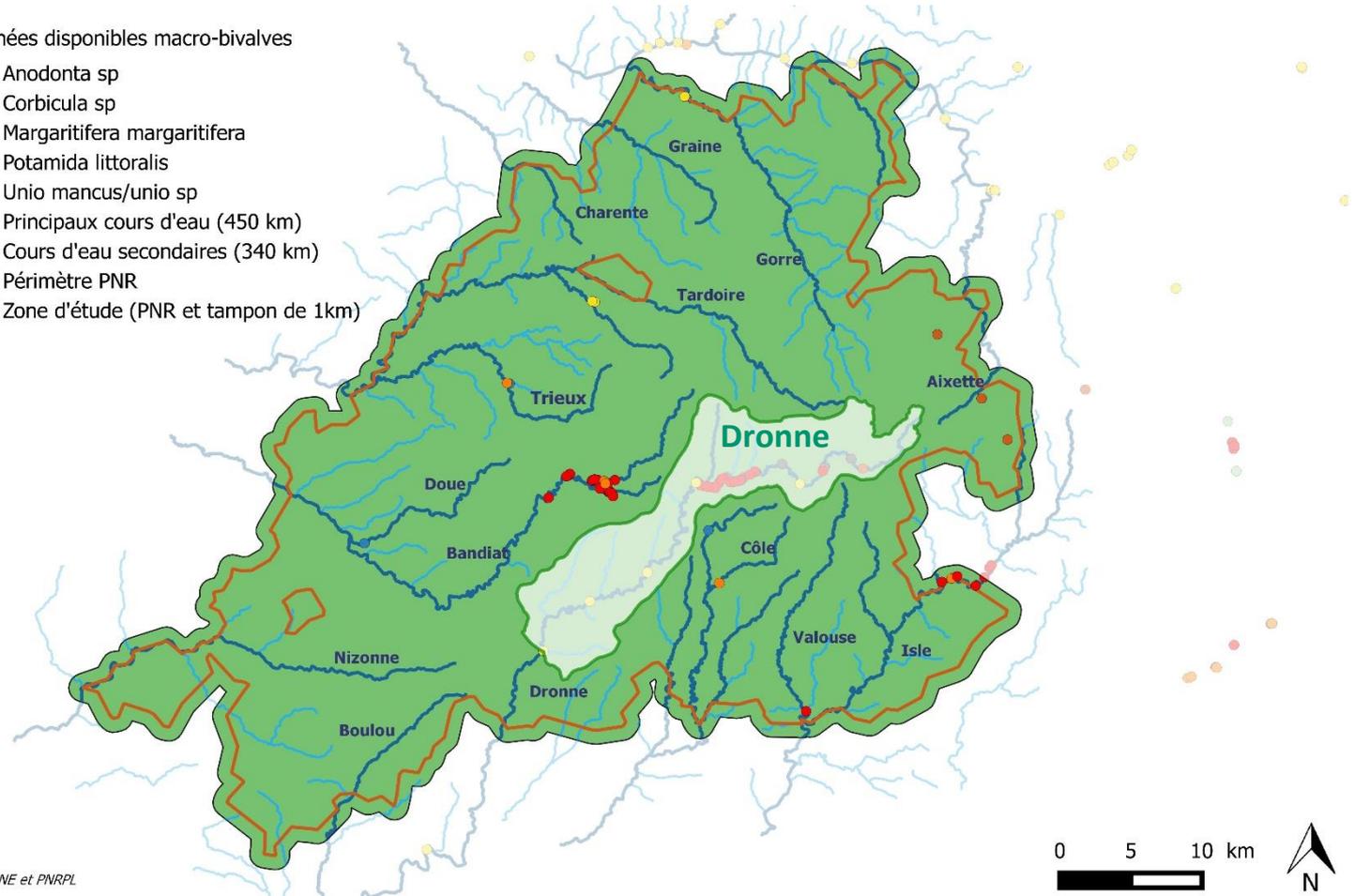


## Mussels inventory in the other rivers (2018-2020)

2 methods: bathyscope and DNA samples

Données disponibles macro-bivalves

- Anodonta sp
- Corbicula sp
- Margaritifera margaritifera
- Potamida littoralis
- Unio mancus/unio sp
- Principaux cours d'eau (450 km)
- Cours d'eau secondaires (340 km)
- Périmètre PNR
- Zone d'étude (PNR et tampon de 1km)





THANK YOU !

