

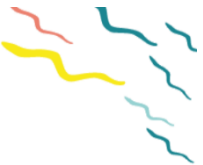
État des populations d'anguille en Vilaine

Cédric Briand
Eaux et Vilaine

L'anguille à la loupe

Journée technique BGM - 12 janvier 2023 - Rennes

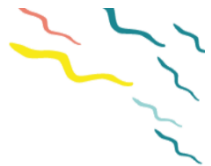




CONTEXTE



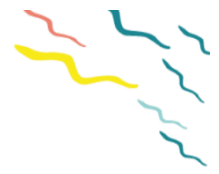
Par Drone



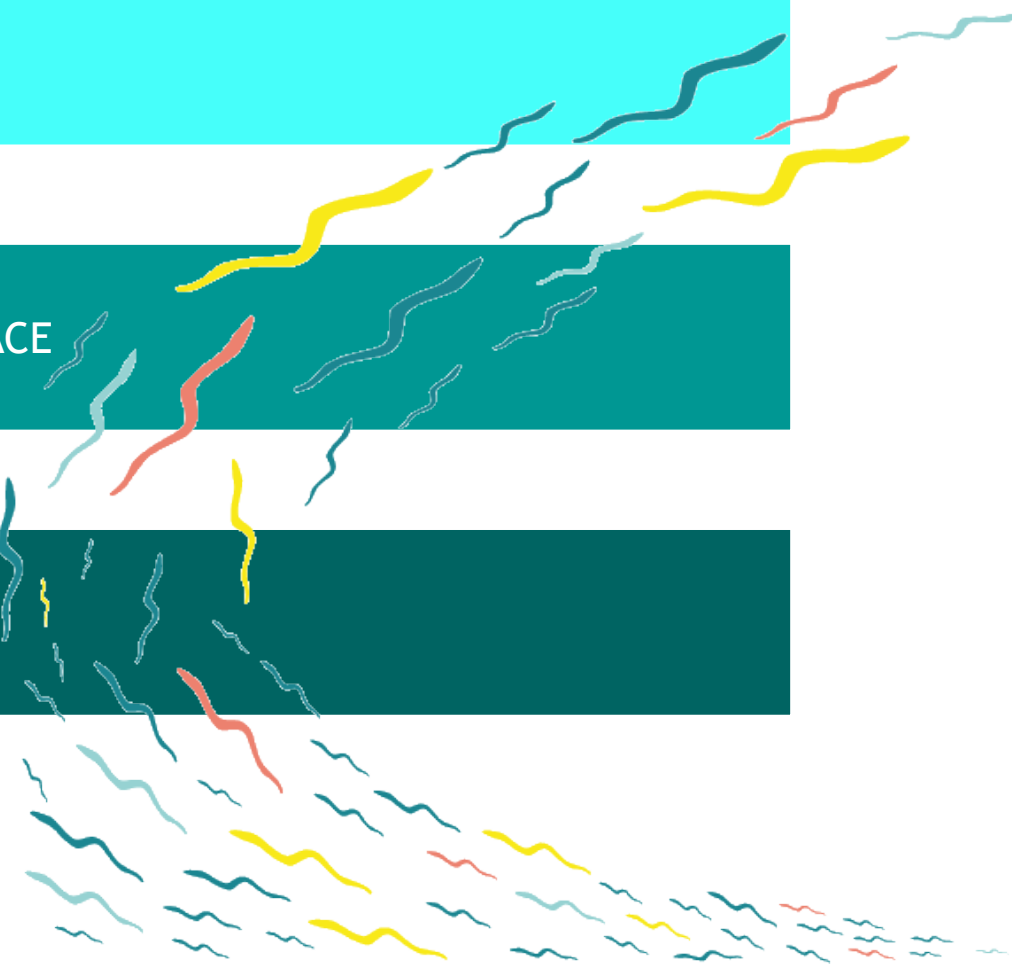
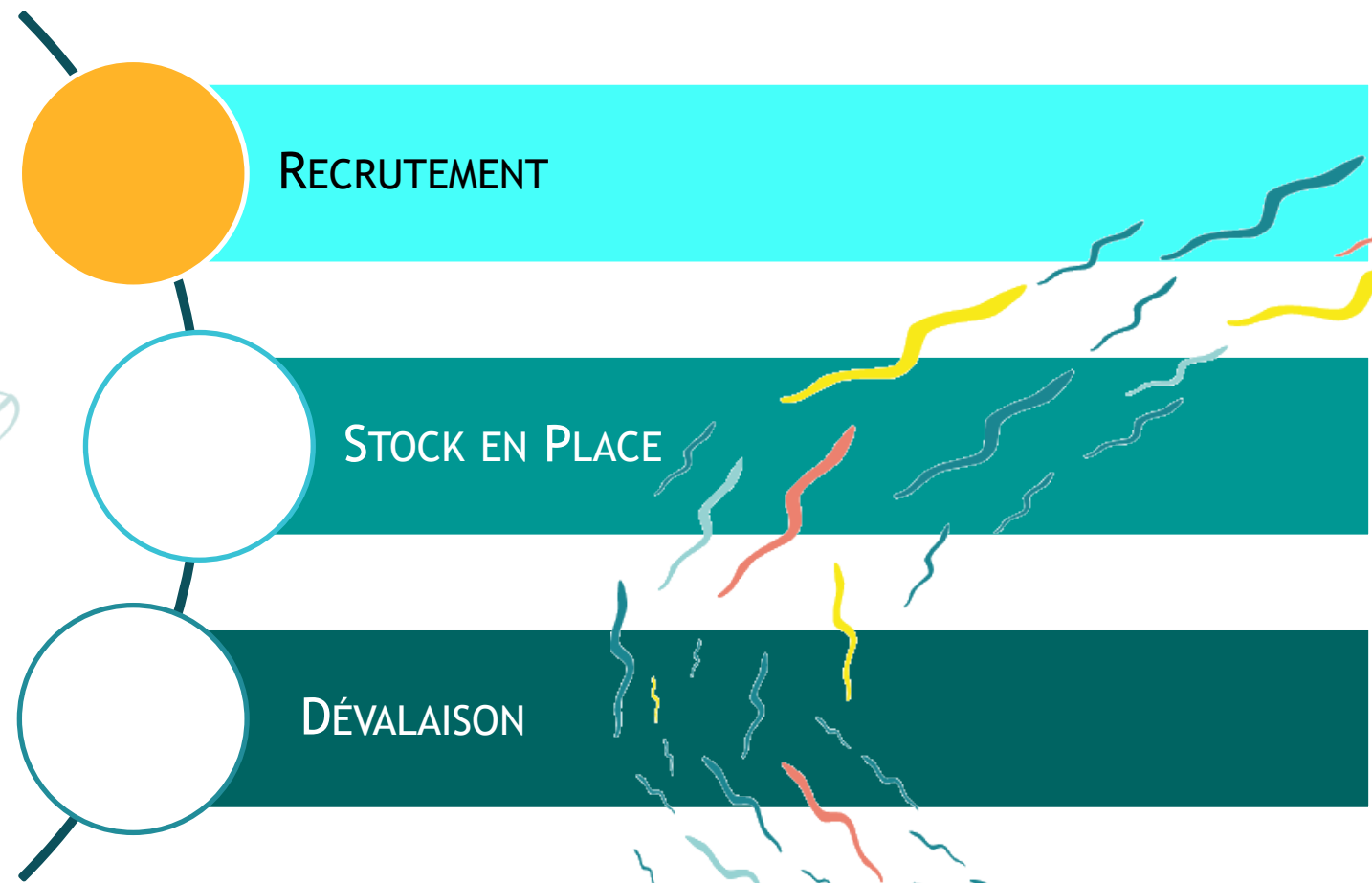
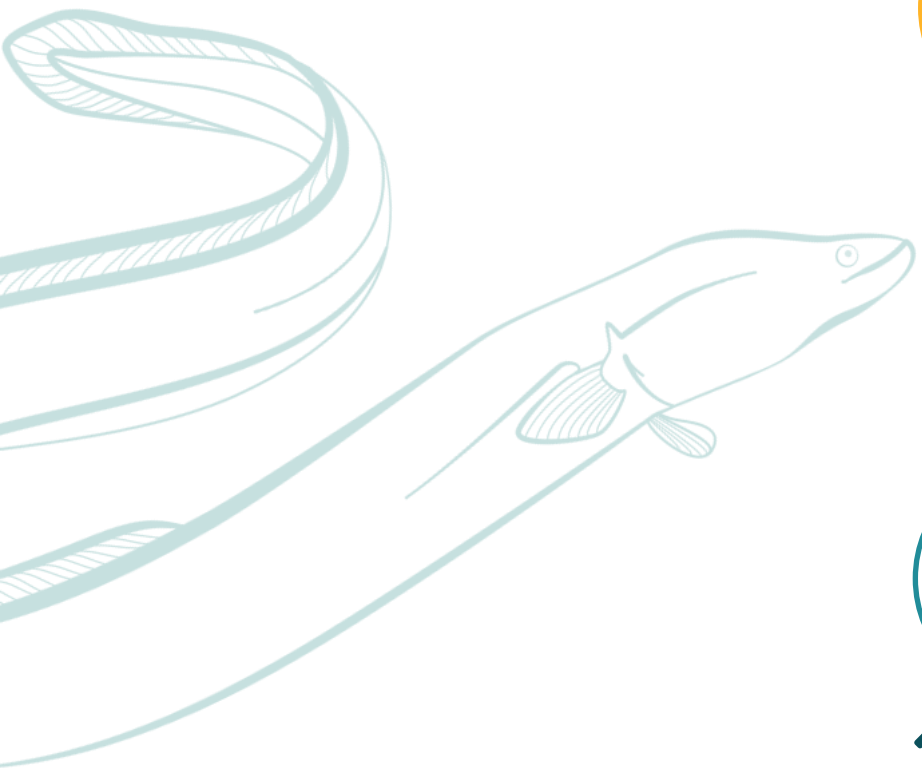
CONTEXTE



par Drone



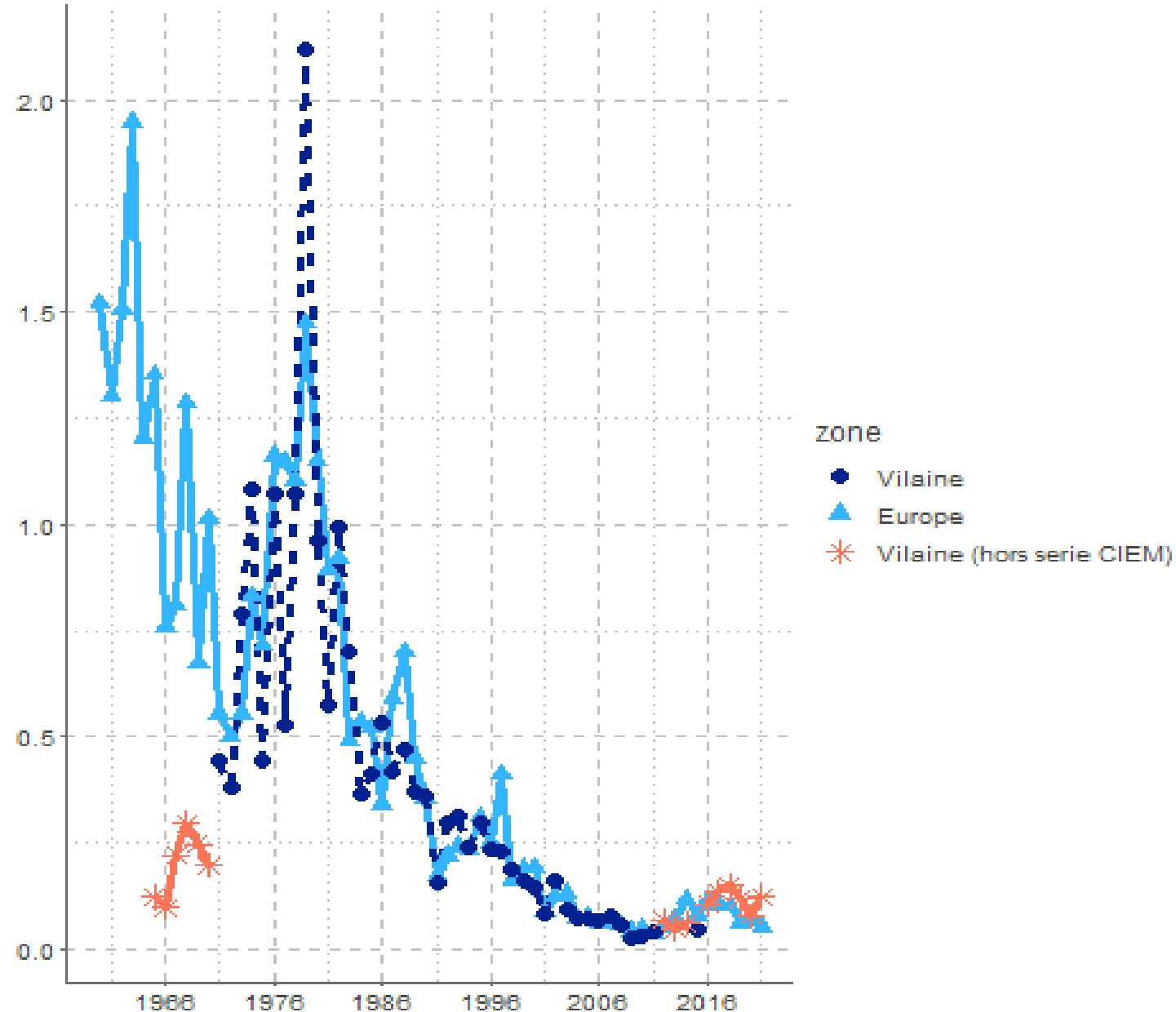
ÉTAT DES POPULATIONS D'ANGUILLE EN VILAINE

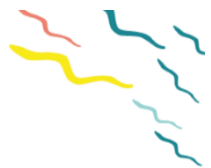




RECRUTEMENT

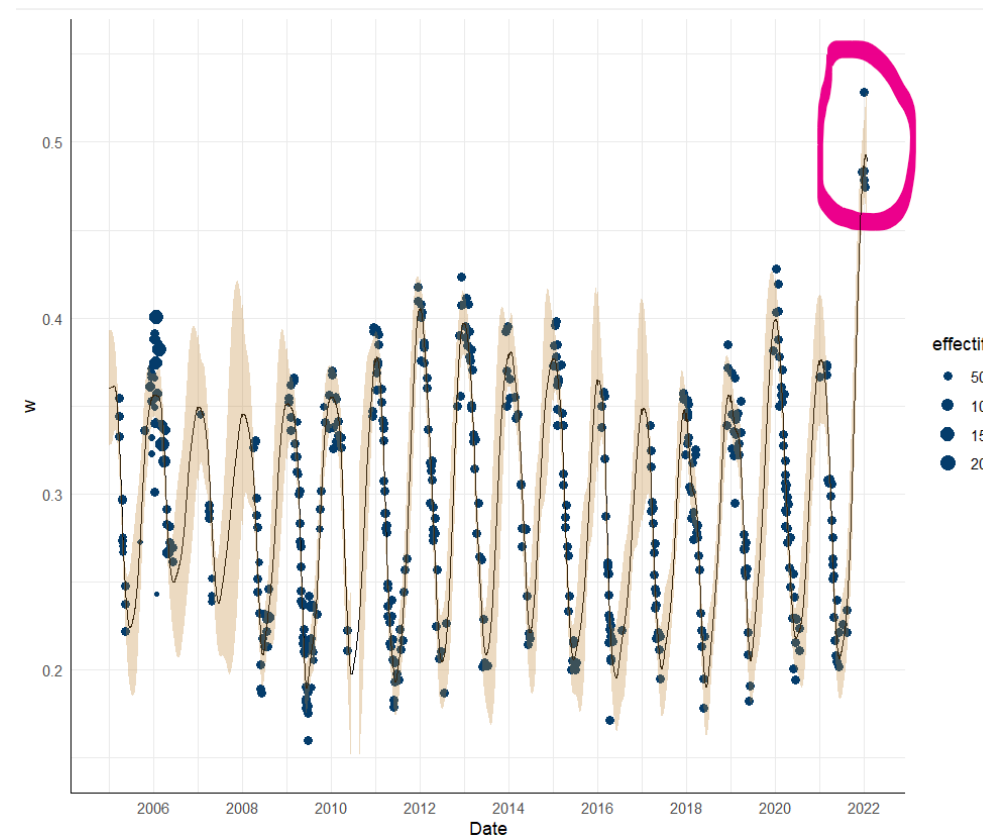
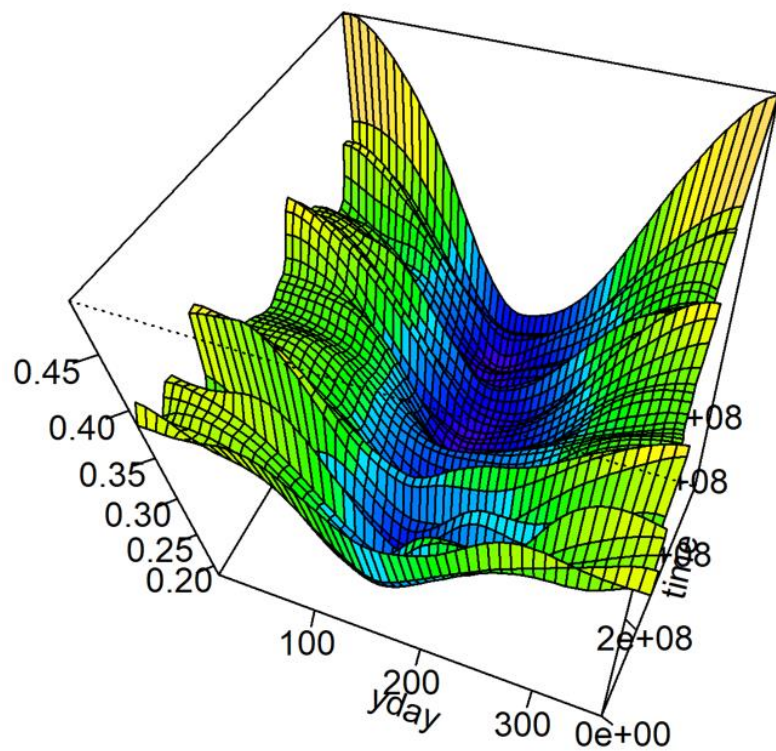
- La Vilaine est la séries la plus proche de la tendance moyenne.
- 2010 = quotas = Perte des indicateurs du Golfe de Gascogne.
- Les captures sont supérieures à la courbe du recrutement.

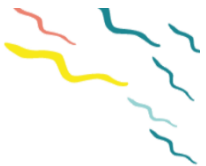




Caractéristiques biométriques des civelles

Evolution du poids moyen des civelles : poids moyen humide.

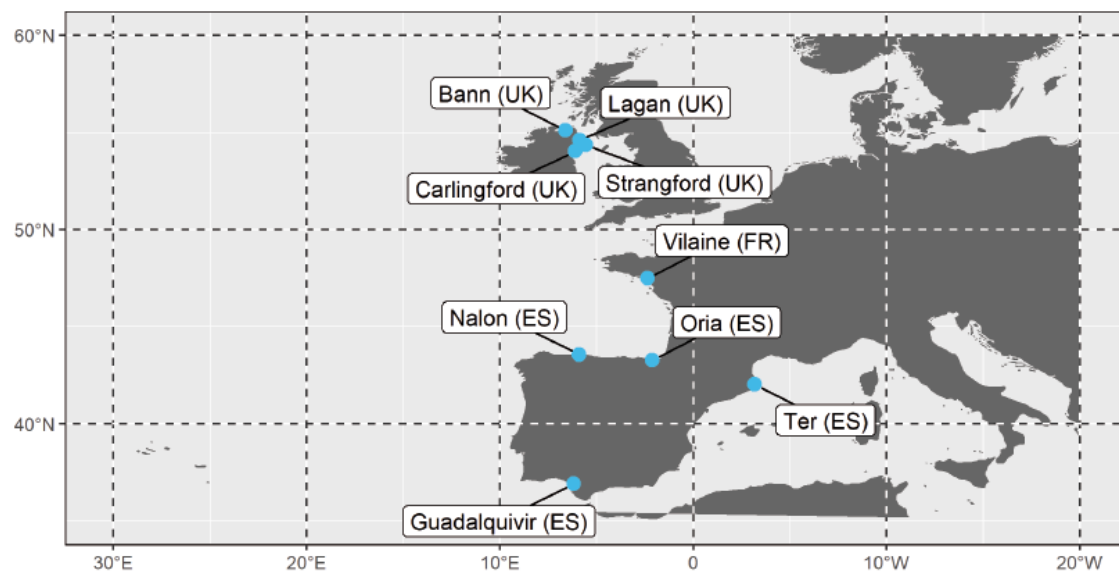




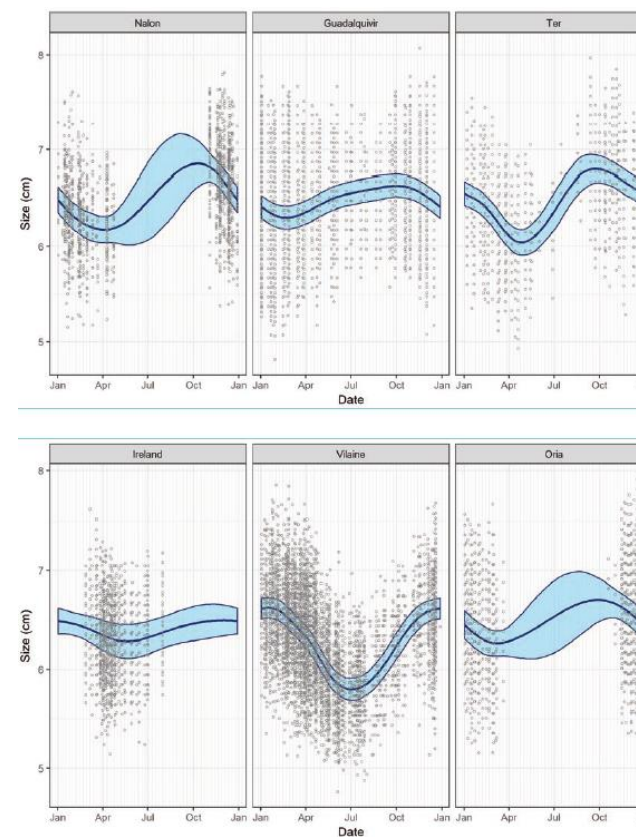
Tendances saisonnières des tailles de civelles

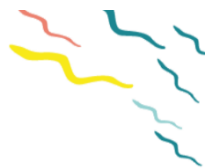
Does a bigger glass eel mean better recruitment? Briand et al., 2019

Echantillonnages



Courbes de prediction de la tendance interannuelle.

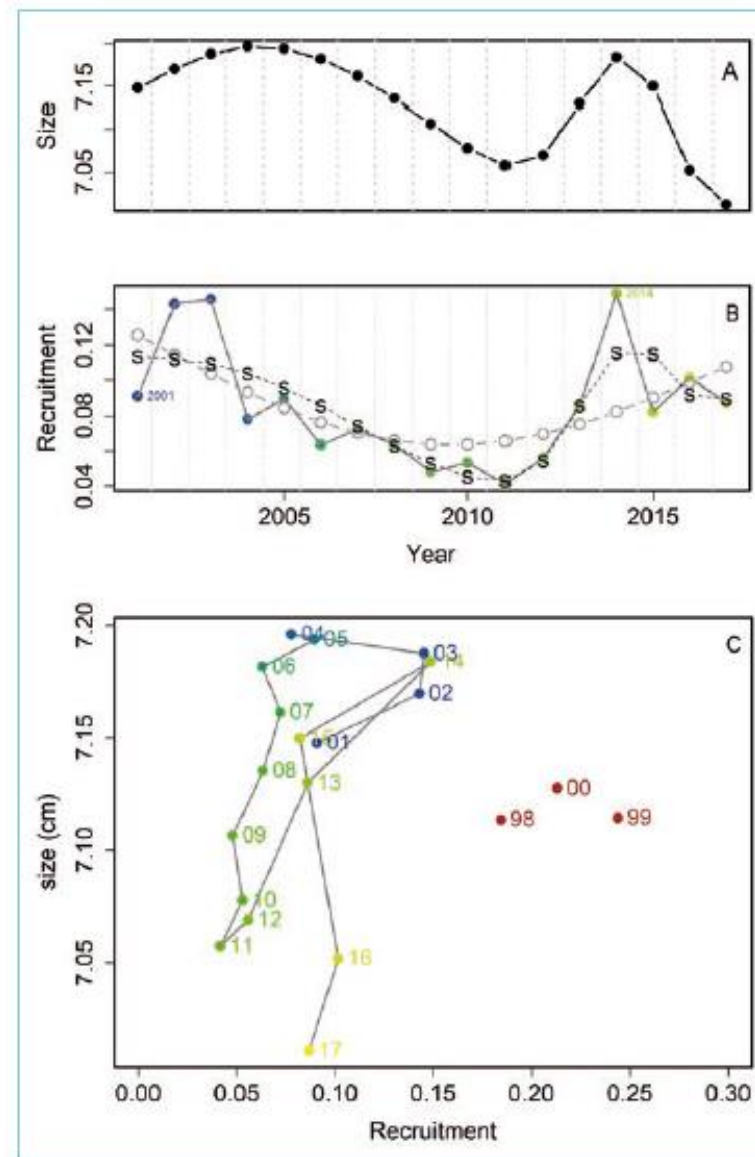
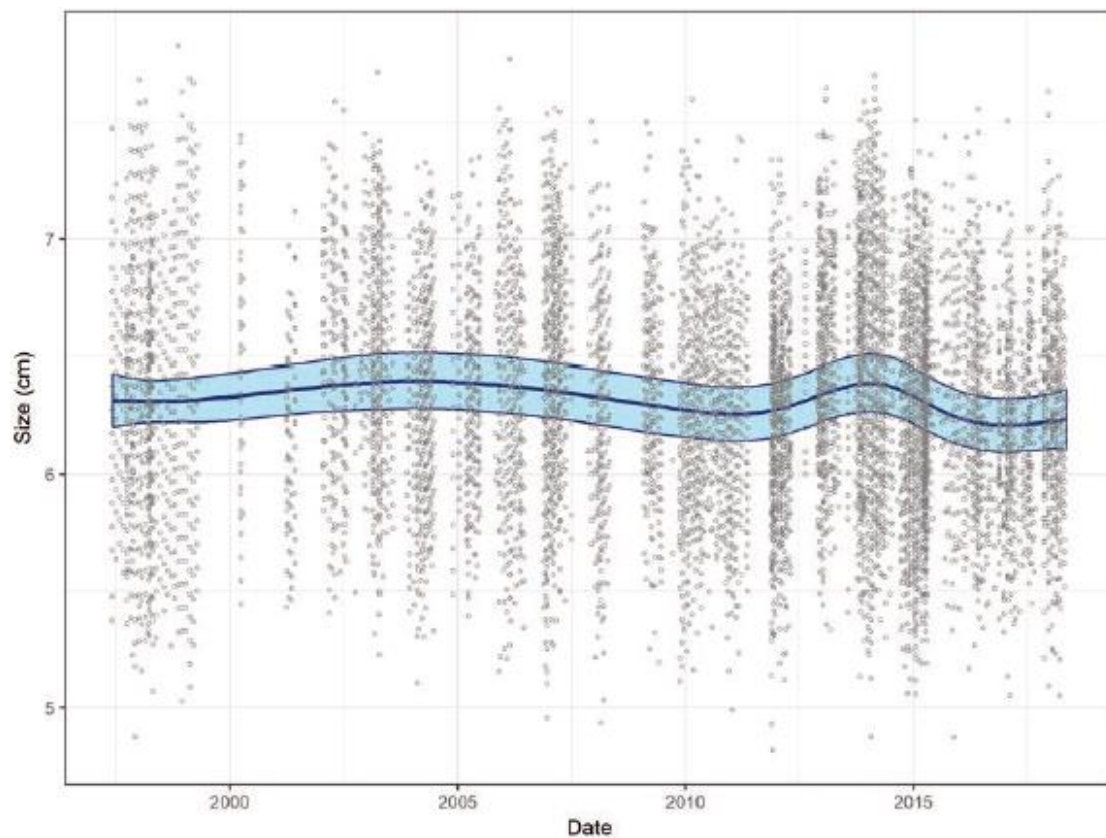


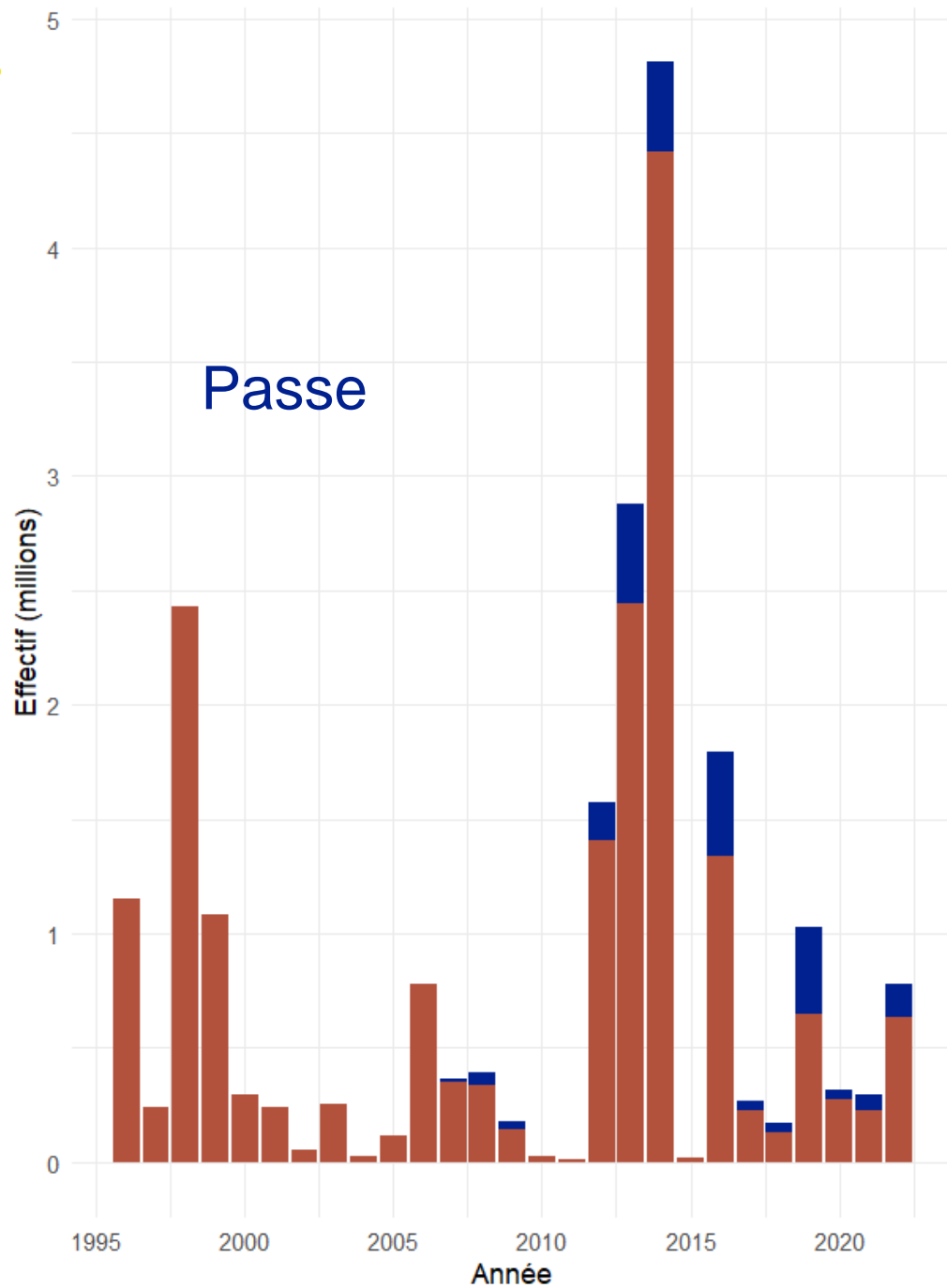


Tendance de long terme des tailles de civelles

Does a bigger glass eel mean better recruitment? Briand et al., 2019

Tendance des tailles sur long terme





Pêcheurie

Captures

**Taux
d'exploitation**

2016-2017

5 869

81.1

2017-2018

6 526

87.2

2018-2019

5 132

56.6

2019-2020

3 449

78.9

2020-2021

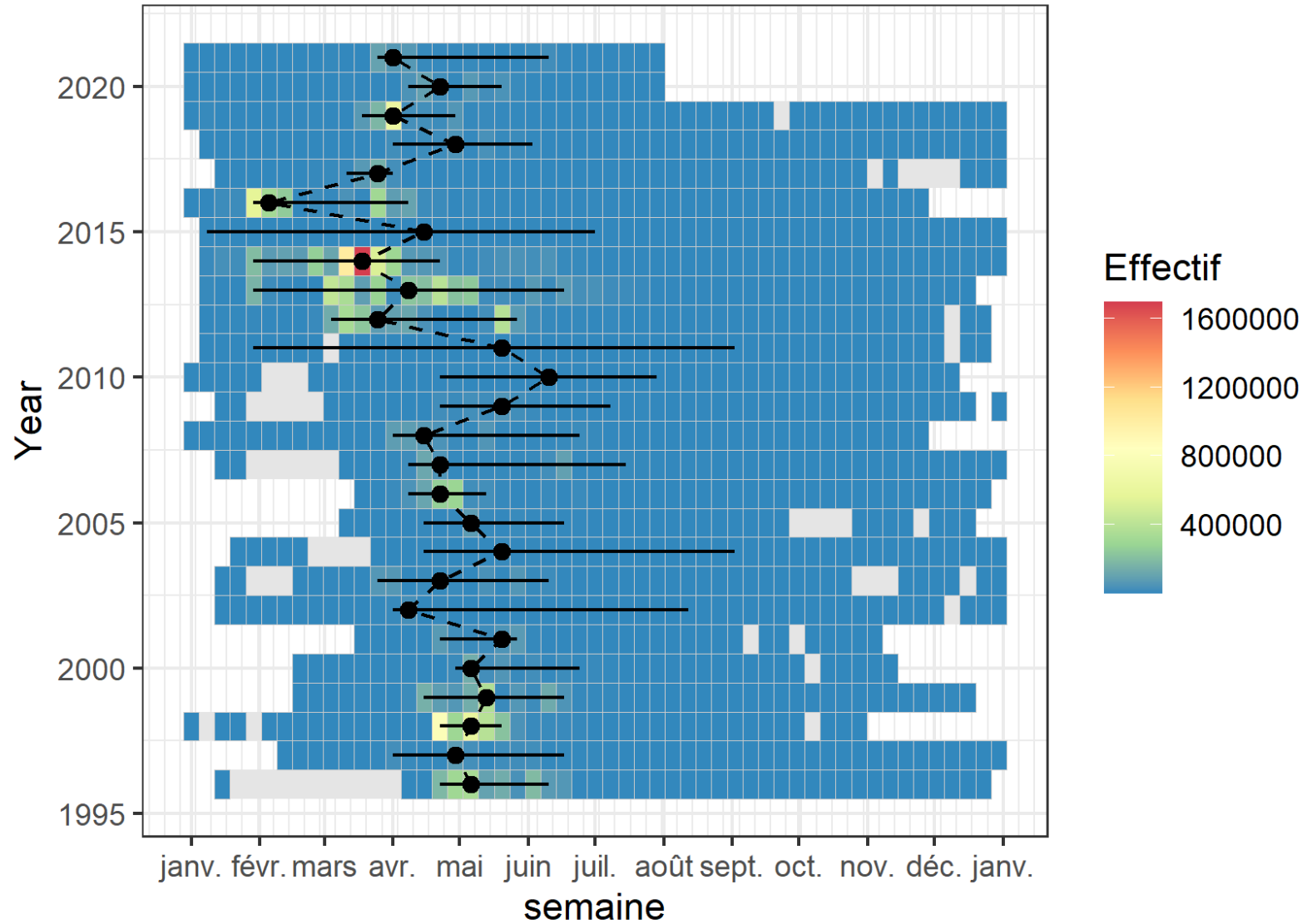
4 525

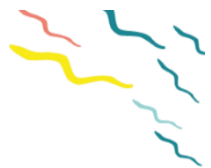
82.5

2021-2022



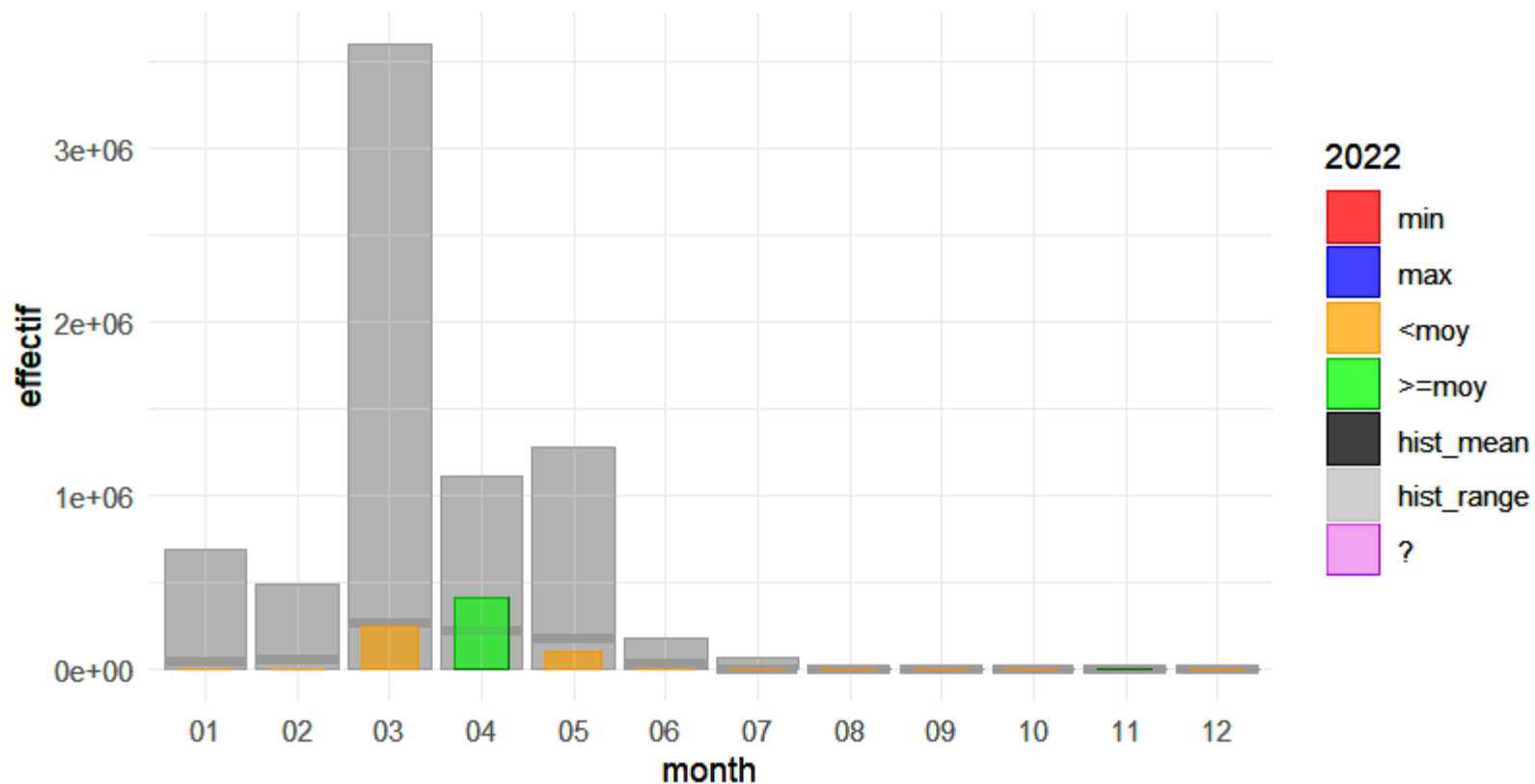
Civelles : saison

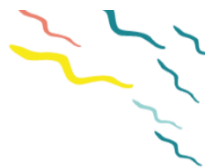




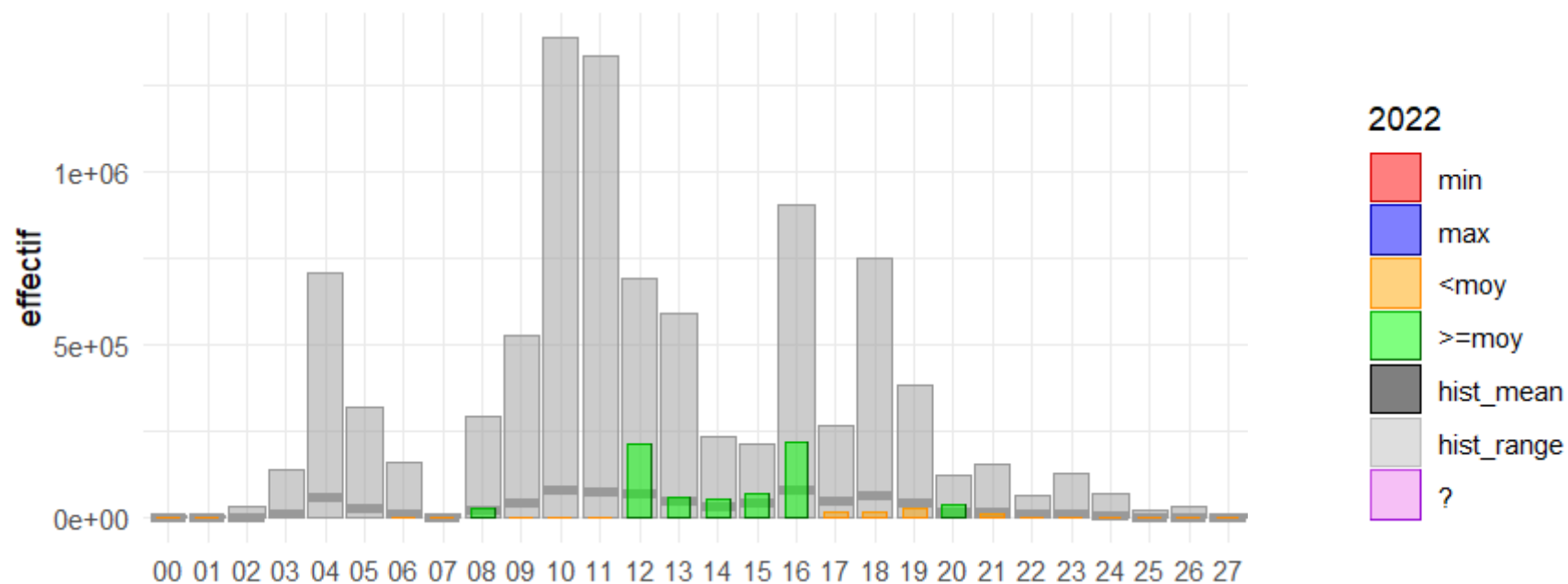
LES ARRIVÉES DE CIVELLES EN 2022

Anguilla anguilla , civelle , bilan par month 2022 / 1996-2021



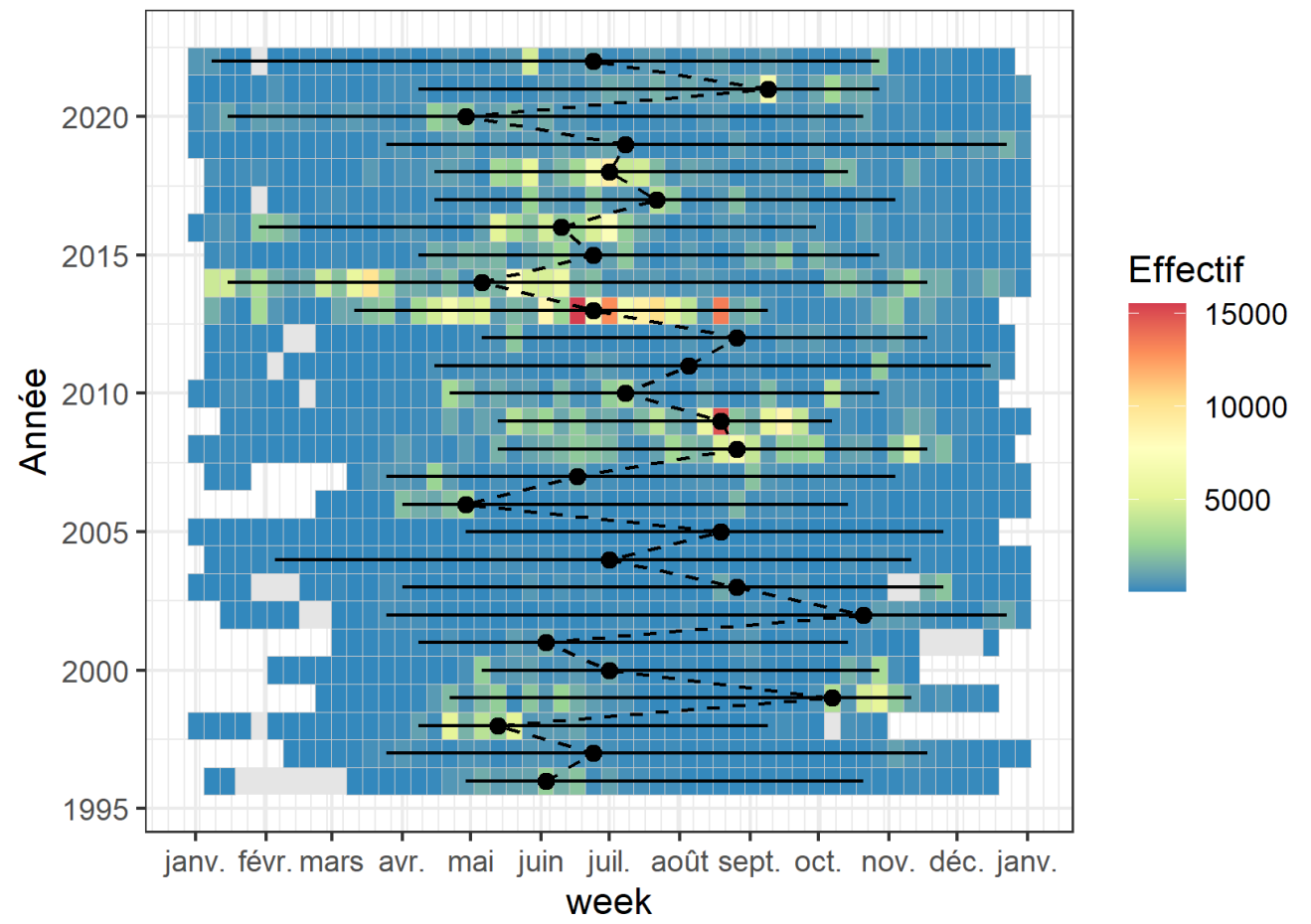
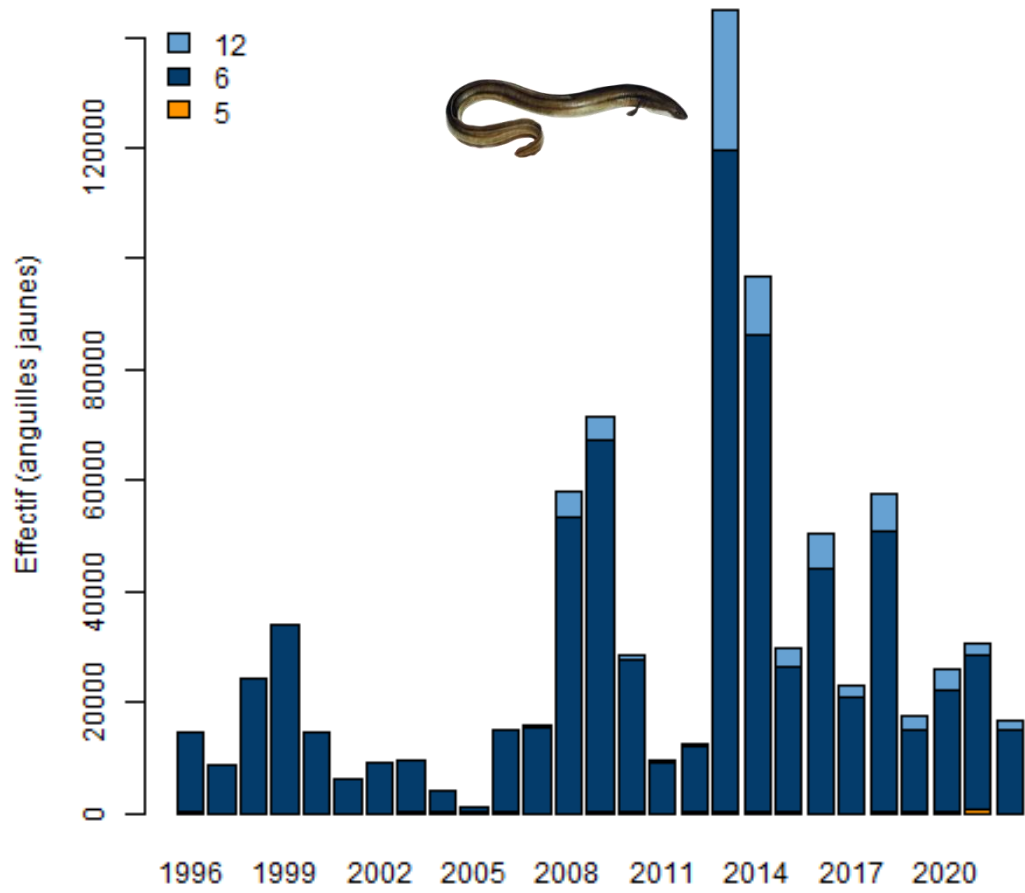


LES ARRIVÉES DE CIVELLES EN 2022



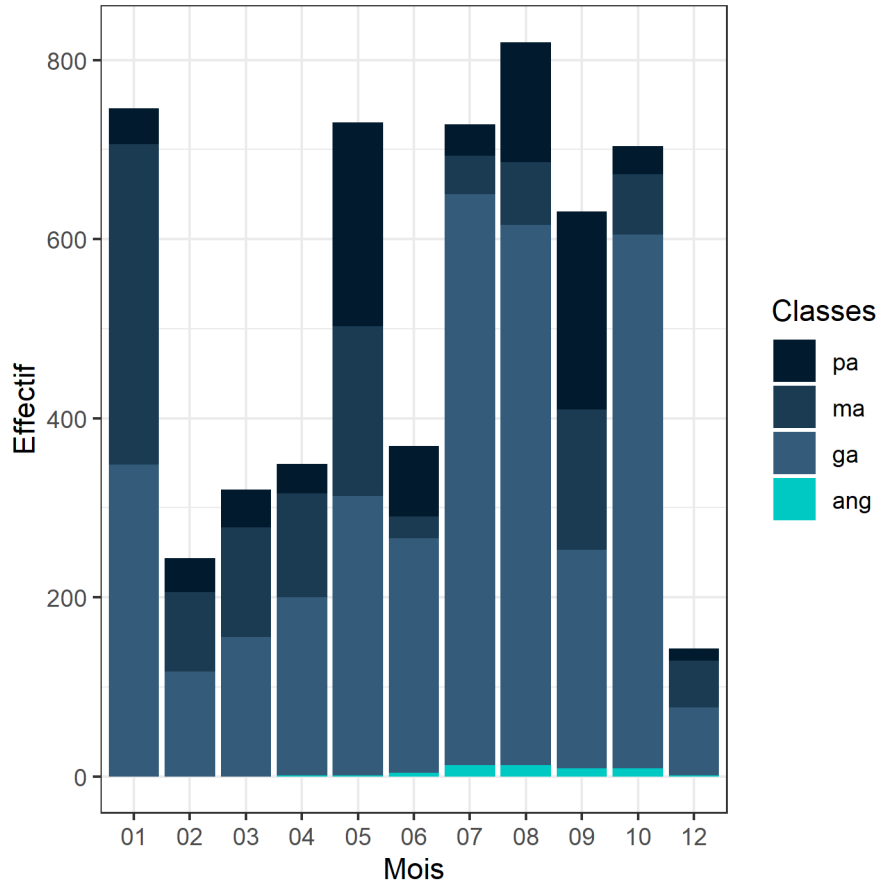


Tendances interannuelles des migrations d'anguilles jaunes au barrage





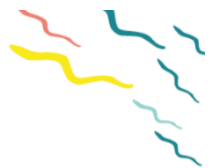
Anguilles jaunes



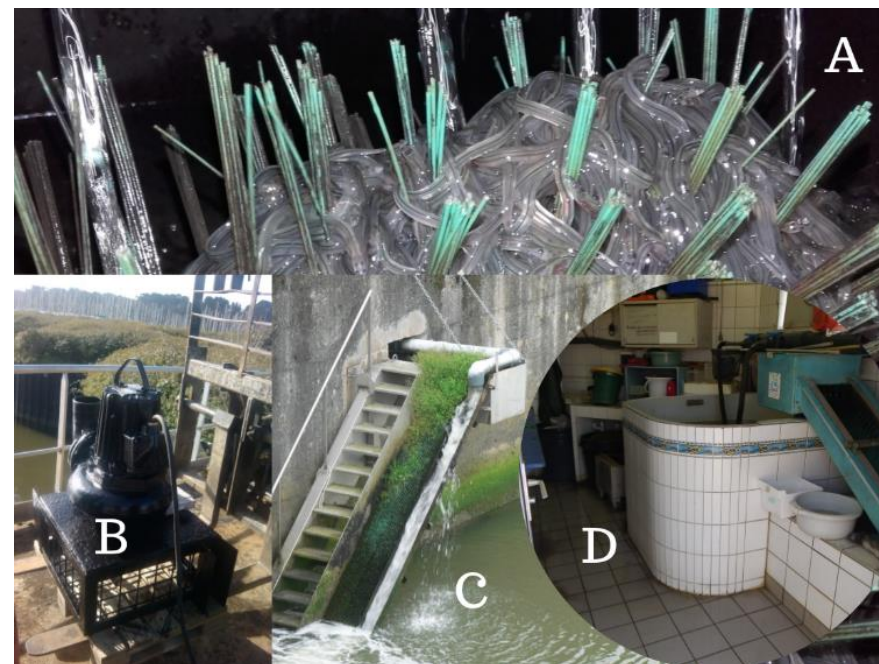
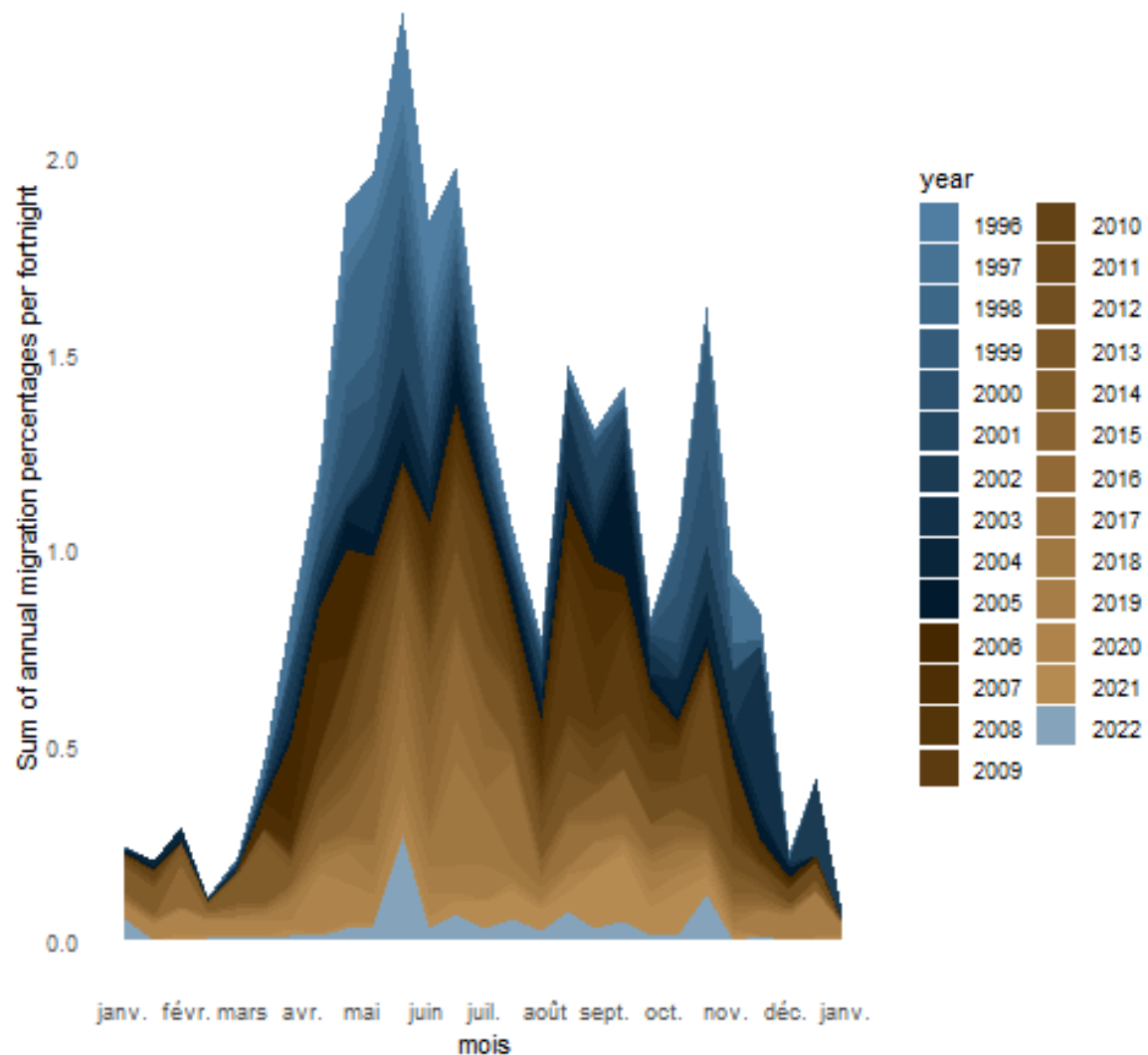
Structure en taille en 2022

- Petites anguillettes <80 mm
- Moyennes anguillettes 80 -160 mm
- Grandes anguillettes 160 - 300 mm
- Anguilles > 300 mm



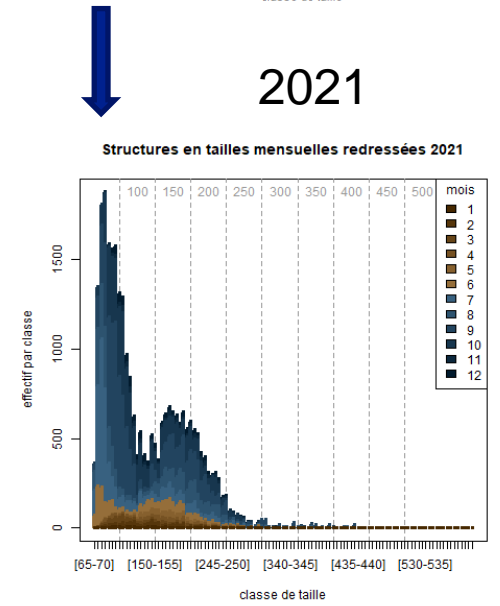
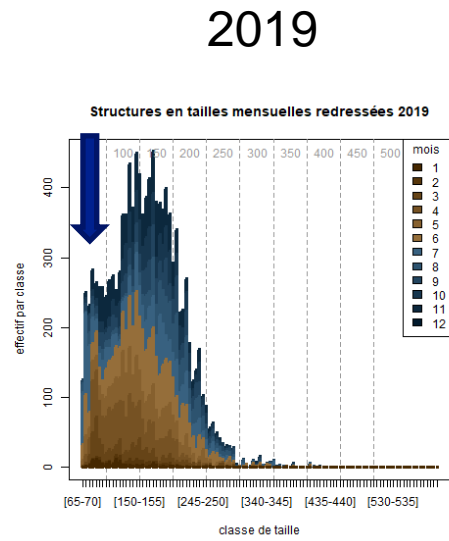
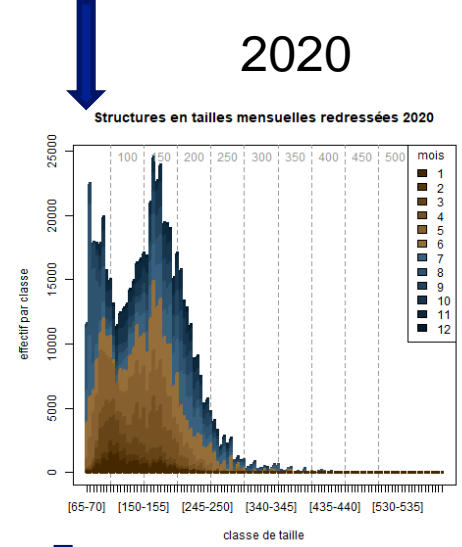
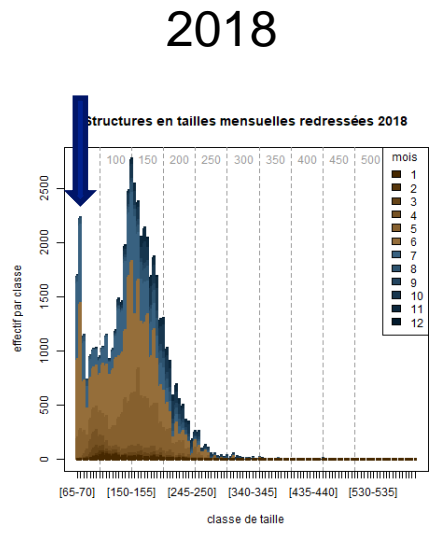
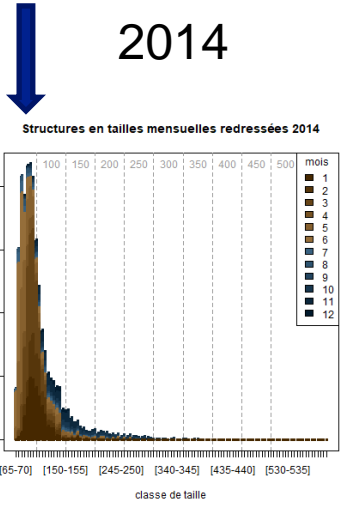
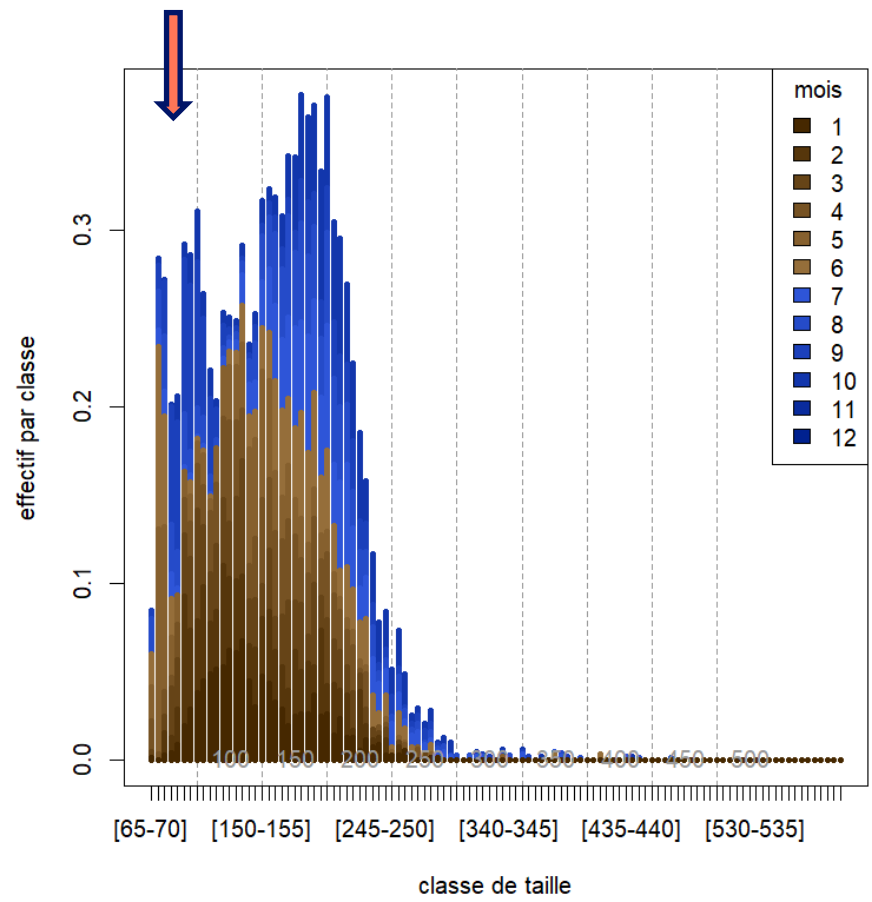


ANGUILLES JAUNES : SAISONNALITÉ

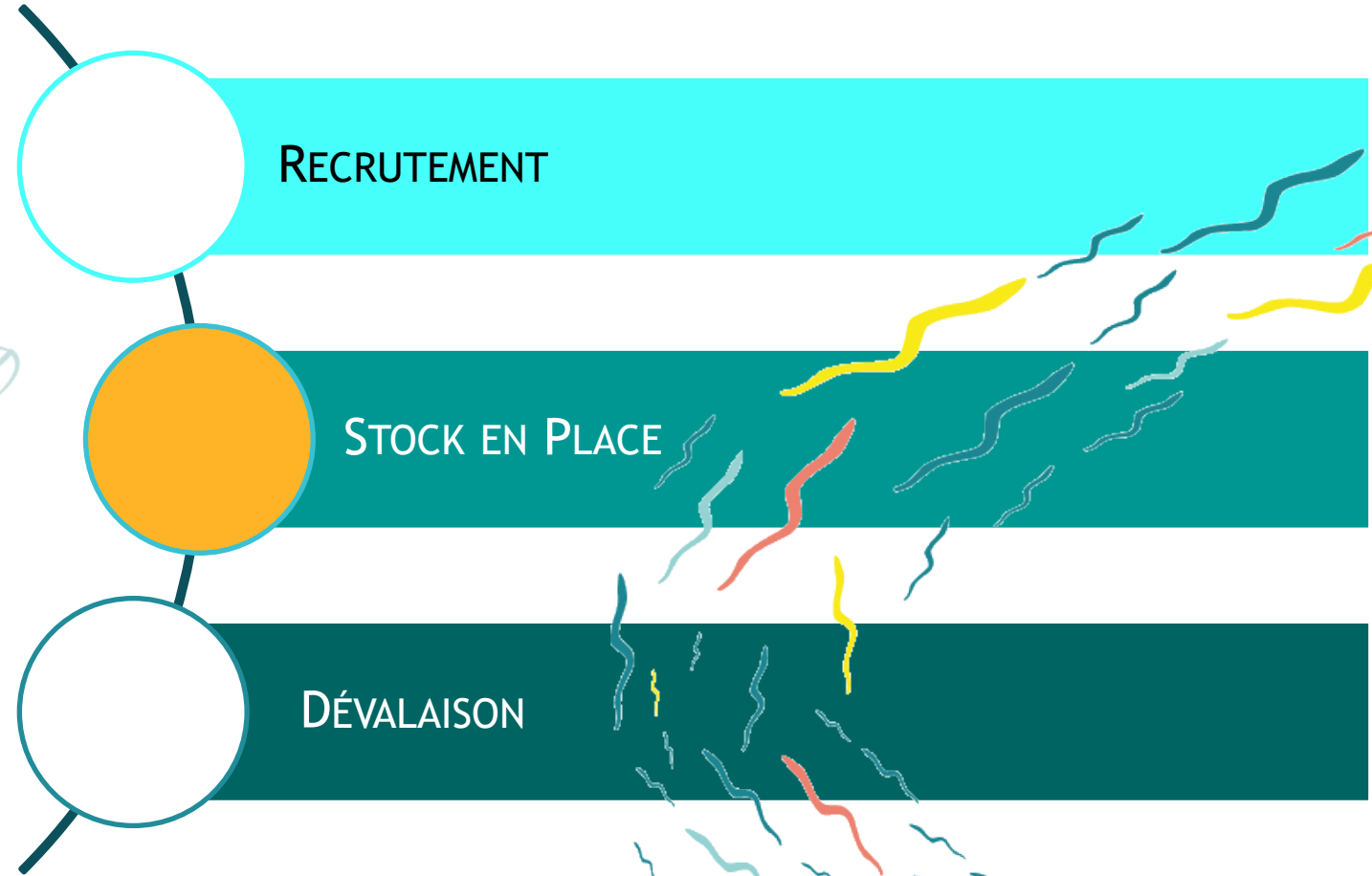
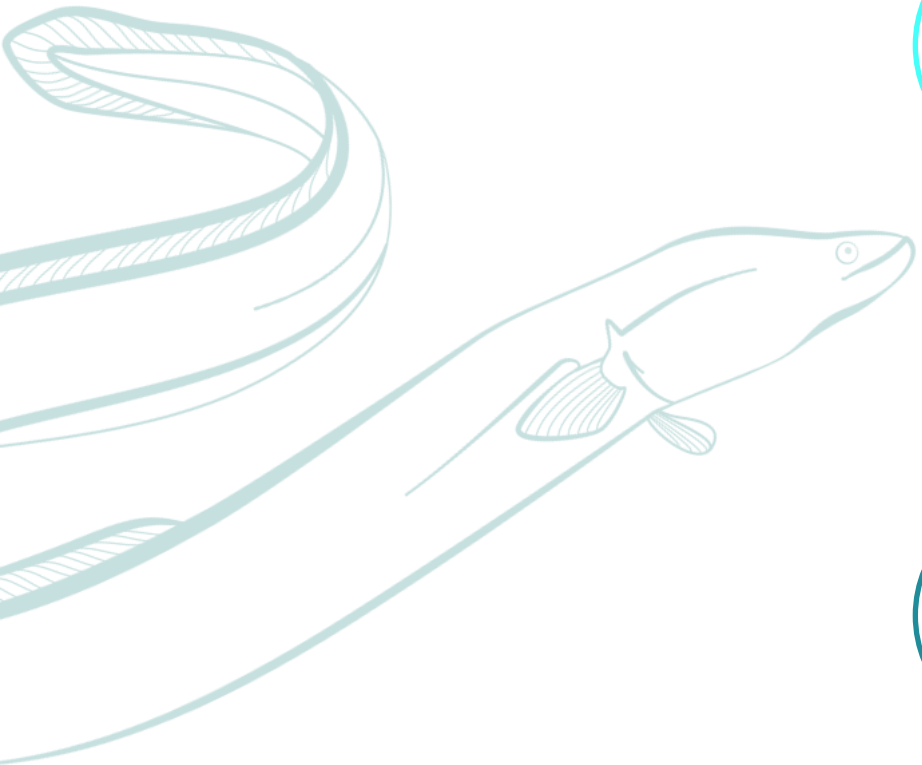




Structure en taille



ÉTAT DES POPULATIONS D'ANGUILLE EN VILAINE



RECRUTEMENT

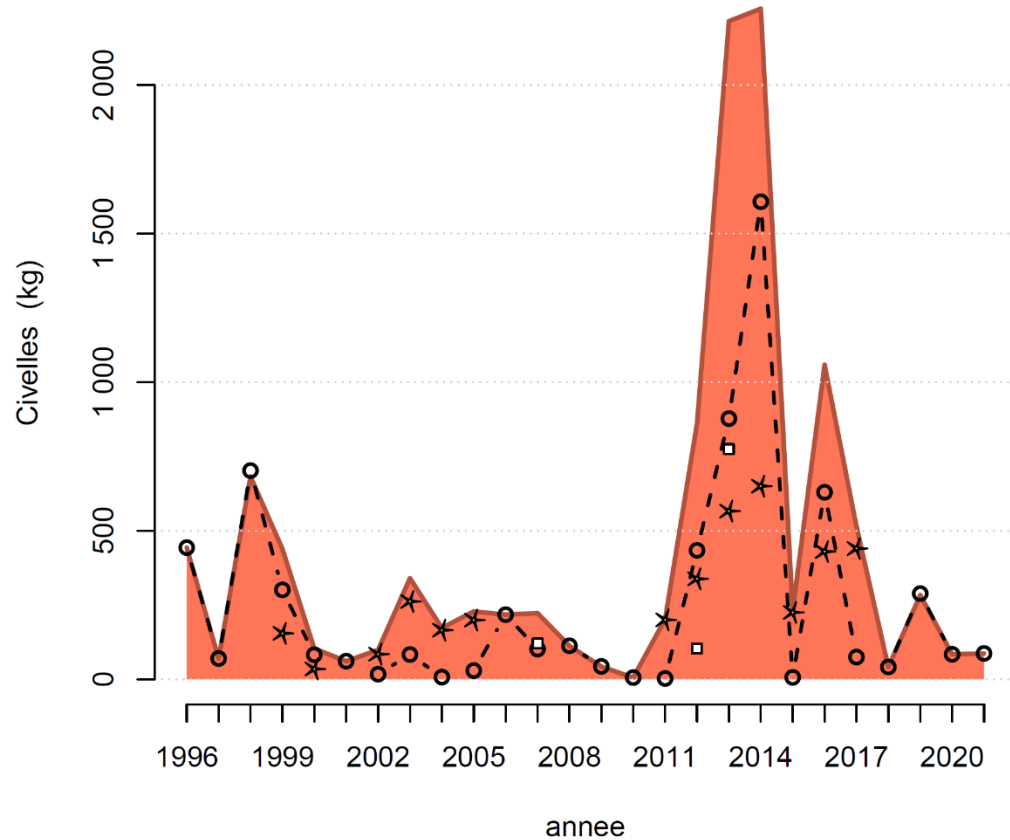
STOCK EN PLACE

DÉVALAISON



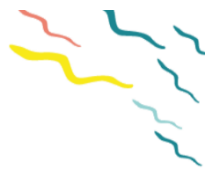
Tendance du recrutement fluvial (Y compris les transports et manœuvres d'écluse)

Pêches électriques



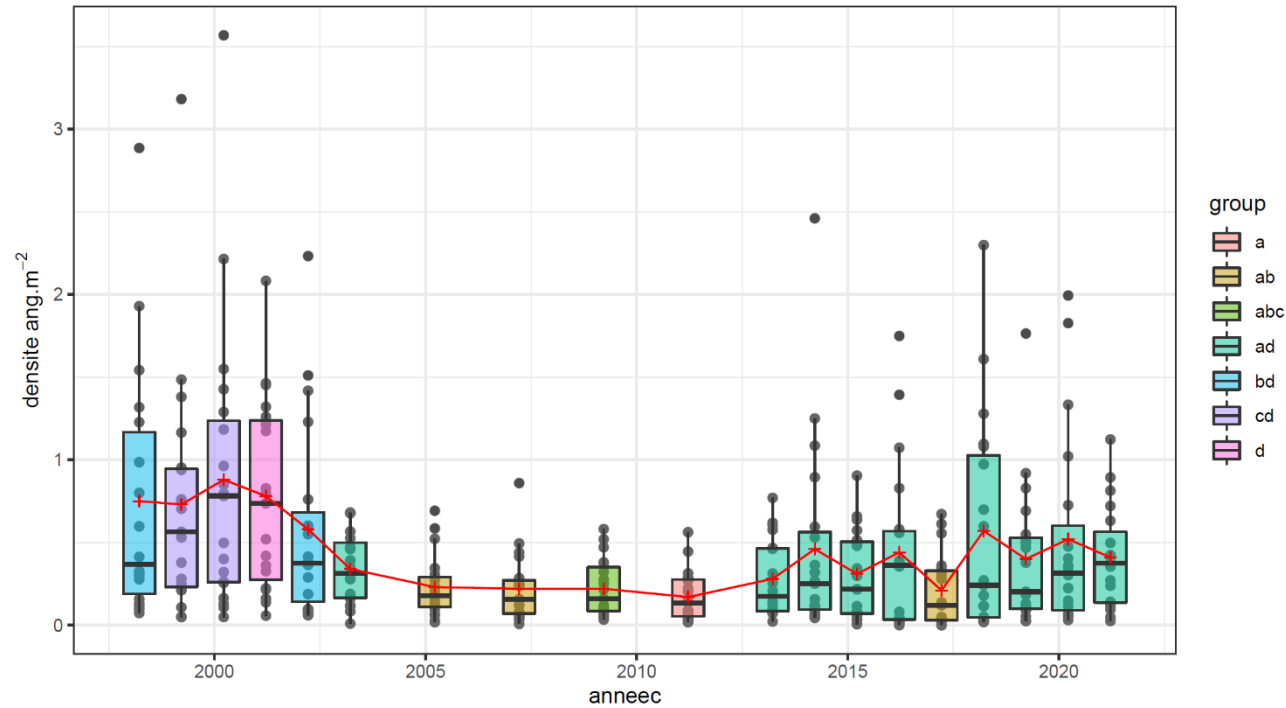
**2011-2016 fort
recrutement fluvial**

**Tendance à la forte
baisse après 2017**



Tendance des densités

Pêches électriques



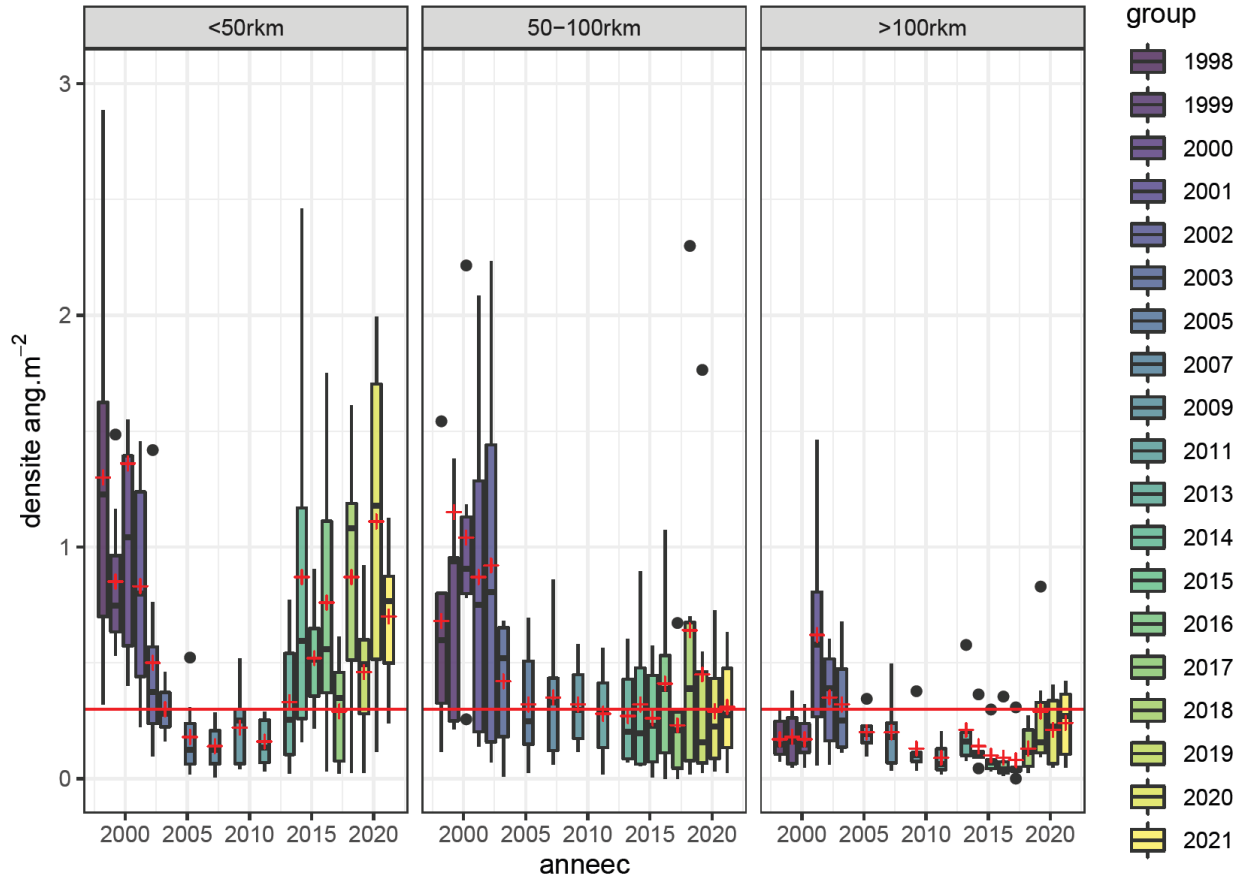
**Le lien entre
recrutement
fluvial et densité
n'est pas
évident.**

➡ Fort recrutement
➡ Tendence à la baisse



Tendances des densités

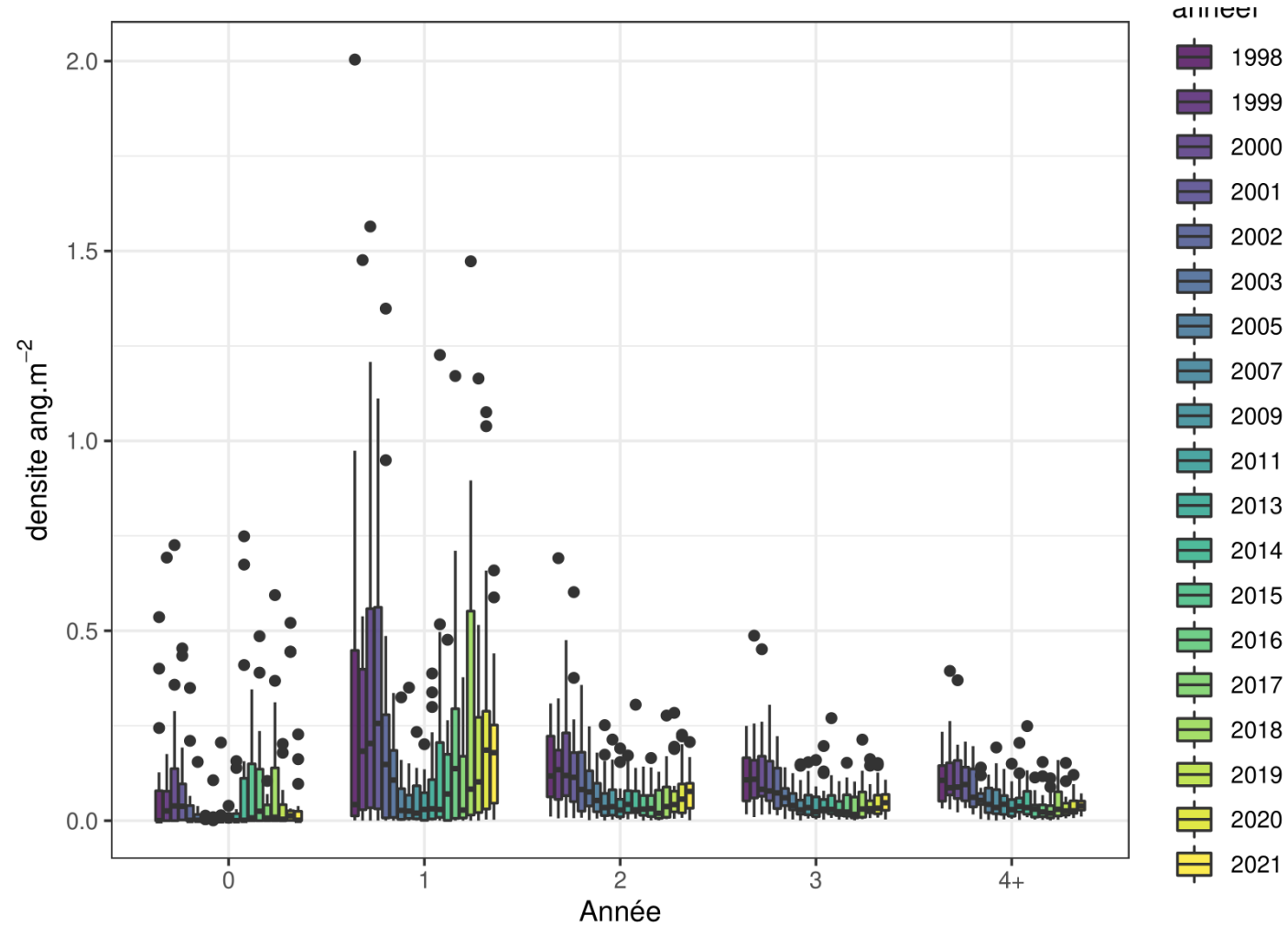
Pêches électriques

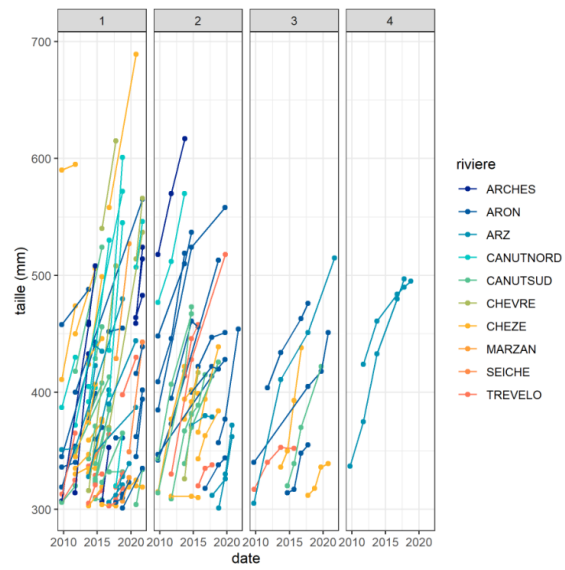




Tendance des densités en fonction de l'âge

Pêches électriques



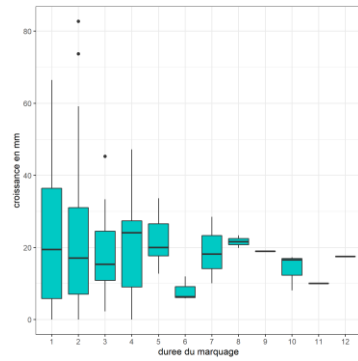


capture

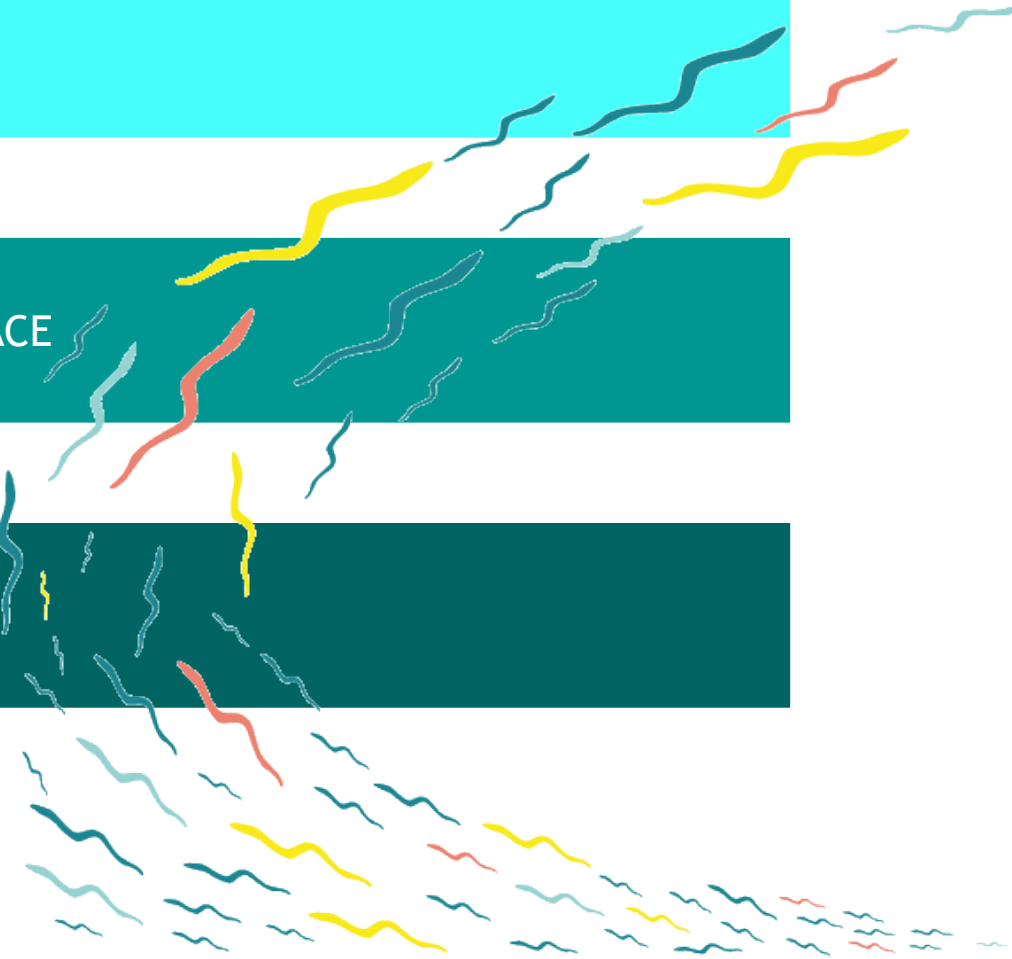
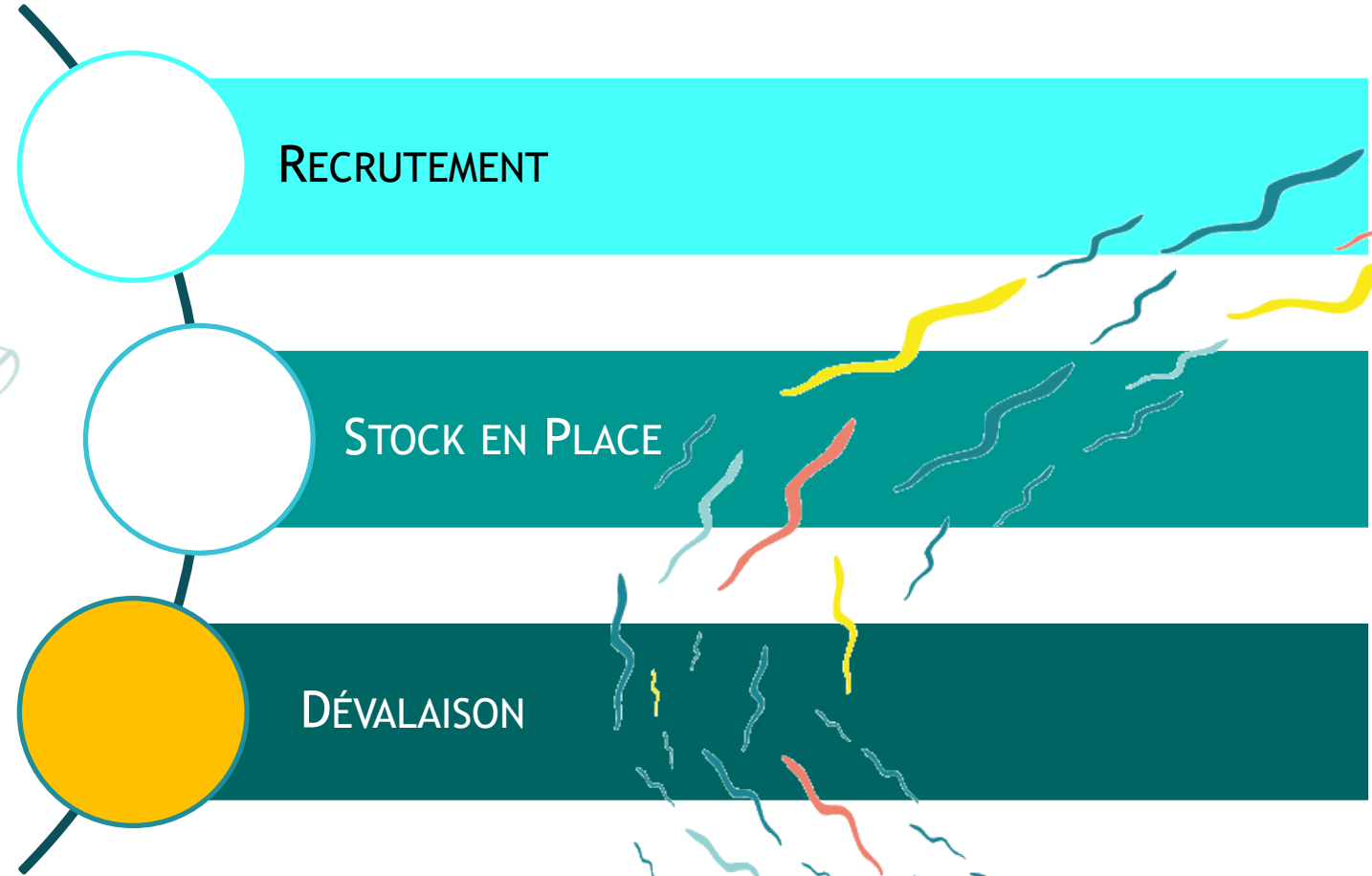
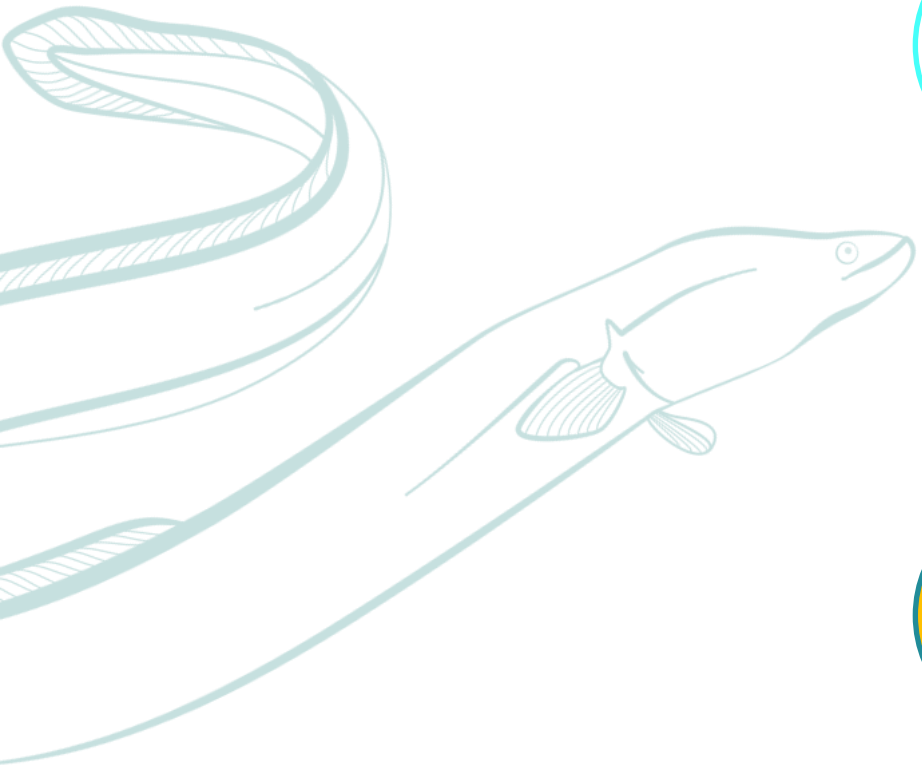
- La croissance moyenne s'établit à 23,5 mm.
- Le taux de recapture à 33 %

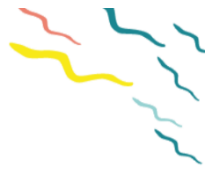
TABLEAU 5 – Marquage et recaptures.

	lecture	pose
2009	12	87
2011	20	64
2013	30	60
2014	25	72
2015	20	41
2016	16	38
2017	14	32
2018	17	46
2019	10	34
2020	7	41
2021	10	44

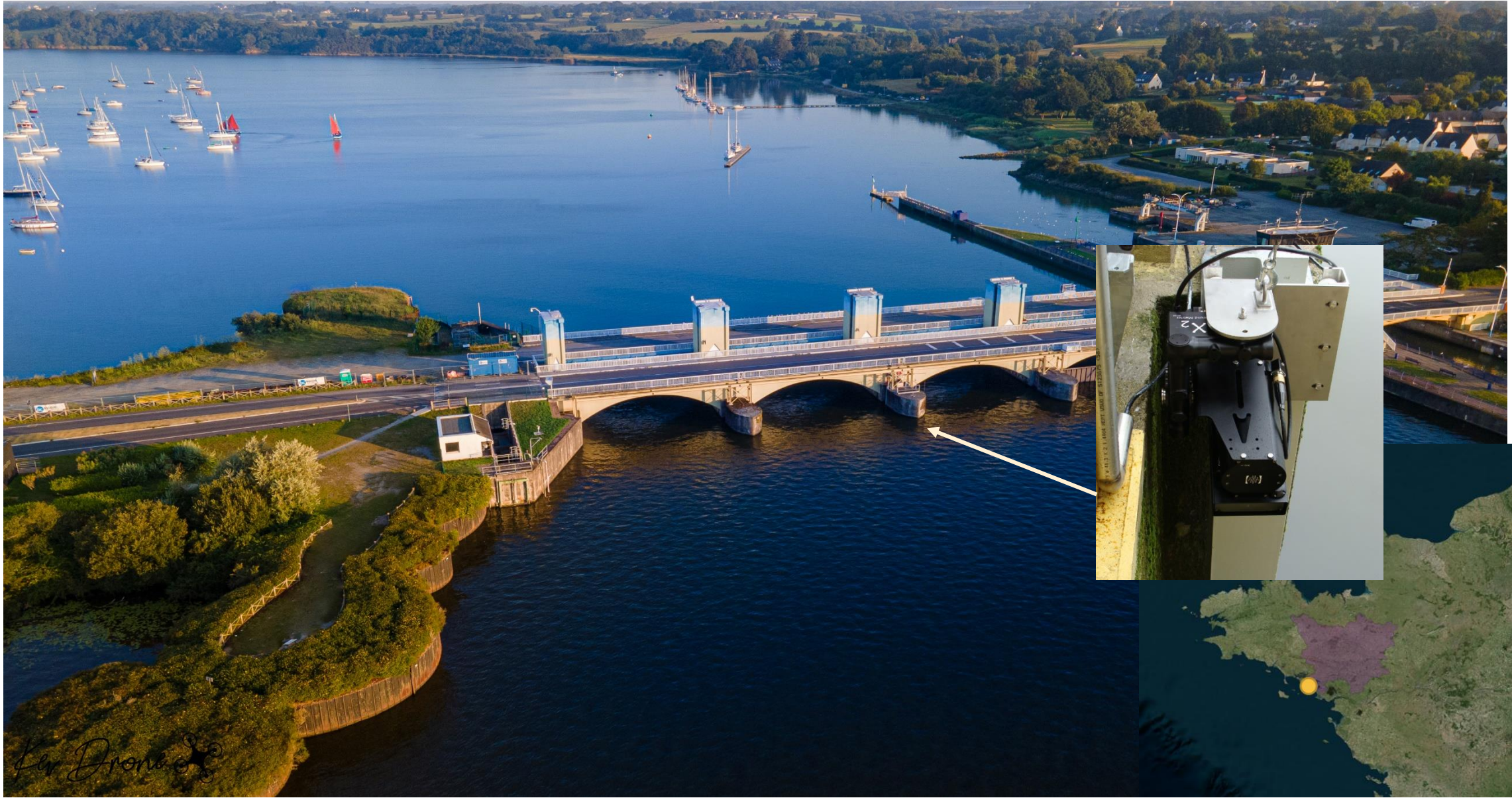


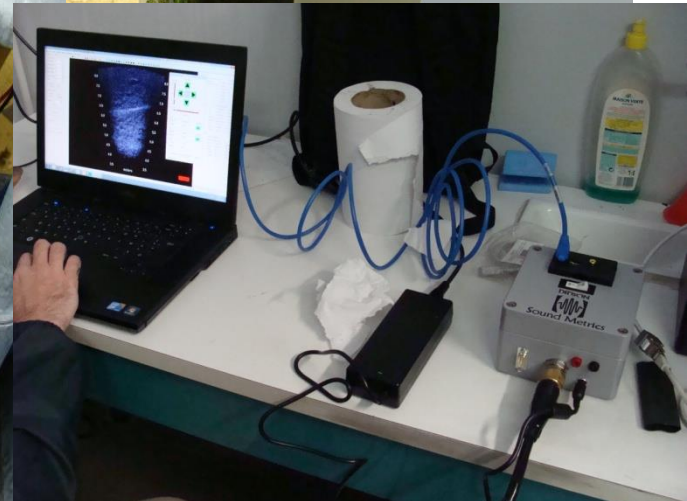
ÉTAT DES POPULATIONS D'ANGUILLE EN VILAINE

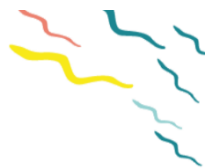




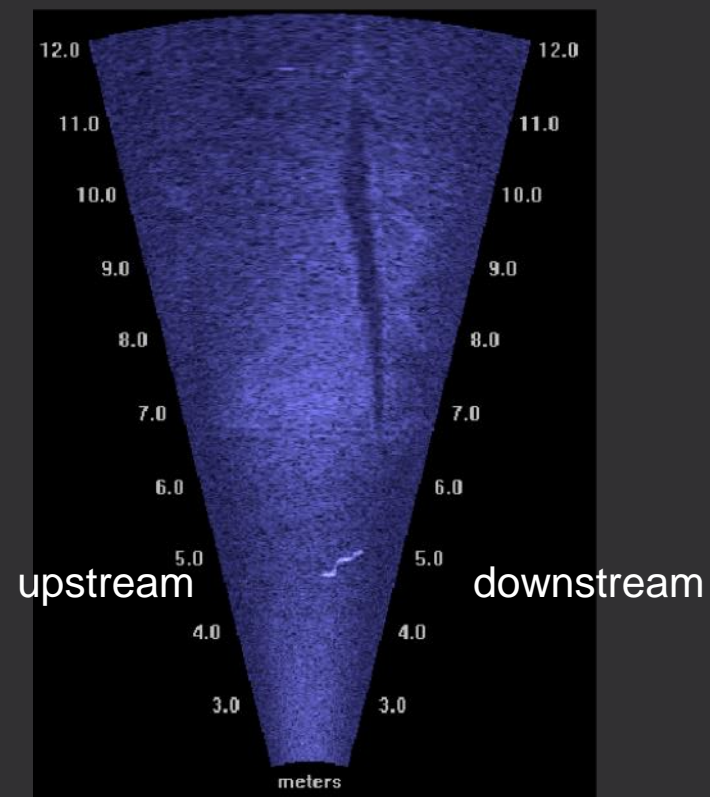
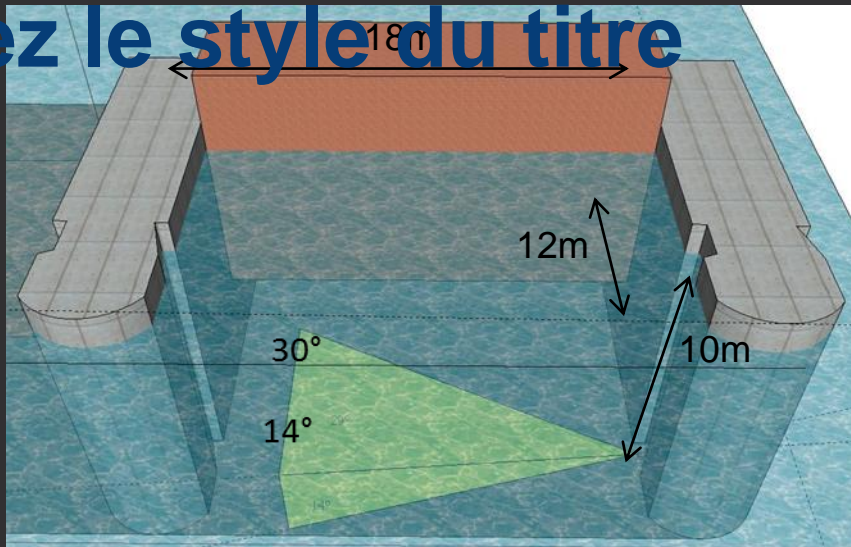
SUIVI DE LA MIGRATION D'ANGUILLES ARGENTÉES

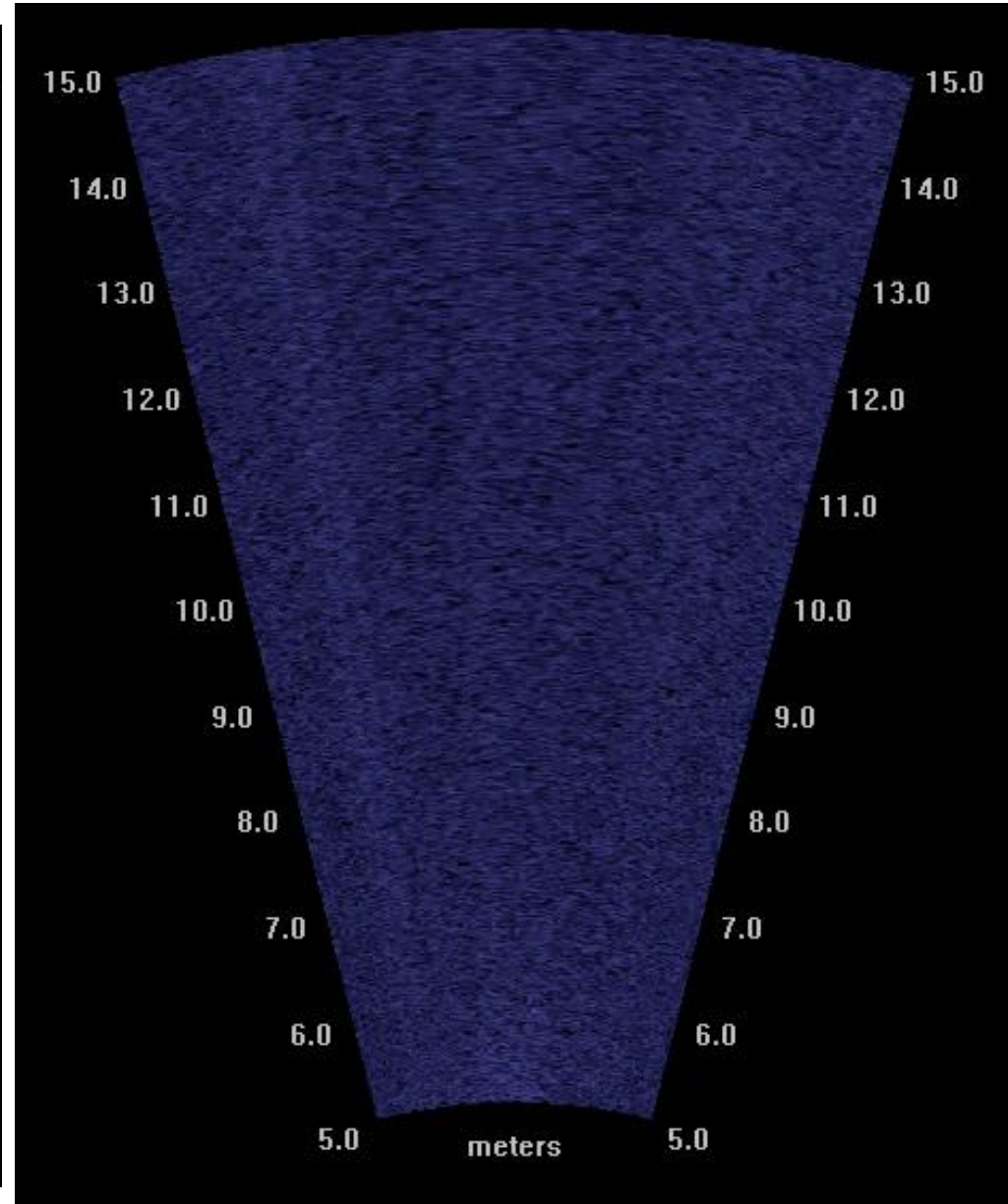
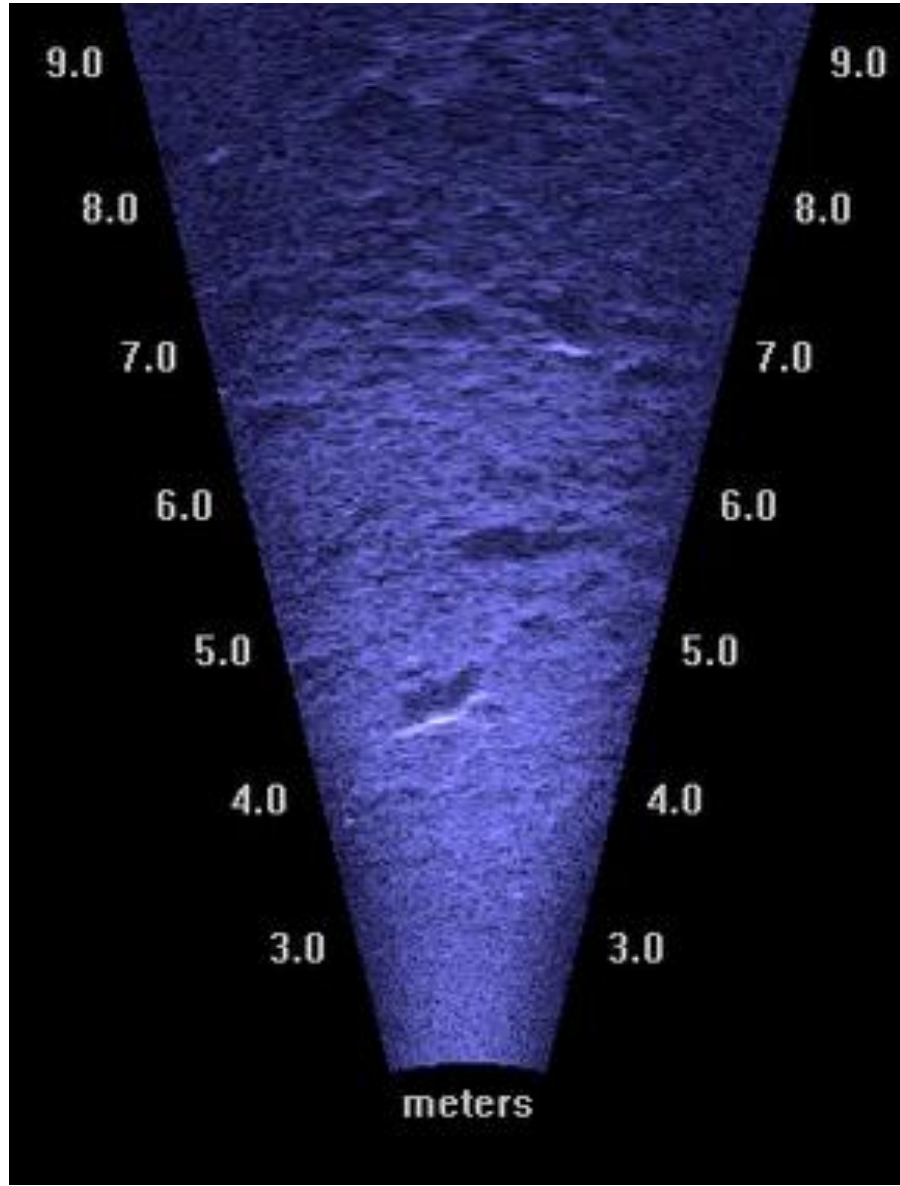
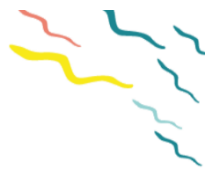






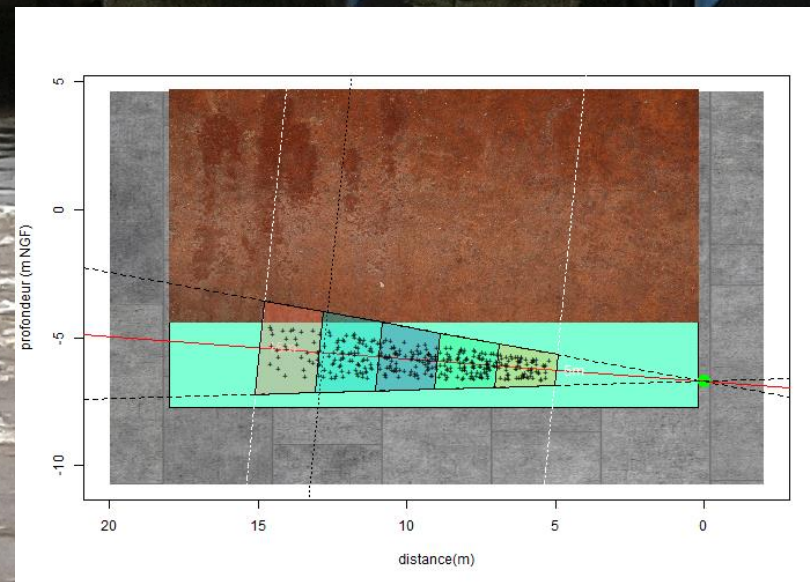
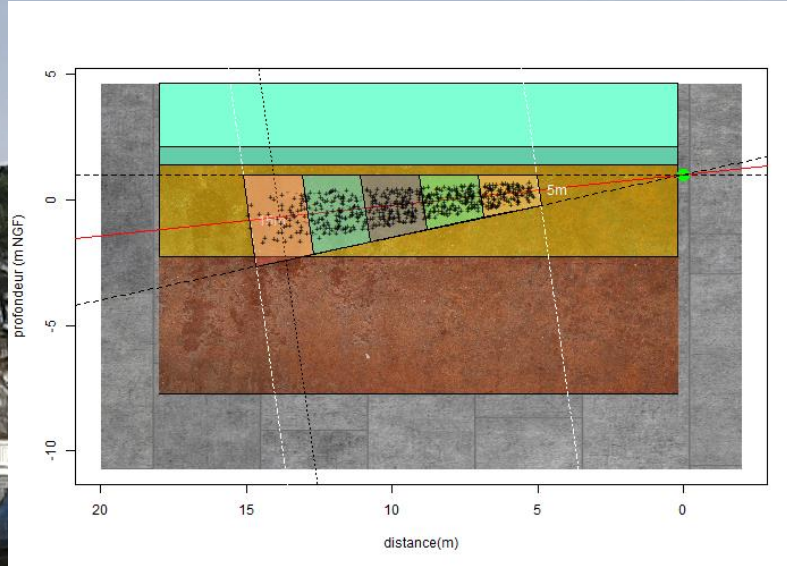
Modifiez le style du titre

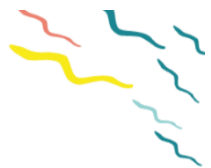






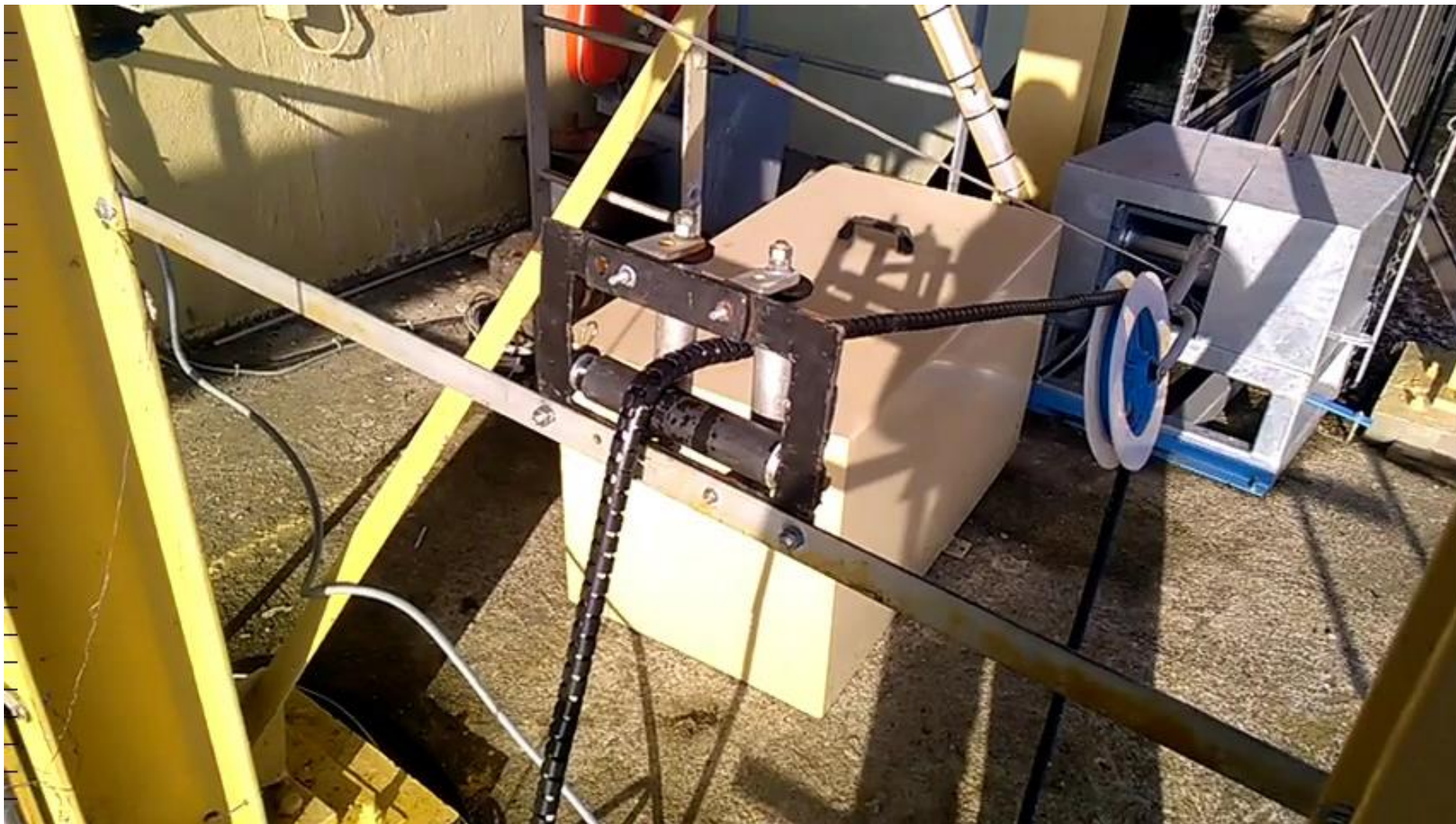
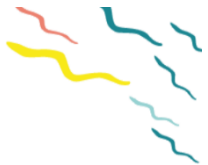
Suivi en vannes et volets

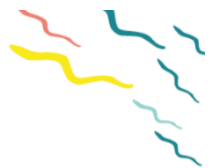




Modifiez le style du titre

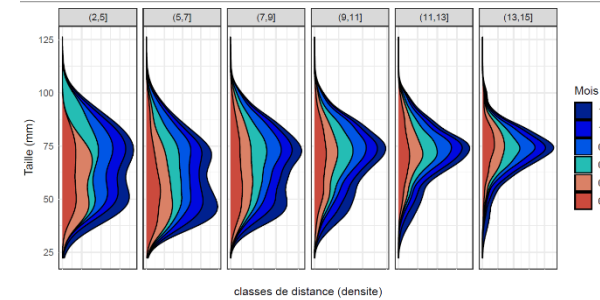
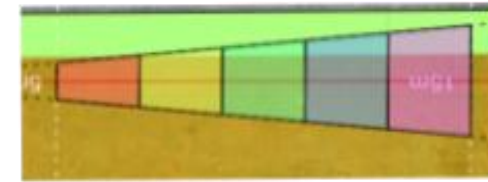
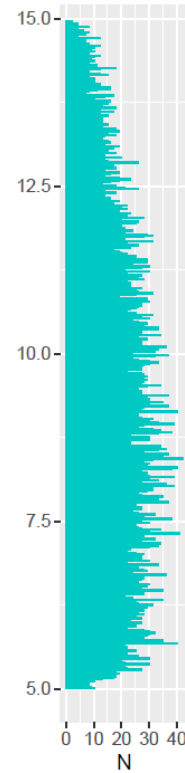
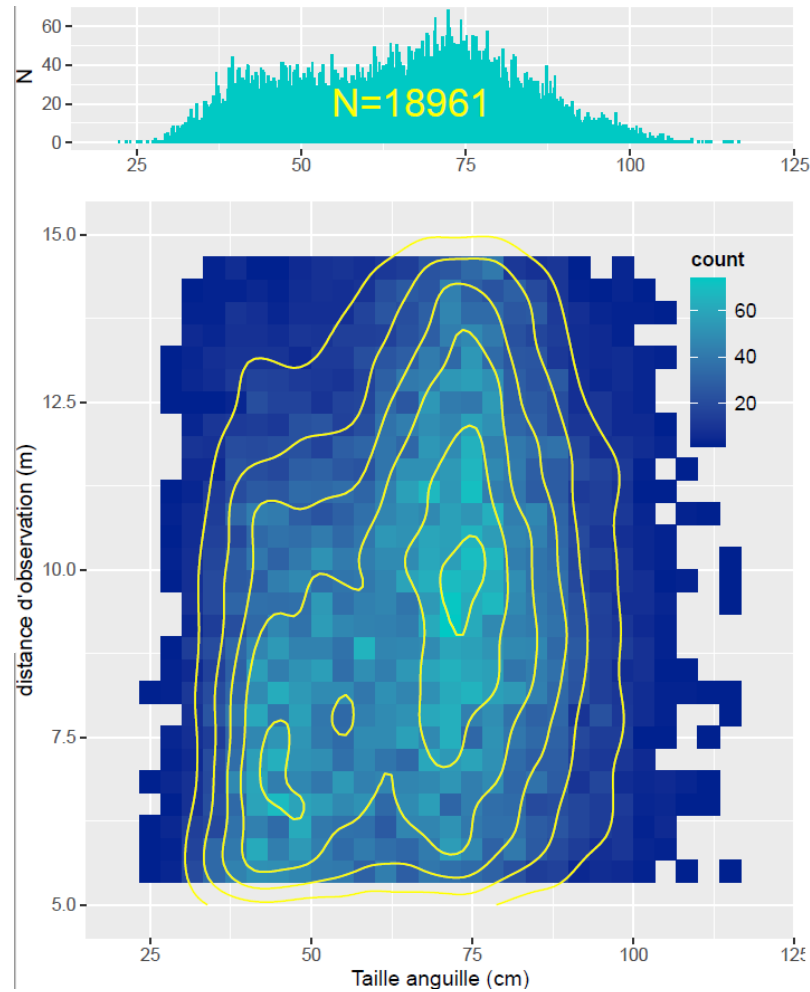


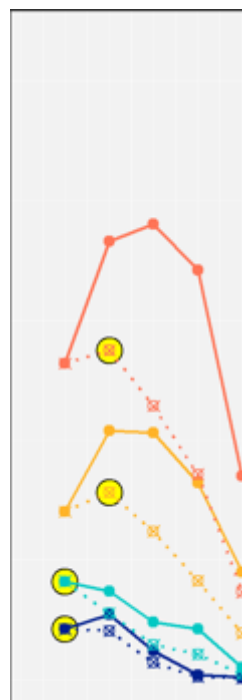
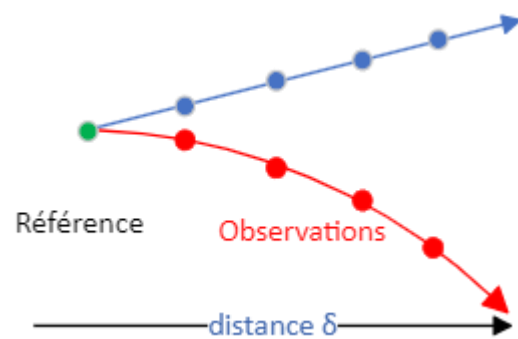
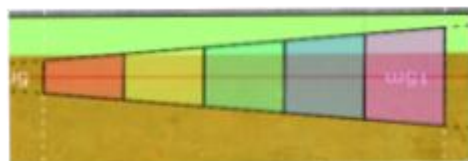
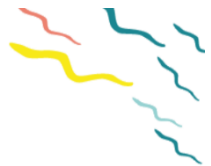




Modifiez le style du titre

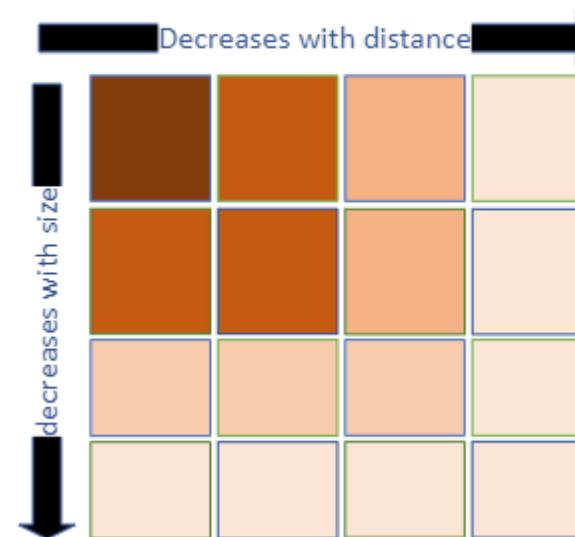
Distance
Au didson
(m)

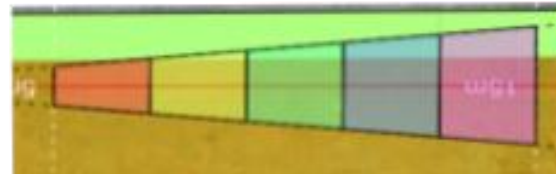
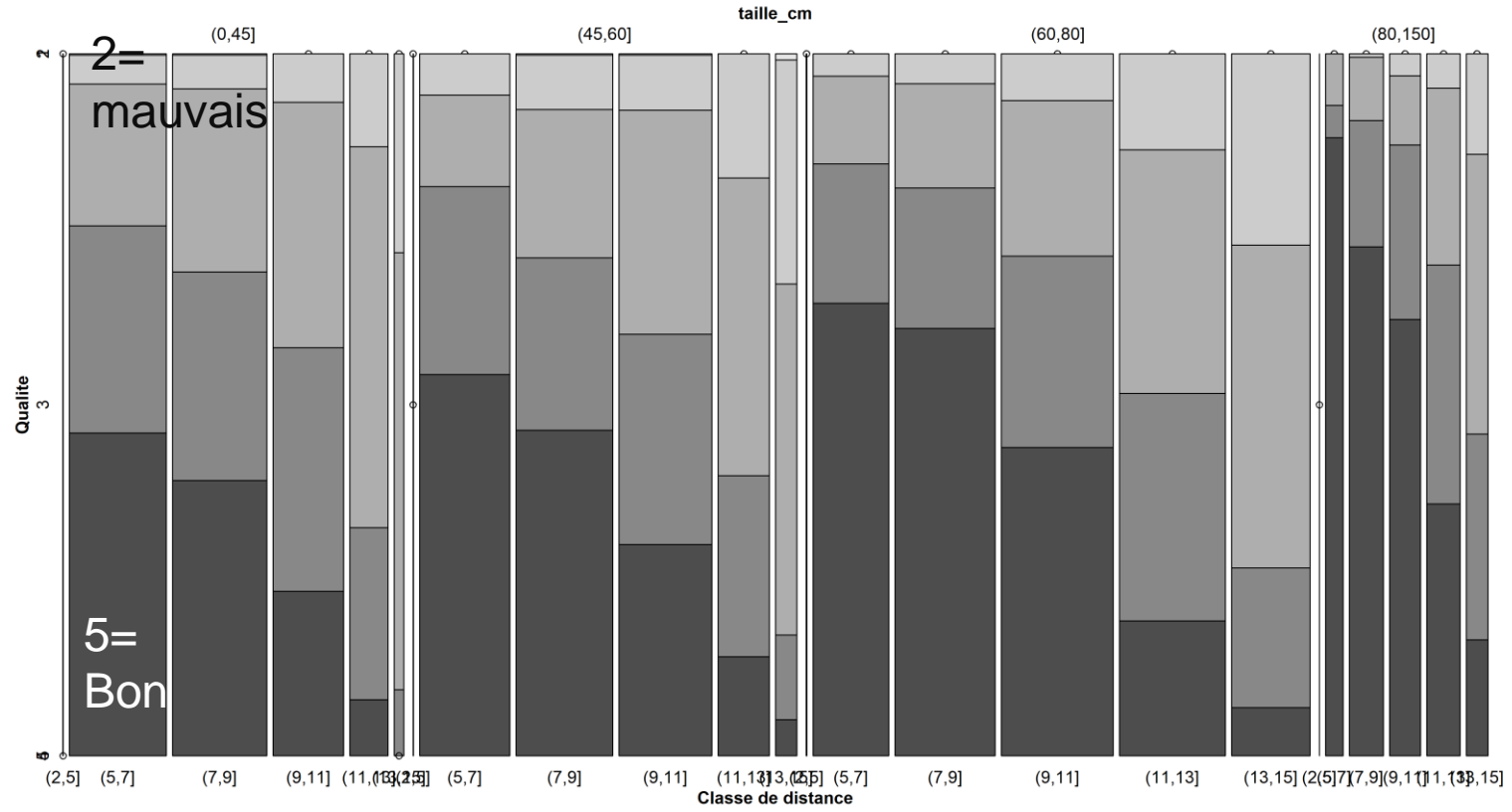


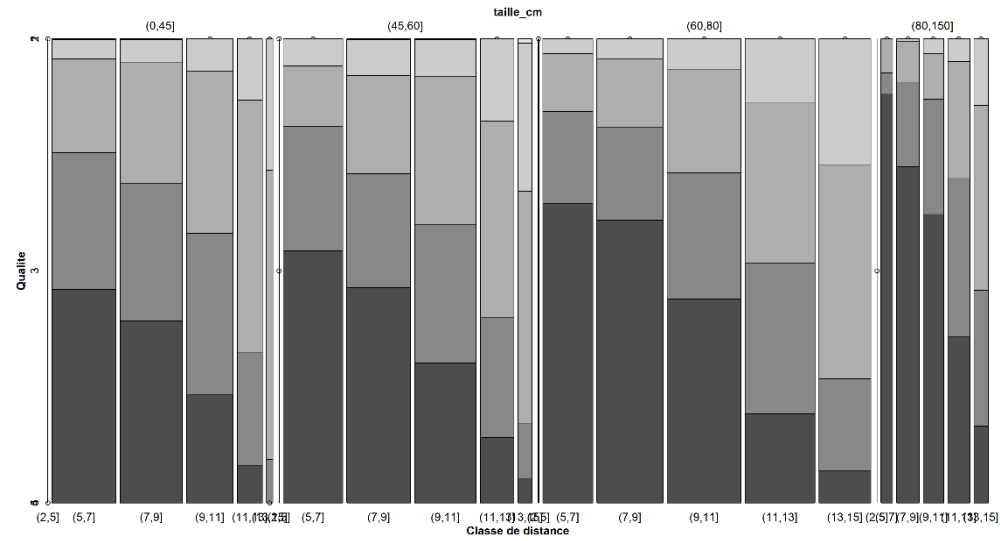


- (0,45]
- (45,60]
- (60,80]
- (80,150]

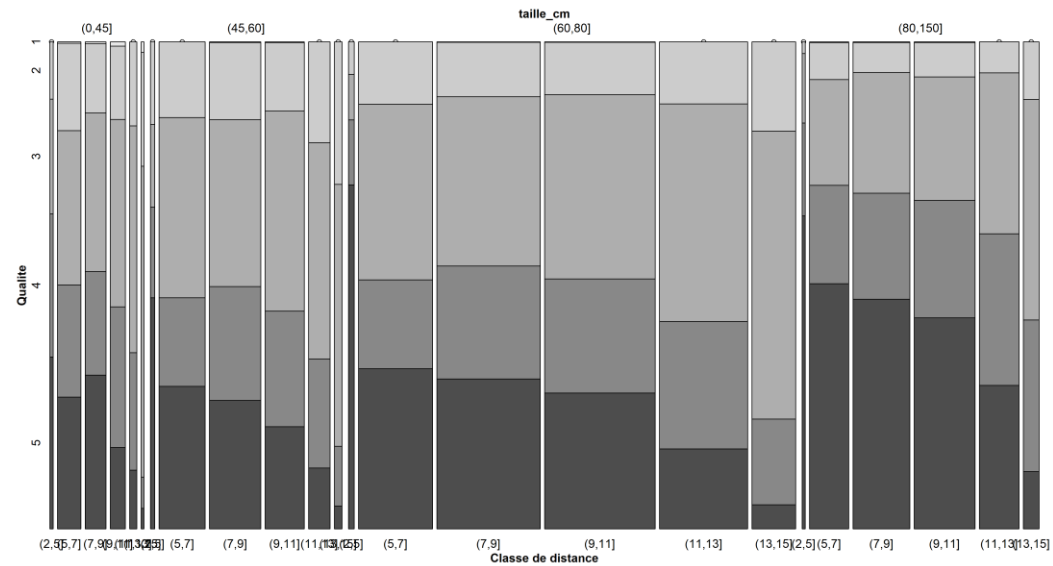
Efficiency



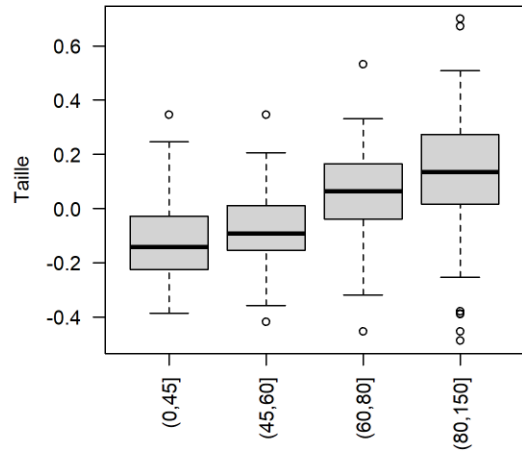
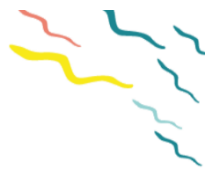




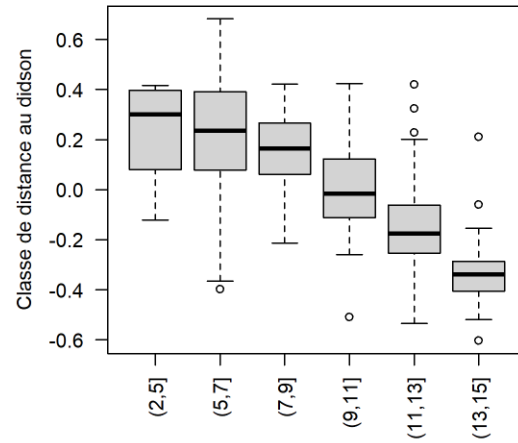
Surverse
N=7 059



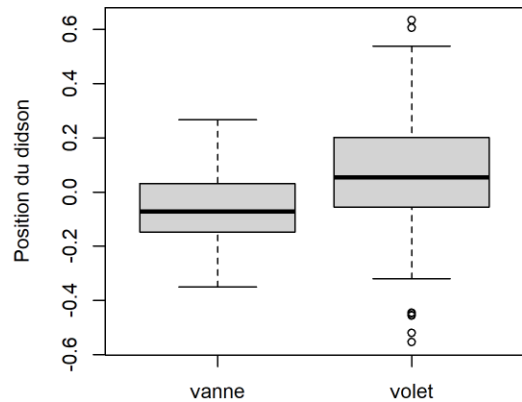
Vanne de fond
N=11 902



Size

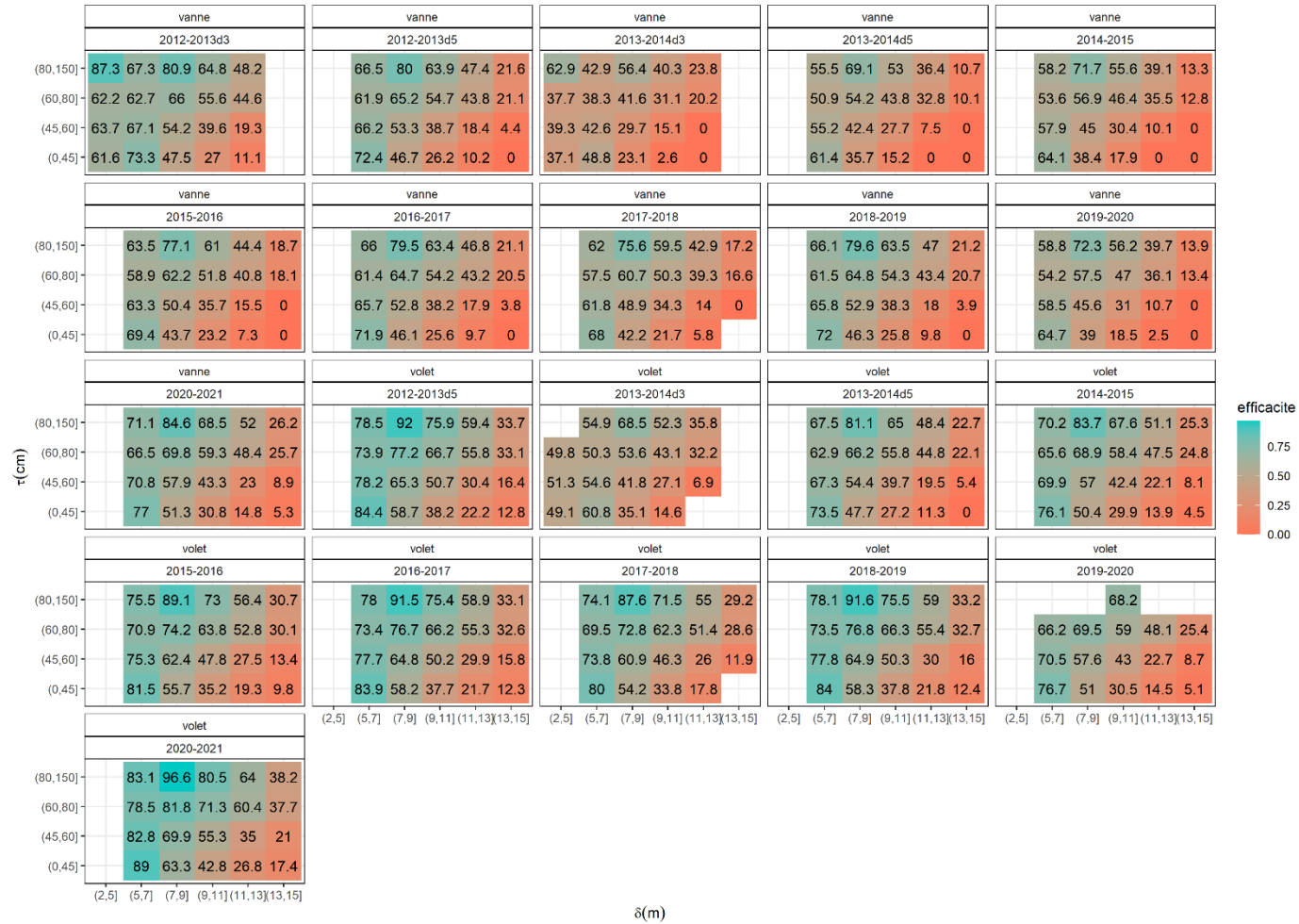


Distance



Position

	<i>df</i>	<i>dev.</i>	<i>res.df</i>	<i>res.dev.</i>	<i>P(> chi²)</i>
<i>Resid.</i>			411	33.4	
δ	5	14.53	406	18.9	< 0.001
τ	3	3.86	403	15.1	< 0.001
<i>saison</i>	10	2.02	393	13.0	< 0.001
<i>k(position)</i>	1	1.42	392	11.6	< 0.001
$\delta * \tau$	15	2.06	377	9.6	< 0.001





Vanne de fond

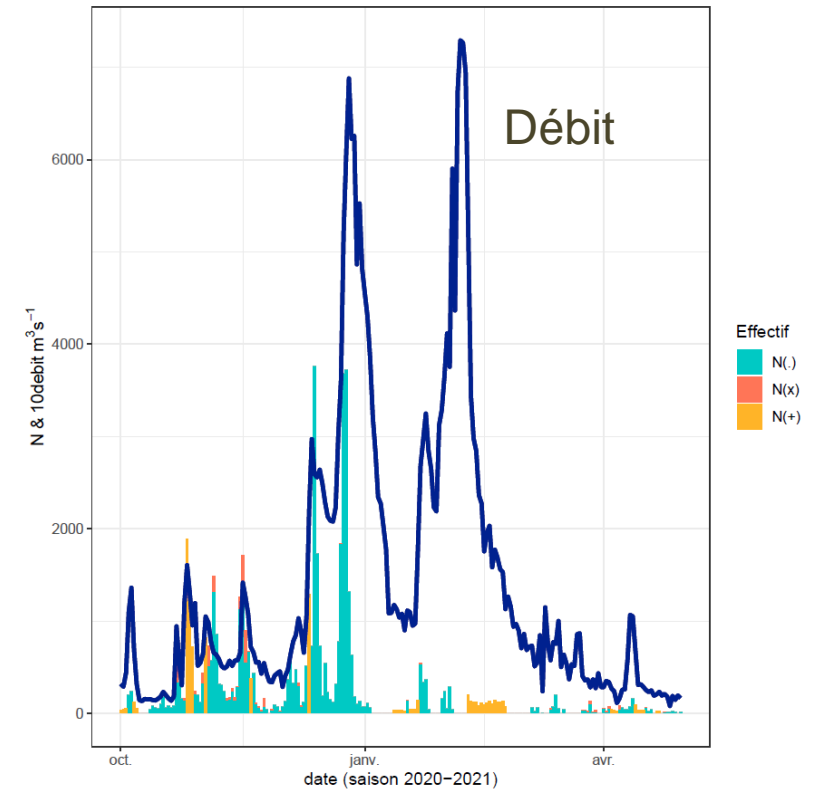
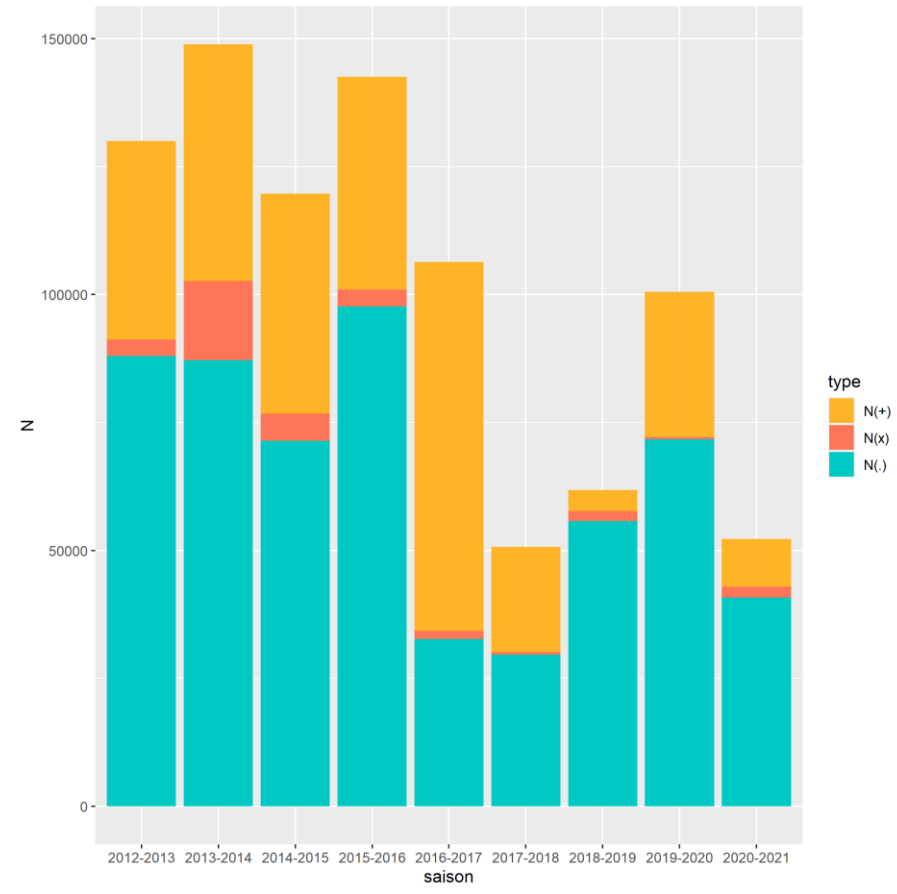
		2020-2021				
τ (cm)	(80,150]	71.1	84.6	68.5	52	26.2
	(60,80]	66.5	69.8	59.3	48.4	25.7
	(45,60]	70.8	57.9	43.3	23	8.9
	(0,45]	77	51.3	30.8	14.8	5.3

Volet de surverse

		2020-2021					
	50]	83.1	96.6	80.5	64	38.2	
	80]	78.5	81.8	71.3	60.4	37.7	
	60]	82.8	69.9	55.3	35	21	
	45]	89	63.3	42.8	26.8	17.4	
		(2,5]	(5,7]	(7,9]	(9,11]	(11,13]	(13,15]



2020-2021





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