



TAGEM
R&D AND INNOVATION

MEDITERRANEAN FISHERIES RESEARCH,
PRODUCTION AND TRAINING INSTITUTE /
ANTALYA

SEÇİL TÜZÜN DUĞAN, MSc Environmental Engineer

EDUCATION

Assoc. prof

PhD
2018-ongoing
Akdeniz University
Graduate School of Natural and Applied
Sciences - Environmental Engineer

MSc
2006-2009
Dokuz Eylül University
Graduate School of Natural and Applied
Sciences - Environmental Engineer

Bachelor's Degree
2002-2006
Dokuz Eylül University
Environmental Engineer

LANGUAGE
English - YÖKDİL 78,75

CAREER

2011-ongoing Mediterranean Fisheries Research, Production
and Training Institute -Antalya

ABOUT ME

I was born in 1983 in Edirne. In 2006, she graduated from Dokuz University, Faculty of Environmental Engineer.

She continues her doctoral education on water quality modeling in the Department of Environmental Engineering at Akdeniz University.

As of 2011, she started to work in the Department of Ecology and Resource Management at the Mediterranean Fisheries Research, Production and Training Institute with the KPSS assignment.

CONTACT

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Antalya/ TURKEY

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■ PROJECTS

- **Projects Conducted**

- Determining The Effects Of Aquaculture On Water Quality Of Karacaören 2 Dam Lake By Mathematical Modeling (TAGEM/HAYSUD/2018/B/P-03/1)(**leader** 2018-2020).
- Revision of the Monitoring Program in Bivalve Mollusc Production Areas and Capacity Building Project (TAGEM/HAYSUD/G/17/SU/P-03/01) (**researcher** 2017-2019).
- Determination of Phytoplankton Diversity and Distribution in Antalya Bay, Effect of Physicochemical Parameters on Succession (TAGEM/HAYSUD/2017/A11/P-02/3) (**researcher** 2017-2019)
- Technical and Economic Evaluation of Irrigation Water Need with Basin-Based Optimum Crop Pattern (Western Mediterranean Example)(TAGEM/2020/ / /)(**Researcher** 2020- 2022)
- River Water Quality Assessment and Management Using Deterministic Modelling, Water Quality Indices and Statistical Analysis (119Y267 supported by TÜBİTAK-2543 Cooperation Program with Moroccan National Scientific and Technological Research Center) (**Researcher** 2020-2022)

- **Ongoing Projects**

- Identification of Potential Aquaculture Areas in the Seas (TAGEM/HAYSUD/2017/Ü-G/P-01/5) (**researcher** 2020-)
- Evaluation of Sediment Quality in Potential Bivalve Cultivation Areas in Aegean and Southern Marmara Coasts (TAGEM/HAYSUD/2020/./.../..)(**researcher** 2020-)
- Evaluation of the Bivalve Monitoring Program According to the European Commission Regulations (TAGEM/HAYSUD/2022/./.../..)(Executive 2022-)
- Determination of the Microplastic Pollution Level of Some Natural Lakes in the Southern Aegean and Western Mediterranean Regions (TÜBİTAK/2023/./.../..)(Researcher 2023-)
- Innovative and Sustainable Practices in Aquaculture within the Framework of Food Supply Security (TÜBİTAK/2023/./.../..)(Researcher 2023-)

■ PUBLICATIONS

- INTERNATIONAL ARTICLES AND PAPERS

- **Articles Published in International Journals**

- Muhammetoglu A., Akdegirmen O., **Tuzun Dugan S.**, Orhan P., Uslu A. Evaluation of best management practices for identification of critical source areas and control of nonpoint source pollution in a coastal watershed. ((in the evaluation process))
- Uslu A., **Tuzun Dugan S.**, El Hmadi A., Muhammetoglu A. Comparative evaluation of spatiotemporal variations of surface water quality using a regulatory approach, water quality indices, and GIS in the Acisu Creek Watershed, Turkey. (in the evaluation process)
- Muhammetoglu A., Orhan P., Akdegirmen O., **Tuzun Dugan S.**, Muhammetoglu, H. (2023). An integrated modeling approach to assess Best Management Practices (BMPs) for improving stream water quality using the MapShed and WASP8 models”. Water Resour Manage (2023). <https://doi.org/10.1007/s11269-023-03655-1>
- **Tuzun Dugan S.**, Muhammetoglu A., Uslu Aysenur. (2023). A combined approach for the estimation of groundwater leaching potential and environmental impacts of pesticides for agricultural lands, Science of The Total Environment, 2023, <https://doi.org/10.1016/j.scitotenv.2023.165892>.



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- Muhammetoglu A., Akdegirmen O., **Tuzun Dugan S.**, Orhan, P., Kocer M.A.T., Muhammetoglu H. (2022). Assessment of pressures and impacts on water quality of a small Mediterranean stream using an integrated approach”, Desalination and Water Treatment, 2022, 260, 241-252. DOI: <https://doi.org/10.5004/dwt.2022.28606>.
- **Tüzün S** and Sponza DT., 2019. Effect of Increasing Streptomycin Loading Rates on the Removal of Toxicity in Sequential Anaerobic ABR/ Aerobic CSTR Reactor System. Austin Chemical Engineering, May 25, 2019.
- **International Papers, Seminars, etc.**
- **Tuzun Dugan S.**, Muhammetoglu A. (2023). Evaluation of environmental risks of pesticides: Case Study of the Lower Aksu Stream Basin, Turkey” 10th International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE) & SECOTOX Conference, Greece (hybrid), 5-9 June, 2023.
- **Tuzun Dugan S.**, Akdegirmen O., Muhammetoglu A. (2022). Evaluation of water status at Aksu Stream in Antalya, Turkey using WASP8 deterministic water quality model, 3rd IAHR Young Professionals Congress, 29 Nov - 2 Dec 2022, (online)
- **Tuzun Dugan S.**, Uslu A., Orhan P., Muhammetoglu A., Yesiltas M., Kocer M.A.T., Muhammetoglu H. (2022). Evaluation of Aksu Stream water quality under the influence of anthropogenic pollution and climate change, Youth in the forefront: before and after World Water Forum. Online Youth Water Congress: “Emerging water challenges since COVID-19”, Greece, 6-8 April 2022.
- Orhan P., **Tuzun Dugan S.**, Yesiltas M., Kocer M.A.T., Coban H., Muhammetoglu A., Muhammetoglu H (2021). Application of WASP8 Deterministic Water Quality Model to Acisu Creek in Antalya, Turkey, Fifth International Conference on Natural Resources and Sustainable Environmental Management (NRSEM-2021), Turkish Republic of Northern Cyprus, 8-12 November 2021.
- Uslu, A., **Dugan, T. S.**, Yesiltas, M., Kocer, M.A.T., Muhammetoğlu, A., Muhammetoğlu, H. “Evaluation of Water Quality Status at Aksu Stream and Acisu Creek in Antalya Using National Sanitation Foundation Index”, Fifth International Conference on Natural Resources and Sustainable Environmental Management (NRSEM-2021), Turkish Republic of Northern Cyprus, 8-12 November 2021. (oral presentation and full text paper)
- Uslu, A., **Dugan, T. S.**, Yesiltas, M., Kocer, M.A.T., Muhammetoğlu, A., Muhammetoğlu, H. “Evaluation of water quality at Lower Aksu Stream Catchment using a water quality index”, 8th International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2021) and SECOTOX Conference, Thessaloniki, Greece, 20-24 July 2021. (oral presentation and full text paper)
- Orhan P., **Tuzun Dugan S.**, Kocer M.A.T., Muhammetoğlu A., Muhammetoğlu H. (2021). Investigation of pressures and impacts on water pollution of a stream in Antalya River Basin, 8th International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2021) and SECOTOX Conference, Thessaloniki, Greece, 20-24 July 2021.
- **Tuzun, Dugan, S.**, Koçer, M.A.T., 2016. A Preliminary Calibration Study Of Early Morning Dissolved Oxygen Modelling In Carp Ponds. Poster Presentation. FAB 2016: International Symposium on Fisheries and Aquatic Sciences, 3-5 November 2016, Antalya/TURKEY Abstract Book, p.540, ISBN: 978-605-9175-59-3.



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■ NATIONAL ARTICLES AND PAPERS

■ Articles Published in National Journals

- **Tüzün, S.**, Sponza, D.T.,2010. Treatment and toxicity removal of streptomycin in anaerobic curtain reactor. ITU Journal Series E: Water Pollution Control 2010 (1): 3-14.
- Koçer,M.A.T., **Tüzün Duğan, S.**, 2015. Static Models Used to Estimate Environmental Carrying Capacity for Trout Farming in Cages in Lakes and Dams: Sources of Uncertainty and Error, Research Requirements. II. Fishing and Reservoir Management Symposium, 20-22 May 2015,Eğirdir/Isparta.
- Mehmet Ali T. KOÇER, **Seçil TÜZÜN DUĞAN**, Murat YEŞİLTAŞ, Levent ÖZKAN, Gül EYMİRLİ, Ayşen Tuğba UYSAL, Gamze AVCIOĞLU, Gülnur Penbe ÖZDEMİR, Derya EVİN ÇELİK, 2019. Classification of Bivalve Production Areas in Turkey: İzmir Production Areas. Oral Presentation. 20. National Fisheries Symposium, September 26-29, Mersin/TURKEY.

■ International Papers, Seminars, etc.

- Murat Yeşiltaş, Mehmet Ali Turan Koçer, Dinçer Başdemir, Faruk Pak, Özgür Aktaş, İsmail Dal, Meryem Cansu Yeşiltaş, Tufan Koray, Serkan Erkan, **Seçil Tüzün Duğan**, Coşkun Menderes Aydın, Merve Karakuş, Banu Yalım, Yılmaz Emre,2019. Determination of the Antalya Bay Surface Phytoplankton Composition. Poster Presentation. 20. National Fisheries Symposium, September 26-29, Mersin /TURKEY.

■ OTHER PUBLICATIONS

■ Ph.D. Thesis, Master Thesis, Reports, Books etc.

- Anaerobic/aerobic sequential treatment of chloramphenicol and streptomycin antibiotics using anaerobic baffled and aerobic sludge reactors- 2009- Master Thesis

■ Membership, Training, Course, Meeting, Congress, Symposium and Other Activities

■ Provided Trainings/Seminars

- Environmental Impact of Aquaculture (Freshwater Fish and Marine Fish Breeding Training-Ministry-TIKA Cooperation/2017)(Trainer)
- Environmental Impact of Aquaculture (Freshwater Fish and Marine Fish Breeding Training-Ministry-FAO Cooperation/2021)(Trainer)

■ Trainings/Symposiums/Congresses/Workshops and Organizations Involved

- FABA 2016: International Symposium on Fisheries and Aquatic Sciences, 3-5 November 2016, Antalya/TURKEY.
- Experimental Animal Use Certificate Training Course, March 2022, Antalya/TURKEY.
- Experimental Animal Use Certificate Training Course, October 2022, Antalya/TURKEY.
- Experimental Animal Use Certificate Training Course, October 2023, Antalya/TURKEY.

■ National and International Trainings/Courses Taken

- National and International Article Writing Training (TAGEM Distance Education/15.04.2020)
- GIS (TAGEM Distance Education/05.05.2020) Computer Applications in Fishing "R Training" (TAGEM Distance Education/04.05.2020)
- Computer Applications in Fishing "R Training" (TAGEM Distance Education/04.05.2020)