

ANNALES REI BOTANICAE

# PHYTON



VOL. 62-63 | 2022-2023

FOUNDED IN 1948 BY PROF. DR. F. WEBER AND PROF. DR. F.J. WIDDER, UNIVERSITY OF GRAZ, AUSTRIA



**B** VERLAG  
BERGER

ISSN 0079-2047 Printed volume published 15 May 2023

## CONTENTS

BALIOUSIS E. 2023. Floristic diversity of the National Park Schinias-Marathon (Sterea Ellas, Greece).....	7
DJORDJEVIĆ V., LAZAREVIĆ P., STANKOVIĆ V. & KABAŠ E. 2023. <i>Epipactis exilis</i> (Orchidaceae), a species new to the flora of Serbia .....	29
ERŽEN M., KOŠIR I. J., RUTNIK K., KREFT S. & ČERENAK A. 2023. Determination of total polyphenol content and antioxidant activity in different hemp ( <i>Cannabis sativa</i> ) phenotypes.....	97
FRAME D. & GOTTSBERGER G. 2023. Diverse sexual strategies in fossil gymnosperms: pollination in the <i>Bennettitales</i> revisited .....	127
IVANOVIĆ S., MARKOVIĆ M., MILUTINOVIĆ M., SKOČAJIĆ D. & ĐUNISLJEVIĆ-BOJOVIĆ D. 2023. In vitro propagation of <i>Dianthus cruentus</i> and acclimatization in hydroponic culture .....	107
KIRSCHNER J. & ŠTĚPÁNEK J. 2023. Towards a revision of <i>Taraxacum</i> sect. <i>Macrocornuta</i> (Asteraceae, Crepidinae), an Irano-Turanian group with prevailing sexual reproduction.....	41
SUN Q. & HAN Y. 2022. Salinity effects on carbohydrates, protein, and free amino acids in <i>Miscanthus sinensis</i> .....	1
TSIFTSIS S. & MEROU T. 2023. First inventory of the invasive alien plant species along Nestos River (East Macedonia, NE Greece).....	75
VITEK E. & ARMAĞAN M. 2023. <i>Gundelia purpurascens</i> (Compositae) is a synonym of <i>G. rosea</i> .....	35
VUKOJIČIĆ S., DJORDJEVIĆ V., KABAŠ E., STANKOVIĆ V., ĐUROVIĆ S. & STEVANOVIĆ V. 2023. New chorological data on some rare and threatened ferns in Serbia .....	115
WANG R. R., YU L., KUANG P., SU S. L., MO F. X., RUAN X., NIU L. J. & LI J. 2023. Transfer of the <i>Arabidopsis</i> CBF1, a cold-induced transcription activator, into <i>Phalaenopsis</i> via pollen-tube pathway.....	87
Book review .....	139

# PHYTON (Horn, Austria)

The journal PHYTON was established in 1948 by Prof. Dr. Friedl WEBER and Prof. Dr. Felix J. WIDDER, the heads of the former Institutes of Plant Physiology and of Botany at the University of Graz. Papers from all fields of plant sciences are still considered for publication in PHYTON.

From volume 57 onwards, all research contributions are published in English. Manuscripts should be submitted to the managing editor, who will confirm receipt and forward every manuscript to an editor of our editorial board (unless stated otherwise, the editors are affiliated with the Institute of Biology, University of Graz):

Managing editor:

Christian SCHEUER <[christian.scheuer@uni-graz.at](mailto:christian.scheuer@uni-graz.at)>

Editors for plant physiology, anatomy, biochemistry, autecology and related fields:

Alexandra JAMMER

Maria MÜLLER

Editors for plant systematics, evolution, morphology, geobotany and related fields:

Anton DRESCHER

Nejc JOGAN (Biotechnical Faculty, University of Ljubljana)

Michael PINTER (Universalmuseum Joanneum, Graz)

Wolfgang SCHÜHLY

Urban ŠILC (Jovan Hadži Institute of Biology, SAZU, Ljubljana)

The authors are requested to consult the 'Information and Instructions for Contributors' at  
<<https://biologie.uni-graz.at/de/phyton>>

Manuscripts, proofs and correspondence concerning editorial matter can also be directed to  
Managing Editor PHYTON, Holteigasse 6, 8010 Graz (Austria, Europe)

Cover illustration: Three plant species occurring in the National Park Schinias-Marathon, Greece (© Evagelos BALIOUSIS): *Crocus laevigatus* (top left), *Trifolium spumosum* (top right), *Trifolium glomeratum* (bottom left). Fruits of *Taraxacum pawlodarskum* from Kazakhstan (bottom right, © Jan KIRSCHNER & Jan ŠTĚPÁNEK).

**Beginning with PHYTON Volume 57, the articles are also published *instant online*.**

Subscription orders and other business communication should be directed to the publisher

**VERLAG FERDINAND BERGER & SÖHNE GES.M.B.H.**

Wiener Straße 80, 3580 Horn (Austria, Europe) <[verlag@berger.at](mailto:verlag@berger.at)>

Beginning with PHYTON Volume 49, pdf files of single articles can be purchased at  
<<https://www.verlag-berger.at/?listview&link=0323000>>

PHYTON Volumes 1–52 (1948–2012) are accessible at the literature database of the  
'Biologiezentrum' in Linz at  
<[http://www.zobodat.at/publikation\\_series.php?id=6793](http://www.zobodat.at/publikation_series.php?id=6793)>

Indexed/abstracted in Current Contents, Science Citation Index, Biological Abstracts and  
Current Advances in Plant Science

# PHYTON

## ANNALES REI BOTANICAE



VOL. 62–63, 2022–2023  
Printed volume published 15 May 2023

Alle Rechte vorbehalten  
© 2023 by Verlag Ferdinand Berger & Söhne GesmbH, 3580 Horn, Österreich  
[www.verlag-berger.at](http://www.verlag-berger.at)

[www.phyton.at](http://www.phyton.at)

VERLAG FERDINAND BERGER, HORN, AUSTRIA

## New taxa, new combinations, typifications

<i>Gundelia tournefortii</i> f. <i>purpurascens</i> BORNH., lecto- and epitypification ( <i>Asteraceae</i> ) .....	37
<i>Taraxacum aduncum</i> VAN SOEST, lectotypification ( <i>Asteraceae</i> ) .....	46
<i>Taraxacum exsolutum</i> KIRSCHNER & ŠTĚPÁNEK, spec. nova ( <i>Asteraceae</i> ) .....	67
<i>Taraxacum kaskelenense</i> KIRSCHNER & ŠTĚPÁNEK, spec. nova ( <i>Asteraceae</i> ) .....	68
<i>Taraxacum multiscaposum</i> SCHISCHK., lecto- and epitypification ( <i>Asteraceae</i> ) .....	48
<i>Taraxacum nevskii</i> subsp. <i>lipskyi</i> (SCHISCHK.) KIRSCHNER & ŠTĚPÁNEK, comb. nova ( <i>Asteraceae</i> ) .....	54

## New syntaxa

—

## CONTENTS

SUN Q. & HAN Y. 2022. Salinity effects on carbohydrates, protein, and free amino acids in <i>Miscanthus sinensis</i> .....	1
BALIOUSIS E. 2023. Floristic diversity of the National Park Schinias-Marathon (Sterea Ellas, Greece) .....	7
DJORDJEVIĆ V., LAZAREVIĆ P., STANKOVIĆ V. & KABAŠ E. 2023. <i>Epipactis exilis</i> (Orchidaceae), a species new to the flora of Serbia .....	29
VITEK E. & ARMAĞAN M. 2023. <i>Gundelia purpurascens</i> (Compositae) is a synonym of <i>G. rosea</i> .....	35
KIRSCHNER J. & ŠTĚPÁNEK J. 2023. Towards a revision of <i>Taraxacum</i> sect. <i>Macrocornuta</i> (Asteraceae, Crepidinae), an Irano-Turanian group with prevailing sexual reproduction.....	41
TSIFTSIS S. & MEROU T. 2023. First inventory of the invasive alien plant species along Nestos River (East Macedonia, NE Greece) .....	75
WANG R. R., YU L., KUANG P., SU S. L., MO F. X., RUAN X., NIU L. J. & LI J. 2023. Transfer of the <i>Arabidopsis</i> CBF1, a cold-induced transcription activator, into <i>Phalaenopsis</i> via pollen-tube pathway .....	87
ERŽEN M., KOŠIR I. J., RUTNIK K., KREFT S. & ČERENAK A. 2023. Determination of total polyphenol content and antioxidant activity in different hemp ( <i>Cannabis sativa</i> ) phenotypes .....	97
IVANOVIĆ S., MARKOVIĆ M., MILUTINOVIĆ M., SKOČAJIĆ D. & ĐUNISLJEVIĆ -BOJOVIĆ D. 2023. In vitro propagation of <i>Dianthus cruentus</i> and acclimatization in hydroponic culture .....	107
VUKOJIČIĆ S., DJORDJEVIĆ V., KABAŠ E., STANKOVIĆ V., ĐUROVIĆ S. & STEVANOVIĆ V. 2023. New chorological data on some rare and threatened ferns in Serbia .....	115
FRAME D. & GOTTSBERGER G. 2023. Diverse sexual strategies in fossil gymnosperms: pollination in the <i>Bennettitales</i> revisited .....	127
Book review .....	139

The color pages in volume 62–63 were printed with financial support by the Faculty of Natural Sciences, University of Graz, Austria