



OEIL

Observatoire de
l'environnement
Nouvelle-Calédonie

OEIL – Observatory of the environment in New Caledonia

Projects related to water quality monitoring

Adrien Bertaud – Head of the environment department

15/04/2024 – Nouméa

- Our organisation
- Our projects
 - Annual env. assessment of Thio and Pronymining sites
 - Development of freshwater bioindicators
 - Complement to regulatory monitoring
 - Exploration and data banking tools
 - Monitoring fire and vegetal drought
 - Monitoring rivers with on-site equipment : la Coulée and Prony
- Prospects



Our organisation



OUR GOAL

To facilitate decision making for stakeholders on measures that need to be taken in order to preserve the environment.



OUR MISSIONS



To monitor

We analyse and scientifically **interpret** the available information to follow the environment's state and evolutions, undergoing pressures and implemented solutions.



To inform

We report on a regular basis to public authorities, decision makers and the public our analysis of the environment's state and evolutions, undergoing pressures and implemented solutions.



To optimize

We develop environmental **monitoring tools** in collaboration with scientists and decision makers: indicators, variables, descriptors, key figures.



Our organisation

The observatory :

- a non-profit organization
- supported by public authorities
- 24 member organisations



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Projects related to water quality monitoring

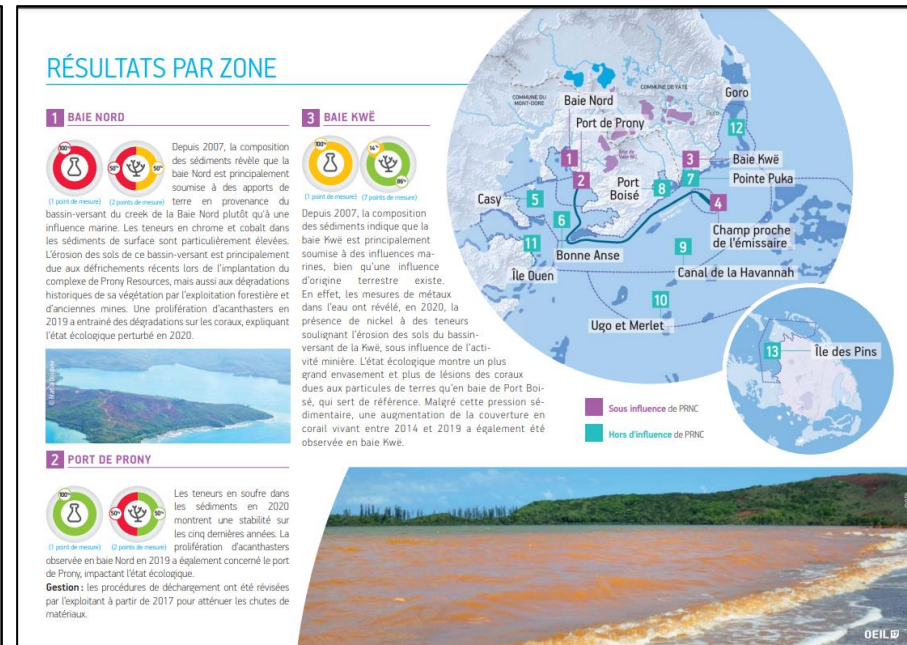
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Annual environmental assessment of Thio and Prony mining sites

Activities

- Compiling data from partners
- Data banking
- Data treatment and analysis
- Scoring chemical and ecological state for aquatic environment
- Production of a detail report and general public communication

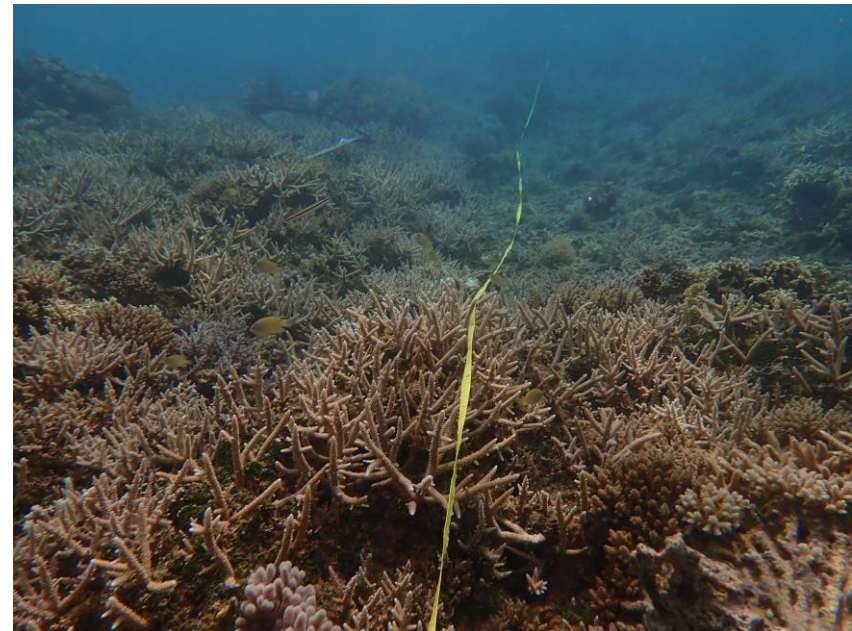




Complement to regulatory monitoring

Activities

- Data collection to complete regulatory monitoring
- Freshwater: in areas out-of-influence mainly to contribute to the diagnosis mostly on biological compartment.
- Marine: in areas that are under pressure but not monitored

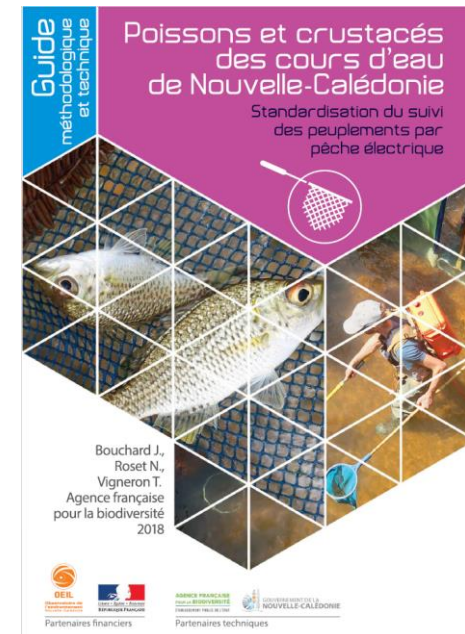
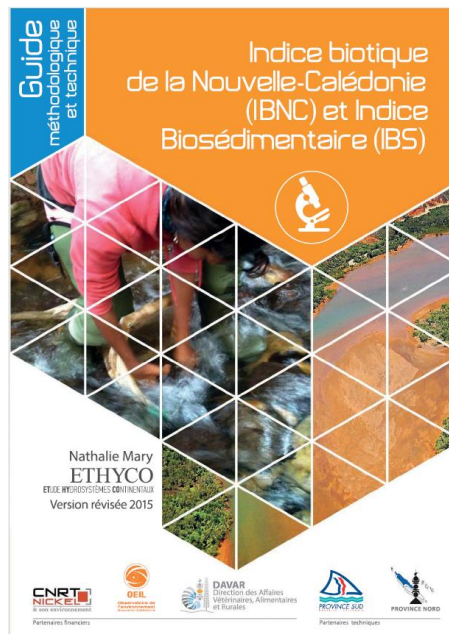




Development of freshwater bioindicators

Activities

- Developpment and update of macrobenthic bioindicator
- Development of a new biodindicator based on benthic diatoms
- Standardisation of the freshwater fish monitoring protocol





Visualisation and data banking tools

Activities

- Developpment of :
 - visualisation tools such as dashboard, geoportal
 - Data banking tool for biological monitoring in freshwater



Paysage

Quelle surface de forêt a disparu ? Comment progresse l'urbanisation ? Ce site vous permet de construire vos propres cartes et de vous informer sur l'évolution du paysage en province Sud.

[Suivez le guide...](#)

Stellatus

Stellatus est un portail de consultation des données environnementales sur la qualité du milieu marin dans la zone d'influence de Vale Nouvelle-Calédonie.

[Suivez le guide...](#)

Cart'environnement

Dédié à un public averti, ce guichet permet de construire des cartes complètes et personnalisées à l'aide d'une multitude de données environnementales et d'une large palette d'outils.

[Suivez le guide...](#)

Galaxia

Galaxia, le guichet cartographique sur la « qualité des eaux douces », donne accès aux données de suivi de Vale Nouvelle-Calédonie, de la SLN, etc.

[Suivez le guide...](#)

Pardalis

Ce portail offre la possibilité de consulter les résultats de dix suivis réglementaires et volontaires opérés par Vale NC sur les milieux terrestres.

[Suivez le guide...](#)

Vulcain

Vulcain permet de visualiser, en temps réel, les surfaces potentiellement impactées par des incendies. Il est doté d'un système d'alerte qui permet de recevoir, par mail, des informations sur les derniers incendies détectés.

[Suivez le guide...](#)

Catalogue de données

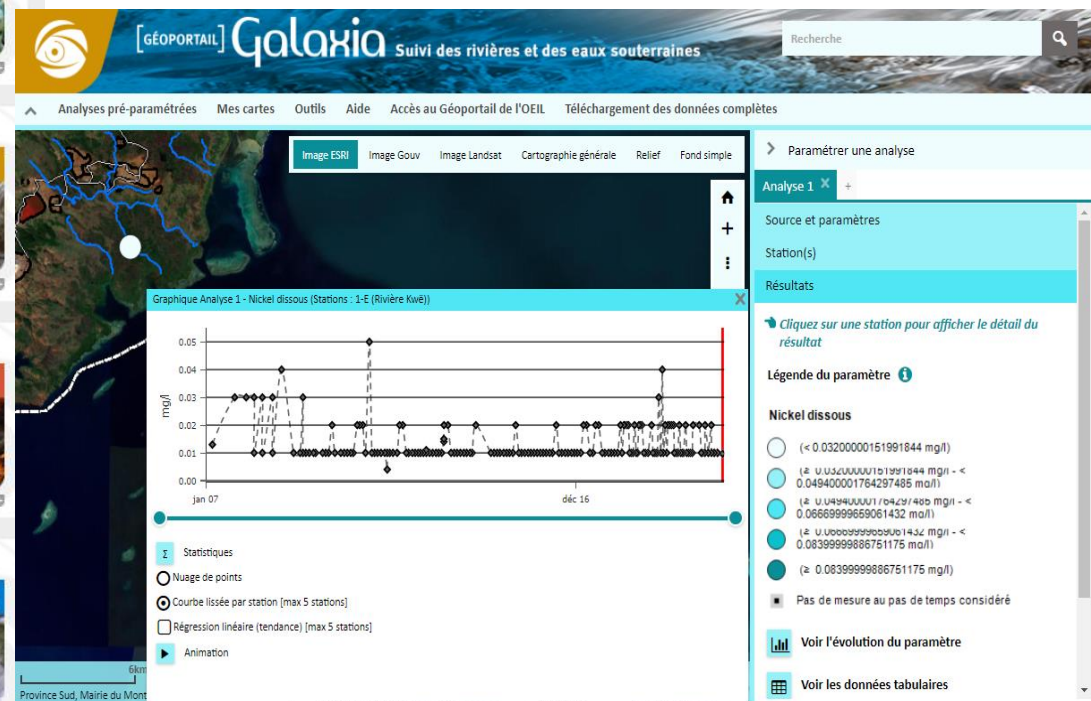
Par qui les données du Géoportail ont-elles été produites ? Comment et quand ont-elles été recueillies ? Trouvez toutes ces réponses dans le catalogue de données.

[Accédez au catalogue de données](#)

Hydrobio

L'application Hydrobio est un outil de gestion et de bancarisation des données de la faune aquatique d'eau douce (macro-invertébrés, poissons, crustacés).

[Suivez le guide...](#)

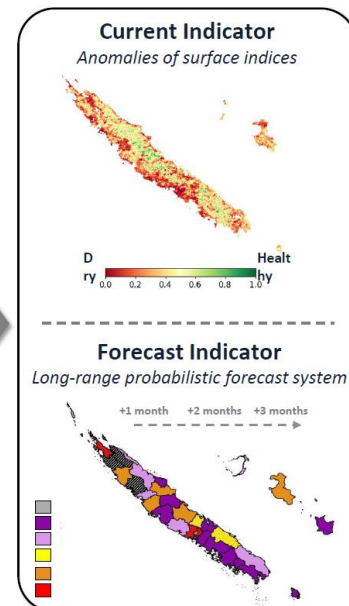
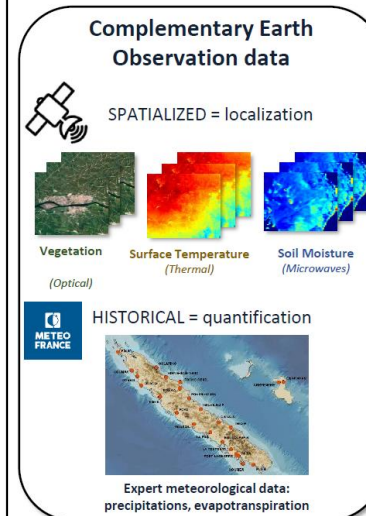
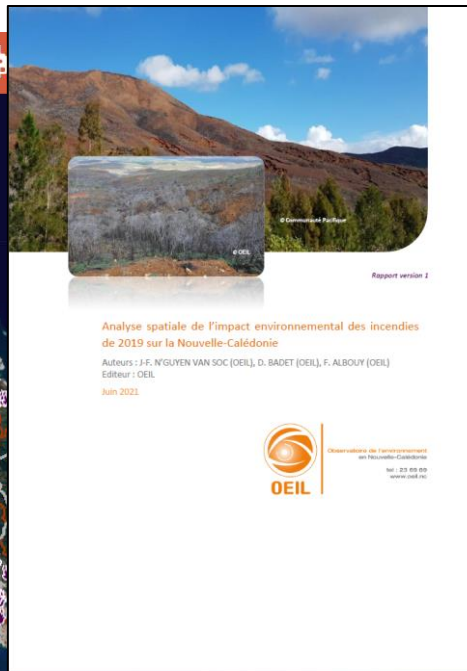




Monitoring fire and vegetal drought

Activities

- Near real time monitoring based on remote sensing
- Contextual analysis
- Annual mapping of burnt areas (res. 10m)
- Alert system for bushfire detection
- Regular reports on bushfire impacts





Monitoring rivers with on-site equipment : two on-going projects, la Coulée and Prony

Activities

- Installation of on-site equipment
- **La Coulée**
- 2 sites, 1 river
- Site a: Camera (focused mainly on the road / trafic)
- Site b: Camera, probes for pH, conductivity, temperature, turbidity
- Precipitation, water height and flow are already monitored on the same site by DAVAR – SDE
- Equipment will be connected for real-time information
- Schedule: Call for tenders sent, equipment to be installed second part of 2024, measurments during 2 years





Monitoring rivers with on-site equipment : two on-going projects, la Coulée and Prony

Activities

- Installation of on-site equipment
- **Prony**
- 2 sites, 2 rivers
- Site c & d : probes for pH, conductivity, water pressure, temperature.
- Regulatory monitoring on both of these rivers: chemical, biological
- Equipment not connected (data logger)
- Schedule: Call for tenders sent, equipment to be installed second part of 2024, measurements during 2 years





Prospects

- Areas of interest for OEIL: 1st Thio & Prony, 2nd La Coulée
- Potential partnership with a technical contribution of OEIL and data sharing if Aquawatch contributes to our activities in areas of interest
- Interest into the potential of the techniques to be implemented (remote sensing and instrumentation)





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Merci!