Alexandra BOZEC
Curriculum Vitae

PhD, Physical Oceanography, Associate in Research
Center for Ocean-Atmospheric Prediction Studies (COAPS)
Florida State University
Tallahassee, FL 32306-2840, USA
Phone: +1-850-645-1253
E-mail: abozec@fsu.edu

Professional experience

Aug 2015 – present : Associate in Research at COAPS

Sep 2011 – Jul 2015 : Assistant in Research at COAPS

Sep 2009 – Aug 2011 : Assistant Scholar/Scientist at COAPS

Sep 2006 – Aug 2009 : Postdoctoral fellow at COAPS with Dr. E. Chassignet as advisor on the variability of the Mediterranean outflow using the HYCOM ocean model.

Feb 2006 – Aug 2006 : Postdoctoral fellow at Laboratoire des Sciences du Climat et de l'Environnement (LSCE) with M. Kageyama and G. Ramstein as advisors on the thermohaline circulation of the Mediterranean Sea during the Last Glacial Maximum.

Nov 2001 – Dec 2002 : Engineer at Laboratoire d'Océanographie Dynamique et de Climatologie (LODYC), Paris, on the development of the OPA OGCM model (dir G. Madec): implementing partial steps bathymetry and improving the modelization of outflows, in particular of the Mediterranean outflow, in the global configuration of OPA (now known as NEMO).

Mar 2001 – Jul 2001 : Study on an ARGO drifter deployment strategy in the Indian Ocean (French report):« Dérives de flotteurs Lagrangiens de type PROVOR dans l'océan Indien simulées dans le modèle océanique ORCA : éléments de réflexion à une stratégie de déploiement »., LODYC, Paris. (dir J.-P. Boulanger).

Education

Jan 2003 – Jan 2006 : PhD at Laboratoire d'Océanographie et de Climatologie – Expérimentations et Approches Numériques- (previously LODYC) with P. Bouruet-Aubertot (LOCEAN) and L. Li (LMD) as advisors on: « The thermohaline circulation of the Mediterranean Sea under Present and Future climates»

Oct 2000 – Jul 2001 : Master in Oceanology, Meteorology and Environment at Université Bretagne Occidentale, Brest, France

Sep1996 – Sep 2000 : Bachelor degree in Fundamental Physics at Université Bretagne Occidentale, Brest, France

Publications

Chassignet, E.P et al. (**A. Bozec**), 2020: Impact of horizontal resolution on the energetics of global ocean-sea-ice model simulations, *CLIVAR Variations/Exchanges*, *submitted*.

Chassignet, E.P. et al (**A. Bozec**), 2019: Impact of horizontal resolution on global ocean-sea-ice model simulations based on the experimental protocol of the Ocean Model Intercomparison Project phase 2 (OMIP-2), *Geosci. Model Dev.*, *submitted*.

Tsujino, H. et al. (**A. Bozec**), 2019: Evaluation of global ocean-sea-ice model simulations based on the experimental protocols of the Ocean Model Intercomparison Project phase 2 (OMIP-2), *Geosci. Model Dev.*, *in revision*.

Shropshire, T. A., et al (**A. Bozec**), 2019: Quantifying spatiotemporal variability in zooplankton dynamics in the Gulf of Mexico with a physical-biogeochemical model, *Biogeosciences Discuss.*, https://doi.org/10.5194/bg-2019-463*, in revision*.

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Tsujino, H. et al. (**A. Bozec**), 2018: JRA-55 based surface dataset for driving ocean—sea-ice models (JRA-55-do). *Ocean Modelling,* doi:10.1016/j.ocemod.2018.07.002.

Tseng, Y. et al. (**A. Bozec**), 2016: North and Equatorial Pacific Ocean circulation in the CORE-II hindcast simulations. *Ocean Modelling*, **104**, 143-170, doi:10.1016/j.ocemod.2016.06.003.

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Wang, Q. et al. (**A. Bozec**), 2016: An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part II: Liquid freshwater. *Ocean Modelling*, **99**, 86-109, doi:10.1016/j.ocemod.2015.12.009.

Ilicak, M., et al. (**A. Bozec**), 2016: An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part III: Hydrography and fluxes. *Ocean Modelling*, **100**, 121-141, doi:10.1016/j.ocemod.2016.02.004.

Danabasoglu, G. et al. (**A. Bozec**), 2015: North Atlantic simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part II: Inter-Annual to Decadal Variability. *Ocean Modelling*, **97**, 65-90, doi: 10.1016/j.ocemod.2015.11.007.

Downes, S. M., et al. (**A. Bozec**), 2015: An assessment of Southern Ocean water masses and sea ice during 1988-2007 in a suite of inter-annual CORE-II simulations, *Ocean Modelling*, **94,** 67-94, doi:10.1016/j.ocemod.2015.07.022.

Farneti, R. et al. (**A. Bozec**), 2015: An assessment of Antarctic Circumpolar Current and Southern Ocean meridional overturning circulation during 1958–2007 in a suite of interannual CORE-II simulations, *Ocean Modelling*, **93**, 84-120., doi:10.1016/j.ocemod.2015.07.009.

Griffies, S.M., et al. (**A. Bozec**), 2014: An Assessment of global and regional sea level in a suite of interannual CORE-II simulations, *Ocean Modelling,* **78**, 35-89, doi:10.1016/j.ocemod.2014.03.004*.

Danabasoglu, G., et al. (**A. Bozec**), 2014: North Atlantic Simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part I: Mean States, *Ocean Modelling,* **73**, 76-107.

Sturges, W., **Bozec, A.**, 2013: On a puzzling disagreement between observations and numerical models in the Central Gulf of Mexico, *J. Phys. Oceanogr.,* **43***,* doi:10.1175/JPO-D-13-081.1, 2673-2681.

Bozec, A., M.S. Lozier, Chassignet, E.P., and G. R. Halliwell, 2011: On the variability of the Mediterranean Outflow Water in the North Atlantic from 1948 to 2006, *J. Geophys.* **116**, C09033, doi:10.1029/2011JC007191.

Nof, D., Jia, Y., Chassignet, E.P., and **A. Bozec**, 2011: Fast Wind-induced Migration of Leddies in the South China Sea, *J. Phys. Oceanogr.,* **41**, 1683-1693, doi:10.1175/2011JPO4530.1*.*

Hanson, H. P., **Bozec**, A. and A. E. S. Duerr, 2011 : The Florida Current: A clean but challenging energy resource, *Eos Trans. AGU, 92*(4), 29–30, doi:10.1029/2011EO040001.

Béranger, K., Drillet, Y., Houssais, M.-N., Testor, P., Bourdalle-Badie, R., Alhammoud, B., **Bozec, A.**, Mortier, L., Bouruet-Aubertot, P., Crépon, M., 2010: Impact of the spatial distribution of the atmospheric forcing on water mass formation in the Mediterranean Sea, *J. Geophys. Res.*, 115, C12041, doi:10.1029/2009JC005648.

Mariani, P., MacKenzie, B., Iudicone, D., **Bozec, A.**, 2010: Modelling retention and dispersion mechanisms of bluefin tuna eggs and larvae in the Northwestern Mediterranean Sea, *Progress in Oceanography*, 86, 45-58.

Bozec, A., Bouruet-Aubertot, P., Iudicone, D., Crépon, M., 2008: Impact of penetrative solar flux on water mass transformation in the Mediterranean Sea, *J. Geophys. Res.*, 113, C06012, doi:10.1029/2007JC004606.

Cravatte, S., Madec, G., Izumo, T., Menkes, C., **Bozec, A.,** 2007: Progress in 3-D circulation of the eastern Pacific in a climate ocean model, *Ocean Modelling*, 17, 28-48.

Bozec, A., Bouruet-Aubertot, P., Béranger, K., Crépon, M., 2006: Mediterranean oceanic response under the interannual variability of a high-resolution atmospheric forcing: A focus on the Aegean Sea, *J. Geophys. Res.*, 111, C11013, doi:10.1029/2005JC003427.

Li, L., **Bozec, A.**, Somot, S., Béranger, K., Bouruet-Aubertot, P., Sevault, F., Crépon, M., 2005: Regional Atmospheric, Marine processes and climate modeling, *Mediterranean Climate Variability*, Elsevier Edition, Cambridge, pp 359-382.

Short Report/Documentation

Bozec, A., Chassignet, E.P., 2019: Evaluation of the NAVY coupled system (NAVY-ESPC) on an interannual timescale, *COAPS Technical report*, pp14.

Bozec, A., 2013: HYCOM for Dummies: How to create a double gyre configuration with HYCOM from scratch, available at http://hycom.org/hycom/documentation/.

Gouillon , F., Vannière, B., **Bozec, A.**, Chassignet, E., 2009, Modeling the M2 and O1 baroclinic tides in the Gulf of Mexico using the HYbrid Coordinate Ocean Model (HYCOM), Research Activities in Atmospheric and Ocean Modeling, CAS/JSC Working Group on Numerical Experimentation.

Bozec, A., Chassignet, E., Garraffo, Z., Halliwell, G., Lozier, S., 2008: On the Variability of the Mediterranean Outflow Water in North Atlantic HYCOM Simulations, Research Activities in Atmospheric and Ocean Modeling, CAS/JSC Working Group on Numerical Experimentation.

Bozec, A., 2008: HYCOM for Dummies: HYCOM quick start guide, available at http://hycom.org/hycom/documentation/.

Additional Informations
Language Skills: French (Mother tongue), English (fluent), German (basic)