



TRAKYA UNIVERSITY



JOURNAL OF NATURAL SCIENCES

25 Volume

1 Number

April

2024

TRAKYA
UNIVERSITY
JOURNAL OF
NATURAL
SCIENCES

TUJNS

Trakya Univ J Nat Sci
ISSN 2528-9691

Trakya University Journal of Natural Sciences

Volume: 25

Number: 1

April

2024

Trakya Univ J Nat Sci

<http://dergipark.org.tr/trkjnat>

e-mail: tujns@trakya.edu.tr

ISSN 2528-9691

Owner

On behalf of Trakya University Rectorship, Graduate
School of Natural and Applied Sciences
Prof. Dr. Muharrem Tolga SAKALLI

Editor-in-Chief

Prof. Dr. Kadri KIRAN

Editorial Board

| | | | |
|-------------------------|--------------------------------|----------------------|--------------------------------|
| Abdel Hameed A. AWAD | Egypt | İskender KARALTI | Türkiye |
| Albena LAPEVA-GJONOVA | Bulgaria | İpek SÜNTAR | Türkiye |
| Arzu ALTIN YAVUZ | Türkiye (Biostatistics Editor) | Kürşad TÜRKŞEN | Canada |
| Ayşegül ÇERKEZKAYABEKİR | Türkiye (Copyeditor) | Mehmet Bora KAYDAN | Türkiye |
| Bálint MARKÓ | Romania | Melike SAPMAZ METİN | Türkiye |
| Beata ZIMOWSKA | Poland | Mustafa YAMAÇ | Türkiye |
| Belgin SÜSLEYİCİ | Türkiye | Mykyta PEREGRYM | Hungary |
| Boris ASSYOV | Bulgaria | Naime ARSLAN | Türkiye |
| Burak ÖTERLER | Türkiye (Design Editor) | Neveen S.İ. GEWEELY | Egypt |
| Bülent YORULMAZ | Türkiye | Özgür EMİROĞLU | Türkiye |
| Celal KARAMAN | Türkiye (Copyeditor) | Özkan DANIŞ | Türkiye |
| Cem VURAL | Türkiye | Panagiotis MADESIS | Greece |
| Coşkun TEZ | Türkiye | Regina KAROUSOU | Greece |
| Davide BARRECA | Italy | Reşat ÜNAL | Türkiye |
| Dimitrios MOSSIALOS | Greece | Saliha ÇORUH | Türkiye |
| Enes TAYLAN | United States | Selçuk KORKMAZ | Türkiye (Biostatistics Editor) |
| Emre EVLİCE | Türkiye | Seray TÖZ | Türkiye |
| Etil GÜZELMERİÇ | Türkiye | Tuğba ONGUN SEVİNDİK | Türkiye |
| Gamze ALTINTAŞ KAZAR | Türkiye (Design Editor) | Vedat BEŞKARDEŞ | Türkiye |
| Graham SAUNDERS | England | Volkan AKSOY | Türkiye (Eng Language Editor) |
| Güray DOĞAN | Türkiye | Yerlan TURUSPEKOV | Kazakhstan |
| Hatice KORKMAZ GÜVENMEZ | Türkiye | Yeşim SAĞ | Türkiye |
| Herdem ASLAN | Türkiye | Yıldız AYDIN | Türkiye |
| Ionnias BAZOS | Greece | Zeynep KATNAŞ | Türkiye |

Correspondence Address

Trakya Üniversitesi Fen Bilimleri Enstitüsü Binası, Balkan Yerleşkesi – 22030 Edirne / TÜRKİYE

e-mail: tujns@trakya.edu.tr

Tel: +90 284 2358230

Fax: +90 284 2358237

This Journal is a peer reviewed journal and is indexed by Biological Sciences, BIOSIS Previews, CAB Abstract, DOAJ (Directory of Open Access Journal), ESCI (Emerging Sources Citation Index), TUBITAK-ULAKBIM Life Sciences Database (Turkish Journal Index) and Zoological Record.

Publisher

Trakya University Press (<https://yayinevi.trakya.edu.tr/>)

REVIEWER LIST

- Ali Kilimciođlu (Manisa, TÜRKİYE)
Aykut Topdemir (Elazığ, TÜRKİYE)
Çiğdem Sevim (Kastamonu, TÜRKİYE)
Damla Sihay (Adana, TÜRKİYE)
Duygu Sevim (İstanbul, TÜRKİYE)
Elif Begüm Yıldırım (İstanbul, TÜRKİYE)
Elif Çadircı (Erzurum, TÜRKİYE)
Elif Şahin (İstanbul, TÜRKİYE)
Erkay Özgör (Lefkoşa, KKTC)
Fatıma Masume Uslu (Adana, TÜRKİYE)
Fatma Sezer Şenol Deniz (Ankara, TÜRKİYE)
Fuat Bozok (Osmaniye, TÜRKİYE)
Gamze Savacı (Kastamonu, TÜRKİYE)
Gülten Ateş Uluçay (İstanbul, TÜRKİYE)
Hatice Ertabaklar (Aydın, TÜRKİYE)
Hatıra Taşkın (Adana, TÜRKİYE)
Hızlan Hıncal Ađuş (İstanbul, TÜRKİYE)
Kıymet Tabakçiođlu (Edirne, TÜRKİYE)
Krishnan Dhandayuthapani (Tamil Nadu, INDIA)
Matteo Carbone (Genova, ITALY)
Merve Yıldız Özer (Eskişehir, TÜRKİYE)
Mustafa Muhlis Alparslan (İstanbul, TÜRKİYE)
Nermin Şakru (Edirne, TÜRKİYE)
Rima Konya (İstanbul, TÜRKİYE)
Samet Tekin (Erzurum, TÜRKİYE)
Sezai Türkel (Bursa, TÜRKİYE)
Tuğba Nurcan Yüksel (Tekirdađ, TÜRKİYE)

CONTENTS

Research Article

1. *Merve Yilmazer, Semian Karaer Uzuner* 1-10
Effects of glucose on the cellular respiration in fission yeast expressing Human GSK3B gene
2. *Sıla Özlem Şener, Tuğba Subaş, Şeyda Kanbolat, Merve Badem, Ufuk Özgen, Merve Tamer, Mahi Nur Kaplan, Esen Sezen Karaoğlan* 11-19
Quantitative HPLC analysis and isolation of tiliroside from *Alcea biennis* Winterl and determination of total flavonoid content and biological activities
3. *Ülkü Zeynep Üreyen Esertaş, Arif Bozdeveci, Emel Uzunalıoğlu, Şengül Alpay Karaoğlu* 21-28
Determination of plant growth promoting properties and bioremediation potentials of *Bacillus mycoides* Flüge and *B. thuringiensis* Berliner
4. *Liudmyla Dzhus, Tatiana Kovalchuk, Inna Didenko, Marharyta Parubok, Larysa Rozborska* 29-40
Morphostructure of *Moehringia hypanica* Gryn & Klokov in the Buzky Gard National Nature Park, Ukraine
5. *Muinat Olanike Kazeem, Emmanuel Aduragbemi Adegbeni, Abubakar Aisami, Ismail Babatunde Onajobi* 41-54
Utilization of shea-nut cake for lipase production by thermophilic *Bacillus velezensis* EAC 9 isolated from hot compost and optimization of nutritional parameters
6. *Yasemin Aydın, Banu Orta-Yılmaz, Melike Erkan* 55-64
Vitamin E and genistein generate a cytoprotective effect on polychlorinated biphenyl- induced oxidative stress in testicular Leydig cells
7. *Şuheda Aldemir Terman, Ayten Dizkirici, Mustafa Emre Akçay, Cemil Sadulahoğlu* 65-72
Morphological and molecular identification of *Dissingia confusa* based on the first record of the species in Türkiye
8. *Ebru Uzunhisarcıklı* 73-80
***In vitro* evaluation of the effects of potential GSK-3β inhibitors terbutaline and orciprenaline**

9. *Irfan Cinar, Muhammed Yayla, Erdem Toktay, Damla Binnetođlu* **81-90**
Effects of gossypin on acetaminophen-induced hepatotoxicity in mice
10. *Ahmet Özkeklikçi, Osman Sezer Cirit* **91-96**
Investigation of the prevalence of cystic echinococcosis in Gaziantep-Türkiye by ELI.H.A Echinococcus ELITech between 2015-2022
11. *Ilgaz Akata, Eda Kumru, Ergin Şahin, İsmail Acar, Ertuđrul Kaya* **97-110**
***Amanita vidua*: A new record for Turkish *Amanita* Section *Phalloideae* based on morphological and molecular data**

Systematic Reviews and Meta-Analysis

12. *Burcu Yuksel, Asuman Deveci Ozkan* **111-120**
A systematic review of antiproliferative and antitumour activity of earthworm extracts

Review

13. *Tugsen Buyukyildirim, F. Sezer Senol Deniz* **121-132**
**Natural treatment approaches for varicose veins:
A brief review of the literature**