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Observatoires et collections, à quoi ça sert ?

Etienne Prévost

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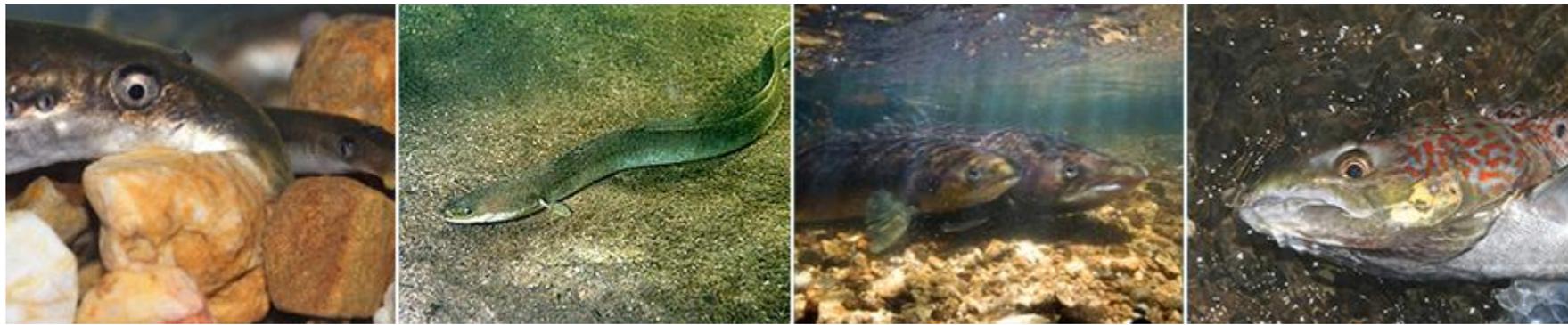
Submitted on 28 Sep 2022

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Observatoires et collections, à quoi ça sert ?

Etienne PREVOST



ORE DiaPFC

Observatoire de recherche
en environnement
sur les poissons diadromes
dans les fleuves côtiers

Infrastructure de recherche



Saumon atlantique



Truite commune



Aloses



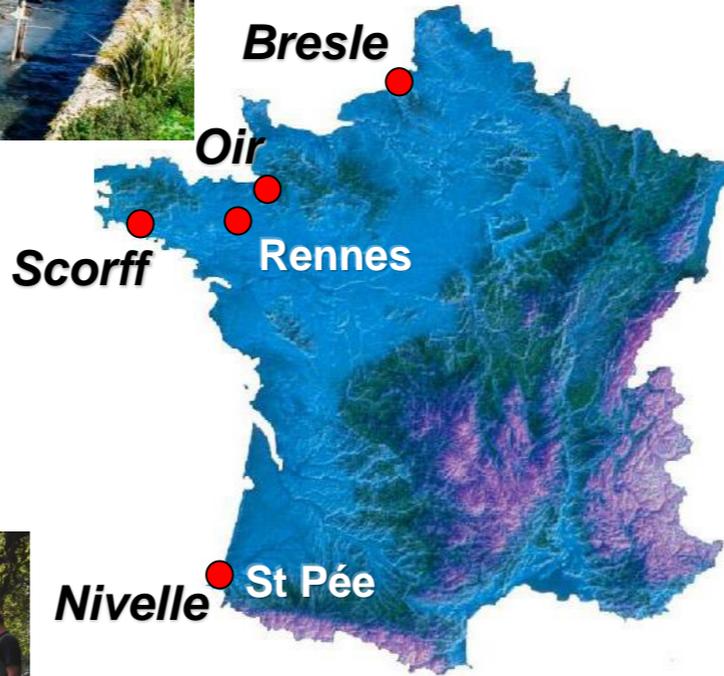
Lamproie marine



Anguille européenne

<https://www6.inrae.fr/diapfc>

ORE DiaPFC un réseau multi-site



Installations expérimentales



Suivis à
long terme
in natura

ORE DiaPFC un réseau multi-site



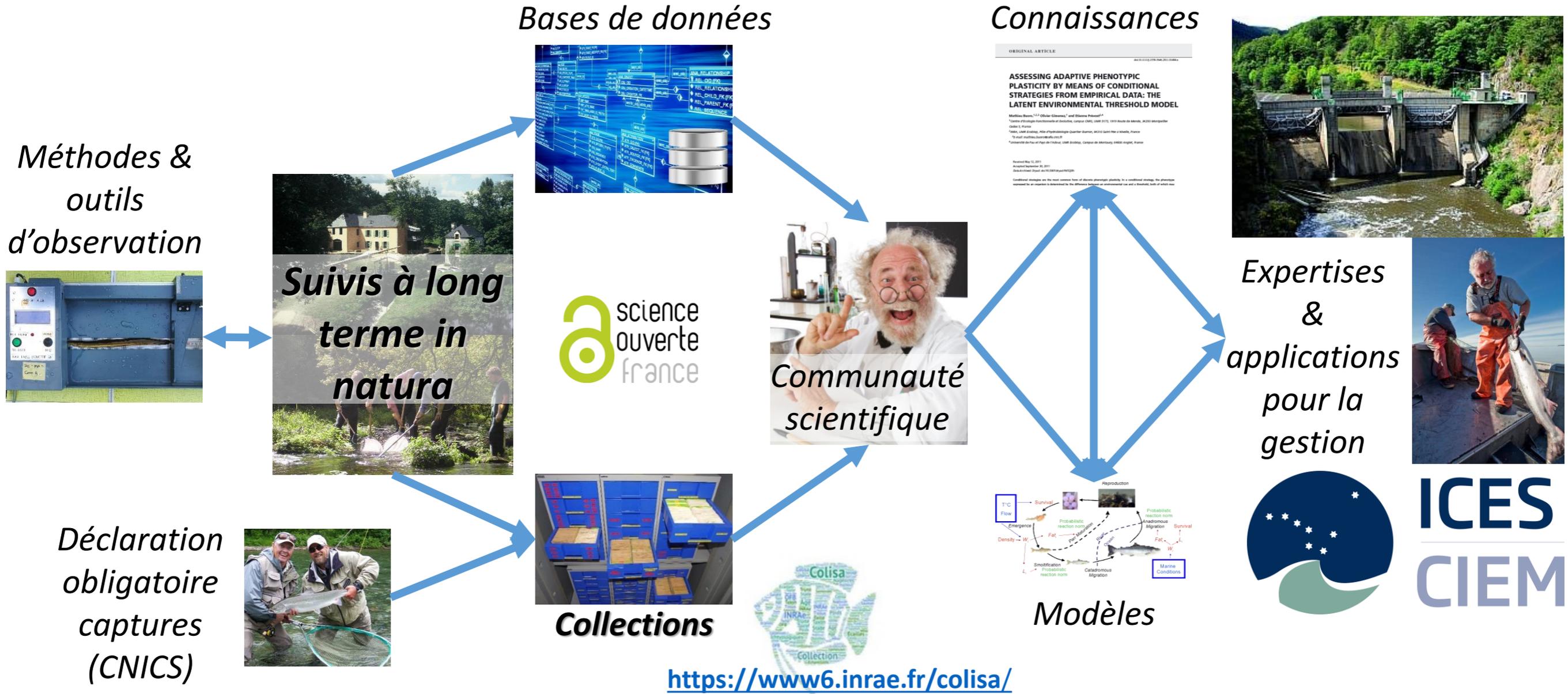
Suivis à long terme *in natura*



Installations expérimentales



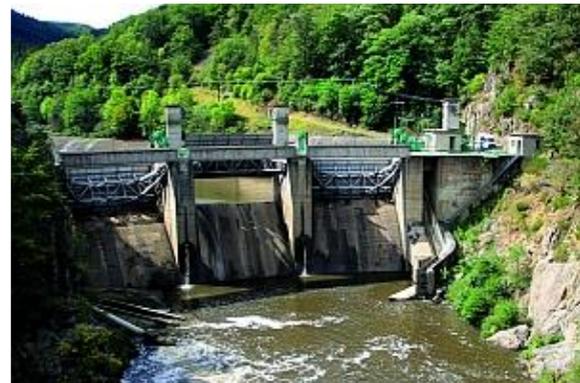
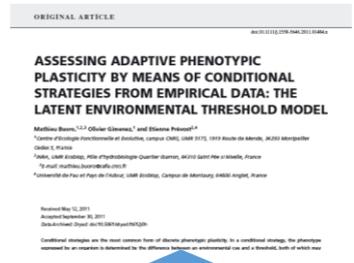
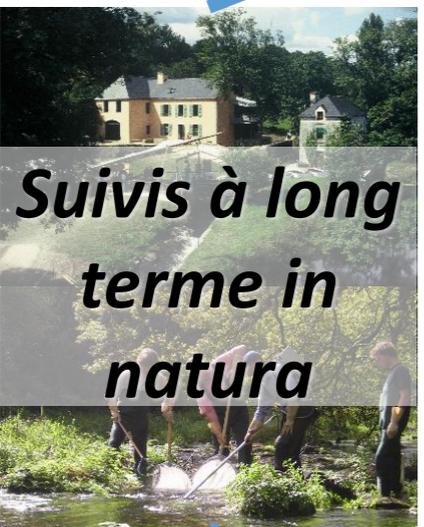
Observatoire & collection : quels utilisations ?



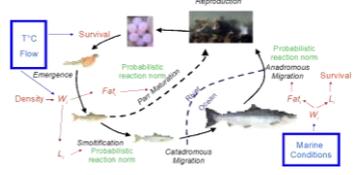
Bases de données

Connaissances

Méthodes & outils d'observation



Expertises & applications pour la gestion



Modèles



<https://www6.inrae.fr/colisa/>

Développement de méthodes de suivis à long terme ?

Bull. Fr. Pêche Piscic. (1999) 352 : 19-29

— 19 —

RELATION ENTRE INDICATEUR D'ABONDANCE DE TYPE CPUE ET ESTIMATION DE DENSITÉ PAR ENLÈVEMENTS SUCCESSIFS POUR LES JUVÉNILES DE SAUMON ATLANTIQUE (*SALMO SALAR* L.) DE L'ANNÉE.

E. PRÉVOST (1) et A. NIHOARN (2)



Ecological Modelling 222 (2011) 1069–1079

Contents lists available at ScienceDirect

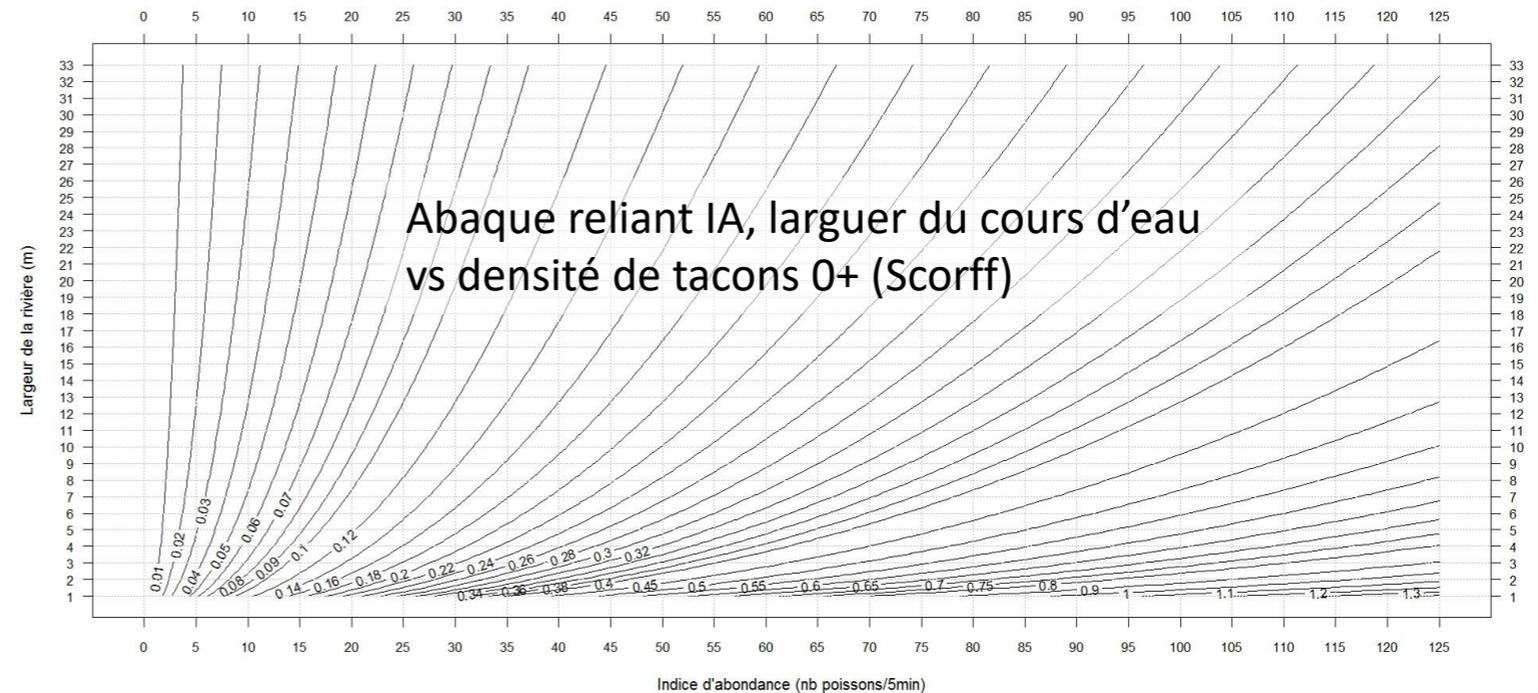
Ecological Modelling

journal homepage: www.elsevier.com/locate/ecolmodel



Estimating an homogeneous series of a population abundance indicator despite changes in data collection procedure: A hierarchical Bayesian modelling approach

Mélanie Brun^{a,b,d,e,*}, Christophe Abraham^{d,e}, Marc Jarry^{a,c}, Jacques Dumas^{a,b}, Frédéric Lange^{a,b}, Etienne Prévost^{a,b}



Observatoire & collection : quels utilisations ?

Méthodes & outils d'observation



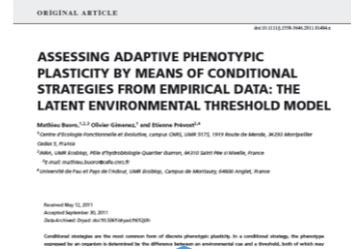
Déclaration obligatoire captures (CNICS)

Bases de données

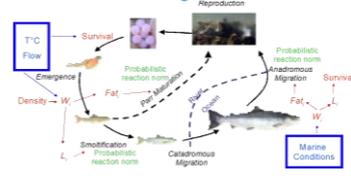
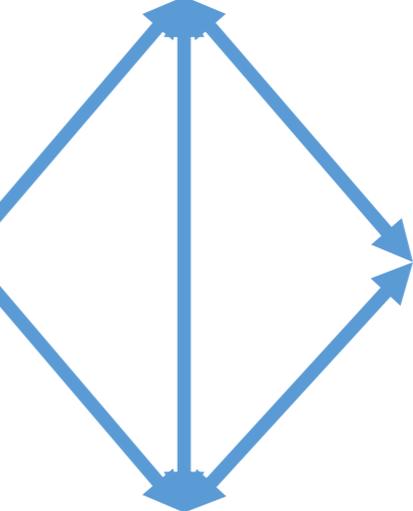


<https://www6.inrae.fr/colisa/>

Connaissances



Expertises & applications pour la gestion

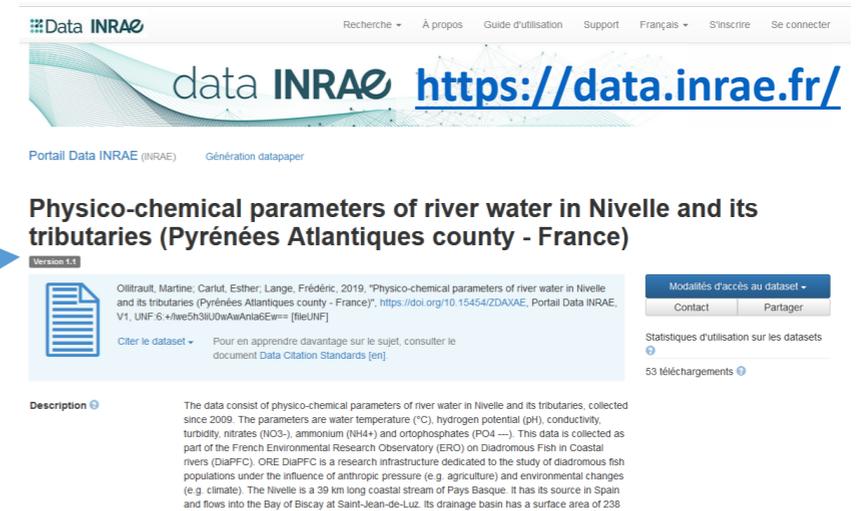


Modèles



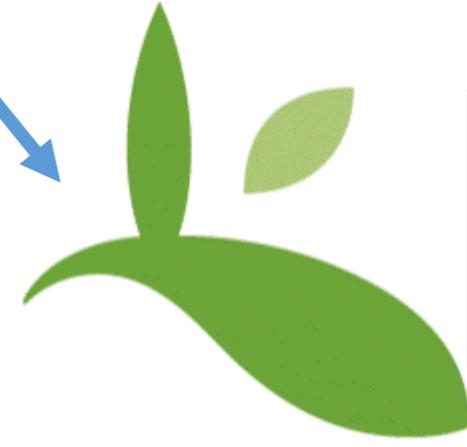
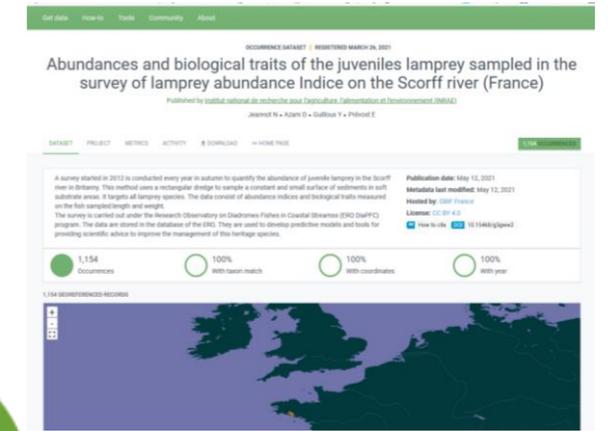
ICES
CIEM

Comment accéder aux données des suivis à long terme ?



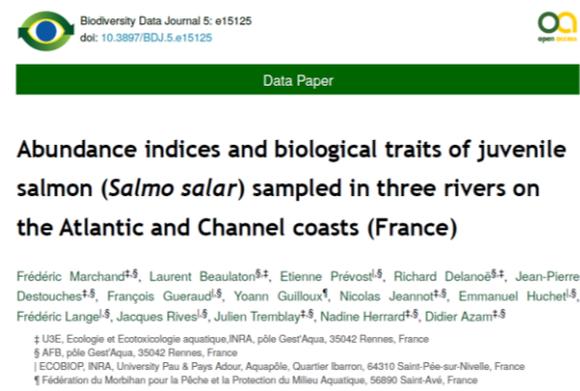
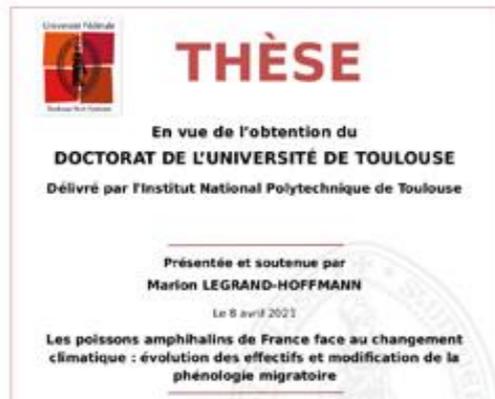
Demandes particulières

Data paper



www.gbif.org

GLOBAL BIODIVERSITY INFORMATION FACILITY



Observatoire & collection : quels utilisations ?

Méthodes & outils d'observation



Suivis à long terme in natura

Déclaration obligatoire captures (CNICS)



Bases de données



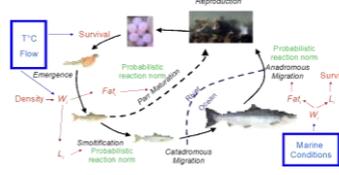
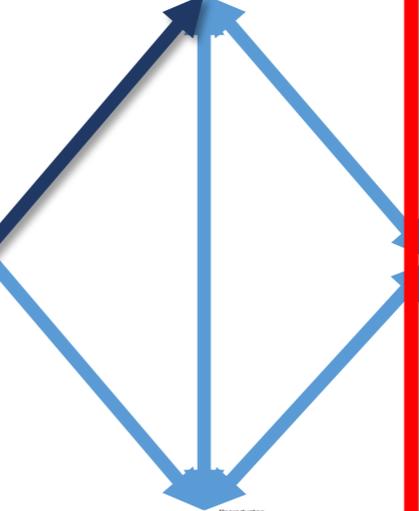
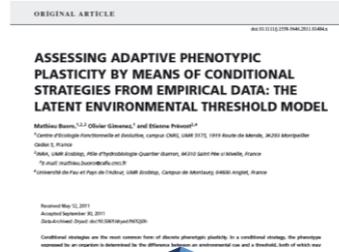
Communauté scientifique



Collections



Connaissances



Modèles



Expertises & applications pour la gestion



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<https://www6.inrae.fr/colisa/>



Saumon atlantique

Productions de connaissances



ORIGINAL ARTICLE
doi:10.1111/j.1558-5646.2010.01929.x

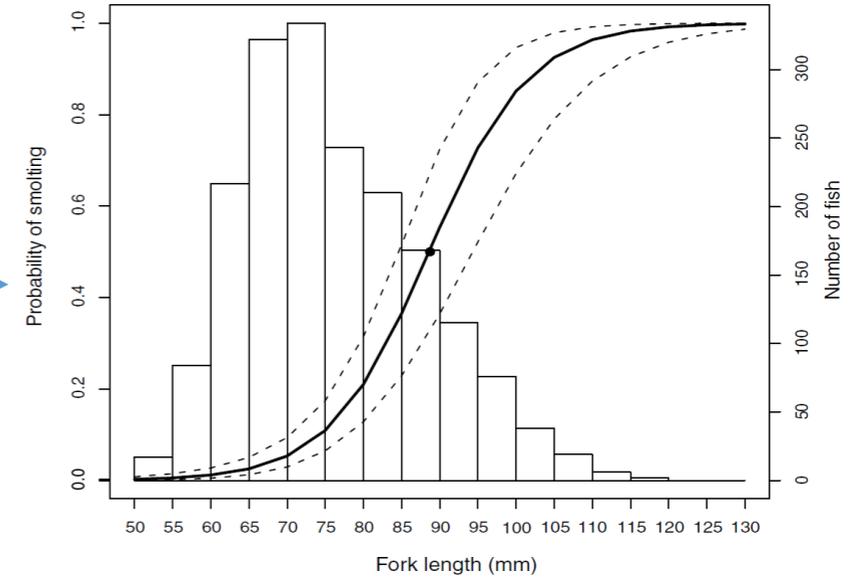
INVESTIGATING EVOLUTIONARY TRADE-OFFS IN WILD POPULATIONS OF ATLANTIC SALMON (*SALMO SALAR*): INCORPORATING DETECTION PROBABILITIES AND INDIVIDUAL HETEROGENEITY

Mathieu Buoro,^{1,2,3} Etienne Prévost^{2,4,5} and Olivier Gimenez^{1,4}

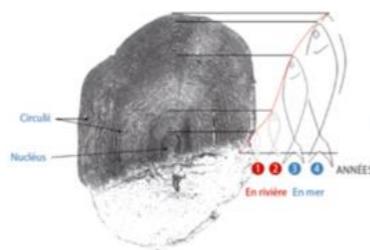
¹Centre d'Ecologie Fonctionnelle et Evolutive, campus CNRS, UMR 5175, 1919 Route de Mende, 34293 Montpellier Cedex 5, France
²INRA, UMR Ecobiop, Quartier Ibarron 64310 Saint Pie Stivelle, France
³E-mail: mathieu.buoro@cefe.cnrs.fr
⁴Université de Pau et Pays de l'Adour, UMR Ecobiop, Campus de Montaur, 64600 Anglet, France
⁵E-mail: eprevost@st-pee.inra.fr
⁶E-mail: olivier.gimenez@cefe.cnrs.fr

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Evolution 64: 9–2029–2042
2629

Buoro et al. 2010



Ages de rivière et de mer dépendent de la croissance



ARTICLE

Growth during the first summer at sea modulates sex-specific maturation schedule in Atlantic salmon

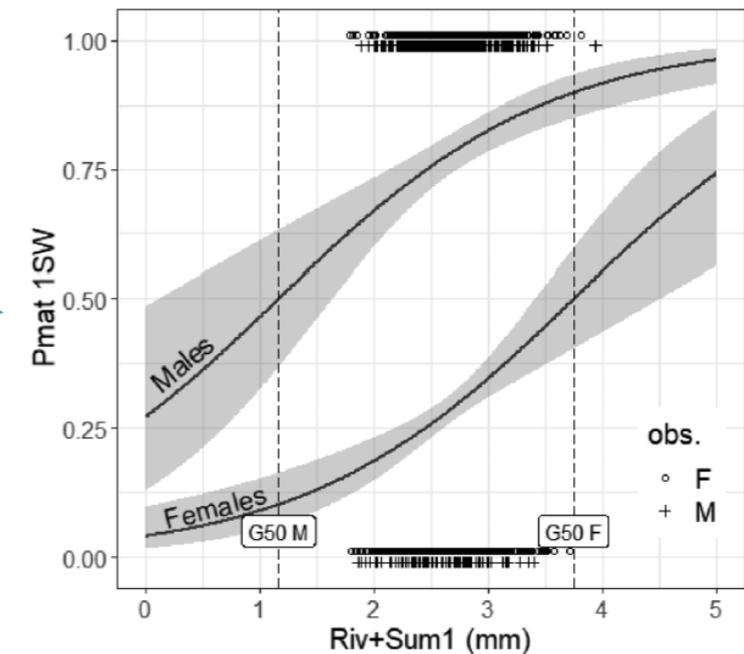
Cécile Trehin, Etienne Rivot, Ludvine Lamureau, Lisa Mestier, Anne-Laure Bernard, Stephen D. Gregory, and Marie Nevoux

Received 20 June 2020; Accepted 12 December 2020

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Can. J. Fish. Aquat. Sci. 78: 659–669 (2021). doi:10.1139/cjfas-2020-0236. Published at www.nrcresearchpress.com/cjfas on 19 December 2020.

Trehin et al. 2020





Saumon atlantique

Agrégation des connaissances par des modèles

Ecological Modelling 231 (2012) 37–52

Contents lists available at SciVerse ScienceDirect

Ecological Modelling

journal homepage: www.elsevier.com/locate/ecolmodel



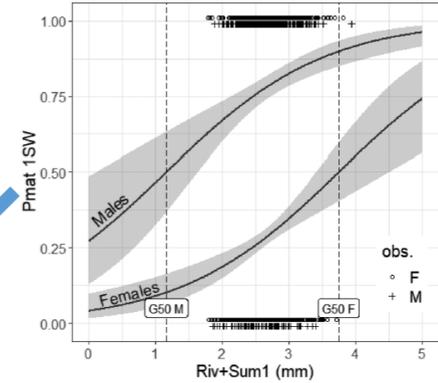
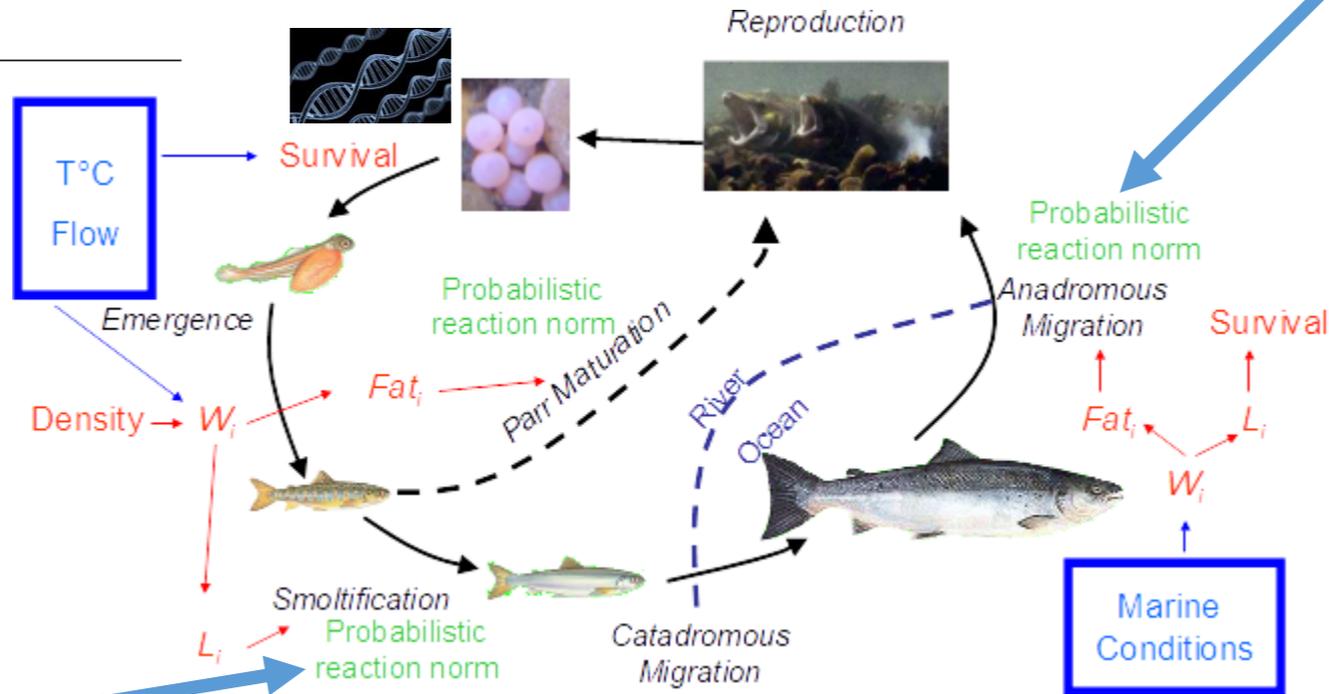
A demo-genetic individual-based model for Atlantic salmon populations: Model structure, parameterization and sensitivity

Cyril Piou^{a,b,*}, Etienne Prévost^{a,b}

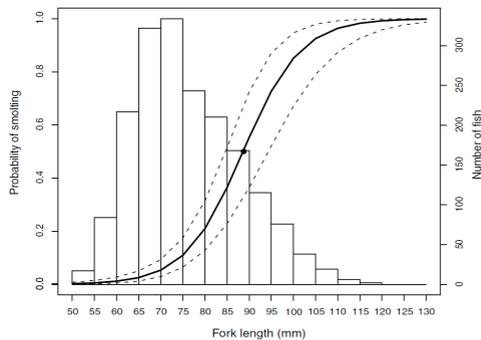
^a INRA, UMR ECOBIOP, Station Hydrobiologique INRA, Quartier Itharon, 64310 St-Pée sur Nivelle, France
^b UPPA, UMR ECOBIOP, UFR Sciences et Techniques Côte Basque, Campus Montoury, 64600 Anglet, France

IBASAM

Simulateur démogénétique



Synthétise et articule les connaissances disponibles sur les processus démogénétiques chez le saumon atlantique : plasticité, génétique explicite, forçage environnementaux



Chaque individu explicitement représenté de sa naissance jusqu'à sa reproduction et/ou sa mort

Observatoire & collection : quels utilisations ?

Méthodes & outils d'observation



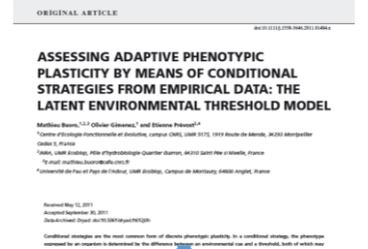
Déclaration obligatoire captures (CNICS)



Bases de données



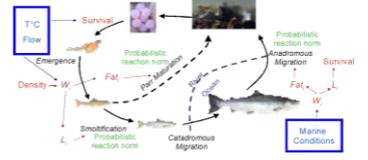
Connaissances



Communauté scientifique



Collections



Modèles



Expertises & applications pour la gestion



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<https://www6.inrae.fr/colisa/>



Saumon atlantique

Calibration des modèles par des séries de données à long terme

Ecological Modelling 231 (2012) 37–52

Contents lists available at SciVerse ScienceDirect

Ecological Modelling

journal homepage: www.elsevier.com/locate/ecolmodel

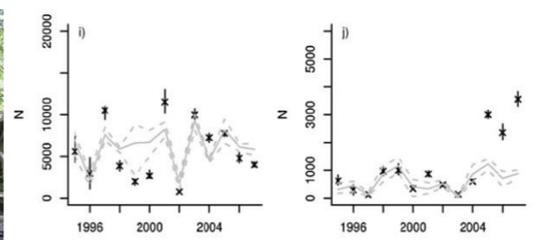
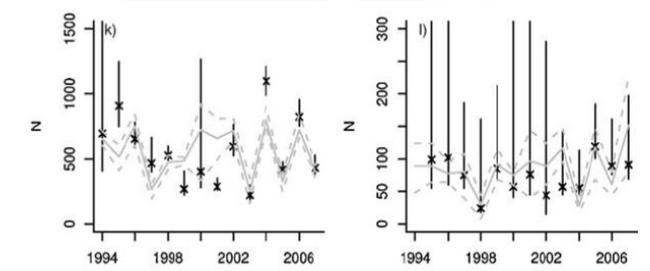
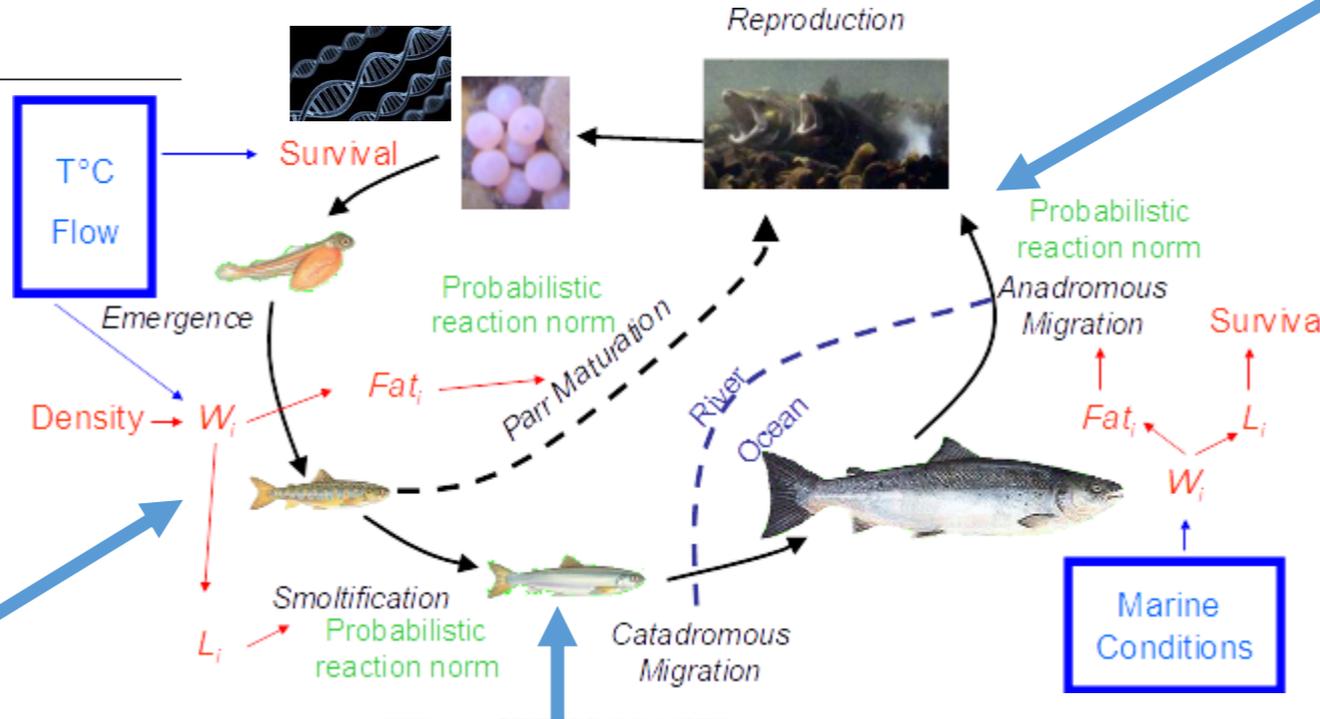
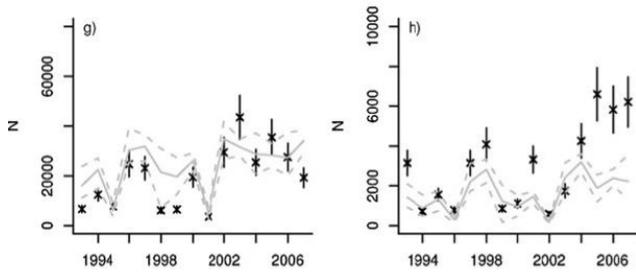


A demo-genetic individual-based model for Atlantic salmon populations: Model structure, parameterization and sensitivity

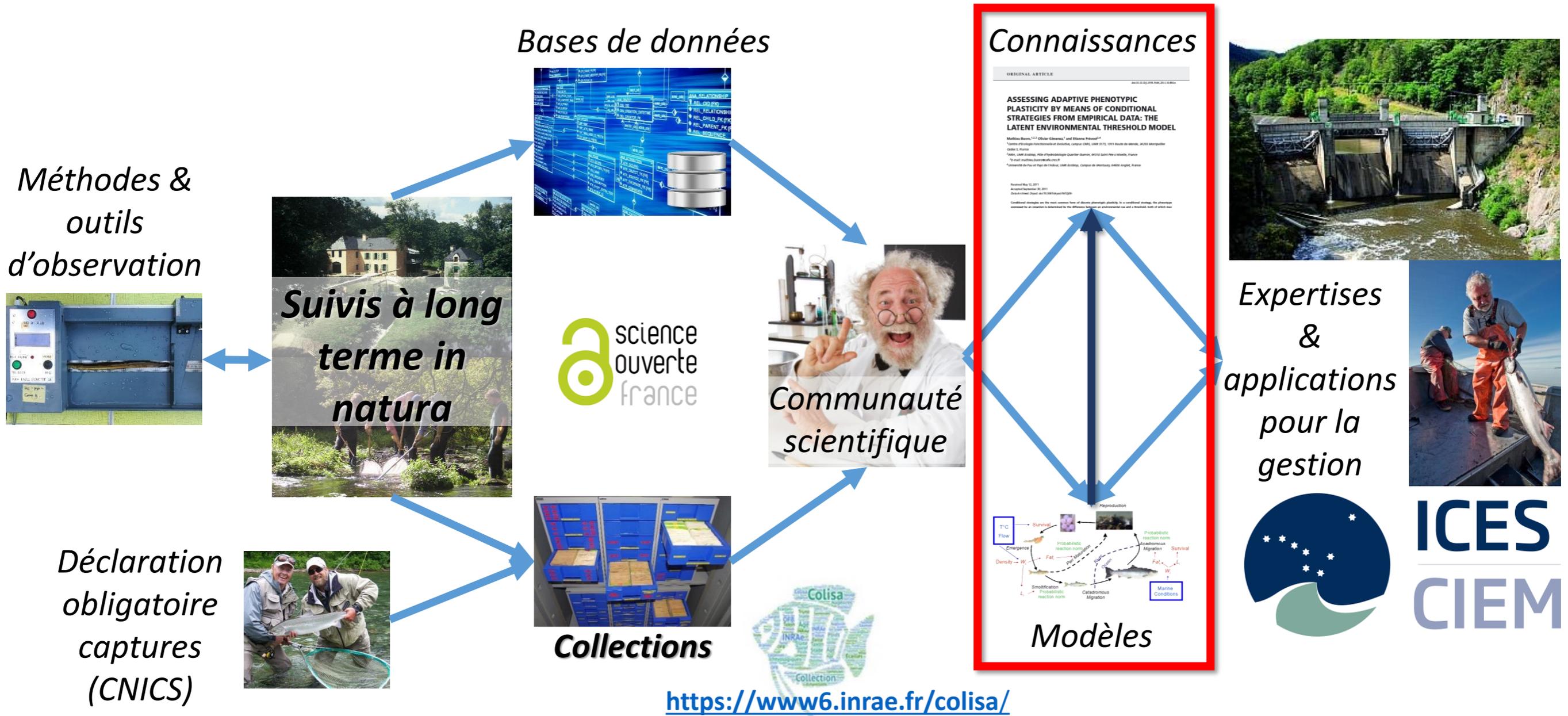
Cyril Piou^{a,b,*}, Etienne Prévost^{a,b}

^a INRA, UMR ECOBIOP, Station Hydrobiologique INRA, Quartier Itharon, 64310 St-Pée sur Nivelle, France
^b UPPA, UMR ECOBIOP, UFR Sciences et Techniques Côte Basque, Campus Montoury, 64600 Anglet, France

IBASAM



Observatoire & collection : quels utilisations ?

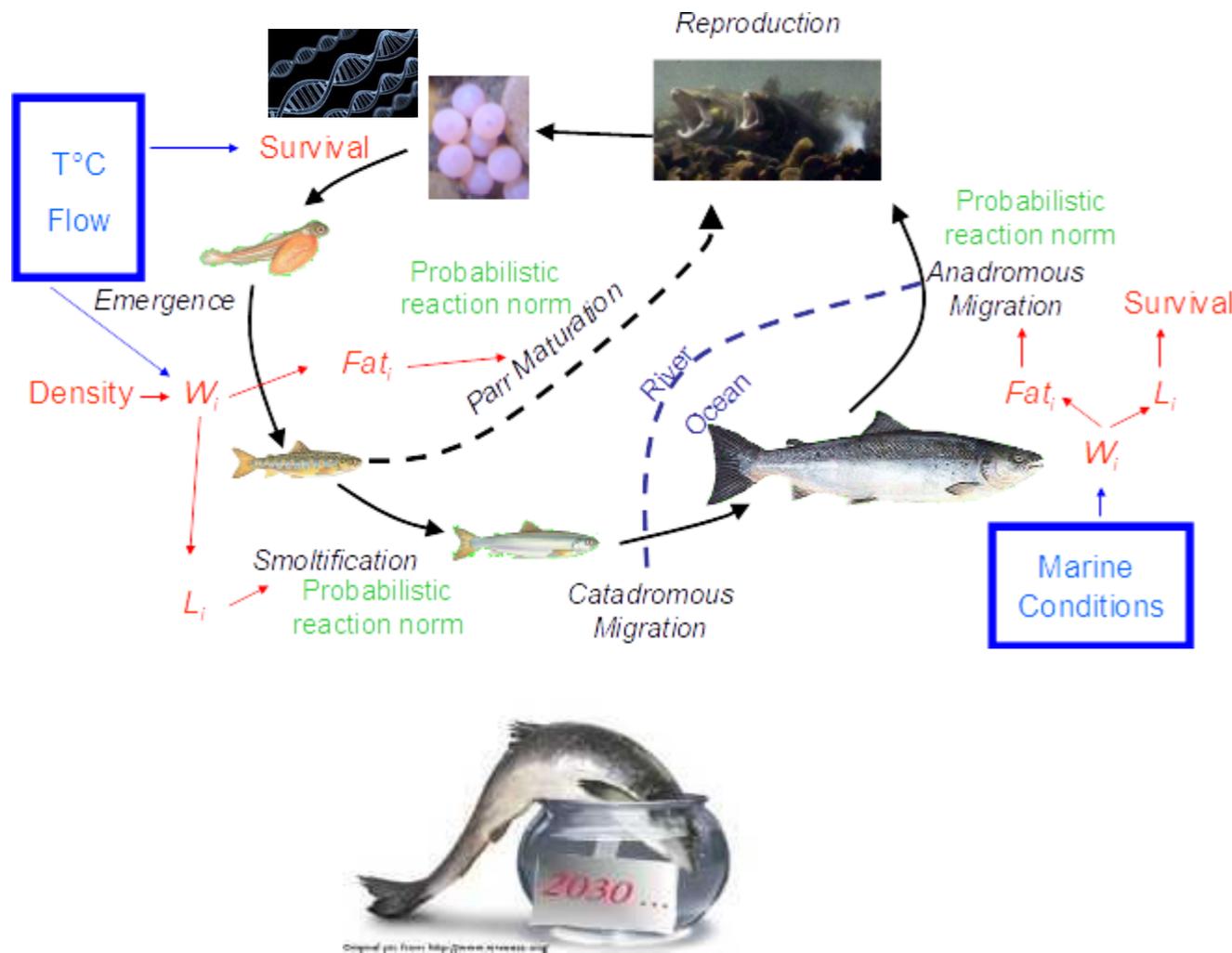




Saumon atlantique

Production de connaissances à partir des modèles

IBASAM



Global Change Biology

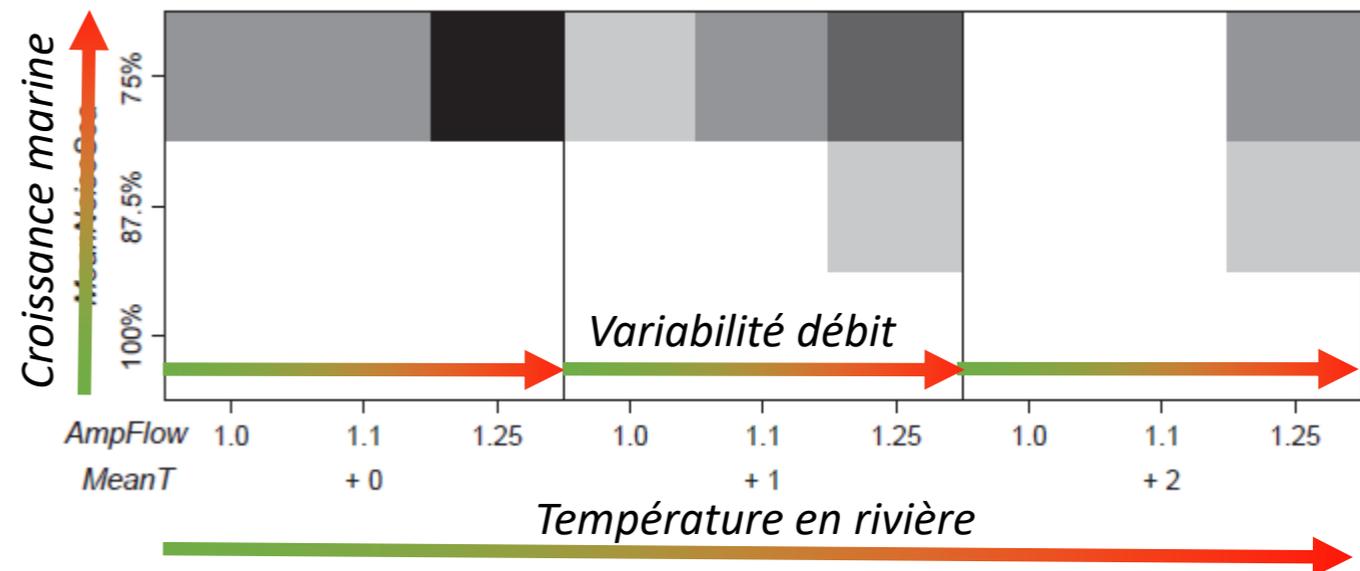
Global Change Biology (2013) 19, 711–723, doi: 10.1111/gcb.12085

Contrasting effects of climate change in continental vs. oceanic environments on population persistence and microevolution of Atlantic salmon

CYRIL PIOU*†‡ and ETIENNE PRÉVOST*†

*INRA, UMR 1224 ECOBIOP, Aquapôle, Quartier Ibaron, Saint-Pée sur Nivelle 64310, France, †Pau and Pays Adour University, UFR Sciences et Techniques Côte Basque, Campus Montaury, Anglet 64600, France, ‡CIRAD, UPR Bioagresseurs analyse et maîtrise du risque, Montpellier F-34398, France

Risque d'extinction à 50 ans



Observatoire & collection : quels utilisations ?

Méthodes & outils d'observation



Déclaration obligatoire captures (CNICS)



Bases de données



Communauté scientifique

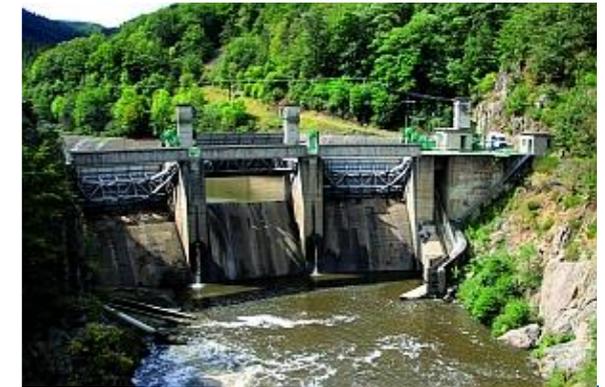
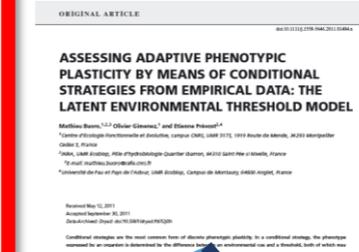


Collections

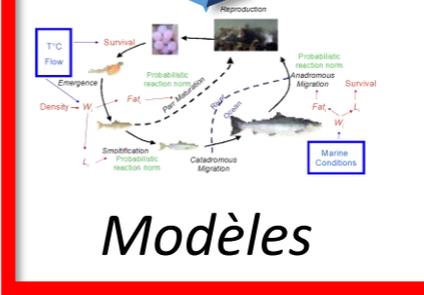
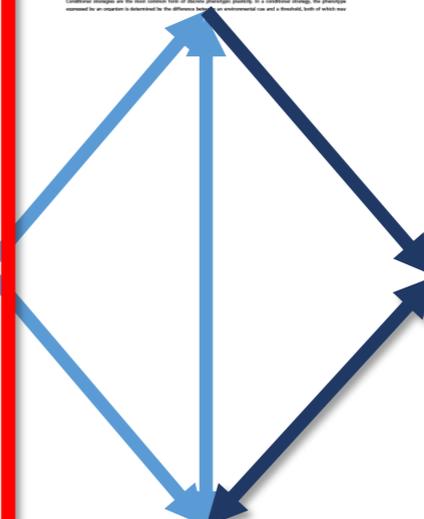


<https://www6.inrae.fr/colisa/>

Connaissances



Expertises & applications pour la gestion



Modèles

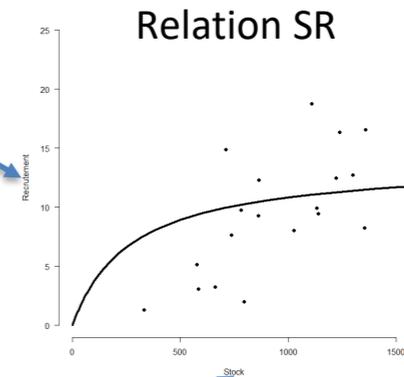
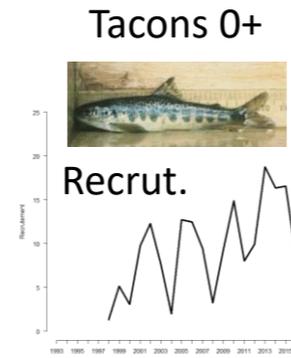
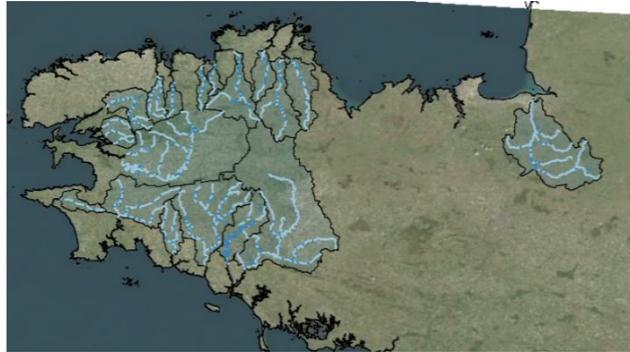


ICES
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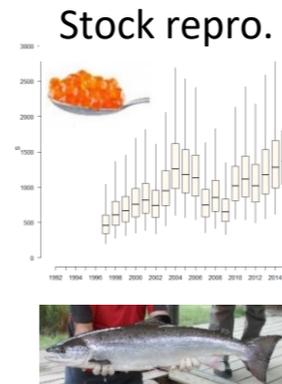
Saumon atlantique

Application pour la gestion : limites de conservation



LC

- LC = référence basse → en dessous : danger
- LC : seuil de stock reproducteur qui évite les faibles recrutements
- Repartir d'une analyse de relation stock-recrutement (SR)





Saumon atlantique

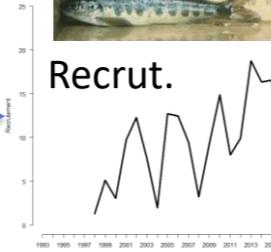
Application pour la gestion : limites de conservation



Tacons 0+

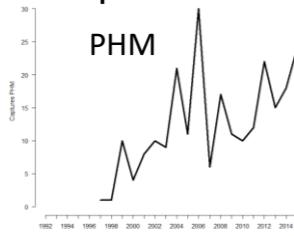


Recrut.

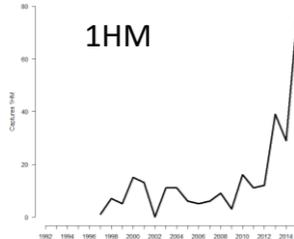


Captures

PHM

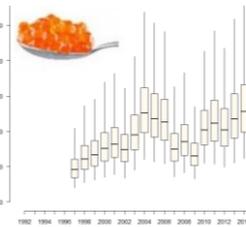


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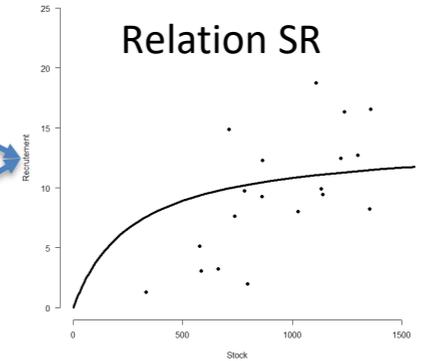
Taux expl.

Stock repro.



COUESNON

Relation SR



LC



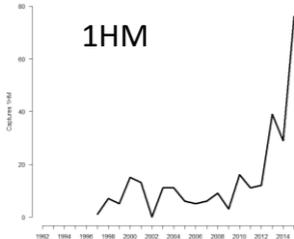
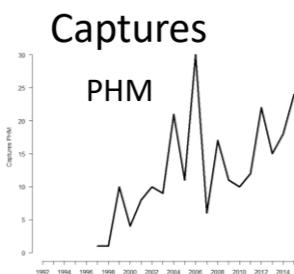


Saumon atlantique

Application pour la gestion : limites de conservation



Tacons 0+



Taux expl.

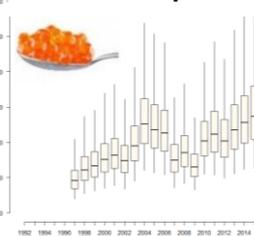


Dénombrements adultes & captures

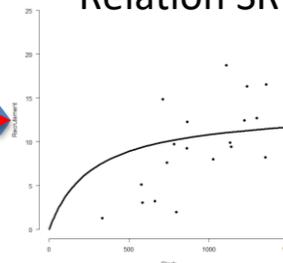
Relation SR



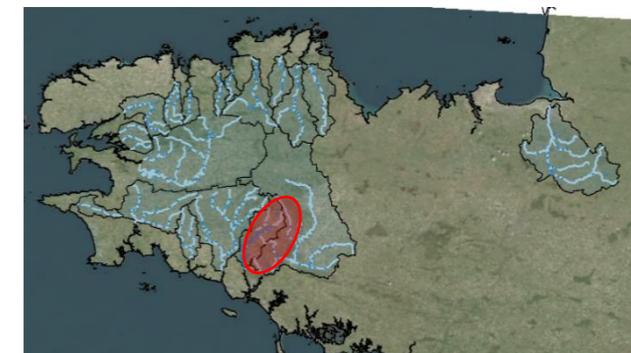
Stock repro.



Relation SR



LC





Saumon atlantique

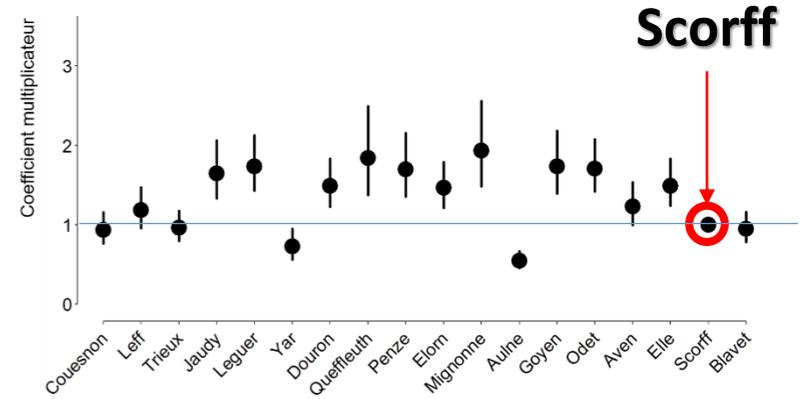
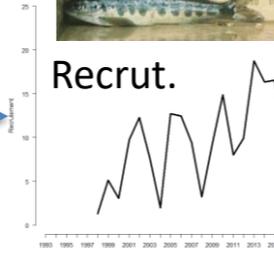
Application pour la gestion : limites de conservation



Tacons 0+

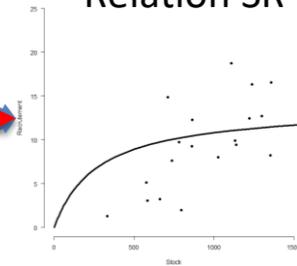


Recrut.



Scorff

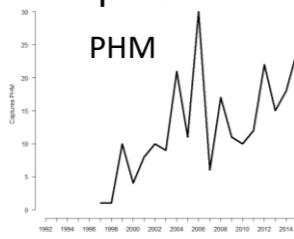
Relation SR



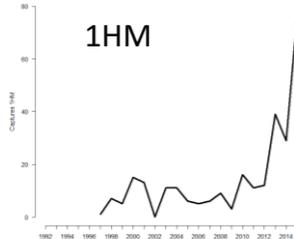
LC



Captures



1HM

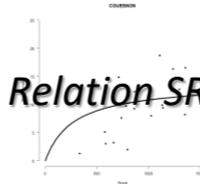


Taux expl.



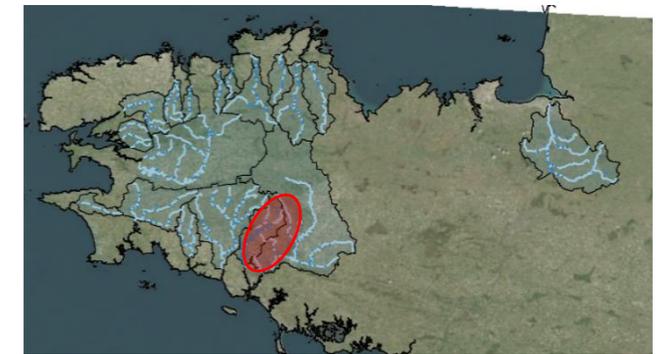
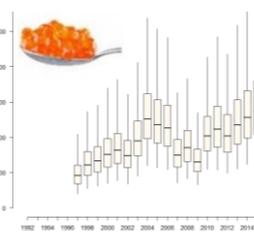
Dénombrements adultes & captures

Relation SR

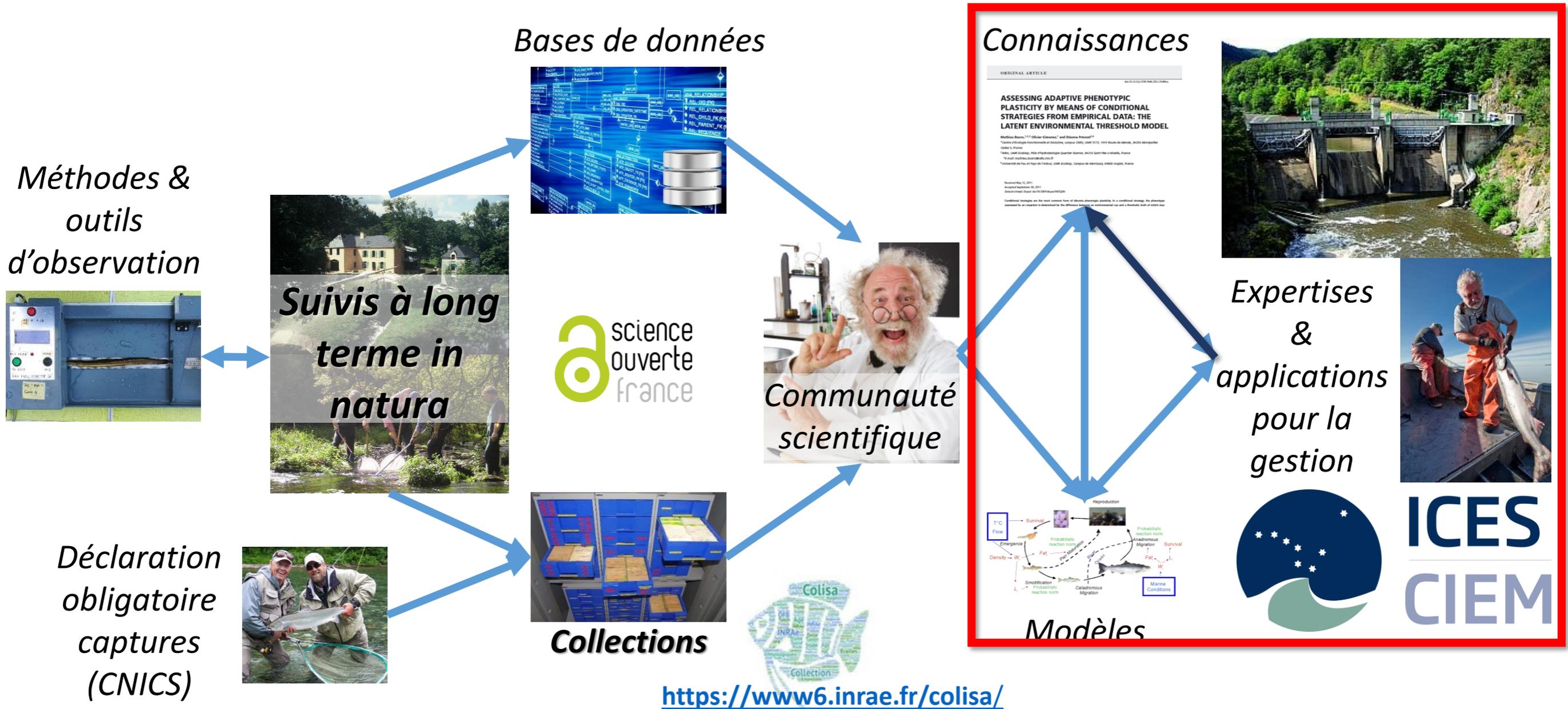


Scorff

Stock repro.



Observatoire & collection : quels utilisations ?



Pour en savoir plus

<https://professionnels.ofb.fr/fr/doc-comprendre-agir/trois-decennies-dobservations-recherche-poissons-migrateurs-bresle-oir-scorff>





Merci de votre attention