

Volume 140 No. 3 April 2006 ISSN 0269-7491



ELSEVIER

# ENVIRONMENTAL POLLUTION

EDITOR-IN-CHIEF

**W.J. Manning**

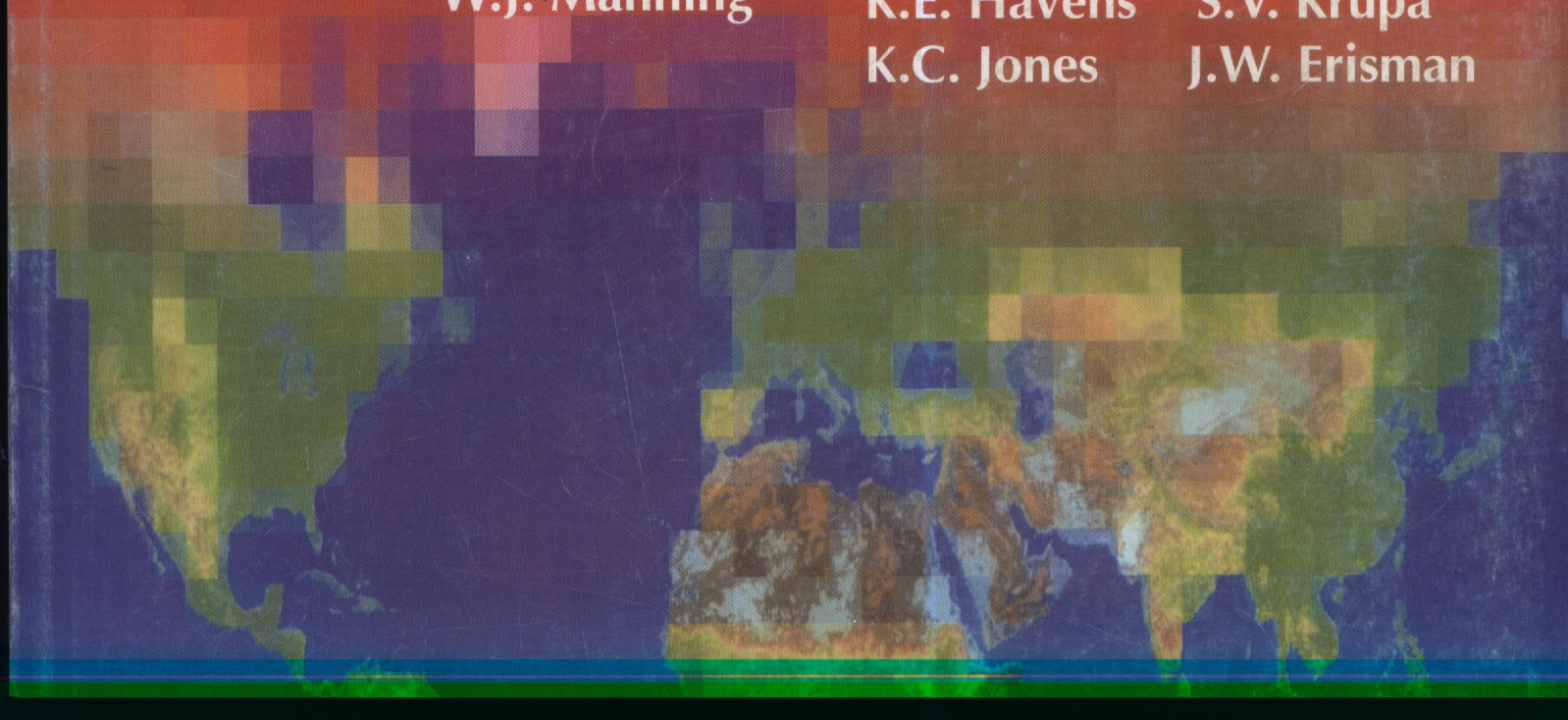
ASSOCIATE EDITORS

**K.E. Havens**

**S.V. Krupa**

**K.C. Jones**

**J.W. Erisman**





# ENVIRONMENTAL POLLUTION

## CONTENTS—Continued from outside back cover

- 463 **Has long-term metal exposure induced changes in life history traits and genetic diversity of the enchytraeid worm *Cognettia sphagnetorum* (Vejd.)?**  
J. Haimi, K.E. Knott, S. Selonen, M. Laurikainen  
*Long-term exposure to metals caused only small changes in life histories of two populations of *Cognettia sphagnetorum*.*
- 471 **Pilot survey of a broad range of priority pollutants in sediment and fish from the Ebro river basin (NE Spain)**  
S. Lacorte, D. Raldúa, E. Martínez, A. Navarro, S. Diez, J.M. Bayona, D. Barceló  
*Organic pollutants were monitored in sediments and fish from the Ebro river basin (NE Spain).*
- 483 **Organochlorine pesticides in the ambient air of Chiapas, Mexico**  
H. Alegria, T.F. Bidleman, M.S. Figueroa  
*Elevated levels of several organochlorine pesticides were found in the ambient air of southern Mexico.*
- 492 **Metal bioaccumulation and metallothionein concentrations in larvae of *Crassostrea gigas***  
G. Damiens, C. Mouneyrac, F. Quiniou, E. His, M. Gnassia-Barelli, M. Roméo  
*Oyster larvae respond rapidly to metals.*
- 500 **Stable isotope dynamics of nitrogen sewage effluent uptake in a semi-arid wetland**  
J.M. Fair, J.M. Heikoop  
*Stable isotope dynamics of nitrogen sewage effluent uptake in a semi-arid wetland showed high N variability at multiple trophic levels.*
- 506 **Analysis of chemical contamination within a canal in a Mexican border colonia**  
J.E. Owens, E.D. Niemeyer  
*This study quantifies widespread industrial and urban contamination within a canal located in a colonia (unplanned community) in Matamoros, Tamaulipas on the US-Mexico border.*
- 516 **Contribution of anthropogenic pollutants to the increase of tropospheric ozone levels in the Oporto Metropolitan Area, Portugal since the 19th century**  
M.C.M. Alvim-Ferraz, S.I.V. Sousa, M.C. Pereira, F.G. Martins  
*Compared to the 19th century, the current ozone concentrations are 147% higher at Oporto, Portugal.*
- 525 **PCDDs, PCDFs, and coplanar PCBs in wild terrestrial mammals from Japan: congener specific accumulation and hepatic sequestration**  
T. Kunisue, M.X. Watanabe, H. Iwata, T. Tsubota, F. Yamada, M. Yasuda, S. Tanabe  
*TEQ-dependent hepatic sequestration of dioxins and related compounds was observed in wild terrestrial mammals.*
- 536 **Determination of biodegradation potential by two culture-independent methods in PAH-contaminated soils**  
K. Nam, H.-Y. Kahng, H.S. Moon, J.Y. Kim, J.J. Kukor  
*Biodegradation potential of PAHs in contaminated soils is determined by two culture-independent methods and recommendations made on best approaches.*
- 546 **Modelling the dynamic air-water-sediment coupled fluxes and occurrence of polychlorinated biphenyls in a high altitude lake**  
S.N. Meijer, J. Dachs, P. Fernandez, L. Camarero, J. Catalan, S. Del Vento, B. van Drooge, E. Jurado, J.O. Grimalt  
*A dynamic flux model was able to accurately predict PCB levels.*

## Erratum

- 561 Introduction to the erratum to "Diagnosis of abiotic and biotic stress factors using the visible symptoms in foliage" [Environ. Pollut. 137 (2005) 455-465]
- 562 Erratum to "Diagnosis of abiotic and biotic stress factors using the visible symptoms in foliage" [Environ. Pollut. 137 (2005) 455-465]



# ENVIRONMENTAL POLLUTION

www.elsevier.com/locate/envpol

## CONTENTS

Volume 140 Number 3 2006

### New initiative

- 383 Quantification of ozone uptake at the stand level in a *Pinus canariensis* forest in Tenerife, Canary Islands: An approach based on sap flow measurements**

G. Wieser, V.C. Luis, E. Cuevas

*Sap flow measurements can be used for estimating ozone uptake at the stand level and for parameterisation of O<sub>3</sub> uptake models.*

### Regular papers

- 387 Metals distribution in soils around the cement factory in southern Jordan**

O.A. Al-Khashman, R.A. Shawabkeh

*Metals concentrations in the surface and sub-surface soils around the cement factory have been studied and compared with metals in urban soils.*

- 395 Acquired changes in stomatal characteristics in response to ozone during plant growth and leaf development of bush beans (*Phaseolus vulgaris* L.) indicate phenotypic plasticity**

V. Elagöz, S.S. Han, W.J. Manning

*O<sub>3</sub> has the potential to affect stomatal development and the presence of different control mechanisms on each leaf surface is confirmed.*

- 406 Accumulation and distribution of polycyclic aromatic hydrocarbons in rice (*Oryza sativa*)**

S. Tao, X.C. Jiao, S.H. Chen, W.X. Liu, R.M. Coveney Jr., L.Z. Zhu, Y.M. Luo

*PAHs in various tissues of rice plants from various growth stages were investigated.*

- 416 Characterization of polycyclic aromatic hydrocarbons in urban stormwater runoff flowing into the tidal Anacostia River, Washington, DC, USA**

H.-M. Hwang, G.D. Foster

*PAHs in urban stormwater runoff degrade the quality of watersheds and need to be removed before runoff enters into receiving water bodies.*

- 427 Removal of polycyclic aromatic hydrocarbons from aged-contaminated soil using cyclodextrins: Experimental study**

C. Viglianti, K. Hanna, C. de Brauer, P. Germain

*An innovative method using a biodegradable and non-toxic flushing agent for the depollution of industrially aged-contaminated soil.*

- 436 The impact of seasonal variations in DOC arising from a moorland peat catchment on coagulation with iron and aluminium salts**

E.L. Sharp, S.A. Parsons, B. Jefferson

*The variations in natural organic matter (NOM) composition and character, particularly in terms of charge, will directly impact on the coagulation process.*

- 444 The effect of turbation on zinc relocation in a vertical floodplain soil profile**

S. Wijnhoven, G. van der Velde, R.S.E.W. Leuven, H.J.P. Eijsackers, A.J.M. Smits

*Intensive turbation of a zinc-polluted topsoil induces zinc transport to the subsoil by soil water transport of colloid and organic matter particles.*

- 453 MEAD: An interdisciplinary study of the marine effects of atmospheric deposition in the Kattegat**

L. Spokes, T. Jickells, K. Weston, B.G. Gustafsson, M. Johnsson, B. Liljebladh, D. Conley, C. Ambelas-Skjødth, J. Brandt, J. Carstensen, T. Christiansen, L. Frohn, G. Geernaert, O. Hertel, B. Jensen, C. Lundsgaard, S. Markager, W. Martinsen, B. Møller, B. Pedersen, K. Sauerberg, L.L. Sørensen, C.C. Hasager, A.M. Semprévia, S.C. Pryor, S.W. Lund, S. Larsen, M. Tjernström, G. Svensson, M. Žagar