

Lázaro Marín-Guirao



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Current Position: Post Doc.

Supervisor: Gabriele Procaccini

Appointed on project: HEATGRASS

Affiliation:

Section Integrated Marine Ecology (IME), Stazione Zoologica Anton Dohrn, Napoli (Italy)

Education/Training/Experience

Institute and Location	Degree (if applicable)	Year	Field of Study
University of Cadiz, Spain	Bachelor	1999	Sea Sciences
University of Murcia, Spain	Master's Degree (M.Sc)	2002	Biological Sciences: Marine Ecology.
Federal University of Bahia, Brazil	PhD student	2002 (4 months)	Marine Ecotoxicology
University of Murcia, Spain	PhD	2007	Marine Ecology and Ecotoxicology
Spanish Institute of Oceanography, Spain	Post-doc (full time researcher)	2008-2012	Seagrass Ecology and Ecophysiology
Spanish Institute of Oceanography, Spain	Contracted Assistant and Supervisor Biologist	2013	Ecophysiology and Molecular Ecology of seagrasses.
Stazione Zoologica Anton Dohrn, Italy	Marie-Curie IEF fellow	2014-	Molecular Ecology and Ecophysiology of Seagrasses

Appointments and awards

Top cited article from 2008 to 2012 in Estuarine, Coastal and Shelf Science, vol. 78, issue 2, 2008
Top 50 most cited article from 2005 to 2008 in Marine Pollution Bulletin, vol. 50, 2005

Other matters relevant to scientific career

- 1999-2011: Participation in contracts with private companies to conduct environmental monitoring and environmental assessment studies.
- 2003: Participation in Spanish intercalibration exercises employing marine bioassays for the assessment of its usefulness in assessing the environmental quality of coastal sediments and sediments dredged from ports.
- Tutor of 2 PhD thesis Spanish Institute of Oceanography/University of Alicante
- Referee of International scientific journals (Marine Environmental Research, Marine Pollution Bulletin, Chemistry and Ecology; Biological Invasions, Regional Studies in Marine Science, Environmental Science and Pollution Research...).

Publications

Author of 34 papers on international referenced journals and of 6 book chapters. H-index (Google Scholar): 17; Total citations: 778.

List of publications of the last 10 years (2005-present):

Peer-reviewed publications:

- Piro A., Marín-Guirao L., Serra I.A., Spadafora A., Sandoval-Gil J.M., Bernardeau-Esteller J., Ruiz J.M., Mazzuca S. 2015. The modulation of leaf metabolism plays a role in salt tolerance of *Cymodocea nodosa* exposed to hypersaline stress in mesocosms. *Frontiers in Plant Science*, Volumen 6, Article 464. doi: 10.3389/fpls.2015.00464
- Marín-Guirao, L., Bernardeau-Esteller J, Sandoval-Gil, J.M. y Ruiz, J.M. 2015. Resistance of *Posidonia oceanica* seagrass meadows to the spread of the introduced green alga *Caulerpa cylindracea*: assessment of the role of light . *Biological Invasions*, 17:1989-2009.
- Bernardeau-Esteller J, Ruiz, J.M., Tomas F., Sandoval-Gil J.M., Marín-Guirao, L. 2015. Photoacclimation of *Caulerpa cylindracea*: Light as a limiting factor in the invasion of native Mediterranean seagrass meadows *Journal of Experimental Marine Biology and Ecology*, 465:130-141.
- Garrote A., Sandoval-Gil J.M., Ruiz J.M., Marín-Guirao L., Bernardeau-Esteller J., García R., Sánchez-Lizaso J.L. 2015. Plant water relations and ion homeostasis of Mediterranean seagrasses (*Posidonia oceanica* and *Cymodocea nodosa*) in response to hypersaline stress. *Marine Biology*, 162(1):55-68.
- Sandoval-Gil J.M., Barrote I., Silva J., Olivé I., Costa M.M, Ruiz J.M., Marín-Guirao L., Sánchez-Lizaso J.L., Santos R. 2014. Plant-water relations of intertidal and subtidal seagrasses. *Marine Ecology*, DOI: 10.1111/maec.12230
- Portillo E., Ruiz de la Rosa M., Louzara G., Ruiz J.M., Marín-Guirao L., Quesada J., Gonzalez J.C., Roque F., González N., Mendoza H. 2014. Assessment of the abiotic and biotic effects of sodium metabisulphite pulses discharged from desalination plant chemical treatments on seagrass (*Cymodocea nodosa*) habitats in the Canary Islands. *Marine Pollution Bulletin*, 80: 222-233.

- Sandoval-Gil J.M., Ruiz J.M., Marín-Guirao L., Bernardeau-Esteller J., Sánchez-Lizaso J.L. 2014. Ecophysiological plasticity of shallow and deep populations of the Mediterranean seagrasses *Posidonia oceanica* and *Cymodocea nodosa* in response to hypersaline stress. *Marine Environmental Research*, 95:39-61.
- Marín-Guirao, L., Ruiz, J.M., Sandoval-Gil, J.M., Stinco, C.M., Meléndez-Martínez A. 2013. Xanthophyll cycle-related photoprotective mechanism in the Mediterranean seagrasses *Posidonia oceanica* and *Cymodocea nodosa* under normal and stressful hypersaline conditions. *Aquatic Botany*.
- Marín-Guirao, L., Sandoval-Gil, J.M., Bernardeau-Esteller J., Ruiz, J.M., Sánchez-Lizaso, J.L. 2013. Responses of the Mediterranean seagrass *Posidonia oceanica* to hypersaline stress duration and recovery. *Marine Environmental Research*, 84:60-75.
- Sandoval-Gil, J.M., Marín-Guirao, L., Ruiz, J.M. 2012. Effect of salinity increase on photosynthesis, growth and survival of the seagrass *Cymodocea nodosa*. *Estuarine, coastal and Shelf Science*, 115:260-271.
- Sandoval-Gil, J.M., Marín-Guirao, L., Ruiz, J.M. 2012. Water relations and osmolyte concentrations in Mediterranean seagrasses (*Posidonia oceanica* and *Cymodocea nodosa*) in response to simulated salinity increase. *Marine Biology*, 159:1129-1141
- Ruiz, J.M., Marín-Guirao L., Bernardeau-Esteller, J, A. Segura, R. García, JM Sandoval. 2011. The Recent Spread of the Invasive Alga *Caulerpa racemosa* var. *cylindracea* (Caulerpales, Chlorophyta) Along the Mediterranean Coast in the Region of Murcia (SE Spain). *Animal Biodiversity and Conservation*, 34:73-82
- Bernardeau-Esteller, J., Marín-Guirao, L., Sandoval-Gil, J.M., Ruiz, J.M. 2011. Photosynthesis and daily carbon balance of the invasive *Caulerpa racemosa* var. *cylindracea* (Chlorophyta: Caulerpales) along a depth gradient. *Scientia Marina*, 75:803-810.
- Marín-Guirao, L., Sandoval-Gil, J.M., Ruiz, J.M., Sánchez-Lizaso, J.L. 2011. Photosynthesis, growth and survival of the Mediterranean seagrass *Posidonia oceanica* in response to simulated salinity increase in a laboratory mesocosm system. *Estuarine, coastal and Shelf Science* 92:286-296.
- Sanz-Lázaro C, Belando MD, Marín-Guirao L, Navarrete-Mier F, Marin A. 2010. Relationship between sedimentation rates and benthic impact on Mäerl beds derived from fish farming in the Mediterranean. *Marine Environmental Research*, 71:22-03.
- Ruiz JM., Marín-Guirao L., Sandoval-Gil JM. 2009. Responses of the Mediterranean seagrass *Posidonia oceanica* to in situ simulated salinity increase. *Botanica Marina*, 52:459-470.
- Cesar A., Marin A., Marín-Guirao L., Vita R., Lloret J., Del Valls A. 2009. Integrative ecotoxicological assessment of sediment in Portmán Bay (Southeast, Spain). *Ecotoxicology and Environmental Safety*, 72:1832-1841.
- Marín-Guirao, L., Lloret, J., Marín, A. 2008. Carbon and nitrogen stable isotopes and metal concentration in food webs from a mining-impacted coastal lagoon. *Science of the Total Environment*, 393:118-130.
- Lloret, J., Marín, A., Marín-Guirao, L. 2008. Is coastal lagoon eutrophication likely to be aggravated by global climate change?. *Estuarine Coastal and Shelf Science*, 78:403-412. Top Cited 2008-2012.
- Aguado-Gimenez, F.; Marin, A.; Montoya, S.; Marin-Guirao, L.; Piedecausa, P.A.; Garcia-Garcia, B. 2007. Comparison between some procedures for monitoring offshore cage culture in western

Mediterranean Sea: sampling methods and impact indicators in soft substrata. *Aquaculture*, 271:357-370.

- Marín-Guirao, L., Lloret, J., Marín, A., García, G., García-Fernandez, A.J. 2007. Pulse-discharges of mining wastes into a coastal lagoon: water chemistry and toxicity. *Chemistry and Ecology*,23:217-231.
- Marín, A., Montoya, S., Vita, R., Marín-Guirao, L., Lloret, J., Aguado, F. 2007. Sea urchin larval bioassays as impact assessment tool of marine fishcage farming. *Aquaculture*, 271:286-297.
- Casado-Martinez, MC; Beiras, R; Belzunce, MJ; González-Castromil, MA; Marín-Guirao, L; Potma, JF; Riba, I; DelValls, TA. 2006. Inter-laboratory precision study of a whole sediment toxicity test using crustacean amphipods. *Ciencias Marinas*, 32(1B): 149-157.
- Lloret, J., Marín, A., Marín-Guirao, L., Velasco, J. 2005. Changes in macrophytes distribution in a hypersaline coastal lagoon associated to the development of intensively irrigated agriculture. *Ocean & Coastal Management*, 48: 828-842.
- Marín-Guirao, L., Marín, A., Loret, J., Martínez, E., Garcia Fernandez, A.J. 2005. Effects of mining wastes on a seagrass ecosystem: metal accumulation and bioavailability, seagrass dynamics and associated community structure. *Marine Environmental Research*, 60: 317-337.
- Marín-Guirao, L., Cesar, A., Marín, A., Lloret, J., Vita, R. 2005. Establishing the ecological quality status of soft-bottom mining-impacted coastal water bodies in the scope of the Water Framework Directive. *Marine Pollution Bulletin*, 50:374-387. Top 50 most cited articles 2005-2010.
- Marín-Guirao, L., Cesar, A., Marín, A., Vita, R. 2005. Assessment of sediment metal-contamination in the Mar Menor coastal lagoon (SE Spain): metal distribution, toxicity, bioaccumulation and benthic community structure. *Ciencias Marinas*, 31(2): 413-428.
- Lloret, J., Marín, A., Marín-Guirao, L., Carreño, M.F. 2005. An alternative approach for managing Scuba diving in small marine protected areas. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 16:579-591.

Book chapters:

- Benedicto A.J., Marín-Guirao, L., Guerrero, J. 2009. Contaminación por metales y compuestos organoestánicos en el Mar Menor. In: Cabezas, F., Martínez, A. (Eds.) *El Mar Menor. Estado actual del conocimiento científico*. Instituto Euromediterráneo del Agua. Editorial: Fundación IEA. ISBN: 978-84-936326-8-7. pp: 201-238.
- Marin, A., Millán, A., Velasco, J., Lloret, J., Marín-Guirao, L. 2009. : Interacciones tierra-mar en la laguna costera del Mar Menor. In: Cabezas, F., Martínez, A. (Eds.) *El Mar Menor. Estado actual del conocimiento científico*. Instituto Euromediterráneo del Agua. Editorial: Fundación IEA. ISBN: 978-84-936326-8-7. pp: 239-268.
- Marin, A., Marín-Guirao, L. 2009. Desalación y Medioambiente. In: Ibañez Mengual J.A. (Eds.) *Desalación de aguas. Aspectos tecnológicos, medioambientales, jurídicos y económicos*. Instituto Euromediterráneo del Agua. Editorial: Fundación IEA. ISBN: 978-84-936326-6-3. pp: 493-518.
- Ruiz, J.M., R. García Muñoz, M. García Martínez, L. Marín Guirao, J.M. Sandoval Gil, A. Ramos Segura. 2009. Red de seguimiento de *Posidonia oceanica* en la Región de Murcia. In: Diputación de Alicante, (Eds.). *Posidonia oceanica. Redes de seguimiento y estado de conservación en el Mediterráneo español*. Diputación Provincial de Alicante, Alicante (España). pp: 92-112.

Cesar, A., Marín-Guirao, L., Vita, R., Marín, A. 2005. Amphipod and sea urchin tests to assess the toxicity of mediterranean sediments: the case of Portman Bay. In: J.D. Ros, T.T. Packard & J.M. Gili (Eds.) Biological Oceanography at the turn of the Millenium. Scientia Marina. pp: 205-213.