

## **Ana Cristina Delaunay Caperta**

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### **Academic qualifications**

- PhD in Biology: Instituto Superior de Agronomia, Universidade Técnica de Lisboa, Portugal, 2003.
- MSc in Plant Production – Plant Breeding, Instituto Superior de Agronomia, Universidade Técnica de Lisboa, Portugal, 1996.
- Post-Grad. Plant Biodiversity and Conservation: Mediterranean Agronomic Institute of Chania, Greece, 1996.
- Graduation in Agronomic Engineering: Instituto Superior de Agronomia, Universidade Técnica de Lisboa, Portugal, 1993.

### **Teaching Experience**

- Lectures: Instituto Superior de Agronomia, Universidade Técnica de Lisboa, Portugal. Disciplines: Botany, Plant Biology, Plant Development and Functional Genomics, 2009-present.
- Auxiliar Professor: Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal. Graduation in Biology - Disciplines: Botany, Genetics, Cell Biology; Master of Developmental Biology - Disciplines: Cell Biology, Polyploidy and Speciation, Advanced Molecular and Cell Biology, 2003-present.
- Assistant Professor: Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal. Disciplines: Botany, Cell Biology, 2001-2003.
- Professional Trainer: “Hygiene and Security at Work”, Nova Etapa, Formação e Consultoria, Lisboa, Portugal, 2007-2009.
- Professional Trainer: “Gardening and Green Spaces”, Nova Etapa, Formação e Consultoria, Lisboa, Portugal, 2000 and 2005-2006.
- Professional Trainer: “Gardening and Green Spaces”, Santa Casa da Misericórdia de Almada, Portugal, 1997-2000.

### **Supervising Experience**

#### **Degrees**

- Ana Sofia Róis, ongoing. PhD student. Centro de Botânica Aplicada à Agricultura (CBAA, ISA). Co-supervision of Dr. Timothy Sharbel, Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Alemanha.
- Ana Lúcia Cortinhas, 2012. MSc in Biodiversity: Conservation and Evolution, University of Valência. Co-supervision of Prof. Miguel Guara Requena, Universidade de Valência, Spain. <http://hdl.handle.net/10400.5/5074>
- Sérgio Martins, ongoing. MSc student (CBAA, ISA). Master in Forestry Engineering, Natural Resources and Management of Natural Resources (ISA). Co-supervision of Arch. Pedro Arsénio (ISA).
- André Silva, ongoing. MSc student (CBAA, ISA). Master in Landscape Architecture. Co-supervision of Arch. Pedro Arsénio (ISA).

- João Matias Rato, 2012. Graduation in Biology. Co-supervision of Dr<sup>a</sup> Sofia Pereira (ISA).
- Mariana Silva, ongoing. Graduation thesis internship. Co-supervision of Prof<sup>a</sup>. Generosa Teixeira, Faculdade de Farmácia (UL).
- Vânia Neves, 2009 (BII 2008/FCT). Graduation thesis (CBAA, ISA). <http://hdl.handle.net/10400.5/3526>.
- Diego Almeida, 2008. Graduation in Biotechnological Engineering. Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal.
- Marisa Rosa, 2006. Graduation thesis in Agronomic Engineering (CBAA,ISA). Co-orientação com a Prof<sup>a</sup> Wanda Viegas.
- Ana Sofia Róis, 2005. Graduation thesis in Biology. Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal.

### Interships

- Flávio Sádio, ongoing, (CBAA, ISA). Co-supervision Lic. Ana Sofia Róis (CBAA,ISA).
- Rita Kayseller, ongoing, (CBAA,ISA). Co-supervision Eng<sup>a</sup> Dalila Espírito-Santo (CBAA,ISA).
- Eliana Sousa, ongoing (CBAA,ISA). Co-supervision Eng<sup>a</sup> Dalila Espírito-Santo (CBAA,ISA).
- Ana Rita Pina, ongoing (CBAA,ISA). Co-supervision Eng<sup>a</sup> Dalila Espírito-Santo (CBAA,ISA).
- Lúcia Gomes, 2012 (CBAA,ISA). <http://hdl.handle.net/10400.5/4839>
- Rita Jorge, 2012 (CBAA,ISA). Co-supervision of Prof<sup>a</sup>. Generosa Teixeira, Faculdade de Farmácia (UL). <http://hdl.handle.net/10400.5/4838>
- Mariana Silva, 2012 (CBAA,ISA). Co-supervision of Prof<sup>a</sup>. Generosa Teixeira, Faculdade de Farmácia (UL). <http://hdl.handle.net/10400.5/4840>
- Sérgio Martins, 2011 (CBAA, ISA). Co-supervision of Prof<sup>a</sup>. Generosa Teixeira, Faculdade de Farmácia (UL). <http://hdl.handle.net/10400.5/3852>
- João Rato, 2011 (CBAA, ISA). <http://hdl.handle.net/10400.5/3851>
- Diogo Coelho, 2011 (CBAA,ISA).
- Heike Sprenger, 2011, PT/2010/90 (IAESTE Programme), (CBAA, ISA).
- Ana Lúcia Cortinhas, 2010 (CBAA, ISA).
- Vanessa Mendonça, 2010, BII 2009/FCT (CBAA,ISA). <http://hdl.handle.net/10400.5/3525>
- Vânia Neves, 2009, BII 2008/FCT (CBAA, ISA). <http://hdl.handle.net/10400.5/3526>.

### Research Positions

- Auxiliary Researcher, ISA-UTL (Programa Ciência 2008), 2009 - present.
- Postdoctoral Fellow (FCT grant SFRH/BPD/26442/2005): Centro de Botânica Aplicada à Agricultura, Instituto Superior de Agronomia, Portugal, 2007-09. Laboratory: Prof. Wanda Viegas.
- Postdoctoral Fellow (FCT grant SFRH/BPD/11191/2002): Centro de Botânica Aplicada à Agricultura, Instituto Superior de Agronomia, 2003-06. Laboratory: Prof. Wanda Viegas.
- PhD Fellowship: Centro de Botânica Aplicada à Agricultura, Instituto Superior de Agronomia, 1999-2001. Laboratory: Prof. Wanda Viegas.
- Grant: Mediterranean Agronomic Institute of Chania, Greece, May 1996.
- Master Fellowship: Fundação Oriente, 1994-1995.

## Research Area

### Plant Cytogenetics & Epigenetics, Reproduction of Crop Plants and Wild

#### Relatives

- Chromosome structure and genome analysis of crop plants and their wild relatives.
- Reproduction of crop and wild species (rye, sea lavenders, *Arabidopsis*).
- Influence of abiotic stresses in vegetative and reproductive development (rye, sea lavender).
- Inventory of wild flora in populations under anthropic pressure and in situ and ex situ conservation.

#### Selected Publications

- Róis AS, Teixeira G, Sharbel TF, Fuchs J, Martins S, Espírito Santo D, Caperta AD (2012). Male fertility versus sterility, cytotype, and DNA quantitative variation in seed production in diploid and tetraploid sea lavenders (*Limonium* sp., Plumbaginaceae) reveal diversity in reproduction modes. *Sexual Plant Reproduction* 25(4):305-318. <http://link.springer.com/article/10.1007%2Fs00497-012-0199-y#page-1>
- Costa JC, Neto C, Aguiar C, Capelo J, Espírito-Santo D, Honrado J, Pinto-Gomes C, Sequeira M., Monteiro-Henriques T, Sequeira M, Lousã M, Lopes MC, Arsénio P, Jardim R, Alves P, Antunes JC, Pereira MD, Silva V, Ribeiro S, Gaspar N, Alves HN, Meireles C, Caraça R, Pereira EP, Martins M, Bingre P, Vila-Viçosa C, Mendes P., Canas R.Q, Ferreira RP, Bellu A, Almeida JD, Caperta A, Vasconcelos T, Geraldés M, Almeida D, Gutierrez F, Pinto JR, Mesquita S (2012). Plant communities of vascular plants of Portugal (Continental, Azores and Madeira). *Global Geobotany*, 2:1-180. <http://hdl.handle.net/10174/7457>
- Costa JC, Neto C, Monteiro-Henriques T, Arsénio P, Portela-Pereira E, Caperta A, Lousã M, Izco J (2010). Syntaxonomic novelties on salt marshes from west Iberian Peninsula. *Colloques Phytosociologiques* (in press).
- Pereira HS, Barão A, Caperta A, Rocha J, Viegas W, Delgado M (2009). Rye Bs disclose ancestral sequences with a potential role in gametophyte chromatid segregation. *Molecular Biology and Evolution*, 26(8):1683-1697. doi:10.1093/molbev/msp082. <http://mbe.oxfordjournals.org/content/26/8/1683.full.pdf>
- Vandewoestijne S, Róis AS, Caperta A, Baguette M, Tyteca D (2009). Effects of individual and population parameter on reproductive success in three sexually deceptive orchid species. *Plant Biology*, 11(3):454-63. DOI 10.1111/j.1438-8677.2008.00125. <http://hdl.handle.net/10400.5/2852>
- Caperta A, Rosa M, Delgado M, Karimi D, Demidov D, Viegas W, Houben A (2008). Distribution patterns of phosphorylated Thr 3 and Thr 32 of histone H3 in mitosis and meiosis of plants. *Cytogenetic and Genome Research* 122:73-79. DOI 10.1159/000151319 <https://www.repository.utl.pt/bitstream/10400.5/2850/1/REP-6->

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terns%20of%20phosphorylated%20Thr%203.pdf

- Caperta AD, Neves N, Viegas W, Pikaard C, Preuss S (2007). Relationship between transcription, silver staining and organization of nucleolus organizers in *Secale cereale*. *Protoplasma* 232:55-59. DOI 10.1007/s00709-007-0277-4.  
<http://hdl.handle.net/10400.5/2847>
- Carchilan M, Delgado M, Ribeiro T, Costa-Nunes P, Caperta A, Morais-Cecílio L, Jones RN, Viegas W, Houben A. (2007). Transcriptionally active heterochromatin in rye B chromosomes. *Plant Cell* 19(6):1738-49. DOI: 10.1105/tpc.106.046946.  
<http://www.plantcell.org/content/19/6/1738.long>
- Houben A, Demidov D, Caperta AD, Karimi R, Vlasenko L, Agueci F (2007). Phosphorylation of histone H3 in plants - a dynamic affair. *Biochimica et Biophysica Acta* 1769: 308-315. DOI:10.1016/j.bbaexp.2007.01.002  
<http://www.sciencedirect.com/science/article/pii/S0167478107000073>
- Caperta AD, Delgado M, Ressureição F, Meister A, Jones N, Viegas W, Houben A (2006) Polyploidization of rye cells induced by colchicine is concentration dependent and associated with the formation of new tubulin containing structures. *Protoplasma* 227:147-153. DOI:10.1007/s00709-005-0137-z.  
<http://link.springer.com/article/10.1007/s00709-005-0137-z>
- Neves N, Delgado M, Silva M, Caperta AD, Morais-Cecílio L, Viegas W (2005). Ribosomal DNA heterochromatin in plants. *Cytogenetic and Genome Research* 109:104-111. DOI:10.1159/000082388  
<https://www.repository.utl.pt/bitstream/10400.5/3523/1/REP-Caperta-2005%20Ribosomal%20chromatin%20in%20plants.pdf>
- Delgado M, Caperta AD, Ribeiro T, Viegas W, Jones RN, Morais-Cecílio L (2004). Different number of rye B chromosomes induce identical compaction changes in distinct A chromosome domains. *Cytogenetic and Genome Research* 106(2-4):320-4. DOI: 10.1159/000079306 <http://hdl.handle.net/10400.5/3524>
- Viegas W, Neves N, Caperta A, Silva M, Morais-Cecílio L (2002). Nucleolar Dominance: a David and Goliath chromatin imprinting process. *Current Genomics*, 3, 563-576.  
<http://hdl.handle.net/10400.5/2402>
- Caperta AD, Neves N, Morais-Cecílio L, Malhó R, Viegas W (2002). Genome restructuring in rye affects the expression, organization and disposition of homologous rDNA loci. *Journal of Cell Science*, 115(14), 2839-2846.  
<http://jcs.biologists.org/cgi/reprint/115/14/2839>