

# Dr. Faycal Kessouri

Senior Scientist

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## Education

Ph.D., oceanography, University of Toulouse Paul Sabatier, France, 2015

M.Sc., oceanography, University Pierre et Marie Curie, Paris, France, 2012

Engineer, marine environment, University of Algiers, Algeria, 2008

B.A., sciences, Algiers, Algeria, 2003

## Professional Experience

Senior Scientist, Southern California Coastal Water Research Project. Costa Mesa, CA. 2019-present

Scientist, Southern California Coastal Water Research Project. Costa Mesa, CA. 2018-2019

Post-doctoral researcher, Southern California Coastal Water Research Project. Costa Mesa, CA. 2015-2018

Research assistant, Laboratoire d'Aerologie, CNRS. Toulouse, France. 2012-2015

Ocean biogeochemist, Laboratoire d'Océanographie de Villefranche-sur-Mer, CNRS. Villefranche-Sur-Mer, France. 2012

GIS, Water and sanitation company. Algiers, Algeria. 2008

## Selected Presentations and Conference

# Proceedings

Kessouri, F.; McWilliams, J.; Sutula, M.; Renault, L.; Deutsch, C.; McLaughlin, K.; Frenzel, H.; Bianchi, D.; Feely, R.; Bednaršek, N.; Alin, S.; Ambrose, R. F.; Gold, M.; Weisberg, S.; Integrated model of ocean acidification and hypoxia to support ecosystem prediction and environmental management in the California Current ecosystem. 2017. Honolulu.

Fayçal Kessouri, James McWilliams, Daniele Bianchi, Lionel Renault, Curtis Deutsch, Hartmut Frenzel. Submesoscale Modeling of the Biogeochemical Dynamics in the California Current Ecosystem. EPOC 2017, South Lake Tahoe.

Fayçal Kessouri, James McWilliams, Daniele Bianchi, Martha Sutula, Curtis Deutsch, Karen McLaughlin, Lionel Renault, Hartmut Frenzel, Simone Alin, Richard Feely, Stephen Weisberg. Modeling the impact of anthropogenic emissions on the California Current Ecosystem. CERF 2017, Rhode Island.

Daniele Bianchi, James McWilliams, Fayçal Kessouri, Curtis Deutsch, Lionel Renault, Hartmut Frenzel, Martha Sutula. Role of submesoscale processes on the biogeochemistry of the California Current Ecosystem. CERF 2017, Rhode Island.

Kessouri, F., C. Ulses, C. Estournel, P. Marsaleix. 2015. Study of the plankton ecosystem variability using a coupled hydrodynamics biogeochemical modelling in the Mediterranean Sea. EGU conference, Vienna, Austria.

Kessouri, F., C. Ulses, C. Estournel, P. Marsaleix, F. D'Ortenzio, L. Prieur, N. Mayot, O.P. de Fommervault. 2015. Study of the plankton ecosystem variability using Modelling and BioArgo floats deployment in the Mediterranean Sea. 5th Euro Argo Users Workshop, Brest, France.

Kessouri, F., C. Ulses, C. Estournel, P. Marsaleix. 2014. Response of the plankton ecosystem to the north western Mediterranean Sea: The plankton seasonal cycle and the role of the convection for the POC flux. Ocean Sciences meeting, ASLO, Honolulu, HI.

Kessouri, F., C. Ulses, C. Estournel, P. Marsaleix. 2013. Response of the plankton ecosystem to the deep convection in the western Mediterranean Sea, Modeling and Observations. CIESM Conference, Marseille, France.

# Journal Articles

Bednarsek, N., R.A. Feely, E.L. Howes, B.P.V. Hunt, F. Kessouri, P. Leon, R. Lischka, A.E. Maas, K.

McLaughlin, N.P. Nezlin, M. Sutula, S.B. Weisberg. 2019. Systematic Review and Meta-Analysis Toward Synthesis of Thresholds of Ocean Acidification Impacts on Calcifying Pteropods and Interactions With Warming. *Frontiers in Marine Science* 6:227.

Kessouri, F., C. Ulses, C. Estournel, P. Marsaleix, F. D'Ortenzio, T. Severin, V. Taillandier, P. Conan. 2018. Vertical Mixing Effects on Phytoplankton Dynamics and Organic Carbon Export in the Western Mediterranean Sea. *Geophysical Research: Oceans* DOI:10.1002/2016JC012669.

Kessouri, F., C. Ulses, C. Estournel, P. Marsaleix, T. Severin, M. Pujo-Pay, J. Caparros, P. Raimbault, O. Pasqueron de Fommervault, F. D'Ortenzio, V. Taillandier, P. Testor, P. Conan. 2018. Nitrogen and Phosphorus Budgets in the Northwestern Mediterranean Deep Convection Region. *Journal of Geophysical Research: Oceans* 12:9429-9454.

De Fommervaut, O., C. Migon, A. Dufour, F. D'Ortenzio, F. Kessouri, P. Raimbault, N. Garcia, V. Lagadec and C. Estournel. 2015. Atmospheric input of inorganic nitrogen and phosphorus to the Ligurian Sea: Data from the Cap Ferrat coastal time-series station. *Deep Sea Research II*.

Estournel C., P. Testor , P. Damien , F. D'Ortenzio, P. Marsaleix, P. Conan, F. Kessouri, X. Durrieu de Madron, L. Coppola, J.M. Lellouche, S. Belamari, L. Mortier, C. Ulses, M.N. Bouin, and L. Prieur (2016b), High resolution modeling of dense water formation in the north-western Mediterranean during winter 2012-2013: Processes and budget, *J. Geophys. Res. Oceans*, 121, 5367-5392, doi:10.1002/2016JC011935.

Kessouri, F., C. Ulses, P. Marsaleix, C. Estournel, Dewex Group. In review. Vertical mixing effects on phytoplankton dynamics and organic carbon export in the western Mediterranean Sea. *Journal of Geophysical Research Oceans*.

Kessouri, F., C. Estournel, C. Ulses, P. Marsaleix, Dewex Group. In review. Nitrogen and phosphorus budgets in the western Mediterranean Sea. *Journal of Geophysical Research Oceans*.

Severin, T., F. Kessouri, M. Rembauville, et al. (2017), Open-ocean convection process: A driver of the winter nutrient supply and the spring phytoplankton distribution in the Northwestern Mediterranean Sea, *J. Geophys. Res. Oceans*, 122, doi:10.1002/2016JC012664. (2017), Open-ocean convection process: A driver of the winter nutrient supply and the spring phytoplankton distribution in the Northwestern Mediterranean Sea, *J. Geophys. Res. Oceans*, 122, doi:10.1002/2016JC012664.

Severin, T., C. Sauret, M. Boutrif, T. Duhaut, F. Kessouri, L. Oriol, J. Caparros, M. Pujo-Pay, X. Durrieu de Madron, M. Garel, C. Tamburini, P. Conan, J.F. Ghiglione. In press. Impact of an intense water column mixing (0-1500m) on prokaryotic 1 diversity and activities during an open-ocean convection event in the NW Mediterranean Sea. *Environmental Microbiology*.

Ulses, C., P.-A. Auger, K. Soetaert, P. Marsaleix, F. Diaz, L. Coppola, M.Herrmann, F. Kessouri, and C. Estournel (2016), Budget of organic carbon in the North-Western Mediterranean Open Sea over the period 2004-2008 using 3D coupled physical biogeochemical modeling, *J. Geophys. Res. Oceans*, 121, 7026-7055, doi:10.1002/2016JC011818.