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### **Basic studies:**

- 2009-2012, PhD, at the biology Institute of The University of Southern Denmark and DHI, within the EU project "Key parameters and processes affecting the re-establishment of eelgrass in estuaries and coastal waters".
- 2007-2008, DEA (Research sufficiency) in the program "Biology applied to the sustainability of natural resources" at Oviedo University (Asturias, Spain).
- 2001-2006, Licensed in biology by Navarra University (Spain)  
Last year of degree coursed at the University of southern Denmark, (Odense, Denmark), due to an Erasmus grant.

### **Other relevant courses:**

- 2018-2019, Diverse GIS webinars on eCognition and other advance GIS tools (Trimble, online)
- 2016, Best practice for supervisors of PhD students (DTU Aqua, Lyngby, Denmark).
- 2015, ArcGIS "Essential workflows and performing analyses" (Informi GIS, Denmark).
- 2013, Professional media training in communication of science (Maitre, Denmark).
- 2007-2008, Course "Environment management in Europe", online course of 15 ECTS (LIFE institute, Copenhagen University).
- 2007, Certificate of pedagogical aptitude. Oviedo University, Oviedo, Spain.
- 2005, Course on aquaculture management, 45 hours (Oviedo University)
- 2002, Course on rivers pollution, 10 hours (Navarra Universidad)

### **Job experience:**

- 2021- Associated professor at the University of Southern Denmark
- 2020-2021, Postdoc at the University of Southern Denmark
- 2017-2020, Consultant and project leader at COWI A/S (Lyngby) Denmark.
- 2014-2017 Research at Technical University of Denmark, Denmark.
- 2012-2014 Researcher at Danish shellfish center, Danmark.
- 2012 Teacher of Mathematical Environmental Modelling. University of Southern Denmark.
- 2009-2012, PhD employee (DHI-SDU).
- 2010-2011, Teacher of GIS (Mapinfo), at Master-PhD level. University of Southern Denmark.
- 2009, Teacher of Mathematical Environmental Modelling and GIS (Mapinfo) at Master-PhD level. University of Southern Denmark.
- 2008, Research assistant at the University of Southern Denmark, for the Danish consulting company Rambøll (7 months). Environmental impact investigation of the new tunnel/bridge across Roskilde fjord.
- 2001, Campaign work on the Arga river restoration, Pamplona, Navarra, (Spain)

### **Skills:**

- Localization and geographical programs: GIS, Mapinfo, ArcGIS, Q-GIS
- Ecological/hydrological modeling: Powersim, Mike (DHI), Cormix.
- Statistic analysis: Sigmastat, Sigmaplot, Sistas.
- Environmental management: Natura 2000, water frame directive, habitat directive.
- Terrestrial and aquatic ecology, botany and zoology.
- Diving certificate one star (FEDAS = CEMAS), Orca club
- Driver license class b.

### **Languages:**

- Native language, Spanish
- Written and spoken English, high.
- Written and spoken Danish, medium (module 4).
- Written and spoken French, medium

### **Research outputs**

### **Etablering af ålegræsbede**

Flindt, M., Lange, T., Steinfurth, R., Banke, T. L., Svane, N. & Canal-Vergés, P., Sept 2022, *Virkemidler og tiltag til forbedring af miljø- og naturforholdene i Lillebælt DTU Aqua-rapport nr. 405-2022*. Institut for Akvatiske Ressourcer, Dansk Skaldyrcenter, Vol. 405-2022. p. 8-11

### **Sand-capping stabilizes muddy sediment and improves benthic light conditions in eutrophic estuaries: Laboratory verification and the potential for recovery of eelgrass (*Zostera marina*)**

Flindt, M. R., Oncken, N. S., Kuusemäe, K., Lange, T., Aaskoven, N., Winter, S., Sousa, A. I., Rasmussen, E. K., Canal-Vergés, P., Connolly, R. M. & Kristensen, E., Mar 2022, In: *Journal of Sea Research*. 181, 8 p., 102177.

### **Havvandsstigningernes betydning for kystnaturen: Udviklingsprojekt om natur og klimaforandringer**

Canal-Vergés, P., Flindt, M., Frederiksen, L., Ebbensgaard, T. & Laustensen, K., Jan 2022, 161 p.

### **Kystnaturen er under afvikling - tid til handling**

Canal-Vergés, P., Sønderby, L. K., Egemose, S., Ebbensgaard, T., Laurtsen, K. & Flindt, M., 2022, In: *Teknik & Miljø*.

### **Genopretning af marin biodiversitet og bæredygtig anvendelse af havets resurser: Ekspertudtalelse**

Bendtsen, J., Canal-Vergés, P., Dinesen, L., Hansen, J. L. S., Holmer, M., Kaiser, B., Lisbjerg, D., MacKenzie, B. R., Markager, S., Nissen, T., Petersen, I. K., Petersen, J. K., Richardson, K., Roth, E., Støttrup, J. G., Stæhr, P. A., Svendsen, J. C., Sørensen, T. K., Wisz, M. S. & Bendtsen, J., May 2021, *IPBES*. 30 p.

### **Marine virkemidler: Potentialer og barrierer**

Petersen, J. K., Timmermann, K., Bruhn, A., Rasmussen, M. B., Boderskov, T., Erichsen, A., Thomsen, M., Holbach, A. M., Tjørnløv, R. S., Lange, T., Canal-Vergés, P. & Flindt, M., May 2021, Technical University of Denmark (DTU). 62 p. (DTU Aqua-rapport).

Hotspotanalyse og indsatsplan for spøgelsesnet og efterladt fangst- og jagtudstyr i Grønland

Canal-Vergés, P. & Raben-Levetzau, J., 2021

### **Marine application of the Danish EPA's Marine Model Complex and Development of a Method Applicable for the River Basin Management Plans 2021-2027. Improved growth conditions in selected estuaries based on 30% reductions in land based nutrient loads.**

Canal-Vergés, P., Erichsen, A., Lees, M. K., Timmermann, K. & Flindt, M., 2021, 49 p.

### **Near field spreading of medical components in kilsfjorden, Norway**

Canal-Vergés, P. & Jürgensen, C., 2021

Environmental baseline mapping and impact screening of the North Sea Wind Power Hub (NSWPH) project

Canal-Vergés, P. & Hjorth, M., 2019

Marine beskyttede områder i Danmarks nabolande

Canal-Vergés, P., Riisgaard, K. & Raben-Levetzau, J., 2019

-Nedlægning af stokkebro, vejby, tisvilde, dronningmølle, smidstrup, udsholt og græsted renseanlæg og samlet rensning af spildevandet på gilleleje renseanlæg

Canal-Vergés, P. & Jürgensen, C., 2019

### **Co-use of offshore wind farms**

Canal-Vergés, P. & Raben-Levetzau, J., 2018

### **Finscreening af havarealer til etablering af nye havmølleparker Miljøscreening**

Canal-Vergés, P., Poulsen, E. & Hjorth, M., 2018

### **GIS tools for the evaluation of eelgrass status in Horsens and Lillebælt**

Canal-Vergés, P. & Hjorth, M., 2018

### **Konsekvenser af klimaforandringer for den danske havplan**

Canal-Vergés, P. & Hjorth, M., 2018

### **Nabotjek af EU-landes fremgangsmåder ved planlægning for marine vandområder i henhold til vandrammedirektivet**

B, R., Canal-Vergés, P., Raben-Levetzau, J., Hjorth, M., Bo, D., LC, W. & MM, S., 2018, COWI. 168 p.

### **Udvidede beregninger for cyanid i Kvinesdal of Porsgrunn fjords Norge**

Canal-Vergés, P. & Jürgersen, C., 2017

### **Blue carbon stocks in Baltic Sea eelgrass (*Zostera marina*) meadows**

Röhr, E., Boström, C., Canal-Vergés, P. & Holmer, M., 2016, In: Biogeosciences. 13, 22, p. 6139-6153

### **Impact of environmental conditions on biomass yield, quality, and bio-mitigation capacity of *Saccharina latissima***

Bruhn, A., Tørring, D. B., Thomsen, M., Canal-Vergés, P., Nielsen, M. M., Rasmussen, M. B., Eybye, K. L., Larsen, M. M., Balsby, T. J. S. & Petersen, J. K., 2016, In: Aquaculture Environment Interactions. 8, p. 619-636

### **Modelling stressors on the eelgrass recovery process in two Danish estuaries**

Kuusemäe, K., Kock Rasmussen, E., Canal-Vergés, P. & Flindt, M., 2016, In: Ecological Modelling. 333, p. 11-42

### **Using a GIS-tool to evaluate potential eelgrass reestablishment in estuaries**

Flindt, M., Rasmussen, E. K., Valdemarsen, T. B., Erichsen, A., Kaas, H. & Canal Vergés, P., 2016, In: Ecological Modelling. 338, p. 122-134

### **Validating GIS tool to assess eelgrass potential recovery in the Limfjorden (Denmark)**

Canal-Vergés, P., Petersen, J. K., Rasmussen, E. K., Erichsen, A. L. & Flindt, M., 2016, In: Ecological Modelling. 338, p. 135-148

### **Effekter af blåmuslingefiskeri på bundfauna**

Dinesen, G. E., Canal-Vergés, P. & Petersen, J. K., 2015

### **Faglig understøttelse af nye forvaltningsprincipper for muslingeskeri**

Canal-Vergés, P. & Petersen, J. K., 2015

### **Eelgrass re-establishment in shallow estuaries is affected by drifting macroalgae: Evaluated by agent-based modeling**

Canal-Vergés, P., Potthoff, M., Hansen, F. T., Holmboe, N., Rasmussen, E. K. & Flindt, M. R., 2014, In: Ecological Modelling. 272, p. 116-128 13 p.

### **Estimering af bestande af blåmuslinger. Test af nye metoder og modeller**

Petersen, J. K., Thygesen, U. H., Saurel, C., Canal-Vergés, P., aqua, D., aqua, D. & Geitner, K., 2014

### **A tale of two fjords – en analyse af bundfauna samfund i Odense og Roskilde Fjord**

Banta, G. T., Delefosse, M., Canal Vergés, P., Flindt, M. & Kristensen, E., 2013. 1 p.

### **Macrobenthic community response to the *Marenzelleria viridis* (Polychaeta) invasion of a Danish estuary**

Delefosse, M., Banta, G., Canal Vergés, P., Penha-Lopes, G., Quintana, C. O., Valdemarsen, T. B. & Kristensen, E., 8. Aug 2012, In: Marine Ecology - Progress Series. 461, p. 83-94

### **Key parameters and processes affecting the re-establishment of eelgrass in estuaries and coastal water**

Canal Vergés, P., 2012, Syddansk Universitet. Det Naturvidenskabelige Fakultet. 159 p.

### **Effects of Drifting Macroalgae in Eelgrass Ecosystems: A Case Study from Odense Fjord**

Canal Vergés, P., Valdemarsen, T. B., Kristensen, E. & Flindt, M., Nov 2010.

### **Resuspension created by bedload transport of macroalgae: implications for ecosystem functioning**

Canal Vergés, P., Vedel, M., Valdemarsen, T. B., Kristensen, E. & Flindt, M., 2010, In: Hydrobiologia. 649, p. 69-76

### **Vulnerability of *Zostera marina* seedlings to physical stress**

Valdemarsen, T. B., Canal Vergés, P., Kristensen, E., Holmer, M., Kristiansen, M. D. & Flindt, M., 2010, In: Marine Ecology - Progress Series. 418, p. 119-130 12 p.

### **Modelling the effects of drifting macroalgae in coastal waters**

Canal Vergés, P., Jørgensen, C. & Flindt, M., Dec 2009.

### **Resuspension created by bedload transport of macroalgae**

Canal Vergés, P., Kristensen, E. & Flindt, M., Feb 2009.

### **Physical processes affecting survival of eelgrass (*Zostera marina* L.) seedlings in a Danish Fjord: Macroalgae drift, sediment reworking and resuspension**

Valdemarsen, T. B., Canal Vergés, P., Kristiansen, M. D., Kristensen, E., Holmer, M. & Flindt, M., 2009.

## **Key commissioned reports for the Danish environmental Ministry**

**-Application of the Danish EPA's Marine Model Complex and Development of a Method Applicable for the River Basin Management Plans 2021-2027. Improved growth conditions in selected estuaries based on 30% reductions in land based nutrient loads.** 2021, Canal-Vergés, P, Lee, KM, Erichsen, AC, Timmermann, K, Flindt, RF. Marine

**-Virkemiddel Potentialer og Barrierer.** 2021 Petersen, J. K., Timmermann, K., Bruhn, A., Rasmussen, M. B., Boderskov, T., Schou, H. J., Erichsen, A. C., Thomsen, M., Holbach, A., Tjørnløv, R. S., Lange, T., Canal-Vergés, P., & Flindt, M. R. 2020. DTU Aqua-rapport Nr. 385-2021 <https://www.aqua.dtu.dk/-/media/Institutter/Aqua/Publikationer/Rapporter-352-400/385-2021-Marine-virkemidler-potentialer-ogbarrierer.ashx>.

**-Marine beskyttede områder i Danmarks nabolande.** 2019. Hjorth, M, Canal-Vergés, P, Risgård, K, Raben-Levetzau, J., COWI report A116976.

**-Konsekvenser af klimaforandringer for den danske havplan.** 2018. Raben-Levetzau, J, Hjorth, M, Canal-Vergés, P COWI report A10690.

**-Nabotjek af EU-landes fremgangsmåder ved planlægning for marine vandområder i henhold til vandrammedirektivet.**

Komparativ rapport. 2018. Rafaelse, B, Damsted B, Raben-Levetzau, J, Pedersen Ks, Whähler LC, Sørensen MM, Hjorth, M Canal-Vergés, P. COWI report A092975.

**-GIS tools for the evaluation of eelgrass status in Horsens and Lillebælt.** 2018. Canal-Vergés, P, & Hjoth, M, 2018. COWI report A095517.

## **Other Key reports**

**- Environmental baseline mapping and impact screening of the North Sea Wind Power Hub (NSWPH) project.** 2019.

Hjorth, M, & Canal-Vergés, P, Desktop study. Energinet report.

**-Hotspotanalyse og indsatsplan for spøgelsesnet og efterladt fangst- og jagtudstyr i Grønland.** 2019. Canal-Vergés, P, Risgård, K, Raben-Levetzau, Glasgaard, MK, J, . COWI report A126739.

**-Co-use of offshore wind farms.** 2018. Canal-Vergés, P, Raben-Levetzau, J, . COWI report A105019.

**-Impact of climate change on marine spatial plans of Swedish marine waters.** 2018. Canal-Vergés, P, Horth, M, COWI report A105517.

**-Finscreening af havarealer til etablering af nye havmølleparker Miljøscreening.** 2018. Hjorth, M, Povlsen, E, Canal-Vergés, P, .COWI report A114354.

**-Nedlægning af stokkebro, vejby, tislvilde, dronningmølle, smidstrup, udsholt og græsted renseanlæg og samlet rensning af spildevandet på gilleleje renseanlæg.** 2019 Jürgensen C, Canal-Vergés, P, Pradhan S, 2019. Modellering af udledninger til kattegat Teknisk rapport vedr. COWI report. A111864.

**-Near field spreading of medical components in kilsfjorden, Norway.** 2018. Canal-Vergés, P, Jürgensen, C, 2018. COWI report A092441.

**-Udvidede beregninger for cyanid i Kvinesdal of Porsgrunn fjords Norge.** 2017 Jürgensen C, Canal-Vergés, P, 2017. COWI report A097776.

**-Faglig understøttelse af nye forvaltningsprincipper for muslingeskeri.** 2015. Canal-Vergés, P, Petersen, JK. DTU Aqua-rapport nr.304-2015.

- Effekter af blåmuslingefiskeri på bundfauna**, 2015. Dinesen, GE, Canal-Vergés, P, Pernille N, Kristian, F, Kerstin, G, Petersenm JK, 2015 DTU Aqua-rapport nr. 305-2015.5.
- De Lokale Dyder: Udvikling af muslingeørhvervet i Limfjorden**, 2014. Petersen, JK, Tørring, DB, Nielsen, CF, Gommesen, M, Saurel, C, Fittridge, I, Canal-Vergés, P & Nielsen, P. Institut for Akvatiske Ressourcer, Danmarks Tekniske Universitet.
- Konsekvensvurdering af fiskeri på blåmuslinger og søstjerner i Lovns Bredning 2014/2015**. Canal-Vergés, P, Nielsen, P, Nielsen, CF, Geitner, K & Petersen, JK, DTU Aqua-rapport, no. 284-2014, Danmarks Tekniske Universitet, Institut for Akvatiske Ressourcer - Dansk Skaldyrcenter, Charlottenlund.
- Konsekvensvurdering af fiskeri på blåmuslinger og søstjerner i Løgstør Bredning 2014/2015**. Nielsen, P, Canal-Vergés, P, Geitner, K, Nielsen, CF & Petersen, JK 2014, DTU Aqua-rapport, no. 285-2014, Danmarks Tekniske Universitet, Institut for Akvatiske Ressourcer - Dansk Skaldyrcenter, Charlottenlund.
- Estimering af bestande af blåmuslinger. Test af nye metoder og modeller 2014**. Petersen JP, Høgsbro U, Saurel, C, Stage, B, Nielsen, P, Canal-Vergés, P, Kristensen, K, Brida, J, Pedersen EV, Geitner, K, Nielsen, CF.
- Documented effects of mussel dredging on eelgrass populations-A review**. 2013 Canal-Vergés, P, Flindt MR., Holmer M., Petersen JK.