

CONTENTS

Quantifying the ability of environmental parameters to predict soil texture fractions using regression-tree model with GIS and LIDAR data: The case study of Denmark M.H. Greve, R.B. Kheir, M.B. Greve (Tjele, Denmark) and P.K. Bøcher (Aarhus, Denmark)	1
Vulnerability of Portuguese estuarine habitats to human impacts and relationship with structural and functional properties of the fish community S. França, R.P. Vasconcelos, P. Reis-Santos, V.F. Fonseca, M.J. Costa and H.N. Cabral (Lisboa, Portugal)	11
Molted feathers indicate low mercury in bald eagles of the Chesapeake Bay, USA D.A. Cristol, E.K. Mojica, C.W. Varian-Ramos and B.D. Watts (Williamsburg, VA, USA)	20
The black scorpionfish, <i>Scorpaena porcus</i> (Scorpaenidae): Could it serve as reliable indicator of Mediterranean coastal communities' health? J. Ferri, N. Stagličić and S. Matic-Skoko (Split, Croatia)	25
Three hundred ways to assess Europe's surface waters: An almost complete overview of biological methods to implement the Water Framework Directive S. Birk (Essen, Germany), W. Bonne (Ispra, Italy), A. Borja (Pasaia, Spain), S. Brucet (Ispra, Italy), A. Courrat (Roma, France), S. Poikane (Ispra, Italy), A. Solimini (Roma, Italy), W. van de Bund, N. Zampoukas (Ispra, Italy) and D. Hering (Essen, Germany)	31
Past and future trends in grey water footprints of anthropogenic nitrogen and phosphorus inputs to major world rivers C. Liu (Wageningen, The Netherlands), C. Kroeze (Wageningen, The Netherlands and Heerlen, The Netherlands), A.Y. Hoekstra and W. Gerbens-Leenes (Enschede, The Netherlands)	42
An approach to analyzing influence of enumeration time periods on detecting ecological features of microp-eriphyton communities for marine bioassessment H. Xu, W. Zhang, Y. Jiang, M. Zhu (Qingdao, China) and K.A.S. Al-Rasheid (Riyadh, Saudi Arabia)	50
Recyclability Potential Index (RPI): The concept and quantification of RPI for textile fibres S.S. Muthu, Y. Li, J.-Y. Hu and P.-Y. Mok (Kowloon, Hong Kong)	58
Limiting factors and thresholds for macroinvertebrate assemblages in European rivers: Empirical evidence from three datasets on water quality, catchment urbanization, and river restoration J. Kail (Berlin, Germany), J. Arle (Dessau-Roßlau, Germany) and S.C. Jähnig (Gelnhausen, Germany and Frankfurt am Main, Germany)	63
A phytoclimatic-based indicator for assessing the inherent responsivity of the European forests to climate change J.M. García-López and C. Allué (Burgos, Spain)	73
Addressing the removal of rare species in multivariate bioassessments: The impact of methodological choices M.S. Poos and D.A. Jackson (Toronto, Canada)	82
Analyzing the ecological footprint at the institutional scale – The case of an Israeli high-school D. Gottlieb (Haifa, Israel), M. Kissinger (Israel), E. Vigoda-Gadot and A. Haim (Haifa, Israel)	91
Bryophyte taxonomic and functional groups as indicators of fine scale ecological gradients in mountain streams C. Vieira (Sala, Portugal), A. Séneca (Portugal and Trondheim, Norway), C. Sérgio and M.T. Ferreira (Lisbon, Portugal)	98
Development and evaluation of a diatom-based index of biotic integrity (D-IBI) for rivers impacted by run-of-river dams N. Wu (Wuhan, PR China and Kiel, Germany), Q. Cai (Wuhan, PR China) and N. Fohrer (Kiel, Germany)	108

A macroinvertebrate multimetric index to evaluate the biological condition of streams in the Central Amazon region of Brazil S.R.M. Couceiro, N. Hamada, B.R. Forsberg, T.P. Pimentel and S.L.B. Luz (Manaus, Brazil).....	118
Carbon and ecological footprints as tools for evaluating the environmental impact of coal mine ventilation air E. Díaz, J. Fernández, S. Ordóñez (Oviedo, Spain), N. Canto and A. González (Langreo, Spain)	126
Is species richness congruent among taxa? Surrogacy, complementarity, and environmental correlates among three disparate taxa in geographically isolated wetlands L.K. Kirkman, L.L. Smith (Newton, GA, USA), P.F. Quintana-Ascencio (Orlando, FL, USA), M.J. Kaeser, S.W. Golladay (Newton, GA, USA) and A.L. Farmer (Newton, GA, USA and Lake City, FL, USA).....	131
Measuring more of β -diversity: Quantifying patterns of variation in assemblage heterogeneity. An insight from marine benthic assemblages S. Bevilacqua, A. Plicanti (Lecce, Italy), R. Sandulli (Napoli, Italy) and A. Terlizzi (Lecce, Italy).....	140
Development of indicators for assessment of the environmental impact of livestock farming in Ireland using the Agri-environmental Footprint Index G. Louwagie (Dublin, Ireland and Sevilla, Spain), G. Northey (Dublin, Ireland), J.A. Finn (Wexford, Ireland) and G. Purvis (Dublin, Ireland)	149
Integration of multi-sensor data to assess grassland dynamics in a Yellow River sub-watershed W. Ouyang (Beijing, China and Enschede, The Netherlands), F. Hao (Beijing, China), A.K. Skidmore, T.A. Groen, A.G. Toxopeus and T. Wang (Enschede, The Netherlands)	163
Assessing innovative cropping systems with DEXiPM, a qualitative multi-criteria assessment tool derived from DEXi E. Pelzer, G. Fortino (Thiverval-Grignon, France), C. Bockstaller (Colmar, France), F. Angevin, C. Lamine (Thiverval-Grignon, France), C. Moonen (Pisa, Italy), V. Vasileiadis (Legnaro, Italy), D. Guérin, L. Guichard, R. Reau and A. Messéan (Thiverval-Grignon, France)	171
A Trawl Disturbance Indicator to quantify large scale fishing impact on benthic ecosystems S. de Juan and M. Demestre (Barcelona, Spain).....	183
A composite threat indicator approach to monitor vegetation condition in the Wet Tropics, Queensland, Australia P.L. Pert, J.R.A. Butler, C. Bruce and D. Metcalfe (Queensland, Australia)	191
Composite bird indicators robust to variation in species selection and habitat specificity A.R. Renwick, A. Johnston, A. Joys, S.E. Newson, D.G. Noble and J.W. Pearce-Higgins (Norfolk, UK).....	200
Spatial and temporal variability of diatom and macroinvertebrate communities: How representative are ecological classifications within a river system? H. Mykrä, T. Saarinen, M. Tolkkinen (Finland), B. McFarland (Southampton, UK), H. Hämäläinen, K. Martinmäki and B. Kløve (Finland)	208
Soil quality indicators for intensive vegetable production systems in Java, Indonesia B. Moeskops, D. Buchan (Gent, Belgium), Sukristiyonubowo (Bogor, Indonesia), S. De Neve, B. De Gussemé (Gent, Belgium), L.R. Widowati, D. Setyorini (Bogor, Indonesia) and S. Sleutel (Gent, Belgium)	218
Predictive modelling of protected habitats in riparian areas from catchment characteristics A. Baattrup-Pedersen, H.E. Andersen, S.E. Larsen (Silkeborg, Denmark), B. Nygaard and R. Ejrnæs (Rønne, Denmark)	227
The freshwater shrimp <i>Atyaephyra desmarestii</i> (Millet, 1831) as a bioindicator of hypoxic event effects on temperate freshwater systems E. González-Ortegón, A. Rodríguez and P. Drake (Cádiz, Spain).....	236
Using PAM fluorometry for landscape-level assessment of <i>Thalassia testudinum</i> : Can diurnal variation in photochemical efficiency be used as an ecoindicator of seagrass health? M.J. Durako (Wilmington, NC, USA)	243
Fluctuating asymmetry and <i>Echinospartum horridum</i> fitness components B. Komac (Le Bourget-du-Lac, France and Sant Julià de Lòria, Andorra) and C.L. Alados (Zaragoza, Spain)	252
Air quality assessment in a heavily polluted urban Mediterranean environment through air quality indices P.A. Kassomenos (Ioannina, Greece), A. Kelessis, M. Petrakakis, N. Zoumakis, T. Christidis (Thessaloniki, Greece) and A.K. Paschalidou (Ioannina, Greece).....	259
Chemical contamination along the Mediterranean French coast using <i>Posidonia oceanica</i> (L.) Delile above-ground tissues: a multiple trace element study N. Luy, S. Gobert (Liège, Belgium), S. Sartoretto (La Seyne-sur-mer, France), R. Biondo, J.-M. Bouquegneau and J. Richir (Liège, Belgium).....	269
The significance of stranding data as indicators of cetacean populations at sea: Modelling the drift of cetacean carcasses H. Peltier, W. Dabin (La Rochelle, France), P. Daniel (Toulouse, France), O. Van Canneyt, G. Dorémus, M. Huon and V. Ridoux (La Rochelle, France).....	278

(Contents continued from Inside back cover)

Trophic relationships and mercury biomagnification in Brazilian tropical coastal food webs T.L. Bisi (Rio de Janeiro, Brazil), G. Lepoint (Liege, Belgium), A. de F. Azevedo, P.R. Dorneles (Rio de Janeiro, Brazil), L. Flach (Mangaratiba, Brazil), K. Das (Liege, Belgium), O. Malm and J. Lailson-Brito (Rio de Janeiro, Brazil).....	291
Characterising spatiotemporal environmental and natural variation using a dynamic habitat index throughout the province of Ontario J.-S. Michaud, N.C. Coops (Vancouver, Canada), M.E. Andrew and M.A. Wulder (Victoria, Canada).....	303
Temporal changes in aquatic-invertebrate and fish assemblages in streams of the north-central and northeastern US J.G. Kennen (West Trenton, NJ, USA), D.J. Sullivan (Middleton, WI, USA), J.T. May (Sacramento, CA, USA), A.H. Bell (Middleton, WI, USA), K.M. Beaulieu (East Hartford, CT, USA) and D.E. Rice (West Trenton, NJ, USA).....	312
Can the Genuine Progress Indicator better inform sustainable regional progress?—A case study for Northeast Ohio K.J. Bagstad (Burlington, VT, USA) and M.R. Shammin (Oberlin, OH, USA)	330
Implementing comprehensiveness, adequacy and representativeness criteria (CAR) to indicate gaps in an existing reserve system: A case study from Victoria, Australia S.M. Sharafi (Victoria, Australia), M. White (Heidelberg, Australia) and M. Burgman (Victoria, Australia)	342
Indicator based sustainability assessment tool for affordable housing construction technologies H. Wallbaum, Y. Ostermeyer, C. Salzer and E. Zea Escamilla (Zurich, Switzerland).....	353
Integrative ecological sensitivity (IES) applied to assessment of eco-tourism impact on forest vegetation landscape: A case from the Baihua Mountain Reserve of Beijing, China J.-T. Zhang, C. Xiang (Beijing, China) and M. Li (Taiyuan, China).....	365
A quantitative method for the evaluation of policies to enhance urban sustainability B.G. Fitzgerald, T. O'Doherty, R. Moles and B. O'Regan (Limerick, Ireland)	371
Sustainability assessment of a solar thermal power project in Mediterranean application in the island of Crete M. Frangou, T. Tsoutsos (Chania, Greece) and N. Sakellariou (Athens, Greece)	379
Remote sensing of vegetation responses to flooding of a semi-arid floodplain: Implications for monitoring ecological effects of environmental flows N.C. Sims (Clayton, Australia) and M.J. Colloff (Canberra, Australia)	387
The water footprint of soy milk and soy burger and equivalent animal products A.E. Ercin (Enschede, The Netherlands), M.M. Aldaya (Paris, France) and A.Y. Hoekstra (Enschede, The Netherlands)	392
Can remote sensing estimate fine-scale quality indicators of natural habitats? T. Spanhove, J. Vanden Borre (Brussels, Belgium), S. Delalieux, B. Haest (Mol, Belgium) and D. Paelinckx (Brussels, Belgium).....	403
Functional traits of epiphytic lichens as potential indicators of environmental conditions in forest ecosystems P. Giordani (Genova, Italy), G. Brunialti (Siena, Italy), G. Bacaro (Genova, Italy and Siena, Italy) and J. Nascimbene (Trieste, Italy).....	413
Community stakeholders' knowledge in landscape assessments – Mapping indicators for landscape services N. Fagerholm, N. Käyhkö (Turku, Finland), F. Ndumbo and M. Khamis (Tanzania).....	421
Soil quality in Life Cycle Assessment: Towards development of an indicator E. Garrigues, M.S. Corson (Rennes, France), D.A. Angers (Quebec, Canada), H.M.G. van der Werf and C. Walter (Rennes, France).....	434
Diatom assemblages and their associated environmental factors in upland peat forest rivers C. O'Driscoll (Galway, Ireland), E. de Eyto (Mayo, Ireland), M. Rodgers, M. O'Connor, Z.-u.-Z. Asam and L. Xiao (Galway, Ireland)	443
A new macroinvertebrate-based multimetric index (I_2M_2) to evaluate ecological quality of French wadeable streams fulfilling the WFD demands: A taxonomical and trait approach C.P. Mondy (Metz, France), B. Villeneuve, V. Archaimbault (Lyon, France) and P. Usseglio-Polatera (Metz, France)	452
Meiofauna as an indicator for assessing the impact of fish farming at an exposed marine site S. Mirto (Messina, Italy), M. Gristina (Mazara del Vallo (TP), Italy), M. Sinopoli (Palermo, Italy), G. Maricchiolo, L. Genovese (Messina, Italy), S. Vizzini and A. Mazzola (Palermo, Italy)	468
Discrete vs. continuum approaches to the assessment of the ecological status in Iberian rivers, does the method matter? V. Hermoso and S. Linke (Queensland, Australia)	477
How many dimensions of biodiversity do we need? O. Lyashevskaya and K.D. Farnsworth (Belfast, UK).....	485

Ecological indicators of flood risk along the Gulf of Mexico S.D. Brody (Galveston, TX, USA), W.G. Peacock and J. Gunn (College Station, TX, USA)	493
Pollution evaluation in streams using water quality indices: A case study from Turkey's Sapanca Lake Basin A. Akkoyunlu and M.E. Akiner (Istanbul, Turkey).....	501
Willow cover as a stream-recovery indicator under a conservation grazing plan D.T. Booth, S.E. Cox (Cheyenne, WY, USA), G. Simonds and E.D. Sant (Park City, UT, USA)	512
Field translocation of diatom biofilms impacted by Cd and Zn to assess decontamination and community restructuring capacities A. Arini (Arcachon, France and Cestas, France), A. Feurtet-Mazel, R. Maury-Brachet (Arcachon, France), M. Coste and F. Delmas (Cestas, France).....	520
Application of derivative synchronous fluorescence spectroscopy (DSFS) to indicate salinisation processes of saline soils in semi-arid region H. Yu, Y. Song, B. Xi, M. Zhang and X. He (Beijing, China).....	532
Microbial enzyme stoichiometry and nutrient limitation in US streams and rivers B.H. Hill, C.M. Elonen, L.R. Seifert, A.A. May (Duluth, MN, USA) and E. Tarquinio (Washington, DC, USA).....	540
Measuring changes in taxonomic dissimilarity following species introductions and extirpations S. Villéger and S. Brosse (Toulouse, France)	552
Circular distributions of fallen logs as an indicator of forest disturbance regimes T. Abe (Tokyo, Japan), Y. Kubota (Okinawa, Japan), K. Shimatani (Tokyo, Japan), T. Aakala and T. Kuuluvainen (Helsinki, Finland).....	559
Valuing post-mining landscapes using an ecosystem services approach—An example from Germany N. Larondelle (Berlin, Germany and Dresden, Germany) and D. Haase (Berlin, Germany)	567
Taxonomic or ecological approaches? Searching for phytoplankton surrogates in the determination of richness and assemblage composition in ponds I. Gallego (Almería, Spain; Silkeborg, Denmark and Granada, Spain), T.A. Davidson (Silkeborg, Denmark), E. Jeppesen (Silkeborg, Denmark; Nuuk, Greenland and Beijing, China), C. Pérez-Martínez, P. Sánchez-Castillo (Granada, Spain), M. Juan, F. Fuentes-Rodríguez (Almería, Spain), D. León, P. Peñalver, J. Toja (Seville, Spain) and J.J. Casas (Almería, Spain)	575
AQUAFLOA: A predictive model based on diatoms and macrophytes for streams water quality assessment M.J. Feio (Coimbra, Portugal), F.C. Aguiar (Lisboa, Portugal), S.F.P. Almeida (Aveiro, Portugal) and M.T. Ferreira (Lisboa, Portugal)	586
Monitoring population size of mammals using a spotlight-count-based abundance index: How to relate the number of counts to the precision? P. Aubry (Le Perray-en-Yvelines, France), D. Pontier (Villeurbanne, France), J. Aubineau, F. Berger, Y. Léonard, B. Mauvy and S. Marchandeu (Nantes, France).....	599
Development and application of an ecological classification tool for fish in lakes in Ireland F.L. Kelly, A.J. Harrison (Dublin, Ireland), M. Allen (Belfast, UK), L. Connor (Dublin, Ireland) and R. Rosell (Belfast, UK).....	608
The effect of metals on photosynthesis processes and diatom metrics of biofilm from a metal-contaminated river: A translocation experiment N. Corcoll, B. Bonet (Girona, Spain), S. Morin (Cestas, France), A. Tlili (Lyon, France and Neuglobsow, Germany), M. Leira (Acoruña, Spain) and H. Guasch (Girona, Spain).....	620
Biomonitoring of airborne metals using the Lichen <i>Xanthoria parietina</i> in Kocaeli Province, Turkey A. Doğrul Demiray, I. Yolcubal, N.H. Akyol (Kocaeli, Turkey) and G. Çobanoğlu (Istanbul, Turkey)	632
Ecological preferences of earthworms for land-use types in semi-deciduous forest areas, Ivory Coast A.M. Guéi and J.E. Tondoh (Abidjan, Cote d'Ivoire).....	644
Combining process indices from network analysis with structural population measures to indicate response of estuarine trophodynamics to pulse organic enrichment K.-M. Lee, S.Y. Lee and R.M. Connolly (Australia).....	652
Sustainable tourism indicators as planning tools in cultural destinations M. Lozano-Oyola, F.J. Blancas (Seville, Spain), M. González and R. Caballero (Malaga, Spain).....	659
Different bioindicators measured at different spatial scales vary in their response to agricultural intensity B.J. McMahon, A. Anderson, T. Carnus (Dublin, Ireland), A.J. Helden (Dublin, Ireland and Cambridge, UK), M. Kelly-Quinn, A. Maki, H. Sheridan and G. Purvis (Dublin, Ireland).....	676
A graph-based approach to investigating the influence of the landscape on population spread processes J.-C. Foltête and P. Giraudoux (Besançon, France)	684
Relationship of land surface and air temperatures and its implications for quantifying urban heat island indicators—An application for the city of Leipzig (Germany) N. Schwarz, U. Schlink, U. Franck and K. Großmann (Leipzig, Germany)	693
A new perspective for phytobenthos in the European Water Framework Directive A. Besse-Lototskaya, P.F.M. Verdonschot (Wageningen, Belgium), M. Coste (Cestas, France) and B. Van de Vijver (Meise, Belgium).....	705