

# Curriculum vitae Mr. Bruno Díaz López

## PERSONAL INFORMATION

- **Name:** Bruno Díaz López
- **Nationality:** Spanish
- **Date of birth:** 11th July 1976
- **Birth place:** Ferrol (A Coruña) Spain.
- **Address:** Rua Rons 28, Blq. 1, 2A , O Grove, 36980, Pontevedra, Spain.
- **Telephone (home):** 00 34 886 31 0872
- **Telephone (office):** 00 34 684 24 8552
- **Telephone (mobile):** 00 34 605 52 1441
- **Email:** bruno@thebdri.com
- **Website:** www.thebdri.com

## EDUCATION

**2000 – 2003 University of Vigo** (Pontevedra - Spain). As part of the Phd Courses in Animal Biology and Ethology presents the Thesis entitled "*Ecology and behaviour of Mediterranean Common bottlenose dolphins (Tursiops truncatus) along the north-eastern coast of Sardinia, Italy*". Grade: First class honours.

**1999 – 2000 University Roma Tre** (Rome - Italy). Field research specialization post-graduate in marine mammals' research studying bottlenose dolphins ecology and behavior along Sardinian coast, Italy.

**1998 – 1999 University of Santiago de Compostela** (A Coruña - Spain). Master's Degree in Animal Biology. Graduated with distinction and first class honours.

**1995 – 1997 University of Santiago de Compostela** (A Coruña - Spain). Bachelor's Degree in Biology. Graduated with distinction and first class honours.

## Curriculum vitae Mr. Bruno Díaz López

### PROFESSIONAL EXPERIENCE

#### 2014 – Current. Bottlenose Dolphin Research Institute – BDRI

*Av. Beiramar 192, 36980 O Grove, Pontevedra, Spain.*

*Website: [www.thebdri.com](http://www.thebdri.com) - email: [info@thebdri.com](mailto:info@thebdri.com)*

- Director, Chief Biologist and Founder of the BDRI
- Teacher and supervisor of the science project of Master and Bachelor degree students.
- Research chief and responsible of the overall goals of the BDRI's research projects.
- Education coordinator and supervisor BDRI's course students, interns and volunteers.

#### 2013 - Current. Environment Agency Abu Dhabi (EAD) – Cetaceans of Abu Dhabi Research and Conservation project.

*PO Box 45553, Abu Dhabi UAE. Website: [www.ead.ae](http://www.ead.ae)*

*Reference: Edwin Mark Grandcourt – Manager Marine Assessment and Conservation - [egradcourt@ead.ae](mailto:egradcourt@ead.ae)*

- Subject matter expert and scientific advisor for the “Arabian Sea dolphins’ conservation project”
- Reviewer of the experimental design and methodology to survey the abundance and distribution of cetacean species in waters off Central, Eastern, and Western Abu Dhabi.
- Scientific consultant with participation and instruction in surveys for cetaceans in the Central, Eastern, and Western Regions of Abu Dhabi – one month in: June 2014, November 2014, May 2015, November 2014.
- Creator and teacher of the intensive field research course entitled “Conservation and monitoring of dolphin populations in Abu-Dhabi” – Hold in Sardinia (Italy) in September 2013 and in Abu Dhabi in November 2014.

## Curriculum vitae Mr. Bruno Díaz López

### 2013 - Marine fin fish farm C.I.R (Compagnie Ittiche Riunite, S.C), Sardinia, Italy

*Compagnie Ittiche Riunite C.I.R. Golfo Aranci (Sardinia, Italy)*

- Subject matter expert and scientific advisor for the “Economic impact of bottlenose dolphins on aquaculture” field research project.

### 2011 – 2013 Executive Agency for Higher Education, Research, Development and Innovation, Romany.

*Str. Mendeleev nr. 21-25, sector 1, cod 010362 Bucarest, Romany. Website: [www.uefiscdi.ro](http://www.uefiscdi.ro).*

*Reference: Monica Stroe, Project officer: [monica.stroe@uefiscdi.ro](mailto:monica.stroe@uefiscdi.ro)*

- Subject matter expert, reviewer and scientific referee during the selection of research projects for UE European Fundings for research.

### 2004 – 2013. Bottlenose Dolphin Research Institute – BDRI in Sardinia, Italy.

*V. A. Diaz 4, 07020, Golfo Aranci, OT, Italy*

*email: [info@thebdri.com](mailto:info@thebdri.com)*

- Director, Chief Biologist and Founder of the BDRI since November 2004.
- Teacher and supervisor of the science project Master and Bachelor degree students.
- Research chief and responsible of the overall goals of the BDRI’s research projects on the NW and NE coast of Sardinia.
- Education coordinator and supervisor BDRI’s course students, interns and volunteers.

### 2009 - Enterprise Learning Solutions group of NIIT LTD & Walden University – New York (USA)

*NIIT, LTD. Floor 6, Westfields, London Road High Wycombe, Buckinghamshire, 11 1 HP, UK*

- Subject matter expert to help create online courses on the “Environmental Science” for

## Curriculum vitae Mr. Bruno Díaz López

students in the Walden University – New York (USA).

- Review of deliverables including design documents, scripts, graphic elements and final course.

### **2009 - Ingeniería y ciencia ambiental ICA / Environmental & Engineering Sciences S.L. Madrid-Spain.**

ICA S.L. C/Miguel Menendez Boneta 2, pta.8. Los Molinos 28460 Madrid –Spain.

*Reference: Fernando Mariño, Director: [fjmf@ica1.e.telefonica.net](mailto:fjmf@ica1.e.telefonica.net).*

- Research chief and responsible of the overall goals of the research project “Dolphins and AHDs” focused in the use of acoustic harassment devices in aquaculture.
- Subject matter expert and scientific advisor for the research project funded by the Spanish/Galician Government (Xunta de Galicia, Spain).

### **2005-2007 Marine fin fish farm C.I.R (Compagnie Ittiche Riunite, S.C), Sardinia, Italy**

*Compagnie Ittiche Riunite C.I.R. Golfo Aranci (Sardinia, Italy)*

- Marine biologist and scientific advisor for the research and development projects.
- Education coordinator and teacher of the fish farm workers.

### **2003 – 2004 Belavista School (Gotemba, Japan).**

*Gotemba-shi (Shizuoka-Japan).*

*Reference: Reunildo Ono – Director - email: [reunildo@yahoo.com](mailto:reunildo@yahoo.com)*

- Photography and language teacher (Italian and Spanish).

### **1999 – 2002 Accademia del Leviatano nonprofit and charity organization, Rome, Italy.**

## Curriculum vitae Mr. Bruno Díaz López

V. R.R. Garibaldi, Rome-Italy. [www.accademiadelleviatano.org](http://www.accademiadelleviatano.org).

Reference: Dr. Luca Marini – Founder and Honors member- email: [aleviatano@hotmail.com](mailto:aleviatano@hotmail.com)

- Research chief and responsible of the overall goals of the research project carried out in Golfo Aranci (Sardinia, Italy)
- Education coordinator and supervisor BDRI's course students, interns and volunteers.
- Teacher and supervisor of the science project of three Master's degree students.

### 2000 Word Wide Fund – WWF, Latina, Italy.

*World Wide Fund (Latina - Italy)*

- Biologist and director of the WWF marine protected area “Oasi Blu Villa di Tiberio”, Sperlonga, Latina, Italy.
- Coordinator and biologist during an ecological cruise on endangered marine species along the Western Mediterranean onboard the Guardia di Finanza training ship “Giorgio Cini”.

### 1995 – 1999 Studiomare - Delphis Mediterranean Conservation non profit and charity organization, Ischia, Italy

*Ischia, Italy – [www.delphismc.org](http://www.delphismc.org).*

*Reference: Barbara Mussi – Founder and director - email: [info@delphismc.org](mailto:info@delphismc.org)*

- Assistant researcher and biologist studying marine mammals onboard the lab-sailing boat “Barbarian”.

### 1995 – Current - Networking for the study and conservation of marine mammals – C.E.M.MA (Galicia, Spain)

## Curriculum vitae Mr. Bruno Díaz López

*C.E.M.MA Av. de Gondomar, Pontevedra, Spain.*

*Reference: Dr. Alfredo López – Founder and biologist –[cemma@arrakis.es](mailto:cemma@arrakis.es)*

- Member of the networking, researcher and biologist studying stranded marine mammals, sharks and turtles along the north western coast of Spain.
- Participation in more than 50 necropsies, rescue and rehabilitation of alive marine mammals.
- Boat based and land based observations.

### INVITED PARTICIPATION IN WORKSHOPS AND SEMINARS

Mr. Díaz López has delivered a number of lectures and public talks on cetacean Research, marine biology and conservation, and he has been invited to make presentations in meeting, workshops and seminars, the most recent and representative being:

- Plenary speaker in the International workshop on bottlenose dolphin conservation and monitoring in the North-Western Mediterranean Sea in the Villa Méditerranée, Marseille, France. Organized by GDEGeM project, the GIS3M, in partnership with the French marine protected areas agency, the WWF France, the ACCOBAMS and the Pelagos Sanctuary. 1<sup>st</sup> December 2015.
- Plenary speaker in a seminar about cetaceans research organized by the Irstea - National Research Institute of Science and Technology for Environment and Agriculture in Bordeaux, French Government. 8<sup>th</sup> December 2015.
- Invited keynote speaker - Conference entitled “Behavioural studies and their importance in cetaceans’ research and conservation projects”. University of Santiago de Compostela, Faculty of Biology. Spain, November 2015.
- Seminar about dolphins research and conservation organized by the Environmental Agency of Abu Dhabi, UEA. Abu Dhabi, UEA November 2014.
- Plenary speaker in the workshop organized by the Canary Island Government (Cabildo de Gran Canaria) about the Special Protected Areas for dolphins and the potential impact caused by the aquaculture industry. Canary Islands, Spain, October 2014.

## **Curriculum vitae Mr. Bruno Díaz López**

- Invited speaker – workshop entitled “Bottlenose dolphin’s conservation: what we can learn from different resident populations? European Cetacean Society, Setubal, Portugal, April 2013.
- Invited speaker in the workshop of the Latin American Specialists on Aquatic Mammals. Conference entitled: Common bottlenose dolphins and marine fin fish farms: co-existence or conflict? Puerto Madryn, Argentina, September 2012.
- Invited keynote speaker - Conference entitled “Behavioural studies and their importance in the cetaceans conservation”. University Autonoma of Barcelona, Faculty of Veterinary. Barcelona, Spain, April 2012.
- Invited speaker: In the international conference about Marine Mammals in Israel. Conference entitled: Interaction between common bottlenose dolphins and marine fin fish farms. Israel Marine Mammal Research & Assistance Center (IMMRAC), Tel-aviv, Israel, October 2011.
- Invited speaker – Workshop entitled “Cetaceans and fisheries on Spanish coasts: interaction or conflict”. Environmental Sciences Center (CEMACAM), Murcia. May 2011.
- Invited keynote speaker - Conference entitled “Monitoring coastal bottlenose dolphin populations”. University Autonoma of Barcelona, Faculty of veterinary. Barcelona, Spain, November 2010.
- Invited speaker - Conference entitled “Predation and Competition: the impact of aquaculture and fisheries on bottlenose dolphins in Sardinia, Italy. RIMMO conference ” 17 ème Conférence Internationale sur les Cétacés en Méditerranée, Nice France, 16 January 2010.
- Invited keynote speaker - Online conference entitled “El impacto de la acuicultura en los mamíferos marinos – Impact of aquaculture on marine mammals”. Aquacet (Peru), 19 December 2008.
- Invited keynote speaker - Conference entitled “El impacto de la acuicultura en los mamíferos marinos - Impact of aquaculture on marine mammals” Parque de las ciencias Granada, Spain. 20-21 November 2008.
- Invited speaker - Conference entitled “Whistles characteristics and repertoire of wild bottlenose dolphins in Sardinia Island, Italy. RIMMO conference ” 16 ème Conférence

## **Curriculum vitae Mr. Bruno Díaz López**

Internationale sur les Cétacés en Méditerranée, Nice France, 15 November 2008.

- Invited keynote speaker - Seminars entitled “Cetáceos y acuicultura: sinergias y posibilidades – Cetaceans and aquaculture: problems and conflicts” Fundación Gypaetus and Ministry of Agriculture and fishery of Andalucía, Spain. 8, 9, 10 April 2008. Malaga, Almeria and Granada, Spain.
- Invited speaker - Workshop entitled “Cetaceans & Fisheries in Italy”, - Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS) and Italian Ministry of Agriculture and Fisheries (MiPAAF). Rome, 10-11 September 2007.
- Invited speaker - Seminar entitled “Interacción entre mamíferos marinos y actividades humanas (pesca, turismo y acuicultura) – Interaction between marine mammals and human activities”. Sanxenxo, Pontevedra, Spain. 21 September 2006.
- Invited keynote speaker - Seminar entitled “Estudio de los mamíferos marinos en su medio natural - Research on bottlenose dolphin populations in the wild” BALAENA, University Complutense of Madrid, Faculty of Veterinary. Madrid, Spain. 11 – 12 December 2004.
- Invited keynote speaker - Conference entitled “Investigación de los cetáceos en la naturaleza - Research on cetacean populations in the wild”, La Graña Marine Research Center, University of Santiago, SGHN, Ferrol, Spain. 18, 19, 20 August 2001.
- Seminar entitled “Marine mammals research”. World Wide Fund, Italy. Sperlonga, Latina, Italy. 5 May 2000.
- Seminar entitled “Methods of research on cetacean population in nature” for the PhD course in Biology. Faculty of Biology, University of Roma Tre. Rome, Italy. 29 March 2000.

### **REVIEWER FOR SCIENTIFIC JOURNALS**

Reviewer for scientific journals including “**Biological Conservation**”, “**Marine Biology**”, “**Marine Ecology**”, “**Mammalian Biology**”, “**ICES Journal of Marine Science**”, “**Aquaculture Environmental Interactions**”, “**Marine Mammals Science**”, “**Journal of Marine Biological Ass. UK**”, “**Current Zoology**”, “**Marine and Freshwater Behaviour and Physiology**”, “**Latinoamerican**



## Curriculum vitae Mr. Bruno Díaz López

Journal of Aquatic Mammals”, “Scientia marina”, “Oxford Academic Press”, “Revista de Biología tropical”, “Bioacoustics”.

### OTHER

Several articles in magazines and newsletters (unlisted), several photo published in magazines, and actually working in a photo-book. Scientific advisor for TV programs and documentaries. The Editorial Board of the **International Biographical Centre** (Cambridge, England) and the Marquis **Who's Who Publications Board** have nominated Mr Diaz Lopez as one of the “2000 Outstanding Intellectuals of the 21<sup>th</sup> Century” and one of the world's “Top 100 Scientist”.

### LANGUAGES

Good knowledge of Spanish, written and oral. Native Spanish speaker.

Good knowledge of English, written and oral.

Good knowledge of Italian, written and oral.

Good knowledge of Galician, written and oral.

Sufficient knowledge of Portuguese language, written and oral.

### COMPUTER EXPERIENCE

Extensive proficient in use of:

- Operative systems as Microsoft Windows 8.1, 7, VISTA, 98, 2000me, Xp; Linux Knoppix & Ubuntu; and Macintosh.
- Software packages including: Microsoft Office (Access, Excel, Word, Powerpoint) 98, 2000me, 2003xp, 2007; 2010; 2014; Microsoft Work 2000, Open office 3.
- Image editors and webmaster packages: Macromedia Dreamweaver, Marcromedia FreeHand MXA, Adobe Photoshop, Gimp, Internet Explorer, Mozilla, Nestcape and

## Curriculum vitae Mr. Bruno Díaz López

Chrome navigator.

- Statistical software: Minitab, PAST, R, Statistica y SPSS.
- Geographical information systems GIS and geostatistical software: Surfer 8, 11, ArcGIS 3.2, ArcMap 9, QGIS.
- Specific social structure, mark-recapture and photo-identification software as SOCPROG, FINEX, FINSCAN, DARWIN, DISCOVERY, DISTANCE, and MARK.
- Bioacoustics and PAM software as Soundruler, Raven, Audacity, Spectrogram, PAMGUARD.
- Ecological modelling software as ECOPATH and ECOSIM.
- He has produced databases for scientific data entry and management of several Dolphin Research projects in Microsoft Access.
- Webmaster, he created and manages the BDRI's website (<http://www.thebdri.com>).

### OTHER ATTITUDES AND SKILLS

- Boat license and experience with boats up to 24m.
- European car driving license B.
- Experience in snorkelling and diving (P.A.D.I. Certification).
- Good attitudes for physical activities (surfer and athletic runner).
- High photography knowledge (Digital & Classic).
- High experience as curator of salt-water and fresh-water aquariums.
- Attitudes for group Works and exposition in public.
- Good adaptability and personal initiative.

## Curriculum vitae Mr. Bruno Díaz López

### SCIENTIFIC ARTICLES

#### *International Scientific publications and book chapters*

1. Diaz Lopez B., Addis A., Fabiano, F., 2013. Ecology of bottlenose dolphins along the north-western Sardinian coastal waters (Italy). *Thalassas*, 29 (2): 35-44.
2. Diaz Lopez B., 2012. Bottlenose dolphins and aquaculture: interaction and site fidelity on the north-eastern coast of Sardinia (Italy). *Marine Biology* 159 (10): 2161-2172, DOI 10.1007/s00227-012-2002-x
3. Diaz Lopez B, 2012. Estudio eco-etológico de una población de delfín mular, *Tursiops truncatus* (Montagu 1821) en la costa nordeste de Cerdeña, Italia. AV Akademikerverlag GmbH & Co. KG Ed. ISBN: 978-3-8473-5999-9, 108pp.
4. Diaz Lopez B. Mariño, F., 2011. A trial of acoustic harassment device efficacy on free-ranging bottlenose dolphins in Sardinia, Italy. *Marine and Freshwater Behaviour and Physiology* 44(4):197-208.
5. Diaz Lopez B., 2011. Aquaculture systems. In: *Handbook of Models used in Ecosystem and Environmental Management*, Sven Erik Jørgensen (Ed.), CRC Press, Taylor & Francis, FL.pp 241-256.
6. Diaz Lopez B., 2011. Whistle characteristics in free-ranging bottlenose dolphins (*Tursiops truncatus*) in the Mediterranean Sea: influence of behaviour. *Mammalian Biology* 76: 180-189.
7. Diaz Lopez, B. & Shirai, J.A.B., 2010. Mediterranean common bottlenose dolphin's repertoire and communication use. In: *Dolphins: Anatomy, Behavior, and Threats*, (A.G. Pierce & L. Correa Eds.), Nova Science Publishers, New York. Pp 129 -148.
8. Diaz Lopez, B., 2009. The bottlenose dolphin *Tursiops truncatus* foraging around a fish farm: Effects of prey abundance on dolphins' behaviour. *Current Zoology* 55(4):243-248.

## Curriculum vitae Mr. Bruno Díaz López

9. Diaz Lopez, B., Bunke, M. and Shirai, J.A., 2008. Marine aquaculture off Sardinia Island (Italy): ecosystem effects evaluated through a trophic mass-balance model. *Ecological Modelling* 212: 292-303.
10. Diaz Lopez, B. and Shirai, J.A., 2008. Marine aquaculture and bottlenose dolphins social structure. *Behavioural Ecology and Sociobiology* 62 (6): 887-894.
11. Diaz Lopez, B., Shirai, J.A.B., Bilbao Prieto, A. & Méndez Fernández, P., 2008. Diving activity of a solitary wild free ranging bottlenose dolphin (*Tursiops truncatus*). *Journal Marine Biological Association of U.K* 88, Special Issue 06: 1153-1157.
12. Diaz Lopez, B & Bernal Shirai, J.A.B., 2007. "Bottlenose dolphin (*Tursiops truncatus*) presence and incidental capture in a marine fish farm on the north-eastern coast of Sardinia (Italy)" *Journal of Marine Biological Association of U.K* 87: 113 – 117.
13. Díaz López, B. and Shirai, J.A.B., 2007. "Human activities and bottlenose dolphin's social structure". *European Research on Cetaceans 21st (on CD-rom)* (Eds, P.G.H. Evans & R. Castro), San Sebastián, Spain.
14. Underhill, K., Díaz López, B., and Shirai, J.A., 2007. "Boat traffic effects on the diving behaviour of bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy". *European Research on Cetaceans 21st (on CD-rom)*. (Eds, P.G.H. Evans & R. Castro), San Sebastián, Spain.
15. Diaz Lopez, B., 2006. "Bottlenose dolphin (*Tursiops truncatus*) Predation on a Marine Fin Fish Farm: Some Underwater Observations". *Aquatic Mammals* 32 (3): 305 – 310.
16. Diaz Lopez, B., 2006. "Interactions between Mediterranean bottlenose dolphins (*Tursiops truncatus*) and gillnets off Sardinia". *ICES Journal of Marine Science* 63: 944-951.
17. Díaz López, B. & Bernal Shirai, J.A., 2006. "Estudio multiescalar de la influencia de la

## Curriculum vitae Mr. Bruno Díaz López

acuicultura en la presencia de delfines mulares *Tursiops truncatus* (Montagu 1821)". CIVA, (on CD-rom): 282 – 290.

18. Díaz López, B. & Bernal Shirai, J.A., 2006. "Diurnal & Nocturnal behaviour of bottlenose dolphin groups with emphasis on foraging activity on the north-eastern coast of Sardinia (Italy)". In: European Research on Cetaceans 20th (Eds, P.G.H. Evans & I. Kuklik) Gdynia, Poland.

19. Bernal Shirai, J. A., Díaz López, B., Méndez Fernández, P., Bilbao Prieto, A. & Díaz da Silva, J.I., 2006. "Analysis of diving behaviour of a solitary male bottlenose dolphin in the inshore waters of Galicia (Spain)" In: European Research on Cetaceans 20th (Eds, P.G.H. Evans & I. Kuklik) Gdynia, Poland.

20. Diaz Lopez, B., Marini, L. and Polo, F. 2005. The Impact of a fish farm on a Bottlenose dolphin population in the Mediterranean Sea. *Thalassas* 21(1):53-58.

21. Díaz López, B., 2005. Interactions between bottlenose dolphins with trammel nets in the Sardinia Island. *ICES Document CM 2005 / X: 01*, 12pp.

22. Díaz López, B. 2005. Interaction between bottlenose dolphins and fish farms: could there be an economic impact? *ICES Document CM 2005/X:10*, 16pp.

23. Díaz López, B., Marini, L. & Polo, F., 2004. "Evolution of a bottlenose dolphins population in the North-Eastern waters of Sardinia (Italy)". In: European Research on Cetaceans – 15 (Ed- P.G.H. Evans), pp 70-73. Cambridge, UK.

24. Mussi, B., Miragliuolo, A. and Díaz López, B., 2000. "Male parental care in a long finned pilot whale (*Globicephala melas*) pod off Ventotene Island (Mediterranean Sea, Italy)" – In: European Research on Cetaceans – 14 (Ed- P.G.H. Evans) pp 141 – 145. Cork, Ireland, UK.

25. Díaz López, B., Mussi, B., Miragliuolo, A. and Battaglia, M., 2000. "Respiration patterns of fin whales in the Pontino – Campano Archipelago" – In: European Research on Cetaceans – 14 (Ed-

## Curriculum vitae Mr. Bruno Díaz López

P.G.H. Evans) pp 125-129 Cork, Ireland, UK.

26. Mussi, B., Miragliuolo, A., Monzini, E., Díaz López, B. and Battaglia, M., 1999. "Fin whale (*Balaenoptera physalus*) feeding ground in coastal waters of Ischia (Gulf of Naples – Archipelago Campano" – In: European Research on Cetaceans – 13 (Ed- P.G.H. Evans) pp 330 – 335. Valencia, Spain.

### *Conference abstracts, short papers, and selected reports*

1. Grandcourt E, Díaz López B, Das H, Bugla I, AL Hameli M, AL Ameri H, Abdula M. Dolphin surveys in the world's most extreme marine environment. 21st Biennial Conference on the Biology of Marine Mammals in San Francisco, USA 13-18 December 2015.
2. Díaz López B and Karagouni N, 2015. Are the Mussel Rafts impacting the habitat use and behavior of bottlenose dolphins?. Talk in the Spanish Cetacean Society Conference held in Vigo, Spain, 2-4 October 2015.
3. Methion S, Díaz López B and Karagouni N, 2015. The social structure of Bottlenose dolphins in the Arousa Firth, Spain. Poster in the Spanish Cetacean Society Conference held in Vigo, Spain, 2-4 October 2015.
4. Hope V, Díaz López B and Karagouni N, 2015. The whistle characteristics and production ratio of bottlenose dolphins in the Arousa Firth. Poster in the Spanish Cetacean Society Conference held in Vigo, Spain, 2-4 October 2015.
5. Wynne F and Diaz Lopez B, 2015. Use of habitat and impact of aquaculture industry in two populations of bottlenose dolphins from Galicia (Spain) and Sardinia Island (Italy). Poster in the 29th Annual Conference of the European Cetacean Society ECS, Malta, March 2015.
6. Díaz López B, and Methion S, 2015. Abundance estimate, distribution and use of habitat of dolphin species in Abu-Dhabi waters during the summer and winter 2014. Final report - Environment Agency Abu Dhabi, EA. March 2015. 148pp.
7. Diaz Lopez B, 2013. Males as infant protectors in common bottlenose dolphins (*Tursiops*

## Curriculum vitae Mr. Bruno Díaz López

*truncatus*) on the north-eastern coast of Sardinia, Italy. Talk in the 27th Annual Conference of the European Cetacean Society ECS, Lisbon, Portugal, April 2013.

8. Bajraktarevic S & Diaz Lopez B, 2013. Synchronous surfacing of wild bottlenose dolphin female-calf pairs in the north-eastern coast of Sardinia, Italy. Poster in the 27th Annual Conference of the European Cetacean Society ECS, Lisbon, Portugal, April 2013.

9. Slivar K & Diaz Lopez B, 2013. Predicting key hábitat and potential distribution of Bottlenose dolphins (*Tursiops truncatus*) along the north-eastern coast of Sardinia, Italy. Poster in the 27th Annual Conference of the European Cetacean Society ECS, Lisbon, Portugal, April 2013.

10. Díaz López B, 2013. Interazione tra i delfini della specie tursiope (*Tursiops truncatus*) e l'acquacoltura nel Golfo degli Aranci, Sardegna. Final report – Bottlenose Dolphin Research Institute BDRI and Compagnie Ittiche Riunite, Sardinia, Italy. 16pp.

11. Addis A, Díaz López B and Fabiano F, 2013. A solitary bottlenose dolphin in a marine fin fish farm of Sardinia Island, Italy. 44<sup>th</sup> Annual Congress of the Italian Society of Marine Biology SIBM, Roma, 14-16 May 2013, Italy.

12. Karagouni N, Angel Yunda C & Díaz López , 2012. Cetacean spatial distribution in relation with anthropogenic variables along the north-eastern coast of Sardinia (Italy).Poster in the 26<sup>th</sup> Annual Conference of the European Cetacean Society ECS , Cork, Ireland, March 2012.

13. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2012. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.

14. Díaz López B. 2011. Do dolphins use context-specific social signals in their communication? Vocalizations and underwater behaviour of free-ranging bottlenose dolphins. Talk in the 25th Annual Conference of the European Cetacean Society ECS, Cadiz, Spain, March 2011.

15. Díaz López B. 2011. Do dolphins use context-specific whistles in their communication? Analysis of whistle characteristics in free-ranging bottlenose dolphin. Talk in the 39<sup>th</sup> Annual Conference of the European Association of Aquatic Mammals, Barcelona, Spain, March 2011.

## Curriculum vitae Mr. Bruno Díaz López

16. Díaz López B & Bajraktarevic S, 2011. Do free-ranging male bottlenose dolphins use vocalizations in a different way than females? Poster in the 39<sup>th</sup> Annual Conference of the European Association of Aquatic Mammals, Barcelona, Spain, March 2011.
17. Bajraktarevic, S, Díaz López B & Sciacca V, 2011. Vocal production by free-ranging bottlenose dolphin mother-infant pairs during feeding activities. Poster in the 25th Annual Conference of the European Cetacean Society ECS , Cadiz, Spain, March 2011.
18. Addis A, Díaz López B, Rabino, S, Fabiano F, Shirai JA, 2011. Bottlenose dolphin presence in a marine fish farm from the north-western coast of Sardinia. Italian Society of Marine Biology, Genoa, June 2011.
19. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2011. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.
20. Fabiano F, Diaz Lopez B, Lacolina L, Addis A, 2011. Interaction between common bottlenose dolphins (*Tursiops truncatus*) and a marine fin fish farm in the Gulf of Alghero (Sardinia, Italy).Poster in the 6<sup>th</sup> European Congress of Mammalogy, Paris, France, July 2011.
21. Díaz López, B., 2010. Aquaculture & Dolphins: how to use ecosystem models to address the impacts caused by the interactions. 24<sup>th</sup> Annual Conference of the European Cetacean Society, Stralsund, Germany, March 2010.
22. Bernal Shirai, J.A., Díaz López, B., Mihailova, M., Casas, C., 2010. Long-term study of whistle contours and repeated whistles of free-ranging bottlenose dolphins. 24<sup>th</sup> Annual Conference of the European Cetacean Society, Stralsund, Germany, March 2010.
23. Addis, A., Díaz López, B., Rabino, S., Fabiano, F., Bernal Shirai, J.A., 2010. Bottlenose dolphin presence in a offshore marine fin fish farm on the North-western coast of Sardinia. 24<sup>th</sup> Annual Conference of the European Cetacean Society, Stralsund, Germany, March 2010.
24. Diaz Lopez, B., 2010. Predation and Competition: the impact of aquaculture and fisheries on the Bottlenose dolphin in Sardinia, Italy. Talk 17 ème Conférence Internationale sur les Cétacés



## Curriculum vitae Mr. Bruno Díaz López

en Méditerranée, Nice France, 16 January 2009.

25. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2010. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.

26. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2009. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.

27. Díaz López B, 2009. Field experiments show that electronic acoustic devices do not reduce bottlenose dolphin depredation on a marine fin fish farm in Sardinia, Italy. Final report, Bottlenose Dolphin Research Institute and ICA, SL Enterprise for the Spanish/Galician Government.

28. Diaz Lopez, B and Shirai, J.A., 2008. Whistles characteristics and repertoire of wild bottlenose dolphins in Sardinia Island, Italy. Talk 16 ème Conférence Internationale sur les Cétacés en Méditerranée, Nice France, 15 November 2008.

29. Bunke, M., Díaz López, B., Shirai, J.A.B., 2008. The role of bottlenose dolphins in a coastal ecosystem assessed using mass-balanced models. Poster 22<sup>nd</sup> Annual Conference of the European Cetacean Society, Egmond aan Zee, The Netherlands, 10-12 March 2008.

30. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2008. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.

31. Castel, C., Díaz López, B., Shirai, J.A.B., 2008. Environmental & anthropogenic variables influencing bottlenose dolphin presence in a marine fin fish farm. Poster 22<sup>nd</sup> Annual Conference of the European Cetacean Society, Egmond aan Zee, The Netherlands, 10-12 March 2008.

32. Troncone, R., Díaz López, B., Shirai, J.A.B., 2008. Trial of acoustics deterrents for prevention of bottlenose dolphin depredation on gillnets. Poster 22<sup>nd</sup> Annual Conference of the European Cetacean Society, Egmond aan Zee, The Netherlands, 10-12 March 2008.

## Curriculum vitae Mr. Bruno Díaz López

33. Díaz López, B, 2007. Human activities and bottlenose dolphins' social structure. Poster 21<sup>nd</sup> Annual Conference of the European Cetacean Society, San Sebastian, Spain, April 2007.
34. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2007. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.
35. Díaz López, B. & Bernal Shirai, J.A., 2006. "Diurnal & Nocturnal behaviour of bottlenose dolphin groups with emphasis on foraging activity on the north-eastern coast of Sardinia (Italy)". Poster 20<sup>th</sup> Annual Conference of the European Cetacean Society, Gdynia, Poland, April 2007.
36. Underhill K, Diaz Lopez B & Shirai, JAB, 2006. Boat traffic effects on the diving behaviour of bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy. Poster 20<sup>th</sup> Annual Conference of the European Cetacean Society, Gdynia, Poland, April 2007.
37. Shirai, JAB., Díaz López, B., Méndez Fernández, P., Bilbao Prieto, A. & Díaz da Silva, J.I., 2006. Analysis of diving behaviour of a solitary male bottlenose dolphin in the inshore waters of Galicia (Spain). Poster 20<sup>th</sup> Annual Conference of the European Cetacean Society, Gdynia, Poland, April 2007.
38. Fortuna M, Bearzi, G., Bedocchi D., Bortolotto A., Butti C., Corsolini S., Cozzi, B., Díaz López B., et al., 2006. Italy. Progress report on cetacean research. *International Whale Commission IWC C/Progress Report Italy*.
39. Díaz López, B., 2005. A survey of anti-bottlenose dolphin control at marine fish farm. Talk presented at the "6<sup>th</sup> Conference of the Italian Cetacean Society". November. Comune di Sperlonga, Italy.
40. Díaz López, B. & Bernal Shiray, J.A., 2005. Analysis of diving behaviour on bottlenose dolphins studied in the inshore waters of Sardinia. Talk "6<sup>th</sup> Conference of the Italian Cetacean Society". November. Comune di Sperlonga, Italy.
41. Polo, F; Díaz López, B.; Marini, L. & Brovelli, M., 2002. Fast ferries influence on the bottlenose dolphin presence and social structure in waters of North-eastern Sardinia. Poster 16<sup>th</sup> Annual

## Curriculum vitae Mr. Bruno Díaz López

Conference European Cetacean Society. Liege 2002.

42. Díaz López, B.; Marini, L.; Polo, F. & Brovelli, M., 2002. Photo-identification of bottlenose dolphin in waters of north-eastern Sardinia. Poster 16<sup>th</sup> Annual Conference European Cetacean Society. Liege 2002.

43. Díaz López, B., Polo, F. & Marini, L., 2001. Feeding Behaviour of bottlenose dolphin (*Tursiops truncatus*) along the north-eastern coast of Sardinia. Talk 29<sup>th</sup> Annual Symposium European Association Aquatic Mammals,. Genova 9-12 March 2001.

44. Díaz López, B., Marini, L & Polo, F., 2001. Evolution of a bottlenose dolphins population in the North-Eastern waters of Sardinia (Italy". Poster 15<sup>th</sup> Annual Conference European Cetacean Society. Rome, 6 – 10 May 2001.

45. Díaz López, B., Marini, L., Polo, F & Brovelli, M., 2001. Etologia del tursiope, *Tursiops truncatus* (Montagu, 1821), lungo la costa nord-orientale della Sardegna. Talk 5<sup>th</sup> Conference of the Italian Cetacean Society. 6 – 9 December. Monte Argentario (GR), Italy.

46. Díaz López, B, Marini, L, Polo, F & Brovelli M, 2001. Influenza dei traghetti veloci sulla presenza e la struttura sociale del tursiope, *Tursiops truncatus* (Montagu, 1821), nelle acque della Sardegna. Poster 5<sup>th</sup> Conference of the Italian Cetacean Society. 6 – 9 December. Monte Argentario (GR), Italy.

47. Díaz López, B, Marini, L, Polo, F & Brovelli, M., 2001. Fotoidentificazione di tursiope, *Tursiops truncatus* (Montagu, 1821), presenti nelle acque della costa Nord.orientale della Sardegna. Poster 5<sup>th</sup> Conference of the Italian Cetacean Society. 6 – 9 December. Monte Argentario (GR), Italy.

48. Arcangelli, A., Caltavuturo, G., Chiota, D., Díaz López, B., Marini, L., Nannarelli, S.& Tringalli, M., 1999. " Progetto Tursiope: primi risultati del progetto nazionale di studio sulle popolazioni di *Tursiops truncatus* nelle acque italiane" – Talk 4<sup>th</sup> Conference of the Italian Cetacean Society. Museo civico di storia naturale di Milano, November 1999. Centro Studi Cetacei, Italy.

49. Mussi, B., Miragliuolo, A., Battaglia, M., Díaz López, B., Zampetti, C., Chiota, D & Valerio, L.,

## Curriculum vitae Mr. Bruno Díaz López

1999. Residenza stagionale di globicefalo (*Globicephala melas*) nell'Archipelago Pontino, Tirreno Centro Meridionale – Talk 4<sup>th</sup> Conference of the Italian Cetacean Society. Museo civico di storia naturale di Milano, November 1999. Centro Studi Cetacei, Italy.

50. Mussi, B., Miragliuolo, A., Monzini, E., Díaz López, B & Battaglia, M., 1999. Sito di alimentazione di balenottera comune (*Balaenoptera physalus*) nelle acque costiere di Ischia – Talk 4<sup>th</sup> Conference of the Italian Cetacean Society. Museo civico di storia naturale di Milano, November 1999. Centro Studi Cetacei, Italy.

### SUPERVISION OF POSTGRADUATE, GRADUATE AND UNDERGRADUATE STUDENTS

1. Wynne, F, 2014. Distribution and habitat use in two populations of bottlenose dolphins, *Tursiops truncatus*, from north-east Sardinia and north-west Spain. MSc Wildlife Conservation, University of Chester, UK.
2. Pech, C, 2014. The impact of a shellfish farm on the distribution and group size of Bottlenose Dolphins (*Tursiops truncatus*) in Galicia, Spain. Bachelor's Science thesis, University of Natural Resources and Life Science, Vienna, Austria.
3. Schuette, M, 2014. Ooliths-based analysis of the diet of common dolphin, *Delphinus delphis*, in Galician waters. Science project in Biological sciences, Leibniz University Hannover
4. Collalto, M, 2013. Temporal dynamic simulation of the impacts of fisheries on bottlenose dolphins (*Tursiops truncatus*) along the north-eastern coast of Sardinia. Master's degree Thesis in Biology, University of Padova, Italy.
5. Schoos, J, 2013. Signature whistle production and characteristics in resident bottlenose dolphins in Sardinia, Italy. Master's degree Thesis in Biology, University of Copenhagen, Denmark.
6. Luo, J, 2013. Presence of bottlenose dolphins in relation with a marine fin fish farm in Sardinia, Italy. Science project in Biological Sciences, Beloit college, Wisconsin, USA.

## Curriculum vitae Mr. Bruno Díaz López

7. Rush, S, 2013. Individual ranging patterns of *Tursiops truncatus* to examine partitioning of habitat use within Golfo Aranci, Sardinia. Bachelor Science in Marine Biology, Plymouth University, UK.
8. Van Oven, A, 2013. Anthropogenic-induced behavioural changes of bottlenose dolphins (*Tursiops truncatus*) along the north-eastern coast of Sardinia (Italy) Science project in Environmental Sciences, van Hall Larenstein Institute of Leeuwarden, the Netherlands.
9. De Heus, L, 2013. Whistle production rates and characteristics in a resident community of bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy. Master's degree Thesis in Biology, Wageningen University (WUR), the Netherlands.
10. Huisman, A, 2013. Respiratory patterns of bottlenose dolphins (*Tursiops truncatus*) along the northeastern coast of Sardinia (Italy) Science project in Environmental Sciences, van Hall Larenstein Institute of Leeuwarden, the Netherlands.
11. Piazza C, 2013. Use of home range and habitat preferences by resident bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy. Master's degree Thesis in Biology, University of Turin, Italy.
12. Goede L, 2013. Use of home by resident bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy. Science project in Environmental Sciences, van Hall Larenstein Institute of Leeuwarden, the Netherlands.
13. Serra Elias, 2013. Whistle production rates in a resident community of bottlenose dolphins (*Tursiops truncatus*) in Sardinia. Master's degree Thesis in Biology, Universidad Autónoma de Barcelona, Italy.
14. Slivar K, 2013. Use of home range and habitat preferentes of bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy. Master's degree Thesis in Biology, University of Bodenkultur Wien, Vienna, Austria.
15. Virginie Scanga, 2012. Contribution à l'étude des caractéristiques des sifflements d'une population sauvage de Grands Dauphins (*Tursiops truncatus*) dans le Nord de la Sardaigne, Italie.

## Curriculum vitae Mr. Bruno Díaz López

Master's degree Thesis in Veterinary. University of Claude-Bernard-Lyon I, France.

16. Niki Karagkouni, 2011. Spatio-temporal distribution of resident bottlenose dolphins in the north-eastern Sardinia in relationship with human activities. Master Science in Environmental sciences, Wageningen University, The Netherlands.

17. Catalina Angel Yunda, 2011. Spatio-temporal distribution of resident bottlenose dolphins in the north-eastern Sardinia in relationship with human activities. Master Science in Environmental sciences Wageningen University, The Netherlands.

18. Anita Leonbruni, 2011. Anthropogenic-induced behavioural changes of bottlenose dolphins (*Tursiops truncatus*) in Sardinia. Bachelor of Science in Biology, Università di Torino, Italy.

19. Axelle Cruder, 2011. Influence of experimental boat approaches on the diving behaviour of bottlenose dolphins (*Tursiops truncatus*). Master of Science in Applied Ecology and Ethology, University Jean Monnet, Saint-Etienne, France.

20. Thom Ewes, 2011. Anthropogenic-induced changes in respiratory behaviour of Common Bottlenose Dolphins (*Tursiops truncatus*) off Sardinia, Italy. Bachelor of Science in Biology, Radboud University Nijmegen, The Netherlands.

21. Selma Bajraktarevic, 2010. Acoustic communication and associated behaviour of the common bottlenose dolphins (*Tursiops truncatus*) in Aranci bay, Sardinia. Master's degree Thesis in Marine Biology, University of Lund, Sweden.

22. Virginia Sciacca, 2010. Whistle characteristics of free-ranging bottlenose dolphins. Bachelor's degree Thesis in Marine Biology, University of Messina, Italy.

23. Federica Pavarino, 2010. Anthropogenic induced behavioural changes of bottlenose dolphins (*Tursiops truncatus*) in Sardinia, Italy. Bachelor's degree Thesis in Biology, University of Turin, Italy.

24. Francesca Fabiano, 2010. Fotoidentificazione del tursiope nel Golfo di Alghero, Sardegna.

## Curriculum vitae Mr. Bruno Díaz López

Master's degree Thesis in Biology, University of Sassari, Sardinia, Italy.

25. Selly Rabino, 2010. Distribuzione del tursiope nella costa nordovest della Sardegna.

Master's degree Thesis in Biology, University of Sassari, Sardinia, Italy.

26. Sarah Miller, 2009. Trial of an acoustic harassment device for prevention of bottlenose dolphin (*Tursiops truncatus*) bycatch. Thesis project in Marine Biology and Oceanography. University de Pierre et Marie Curie (Paris VI), Paris, France.

27. Szilvi Cseke, 2009. Characteristics of Whistles from Resident Bottlenose Dolphins (*Tursiops truncatus*) in northeast Sardinia, Italy. Student Research Project, University of Bremen, Germany.

28. Claudia Casas, 2009. Informe de práctica profesional en biología. University Zulia, Maracaibo, Venezuela.

29. Michela Biello, 2009. Relazione tra inquinamento acustico e produzione sonora del tursiope nella costa nororientale della Sardegna. Thesis project in Biology. University of Bologna, Italy.

30. Stefania Klayn, 2009. Bottlenose dolphin distribution and presence during winter months in Sardinia. Thesis project in Marine Biology. European Institute of Marine Studies (Institut Universitaire Européen de la Mer = IUEM), Brest, France.

31. Sara Mirasole 2008. Influence of noise pollution on dolphins communication. Bachelor degree thesis in Environmental Sciences. University of Padua, Italy.

32. Cairstie Grassie 2008. Influence of marine traffic on bottlenose dolphin behaviour. Master's degree thesis in Marine biology. University of Edinburgh, Scotland.

33. Courtney Patson 2007. Bottlenose dolphin vocalizations. Bachelor degree thesis in Marine Biology. Cornell Institute, New York, USA.

34. Mandy Bunke 2007. Role of bottlenose dolphins in Ecosystem influenced by aquaculture.

## Curriculum vitae Mr. Bruno Díaz López

Master's degree thesis in Marine biology. University of Aberdeen, Scotland.

35. Rosella Troncote 2007. Interacción entre delfines y redes de enmalle en la isla de Cerdeña (Italia). Master's thesis in marine biology. International University of Barcelona, Spain.

36. Clara Castel Renieblas 2007. Relación entre delfines y acuicultura en la isla de Cerdeña (Italia). Master's degree thesis in Marine biology and Aquaculture (DEA). University of Barcelona. Spain.

37. Francesca Marotta 2007. Relazione tra l'inquinamento acustico e la presenza di delfini nella costa nord-orientale della Sardegna (Italia). Bachelor degree thesis in Marine Biology. University of Tor Vergata, Rome, Italy.

38. Verena Peschko 2007. Characterization of bottlenose dolphins' burst-pulsed sounds in Sardinia Island. Diploma thesis in Zoology. University of Kiel, Germany.

39. Alberto Bilbao Prieto 2007. Presencia y parámetros respiratorios de un ejemplar de delfín mular solitario. DEA, Master's degree thesis in Marine Biology. University of Santiago de Compostela, Spain.

40. Kristina Neef 2007. Characterization and analysis of bottlenose dolphins' whistles in Sardinia Island. Diploma thesis in Biological Sciences. University of Kiel. Germany.

41. Naomi Stolwijk 2007. Ecological factors influencing bottlenose dolphin presence during winter months. Diploma thesis in Environmental Sciences. Hogeschool Van Hall Larestein. Nederland.

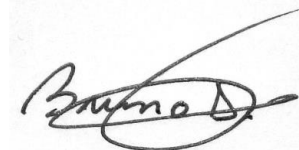
42. Kari Underhill 2006. Boat traffic effects on the diving behaviour of bottlenose dolphins (*Tursiops truncatus*) in Sardinia (Italy). Master's degree thesis in Marine Mammals. University of Bangor, Wales.

43. Miriam Fanigliulo 2006. Social signal production in groups of free ranging bottlenose dolphins (*Tursiops truncatus*) over changes in group size. Bachelor degree thesis in Environmental Biology. University of Applied Science, Bremen, Germany.



## Curriculum vitae Mr. Bruno Díaz López

44. Yvonne Dartsch 2006. Analysis of social sounds produced by free ranging bottlenose dolphins (*Tursiops truncatus*) over changes in behaviour. Bachelor degree thesis in Environmental Biology. University of Applied Science, Bremen, Germany.
45. Federica Gelosa 2006. Analisi del comportamento diurno a livello di gruppo e individuale di *Tursiops truncatus* nelle acque della Sardegna nord-orientale. Master's degree thesis in Environmental Sciences. University La Sapienza, Rome, Italy.
46. Roberta Tandoi 2006. Suoni emessi dai tursiopi nella costa nororientale della Sardegna. Master's degree thesis in Biology. University of Pavia, Italy.
47. Valentina Lai 2006. Impatto delle imbarcazione nella presenza di delfini in Sardegna. Bachelor degree thesis in Biological Sciences. University of Milan, Italy.
48. Eleonora Latini 2006. Inquinamento acustico e delfini nella Sardegna nord-orientale. Master's degree thesis in Biology. University La Sapienza, Rome, Italy.
49. Pablo Arechavala López 2005. Impacto de un vivero de acuicultura en la fauna ictica en Cerdeña, Italia. Science project in Environmental Sciences. University of Alicante, Spain.
48. Roberta Testa 2003. Presenza del tursiope nella costa nororientale della Sardegna. Master's degree thesis in Biology. University La Sapienza, Rome, Italy.
51. Manuela Brovelli. 2002. Distribuzione del tursiope nella costa nororientale della Sardegna. Master's degree thesis in Biology. University Roma Tre, Rome, Italy.



Bruno Díaz López

O Grove, Galicia, Spain  
30th December 2015