

IDŐJÁRÁS

VOLUME 121 * 2017

EDITORIAL BOARD

ANTAL, E. (Budapest, Hungary)
BARTHOLY, J. (Budapest, Hungary)
BATCHVAROVA, E. (Sofia, Bulgaria)
BRIMBLECOMBE, P. (Hong Kong, SAR)
CZELNAI, R. (Dörgicse, Hungary)
DUNKEL, Z. (Budapest, Hungary)
FERENCZI, Z. (Budapest, Hungary)
GERESDI, I. (Pécs, Hungary)
HASZPRA, L. (Budapest, Hungary)
HORVÁTH, Á. (Siófok, Hungary)
HORVÁTH, L. (Budapest, Hungary)
HUNKÁR, M. (Keszthely, Hungary)
LASZLO, I. (Camp Springs, MD, U.S.A.)
MAJOR, G. (Budapest, Hungary)
MÉSZÁROS, E. (Veszprém, Hungary)
MÉSZÁROS, R. (Budapest, Hungary)

MIKA, J. (Eger, Hungary)
MERSICH, I. (Budapest, Hungary)
MÖLLER, D. (Berlin, Germany)
PINTO, J. (Res. Triangle Park, NC, U.S.A.)
PRÁGER, T. (Budapest, Hungary)
PROBÁLD, F. (Budapest, Hungary)
RADNÓTI, G. (Reading, U.K.)
S. BURÁNSZKI, M. (Budapest, Hungary)
SZALAI, S. (Budapest, Hungary)
SZEIDL, L. (Budapest, Hungary)
SZUNYOGH, I. (College Station, TX, U.S.A.)
TAR, K. (Debrecen, Hungary)
TÁNCZER, T. (Budapest, Hungary)
TOTH, Z. (Camp Springs, MD, U.S.A.)
VALI, G. (Laramie, WY, U.S.A.)
WEIDINGER, T. (Budapest, Hungary)

Editor-in-Chief
LÁSZLÓ BOZÓ

Executive Editor
MÁRTA T. PUSKÁS

BUDAPEST, HUNGARY

AUTHOR INDEX

<p>Anda, A. (Keszthely, Hungary) 63, 265</p> <p>Balabukh, V. (Kiev, Ukraine) 453</p> <p>Bartholy, J. (Budapest, Hungary)..... 285, 437</p> <p>Bede-Fazekas, Á. (Vácrtót, Hungary)393, 415</p> <p>Bobvos, J. (Budapest, Hungary)..... 43</p> <p>Brajnovits, B. (Budapest, Hungary) 137</p> <p>Breuer, H. (Budapest, Hungary).....285</p> <p>Ciaranek, D. (Krakow, Poland) 117</p> <p>Czigány, Sz. (Pécs, Hungary).....243</p> <p>Czira, T. (Budapest, Hungary) 345</p> <p>Czúcz B. (Vácrtót, Hungary)..... 393, 415</p> <p>Cserbik, D. (Maastricht, Netherland) 43</p> <p>Geresdi, I. (Pécs, Hungary) 1</p> <p>Guzik, I. (Krakow, Poland) 117</p> <p>Homolya, E. (Budapest, Hungary) 371</p> <p>Horányi, A. (Reading, United Kingdom) 329</p> <p>Hufnagel, L. (Gödöllő,Hungary)..... 285</p> <p>Illy, T. (Budapest, Hungary) 161</p> <p>Kajner, P. (Budapest, Hungary) 345</p> <p>Kántor, N. (Szeged, Hungary)..... 79</p> <p>Kis, A. (Budapest, Hungary).....437</p> <p>Kocsis, T. (Budapest, Hungary) 63</p> <p>Kovács, A. (Szeged, Hungary)..... 79</p> <p>Kovács, I.P. (Pécs, Hungary) 243</p> <p>Ladányi, M. (Budapest, Hungary).....29</p> <p>Lagzi, I (Budapest, Hungary).....101</p> <p>Leelőssy, Á. (Budapest, Hungary) 101</p> <p>Lepesi, N. (Budapest, Hungary).....415</p> <p>Malyska, L. (Kiev, Ukraine) 453</p>	<p>Málnási, T. (Budapest, Hungary).....43</p> <p>Mészáros, R. (Budapest, Hungary).....101</p> <p>Nagy, J.A. (Budapest, Hungary).....285</p> <p>Nagy, Z. (Budapest, Hungary).....189</p> <p>Németh, Á. (Budapest, Hungary)79</p> <p>Páldy, A. (Budapest, Hungary).....43</p> <p>Pieczka, I. (Budapest, Hungary).....285</p> <p>Piotrowicz, K. (Krakow, Poland).....117</p> <p>Pokorny, M. (Prague, Czech Republic)209</p> <p>Pongrácz, R. (Budapest, Hungary).....285, 437</p> <p>Renczes, B. (Budapest, Hungary).....137</p> <p>Rotárné Szalkai, Á. (Budapest, Hungary)....371</p> <p>Rudnai, T. (Budapest, Hungary).....43</p> <p>Schmeller, G. (Pécs, Hungary) 1</p> <p>Selmeczi, P. (Budapest, Hungary) 345, 371</p> <p>Sepsi, P. (Budapest, Hungary)29</p> <p>Somodi, I. (Vácrtót, Hungary) 393, 415</p> <p>Soós, G. (Keszthely, Hungary)265</p> <p>Sütő, A. (Budapest, Hungary).....345</p> <p>Szabó, J.A. (Budapest, Hungary).....437</p> <p>Szintai, B. (Budapest, Hungary)189</p> <p>Teixeira da Silva, J.A. (Kagawa-ken, Japan)..265</p> <p>Tóth, H. (Budapest, Hungary)137</p> <p>Tóth, M. (Budapest, Hungary).....29</p> <p>Tóth, Z. (Budapest, Hungary).....189</p> <p>Trájer, A.J. (Veszprém, Hungary)303</p> <p>Unger, J. (Szeged, Hungary).....79</p> <p>Zak, M. (Prague, Czech Republic)209</p>
---	---

TABLE OF CONTENTS

I. Papers

<p><i>Anda, A. Soós, G., and Teixeira da Silva, J.A.:</i> Leaf area index for common reed (<i>Phragmites australis</i>) with different water supplies in the Kis-Balaton wetland, Hungary, during two consecutive seasons (2014 and 2015) 265</p> <p><i>Balabukh, V. and Malyska, L.:</i> Impact of climate change on natural fire danger in Ukraine..... 453</p> <p><i>Bede-Fazekas, Á., Czúcz B., and Somodi, I.:</i> Vulnerability of natural landscapes to climate change – a case study of Hungary 393</p> <p><i>Bobvos, J., Málnási, T., Rudnai, T., Cserbik, D., and Páldy, A.:</i> The effect of climate change on heat-related</p>	<p>excess mortality in Hungary at different area levels 43</p> <p><i>Homolya, E., Rotárné Szalkai, Á., and Selmeczi, P.:</i> Climate impact on drinking water protected areas..... 371</p> <p><i>Horányi, A.:</i> Some aspects on the use and impact of observations in the ERA5 Copernicus Climate Change Service reanalysis 329</p> <p><i>Illy, T.:</i> Near-surface wind speed changes in the 21st century based on the results of ALADIN-Climate regional climate model 161</p> <p><i>Kajner, P., Czira, T., Selmeczi, P., and Sütő, A.:</i> Uses of the National</p>
---	---

Adaptation Geo-information System in Climate Change strategy planning	345	<i>Piotrowicz, K., Ciaranek, D., and Guzik, I.:</i> Short-term variations in air temperature in Krakow (Poland) as an indicator of climate change in Central Europe.....	117
<i>Kis, A., Pongrácz, R., Bartholy, J., and Szabó, J.A.:</i> Application of RCM results to hydrological analysis	437	<i>Pokorny, M., and Zak, M.:</i> Satellite retrieval of severe storms based on the cloud microphysical profile over Central Europe.....	209
<i>Kocsis, T. and Anda, A.:</i> Analysis of precipitation time series at Keszthely, Hungary (1871–2014)	63	<i>Schmeller, G. and Geresdi, I.:</i> Numerical simulation of sulfate formation in water drops: results of a box experiment	1
<i>Kovács, A., Németh, Á., Unger, J. and Kántor, N.:</i> Tourism climatic conditions of Hungary – present situation and assessment of future changes – Part 1	79	<i>Sepsi, P., Ladányi, M., and Tóth, M.:</i> Analyses of long-term and multi-site floral phenological observations of apple cultivars in comparison with temperature datasets	29
<i>Kovács, I.P. and Czigány, Sz.:</i> The effect of climate and soil moisture on the tree-ring pattern of Turkey oak (<i>Quercus cerris</i> L.) in Central Transdanubia, Hungary	243	<i>Tóth, H., Brajnovits, B., and Renczes, B.:</i> Statistical correction of the wind energy forecast at the Hungarian Meteorological Service.....	137
<i>Leelőssy, Á., Lagzi, I., and Mészáros, R.:</i> Spatial and temporal pattern of pollutants dispersed in the atmosphere from the Budapest Chemical Works industrial site	101	<i>Tóth, Z., Nagy, Z., and Szintai, B.:</i> Verification of global radiation fluxes forecasted by numerical weather prediction model AROME for Hungary	189
<i>Lepesi, N., Bede-Fazekas, Á., Czúcz, B., and Somodi, I.:</i> Adaptive capacity of climate sensitive habitats to climate change in Hungary	415	<i>Trájer, A.J.:</i> Meteorological conditions associated with West Nile fever incidences in Mediterranean and continental climates in Europe	303
<i>Nagy, J.A., Bartholy, J., Pongrácz, R., Pieczka, I., Breuer, H., and Hufnagel, L.:</i> Analysis of the impacts of global warming on European bat species's range area in the 21st century using regional climate model simulation	285		

SUBJECT INDEX

A

absorption	1	analog ensembles	137
adaptation to climate change	345	apple cultivars	29
adaptive capacity	371, 415	AROME model	189
accidental pollution release	101	ARPEGE-Climat model	161
air temperature variations	117	autoregressive filtering	137
ALADIN-Climate model	43, 161		

B

bat species	285
box	
- experiment	1
- plot	63

C

Carpathian Basin	43, 137, 161
CarpatClim	437, 371
characteristic curves	137
chemistry	
- clouds	1
- water drops	1
climate change	
- adaptation planning	345
- adaptive capacity of habitats	415
- Central Europe	117, 285, 393, 371
- drinking water	371
- effects on bat species	285
- fire danger	453
- habitat sensitivity	415
- health effects	43
- hydrological aspects	437, 371
- indicators	117
- natural landscapes	393
- near-surface wind speed	161
- precipitation amounts	63
- tourism indicators	79
- vulnerability assessment	393
climate classification	303
climate model	
- regional	43, 161, 285, 437, 393
climate projection	453
climate safety	345
climatic tourism potential	79
cloud	
- chemistry	1
- particles	209
common reed	265
connectivity	415
Copernicus Climate Change Service	329
CRIGiS	43, 79
Czech Republic	209

D

danger, fire	453
day-to-day variations	117
decision support system	345
degree of freedom to signal	329
disease, mosquito-born	303
dispersion	
- Gaussian model	101
- industrial release	101
diversity	415
drinking water	371

E

ecology	285
effects of climate change	43, 63, 285
emission rate	101
ensembles	
- analog	137
ERA-Interim	161
ERA5 reanalysis	329
evapotranspiration	265
excess mortality, heat-related	43
exponential trend	63

F

fire danger	453
flowering	29
forecast	
- wind energy	137
forest fire	453
forestry aridity index	243
fuzzy model	137

G

Gaussian dispersion model	101
GIS	345
global observing system	329
global radiation	189
growing degree day	265

H

habitat	
- distribution	393
- natural	415
- sensitivity to climate	415
health effects of climate change	43
heat	
- accumulation	29
- health warning system	43
- heat-related excess mortality	43
heatwave	43
Hungary	43, 63, 79, 29, 101, 137, 161, 243, 265, 437, 393, 371, 415, 345
hydrological	
- model	243, 437
- processes	437

I

index	
- adaptive capacity	415
- aridity	371
- forestry aridity	243
- growing degree day (heat index)	265
- leaf area	265
- Pálfai drought	371
- tourism climatic	79
industrial accident	101
IPCC	393, 453, 415

K

Kis-Balaton wetland	265
Köppen-Geiger climate classification	303

L

leaf area index	265, 437
linear trend	63
long time series	
- precipitation	63

M

mammals	285
migration of species	285
model	
- ALADIN-Climate	161, 393
- AROME numerical prediction	189
- ARPEGE-Climat	161
- CIVAS	393, 371
- DIWA hydrological	437
- fuzzy	137
- Gaussian transport	101
- habitat distribution	393
- Hydrus-1D	243
- RACMO	285
- RegCM	437, 393
- regional climate	161, 285, 437
mosquito-borne disease	303
municipal planning	345

N

285iS	43, 79, 393, 371, 415, 345
naturalness	415
nowcasting	209
numerical	
- solution	1
- weather prediction	137

O

oak (<i>Quercus cerris</i>)	243
observation	
- conventional and satellite	329
- influence	329
ODE – ordinary differential equations	1
optical depth	189
oxidation	1

P

phenology	29
precipitation	
- as climatic parameter	285
- long-term series	63
- monthly mean	303
Poland	117
policy planning	345

pollutant
 - dispersion 101
 - spatial and temporal pattern 101
 potential natural vegetation 393

Q

quantile regression 137

R

radiation
 - global 189
 - solar 189
 radiative transmission 189
 reanalysis 329
 regional climate model projections 161
 regression, quantile 137

S

safety, climate 345
 satellite
 - observation 209
 - T-re profiles 209
 sensitivity 371, 415
 solar radiation 189
 soil moisture 243
 SRES Scenarios 43, 285, 371, 453
 statistical
 - analysis 63
 - correction 137
 storm
 - nowcasting 209
 - severe 209
 subjective thermal perception 79
 sulfate formation 1

T

T-re profiles 209
 temperature
 - as climatic parameter 285
 - maximum and minimum 117
 - monthly mean 303
 - long-term datasets 63, 79, 29, 117
 - short-term variations 117
 thermal perception 79

Tisza River 437
 tourism climatic index 79
 tourism climatic potential 79
 Transdanubian region 243
 tree rings 243
 trend 29
 - linear and exponential 63
 turkey oak 243

V

vegetation, potential natural 393
 verification 189
 vertical profile 161
 vulnerability, climate 393, 371, 415, 345

U

Ukraine 453
 Upper Tisza Basin 437

W

warning system
 - heat-health 43
 water
 - drinking 371
 - drop chemistry 1
 weather
 - impact 29, 265
 - numerical prediction 137, 189
 West Nile fever 303
 width
 - early wood 243
 - late wood 243
 - tree-ring 243
 wind
 - energy 137, 161
 - power 137, 161
 - speed, vertical profile 161

Y

yield 29