

Vasiliki Dimou

Professor

Department of Forestry and Management of the Environment and Natural Resources

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Short Biography

Vasiliki Dimou is a Professor at the Department of Forestry and Management of the Environment and Natural Resources, Democritus University of Thrace. Her teaching and research activities focus on forest technology, timber harvesting systems, forest ergonomics, and environmental management

Education

- **PhD (2002)**
Technical University of Dresden, Germany
Department of Forestry, Geology and Hydrology
Thesis: *Multi-criteria evaluation of timber harvesting systems*
- **BSc in Forestry (1996)**
Aristotle University of Thessaloniki
- **BSc in Forestry (1991)**
Technological Educational Institute of Kavala (Drama branch)

Field of Expertise

- Forest Products Harvesting and Forest Ergonomics

Academic Career

- Professor, Democritus University of Thrace (2021–present)
- Assistant Professor, Democritus University of Thrace (2013–2021)
- Lecturer, Democritus University of Thrace (2008–2013)
- Teaching experience in higher education since 1997

Teaching Activity

She teaches undergraduate and postgraduate courses including:

- Forest Products Harvesting
- Wood Structure and Properties
- Chemistry and Chemical Wood Products
- Forest Operations Ergonomics
- Measurement and Classification of Timber
- Ecosystem Restoration
- Statistical Analysis and Sampling

Research Interests

- Timber harvesting systems
- Forest ergonomics and occupational safety
- Workers' exposure to wood dust, noise, and vibrations
- Evaluation of harvesting systems
- Carbon accounting in harvested wood products

Research & Publications

Her research activity includes:

- Publications in international peer-reviewed journals
- Participation in international conferences
- Authoring books and teaching materials

Publications in international peer-reviewed journals

- **Dimou, V.,** Boufidou, E., Kitikidou, K. (2025). Variation in basic density of *Paulownia tomentosa* along axial and radial direction in nurseries in Greece. *International Wood Products Journal*. Vol 16 (2) p. 148-156. DOI: 10.1177/20426445251332422
- **Dimou, V.,** Tioutiountzi, T., Kitikidou, K. (2024). Influence of saw chain type and wood species on the concentration of wood dust in a forestry operation. *Journal of Occupational and Environmental Hygiene*, Vol 21(9), p 638-646. DOI: 10.1080/15459624.2024.2369786.

- **Dimou, V.,** Tioutiountzi, T., Malesios, Ch. (2024). Determining occupational exposure to inhalable wood dust in motor manual felling and processing, *International Journal of Forest Engineering*, DOI: 10.1080/14942119.2024.2336688.
- **Dimou, V.,** Demertzis, K., Kantartzis, A. (2023). Harvesting wind damaged trees: a study of prediction of windthrow damage in mixed-broadleaf stands via a machine learning model., *International Journal of Forest Engineering*., doi.org/10.1080/14942119.2023.2171599
- **Dimou, V.,** Binopoulou, E., Malesios, Ch. (2023). Seasonal variability of large-sized Particulate Matter concentration, *Water, Air, & Soil Pollution*, 233 (10). 419 DOI: 10.1007/s11270-022-05881-6
- **Dimou, V.,** Tsaliki, A., Kitikidou, K. (2022). Radial and longitudinal density variations in *Abies cephalonica* Loud and *Pinus halepensis* Mill. *J. For. Res.*, Vol 34 (3), p 853-863. Doi.org/10.1007/s11676-022-01521-1.
- **Dimou, V.,** Molis, B., Kitikidou, K. (2022). Evaluation of Musculoskeletal Disorders Risks in Forestry. *Work*. Vol. 72 p. 373-383, DOI:10.3233/WOR-213640 IOS Press.
- **Dimou, V.,** Kaziolas, D.N. (2020). Influence of Time of Harvesting on the some Mechanical Properties of *Fagus sylvatica* L. wood as a Construction Material. *J.Eng. Sci. Tech. Rev.* Vol 13 (3) p. 56-60.
- **Dimou, V.,** Malesios, Ch., Chatzikosti, V. (2020). Assessing chainsaw operators' exposure to wood dust during timber harvesting. *SN. Applied Sciences*. DOI: 10.1007/s42452-020-03735-6
- **Dimou, V.,** Malesios, Ch., Pispa, S. (2020). Assessing forestry-related musculoskeletal symptoms in specific body areas. *International Journal of Forest Engineering*. Vol. 31 (3) p. 233-241. DOI: org/10.1080/14942119.2020.1789393.
- **Dimou, V.,** Malesios, Ch., Pispa, S. (2020). Monitoring Self-Reported Musculoskeletal Symptoms in Forestry Operation. *International Journal of Forest Engineering*. Vol. 31 (2) p. 106-113. DOI:10.1080/14942119.2020.1745530.
- **Dimou, V.,** Symeonidou, M. (2019). Evaluating the effectiveness productivity of motor-manual felling with a catalytic chainsaw. *Journal of International Scientific Publications, Materials, Methods & Technologies*. Vol. 13 p. 187-198.
- **Dimou, V.,** Kantartzis, A., Malesios, Ch., Kasampalis, M. (2019). Research of Exhaust Emissions by Chainsaws with the use of a Portable Emission

Measurement System. *International Journal of Forest Engineering*. Vol. 30, (3): p. 228-239. Doi. 10.1080/14942119.2019.1622318.

- **Dimou, V.,** Anezakis, V.D., Demertzis, K., Iliadis, L. (2018). Comparative analysis of exhaust emissions caused by chainsaws with soft computing and statistical approaches. *International Journal of Environmental Science and Technology*. Vol. 15, (7): 2018 p. 1597-1608. DOI 10. 1007/s 13762-017-1555-0.
- **Dimou, V.** (2017). Kolb's experiential learning model: A proposed application in timber harvesting systems. *Pedagogikos Logos*, Issue 1, pp. 79–96.
- **Dimou, V.,** Malivitsi, Zoe. (2015). Strategic decision model for the evaluation of timber harvesting systems. *International Journal of Forest Engineering*. Vol. 26, (2): 2015 p. 146-157. DOI: 10.1080/14942119.2015.1083750 < <http://dx.doi.org/10.1080/14942119.2015.1083750>
- **Dimou, V.,** Milios, E. (2015). Harvest-inflicted wounds on residual trees. *Wood Research*. Vol. 60, (6): 2015 p. 995-1004.
- **Dimou, V.,** Kaziolas, D.N., Zygomas, I., Avtzi, N. (2015). Influence of biotic factors on the mechanical properties of wood, taking into account the time of harvesting. *Wood Material Science & Engineering*. Vol. 12, (3): 2017 p. 140-148. <http://dx.doi.org/10.1080/17480272.2015.1063004>.
- **Dimou, V.** (2015). Noise measurements in wood processing industry workplaces. *Geotechnical Scientific Issues*, Series II, Vol. 24, Issue 1, pp. 57–65.B.
- **Dimou, V.,** Iliadis, L.S., Bougoudis, I. (2014). Computational intelligence modeling and assessment of industrial noise: the case of wood manufacturing. *Engineering Intelligent Systems*. Vol. 22, (3/4): 2014 p. 219-231.
- **Dimou, V.** (2014). Noise Measurement in Timber Industries. *Drvna Industrija*. Vol. 65, (3): 2014 p. 243-249.
- **Dimou, V.** (2012). Harvest-time related blue-stain spread in logs in the Forest of Elatia, Greece. *Wood Research*, Vol 57, (2): p.241-250.
- **Dimou, V.** (2006). Evaluation of the timber harvesting and marketing system under Presidential Decree 126/86. *Dasiki Erevna (Forest Research)*, Issue 20, pp. 11–22.

- **Dimou, V.** (2006). Criteria for the evaluation of timber harvesting systems. *Geotechnical Scientific Issues*, Series II, Vol. 17, Issue 1, pp. 13–23.
- **Dimou, V.** (2005). Occurrence of spiral grain in spruce (*Picea excelsa* Link) logs from the Elatia Forest, Drama, Greece. *Dasiki Erevna (Forest Research)*, Issue 18, pp. 69–76.
- **Dimou, V.** (2004). Social constraints in the implementation of new timber harvesting systems. *Dasiki Erevna (Forest Research)*, Issue 17, pp. 43–54
- **Dimou, V.** 2003. Forstwirtschaft in Nordost-Griechenland. *Forst und Technik* (8): p. 2-4.

Participation in international conferences

- **Dimou, V.,** Kitikidou, K., Radoglou, K. 2024. Calculation of C in harvested woody products of deciduous forest. *Eleventh International Conference on Environmental Management, Engineering, Planning, and Economics (CEMEPE 2024) & SECOTOX Conference*, 17th -20th June, Lefkada (poster), υποδημοσίευση πρακτικών.
- Tioutiountzi, T., **Dimou, V.** 2024. Effect of chainsaw operating parameters and forest species *Fagus sylvatica*, *Quercus petraea* and *Pinus brutia* on the concentration of inhalable wood dust generated during harvesting, felling and shaping operations. *International Conference on Ecology, Agriculture and Forestry* 29th-30th May 2024, Crete (poster).
- **Dimou, V.,** Binopoulou, E., Malesios, Ch. 2024. Measurement and comparison of inhalable dust between peri-urban forest and urban environment. *Journal of Sustainable Development, Culture, Traditions. 1st Open-Air Cities International Conference: Local and Regional Sustainable Development & Urban Reconstruction*, 16-18/02/2024. Vol(3b): DOI: 10.26341/issn.2241-4002-2024-3b-4-T02094.
- **Dimou, V.,** Chatzikosti, V. (2023). Analysis of exposure to inhalable wood dust during timber harvesting operations using chainsaws. *Proceedings of the 21st Panhellenic Forestry Conference*, Loutra Aidipsou, Greece, 22–25 October 2023 22-25/10/2023.
- **Dimou, V.,** Symeonidou, M. 2019. Evaluating the effectiveness productivity of motor-manual felling with a catalytic chainsaw. *21st International Conference, Materials, Methods & Technologies*. Burgas, Bulgaria 1-5 July 2019.
- **Dimou, V.** (2013). Damage caused by felling and extraction of spruce wood. In: *Proceedings of the 16th Panhellenic Forestry Conference*, “Protection and

Management of Greek Forests in a Period of Economic Crisis and the Challenge of Close-to-Nature Forestry”, Thessaloniki, Greece, pp. 566–576.

- **Dimou, V. Dimou, V.** 2012. Strategic Decision Model for the Evaluation of Timber Harvesting Systems as Applied in the Forests. In: *Proceedings of the 12th Special Conference of the Hellenic Operational Research Society and the 9th Meeting on Multicriteria Decision Analysis*, “Decision Support Systems with Multiple Criteria”, Kavala, Greece, pp. 10–13.
- **Dimou, V.** (2012). Methods and tools for tending dense forest stands. *Proceedings of the 2nd Conference on Agricultural Biotechnology*, Agricultural University of Athens, Greece (poster).
- **Dimou, V.** (2009). Occurrence of blue stain development in spruce, pine, and beech logs after harvesting in the Elatia Forest, Drama, Greece. In: *Proceedings of the 14th Panhellenic Forestry Conference*, “Ecological and Socioeconomic Restoration of Fire-Affected Areas – Protection of the Natural Environment”, Patras, Greece, pp. 293–302.
- **Dimou, V.** (2003). Multi-criteria evaluation of timber harvesting systems for forest operations in Northeastern Greece. In: *Proceedings of the 11th Panhellenic Forestry Conference*, “Forest Policy – Coppice Forests – Protection of the Natural Environment”, Ancient Olympia, Greece, pp. 293–302.
- **Dimou, V.** 2000. Bewertung aktueller Holzernteverfahren für die Waldarbeit in Nordost Griechenland. Model zur Bewertung forstlicher Arbeitsverfahren. *Proceedings of the Pan-European Conference "Forest Technology"*, Freisig, Germany.

Authoring books and teaching materials

- **Dimou, V.** (2011). *Measurement and Classification of Roundwood*. University Publications, Democritus University of Thrace, Greece.
- **Dimou, V.** (2010). *Timber Harvesting and Extraction*. Ant. Stamoulis Publications, 247 pp., ISBN: 978-960-6887-31-4. (The book has been used as teaching material in the course “Timber Harvesting” at the Department of Forestry and Management of the Environment and Natural Resources, Democritus University of Thrace, since the academic year 2010–2011.)
- **Dimou, V.** (2008). *Timber Harvesting*. University Publications, Democritus University of Thrace, 179 pp.

(These lecture notes are used as teaching material in the laboratory part of the course “Timber Harvesting” since the academic year 2009–2010.)

- **Dimou, V.** (2008). *Fundamentals of Forest Engineering*. University Publications, Democritus University of Thrace, 60 pp. (These lecture notes are used as teaching material in the course “Forest Engineering” since the academic year 2009–2010.)
- **Dimou, V.** (2019). *Postgraduate Lecture Notes: Conservation and Restoration of Terrestrial Natural Ecosystems*. Available at: <https://eclass.duth.gr/modules/document/?course=OPE02309>
- **Dimou, V.** (2022). *Postgraduate Lecture Notes: Inventory and Monitoring of Forests, Forest Areas and Protected Areas*. Part A': <https://eclass.duth.gr/modules/document/index.php?course=1425306&openDir=/6371907dDR1f> Part B': <https://eclass.duth.gr/modules/document/index.php?course=1425318&openDir=/655b9dc7u3P5>

Research Projects

Participation in projects such as:

- **ForOaks** – Carbon stock monitoring in forest ecosystems
- **PineOptim** – Mediterranean pine forest management
- **LIFE, THALIS, ARCHIMEDES** research programs

Academic Activities

- Reviewer for international journals (MDPI, International Journal of Forest Engineering, etc.)
- Member of scientific associations
- Active participation in national and international conferences

Languages

- German (C2 – Proficient)
- English (B2 – Upper Intermediate)

Contact Information

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