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Frédérique Seyler is director of research at IRD (Institute of Research for Development) since 2008, acting Director of the Research Unit Espace-Dev (<http://www.espace.ird.fr/>), specializing in the study of interrelated dynamics of the environment and societies, Deputy Director of IRD Department DISCO (Internal and surface dynamics of the continents). She has a recognized experience on soil-water relationships in lateritic landscapes of Central Africa and the Amazon, studied from both remote sensing analysis (visible, near infrared and radar) and field data collection. Her areas of expertise are mainly land use/land cover monitoring, spatial variability of soils and spatial hydrology (using radar altimetry). She has coordinated several scientific, partnership and capacity building programs.

Main publications linked with the BONDS proposal

2017. Li Zhichao, Catry Thibault, Dessay Nadine, Roux Emmanuel, Seyler Frédérique. Mapping soil typologies using geomorphologic features extracted from DEM and SAR data: an environmental factor affecting malaria transmission in the Amazon. New York: IEEE, 3140-3143. (IEEE International Symposium on Geoscience and Remote Sensing IGARSS). IEEE International Geoscience and Remote Sensing Symposium (IGARSS), 36., Pékin (CHI), 2016/07/10-15. ISBN 978-1-5090-3332-4

2017 Moua Y., Roux Emmanuel, Girod R., Dusfour I., Thoisy B. de, Seyler Frédérique, Briolant S. Distribution of the habitat suitability of the main malaria vector in French Guiana using maximum entropy modeling. *Journal of Medical Entomology*, 54 (3), 606-621. ISSN 0022-2585

2017 Ringard Justine, Seyler Frédérique, Linguet L. (2017). A quantile mapping bias correction method based on hydroclimatic classification of the Guiana shield. *Sensors*, 17 (6), art. no 1413 [17 p. en ligne] ISSN 1424-8220

2017 Satgé, F., Espinoza, R., Zolá, R., Roig, H., Timouk, F., Molina, J., Garnier, J., Calmant, S., Seyler, F., Bonnet, M.-P. Role of Climate Variability and Human Activity on Poopó Lake Droughts between 1990 and 2015 Assessed Using Remote Sensing Data. *Remote Sensing*, 9(3), 218. <http://doi.org/10.3390/rs9030218>

2016 Almeida, C., Mourão, M., Dessay, N., Lacques, A.-E., Monteiro, A., Durieux, L., Venturieri, A., Seyler, F. Typologies and Spatialization of Agricultural Production Systems in Rondônia, Brazil: Linking Land Use, Socioeconomics and Territorial Configuration. *Land*, 5, 18, pp 1-20. <http://doi.org/10.3390/land5020018>

2016 Li Z. C., Roux Emmanuel, Dessay N., Girod R., Stefani A., Nacher, M., Moiret, A., Seyler, F. Mapping a knowledge-based malaria hazard index related to landscape using remote sensing: application to the cross-border area between French Guiana and Brazil. *Remote Sensing*, 8 (4), p. art. 319 [22 p.]. ISSN 2072-4292 <http://doi.org/10.3390/rs8040319>

2015 Albarelo, T., Marie-Joseph, I., Primerose, A., Seyler, F., Wald, L., & Linguet, L. Optimizing the heliosat-ii method for surface solar irradiation estimation with GOES images. *Canadian Journal of Remote Sensing*, vol 41, n° 2, pp 86-100, <http://doi.org/10.1080/07038992.2015.1040876>

2015 Frappart, F., Papa, F., Malbeteau, Y., Leon, J. G., Ramillien, G., Prigent, C., Seoane, L., Seyler, F., Calmant, S. (2015). Surface freshwater storage variations in the Orinoco floodplains using multi-satellite observations. *Remote Sensing*, 2015, 7 (1), p. 89-110, <http://doi.org/10.3390/rs70100089>

2014 Pfeffer, J., Seyler, F., Bonnet, M.P., Calmant, S., Frappart, F., Papa, F., Paiva, R.C.D., Satgé, F., Santos Da Silva J. Low-water maps of the groundwater table in the central Amazon by satellite altimetry. *Geophysical Research Letters* 03/2014; doi:10.1002/2013GL059134

Coordination and participation to scientific Projects linked with the BONDS proposal

Coordinator of CASH Contribution of Spatial Altimetry to Hydrology, funded by réseau Terre & Espace French coordinator of JEA1 (Young Team Associated to IRD) PHIESAM (Program of Spatial Hydrology in the Amazon Basin), Manaus, 2009-2011.

Coordinator of CARTAM-SAT « Cartographie dynamique des Territoires Amazoniens du Satellite Aux acTeurs », Financement PO FEDER Guyane, 2011-2013

Coordinator of BIODIVA ; Brazilian partners : UEA, UNIFAP, IEPA funding AIRD, FAPEAM (Fundaçao de Amparo a Pesquisa do Estado do Amazonas), Fundação Tumucumaque (Fundaçao de Amparo a Pesquisa do Estado do Amapa).

OSE Guyamapa "Observation Spatiale de l'Environnement transfrontalier Guyane -Brésil " coordinator of the task « water-soil-forest ». Funding FEDER-PO Amazonie Partenaires du Sud: IPG, EpaT, ARS, IEPA (BR), Ministère de la Santé du Suriname, INPE, EMBRAPA, UFRA

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