

OCEAN AND MARINE SCIENCE IN BENIN

BENIN INSTITUT OF FISHERIES AND OCEANOLOGICAL RESEARCH (IRHOB)



**UNIVERSITY OF ABOMEY-CALAVI, University of Abomey-Calavi,
&
Mathematical Physics and Applications, ICMIPA-UNESCO**



Master Océanographie et Applications (OA)

Frédéric BONOU



<https://master-ocac-benlouis.stas.mpg.fr/m200/>

Master 2 OCÉANOGRAPHIE ET APPLICATIONS

UAC-BÉNIN / UPS-FRANCE

Depuis la théorie de la
circulation océanique à
l'instrumentation et l'érosion
côtière...

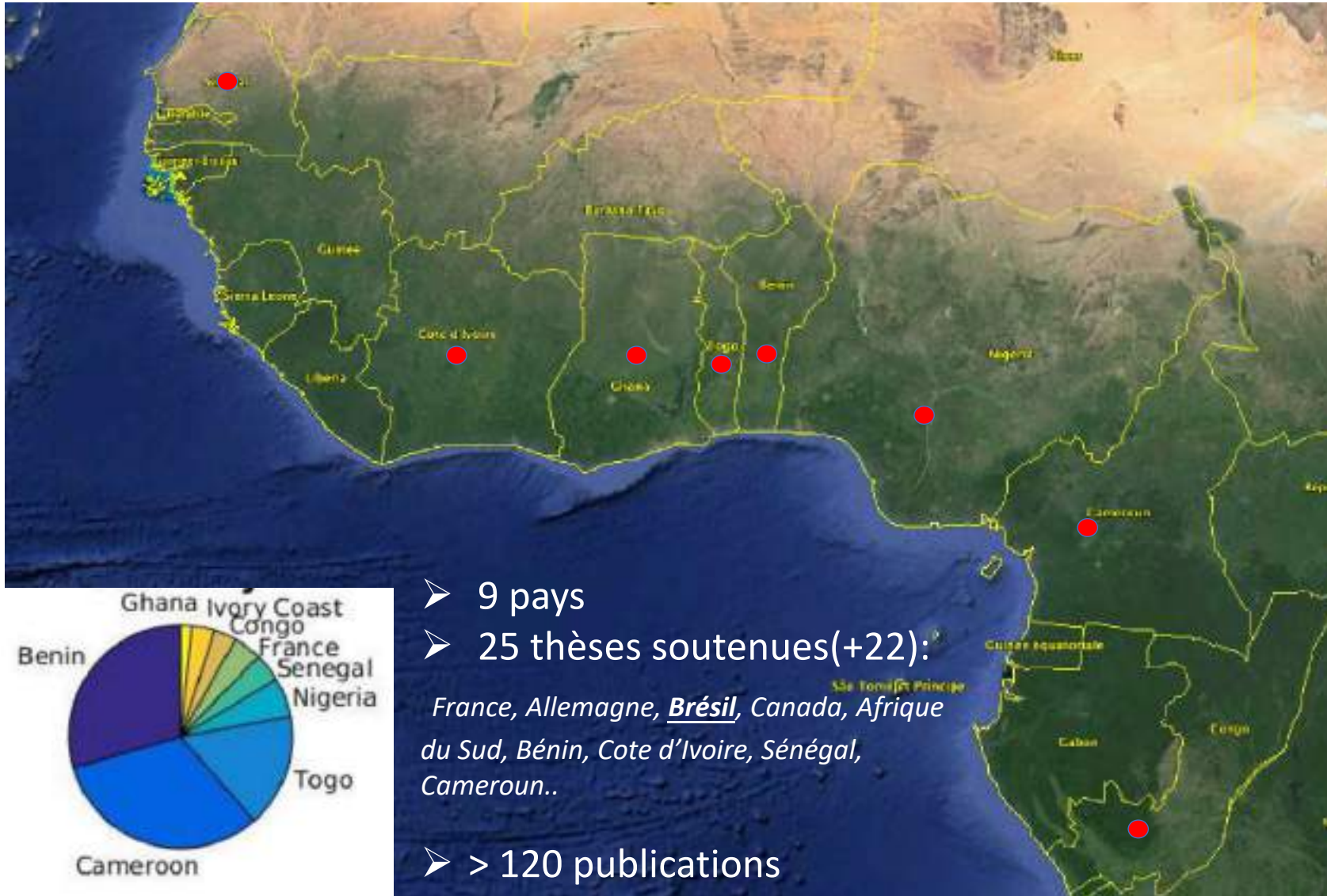
NOUS ACCEPTONS LES CANDIDATURES
POUR L'ANNÉE 2021-2022

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*N. Hall;
G. Alory;
Y. du-Penhoat;
B. Bourlès;
I. Dadou;*

=> fort impact sur la communauté scientifique



Bilan: 150 étudiants...



Trombinoscope M2-SOAC-OA Océanographie et Applications
Cotonou 2024-2025



			
FOTSO FEUNTCHUM Marius Cameroun	FOULON Agathe France	GRANJOU Alice France	HOUINDO Edokpon Barnabas Bénin
			
KAMGA TETSOPGUIM Lyne Joelle Cameroun	OLLAGNIER Justin France	SADIKOU Gibril Bénin	WRIGHT Alexis France





Nokoué lagoon location and hydrography



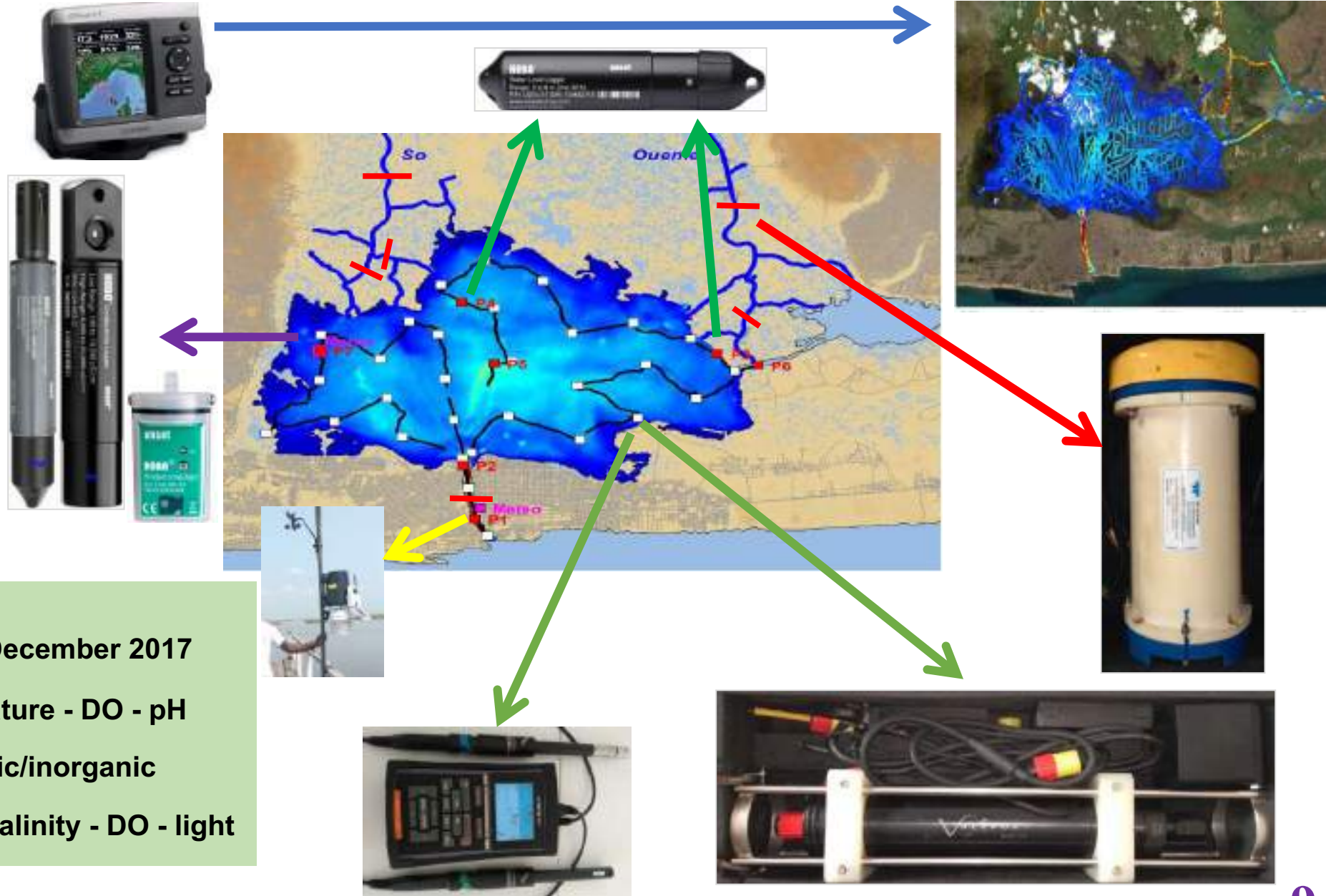
Nokoué lagoon location and hydrography



Instrumental park – surveys and Collected parameters 1/2

General objective

Pilot-observatory
for monitoring West
African lagoons



Physics : monthly survey since December 2017

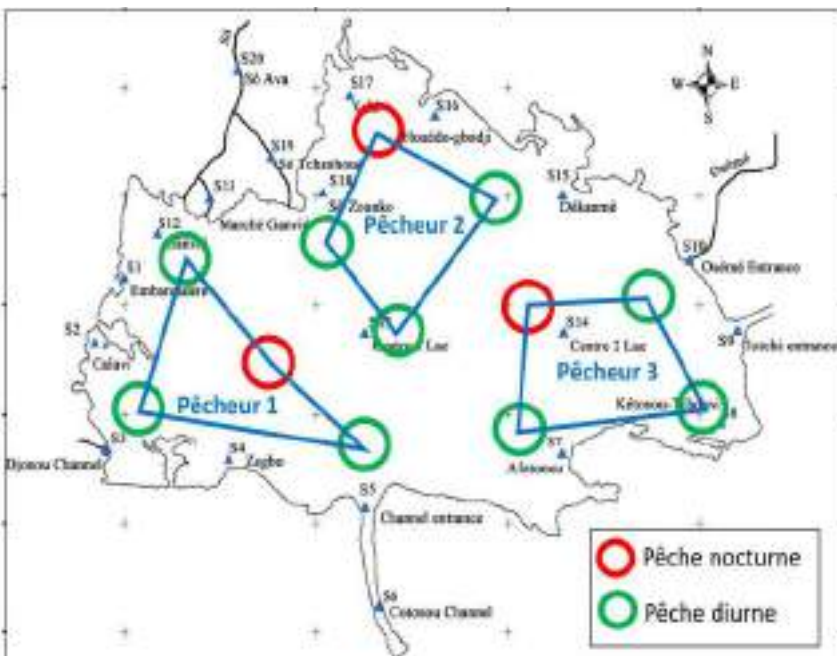
- Profils of Conductivity/ Temperature - DO - pH
- Suspended matter : Total/organic/inorganic
- Moored sensors : water level - salinity - DO - light

surveys and Collected parameters 2/2

Biogeochemicals : since Febuary 2019 → Chl ;
NH₄⁺/Ammonium ; NO₃⁻/Nitrate ; NO₂⁻/Nitrite ; NT/
Total Nitrogen; PO₄³⁻/Orthophosphate ; Total
Phosphorus

Plankton : Monthly (Sept 2019 – Nov 2021)

Ichtyofauna: Inventory of fish species



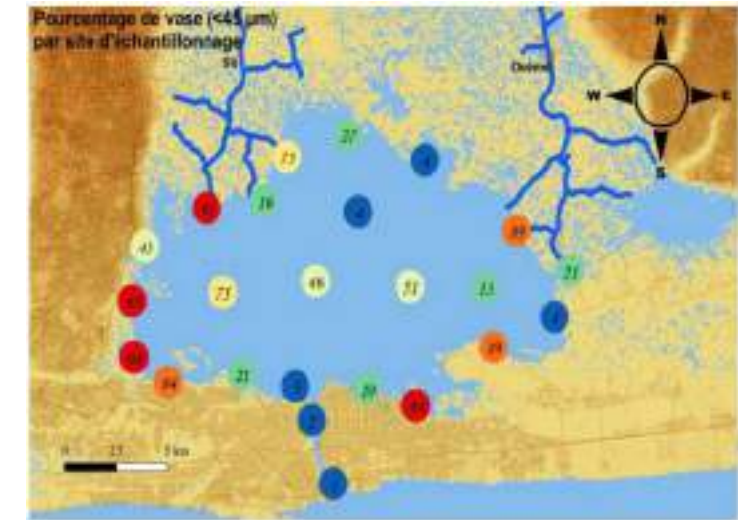
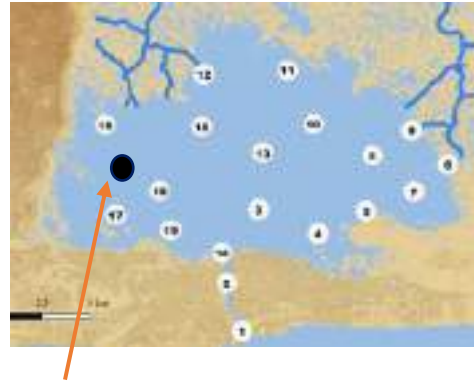
3 days monthly survey :

Nov 2020-Dec 2021

&

Microplastic...

Particle size characterization (Feb 2019)



(2021)

Trace Metal Elements in sediment



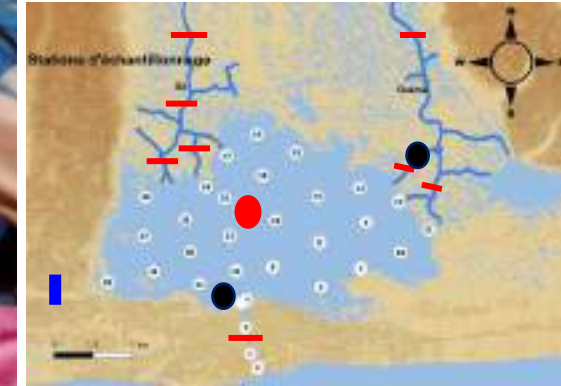
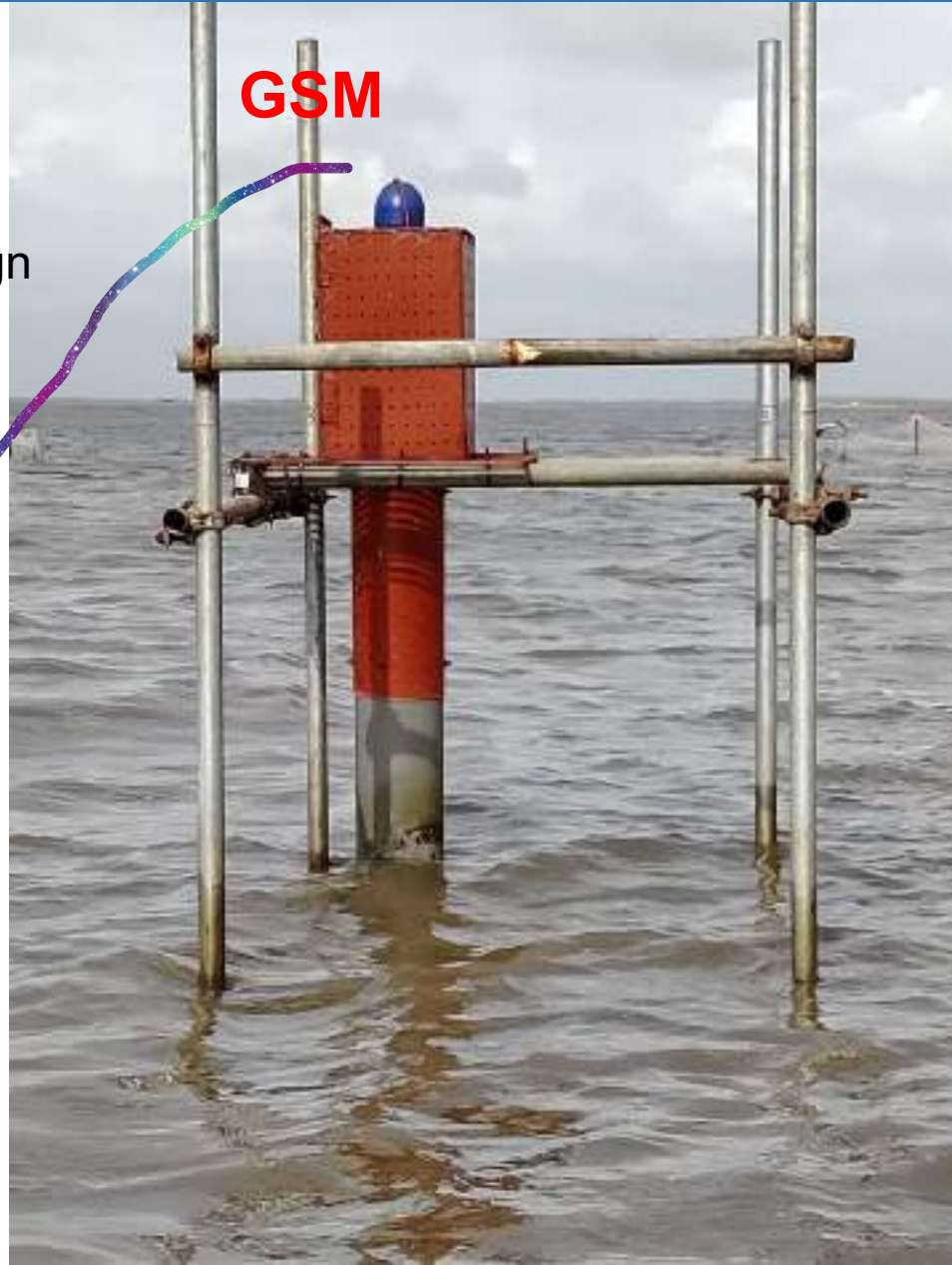
Nokoué Observatory nowadays...

Since May 2022 :

- o Lagoon centre
- o 1 full day monthly campaign
(CTD + indep. Meas.)
- o Sensors maintenance
(15 days sm.t)



... Alarm



05 sensors

- Conductivity
- pH
- Turbidity
- Fluorescence (chl_a)
- Dissolved oxygen



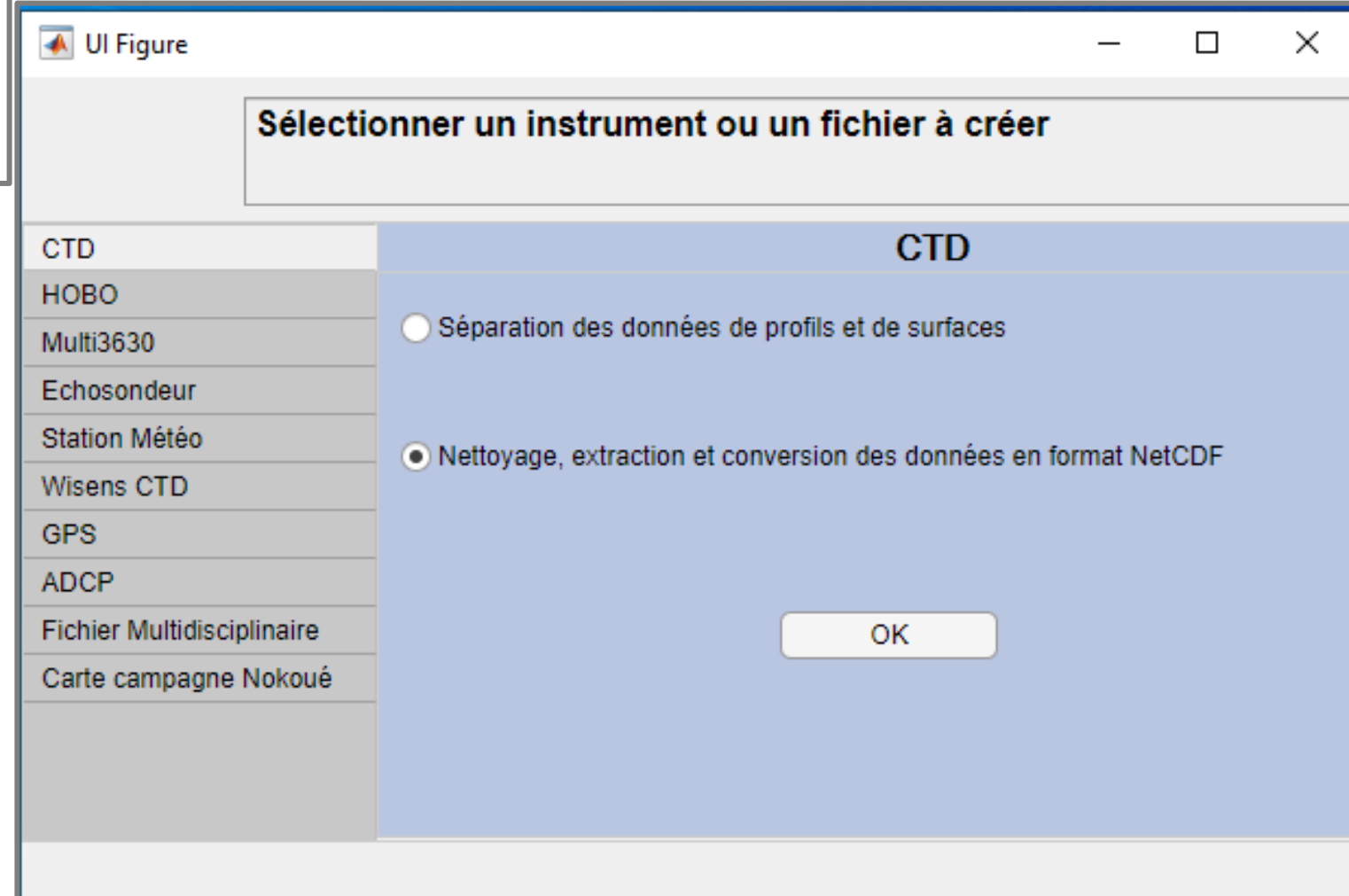
Guide utilisateur DATA_processing.mlapp

APPLICATION DE NETTOYAGE DE DONNÉES
OCEANOGRAPHIQUES ET HYDROLOGIQUES

Morgane B.
IRHOB / IRD

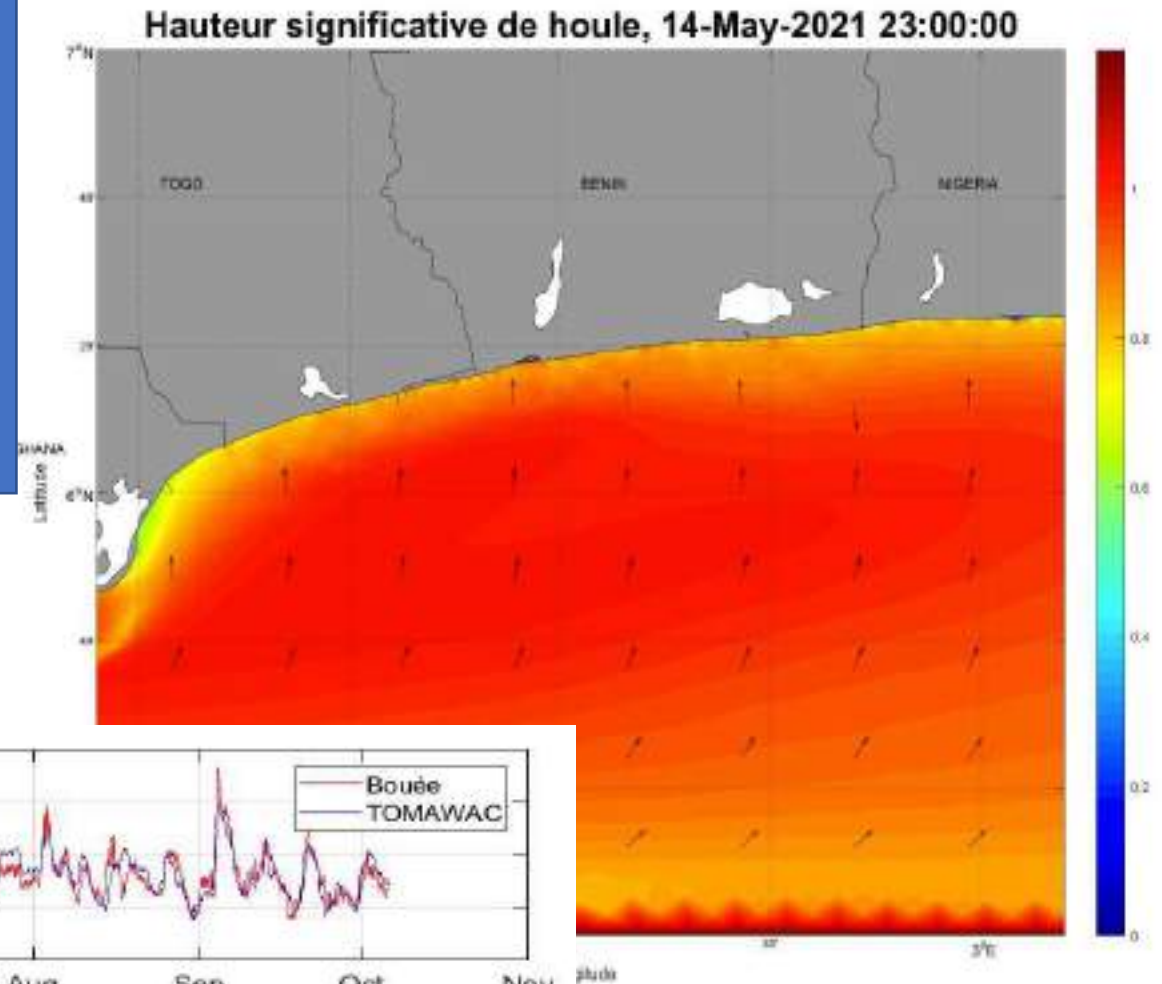
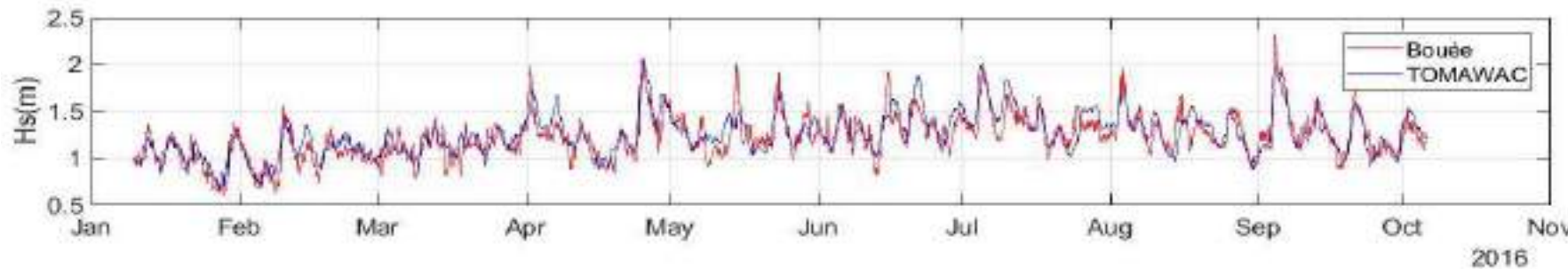
Alexis C.

--- pcloud

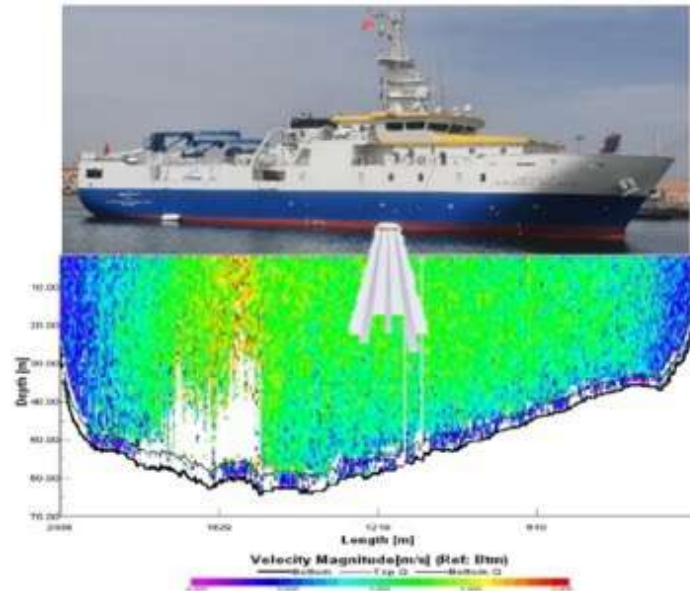


Simulation sur 10 mois : janvier –
octobre 2016

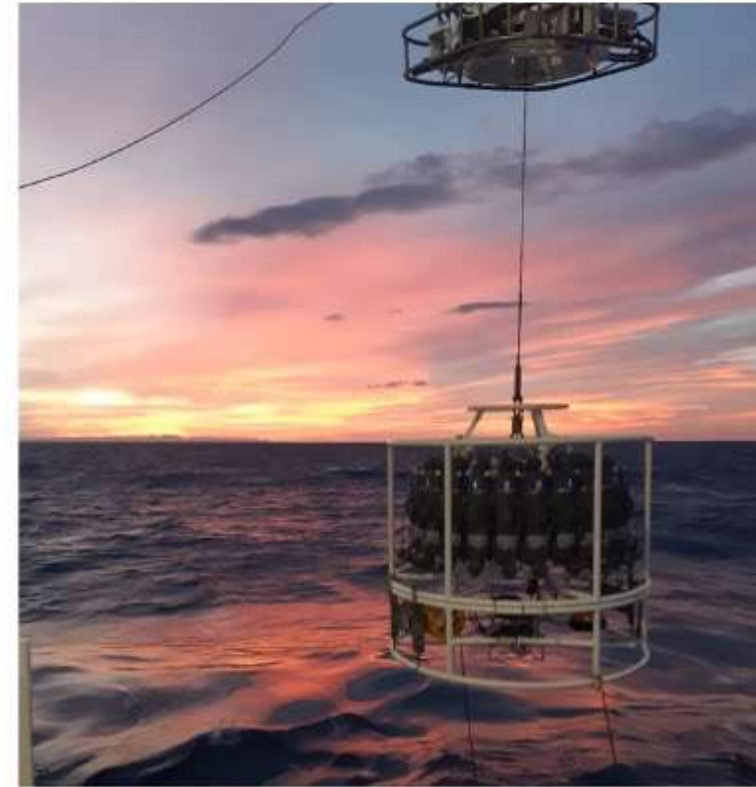
Etude comparative aux données
de la bouée



Matériel et Méthodes

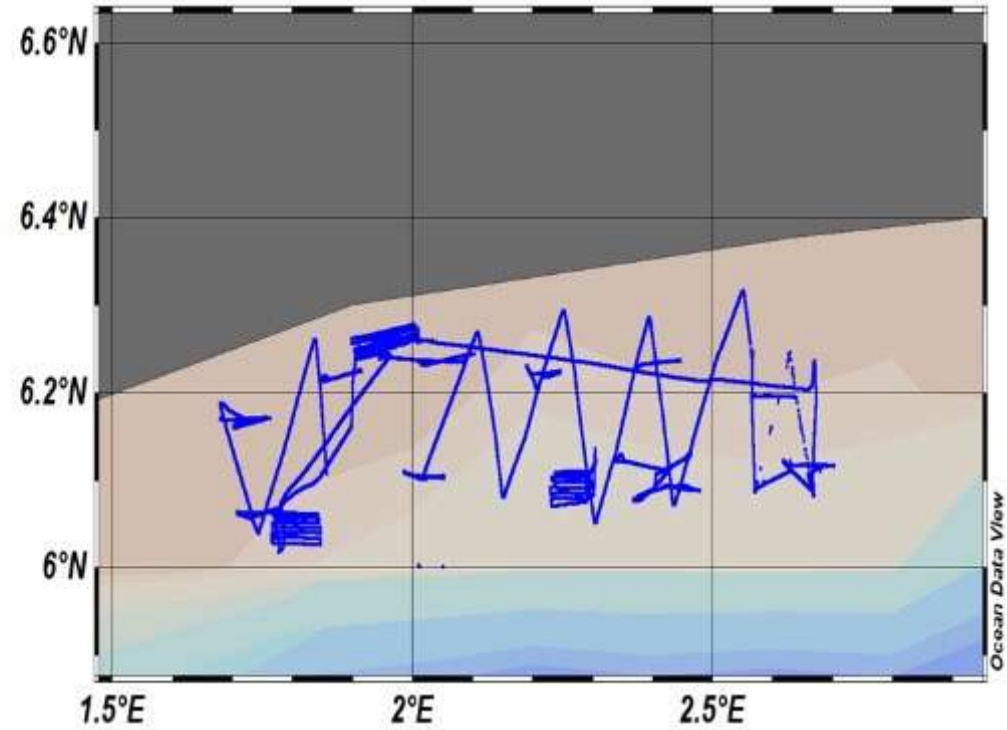
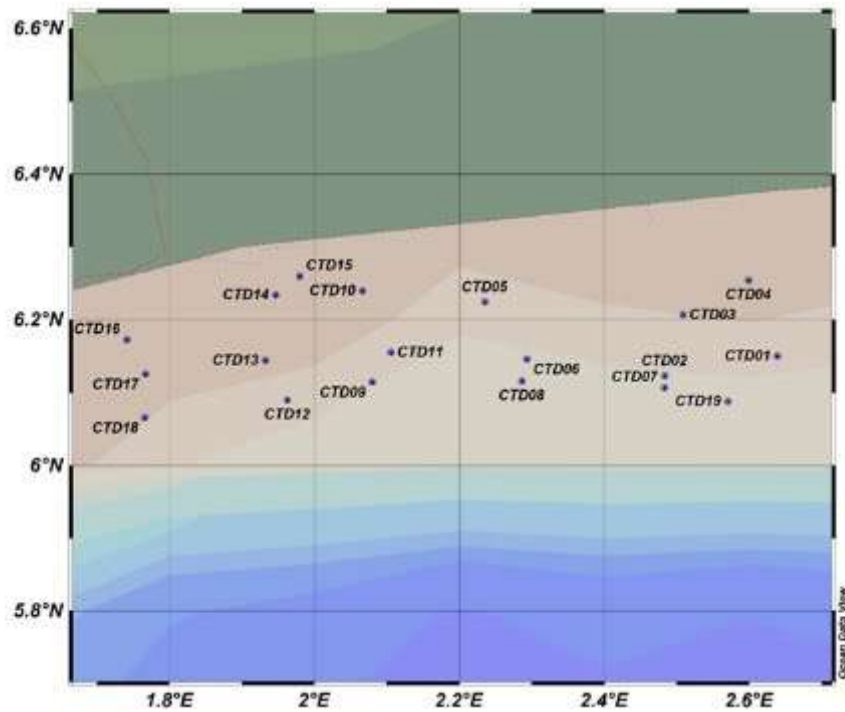


**étude de la circulation
océanique (Direction et
vitesse de courant océanique)**



**Étude des paramètres
physicochimiques de l'eau
(Température, salinité, oxygène,
fluorescence, nutriments)**

Réseau des station CTD et réseau des mesures de l'ADCP et Thermosalinographe



Formations sur l'utilisations des instruments océanographiques



Les sessions de formation réalisées pour les scientifiques à bord couvrent divers volets :

- 1) L'utilisation de la CTD (Conductivité, Température, Profondeur) et les techniques d'échantillonnage,**
- 2) L'utilisation de la benne, et échantillonnage de sédiment**
- 3) L'usage du Thermosalinographe,**
- 4) L'utilisation de l'ADCP et de la LADCP,**
- 5) La collecte de données météorologiques.**

