

## OTHER EXAMPLES OF EEL PASS ADAPTED TO DIFFERENT TYPES OF DAMS AND WEIRS



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## Short presentation of Fish Pass

- FISH PASS is a research consultancy office founded in 1989 and specializing in applied ichthyology.
- We carry out different studies and actions about eel :
  - Design and installation of eel pass,
  - Scientific and technical supports for restocking operations
  - Population survey (up stream and down stream migration monitoring, stock monitoring)



## Different types of eel pass

- Rustic pass :
  - Adapted to small weir
  - Directly installed on the concrete of the weir



# Eel ladder, Yvias gauging water flow station, Leff river

Type : Rustic ladder



Before and after eel ladder building



Numerous rivers flow gauging stations are impassable for eel colonization of rivers, Fish Pass created a specific new type of eel ladder.



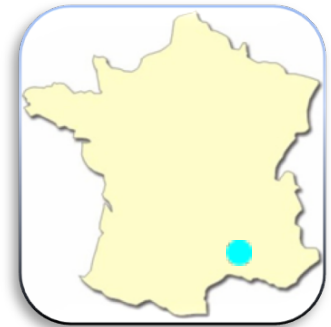


# Eel facility , Rhône tributary on the right bank

Type : Eel facility to pass a strong water flow



The water flow is very strong at the entrance of the tributary.



Eel brushes are bolted along the wall at the usual water level Eel can migrate upstream..



## Different types of eel pass

- Prefabricated pass
  - Adapted to medium weir
  - Fixed with iron, or concrete



# Prefabricated eel gutter, Pont Sal dam.

Type : prefabricated eel gutter



Dam equipped with a prefabricated gutter



Working gutter

The gutter equip a dam.

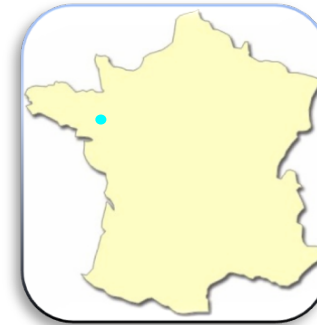
The change of altitude is of 5,50 metres. The eel pass is supplied with water gravitationally. Its configuration is suited for the dam. The pass is made of prefabricated components, the gutter is directly settled on the dam.





# Eel Pass, Beaujouet Nozay, Don river

Type : Prefabricated crawling gutter ; concrete



Prefabricated gutter with brushes substratum





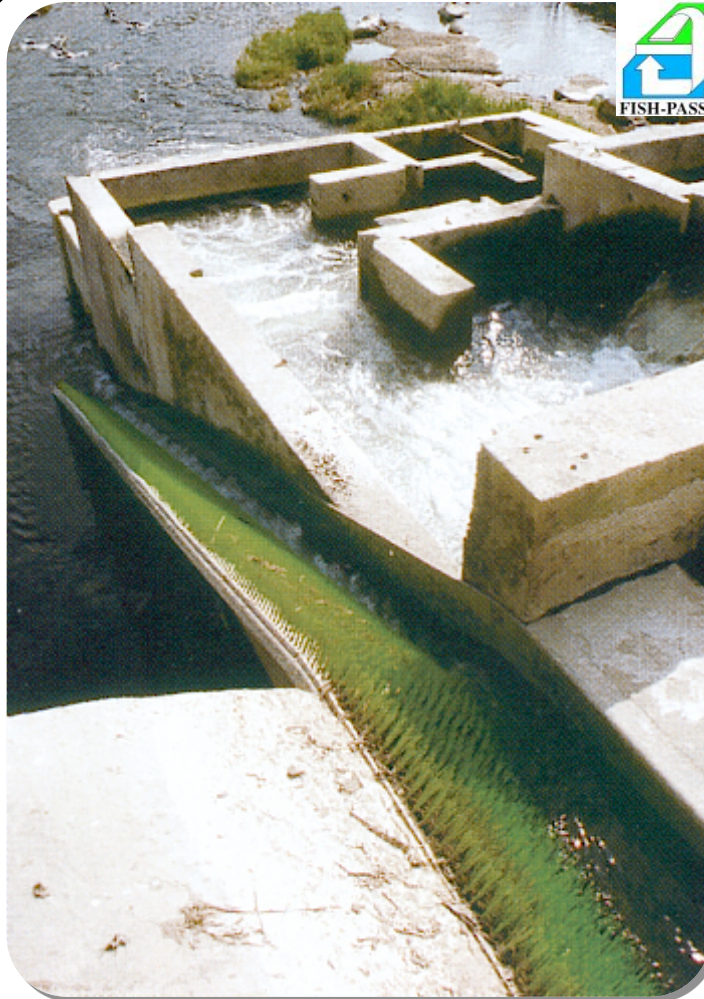
## Different types of eel pass

- Systems adapted to other types of fishways
  - Some dams are equipped for migration of fish like Salmon, Trout... but not for eel
  - It is possible to adapt this fishways



# Eel Pass, Fourneau Vire river

Type : Prefabricated crawling gutter ; Iron or polyester

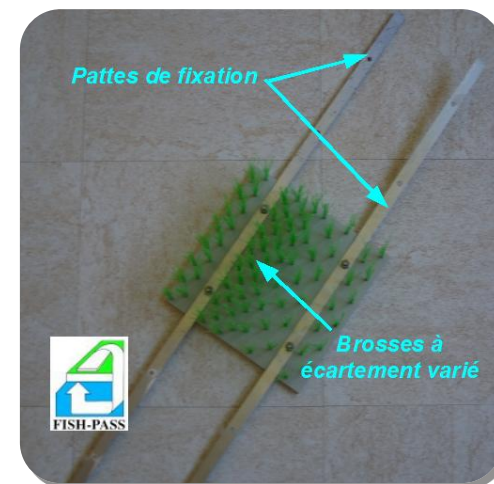


Eel crawling gutter with brushes substratum  
associate to pool fishway



# Eel Pass, Eel adaptation for pool fishway, Oust River

## Type : Brushes for pool fishways



Specific brushes facilities to reduce selectivity in pool fishway for eels, lampreys

....





# Eel Pass, Ignerelle dam Loir river

Type : Specific crawling gutter adapted to baffle fishway



Brushes substratum associate with  
baffle fishway and canoë passage





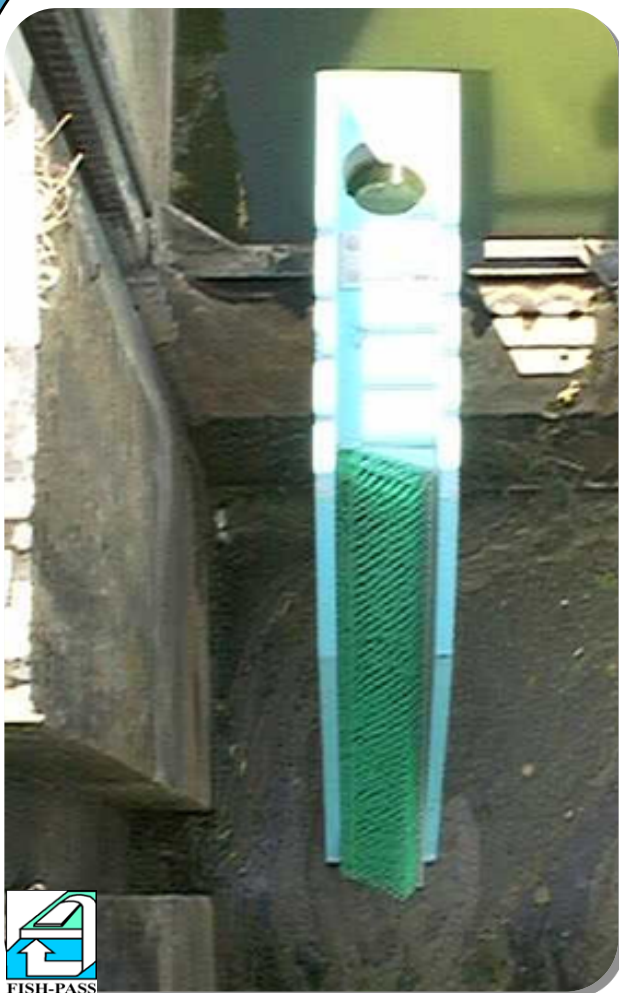
## Different types of eel pass

- Systems adapted to moving dams
  - It is also possible to equipped moving dams like rising gate or flood gate



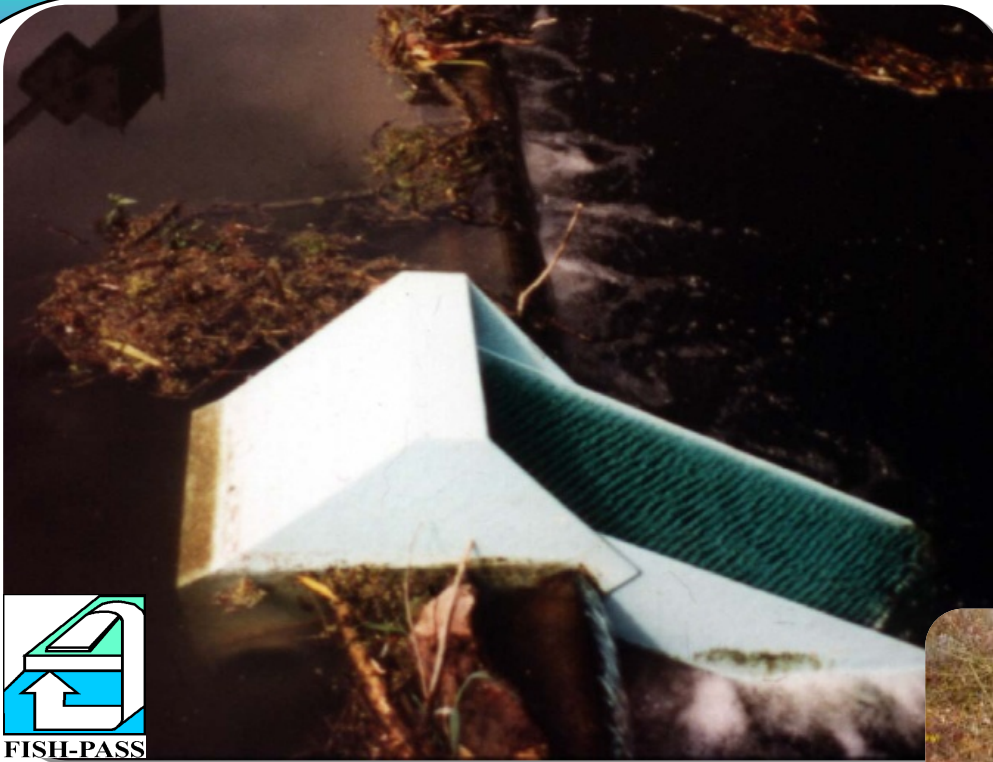
# Eel pass for rising gate, Marais poitevin marshes Sotterie dam

Type : Eel pass for rising gate



# Eel pass for floodgate, St Arnaud Dam, Marais poitevin marshes

Type : Prefabricated eel pass for floodgate



During high flow, the floatable crawling gutter is automatically in surface



During migrating season the floatable crawling gutter is used by eels. The upstream mask protect the ladder from trashes.



## Different types of eel pass

- Systems adapted to high dams
  - Modular eel ladder with rest basins





# Eel Pass, Rochereau dam, Lay river

Type : Prefabricated modular eel ladder



Modular eel ladder with  
counting facilities for high  
dam



# Eel Pass, Vouraie, Vouraie river

Type : Prefabricated modular eel ladder



**Modular eel ladder with counting facilities for high dam**



## Different types of eel pass

- Concrete substratum
  - Adapted for gentle slope





# Eel Pass, Bompas Dam, Durance river

**Type :** Specific crawling gutter ; plot substratum concrete or plastic



**Eel ladder with concrete plot substrate**



## Different types of eel pass

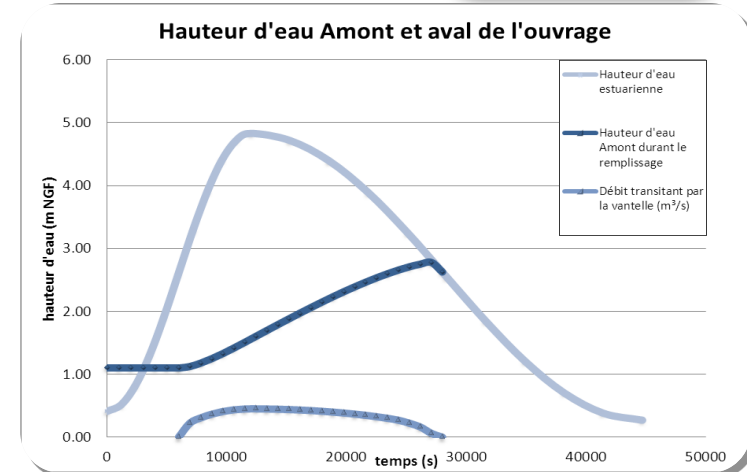
- Tidal sluice for estuary's dam system
  - It is a small gate installed on the estuary dam which can be open according to the tide
  - That permits to let the glass eels enter up stream of the dam with low quantity of salt water



# Tidal sluice for glass eels, Estey d'Erans, Garonne Estuary

Type : Estuary dam's system for glass eels migrations

A small gate is specially created in the sluice



Hydraulic simulations verify water level fluctuations upstream the dam with the tide.



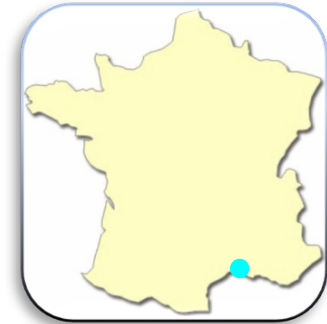
## Different types of eel pass

- Trapping systems
  - Adapted to up stream migration survey



# Eel Pass, Saintes Maries de la Mer Vaccarés ( Camargue)

Type : Eel trapping kit



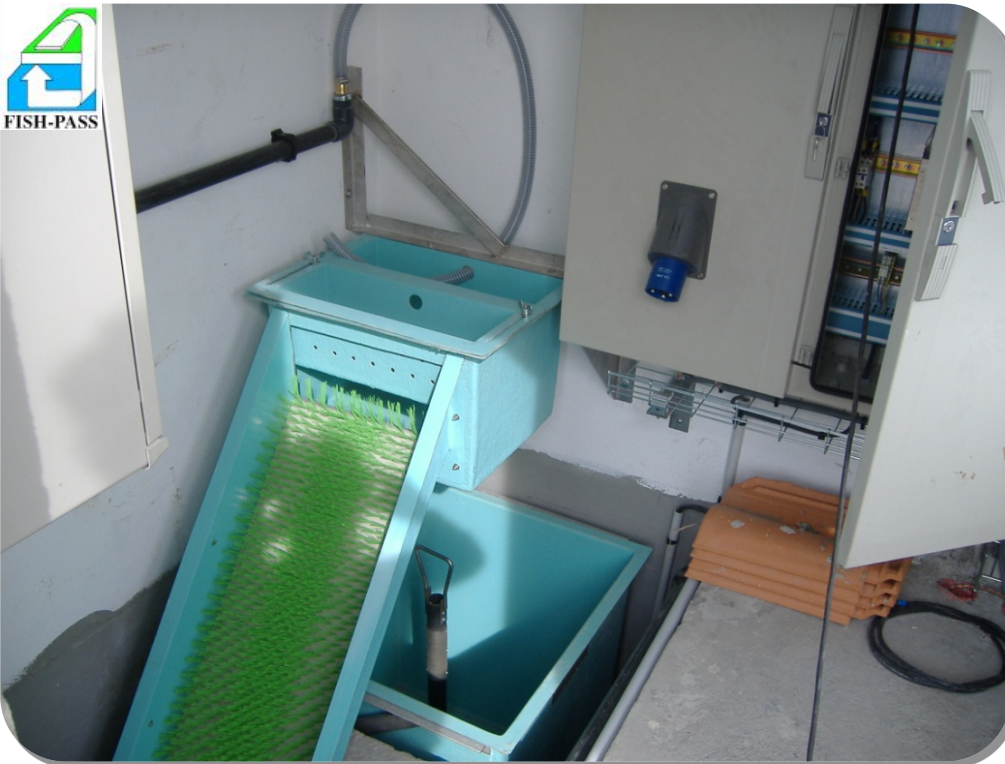
Estuarine eel ladder with counting facilities using modular eel ladder.





# Eel Pass, Vallées dam Vie estuary

Type : Prefabricated modular eel ladder



Estuarine eel ladder with counting facilities using modular eel ladder.



# Eel Trap, Abbeville dam Somme river

Type : Eel trapping kit



Eel trapp using the trapping kit with counting facilities





# Thanks for your attention.



## Do you have some questions?

