

Programme LIFE+

FRESHWATER PEARL MUSSEL CONSERVATION IN THE ARMORICAN MASSIF

LIFE09 NAT FR 000583

AN ACTION COORDINATED BY :



Une voix pour la nature

Kefermarkt
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Measures for improving habitat for FWPM in the Armorican Massif

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www.life-moule-perliere.org/accueilmoule.php



COLLINES NORMANDES





Natura 2000 "Monts d'Arrée"
Operator Armorique Regional
Nature Reserve
900 pearl mussels in 2011

Natura 2000
"Headwaters of the Blavet
and Hyères rivers"
Operators CCKB / CDDA⁽²⁾
250 pearl mussels in 2011

Natura 2000
"Basin of the Arou river"
Operator SIAES⁽¹⁾
220 pearl mussels in 2011

Natura 2000
"Scorff and Saine rivers,
Pont-Calleck forest"
Operator Syndicate
of the Scorff river basin
Holder of the CTMA⁽⁴⁾
Syndicate of the Blavet
river valley
1900 pearl mussels in 2011

Natura 2000 "The valley of the
Sarthon river and its affluents"
Operator Normandie-Maine
Regional Nature Reserve
269 pearl mussels in 2011

Natura 2000
"The valley of the
Ome river and its affluents"
Operator CPIE des Collines
normandes⁽⁴⁾
110 pearl mussels in 2002

Six watercourses in safe hands
The six main pearl mussel populations that remain in the Armorican Massif have been identified and have been included in the conservation programmes. They are located on Natura 2000 sites, which is a prerequisite to be eligible for the LIFE programme actions. Although they have various conservation status, most of them are exclusively made up of old individuals.

 Populations without turnover
  Populations with little but recent turnover

(1) SIAES: Association pour le Sauvegarde de l'Environnement
(2) CCKB: Comité de Concertation des Communes de la Région de Blavet
(3) CDDA: Comité de Développement de la Région de Blavet
(4) CTMA: Comité de Concertation des Territoires de la Massif Armorique

Undertaken actions

Recover a favourable environment

= Extra LIFE



Assess and monitor the environment



Maintain and support existing populations



Recover a favourable environment

Federate actions



Encourage new projects for habitat restoration

Short-term

- Set-up fences
- Riverbank stabilization
- ...

Medium-term

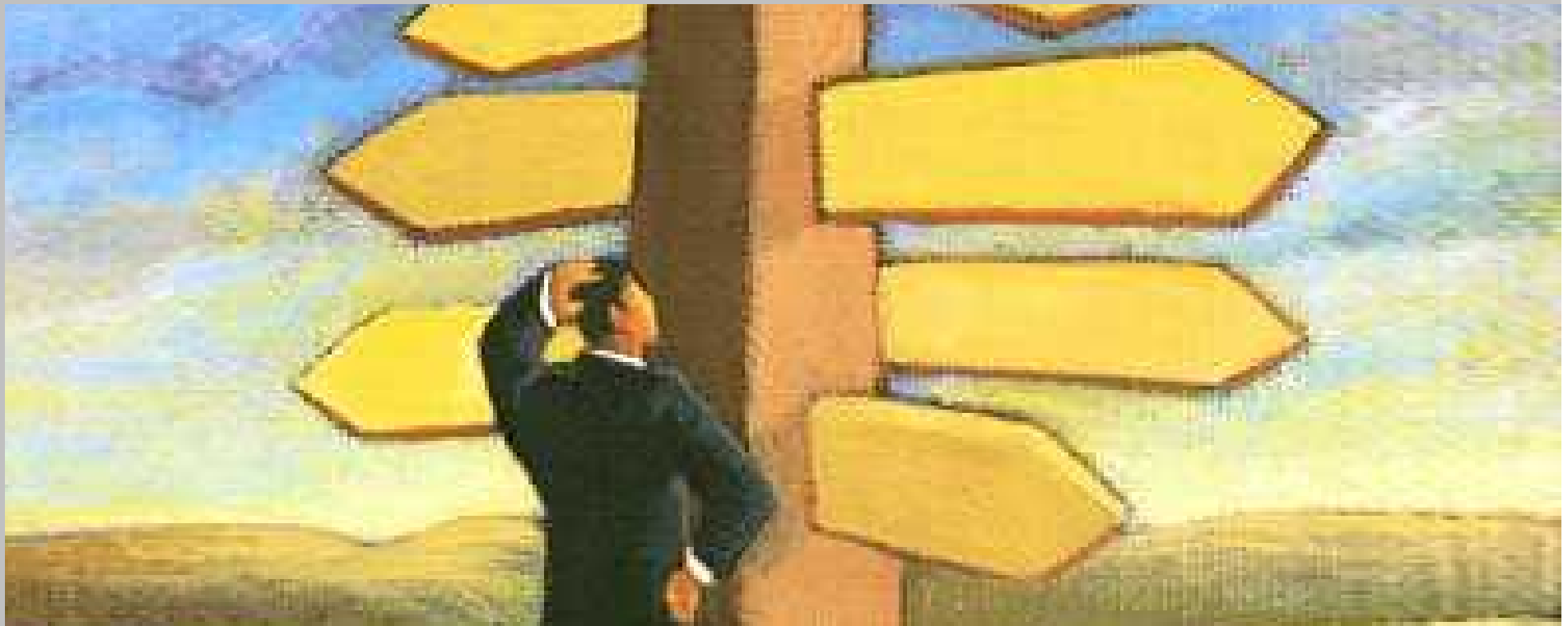
- Land acquisition
- Increase public awareness (river's managers, fishermen, farmers, general public, schools)
- ...

Six rivers / six different contexts

Different contexts

Different threats

Different means to recover a favourable environment



Involved actors to recover a favourable habitat for FWPM

River	Undertaken actions
Bonne Chère	Restoration contract leaded by the Syndicate of the Blavet river valley
Elez	Natura 2000 contracts (Armorique National Nature Park) ; Fishing Federation of Finistère actions ; Council of Finistère department
Loc'h	Natura 2000 contracts (CCCA/CCKB) ; Restoration actions leaded by the Syndicate of Kerné-Uhel ; Fishing Federation of Côte-d'Armor actions
Airou	Restoration contract leaded by the SIAES ; Natura 2000 contracts (SIAES)
Rouvre	Restoration actions leaded by the Syndicate of the Rouvre river ; Syndicate of communes of Athis ; Syndicate of drinking water of the Houlme ; Natura 2000 contracts (CPIE des Collines normandes) ; Fishing Federation of Orne actions
Sarthon	Restoration contract leaded by the Normandie-Maine National Nature Reserve ; Natura 2000 contracts (Normandie-Maine National Nature Reserve)

Six different rivers in linear and catchment size

River	Catchment size (km ²)	Catchment size (km ²) in Natura 2000 area	River linear with tributaries (km)	River linear with tributaries (km) in Natura 2000 area
Bonne Chère	17,37	0,19	26,7	2,0
Elez	27,70	9,71	29,7	21,2
Loc'h	18,65	0,99	28,9	9,2
Airou	115,31	7,08	138,6	64,7
Rouvre	324,36	4,29	360,9	12,4
Sarthon	120,33	19,52	127,6	127,6

Example 1

Bonne Chère catchment

What ?

25 drinking places
6,5 km of fences

Why ?

Prevent livestock access to
the stream

Avoid the putting in
suspension of fine
materials

Improve water quality

Who ?

The Syndicate of the
Blavet river valley



Example 1

Bonne Chère catchment

Where ?

Areas without river forest
Destroyed banks

How ?

Determination of strategic
places with land owners or
tenants

When ?

2011-2012

How much ?

15 000 €



Example 2

Elez catchment

What ?

Agricultural contracts of the Natura 2000 network

3 km² on the Elez catchment : mowing or pasture of wet meadows, moors, peatlands

Why ?

Natural dynamics of afforestation due to the decrease of agricultural activity

Who ?

Armorique National Nature Park



Example 2

Elez catchment

Where ?

In the area of the mountains of Arrée

How ?

5 years contracts for moors and wet meadows management

Initial diagnostic of the lands

No fertilization, no ploughing or phytosanitary treatments

When ?

Since 1993

Founders ?

Gouvernement 25 % +
Europe (FEADER) 75 %

Results ?

great success with farmers

25 km² of natural habitat
(3 km² upstream Elez river)

100 farmers in the mountains of Arree in the process



Example 3

Loc'h catchment

What ?

Cutting 2 ha of coniferous trees

Why ?

Bank erosion, no light, no riparian vegetation

Who ?

National Office of Forests



Example 3

Loc'h catchment

Where ?

Riparian plots of the Loc'h river

How ?

**Short cut and then
hardwood plantation**

When ?

Winter 2012-2013



Example 4

Airou catchment

What ?

280 water places for cattle

100 ford crossing

75 km of fences

Why ?

**More than 70 % meadows
on the Airou river banks**

**Important concentration
of animals (more than
24 400 cattle)**

Who ?

**Intermunicipal federation
of the Sienne catchment**



Example 4

Airou catchment

Where ?

On the riparian plots of the 90 km of river on the Airou catchment

How ?

Proposition of actions by a technician to the owners

240 persons are concerned by the stream restoration programme

When ?

Winter 2009-2013

How much ?

1 171 000 € (public funds)
(free for owners)



Example 5

Rouvre catchment

What ?

Razing a dam on the Rouvre river (old mill threshold)



Why ?

water flow reduction (as a pond on 500 m long)

homogenisation of the flow and habitats

increased temperature and evaporation

very high sedimentation upstream

Fish migration barrier

Who ?

Fishing federation of Orne



Example 5

Rouvre catchment

Where ?

On the Rouvre river

How ?

**Slow opening of the gates
(2 years)**

**destruction of the
threshold**

stabilisation of the bank

When ?

2011

How much ?

38 520 €



Example 6

Sarthon catchment

What ?

Replace an upstream river
in its natural bed



Why ?

modification of the little
upstream rivers

destruction of the river
bank

simplification of the flow

substrate depletion : river
bed dugged, river banks
destabilized...

Who ?

Natural Park of
Normandie-Maine



Example 6

Sarthon catchment

Where ?

On the stream Arcis from the Sarthon catchment



How ?

Natural plugs are put in upstream and downstream of the area

Stream Natural topography comes back

Maintain water level during low water

When ?

2013

How much ?

50 €/m³

50-100 €/ml (variable)



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