

**PUBBLICAZIONI DOTTORANDI XXXV CICLO (2019-2022)**  
**“BIODIVERSITÀ, AGRICOLTURA E AMBIENTE”**  
**PAPERS BY PhD STUDENTS XXXV CYCLE (2019-2022)**  
**“BIODIVERSITY, AGRICULTURE AND ENVIRONMENT”**

**Dellino Maria (20-11-23) (ORCID 0000-0002-4598-0829)**

- Mnasri, S.R., Debbabi, O.S., Amar, F.B., **Dellino, M.**, Montemurro, C., Miazzi, M.M. (2023). Exploring the quality and nutritional profiles of monovarietal oils from millennial olive trees in Tunisia. *European Food Research and Technology* 249(11), 2807-2820. DOI: 10.1007/s00217-023-04329-3
- Fanelli, V., **Dellino, M.**, Taranto, F., (...), De Vita, P., Montemurro, C. (2023). Varietal identification in pasta through an SSR-based approach: a case study. *Journal of the Science of Food and Agriculture* 103(11), 5521-5528. DOI: 10.1002/jsfa.12631
- Delvento, C., Arcieri, F., Marcotrigiano, A.R., (...), **Dellino, M.**, (...), Ricciardi, L., Pavan, S. (2023). High-density linkage mapping and genetic dissection of resistance to broomrape (*Orobanche crenata* Forsk.) in pea (*Pisum sativum* L.). *Frontiers in Plant Science* 14, 1216297. DOI: 10.3389/fpls.2023.1216297
- Maggiolini, F.A.M., Sanders, A.D., Shew, C.J., (...), **Dellino, M.**, (...), Korbel, J.O., Antonacci, F. (2020). Single-cell strand sequencing of a macaque genome reveals multiple nested inversions and breakpoint reuse during primate evolution. *Genome Research*, 30(11), 1680-1693. DOI: 10.1101/gr.265322.120

**Delvento Chiara (20-11-23) (ORCID 0000-0002-3690-2407)**

- **Delvento, C.**, Arcieri, F., Marcotrigiano, A.R., (...), Ricciardi, L., Pavan, S. (2023). High-density linkage mapping and genetic dissection of resistance to broomrape (*Orobanche crenata* Forsk.) in pea (*Pisum sativum* L.). *Frontiers in Plant Science* 14, 1216297. DOI: 10.3389/fpls.2023.1216297
- Lotti, C., Minervini, A.P., **Delvento, C.**, (...), Ricciardi, L., Pavan, S. (2023). Detection and distribution of two dominant alleles associated with the sweet kernel phenotype in almond cultivated germplasm. *Frontiers in Plant Science* 14, 1171195. DOI: 10.3389/fpls.2023.1171195
- **Delvento, C.**, Pavan, S., Miazzi, M.M., (...), Ricciardi, L., Lotti, C. (2022) Genotyping-by-Sequencing Defines Genetic Structure within the “Acquaviva” Red Onion Landrace. *Plants* 11(18) DOI: 10.3390/plants11182388.
- Pavan, S., **Delvento, C.**, Nazzicari, N., (...), Ricciardi, L., Annicchiarico, P. (2022) Merging genotyping-by-sequencing data from two ex situ collections provides insights on the pea evolutionary history. *Horticulture Research* 9. DOI: 10.1093/hr/uhab062
- Pavan, S., **Delvento, C.**, Mazzeo, R., (...), Ricciardi, L., Lotti, C. (2021) Almond diversity and homozygosity define structure, kinship, inbreeding, and linkage disequilibrium in

cultivated germplasm, and reveal genomic associations with nut and seed weight. Horticulture Research 8(1), 15. DOI: 10.1038/s41438-020-00447-1

- Pavan, S., Vergine, M., Nicolì, F., (...), **Delvento C.**, De Bellis, L., Luvisi, A. (2021). Screening of Olive Biodiversity Defines Genotypes Potentially Resistant to *Xylella fastidiosa*. Front. Plant Sci. 12, 723879. DOI:10.3389/fpls.2021.723879
- Zuluaga, D.L., Lioi, L., **Delvento, C.**, Pavan, S., Sonnante, G. (2021) Genotyping-by-sequencing in *Vigna unguiculata* landraces and its utility for assessing taxonomic relationships. Plants 10(3), 509. DOI: 10.3390/plants10030509
- Pavan, S., **Delvento, C.**, Ricciardi, L., Lotti, C., Ciani, E., D'Agostino, N. (2020). Recommendations for Choosing the Genotyping Method and Best Practices for Quality Control in Crop Genome-Wide Association Studies. Frontiers in Genetics 11, 447. DOI: 10.3389/fgene.2020.00447
- Kumar, D., Kushwaha, S., **Delvento, C.**, Liatukas, Ž., Vivekanand, V., Svensson, J.T., Henriksson, T., Brazauskas, G., Chawade, A. (2020). Affordable phenotyping of winter wheat under field and controlled conditions for drought tolerance. Agronomy 10(6), 882. DOI: 10.3390/agronomy10060882
- Ciani, E., Mastrangelo, S., Da Silva, A., (...), **Delvento, C.**, (...), Cubric-Curik, V., Lenstra, J.A. (2020). On the origin of European sheep as revealed by the diversity of the Balkan breeds and by optimizing population-genetic analysis tools. Genetics Selection Evolution, 52(1), 25. DOI: 10.1186/s12711-020-00545-7

### **Gimenez Guadalupe (20-11-23)**

- **Gimenez, G.**, Corriero, G., Beqiraj, S., Lazaj, L., Lazic, T., Longo, C., Mercurio, M., Nonnis Marzano, C., Zuccaro, M., Zuna, V., Pierri, C. (2022) Characterization of the Coralligenous Formations from the Marine Protected Area of Karaburun-Sazan, Albania. Journal of Marine Science and Engineering, 10(10), art. no. 1458. DOI: 10.3390/jmse10101458.
- Cardone, F., Corriero, G., Longo, C., Pierri, C., **Gimenez, G.**, Gravina, M.F., Giangrande, A., Lisco, S., Moretti, M., De Giosa, F., Mercurio, M., Marzano, C.N. (2022) A system of marine animal bioconstructions in the mesophotic zone along the Southeastern Italian coast. Frontiers in Marine Science, 9, art. no. 948836. DOI: 10.3389/fmars.2022.948836

### **Guglielmi Marco Vito (20-11-23) (ORCID 0000-0003-1296-861X)**

- **Guglielmi, M.V.**, Semeraro, D., Ricci, P., (...), Mastrototaro, F., Scillitani, G. (2023). First data on the effect of Aluminium intake in *Chamelea gallina* of exploited stocks in the Southern Adriatic Sea (Central Mediterranean Sea). Regional Studies in Marine Science 63, 103025. DOI: 10.1016/j.rsma.2023.103025
- **Guglielmi, M.V.**, Semeraro, D., Mentino, D., (...), Mastrototaro, F., Scillitani, G. (2023). Season- and sex-related variation in mucin secretions of the striped Venus clam, *Chamelea*

*gallina* (Linnaeus, 1758) (Bivalvia: Veneridae). European Zoological Journal 90(1), 252-269. DOI: 10.1080/24750263.2023.2190343

- **Guglielmi, M.V.**, Semeraro, D., Mentino, D., (...), Mastrodonato, M., Scillitani, G. (2022). Effects of Aluminum in the striped venus clam, *Chamelea gallina*. 2022 IEEE International Workshop on Metrology for the Sea; Learning to Measure Sea Health Parameters, MetroSea 2022 - Proceedings 581-586. DOI: 10.1109/MetroSea55331.2022.9950929
- Semeraro, D., Mastrodonato, M., Mercurio, M., **Guglielmi, M.V.**, Corriero, G., Marzano, C.N. (2022). Reproduction of reef-building scleractinians (Cnidaria, Anthozoa) from the Apulian coral reef: Preliminary data and relationship with temperature. 2022 IEEE International Workshop on Metrology for the Sea; Learning to Measure Sea Health Parameters, MetroSea 2022 - Proceedings 329-333. DOI: 10.1109/MetroSea55331.2022.9950993
- Carlucci R., Cipriano G., Fanizza C., (...), **Guglielmi M.V.**, Scillitani G., Mentino D. (2022). Glycopatterns of the foregut in the striped dolphin *Stenella coeruleoalba*, Meyen 1833 from the Mediterranean Sea. Marine Mammal Science. 38(1), 190-211. DOI: 10.1111/mms.12852. DOI: 10.1111/mms.12852

#### **Laterza Ilaria (20-11-23) (ORCID 0000-0001-8755-5620)**

- Tamburini, G., **Laterza, I.**, Nardi, D., (...), Pozzebon, A., Marini, L. (2023). Effect of landscape composition on the invasive pest *Halyomorpha halys* in fruit orchards. Agriculture, Ecosystems and Environment 353, 108530. DOI: 10.1016/j.agee.2023.108530
- **Laterza, I.**, Dioli, P., Tamburini, G. (2023). Semi-natural habitats support populations of stink bug pests in agricultural landscapes. Agriculture, Ecosystems and Environment 342, 108223. DOI: 10.1016/j.agee.2022.108223
- **Laterza, I.**, Tamburini, G., Panzarino, O., (...), Dioli, P., de Lillo, E. (2022). The first annotated checklist of Pentatomoidea (Hemiptera: Heteroptera) fauna of Alta Murgia National Park (Apulia region, Southern Italy). Zootaxa 5219(5), 401-420. DOI: 10.11646/zootaxa.5219.5.1.
- **Laterza, I.**, Dioli, P. (2020). New record of *Ellipsocoris kalashiani* Carapezza 2009 in Europe, found in Apulia, Italy (Heteroptera: Scutelleridae). Journal of Entomological and Acarological Research 52(3), 50-53. DOI: 10.4081/JEAR.2020.9529
- Kokiçi, H., **Laterza, I.**, Bari, G., Meneghini, M., Addante, R., Tamburini, G., de Lillo, E. (2020). New bioassays reveal susceptibility of stone-fruit rootstocks to *Capnodis tenebrionis* larvae. Bulletin of Insectology 73(2), 257-263.
- Kokici H., **Laterza I.**, Bari G., Meneghini M., Addante R., de Lillo E. (2020). A preliminary report on the effects of the rootstocks on the postembryonic development of *Capnodis tenebrionis* on semi-artificial substrates. Bulletin of Insectology 73(1), 95-101.
- Dalbon, V.A., Acevedo J.P.M., Santana A.E.G., Goulart H.F., **Laterza I.**, Riffel A., Negrisoli A. Lohr JrB., Porcelli, F. (2019). Early detection and preventive control of *Rhynchophorus ferrugineus* (Coleoptera Curculionidae): a quarantine pest in Brazil. Arabian

**Loconsole Danilo (20-11-23) (ORCID 0000-0002-3853-1259)**

- **Loconsole, D.**, Cristiano, G., De Lucia, B. (2023). Biostimulant Application, under Reduced Nutrient Supply, Enhances Quality and Sustainability of Ornamental Containerized Transplant. *Agronomy* 13(3), 765. DOI: 10.3390/agronomy13030765
- **Loconsole, D.**, Sdao, A.E., Cristiano, G., De Lucia, B. (2023). Different Responses to Adventitious Rhizogenesis under Indole-3-Butyric Acid and Seaweed Extracts in Ornamental's Cuttings: First Results in *Photinia x fraseri* 'Red Robin'. *Agriculture* 13(3), 513. DOI: 10.3390/agriculture13030513
- **Loconsole, D.**, Cristiano, G., De Lucia, B. (2022). Improving Aerial and Root Quality Traits of Two Landscaping Shrubs Stem Cuttings by Applying a Commercial Brown Seaweed Extract. *Horticulturae* 8(9), 806. DOI: 10.3390/horticulturae8090806
- **Loconsole D.**, Cristiano G., De Lucia B. (2022). Image Analysis of Adventitious Root Quality in Wild Sage and Glossy Abelia Cuttings after Application of Different Indole-3-Butyric Acid Concentrations. *Plants*, 11(3), 290; DOI: [10.3390/plants11030290](https://doi.org/10.3390/plants11030290)
- **Loconsole, D.**, Santamaria, P. (2021) UV lighting in horticulture: A sustainable tool for improving production quality and food safety. *Horticulturae* 7(1), 1-13. DOI: 10.3390/horticulturae7010009
- **Loconsole, D.**, Murillo-Amador, B., Cristiano, G., De Lucia, B. (2019). Halophyte common ice plants: A future solution to arable land salinization. *Sustainability* 11(21), 6076. DOI: 10.3390/su11216076
- Leoni, B., **Loconsole, D.**, Cristiano, G., De Lucia, B. (2019). Comparison between chemical fertilization and integrated nutrient management: Yield, Quality, N, and P Contents in *Dendranthema grandiflorum* (Ramat.) Kitam. Cultivars. *Agronomy* 9(4), 202. DOI: 10.3390/agronomy9040202
- **Loconsole, D.**, Cocetta, G., Santoro, P., Ferrante, A. (2019). Optimization of LED lighting and quality evaluation of Romaine lettuce grown in an innovative indoor cultivation system. *Sustainability* 11(3), 841. DOI: 10.3390/su11030841
- **Loconsole, D.**, Cristiano, G., De Lucia, B. (2019). Glassworts: From wild salt marsh species to sustainable edible crops. *Agriculture* 9(1), 14. DOI: 10.3390/agriculture9010014

**Losacco Daniela (20-11-23)**

- Campanale, C., **Losacco, D.**, Triozzi, M., Massarelli, C., Uricchio, V.F. (2022). An Overall Perspective for the Study of Emerging Contaminants in Karst Aquifers. *Resources* 11(11), 105. DOI: 0.3390/resources11110105

- **Losacco, D.**, Campanale, C., Tumolo, M., (...), Massarelli, C., Uricchio, V.F. (2022). Evaluating the Influence of Nitrogen Fertilizers and Biochar on *Brassica oleracea* L. var. *botrytis* by the Use of Fourier Transform Infrared (FTIR) Spectroscopy. Sustainability 14(19), 11985. DOI: 10.3390/su141911985
- Tumolo, M., Volpe, A., Leone, N., **Losacco D.**, (...), Uricchio, V.F., Ancona, V. (2022) Enhanced Natural Attenuation of Groundwater Cr (VI) Pollution Using Electron Donors: Yeast Extract vs. Polyhydroxybutyrate. International Journal of Environmental Research and Public Health 19(15), 9622. DOI: 10.3390/ijerph19159622
- **Losacco, D.**, Tumolo, M., Cotugno, P., (...), Uricchio, V.F., Ancona, V. (2022). Use of Biochar to Improve the Sustainable Crop Production of Cauliflower (*Brassica oleracea* L.). Plants 11(9), 1182. DOI: 10.3390/plants11091182.
- Massarelli, C., **Losacco, D.**, Tumolo, M., Campanale, C., Uricchio, V.F. (2021). Protection of Water Resources from Agriculture Pollution: An Integrated Methodological Approach for the Nitrates Directive 91–676-EEC Implementation. Int. J. Environ. Res. Public Health 18(24), 13323; DOI: 10.3390/ijerph182413323
- Campanale, C., Massarelli, C., **Losacco, D.**, (...), Triozzi, M., Uricchio, V.F. (2021). The monitoring of pesticides in water matrices and the analytical criticalities: A review. TrAC - Trends in Analytical Chemistry 144, 116423. DOI: 10.1016/j.trac.2021.116423.
- **Losacco, D.**, Ancona, V., De Paola, D., (...), Gatto, A., Uricchio, V.F. (2021). Development of ecological strategies for the recovery of the main nitrogen agricultural pollutants: A review on environmental sustainability in agroecosystems. Sustainability 13(13), 7163. DOI: 10.3390/su13137163.
- Tumolo, M., Ancona, V., De Paola, D., **Losacco, D.**, Campanale, C., Massarelli, C., Uricchio, V.F. (2020). Chromium pollution in European water, sources, health risk, and remediation strategies: An overview. International Journal of Environmental Research and Public Health, 17 (15), 5438, pp. 1-25. DOI: 10.3390/ijerph17155438

### **Mauro Roberto (20-11-23)**

- Mauro, R., Scarascia-Mugnozza, G. (2023). Experimental Tests on Solvent Solutions for the Recycling of Coated Polypropylene in Food Packaging. Applied Sciences 13(12), 7116. DOI: 10.3390/app13127116

### **Palmisano Donato (20-11-23)**

- Mercuri, L., **Palmisano, D.**, L'Abbate, A., (...), Maggiolini, F.A.M., Antonacci, F. (2023). A high-resolution map of small-scale inversions in the gibbon genome. Genome research 32(10), 1941–1951. DOI: 10.1101/gr.276960.122
- Maggiolini F.A.M., Sanders A.D., Shew C.J., (...), **Palmisano D.**, (...), Korbel J.O., Antonacci F. (2020) Single-cell strand sequencing of a macaque genome reveals multiple nested inversions and breakpoint reuse during primate evolution. Genome Research 30(11), 1680-1693. DOI: 10.1101/gr.265322.120

- Vitale, O., Preste, R., **Palmisano, D.**, Attimonelli, M. (2020). A data and text mining pipeline to annotate human mitochondrial variants with functional and clinical information. *Molecular Genetics and Genomic Medicine* 8(2), e1085. DOI: 10.1002/mgg3.1085

### **Picciotti Ugo (inizio triennio nel 2020) (20-11-23) (ORCID 0000-0002-7009-6891)**

- Mincuzzi, A., **Picciotti, U.**, Sanzani, S.M., (...), Ragni, M., Ippolito, A. (2023). Postharvest Diseases of Pomegranate: Alternative Control Means and a Spiderweb Effect. *Journal of Fungi* 9(8), 808. DOI: 10.3390/jof9080808.
- **Picciotti, U.**, Valverde-Urrea, M., Garganese, F., (...), Porcelli, F., Lopez-Llorca, L.V. (2023). Brindley's Glands Volatilome of the Predator *Zelus renardii* Interacting with *Xylella* Vectors. *Insects* 14(6), 520. DOI: 10.3390/insects14060520.
- **Picciotti, U.**, Araujo Dalbon, V., Ciancio, A., (...), Garganese, F., Porcelli, F. (2023). "Ectomosphere": Insects and Microorganism Interactions. *Microorganisms*. Open Access. Volume 11(2), 440. DOI: 10.3390/microorganisms11020440.
- Lahbib, N., **Picciotti, U.**, Boukhris-Bouhachem, S., Garganese, F., Porcelli, F. (2022) Morphs of *Philaenus* species, candidate *Xylella fastidiosa* vectors. *Bulletin of Insectology* 75(2), 197-209.
- Lahbib, N., **Picciotti, U.**, Sefa, V., (...), Porcelli, F., Garganese, F. (2022). *Zelus renardii* Roaming in Southern Italy. *Insects*. 13(2), 158. DOI: 10.3390/insects13020158.
- **Picciotti, U.**, Lahbib, N., Sefa, V., Porcelli, F., Garganese, F. (2021). Aphrophoridae role in *Xylella fastidiosa* subsp. *pauca* ST53 invasion in southern Italy. *Pathogens*. 10(8), 1035. DOI: 10.3390/pathogens10081035.
- **Picciotti, U.**, Massaro, A., Galiano, A., Garganese, F. (2021). Cheese Fortification: Review and Possible Improvements. *Food Reviews International*. 38(S1), 474-500 DOI: 10.1080/87559129.2021.1874411.
- Liccardo, A., Fierro, A., Garganese, F., **Picciotti, U.**, Porcelli, F. (2020). A biological control model to manage the vector and the infection of *Xylella fastidiosa* on olive trees. *PLoS ONE*. 15(4), e0232363. DOI: 10.1371/journal.pone.0232363.
- Lozano-Soria, A., **Picciotti, U.**, Lopez-Moya, F., (...), Porcelli, F., Lopez-Llorca, L.V. (2020). Volatile organic compounds from entomopathogenic and nematophagous fungi, repel banana black weevil (*Cosmopolites sordidus*). *Insects*. 11(8), 1-19. DOI: 10.3390/insects11080509.

### **Savino Ilaria (inizio triennio nel 2020) (20-11-23)**

- Campanale, C., **Savino, I.**, Massarelli, C., Uricchio, V.F. (2023). Fourier Transform Infrared Spectroscopy to Assess the Degree of Alteration of Artificially Aged and Environmentally Weathered Microplastics. *Polymers* 15(4), 911. DOI: 10.3390/polym15040911

- Campanale, C., **Savino, I.**, Massarelli, C., Uricchio, V.F. (2022). Assessment of metals associated with virgin pre-production and freshwater microplastics collected by an Italian river. *NanoImpact* 28, 100438. DOI: 10.1016/j.impact.2022.100438
- **Savino, I.**, Campanale, C., Trotti, P., (...), Corriero, G., Uricchio, V.F. (2022) Effects and Impacts of Different Oxidative Digestion Treatments on Virgin and Aged Microplastic Particles. *Polymers* 14(10). DOI: 10.3390/polym14101958
- Campanale, C., Galafassi, S., **Savino, I.**, (...), Volta, P., Uricchio, V.F. (2022). Microplastics pollution in the terrestrial environments: Poorly known diffuse sources and implications for plants. *Science of the Total Environment* 805, 150431. DOI: 10.1016/j.scitotenv.2021.150431.
- Campanale, C., Massarelli, C., Bagnuolo, G., **Savino, I.**, Uricchio, V.F. (2022). The Problem of Microplastics and Regulatory Strategies in Italy. *Handbook of Environmental Chemistry* 112, 255-276. DOI: 10.1007/698\_2019\_419.
- Massarelli, C., Galeone, C., **Savino, I.**, Campanale, C., Uricchio, V.F. (2021). Towards sustainable management of mussel farming through high-resolution images and open source software - the Taranto case study. *Remote Sensing* 13(15), 2985. DOI: 10.3390/rs13152985.

#### **Surano Antony (inizio triennio nel 2020) (20-11-23)**

- **Surano A.**, Abou Kubaa R., Nigro F., Altamura G., Losciale P., Saponari M., Saldarelli P. (2022) Susceptible and resistant olive cultivars show differential physiological response to *Xylella fastidiosa* infections. *Frontiers in Plant Science*, 13, art. no. 968934. DOI: 10.3389/fpls.2022.968934

#### **Tumolo Marina (20-11-23) (ORCID 0000-0001-8182-0454)**

- Tumolo, M., De Paola, D., Uricchio, V.F., Ancona, V. (2023). Biostimulation effect of different amendments on Cr(VI) recovering microbial community. *New Biotechnology* 78, 29-41. DOI: 10.1016/j.nbt.2023.09.007
- **Losacco, D.**, Campanale, C., Tumolo, M., (...), Massarelli, C., Uricchio, V.F. (2022). Evaluating the Influence of Nitrogen Fertilizers and Biochar on *Brassica oleracea* L. var. *botrytis* by the Use of Fourier Transform Infrared (FTIR) Spectroscopy. *Sustainability* 14(19), 11985. DOI: 10.3390/su141911985
- **Tumolo, M.**, Volpe, A., Leone, N., (...), Uricchio, V.F., Ancona, V. (2022) Enhanced Natural Attenuation of Groundwater Cr (VI) Pollution Using Electron Donors: Yeast Extract vs. Polyhydroxybutyrate. *Open Access. International Journal of Environmental Research and Public Health* 19(15) DOI: 10.3390/ijerph19159622
- Losacco, D., **Tumolo, M.**, Cotugno, P., (...), Uricchio, V.F., Ancona, V. (2022). Use of Biochar to Improve the Sustainable Crop Production of Cauliflower (*Brassica oleracea* L.). *Plants* 11(9), 1182. DOI: 10.3390/plants11091182.

- Massarelli, C., Losacco, D., **Tumolo, M.**, Campanale, C., Uricchio, V.F. (2021). Protection of water resources from agriculture pollution: An integrated methodological approach for the nitrates directive 91–676-eeec implementation. *International Journal of Environmental Research and Public Health* 18(24). DOI: 10.3390/ijerph182413323.
- Losacco, D., Ancona, V., De Paola, D., **Tumolo M.**, (...), Gatto, A., Uricchio, V.F. (2021). Development of ecological strategies for the recovery of the main nitrogen agricultural pollutants: A review on environmental sustainability in agroecosystems. *Sustainability* 13(13), 7163. DOI: 10.3390/su13137163.
- **Tumolo, M.**, Ancona, V., De Paola, D., Losacco, D., Campanale, C., Massarelli, C., Uricchio, V.F. (2020). Chromium pollution in European water, sources, health risk, and remediation strategies: An overview. *International Journal of Environmental Research and Public Health* 17(15), 5438, 1-25. DOI: 10.3390/ijerph17155438
- Ancona, V., Campanale, C., **Tumolo, M.**, De Paola, D., Ardito, C., Volpe, A., Uricchio, V.F. (2020). Enhancement of chromium (VI) reduction in microcosms amended with lactate or yeast extract: A laboratory-scale study. *International Journal of Environmental Research and Public Health* 17(3), 704. DOI: 10.3390/ijerph17030704