

CURRICULUM VITAE

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LECTURER OF PLANT PHYSIOLOGY**

FACULTY OF BIOLOGY UNIVERSITY OF ATHENS

ATHENS 2014

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Father name: Nicolaos

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Date of birth: 1953

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EDUCATION - CAREER

1971 : High school certificate.

1971-1975 : Student at the Faculty of Biology, University of Athens.

1975 : Degree in Biology.

1986 : Ph. D. degree in Biological Sciences.

1975-1988 : Research assistant at the Institute of General Botany, Department of Biology, University of Athens.

1988- : Lecturer of the Faculty of Biology, University of Athens.

Languages : Greek, English, French, Italian.

A. WORK IN EDUCATION

- I.** Teaching undergraduate courses and practicals on Plant Physiology, Plant Metabolism and Plant Ecophysiology.
- II.** Supervision of 41 diploma dissertations of undergraduate students.
- III.** Teaching postgraduate courses on Adaptation Mechanisms of Mediterranean Plants to PhD students.
- IV.** Member of 3 Thesis Advisory Committees and 5 Thesis Examination Committees.

B. WORK IN RESEARCH

I. Doctoral Dissertation

Meletiou-Christou M.S. Lipid metabolism in the seedlings of *Citrullus lanatus* (cv. Sugar baby). Institute of General Botany, Department of Biology, University of Athens.

II. List of Publications in International Journals

1. Diamantoglou S. und **M.S. Meletiou-Christou**. Das jahresperiodische Verhalten des Rohfetts und der Fettsäuren in Rinden und Blättern von *Ceratonia siliqua* L. Z.Pflanzenphysiol. 85, 95-101, 1977.
2. Diamantoglou S. und **M.S. Meletiou-Christou**. Kohlenhydratgehalte und osmotische Verhältnisse bei Blättern und Rinden von *Ceratonia siliqua* L. und *Quercus coccifera* im Jahregang: Flora, 167, 472-479, 1978.
3. Diamantoglou S. und **M.S. Meletiou-Christou**. Das jahresperiodische Verhalten des Rohfetts und der Fettsäuren in Rinden und Blättern von *Pistacia lentiscus*, *Pistacia terebinthus* und *Pistacia vera* Z. Pflanzenphysiol. 93, 219-228, 1979.
4. Diamantoglou S. und **M.S. Meletiou-Christou**. Kohlenhydratgehalte und osmotische Verhältnisse bei Blättern und Rinden von *Pistacia lentiscus*, *Pistacia terebinthus* und *Pistacia vera* im Jahregang. Flora, 169, 168-176, 1980.
5. **Meletiou-Christou M.S.**, S. Diamantoglou and K. Mitrakos. Analysis of lipids of *Citrullus lanatus* (cv. Sugar baby) during seed germination and seedling growth. J. Exp. Bot. 41, 1455-1460, 1990.
6. Rhizopoulou S., **M.S. Meletiou-Christou** and S. Diamantoglou. Water relations for sun and shade leaves of four Mediterranean evergreen sclerophylls. J. Exp. Bot. 42, 627-635, 1991.
7. **Meletiou-Christou M.S.**, S. Rhizopoulou and S. Diamantoglou. Seasonal changes in carbohydrates, lipids and fatty acids of two Mediterranean dimorphic phrygana species. Biochem. Physiol. Pflanzen, 188, 247-259, 1992.
8. **Meletiou-Christou M.S.**, S. Rhizopoulou and S. Diamantoglou. Seasonal changes of carbohydrates, lipids and nitrogen content in sun and shade leaves from four Mediterranean evergreen sclerophylls. Env. Exp. Bot., 34, 129-140, 1994.
9. **Meletiou - Christou M.S.**, G.P. Banilas and S. Diamantoglou. Seasonal trends in energy contents and storage substances of the Mediterranean species *Dittrichia viscosa* and *Thymelaea tartonraira*. Env. Exp. Bot., 39, 21-32, 1998.
10. **Meletiou - Christou M.S.**, S. Diamantoglou and K.Mitrakos†. Changes in membrane lipids of *Citrullus lanatus* during seed germination and seedling growth. Biologia Gallo-hellenica, Supplementum Vol. 26, 23-34, 2000.
11. **Meletiou - Christou M.S.**, G.P. Banilas, C. Bardis and S. Rhizopoulou. Plant Biomonitoring: Impact of urban environment on seasonal dynamics of storage substances and chlorophylls of oleander. Global NEST Journal 13, 395-404, 2011.
12. **Meletiou - Christou M.S.** and S. Rhizopoulou. Constraints of photosynthetic performance and water status of four evergreen species co-occurring under field conditions. Botanical studies 53 (3) 325-334, 2012.

Top five publications

- **Meletiou-Christou M.S.**, S. Diamantoglou and K. Mitrakos. Analysis of lipids of *Citrullus lanatus* (cv. Sugar baby) during seed germination and seedling growth. J. Exp. Bot. 41, 1455-1460, 1990.
- Rhizopoulou S., **M.S. Meletiou-Christou** and S. Diamantoglou. Water relations for sun and shade leaves of four Mediterranean evergreen sclerophylls. J. Exp. Bot. 42, 627-635, 1991.
- **Meletiou-Christou M.S.**, S. Rhizopoulou and S. Diamantoglou. Seasonal changes of carbohydrates, lipids and nitrogen content in sun and shade leaves from four Mediterranean evergreen sclerophylls. Env. Exp. Bot., 34, 129-140, 1994.
- **Meletiou - Christou M.S.**, G.P. Banilas and S. Diamantoglou. Seasonal trends in energy contents and storage substances of the Mediterranean species *Dittrichia viscosa* and *Thymelaea tartonraira*. Env. Exp. Bot., 39, 21-32, 1998.
- **Meletiou - Christou M.S.** and S. Rhizopoulou. Constraints of photosynthetic performance and water status of four evergreen species co-occurring under field conditions. Botanical studies 53 (3) 325-334, 2012.

More than 100 citations. (H-index 1)

III. Chapters in Book

Plant Physiology: 5th ed. (L. Taiz & E. Zeiger eds, Sinauer), translated into Greek, 1st Greek ed. (C.A. Thanos ed). Translation of Chapter 11. Respiration and lipid metabolism and of Appendix 3. Hormone biosynthetic pathways. Editing of Chapter 13. Secondary metabolites and plant defense. Utopia Publishing, Athens, 2012.

IV. List of Publications in Proceedings of International Scientific Congresses

1. Diamantoglou S. and **M.S. Meletiou-Christou**: Annual changes in carbohydrates on bark and leaves of *Ceratonia siliqua*. Portug. Acta Biol. (A) XVI (1-4), 197-206, 1980.
2. Diamantoglou S. and **M.S. Meletiou-Christou**: Annual changes in lipids and their fatty acid composition in bark and leaves of *Ceratonia siliqua*. Portug. Acta Biol. (A) XVI (1-4), 207-216, 1980.
3. Diamantoglou S. and **M.S. Meletiou-Christou**: Annual carbohydrates and lipid storage in vegetative parts of Macchie plants. 2nd Congress of the Federation of European Societies of Plant Physiology. Spain, Santiago de Compostela, July, 1980.
4. Diamantoglou S. and **M.S. Meletiou-Christou**. Changes of storage lipids, fatty acids and carbohydrates in vegetative parts of Mediterranean evergreen sclerophylls during one year. Pages 121-127, in components of productivity of Mediterranean-climate regions, basic and applied aspects (Margaris N.S. and Mooney H.A. eds). Dr W. Junk Publishers. The Hague, 1981.
5. **Meletiou-Christou M.S.**, S. Diamantoglou and K. Mitrakos. Phospholipid metabolism in the cotyledons of watermelon seedlings. 4th Congress of the Federation of European Societies of Plant Physiology. Strasbourg, France, 1984.
6. **Meletiou-Christou M.S.**, S. Rhizopoulou and S. Diamantoglou. Phospholipids and phospholipid fatty acid composition in the leaves of Mediterranean evergreen

- sclerophylls. 5th Congress of the Federation of European Societies of Plant Physiology. Hamburg, Federal Republic of Germany, 1986.
7. Rhizopoulou S., S. Diamantoglou and **M.S. Meletiou-Christou**. Comparative proline measurements in the leaves of Mediterranean evergreen sclerophylls. 5th Congress of the Federation of European Societies of Plant Physiology. Hamburg, Federal Republic of Germany, 1986.
 8. **Meletiou-Christou M.S.**, S. Rhizopoulou and S. Diamantoglou. The biochemistry of sun and shade leaves of evergreen sclerophylls. 7th Congress of the Federation of European Societies of Plant Physiology. Umea, Sweden. *Physiol. Plant.* 79, A55, 1990.
 9. Rhizopoulou S., **M.S. Meletiou-Christou** and S. Diamantoglou. The physiology of sun and shade leaves of evergreen sclerophylls. 7th Congress of the Federation of European Societies of Plant Physiology. Umea, Sweden. *Physiol. Plant.* 79, A55, 1990.
 10. Bardis C., G.P. Banilas and **M.S. Meletiou-Christou**. Metabolic response of *Nerium oleander* to air pollution pp. 269-272. In: Progress in Botanical Research, Proceedings of the 1st Balkan Botanical Congress, I. Tsekos and M. Moustakas Eds. Kluwer Academic Publishers, Dordrecht, 1998.
 11. Rhizopoulou S., G. Psaras and **M.S. Meletiou-Christou**. Physiological and anatomical features of leaves from two evergreen sclerophylls grown in the city of Athens. European Ecological Congress. Halkidiki, Greece, 1999.
 12. **Meletiou-Christou M.S.** and S. Rhizopoulou. Photosynthetic response of *Laurus nobilis* L. and *Nerium oleander* L. to air pollution. MEDECOS 2000 Ninth International Conference on Mediterranean-Type Ecosystems. Stellenbosch, South Africa, 2000.
 13. **Meletiou - Christou M.S.**, E. Antypa and K. Spala. Plant responses to air pollution, membrane lipid modifications. 13th Congress of the Federation of European Societies of Plant Physiology. Crete, Greece, 2002.
 14. **Meletiou - Christou M.S.**, Nassios K, Rhizopoulou S. A study on the growth rate of Mediterranean plants exposed to the air pollution of the city of Athens, pp. 1-10. In: SBOMED *The Mediterranean city facing climate change*, CD of proceedings, 2008.

V. List of Publications in Proceedings of National Scientific Congresses

1. **Meletiou-Christou M.S.** and S. Diamantoglou. Seasonal changes of storage substances and energy content in *Dittrichia viscosa* and *Thymelaea tartonraira*. Proceedings of the 5th scientific congress of the Hellenic Botanical Society, pp. 327-332, Delphi, 1994.
2. **Meletiou-Christou M.S.**, G. Banilas and S. Diamantoglou. Seasonal changes of nitrogen content and the relations of foliar nitrogen with foliar carbohydrates of *Dittrichia viscosa* and *Thymelaea tartonraira*. Proceedings of the 6th scientific congress of the Hellenic Botanical Society, pp. 327-331, Paralimni-Cyprus, 1996.
3. Spala K., G. Banilas and **M.S. Meletiou-Christou**. Analysis of lipids of the leaves of four plant species grown in the city of Athens. Proceedings of the 8th scientific congress of the Hellenic Botanical Society, pp. 380-383, Patras Greece, 2000.
4. Antypa E. and **M.S. Meletiou-Christou**. Impact of air pollution on membrane lipids of the leaves of *Nerium oleander* L. Proceedings of the 9th scientific congress of the Hellenic Botanical Society, pp. 41-46, Kefalonia Greece, 2002.

5. Spala K. and **M.S. Meletiou-Christou**. Analysis of membrane lipids during the growth of the leaves of *Laurus nobilis* L. Proceedings of the 9th scientific congress of the Hellenic Botanical Society, pp 308-312, Kefalonia Greece, 2002.
6. Rhizopoulou S, D Anglos, A Argiropoulos, K Letsios, D Gkikas, S Economou, E Antypa, F Kolisis, K Fotakis, K Methenitis, S Koinis, **M.S. Meletiou-Christou**. Color biosensors: an interdisciplinary research of flower signal. Proceedings of the 5th Congress for Education, Research and Technology, pp. 1-7, Metsovo, Greece, 2007.
7. Bravakos P., A. Pantazidou, **M.S. Meletiou-Christou** and E. Dasenakis. Cyanobacteria study in thermal spring environment. 4th Congress "Current research lines in Ecology". Volos, Greece, 2008.
8. Katsigianni A. and **M.S. Meletiou-Christou**. Effect of copper on the leaf growth of young carob plants. Proceedings of the 30th Scientific Conference of Hellenic Association for Biological Sciences, pp. 206-207, Thessaloniki, 2008.
9. Fostieri C. and **M.S. Meletiou-Christou**. Effects of copper on fatty acid composition in the leaves of young carob plants. 11th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 168), Athens, Greece, 2009.
10. Plexida K., P. Delipetrou, **M.S. Meletiou-Christou** and K. Georgiou. Seed biology of the endemic plant of Cyprus *Bosea cypria* Bois.ex Hook.f. 11th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 136), Athens, Greece, 2009.
11. Sarantari A.M. and **M.S. Meletiou-Christou**. The effects of excess copper and mineral nutrition on *Ceratonia siliqua* (carob tree) young plants. Analysis of chlorophylls, phenolic compounds and ascorbic acid. 11th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 147), Athens, Greece, 2009.
12. Velianiti A., K. Koutsovoulou, A. Kaltsis, **M.S. Meletiou-Christou** and C.A. Thanos. Contribution to plant conservation of Mt. Hymettus-plant position recording and germination of species of the family Orchidaceae. 11th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 47), Athens, Greece, 2009.
13. Koukos D.J., S. Rhizopoulou, **M.S. Meletiou-Christou** and K. Fotakis. Study of water status and microsculpture of plant tissues. 12th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 96), Rethymnon, Greece, 2011.
14. **Meletiou-Christou M.S.** and S. Rhizopoulou. Interaction of temperature and light regime on chemical composition of oleander leaves: chlorophyll, lipid, phenolic and ascorbic acid content. 12th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 130), Rethymnon, Greece, 2011.
15. Peppa A., K. Koutsovoulou, **M.S. Meletiou-Christou** and C.A. Thanos. In vitro asymbiotic seed germination of 14 Orchidaceae species from Mt Hymettus. 12th scientific congress of the Hellenic Botanical Society, (Book of abstracts p. 154), Rethymnon, Greece, 2011.
16. Koukos D.J., S. Rhizopoulou, **M.S. Meletiou-Christou** and K. Fotakis. Leaf microsculpture of Mediterranean plants. 13th scientific congress of the Hellenic Botanical Society, Thessaloniki, Greece, 2013.

VI. Participant in Scientific Congresses

1. International symposium on photosynthesis, primary production and biomass utilization in Mediterranean -type ecosystems. Kassandra, Greece, 1980.
2. 2nd Symposium of the Hellenic Botanical Society, Athens 1982.
3. 4th Congress of the Federation of European Societies of Plant Physiology. Strasbourg, France, 1984.

4. 5th Congress of the Federation of European Societies of Plant Physiology. Hamburg, Federal Republic of Germany, 1986.
5. Annual meeting of the Society for Experimental Biology. Birmingham, U.K., 1991.
6. MEDECOS VI, VI International conference on Mediterranean climate ecosystems. Maleme (Crete), Greece, 1991.
7. 5th Scientific Congress of the Hellenic Botanical Society. Delphi, 1994.
8. 6th Scientific Congress of the Hellenic Botanical Society. Paralimni-Cyprus, 1996.
9. 1st Balkan Botanical Congress. Thessaloniki, Greece, 1997.
10. European Ecological Congress. Halkidiki, Greece, 1999.
11. MEDECOS 2000 Ninth International Conference on Mediterranean-Type Ecosystems. Stellenbosch, South Africa, 2000.
12. 8th scientific congress of the Hellenic Botanical Society, Patras Greece, 2000.
13. 9th scientific congress of the Hellenic Botanical Society, Kefalonia Greece, 2002.
14. 13th Congress of the Federation of European Societies of Plant Physiology. Crete, Greece, 2002.
15. SB08MED International Conference "The Mediterranean City facing climate change: Innovation, investment, governance for a low-carbon city". Athens, Greece, 2008
16. 11th scientific congress of the Hellenic Botanical Society, Athens Greece, 2009.

VII. Research collaboration –Short term visits

1. University of Beilefeld, Germany in the frame of:
Joint Research Project between Germany and Greece, sponsored by Ministries of Technology and Education of both Countries.
2. University of Lancaster UK, in the frame of:
Joint Research Project between UK and Greece, sponsored by Ministries of Technology and Education of Greece and the British Council.

VIII. Reviewer for Scientific journals

- ◆ Environmental and Experimental Botany (1 paper).
- ◆ Acta Biologica Cracoviensia (1 paper).
- ◆ Tree Physiology (1 paper).
- ◆ Journal of Biological Research (1 paper).

IX. Current Research Programms and Interestings

Plant physiology. Storage lipid metabolism in germinating seeds. Metabolic responses to abiotic stress, abiotic stress impact on plant storage substances, and secondary metabolites. Investigation of Mediterranean plants grown under field conditions and of young plants from laboratory cultures. Utilization of chromatographic methods, TLC and gas chromatography (GC).

X. Scientific projects

- 1996 “*Adaptation of plant species to the urban environment of Athens and their contribution to the improvement of its quality*”. Sponsored by the Ministry of Environment, Greece. (Univ. of Athens and Univ. of Thessaloniki)
The location of the project was Athens Metropolitan Area. The results of the study were implemented for biomonitoring of air pollution and the use of plants as filters of pollution. The results were presented in conferences. Copies of the technical reports were submitted to the relevant organisations
- 1997 “*Toward increasing productivity in a Mediterranean evergreen community: a secondary growth period*”. Joint Research Project between Germany and Greece, sponsored by Ministries of Technology and Education of both Countries:
- 1998 “*Toward preventing the Catacombs (tombs of early-Christians) on Milos island in Aegean from biodeterioration: the role of plants and root apices*”. Joint Research Project between UK and Greece, sponsored by Ministries of Technology and Education of Greece and the British Council.
- 1999 “*Soluble nitrogen concentration in plants growing in the urban environment of Athens*”. Sponsored by the University of Athens.
- 2000 “*Analysis of polar and neutral lipids and fatty acid composition of the leaves of Mediterranean plants, growing in the urban environment of the city of Athens*”. Sponsored by the University of Athens.
- 2002 “*A study of the role of antioxidants in plants growing in the urban environment of the city of Athens*”. Sponsored by the University of Athens.
- 2004 “*Investigation of the resistance mechanisms of Ceratonia siliqua L. to air pollution. Determination of chlorophylls, ascorbic acid and total phenolics*”.
- 2006 “*Investigation of the mechanisms of resistance of Ceratonia siliqua L. to abiotic stress. Analysis of membrane lipids*” Sponsored by the University of Athens.
- 2008 “*Interaction of copper concentration and mineral nutrient deficiency on the growth of Ceratonia siliqua L. Analysis of membrane lipids. Determination of chlorophylls, ascorbic acid and total phenolics*” Sponsored by the University of Athens.
- 2011 “*Water status and microsculpturing of plant tissues*” HERAKLITOS II (2011-2013).
- 2011 “*Ecophysiological study of Nerium oleander*” Sponsored by the University of Athens.

XI. Member of the Scientific Societies

1. Hellenic Botanical Society.
2. Federation of European Societies of Plant Physiology (FESPP).
3. Hellenic Society of Biological Sciences.