

Volume 144 No. 1 November 2006 ISSN 0269-7491

ENVIRONMENTAL POLLUTION

EDITOR-IN-CHIEF

W.J. Manning

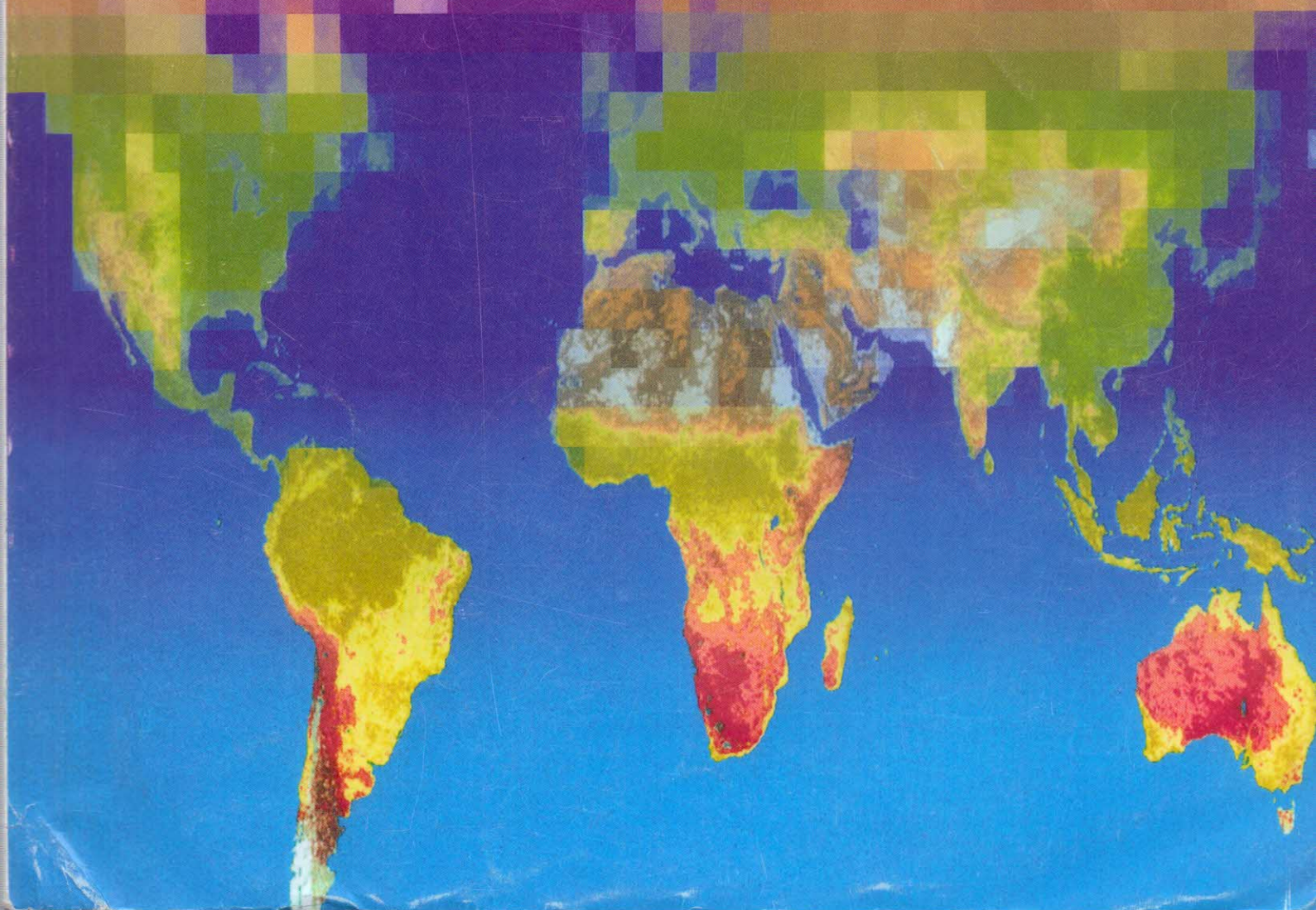
ASSOCIATE EDITORS

K.E. Havens

S.V. Krupa

K.C. Jones

J.W. Erisman



SPECIAL ISSUE SECTION: Soil and Sediment Remediation (SSR)

- 1 Soil and sediment remediation [SSR]**
M. Mench, J. Vangronsveld, N. Lepp
- 2 Remediation of cadmium contamination in paddy soils by washing with chemicals: Selection of washing chemicals**
T. Makino, K. Sugahara, Y. Sakurai, H. Takano, T. Kamiya, K. Sasaki, T. Itou, N. Sekiya
Calcium chloride and iron(III) chloride were useful for the in situ washing of Cd-contaminated paddy soils.
- 11 Effects of lead and chelators on growth, photosynthetic activity and Pb uptake in *Sesbania drummondii* grown in soil**
A.T. Ruley, N.C. Sharma, S.V. Sahi, S.R. Singh, K.S. Sajwan
Sesbania drummondii tolerates and accumulates high concentrations of Pb.
- 19 Phyto-products may be essential for sustainability and implementation of phytoremediation**
G.S. Bañuelos
Producing viable products of economical value may help sustain long-term application of field phytoremediation.
- 24 Biochemical parameters and bacterial species richness in soils contaminated by sludge-borne metals and remediated with inorganic soil amendments**
M. Mench, G. Renella, A. Gelsomino, L. Landi, P. Nannipieri
Amendments (coal fly ash, zerovalent-Fe iron grit), reduced labile fractions of Cd and Ni in contaminated soils and restored the activity of key soil hydrolases.
- 32 Evaluation of cyclonic ash, commercial Na-silicates, lime and phosphoric acid for metal immobilisation purposes in contaminated soils in Flanders (Belgium)**
W. Geebelen, V. Sappin-Didier, A. Rutters, R. Carleer, J. Yperman, K. Bongué-Boma, M. Mench, N. van der Lelie, J. Vangronsveld
Metal immobilising capacities of Na-silicates are weak, while the active mechanism of cyclonic ash is the same as lime.
- 40 Remediation of contaminated agricultural soils near a former Pb/Zn smelter in Austria: Batch, pot and field experiments**
W. Friesl, J. Friedl, K. Platzer, O. Horak, M.H. Gerzabek
Gravel sludge and red mud, combined with metal-excluding cultivars, can improve contaminated land.
- 51 Progress in assisted natural remediation of an arsenic contaminated agricultural soil**
M. Mench, J. Vangronsveld, C. Beckx, A. Rutters
Restoration occurred in a contaminated soil six years after the combined application of iron grit and beringite.
- 62 Assessment of zerovalent iron for stabilization of chromium, copper, and arsenic in soil**
J. Kumpiene, S. Ore, G. Renella, M. Mench, A. Lagerkvist, C. Maurice
Zerovalent iron effectively reduces mobility and bioavailability of As and Cr, but does not adequately stabilize Cu.
- 70 Overexpressing both ATP sulfurylase and selenocysteine methyltransferase enhances selenium phytoremediation traits in Indian mustard**
D.L. LeDuc, M. AbdelSamie, M. Montes-Bayon, C.P. Wu, S.J. Reisinger, N. Terry
Simultaneous overexpression of APS and SMT genes in Indian mustard greatly increases ability to accumulate selenate.
- 77 Phytoextraction with *Brassica napus* L.: A tool for sustainable management of heavy metal contaminated soils**
V.M.J. Grispén, H.J.M. Nelissen, J.A.C. Verkleij
*A screening for natural variation in Cd accumulated by 77 *Brassica napus* L. yielded candidate phytoextraction accessions for agricultural practice.*
- 84 Metal accumulation in wild plants surrounding mining wastes**
R.C. González, M.C.A. González-Chávez
Polygonum aviculare and Jatropha dioica accumulated Zn at concentrations near to the criteria for hyperaccumulator plants.

continued on inside back cover

(Abstracted/indexed in: AGRICOLA database; Air Pollution Control Association Journal; Biological and Agricultural Index; CAB ABSTRACTS database; Elsevier BIOBASE/Current Awareness in Biological Sciences; Cambridge Scientific Abstracts; Chemical Abstracts; Current Contents/Agriculture, Biology & Environmental Sciences; Environment Abstracts; Environmental Periodicals Bibliography; Energy Information Abstracts; EMBASE/Excerpta Medica; Geo Abstracts; GEOBASE; Index Medicus/MEDLINE/PubMed; ISI GeoSciTech; Science Citation Index; SciSearch)



0269-7491(200611)144:1;1-W



ELSEVIER

02022