

MIREIA VALLE

Post-doctoral researcher

BC3 BASQUE CENTRE FOR CLIMATE CHANGE

NATIONAL CENTER FOR ECOLOGICAL ANALYSIS AND SYNTHESIS- UNIVERSITY OF CALIFORNIA

IPBES Fellow | Americas Regional Assessment

ResearchGate: https://www.researchgate.net/profile/Mireia_Valle/infoGoogle Scholar: <https://scholar.google.es/citations?user=3CKhWRoAAAAJ&hl=en>

Tel: +34 654890109 | skype: mireiagasteiz

valle.mireia@gmail.com**BIO**

Mireia Valle's research focuses in **biodiversity conservation and ecosystem services; with a special interest on climate change impacts on coastal ecosystems**. She was graduated in **Environmental Science** in the University of Girona and she got her **PhD** in the University of the Basque Country (UPV-EHU) in **Biodiversity and Ecosystem Functioning and Management** with **International Mention distinction** in 2014, which was awarded with an **excellent-Cum Laude** and the **PhD. Extraordinary Award 2016/2017**.

EDUCATION

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| Title | Ph.D. in Biodiversity and Ecosystem Functioning and Management |
| Organization | Faculty of Science and Technology. University of the Basque Country. |
| Title obtaining date | October 2014 |
| Thesis title | Seagrass meadows under a changing climate: habitat modelling, restoration and monitoring |
| Mention | Excellent-Cum laude and International Doctor distinction |
| Award | <i>PhD Extraordinary Award 2016/2017</i> |

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| Title | M.Sc. in Biodiversity and Ecosystem Functioning and Management |
| Organization | Faculty of Science and Technology. University of the Basque Country. |
| Title obtaining date | September 2009 |

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| Title | B.Sc. in Environmental Science |
| Organization | Faculty of Science. University of Girona. |
| Title obtaining date | June 2007 |
| | <i>4th year of Environmental Science in Sweden, University of Uppsala, ERASMUS program</i> |

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| Title | Associate Degree in Management and Organization of Natural and Landscape Resources |
| Organization | Secondary Education School of Murgia (Araba). |
| Title obtaining date | June 2002 |

PROFESIONAL EXPERIENCE

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| Institution | Fundación Lurguia Fundazioa |
| Position | Researcher and management |
| Dates | October 2016-January 2018 |
| Tasks | Writing research project proposals and funding applications. Coordination tasks of the activities involving the work of volunteers. Writing projects for CO ₂ compensation. Responsible for the NGO's technical and logistical needs. Organization of monthly talks. Community communication manager of the NGO's activities. |

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| Institution | Universidad Laica Eloy Alfaro de Manabí (Ecuador) |
| Department | Central Research Department |
| Position | Project leader: Functional ecology of rocky reef ecosystems along the Ecuadorian coast |
| Dates | October 2014 – April 2016 |
| Tasks | Integral monitoring of the benthic components of rocky reef ecosystems (corals, macroalgae, equinoderms). Habitat mapping and modelling. Laboratory analysis. Data processing. Writing of reports and scientific papers. Participation in international conferences. Supervision of undergraduate thesis. Teaching Aquatic ecosystem conservation course. |

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| Institution | AZTI-Tecnalia |
| Department | Marine Research Division |
| Position | Ph.D. Scholarship: "Seagrass meadows under a changing climate: habitat modelling, restoration and monitoring". Funded by: Iñaki Goenaga Foundation. |
| Dates | October 2009 – October 2013 |
| Tasks | Habitat suitability modelling. Climate change projections. Restoration of intertidal habitats and monitoring. Habitat mapping. Image classification. Laboratory analysis. Data processing. Writing of reports and scientific papers. Participation in international conferences. |

INTERNATIONAL PARTICIPATION

-**Fellow of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)**. Selected as early career scientist to contribute as lead-author on the IPBES regional assessment for the Americas during the period 2014-2018.

Participation by invitation in the following meetings and workshops:

1. **First author meeting of the Regional Assessment on Biodiversity and Ecosystem Services for the Americas**. Bogotá (*Colombia*), from 20 to 24 July 2015
2. **IPBES Fellows Pilot Programme: Training workshop**. Bonn (*Germany*), from 7 to 10 December 2015
3. **Contribution of Scenarios and Modelling and Capacity Building to the Regional Assessments and the Assessment for Land Degradation and Restoration workshop** (where she participated with an oral presentation). De Bilt (*The Netherlands*), from 25 to 27 January 2016
4. **Workshop on Multiple Values of Biodiversity and Ecosystem Services**. Cali (*Colombia*), from 16 to 17 October 2016
5. **Second Workshop on Scenarios and Modelling for IPBES**. Hayama (*Japan*), from 15 to 18 November 2016
6. **IPBES Fellowship Programme-Capacity Building workshop**. Bilbao (*Spain*), from 17 to 20 January 2017
7. **Fifth session of the Platform's Plenary (IPBES-5)**. Bonn (*Germany*), from 7 to 10 March 2017
8. **Third author meeting of the Regional Assessment on Biodiversity and Ecosystem Services for the Americas**. Cartagena de Indias (*Colombia*), from 5 to 9 July 2017
9. **IPBES Fellowship Programme - Capacity-building workshop**. Medellín (*Colombia*), from the 17 to 20 March 2018
10. **Sixth session of the Platform's Plenary (IPBES-6)**. Medellín (*Colombia*), from 17 to 24 March 2018

STAGES ALONG THE Ph. D. PERIOD

- **University of Grenoble (France)**. Research collaboration with the Evolution, Modeling and Analysis of Biodiversity Department from the Laboratoire d'Ecologie Alpine (Supervisor: Wilfried Thuiller; 5 weeks during 2012). Participation in the Spring School 'Habitat distribution models and their applications in ecology, evolutionary ecology and conservation' 35 academic hours (12-16 March 2012). Organized by: W. Thuiller, A. Guisan & N.E. Zimmermann.
- **Radboud University (Nijmegen, Netherlands)**. Research collaboration with the Environmental Science Department (supervisor: Marieke van Katwijk; 13 weeks during 2011)
- **Polytechnic University of Barcelona (Spain)**. Master on Management of Coastal and Estuarine areas (6 weeks during 2010)

PUBLICATIONS IN PEER-REVIEWED JOURNALS (ISI)

1. Soissons LM, Haanstra EP, van Katwijk MM, Asmus R, Auby I, Barillé L, Brun FG, Cardoso PG, Desroy N, Fournier J, Ganthu F, Garmendia JM, Godet L, Grilo TF, Kade P, Ondiviela B, Peralta G, Puente A, Recio M, Rigouin L, **Valle M**, Herman PMJ, Bouma TJ. **Latitudinal Patterns in European Seagrass Carbon Reserves: Influence of Seasonal Fluctuations versus Short-Term Stress and Disturbance Events**. *Frontiers in Plant Science*, <https://doi.org/10.3389/fpls.2018.00088>.
2. Soissons LM, van Katwijk MM, Peralta G, Brun FG, Cardoso PG, Grilo TF, Ondiviela B, Recio M, **Valle M**, Garmendia JM, Ganthu F, Auby I, Rigouin L, Godet L, Fournier J, Desroy N, Barillé L, Kadel P, Asmus R, Herman PM, Bouma TJ. **Seasonal and latitudinal variation in seagrass mechanical traits across Europe: the influence of local nutrient status and morphometric plasticity**. *Limnology and Oceanography*. DOI: 10.1002/lno.10611
3. Garmendia JM, **Valle M**, Borja Á, Chust G, Dae-Jin L, Rodríguez JG, Franco J, 2017. **Effect of trampling and digging from shellfishing on *Zostera noltei* (Zosteraceae) intertidal seagrass beds**. *Scientia Marina*, 81 (1). doi: <http://dx.doi.org/10.3989/scimar.04482.17A>
4. van Tussenbroek B, Soissons L, van Katwijk MM, van der Heide T, Brun F, Peralta G, Cardoso P, Grilo T, Ondiviela B, **Valle M**, Garmendia JM, Ganthu F, Godet L, Fournier J, Kadel P, Asmus R, Bouma T, 2016. **Pollen limitation may be a common Allee effect in marine hydrophilous plants: implications for decline and recovery in seagrasses**. *Oecologia* 182: 595-609.
5. **Valle M**, Palà V, Lafon V, Dehouck A, Garmendia JM, Borja A, Chust G, 2015. **Mapping estuarine habitats using airborne hyperspectral imagery, with special focus on seagrass meadows**. *Estuarine, Coastal and Shelf Science* 164: 433-442.
6. **Valle M**, Garmendia J, Chust G, Franco J, Borja A, 2015. **Increasing the chance of a successful restoration of *Zostera noltii* meadows**. *Aquatic Botany* 127: 12-19.
7. Reiss H, Birchenough S, Borja A, Buhl -Mortensen L, Craeymeersch J, Dannheim J, Darr A, Galparsoro I, Gogina M, Neumann H, Populus J, Rengstorf AM, **Valle M**, van Hoey G, Zettler ML, Degraer S., 2014. **Benthos distribution modelling and its relevance for marine ecosystem management**. *ICES Journal of Marine Science* 72: 297-315.
8. **Valle M**, Chust G, del Campo A, Wisz MS, Olsen SM, Garmendia JM, Borja A, 2014. **Projecting future distribution of the seagrass *Zostera noltii* under global warming and sea level rise**. *Biological Conservation* 170: 74-85.
9. Chust G, Albaina A, Aranburu A, Borja Á, Diekmann OE, Estonba A, Franco J, Garmendia JM, Iriondo M, Muxika I, Rendo F, Rodríguez JG, Ruiz-Larriñaga O, Serrão EA, **Valle M**, 2013. **Connectivity, neutral theories, and the assessment of species vulnerability to global change in temperate estuaries**. *Estuarine Coastal and Shelf Science* 131: 52-63.

10. **Valle M**, van Katwijk MM, de Jong DJ, Bouma T, Schipper AM, Chust G, Benito BM, Garmendia JM, Borja A, 2013. **Comparing the performance of species distribution models of *Zostera marina*: implications for conservation**. *Journal of Sea Research* 83: 56-64.
11. Chust G, Borja A, Caballero A, Irigoien X, Saenz J, Moncho R, Marcos M, Liria P, Hidalgo J, **Valle M**, Valencia V, 2011. **Climate Change on the coast and pelagic environment in the south-eastern Bay of Biscay: a review**. *Climate Research* 48:307-332.
12. **Valle M**, Borja A, Chust G, Galparsoro I, Garmendia J, 2011. **Modelling suitable estuarine habitats for *Zostera noltii*, using Ecological Niche Factor Analysis and Bathymetric LiDAR**. *Estuarine Coastal and Shelf Science* 94: 144-154.

BOOK CHAPTERS AND ARTICLES IN OTHER JOURNALS

1. Garmendia, JM., Chust G, **Valle M**, Borja A, Franco J, 2015. **Praderas de angiospermas marinas del País Vasco**. In: Ruiz, J.M., Guillén, J.E., Ramos Segura, A. & Otero, M.M. (Eds.). *Atlas de las praderas marinas de España*. IEO/IEL/UICN, Murcia-Alicante-Málaga, pp 595-624.
2. Zorroza N, Bald J, Chust G, Galparsoro I, **Valle M**, 2015. **Análisis de la idoneidad del hábitat de la almeja fina (*Ruditapes decussatus*) y el berberecho (*Cerastoderma edule*) en el estuario del Oka (País Vasco, norte de España)**. *Revista de Investigación Marina*, 22: 1-14.
3. Garmendia J.M., **Valle M**, Borja A., Chust G, Franco J, 2013. **Cartografía de *Zostera noltii* en la costa vasca: cambios recientes en su distribución (2008-2012)**. *Revista de Investigación Marina*, 20: 1-22.
4. Gorostiaga JM, Irigoien X, Borja A, Fernandes JA, Chifflet M, Gonzalez M, Revilla M, Bald J, **Valle M**, Garmendia JM, Valencia V, Fontán A, Chust G., 2011. **Biodiversidad, ecosistemas y recursos marinos**. In: Servicio Central de Publicaciones del Gobierno Vasco (Eds.) *Cambio climático, impactos y adaptación en la Comunidad Autónoma del País Vasco*, Vitoria-Gasteiz, pp 53-63.
5. **Valle M**, Borja A., Galparsoro I., Garmendia J.M., Chust G., 2010. **Estudio del hábitat idóneo para *Zostera noltii* y su modificación bajo un escenario de cambio climático en el estuario del Oka**. *Revista de Investigación Marina* 17: 1-12.

INTERNATIONAL CONGRESSES

Authors: **Valle, M**

Title: IPBES Fellowship Programme - Our experience

Congress: Biodiversity Science-Policy Interfaces Network for Early Career Scientists- BSPIN Workshop prior to IPBES-5

Place: Bonn

Country: Germany

From: 05/03/2017

to: 05/03/2017

Authors: **Valle, M**

Title: Sharing experiences and outcomes from the Young Fellows meeting in Bonn

Congress: Workshop scenarios and modelling IPBES assessment

Place: Bilthoven

Country: The Netherlands

From: 25/01/2016

To: 27/01/2016

Authors: **Valle, M.**, Figueroa-Guzmán, J., Alcivar-Mendoza, L., Trujillo-Silva, M., Zambrano-Pilay, V., Cabanillas-Terán, N

Title: Comunidades de fondos rocosos y arrecifes de coral de la costa ecuatoriana: estado actual y proyecciones futuras

Congress: Segundo Congreso de Biología Marina y Ambiente PUCE-Manabí

Place: Bahía de Caráquez

Country: Ecuador

From: 24/11/2015

To: 27/11/2015

Authors: **Valle M**, Palà V, Lafon V, Dehouck A, Garmendia JM, Borja A, Chust G

Title: Cartografiado de hábitats costeros mediante imágenes hiperespectrales aerotransportadas

Congress: Primer Congreso de Biología Marina y Ambiente PUCE-Manabí

Place: Bahía de Caráquez

Country: Ecuador

From: 26/11/2014

To: 28/11/2014

Authors: **Valle M**, Chust G, del Campo A, Wisz MS, Olsen SM, Garmendia JM, Borja A

Title: Projecting future distribution of the seagrass *Zostera noltii* under global warming and sea level rise

Congress: Seagrasses in Europe: Threats, Responses and Management

Place: Olhão

Country: Portugal

From: 04/03/2014

To: 06/03/2014

Authors: **Valle M**, Chust G, del Campo A, Garmendia JM, Borja A, Wisz MS, Olsen SM

Title: Modelling the response of *Zostera noltii* seagrass and saltmarshes to climate change

Congress: ICES Annual Science Conference 2013

Place: Reykjavík

Country: Islandia

From: 23/09/2013

To: 27/09/2013

Authors: **Valle M**, Chust G, del Campo A, Garmendia JM, Borja A, Franco J

Title: Coupling hydromorphologic and habitat models to project changes in seagrass distribution under two sea level rise scenarios

Congress: GEOHAB 2013, Marine Geological and Biological Habitat Mapping

Place: Roma Country: Italia
 From: 06/05/2013 To: 10/05/2013

Authors: **Valle M**, Benito B, van Katwijk MM, de Jong D, Borja A, Chust G
 Title: Modelling spatial and temporal variability of intertidal *Zostera marina* on the Ems estuary, Dutch Wadden Sea
 Congress: SIEBM, XVII Simposio Ibérico de Estudios de Biología Marina
 Place: Donostia-San Sebastián Country: España
 From: 11/09/2012 To: 14/09/2012

Authors: **Valle M**, Garmendia JM, Borja A, Chust G, Franco J.
 Title: Intertidal seagrass restoration in the Basque Country: First steps with *Zostera noltii*
 Congress: Coastal ecosystems vulnerability to global change and extreme events
 Place: Biarritz Country: Francia
 From: 18/10/2011 To: 21/10/2011

Authors: **Valle M**, Garmendia JM, Borja A
 Title: Selection of transplanting sites for *Zostera noltii* by Ecological Niche Factor Analysis at the Basque Country
 Congress: I European Seagrass Restoration Workshop
 Place: Portinho de Arrábida Country: Portugal
 From: 30/09/2010 To: 01/10/2010

Authors: **Valle M**, Borja A, Galparsoro I, Garmendia JM, Chust G
 Title: Predicting suitable habitat for *Zostera noltii* on the Oka estuary and its modification under mean sea level rise scenario
 Congress: XII International Symposium on Oceanography of the Bay of Biscay
 Place: Brest Country: Francia
 From: 03/05/2010 To: 06/05/2010

MOST RELEVANT AND RECENT COURSES AND MEETINGS

- Curso básico online **Servicios de los Ecosistemas y Bienestar Humano en Euskadi**. Organized by: Cátedra UNESCO sobre Desarrollo Sostenible y Educación Ambiental de la UPV/EHU and UNESCO Etxea – Centro UNESCO del Country Vasco. 15 academic hours (3-21 July, 2017)
- Participation on the **BC3 Summer School "Climate Change in an Era of Uncertainty"**. Directors: Dr. Mikel González-Eguino (BC3, Basque Centre for Climate Change) and Dr. Alberto Ansuategi (University of the Basque Country). Organized in collaboration with the University of the Basque Country. San Sebastian, Spain. 30 academic hours (5-7 July, 2017).
- Participation on the **Klimagune 2017. Climate change and public engagement**. Coordinator: Ignacio Palomo, Postdoctoral Researcher at Basque Centre for Climate Change (BC3). Leioa, Spain. 8 academic hours (31 May, 2017).
- Participation on the **11th ALTER-Net Summer School Challenge your knowledge on biodiversity & ecosystem services**. Conveners: Allan D. Watt (Centre for Ecology and Hydrology, UK), Taru Peltola (Finnish Environment Institute, Finland/ IRSTEA, France), Steve Redpath (Aberdeen University, UK), Uta Fritsch (EURAC-European Academy, Italy) and Marie Vandewalle (Helmholtz Centre for Environmental Research- UFZ, Germany). Peyresq- Alpes de Haute Provence, France. 80 academic hours (7-17 September, 2016). Granted with a scholarship that covered the cost of the tuition fee (800€).
- Participation on the **BC3 Summer School Climate Change Challenges after Paris agreement**. Directors: Dr. Ibon Galarraga (BC3, Basque Centre for Climate Change) and Dr. Marta Escapa (University of the Basque Country). Organized in collaboration with the University of the Basque Country. San Sebastian, Spain. 30 academic hours (11-13 July, 2016).
- Participation on the **DEVOTES-EUROMARINE SUMMER SCHOOL 2016- Marine ecosystem services, management and governance: linking social and ecological research**. Director: Dr. Ángel Borja Yerro (AZTI-Tecnalia, Marine Research Division). San Sebastian, Spain. 18 academic hours (6-9 June, 2016).
- Participation on the **International Spring University on Ecosystem Services Modeling** Fourth Edition. An event co-convened by BC3, Basque Centre for Climate Change, in collaboration with the University of Vermont. Bilbao, Spain. 80 academic hours (2-13 May, 2016). **Granted with a scholarship** that covered the cost of the tuition fee (975€).

LANGUAGES

- **Spanish** (mother tongue)
- **Basque** (mother tongue): Certificate in Advanced Basque Language (C1) Official Language School (June 2014).
- **English**: Certificate in Advanced English (C1) Official Language School (May 2013)
- **Catalan**: intermediate level

COMPUTER SKILLS

- Microsoft Office tools, Advanced level in: Word, Excel, PowerPoint and Publisher
- GIS, Advanced level in: ArcGIS, Golden Software Surfer, ENVI, Quantum GIS, Idrisi, Kosmo.
- Statistical packages, Good skills in: R and Statgraphics, PRIMER.

ADDITIONAL INFORMATION

- Participation as reviewer: Journal of Marine Research, Revista de Investigación Marina, Ecological Indicators, Dyna (Bilbao), Estuarine Coastal and Shelf Science.