



CNRS/Aix Marseille Université

Europôle Méditerranéen de l'Arbois  
Bâtiment Laennec  
13545 Aix en Provence cedex 4

Direction : Nicolas Roche  
Nicolas.roche@univ-amu.fr

Administration : Joëlle Cavalieri  
Tél : 06 66 03 84 72  
[Joelle.cavalieri@univ-amu.fr](mailto:Joelle.cavalieri@univ-amu.fr)

Site internet : <http://www.eccorev.fr/>

---

**Journée Restitution de l'Appel d'Offre Interne 2022**  
**Vendredi 5 novembre 2025**  
**Aix en Provence Technopole de l'Arbois**

**Fiche-Résumé**

**Titre :**

French Mediterranean Coastal Lagoons: Emerging Issues in Fast-Transitioning Environments

*Lagunes côtières méditerranéennes françaises : problématiques émergentes des milieux en transition rapide*

**Porteur du projet :**

PI [Rutger De Wit](#) (UMR MARBEC)

**Participants :**

MARBEC : Rutger De Wit, Nathalie Boutin Richter, Louise Chourot\*, Margot Dentan\*

LCE : Pascal Wong-Wah-Chung, Luca Camilleri\*

SPE : Vanina Pasqualini

CERGAM : Pierre Batteau

\*Stagiaires

**Laboratoires et Partenaires impliqués :**

[UMR MARBEC \(MARine Biodiversity Exploitation & Conservation\)](#)

[UMR LCE \(Laboratoire de Chimie Environnementale\)](#)

[UMR SPE \(Laboratoire des Sciences Pour l'environnement\)](#)

[EA CERGAM \(Centre de Recherche en Gestion d'Aix-Marseille\)](#)

## Principaux résultats :

Funded by the Labex DRIIHM (OHM Littoral Méditerranéen, 2021) and the FR ECCOREV (2022), this interdisciplinary program assesses the coherence between European directives and their implementation in France, using Mediterranean lagoons as case studies. The first phase, based on interviews, focused on the challenges of co-implementation and how stakeholders perceive emerging issues such as plastic pollution, invasive species, and climate-driven transitions. A second phase documented plastic pollution through chemical analyses in Corsica and the Berre Lagoon.

The results show that co-implementing the Habitats and Water Framework Directives in Mediterranean lagoons faces five main barriers—economic, socio-political, historical, administrative, and ecological. These challenges, amplified by boundary mismatches, excessive indicators, and contested exemptions, highlight the need for more integrated and transparent governance (Boutin et al., 2025). In parallel, chemical analyses revealed contamination of biomedias collected along the French Mediterranean coast by persistent organic pollutants (POPs). Although only a few PAHs and PCBs were detected, their concentrations were significant, indicating a non-negligible impact of plastic waste through pollutant release or ingestion by organisms. Substantial but heterogeneous plastic debris contamination was also documented, with industrial pellets identified as a major source, likely linked to nearby ICPE-classified facilities (categories 3230-3232) involved in the manufacture and transformation of polymers and petrochemical materials around the Berre Lagoon.

Building on these findings, the program continues through a PhD project on the invasive blue crab (2022–2025) and the TRANSCAM project (2024–2026), which explores ecological transitions from disciplinary, territorial, and One Health perspectives that integrate both scientific and lay expertise. Overall, Mediterranean coastal lagoons emerge as particularly valuable sites for detecting and studying plastic pollution concentrations and assessing their potential effects on living organisms.

## Publications, congrès :

- Boutin, N., Chourot, L., Raynal, J. C., & De Wit, R. (2025). Barriers to Effective Management of Mediterranean Coastal Lagoons Following Key European Union Directives: Perceptions of Managers of Natura 2000 Lagoon Sites in South France. *Environments*, 12(5), 137.
- Dentan, M. (2022, 12–14 décembre). [Participation au Blue Crab Mediterranean Workshop \[atelier scientifique\]. Palerme, Italie.](#)

## Rapports de stage :

- Camilleri L., 2022. *Etats des lieux de la contamination des milieux en biomédias et polluants organiques associés*. Rapport de stage IUT 2A. LCE.
- Dentan, M. 2022. *Récolte, traitement et analyse de données qualitatives sur la co-implémentation des directives européennes pour la gestion des lagunes méditerranéennes françaises*. Rapport de stage de Master 2, Université de Montpellier, UMR MARBEC. Voir l'annonce et le résumé sur le Pôle-relais Lagunes Méditerranéennes. Pôle lagunes.

## Suite donnée au projet (contrats nationaux, internationaux, bourses de thèse...) :

- Thesis in progress (started in 2022) Margot Dentan: [Co-construire le suivi d'une espèce invasive marine émergente : le cas des réseaux d'observation du crabe bleu dans les lagunes méditerranéennes françaises](#) (Co-constructing the monitoring of an emerging marine invasive species: the case of blue crab observation networks in French Mediterranean lagoons).
- Ongoing TRANSCAM project (2024-2026) led by Frédéric Thomas (CNRS MIVEGEC Researcher), funded by the Engie Foundation & CNRS within the ["Zone Atelier santé-environnement CAMargue"](#) (LTSER ZACAM CNRS).