

*The newsletter of the Environmental Sciences Association of Ireland:
an association for people working in the environmental area.*

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ESAI AGM University of Limerick,
Saturday 1 February 1997, 5.30 pm

minutes last AGM
matters arising
reports of officers
adoption of constitution
adoption of code of ethics
election of Treasurer

EDITORIAL

Electronic communication

The use of e-mail and providing information on the World Wide Web are fast becoming an essential methods of communication. ESAI could usefully link with members by email and provide information on ESAI via the Web. Is there one or more volunteers with such interests who could co-ordinate such an activity? If so please contact a Council member as soon as possible.

Code of ethics

The council has drafted a code of ethics as the first step in promoting good professional practice. When registration or accreditation (see Environews 3) of professionals in the environmental area does emerge this could be developed into a perhaps wider code of professional practice. Please provide comments on the code to council members.

The 7th Irish Environmental Researchers Colloquium, University of Limerick

Convenor: Dr R. Moles, Department of Chemical and Environmental Sciences, University of Limerick, Plassey, Limerick; Fax 061-331490; E-mail richard.moles@ul.ie

Friday 31 January 1997

6.30-7.30 pm Registration main building, then lectures in In Jean Monnet lecture theatre
7.30 Welcome by President UL
7.45-8.45 pm Address by Minister of the Environment, Mr Brendan Howlin
8.15-9.00 pm Lecture by Prof. M. Johnson on mining and the environment
9.00-9.10 pm Address by Dr Barney Whelan, ESB
9.10 Reception Bourne Vincent Gallery, Foundation Building

Saturday

9.00-5.20 Four parallel sessions, at
10.20-11.00 ESAI study groups, coffee and poster sessions
3.00- 3.40 ESAI study groups, coffee and poster sessions
5.30-6.30 ESAI AGM, Jean Monnet Lecture Theatre
8.00 pm Colloquium dinner

Sunday continues similarly, with final plenary session from 12.40-13.40.

PROPOSED

ENVIRONMENTAL SCIENCES ASSOCIATION OF IRELAND

Code of Ethics

1. Introduction

Members of the Environmental Sciences Association of Ireland are bound by this Code of ethics.

The purpose of the Code is to ensure the commitment of Members to the objectives of the Association which are

- to facilitate communication and interaction between persons interested in the environment.
- to encourage further understanding of the importance of the environment through education and study.
- to foster an appreciation of good environmental quality.
- to promote the disciplines and professions of the environmental sciences.
- to provide specialist advice and objective comment on environmental issues.

2. Fundamental Principles

Members shall give priority to respecting and protecting the environment by ensuring that the highest standards of ethics, personal honour, scientific integrity and professional conduct are adopted in their professional activities.

3. Professional Obligations

In pursuing their professional activities members shall act with scientific integrity by

- reporting correctly, truthfully, fully and clearly to the limit of their ability information pertinent to a given project and by conveying their results objectively.
- identifying and reporting any inadequacies or financial constraints that might have impaired the quality of expert work undertaken.
- fully acknowledging and fairly representing the professional contributions of others.
- taking reasonable steps to establish the validity of information supplied by an employer or other organisation.
- performing only such services that are within their competence.
- ensuring that their comments on environmental issues are backed by a sound understanding of all scientific and technical aspects pertinent to the issue being addressed.

4. Duty to the Association

Each member will endeavour to ensure that applicants for membership will follow these principles and obligations.

Each member will uphold these principles and obligations and will, through advice and encouragement, attempt to ensure the adherence to these principles and obligations by other members.

CONSTITUTION of the ENVIRONMENTAL SCIENCES ASSOCIATION OF IRELAND

1. Name

The name of the association shall be the Environmental Sciences Association of Ireland.

2. Aims

- 2.1. To facilitate communication and interaction between persons interested in the environmental sciences and their application to environmental planning and management.
- 2.2. To encourage a better understanding of the importance of the environment.
- 2.3. To foster appreciation of good environmental quality.
- 2.4. To promote the environmental sciences and the profession of environmental practice.
- 2.5. To facilitate access to specialist knowledge and scientific comment on environmental issues.

3. Management

- 3.1. The affairs of the Association shall be managed by a Council of not less than 10 elected members, including 5 officers, and not more than 15 members in total.
- 3.2. The Council shall have the power to co-opt additional members for one year of office.
- 3.3. The officers shall be: Chairperson, Vice-chairperson, Honorary Secretary, Honorary Treasurer, and Honorary Editor.
- 3.4. The duties of the Chairperson shall be: (i) to chair meetings of the Council and all General Meetings; (ii) to guide and promote the activities of the Association; and, (iii) to represent the Association.
- 3.5. The duties of the Vice-chairperson shall be those of the Chairperson in his or her absence.
- 3.6. The duties of the Hon. Secretary shall be to maintain minutes and other records of the Association, and to carry out other secretarial duties as requested by the Council.
- 3.7. The duties of the Hon. Treasurer shall be to manage the finances of the Association, and to keep membership records.
- 3.8. The duties of the Hon. Editor shall be to produce the Newsletter of the Association as requested by Council.

4. Election of Council and Officers

- 4.1. The election of officers and other members of the Council shall take place only at Annual General Meetings, as Council vacancies arise.
- 4.2. Election shall be by secret ballot.
- 4.3. The term of office of Council members shall be two years and members shall be eligible for immediate re-election.
- 4.4. All nominations for election shall be in writing signed by two members of the Association with the written consent of the candidate to serve if elected. Nominations for election to the Council shall be given to the Hon. Secretary at or before the Annual General Meeting.
- 4.5. Temporary appointments until the next General Meeting may be made by the Council to fill vacancies arising during a term of office.
- 4.6. The Council shall be empowered to appoint Committees from among members of the Association, and determine the terms of reference of such committees..
- 4.7. Only fully paid-up Association members may participate in elections.

5. Council Meetings

- 5.1. The Hon. Secretary shall be authorised to call meetings of the Council, when so directed by the Chairperson.
- 5.2. Alternatively, any five Council members, acting in concert, may call a Council meeting.
- 5.3. All Council members must be informed in writing of the date, time and venue of any forthcoming Council meeting at least seven days in advance of that Council meeting.
- 5.4. Within two months of the Annual General Meeting there shall be a Council meeting at which the Hon. Secretary must provide a written list of names and addresses of all Council members.
- 5.5. A quorum at the meeting of the Council shall consist of five elected members.
- 5.6. Members of the Council who fail to attend three consecutive meetings of the Council without apology shall cease to be members of it, unless reinstated by a majority vote of the Council.
- 5.7. The decisions of the Council shall be taken by a majority vote. The Chairperson shall not vote except in the event of a tie.

6. General Meetings

- 6.1. The Annual General Meeting shall be held at approximately annual intervals, at such time and place as shall be decided by the Council.
- 6.2. The Hon. Secretary shall at the direction of the Council, be empowered to call a General Meeting for the consideration of the business of the Association.
- 6.3. The Hon. Secretary shall give all members of the Association not less than two weeks notice of the date, time and place of any General Meeting.
- 6.4. A quorum of any General Meeting shall be the number of elected members of the Council plus one.
- 6.5. Decisions shall be taken by a simple majority vote with the Chairperson having a casting vote in the event of a tie.
- 6.6. Voting shall be by ballot, or by show of hands if so agreed by a majority of members present.

7. Finances

The funds of the Association shall be in the name of the Association and shall be operated by the Honorary Treasurer, who will be accountable to the Association and shall produce accounts at the Annual General Meeting. The accounts of the Association shall be audited.

8. Membership

- 8.1. There shall be two categories of membership:
 - (i) Subscribing Membership, for members paying ordinary or reduced subscription.
 - (ii) Honorary Life Membership, for members elected by a two-thirds majority of the members of the Council, if, in the opinion of the Council, they have contributed in an outstanding way over a many years to the advancement of environmental research or practice in Ireland. As honorary members they shall be entitled to the full benefits of ordinary membership for life. No more than one honorary member may be elected in any one year.
- 8.2. There shall be two categories of subscription:
 - (i) Ordinary subscription, open to all persons interested in the aims of the Association.
 - (ii) Reduced subscription, open to all students and unwaged persons interested in the aims of the Association.

9. Annual Subscription

- 9.1. The annual subscription shall be decided by the Council.
- 9.2. The annual subscription shall be payable on the 1st day of January of each year by all members. The unwaged subscription shall not be less than half the ordinary subscription.
- 9.3. Membership of the Association shall lapse if the current annual subscription is not paid by the 1st day of April of each year.

10. Privileges of Membership

- 10.1. Members shall be entitled to receive free of charge the circulars and any regular publications of the Association.
- 10.2. Members shall be entitled to be notified of and granted access to all meetings of the Association, but only by the invitation of the Council to Council Meetings, or by the invitation of a Committee to Committee Meetings.
- 10.3. Members shall be entitled to submit articles and letters for consideration for publication in any publications of the Association.
- 10.4. Members shall be entitled to attend and vote at all meetings of the Association, other than Council and Committee Meetings.

11. Amendments and Alterations to the Constitution

- 11.1. No rule shall be made, altered or deleted from this constitution, except at a General Meeting of the Association. All Members are entitled to suggest an amendment, prior to a General Meeting, by submitting the suggested change to the Hon. Secretary.
- 11.2. The Hon. Secretary shall notify members of any suggested amendment before the General Meeting at which it is to be considered. A majority of two-thirds of those present in favour of the amendment shall authorise the amendment.
- 11.3. Amendments proposed before a General Meeting may be amended themselves during the General Meeting, with the consent of the proposer of the original amendment and a simple majority of those present at the General Meeting.

7th Irish Environmental Researchers Colloquium,

There may be changes to this listing

Papers to be presented as lectures

1. A hydrographic and mathematical model of Killybegs Harbour, Co. Donegal. Brendan O'Connor
2. The shallow seafloor environment between Portstewart and the Giant's Causeway. J.A G. Cooper, J. T. Kelly, & J. McKenna
3. Stable carbon isotopic apportionment of individual polycyclic aromatic hydrocarbons in sediments from marine and estuarine environments. Vincent P. O'Malley
4. A national survey of coastal lagoons. Brenda Healy, Geoff Oliver, Jervis Good & Paul Hatch
5. The first reported isolation of a microalgal virus from Irish coastal waters and its preliminary characterisation. E. Mortimer & J. W. Patching
6. Influence of intertidal oyster trestles on the abundance of meiofauna. H. Skjaeggstad & P. Boaden
7. Observations on the biology of parasites of smelt *Osmerus eperlanus* (L) in the Shannon system. F. Geraghty, T. K. McCarthy & W. O'Connor
8. The diatom genus *Pseudo-nitzschia* and its distribution in southern and southwestern coastal waters of Ireland. C. Cusack, R. C. T. Raine & J. W. Patching
9. Assessing the size and shape of pacific oysters using image analysis techniques. P. L. Heath & J. H. Wilson
10. The Shannon estuary: heavy metal free? Caitriona O'Leary
11. Bacteriological studies on mid-Atlantic ridge hydrothermal plumes. D. O'Brien, D. Eardly, M. Carton & J. W. Patching
12. Harmful species introduced by shipping. Dan Minchin
13. The quality status of the Celtic Seas: a new assessment of Ireland's marine ecosystems. R. G. V. Boelens
14. Phylogenetic analysis of a microbial mat at a hydrothermal vent system on the mid-Atlantic ridge. M. W. Carton, D. O'Brien, D. Eardly & J. W. Patching
15. The potential of Strangford Lough for commercial scallop (*Pecten maximus*) cultivation: scallop spat collection techniques and settlement patterns. N. McDonough and D. Roberts
16. Implications for air quality in landfill sites arising from volatile organic compounds associated with leachate collection. Kevin J. James & Mary Stack
17. The effect of nitrate on biological nutrient removal systems. Donal Mulkerrins, Clodagh Jordan & Emer Colleran
18. A critical assessment of solid waste management in a large university, within the framework of Irish and international waste management. Damian Nolan
19. Trials on advanced sewage sludge treatment. John Bartlett
20. Anaerobic treatment of phenol and related organics. Therese Mahony & Emer Colleran
21. Constructed wetlands for waste water treatment: the case of Ballymoe House, Middleton, Co Cork. Feidhlim Harty
22. Phytoremediation potential of plant species from the Silvermines area, Co. Tipperary. Maria Steinborn & John Breen
23. Efficient biological nutrient removal from wastewater streams in the Irish food industry. D. Primus, K. Buckley, J. Day, B. Kiely & A. Dobson
24. Water purification using treated peat. J. J. Leahy & J. J. Hennessy
25. Recovery of chromium from tannery effluents using a redox-adsorption approach. Tom O'Dwyer
26. Engineering containment systems for solid and liquid waste treatment, storage and disposal facilities. Jonathan Derham
27. The Irish experience: healthcare waste management. Claire McQuade
28. Favourable geological/hydrogeological settings for landfill sites in Ireland. Alistair A. Allen
29. *Pseudomonas* genetically modified for the degradation of PCBs and resistance to mercury: development of bacterial inoculants for bioremediation. D. N. Dowling, G. M. Brazil, A. Birmingham, O. O'Sullivan & F. O'Gara
30. Location and evaluation of potential landfill sites in west Cork. A. Dillon & A. R. Allen
31. The application of genetic probe technology in landfill bacteria studies.

- Katherine Mundell, Alistair Allen, Jeremy Glennon & Alan Dobson
32. An environmental assessment of Rossmore landfill site, Carrigtwohill, Co. Cork, and monitoring of trace metal contamination around Rossmore peninsula (Part I). C. Butler, & A. Allen
 33. An environmental assessment of Rossmore landfill site, Carrigtwohill, Co. Cork, and monitoring of trace metal contamination around Rossmore peninsula (Part II). C. Butler, J. Twomey & A. Allen
 34. Groundwater protection in the Dower spring catchment area. Cecilia Gately
 35. An evaluation of the extent to which Irish environmental impact assessments take groundwater issues into account. Susan O'Shea & Catherine Coxon
 36. A colloidal survey of deep and shallow groundwater in (urban/rural) Nottingham, UK. Carol Butler
 37. Observation of the risk of Ivermectin use in fish farming. R. Coyne, S. Davey, J. Kilmartin, R. Palmer, D. Cazabon & P. Smith
 38. Ecotoxicological assessment of three selected pesticides used in the Irish mushroom industry. A. M. Fogarty
 39. The determination of tumour promoting cyanobacterial toxins in Irish lakes. Ambrose Furey, Kevin J. James, Carol MacKintosh & Ian R. Sherlock
 40. Marine phytoplankton blooms and diarrhoeic shellfish toxicity. Alan G. Bishop, Eoin P. Carmody, Marion Gillman, Kevin J. James, Sean S. Kelly & Marian Twohig
 41. Effects of phenyitins on microalgae. H. M. Mooney & J. W. Patching
 42. Resistance to organotins amongst indigenous benthic bacteria. S. Kavanagh & J. W. Patching
 43. The identification of neurotoxins from cyanobacteria and marine phytoplankton. Ambrose Furey, Kevin J. James, Colm O'Mahony & Ian R. Sherlock
 44. Expression of stress proteins in cultures cells, a measure of heavy metal toxicity. John Gault
 45. Smoking control in restaurants. P. Hickey & C. Kelleher
 46. Resilience and resistance of macro-invertebrate communities following a flood disturbance. Kevin O'Gorman, Paul Giller & John O'Halloran
 47. Ecological assessment of Irish lakes. G. Free, N. Allott, K. Irvine, J. White & E. de Eyto
 48. Spatial scale and the aggregation of stream macroinvertebrates. J. F. Murphy, P. S. Giller & M. A. Horan
 49. Longitudinal variation in freshwater pearl mussel density in relation to river habitat. Tom Gittings, Danny O'Keefe, Frances Gallagher, John Finn, Tadgh O'Mahoney
 50. Burren patch dynamics. Grace O'Donovan & Richard Moles
 51. Natural regeneration within the Crom oakwoods, Co. Fermanagh. Andrea Service
 52. Do island floras change? A resurvey of the islands of Lough Corrib after an 18 year interval. Cilian Roden
 53. The effect of macrofaunal activity on organic matter decomposition in forestry ecosystems. Michael McInerney
 54. Birds of coniferous forests in Munster. Paul M. Walsh, John O'Halloran, Paul S. Giller & Bridget Lehane
 55. *Aphodius* dung beetle assemblage stability at different spatial and temporal scales. John Finn, Tom Gittings & Paul Giller
 56. Should spraint surveys be used to assess otter habitat use? Edel O'Neill
 57. Factors affecting the distribution of riverine bird species in Northern Ireland. R. Mathers, S. J. Preston, P. Randell, M. Rose & J. Martin
 58. The BIODEPTH experiment: an analysis of the role of biodiversity in ecosystem function. Grace O'Donovan, Jervis Good, Paul Giller
 59. Minimum phosphorus requirements for herbage production in the spring. T. Jansen, N. Culleton & T. Storey
 60. Assessing farm pollution trends from chemical and biological water quality monitoring and recorded pollution statistics. M. J. Carroll, R. H. Foy & S. D. Lennox
 61. Phosphorus recommendations for grazing systems. N. Culleton & W. E. Murphy
 62. Soil properties and related factors on organic farms. C. Leonard & G. J. Mullen
 63. Development of a recreation management model using geographical Information Systems (GIS) to assess the vulnerability of

- soils and landscapes to erosion due to amenity usage. Sinead O'Connor & Ken Boyle
64. Landscape hierarchies in Northern Ireland: A GIS-centred approach to glacial resource inventory and assessment. S. McCarron & J. Knight
 65. Woodland recreationists' views on woodlands and their functions: a preliminary report. Alexandra van der Sleen & Daniel Kelly
 66. Maximising the ecological diversity of industrial cutaway peatlands. Katharine Duff
 67. Measuring chlorophyll content of Irish lakes using airborne spectrometry. Stuart Green, Eon Mongain, Patricia Hannon & Joseph Caffrey
 68. Revegetation of metal mining tailings using *Glyceria fluitans*. O. M. McCabe & M. L. Otte
 69. Rehabilitation of abandoned metalliferous mine spoil at Avoca mines using sewage sludge as an ameliorant. J. A. Good, B. Kilkenny, B. Dallas, P. Goodwin
 70. Mining and the environment: a case study of Arcon Mines Ltd. K. McNair, D. Waugh & S. Hickey
 71. Leveraging public perception- a systems perspective of the mining industry. Bernadette O'Regan & Richard Moles
 72. Measurement of air pollutants in Dublin city using differential optical absorption spectroscopy. Bernadette Duffy, Jack Treacy & Howard Sidebottom
 73. A passive sampler for measuring gaseous ammonia, the Williams-badge. R. van der Beuken, Y. de Kluizenaar & E. P. Farrell
 74. Personal exposure to PM10s of cyclists in Dublin. David Healy and Paul Dowling
 75. PM10 concentration measurements in Dublin city. John Keary
 76. Baseline survey of VOCs in Dublin city. Imelda Shanahan, Brian McManus & Mary Lee
 77. Peroxy radical reactions of atmospheric interest. Eoin Collins
 78. Kinetics and mechanisms for the reactions of OH radicals with esters and carbonates. Sinead O'Donnell
 79. Radon exposures in Irish showcaves. Jack Madden
 80. Atmospheric deposition in Ireland. Julian Aherne, Roel Van den Beuken & Edward P. Farrell
 81. Ambient aerosol characteristics at Mace Head on the western coast of Ireland. J. Keary, S. G. Jennings, C. Cahill & M. Geever
 82. Kinetic studies of the reaction of OH radicals with ethers. Jennie Moriarty
 83. The decomposition of ammonia over copper on alumina catalysts. Teresa Curtin
 84. Sustainable development- implications for the Irish electricity sector. Donagh O'Mahony
 85. Side scan sonar investigations in Lough Neagh, Northern Ireland. J. A. G. Cooper, J. McKenna & D. W. T. Jackson
 86. Environmental impact assessment of flood relief schemes: a case study. Tadgh O'Mahoney
 87. Estuarine waterfowl ecology and the design of environmental impact studies. Tom Gittings
 88. Risk perception and fear reduction. J. Heeran
 89. Making Irish environmental legislation work. Practical experience and recommendations for improvements. Simon White
 90. Tangible and intangible costs and benefits associated with implementing environmental management systems. Simon Stringer
 91. Monitoring the changes in semi-natural habitat in relation to agricultural grassland and forestry in the Sperrins AONB, Northern Ireland, using satellite imagery. Niall J. Watson
 92. Conservation and aquaculture- what are the conflicts? M. L. Heffernan, E. M. Sides & O. Merne
 93. Continuous emissions monitoring systems for power stations. Brendan Barry
 94. Evaluating Ireland's wave energy resources. Kenneth Kingston, Brian Holmes & Noel Murphy
 95. Emissions from two compression ignition engine vehicles running on mineral and rape seed oil based fuels. R. Howard-Hildige, S. Condon, J. J. Leahy & K. McDonnell
 96. The vapour phase Beckmann Rearrangement over solid acids. P. O'Sullivan & B. K. Hodnett

97. Catalytic destruction of volatile organic compounds on platinum/zeolite. A. O'Malley & B. K. Hodnett
98. Semi-refined rapeseed oil (SRO) as a diesel fuel extender for agricultural equipment. Kevin Mc Donnell
99. Effect of steam on very active alumina-based catalysts for the selective catalytic reduction of NO by propene in excess oxygen. R. Ukropec, C. Stapleton, F. C. Meunier & J. R. H. Ross
100. The role of oxygen in photocatalysis. B. R. Eggins, J. A. Byrne, F. L. Palmer, H. Coleman, B. Kelly & P. J. K. Robertson.

Poster presentations

1. Immobilisation of TiO₂ powder for the treatment of polluted water. J. A Byrne, B. R. Eggins, B. McKinney, N. M. D. Brown, C. Anderson & F. L. Palmer
2. Land spreading of spent mushroom compost. C. McMahan & G. J. Mullen
3. Effects of cheese whey application on soil and drainage water properties in grassland soils. M. V. Ross & G. J. Mullen
4. Petrel distribution around Ireland. C. M. Pollock
5. Oyster rearing in Brittany. Lenaik Derlot
6. Urban oasis: Apple Tree Court. Elizabeth Gardiner & Andrew Chatterjee
7. Water sources in Afghanistan. Abdul Rahin
8. Envirotech and EMS for SMEs. Jon Casey, Christine Middleton & Christopher Hayes
9. Urban parks and local Agenda 21. Martin Shaw
10. Exclusive mechanisms vs tolerant mechanisms - how plants survive in metal contaminated soil. Maria Steinborn & John Breen
11. Grey seal (*Halichoerus grypus*) fisheries interactions in Irish waters: research intentions. R. T. P. Arnett, P. J. Coulahan, G. O'Neill, J. Whelan & C. Crummey
12. The wildlife implications of wide-spaced agroforestry systems. L Whiteside, A Bell & J H McAdam
13. The assessment of the environmental impact of mining on geological media. Olga Aslibekian & Richard Moles
14. Earthbank ecology. Peter North
15. The effects of human activity on the behaviour of Brent geese and wigeon on Strangford Lough, Co. Down, NI. R. G. Mathers & W. I. Montgomery
16. Heavy metal loads in the Shannon estuary. Caitriona O'Leary
17. Monitoring of forest ecosystems in Ireland. Jill Boyle
18. The biological indicator *Nucella lapilis* used to determine the distribution of TBT within Bantry bay. Annagh Minchin & Declan Casey
19. Lake management models- assessing and reconstructing lake oxygen regimes using chironomid larvae. Zoe Ruiz
20. The ecology of the Natterjack Toad in south west Ireland. Liza Keane
21. Natural resource and landscape study of the river Lee catchment. Aoife Cassidy, Juliane Coughlan, Mathijs Schouten & Maire F. Mulcahy
22. Farm pollution trends in Northern Ireland 1987-1995. D. Lennox, H. Foy, V. Smith & E. F. Unsworth
23. The ecology of artificial lakes on cutover bog. Jean-Charles Kaens, Aiveen Kemp, Ger O'Brien, Aine O'Connor & Julian D. Reynolds
24. A critical investigation of the groundwater ubiquity score for pesticide risk assessment to freshwater lakes. Aidan Fallon
25. Storing and querying karst information in Microsoft Access databases. Morgan Burke, Philip Jutson, Donal Daly & David Drew
26. Biological monitoring of the west Fermanagh and Erne lakeland Environmentally Sensitive Area in Northern Ireland. A. Cameron, C. A. Millsopp, C. A. Mulholland & J. McAdam
27. Landscape monitoring in Northern Ireland's Environmentally Sensitive Areas. C. A. Millsopp, A. Cameron, J. H. McAdam
28. Estimation of *Nephrops norvegicus* biomass in the North Sea from research vessel surveys and hatchery studies. Nuala McQuaid, Richard Briggs & John Wilson
29. Dairying in the Rural Environmental Protection scheme. N. Culleton & J. Murphy
30. Fertilisers for *Fraxinus excelsior* in the establishment phase. N. Culleton
31. Windows of opportunity for spreading slurry. N. Culleton, W. E. Murphy & O. Carton
32. Mechanisms of trace metal contaminant transport in lakes. Richard Douglas
33. Effects of Kerry Cattle on the vegetation of a *Molinia*-dominated blanket bog in Killarney, Co. Kerry. F. Dunne & G. J. Doyle

34. A technique for obtaining 3-dimensional structural images of non-coherent particulate matter (milled peat) by *in situ* impregnation. S.J. Mooney, N. M. Holden, J. F. Collins & S. M. Ward
35. Continuous measurements of total gaseous mercury at Mace Head, Ireland. R. Ebinghaus, H. H. Kock, S. G. Jennings & T. G. Spain
36. Alternative technologies to dispose of healthcare waste. Claire McQuade
37. Detection of TBT contamination in Dublin Bay using four snail indicators. Dan Minchin, Barbara Bauer, Jorg Oehlmann, Ulrike Schulte-Oehlmann, Colm B. Duggan & Jane O'Brien
38. The ecotoxicology of heavy metals in the estuarine ecosystem. Pamela A. Byrne, John O'Halloran & James O'Neill
39. Alderwoods in south Cork. A. Browne & G. J. Doyle
40. Vegetation and soil characteristics of damaged Atlantic blanket bogs. F. MacGowan & G. J. Doyle
41. Soil nutrient status of Irish sand-dune systems. Karen Gaynor & Gerry Doyle
42. Comparative analysis of plasmid and chromosomally mediated arsenic resistance. David Ryan & Emer Colleran
43. Thermophilic anaerobic digestion of a sulphate containing molasses based on wastewater. Sean Pender & Emer Colleran
44. An investigation into the environmental impacts of sheep dips. M. J. Carroll & P. Dowding
45. An interesting muricid from the Irish Sea. Jane O'Brien
46. The fauna of Rogerstown estuary. Jane O'Brien & Mary O'Neill
47. Analysis of waste degradation in existing landfills. Alistair Allen, Jeremy Glennon, Alan Dobson, Katherine Mundell, Marion Slattery & Louise Leahy
48. Constructed wetlands for effluent treatment. Niall Clements
49. The GC-MS determination of organic contaminants in industrial effluents using solid phase microextraction. Kevin James & Mary A. Stack
50. Identification of the diarrhoeic toxin, dinophysistoxin-2, in the marine phytoplankton, *Dinophysis acuta*. Alan G. Bishop, Rosa Draisci, Brendan Healy, Luigi Giannetti, Kevin J. James, Sean S. Kelly, Luca Lucentini & Cilian Roden
51. Interception of seasalt by coniferous and broadleaved woodland in a maritime environment in western Ireland. E. P. Farrell, R. Van Den Beuken, G. M Boyle & T. Cummins
52. Rate constants and hydroxyl radical yield for the gas-phase reactions of ozones with a series of dialkenes. Jack Treacy, Mary Gurrie & Howard Sidebottom
53. Reactions of chlorine atoms with aromatic compounds. Barbara O'Leary, Jack Treacy & Howard Sidebottom
54. The Internet as an environmental resource. Bernadette O'Regan & Richard Moles
55. Environmental impact statements for the mining industry. Bernadette O'Regan & Richard Moles
56. The identification and amelioration of the impacts of clearfelling operations on aquatic systems in Ireland. Mieke Johnson, Conor Clenaghan, Paul S. Giller & John O'Halloran
57. Forest location and enhancement strategies in relation to salmonid fish in Munster. Bridget Lehane, Paul S. Giller, John O'Halloran & Paul M. Walsh
58. Using GC-MS/IRMS to determine the ¹³C/¹²C ratios of individual hydrocarbons produced from the combustion of biomass materials- application to biomass burning. Vincent P. O'Malley
59. Mapping critical loads for Ireland: progress to date. Julian Aherne, Roel van den Beuken, Edward P. Farrell & Michael McGettigan
60. Gaseous SO² measurements with passive samplers at forest sites. Y. de Kluizenaar, R. van den Beuken & E. P. Farrell
61. Ambient monitoring of nitrogen oxides and VOCs in west Dublin. Peter McGowan & Ruaidhri Neavyn
62. Management priorities for the river Nore (Ireland) to conserve the pearl mussel *Margaritifera durrovensis*. Mark J. Costello, Evelyn Moorkens, Michelle Larkin, Isabelle Kurz, Jennifer Dowse
63. Landform replication in quarries- an example of basalt landscapes in Northern Ireland. Gareth Coughlin
64. Groundwater protection of a sand and gravel aquifer. Yvonne Doris.

PUBLICATIONS OF INTEREST

Please send brief reviews of other environmental publications, be they books, magazines, or electronic (diskettes, WWW) which may interest members to ENVIRONNEWS.

Environment Protection Agency

Publications in 1996 included reports on the quality of drinking water in Ireland, dioxins in the Irish environment (based on cow's milk), eutrophication in Lough Ree, IPC licencing in 1995, pesticides in drinking water, smoke and sulphur dioxide, ozone monitoring in 1995, urban waste water treatment regulations, and reports on national waste database, catalogue, and municipal waste characteristics.

National Accreditation Board

A guide to the European Commission's Eco-Management and Auditing Scheme has been published. It is aimed at both industry and consultants, and outlines how a company can become registered under the scheme. Contact John Hussey, NAB, Wilton Park House, Wilton Place, Dublin 2. Tel. 01-607 3003; 607 3109.

EMI - Environment Management Ireland

This free magazine is distributed free to people in industry, authorities, agencies, consultancy, universities, and research. It is in an high quality A4 glossy colour format, with short articles on products, services, regulations, training programmes, and environmental news. The numerous advertisements are a useful indication of the companies providing environmental services in Ireland. Its available from Nestron Ltd, 68 Middle Abbey Street, Dublin 1. Tel. 01 - 872 0734; fax 01 - 872 0856.

Sea State - Newsletter of the Marine Institute (of Ireland)

Two issues of this new newsletter have now been published and it is the key source of current information on activities of the Marine Institute. Deadlines for research proposals, news of successful proposals and new research projects, upcoming meetings, new staff appointments, are also included. To get back issues or on the mailing list contact The Marine Institute, 80 Harcourt Street, Dublin 2, Ireland. Tel. 01-4780333, fax 4784988, email john.joyce@marine.ie also see their Web site at www.marine.ie

New projects starting under the Maritime (Ireland / Wales) INTERREG programme

Eight collaborative projects which address marine environmental and conservation management issues, submitted under sub-programme 1.3 "protection of the marine & coastal environment" of the Maritime Interreg programme have been approved. They include (title and partners given):

- South west Irish sea survey (SWISS). Trinity College Dublin, Natural History Museum, Dublin / Museum of Wales, Cardiff, University of North Wales (Bangor).
- The fate of nutrients in estuarine plumes University College Galway / University College of North Wales.
- Water quality and circulation in the southern Irish Sea. University College Galway / Environmental Protection Agency (UK), University College of North Wales.
- Sensitivity mapping of inshore marine biotopes in the southern Irish Sea (SensMap). Ecological Consultancy Services Ltd, National Parks & Wildlife Service / Countryside Council for Wales.
- Grey seals: status and monitoring in the Irish and Celtic Seas. University College Cork / Dyfed Wildlife Trust.
- Collaborative Celtic marine mammal project. University College Cork / Countryside Council For Wales.
- The roseate tern - the natural connection. Irish Wildbird Conservancy / North Wales Wildlife Trust
- Marine information system: scoping study. Irish Marine Data Centre / Countryside Council For Wales.

New project proposals for maritime Interreg can be received at any time. However in view of budgetary constraints, the joint working group invites short two page proposal outlines which will be reviewed at the next joint working group meeting (March/April 1997). If the proposal is suitable a full application will be invited.

COMING MEETINGS

The Editor welcomes short reviews of meetings for this newsletter.

DATES	TITLE	VENUE	FURTHER DETAILS
1997			
February 20 th	Second Call for Proposals to the Marine Research Measure of the Operational Programme for Fisheries	Russell Court Hotel, Harcourt Street, Dublin 2	Marine Institute Web-Page (www.marine.ie) or contact the Marine Institute (Ms Liz Hyland) at 01-4780333.
February 21	Coastal structural development and habitat protection	European Parliament Offices, Dublin	Karin Dubsy or Jackie Hunt, Coastwatch Europe, Environmental Sciences Unit, Trinity College, Dublin 2. Tel. 01-2802501, fax 2802192.
March 21-23	Spring Meeting Irish Society of Toxicology on theme of water quality	Dingle	Mrs C.M. Chambers Dept of Pharmacology & Therapeutics, Trinity College, Dublin 2. Tel. 01-608 1403 (after 8 rings Voice mail). Fax 6713507/6772066
July 8-11	Fisheries Society of the British Isles annual meeting on Ichthyoplankton Ecology	University College Galway	Dr Julie Fives, Martin Ryan Marine Science Institute, University College, Galway. Tel 091-24411, fax-25000.
1998			
August	27th Symposium International Limnologie (SIL)	University College Dublin	Dr Declan Murray, Dept. Zoology, University College, Belfield, Dublin 4.

FAS Course on *Site suitability assessments for on site waste water management*

South Tipperary County Council have been contracted by FAS to prepare course-ware for a course entitled: "Site Suitability Assessments for on Site Waste-Water Management". The course will be dealing with evaluation for septic tanks and alternative systems. It is expected that the first formal run of the course will be in Spring 1997 and it will be targeted at professionals and technical staff in environmental sanitary services, planning and health areas. Contact Mr. Billy Moore, Tipperary South Riding Co. Co., County Hall, Clonmel, Co. Tipperary.

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ESAI Council members for 1996
*** position open for election in January 1997**

- Chairperson** Dr Richard Thorn, Head of Centre, Galway Regional Technical College, Castlebar Campus, Castlebar, Co. Mayo. Tel. 094-25700; Fax. 094-25757; Home Tel. 071-70981. E-mail Richard@CRTCI.RTC-GALWAY.IE
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- Dr Robert Kalin, Environmental Engineering, Queen's University Belfast, Co. Down, BT7 1NN, N. Ireland. Tel. 0801-232-245133; Fax. 0801-232-663754; E-mail R.KALIN@QUB.ac.uk
- Mr Donal Marron, K. T. Cullen & Co. Ltd., Parkview House, Beech Hill, Clonskeagh, D. 4. Tel. 01-2697222; Fax. 01-2698219
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- Dr W. I. Montgomery, Biology and Biochemistry, Queen's University, Belfast. Tel. 0801-232-335786; Fax. 0801-232-236505
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- Dr Emer Rogan, Dept. of Zoology, University College, Lee Maltings, Prospect Row, Cork. Tel. 021-904053; Fax. 021-277922; E-mail ROGAN@BUREAU.UCC.IE
- Ms Miriam Ryan, Forest Ecosystem research Group, ERM, University College Dublin, Belfield, Dublin 6. Tel. 01-7067673; Fax. 01-7061102; Home No. 01-2889942
- Dr James Wilson, Environmental Sciences Unit, Trinity College, Dublin 2. Tel. 01-6081640; Fax. 01-6718047; E-mail jwilson@vax1.tcd.ie

ADVERTISING

The newsletter can include advertisements. A half page ad' will cost £40. An advertising brochure will be included with the newsletter for £75 (or more if it significantly increases mailing weight). Members names and addresses will not be provided to commercial concerns.

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