



Introducing the LIFE+ Haute-Dronne programme



Results from 2014 to 2019 Ecological continuity & communication

International restitution symposium
Périgueux - 6 novembre 2019

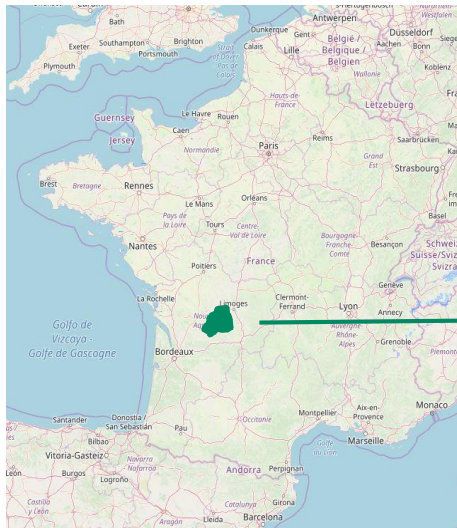
LIFE 13 NAT/FR/000506

Natali TOSTES DE SOUZA
PNR Périgord Limousin



Introduction

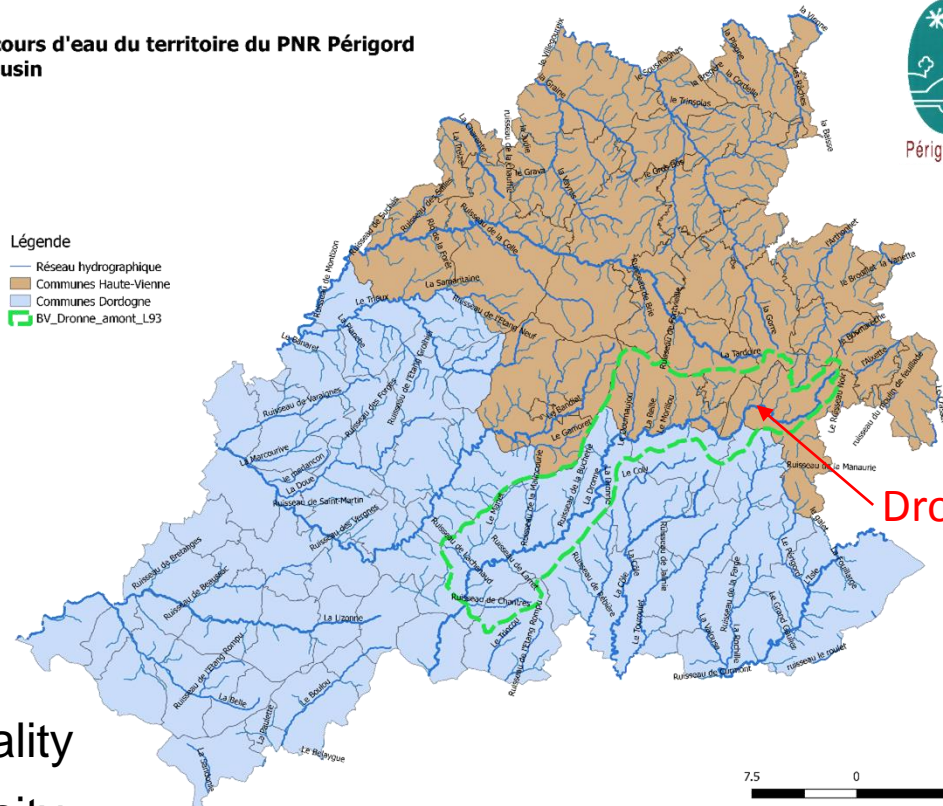
Regional natural park of Périgord - Limousin



Les cours d'eau du territoire du PNR Périgord Limousin

Légende

- Réseau hydrographique
- Communes Haute-Vienne
- Communes Dordogne
- BV_Dronne_amont_L93



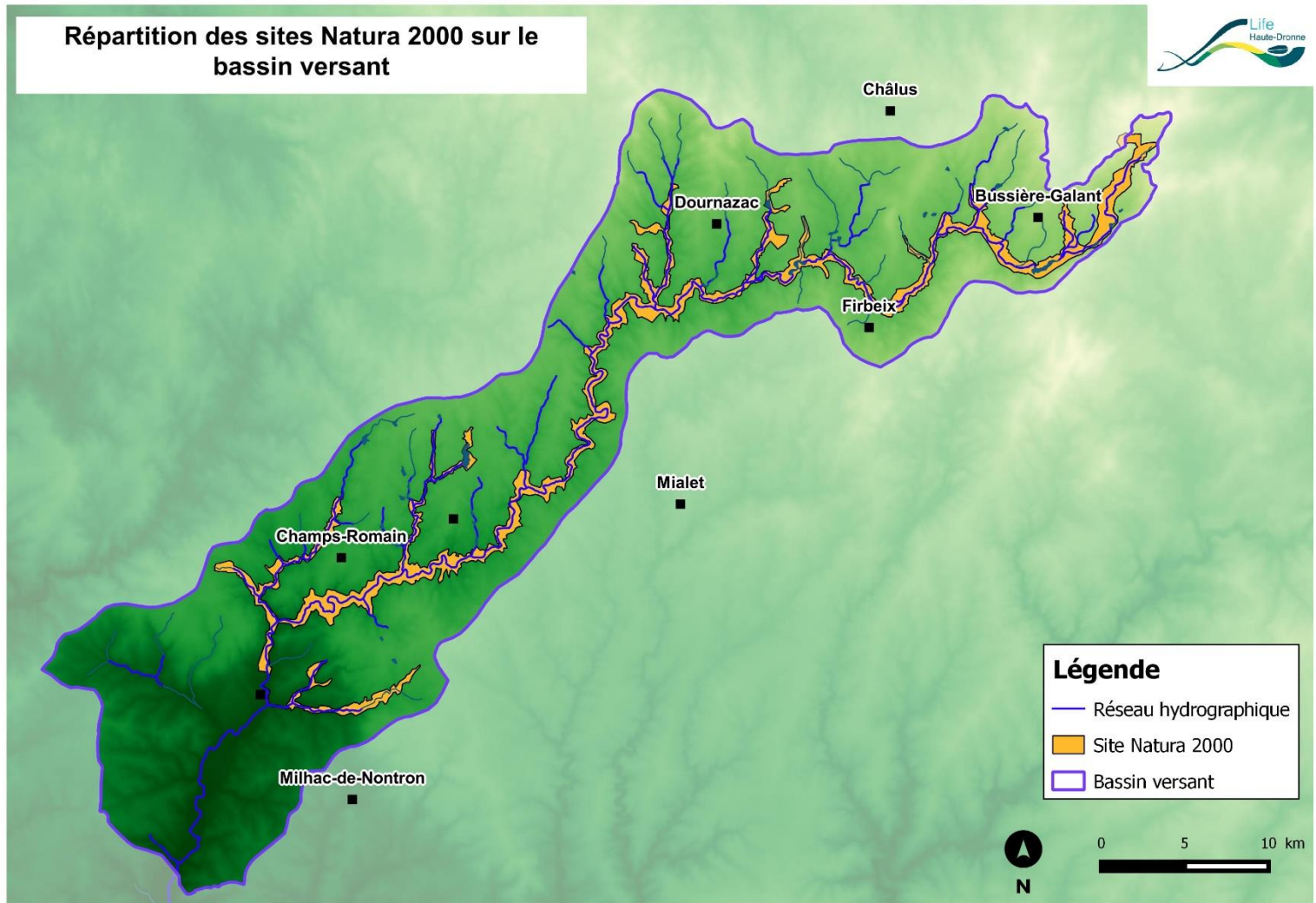
CHARTER = Priorities axis

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



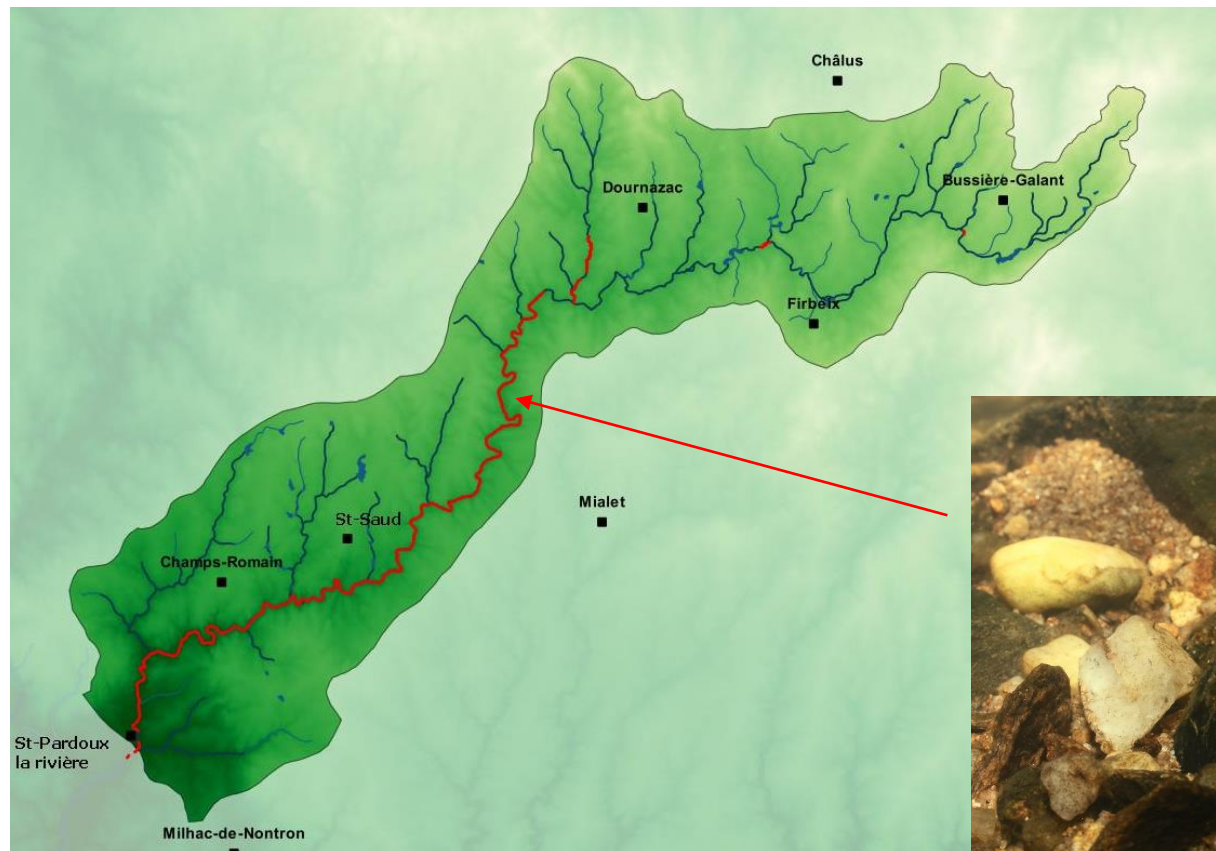
Cottus gobio

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

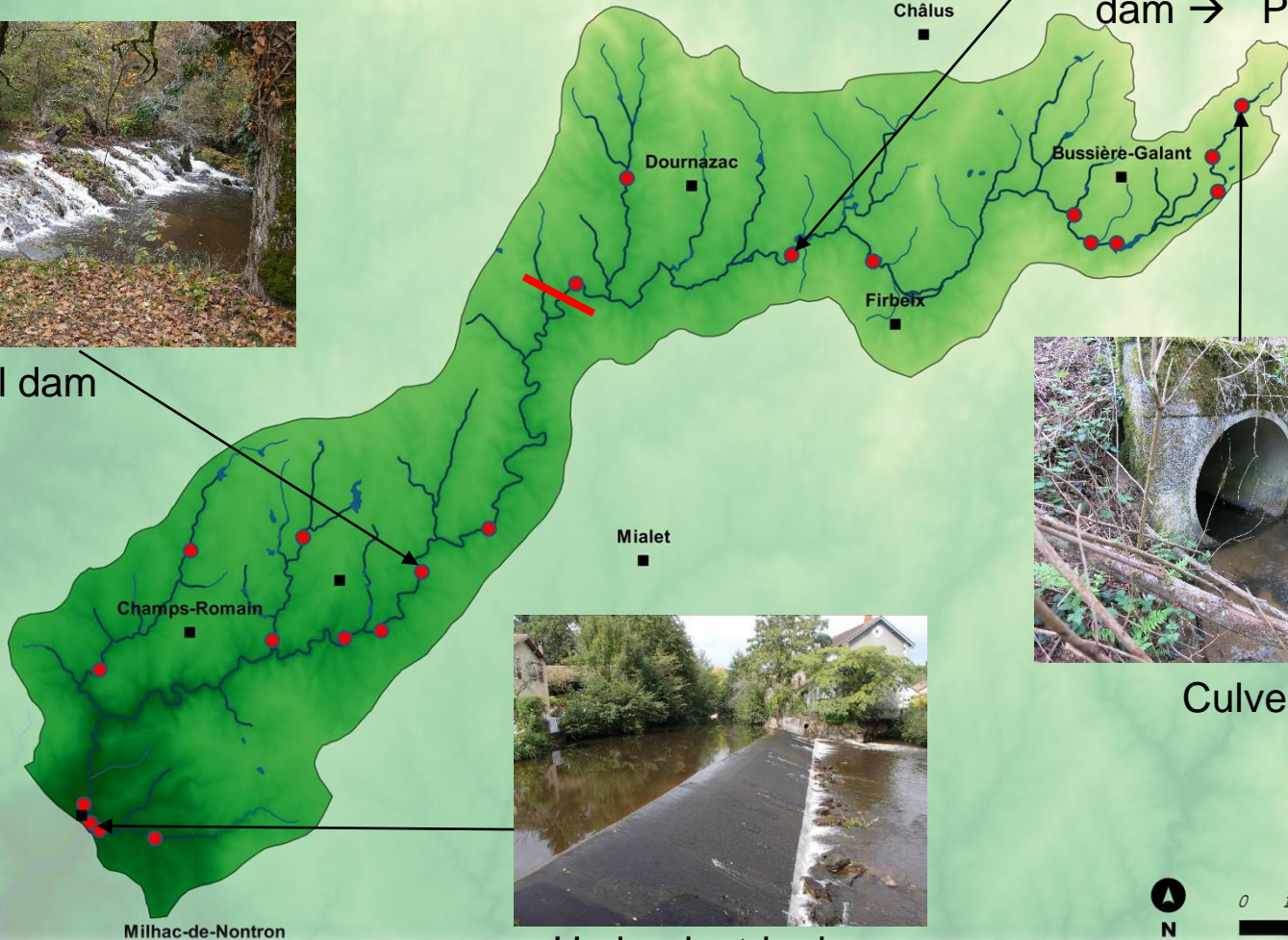
Disruption of the river continuity



Mill dam



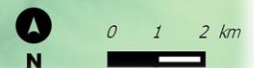
dam → Pond



Culvert

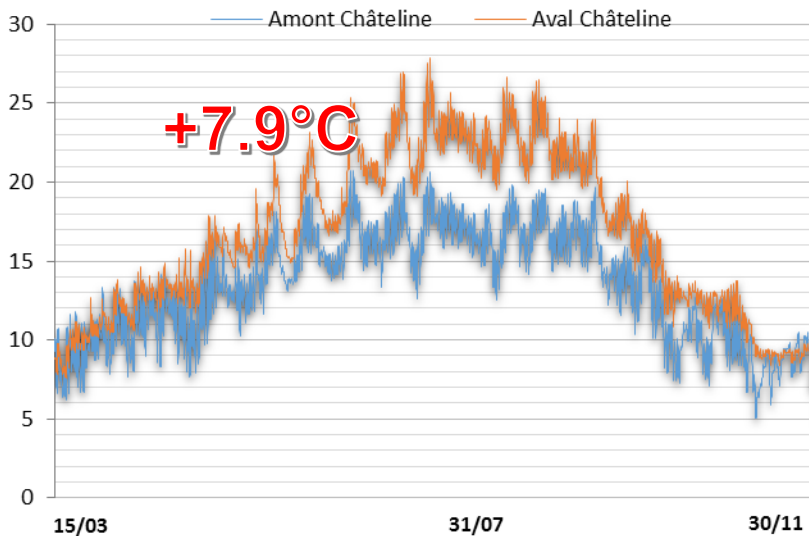


Hydroelectric dam



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

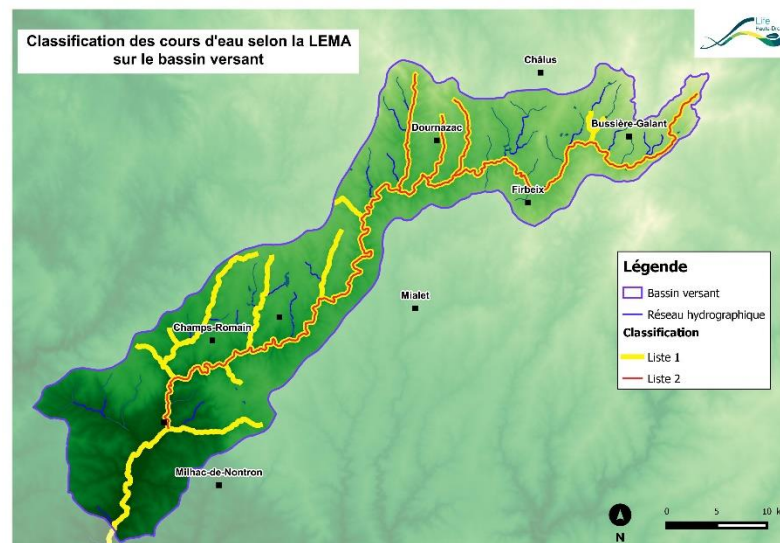


River classification list 1 or 2

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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Split into 3 categories:

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LIFE+ Information and Communication

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 %



Logo des logos de la Dordogne en lien de démonstration de la capacité des hommes à concilier leur développement économique et leur lien avec la nature et la préservation de la nature. Le logo de la Dordogne, Région naturelle des Pyrénées, est un logo de la Dordogne.

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

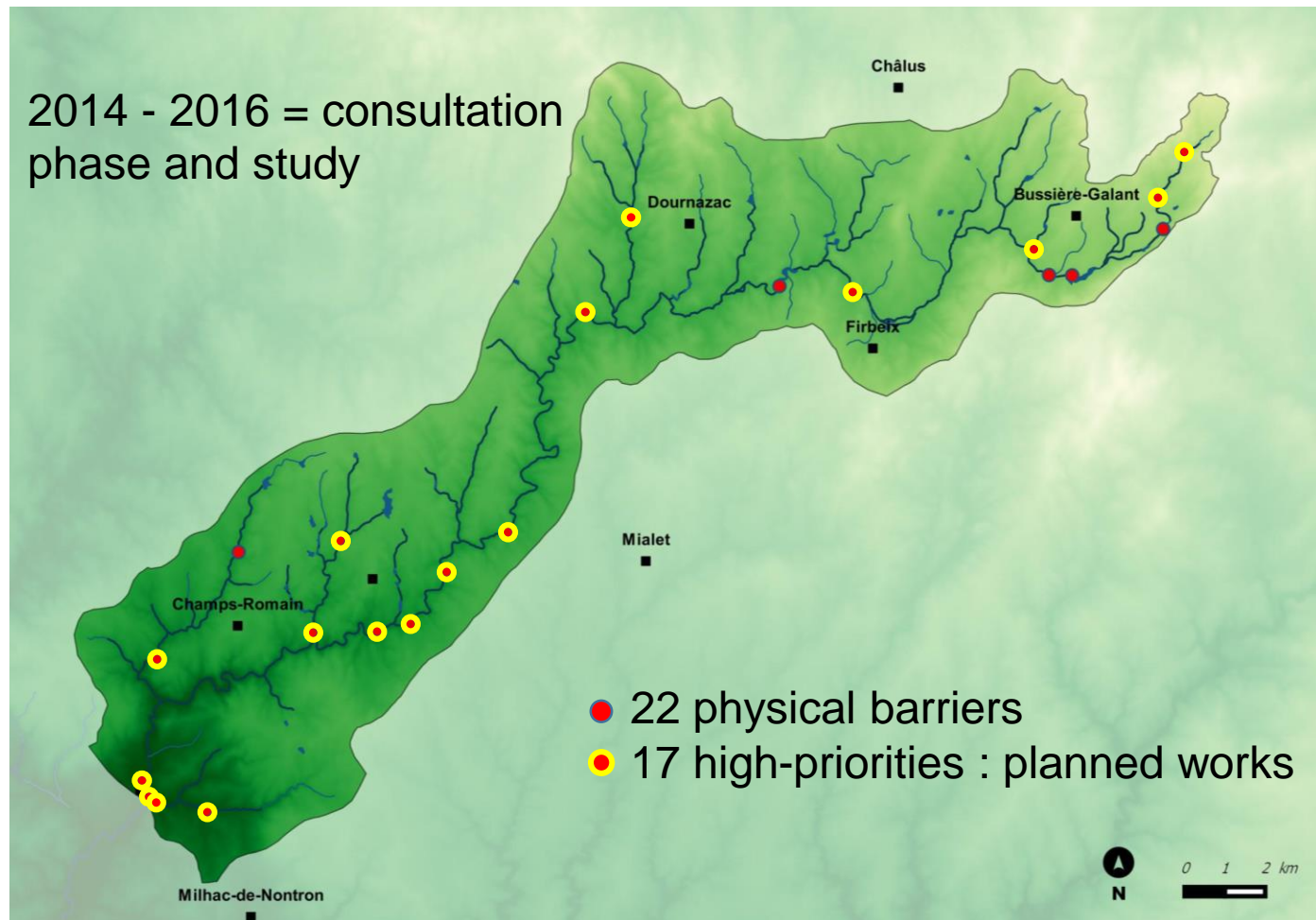
The LIFE+ Haute-Dronne programme: Objectives

- **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

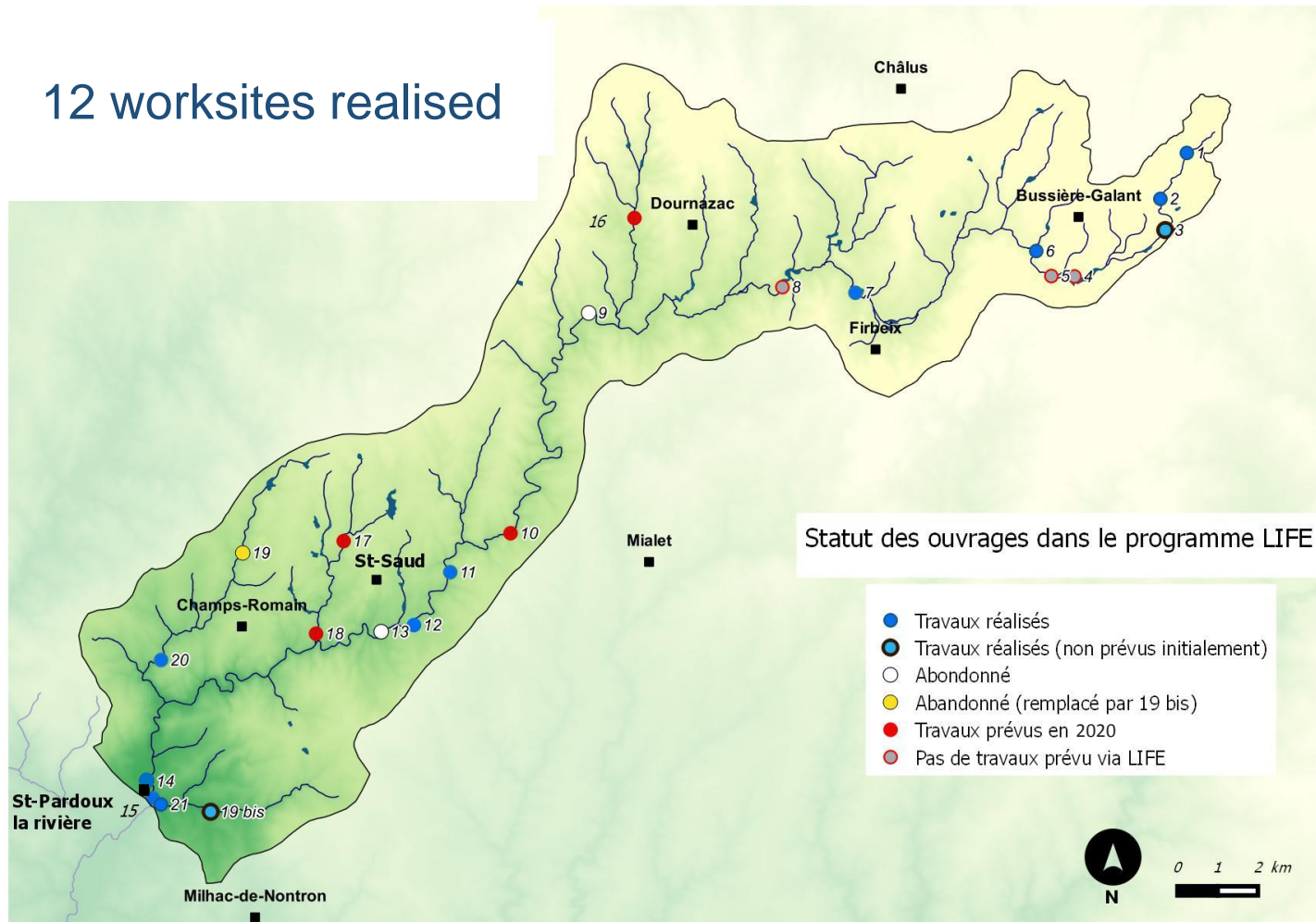
AXIS I. Habitats restoration for ecological continuity

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



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



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

After

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 ?**

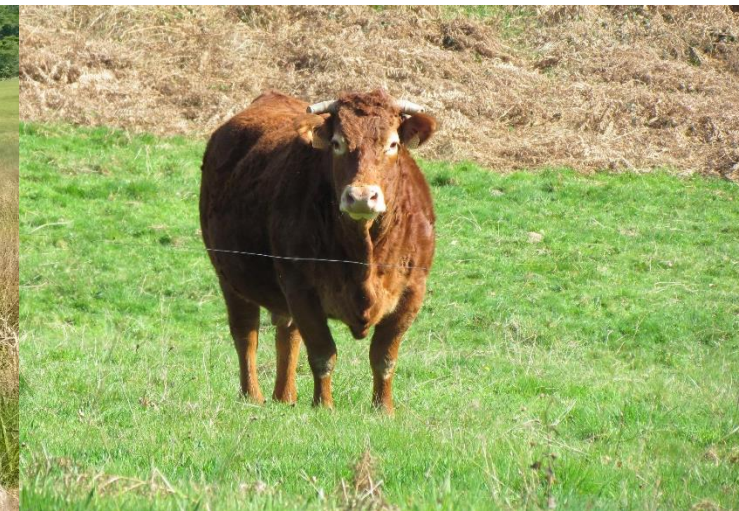
After

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



5. TO GO FURTHER

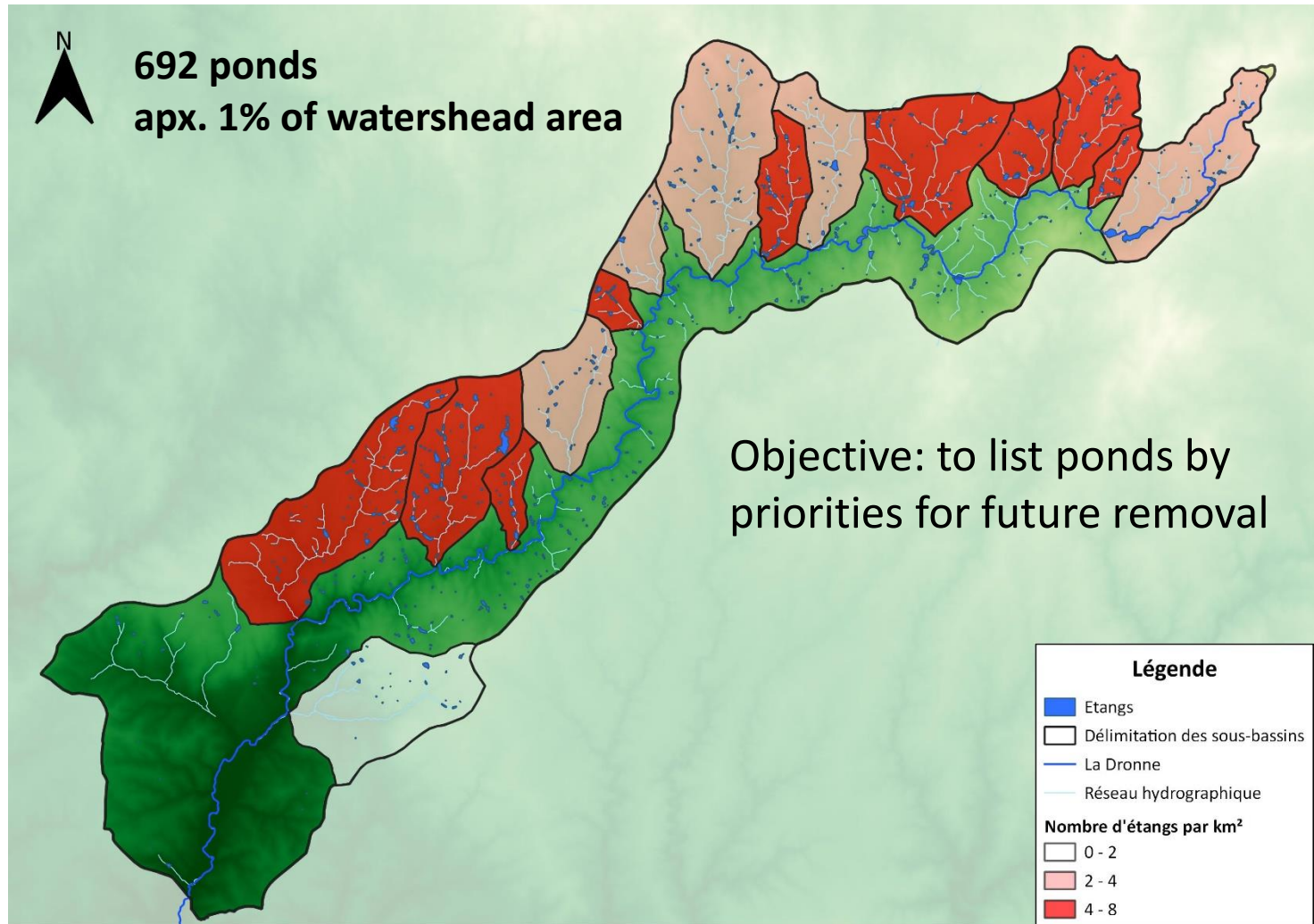


CATZH: Wetland technical assistance cell

In Firbeix: land acquisition of 5.82 ha and restoration works



Study of cumulative impact of ponds on the watershed

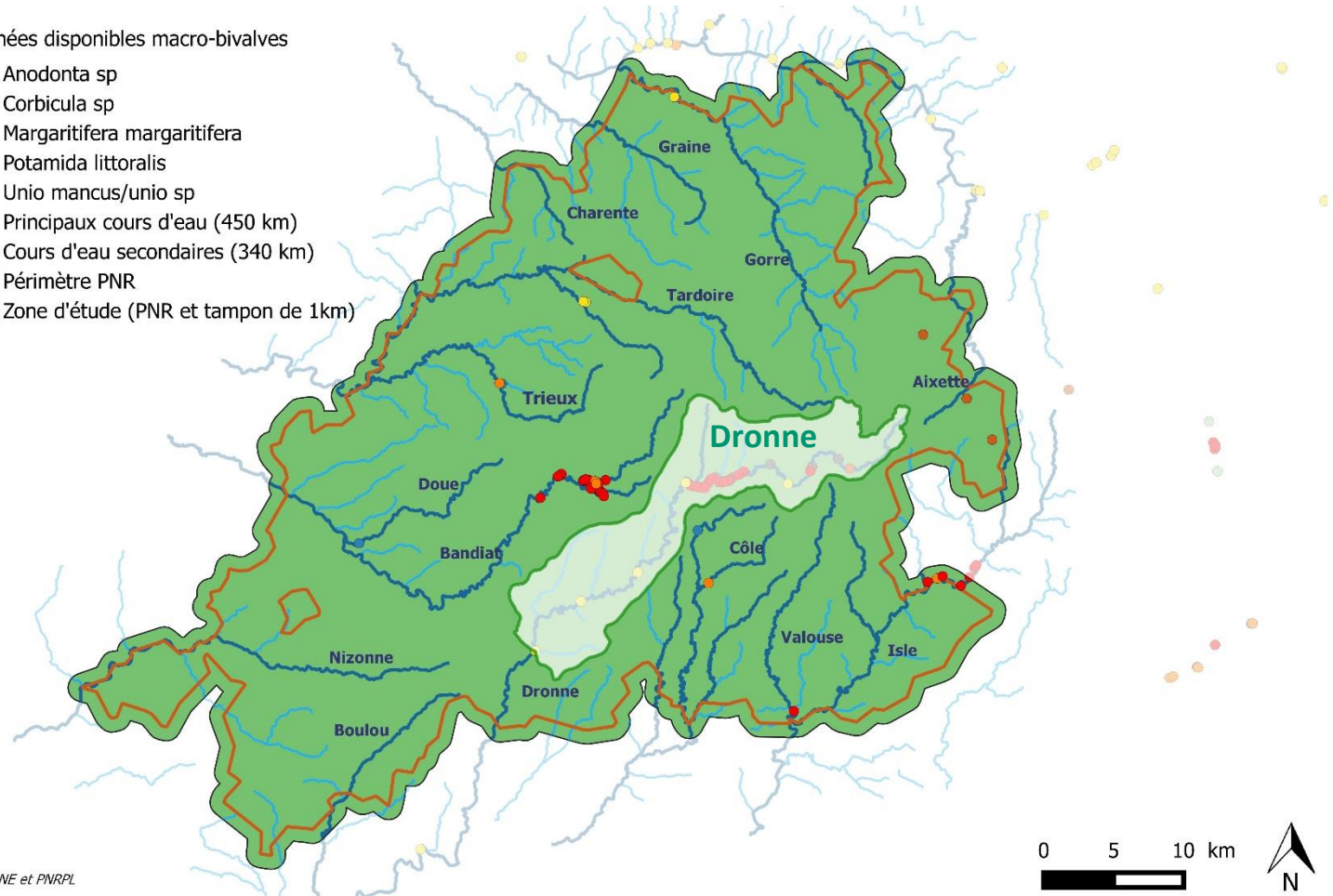


Mussels inventory in the other rivers (2018-2020)

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 !

