

Loreta Cornacchia

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CNRS, UMR 5023 - LEHNA (Laboratoire d'Ecologie des Hydrosystèmes Naturels et Anthropisés)

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ACADEMIC POSITIONS

04/2018 – present

Université Claude Bernard - Lyon I Lyon (France)

CNRS, UMR 5023 - LEHNA

- Postdoctoral Researcher, ESCaFlex project ('Expériences et Simulations pour l'étude de Canopées aquatiques avec de longues tiges flexibles')

EDUCATION

08/2013 – 02/2018

NIOZ – Royal Netherlands Institute for Sea Research Yerseke (The Netherlands)
University of Groningen

- PhD in Ecology (award date: 23 February 2018)

Marie Curie Early Stage Researcher in the EU project HYTECH ('Hydrodynamic Transport in Ecologically Critical Heterogeneous Interfaces'; FP7-PEOPLE-2012-ITN, grant n. 316546)

Dissertation: "Emergent properties of bio-physical self-organization in streams"

Supervisors: Prof. Tjeerd Bouma (NIOZ, University of Groningen), Prof. Johan van de Koppel (NIOZ, University of Groningen), Prof. Daphne van der Wal (NIOZ, University of Twente)

10/2010 – 10/2012

Università degli Studi di Roma "La Sapienza" Roma (Italy)

- MSc in Biology

Dissertation: "Study of structural vegetation patterns in intertidal systems through remote sensing"

Supervisors: Prof. Maria Letizia Costantini, Prof. Andrea Taramelli

10/2007 – 10/2010

Alma Mater Studiorum – Università di Bologna Bologna (Italy)

- BSc in Natural Sciences

PEER-REVIEWED PUBLICATIONS

Cornacchia, L., van de Koppel, J., van der Wal, D., Wharton, G., Puijalon, S., & Bouma, T.J. Landscapes of facilitation: how self-organized patchiness of aquatic macrophytes promotes diversity in streams. *Ecology* 99: 832-847. doi:10.1002/ecy.2177

Cornacchia, L., Licci, S., van de Koppel, J., van der Wal, D., Wharton, G., Puijalon, S., & Bouma, T. J. (2016). Flow Velocity and Morphology of a Submerged Patch of the Aquatic Species *Veronica anagallis-aquatica* L. In Hydrodynamic and Mass Transport at Freshwater Aquatic Interfaces (pp. 141-152). Springer International Publishing

Licci, S., Delolme, C., Marmonier, P., Philippe, M., **Cornacchia, L.**, Gardette, V., Bouma, T. J., & Puijalon, S. (2016). Effect of Aquatic Plant Patches on Flow and Sediment characteristics: The Case of *Callitriche platycarpa* and *Elodea nuttallii*. In Hydrodynamic and Mass Transport at Freshwater Aquatic Interfaces (pp. 129-140). Springer International Publishing.

Taramelli, A., Valentini, E., **Cornacchia, L.**, Mandrone, S., Monbaliu, J., Thompson, R., Hogart, S., Zanuttigh, B. (2014), Modelling uncertainty in estuarine system by means of combined approach of optical and radar remote sensing, *Coastal Engineering* 87: 77-96.

PRESENTATIONS

- 2018 GELIFES Annual Symposium Day, University of Groningen, 25 January 2018
(*Invited talk*)
Cornacchia L. Changing river flows – Self-organization of aquatic vegetation as a buffer against river flows and water levels.
- 2017 Ecological Society of America Annual Meeting, Portland, OR (USA), 6-11 August 2017
Cornacchia L., Wharton G., Davies G., Grabowski R., Temmerman S., van der Wal D., Bouma T.J., van de Koppel, J. Self-organized control of key ecosystem services: Water level and flow velocity regulation by submerged aquatic vegetation.
- 2016 NIOZ Science Days, NIOZ – Texel (The Netherlands), 21-22 December 2016
(*Invited talk*)
Cornacchia L., Wharton G., Davies G., Grabowski R., Temmerman S., van der Wal D., Bouma T.J., van de Koppel, J. Self-organized control of water level and flow velocity by submerged aquatic vegetation.
- EGU General Assembly, Vienna, Austria, 17-22 April 2016
Introductory presentation to the PICO session 'Aquatic interfaces: advancing understanding through inter-disciplinary research', on behalf the EU HYTECH Project
Cornacchia L., Davies G., Grabowski R., van der Wal D., van de Koppel J., Wharton G., Bouma T.J. Biophysical interactions in fluvial ecosystems: effects of submerged aquatic macrophytes on hydro-morphological processes and ecosystem functioning.
- Netherlands Annual Ecology Meeting, Lunteren, 9-10 February 2016
Cornacchia L., Davies G., Grabowski R., van der Wal D., van de Koppel J., Wharton G., Bouma T.J. Self-organization jointly regulates hydro-morphological processes and related ecosystem services: case study on aquatic macrophytes in streams.
- 2015 14th International Symposium on Aquatic Plants, Edinburgh, UK, 14-18 September 2015
Cornacchia L., van de Koppel J., van der Wal D., Puijalon S., Bouma T.J. The role of biophysical interactions in enhancing biodiversity through self-organization.
- XXXIV International School of Hydraulics, Zelechów, Poland, 11-14 May 2015
Cornacchia L., Licci S., van de Koppel J., van der Wal D., Wharton G., Puijalon S., Bouma T.J. Flow velocity and morphology of a submerged patch of the aquatic species *Veronica anagallis-aquatica* L.