

## IN MEMORIAM

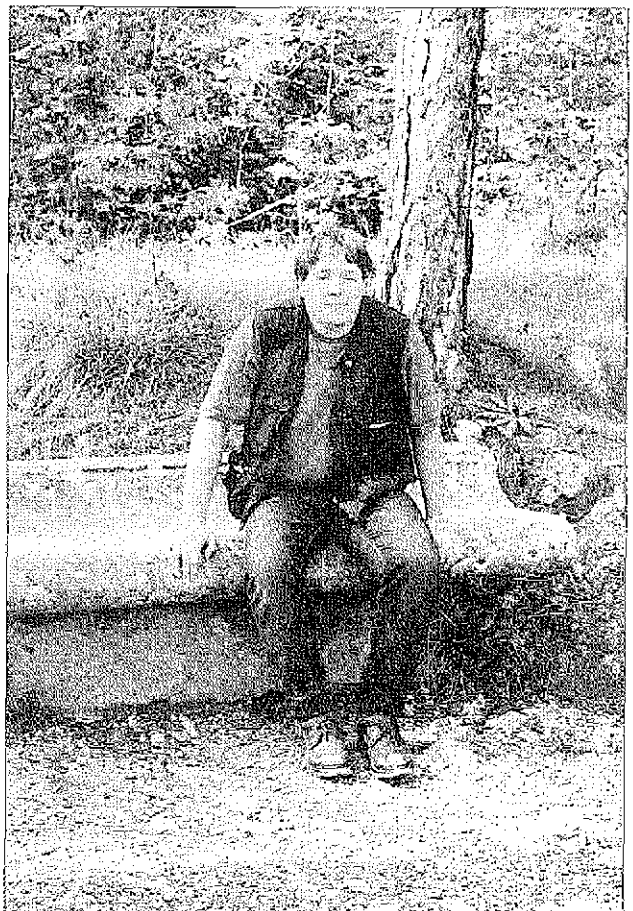
## Obituary

**Huw Idwal Griffiths  
1958-2002**

Huw Idwal Griffiths was born to Martha and Idwal Griffiths in Louth, Lincolnshire, England, on 14 May 1958, twelve years the junior of his sister, Sue. He passed away peacefully in hospital in Hull on 12 June 2002, only one month after he was diagnosed with an advanced cancer of the oesophagus. While suffering increasing medical problems and associated exhaustion which had dogged him since the previous autumn, preventing him from being as active a member of the scientific community as he would normally have been, he made a supreme effort to the end to adopt his usual ebullient character and hide his illness from all but those closest to him. His absolute dedication to his work is evinced most in his determination to complete his current teaching duties; having managed against the odds to finish his lecture courses, he then proceeded to entertain himself when at last confined to home by marking exam papers only two weeks before his death. Huw is survived by his wife Dr. Jane M. Reed, a specialist in diatom analysis, and by their three year old son Thomas, who takes very much after his father.

Huw's keen interest in nature, and animals in particular, developed early on during his childhood. He was a regular visitor to the local pet shop, and had an alarming habit of bringing home the carcasses of reptiles and other vertebrates to examine and sometimes even dissect. It was not until later in life that the opportunity arose to pursue these interests. After secondary school, Huw opted out of university and spent many years going from job to job in search of a purpose in life. He was, amongst other things, a guitarist and singer-songwriter in a band, an interior decorator for BBC television shows and a menial worker in a sausage factory. This wandering period probably contributed to Huw's colourful character, which made him a unique personality as well as an indisputable authority in the scientific community. It was at the age of 27 that he chose zoology as his future career, obtaining a first class BSc Hons degree in zoology from the University of Wales in June 1988. During his undergraduate training Huw was known by his supervisor (with whom he remained in touch until his death) for his boundless enthusiasm, while his outstanding academic merit was reflected in the receipt of the Edith Sheppard and Tattersall Exhibition Awards for best second year work in Zoology and for final year research, respectively. As a promising young scientist Huw continued his studies at the University of Wales

where he received an MPhil in April 1992 with a thesis entitled "*The conservation status of the Eurasian badger (Meles meles L., 1758) (Carnivora, Mustelidae) in western Europe*". Not content with this, however, Huw embarked on his PhD research whilst still working on the MPhil, completing his thesis on freshwater ostracod crustacea in May 1995 (University of Wales) entitled: "*The application of freshwater Ostracoda to the reconstruction of Late Quaternary Palaeoenvironments in North-western Europe*". The PhD and MPhil research were carried out while Huw was employed as a Research Technician at the School of Pure & Applied Biology, University of Wales College of Cardiff (1988-1989), a Research Assistant at the School of History & Archaeology at the same University (1989-1992), and a Research Associate at the Department of Genetics, University of Leeds (1992-1995). Huw then succeeded in obtaining a permanent lectureship in September 1995 in the Department of Geography, University of Hull, being promoted to Senior Lecturer in October 2000.



*Huw during the post-conference excursion to Škocjan-ske jame Cave. Exploratory Workshop "Pattern and Process in the Balkan Biodiversity". September 2001.*

Huw's last years in Hull were a happy period in his life. After so many years of tensions, pressures and uncertainties, he finally settled down and, even more importantly, established a family, which remained the focus of his private life. Equally, Huw was very relaxed at work and enjoyed the company of his colleagues and students in Hull. He was the mainstay of a dynamic research group of colleagues, external collaborators and students involved both in the field of environmental change in aquatic ecosystems and that of mammalian conservation. In addition, he loved teaching and enjoyed working with enthusiastic students. I was in personal contact with several of Huw's undergraduate and postgraduate students. They not only regarded him as a brilliant and inspirational lecturer, but simply loved him. As a supervisor, he gave students complete academic freedom but supported them tremendously whenever necessary. Huw's approach to lecturing was as to a theatrical performance, while at the same time ensuring that the scientific content was impeccable. As an ebullient and energetic man, strongly committed to the pursuit of academic excellence, Huw was prepared to spend long hours advising and counselling students at both undergraduate and postgraduate levels, which was deeply appreciated by them. Huw's breadth of interests is reflected well in the range of PhD and MPhil theses he supervised: *"GIS mapping of brown bear distributions in Slovenia"* (Deborah Wilson), *"Status and management of the terrestrial vertebrate fauna of Dominica"* (Kelvin Alie), *"Status and conservation of the bats (Chiroptera) of Jamaica"* (Andrea Donaldson), *"Anthropozoological studies of the effects of ethnic hunting on the fauna of the Gran Chacos, Paraguay, with particular reference to armadillos"* (Silvia Frutos), *"The effects of "set aside" on small mammal communities"* (Jodie Jones), and *"Behavioural studies of the flying fox, Pteropus sp."* (Alaric Smith), *"The basis of ostracod shell chemistry in palaeoclimatic reconstruction"* (Kevin Keatings), *"The conservation status of selected Turkish RAMSAR lake sites"* (Sandra Ryan), and *"Night survey for crayfish in the river Wharfe, Yorkshire"* (Stephanie Peay). Huw had also been given many administrative responsibilities and, in the Head of Department's own words, had "responded superbly", in spite of the fact that, due perhaps to his strong professionalism and a seriousness about his work, he disliked much of this "university nonsense" which could waste valuable time spent on more meaningful tasks.

Unlike many scientists, Huw was renowned for the diversity and breadth of his interests, which often gave him a novel outlook on how best to tackle a scientific problem. As noted, these spanned a range of fields from mammalian ecology to freshwater biology and extended in recent times to combining pure and social scientific approaches to solving complex issues. Within this, his major specialisation was to combine modern and an-

cient datasets from species with excellent fossil records (notably mammals and ostracod crustaceans) to elucidate long-timescale evolutionary and biogeographic patterns, and to use these as analogues in modelling the effects of rapid modern environmental and climate change. The use of freshwater ostracods for the reconstruction of Quaternary palaeoenvironments and recent environmental histories involved studies of both modern and fossil faunas, and also the construction of experimental studies to examine carbon and oxygen isotope uptake in the shells of living ostracods. To achieve these goals, Huw collaborated intensively in multi-proxy, inter-disciplinary research with scientists from the UK (Melanie Leng, Neil Roberts, Mick Frogley, Jane Reed and others), Germany (Antje Schwalb), Spain (Francesc Mezquita-Juanes), Turkey (Selçuk Altınışık), and Slovenia (Lovrenc Lipej, Anton Brancelj, and many more). Huw's genuine interest in the use of matched modern and fossil datasets to elucidate ecological and evolutionary responses to environmental and climatic change in various animal species resulted in additional collaboration with geneticists from the UK (G. R. Carvalho, Angus Davison) and abroad. Finally, recent collaboration with social scientists in Hull (Andy Dawson, David Sibley) had led Huw to become involved with issues related to society and animals, and how animals are perceived by and interact with humans.

It is hard to imagine that someone who started his scientific career relatively late and died so young as Huw did, could achieve such mastery of so many different fields of biology. During his short scientific career, Huw had a prodigious research output; he had become a recognised leading authority on the use of freshwater Ostracoda in palaeoecological work and biological monitoring and, equally, was well known for his work on carnivores. With the publication of an edited volume on mustelid carnivores (Griffiths, 2000) and a co-authored volume on non-marine Ostracods and Quaternary Palaeoenvironments (Griffiths & Holme, 2000), his academic visibility had increased substantially in recent years. What is particularly sad is that Huw did not have time enough to develop fully as a scientist. He died full of ideas and plans and right in the middle of a pile of unfinished work. In spite of Huw's spectacular scientific career and impressive bibliography, he had certainly not yet achieved the peak which was promised by his work to date and by his brilliant mind.

Huw's interest in vertebrate biology was broad, as he refused to be restricted to any particular taxonomic group, geographic region or topic. His related publications ranged from amphibian histology and physiology (possibly reminiscent of his schoolboy's interest in dissecting dead animals) to various aspects of mammalogy. Particularly outstanding was his contribution to mustelid conservation and evolutionary biology. He studied this topic at various scales, from molecular biology at one

level to human-carnivore interactions at another. The European badger was perhaps his favourite, followed by the marble polecat (Huw's contributions to the better understanding of a little known marbled polecat *Vormela peregusna* resulted in him to be appointed a co-chair for the IUCN *Vormela* group), polecats, pine marten, and the European mink. As was characteristic of Huw's entire scientific output, his research in mustelids was original, full of fresh ideas and consequently stimulating for scientists and conservationists. The results of his MPhil Thesis on the conservation status of the Eurasian badger in western Europe have been published as several original scientific papers, while the thesis in its entirety served as the basis for the Report to the Permanent Committee of the Convention on the Conservation of European Wildlife and Natural Habitats at the Council of Europe. This monograph, which appeared in English and in French, is of fundamental importance to the conservation of badgers in Europe and remains a prime example of how such a topic should be approached. In recent years he had become very attracted by the phylogenetic relationships, hybridisation and associated conservational issues related to various *Mustela* species (*M. putorius*, *M. eversmanni*, *M. lutreola*, *M. vison*, *M. furo*), which required expertise in molecular biology. Huw's reputation resulted in his being an invited member of Small Carnivora IUCN Species Survival Commissions (he also served on the Captive Breeding, and Inland Waters Crustacea Groups) and he was Associate Editor of the Small Carnivore Conservation (previously Mustelid and Viverrid Conservation), the official newsletter of the group. In addition to the managing editor Harry Van Rompaey, Huw was the keystone of the newsletter and was tireless in correcting manuscripts sent by non-English speakers and also in looking up references. When Roland Wirth, the former Chairman of the small carnivore group, decided to step down, Huw was willing to take over also this responsibility in spite of his numerous obligations. In the April 2002 issue of Small Carnivore Conservation (No. 26) Huw as a new chairman formulated priorities for further activities. The tragedy is that his obituary was published only six months later, in the October 2002 issue.

Huw was one of the leading international authority on Quaternary freshwater ostracods. In this case, I feel that Huw was less interested in the animals themselves (as opposed to his devotion to mustelids), than in their value as proxy indicators for past environmental change. This is reflected in his most recent monograph, on reconstructing Quaternary Palaeoenvironments from non-marine ostracod assemblages (Griffiths & Holmes, 2000), which synthesised a huge amount of work. Determined to stabilise taxonomy and nomenclature in order to make palaeoenvironmental, biostratigraphic and palaeobiogeographic studies comparable, Huw had also previously compiled an enormous amount of informa-

tion on European Quaternary freshwater ostracods and published it in monographic form (Griffiths, 1996), including many papers published in obscure journals and written in various European languages. In addressing the complex issue of reconstructing past environmental change, he was particularly interested in comparing fossil data from a variety of proxies (ostracods, diatoms, pollen, stable isotopes, molecular), and in using modern biological data as a tool for improving interpretation. This was aimed not only at reconstructing processes operating in the past, but also at applying this knowledge to the conservation of modern environments. His study of Macedonian Lake Dojran is a prime example. This relatively small water body, located in the arid south-eastern corner of Macedonia, had suffered recently from a reduction in lake levels which had had a major impact on the ecosystem as well as on the economy of the entire region. Huw enthusiastically organised an international research group of scientists from the UK and Macedonia, successfully sought funding and organised the research. Again, his premature death did not allow him to finish the project in its entirety. However, his paper on the results of the first coring expedition (Griffiths *et al.*, 2001) indicates how carefully the project had been planned.

Evidently, Huw was much attracted by complex issues and one of his last projects was to bring together key workers from different fields concerned with Balkan biodiversity. To this end he co-organised with myself a successful exploratory workshop "*Pattern and Process in Balkan Biodiversity*", which was sponsored by the European Science Foundation and the Ministry of Science and Research of the Republic of Slovenia. The meeting succeeded in highlighting major shortfalls in our current understanding of the subject. Following the meeting Huw was, as usual, full of ideas on how to overcome this, and was intent on organising a major broad-based, international research project to elucidate patterns of Balkan biodiversity, a project which would have been, in his own words, 'a testimony to my life's work'. We suspect that this gap will remain open, since nobody but Huw could possess a sufficiently broad scientific background and organisational skills to undertake such a demanding task.

Huw's reputation resulted in him being an invited international delegate, invited speaker, organiser and convenor, and member of the organising committee for numerous international meetings. His contribution was invariably original, stimulating to other participants and highly above average. Huw served the academic community also as an assessor for grant applications from national research councils from the UK, Spain, Slovenia and Croatia, as a frequent peer reviewer for various biology and palaeoecology journals and as a PhD examiner at the universities of Valencia (Spain), Hull and York. He was also a Fellow of the Linnean Society of

London (FLS; since 1988), Chartered Biologist (CBIol) and Member of the Institute of Biology (MI Biol; since 1992), a Committee Member of the IBC Biogeography Research Group (2000 on), and a member of many learned societies (Royal Geographical Society, Mammal Society of the British Isles, Biogeography Research Group, Quaternary Research Association, Systematics Association, Society for Conservation Biology, etc.).

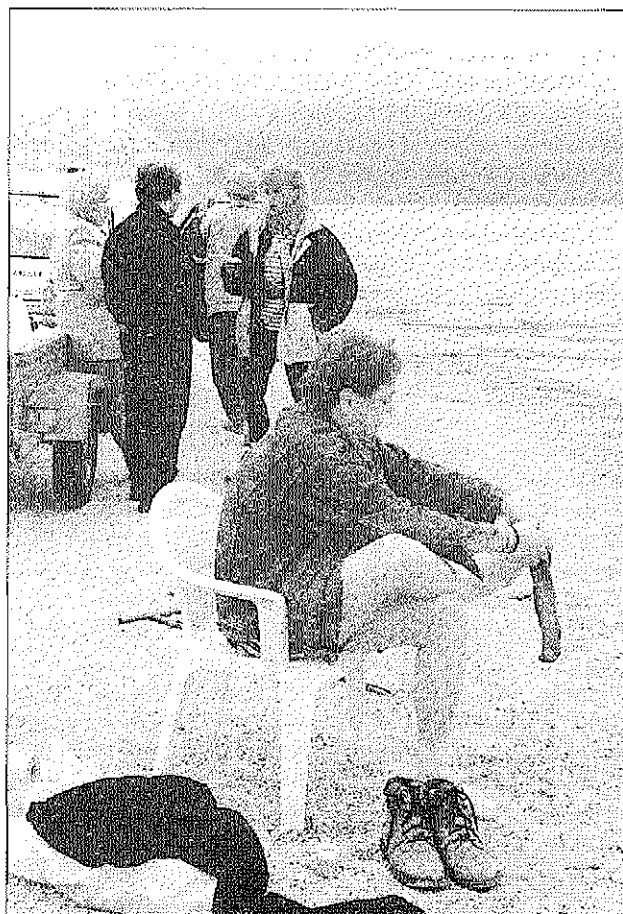
Huw also served on the editorial boards of four scientific journals: *Annales (Annals for Istrian & Mediterranean Studies)*, *Folia Zoologica*, *Small Carnivore Conservation (Associate Editor)*, and *Scopolia*. To this end Huw invested an enormous amount of work and time on improving the quality of written English for manuscripts by non-native English speakers. The editorial board of the *Annales* will miss him deeply also from this point of view.

Although science dominated every aspect of Huw's mind, and was, besides his family, the most important issue in his entire life, he was by no means a boring and narrow-minded scholar. He understood life well, had experienced many things in his previous life and had a strong sense of humour which could often be abrasive but was always well meant. Many of us liked and appreciated collaborating with him. It was not only his broad and deep knowledge of the life sciences and his skill in writing scientific papers which made Huw an exceptional partner. Of no less importance were his friendly approach and his reputation for playing fair. Huw's deep and genuine concern for people is reflected in the manner in which those students with medical or mental problems often flocked to him for support in preference to other lecturers. Huw was always willing to help, no matter whether problems were personal or academic. He was a good listener and his comments, suggestions and advice were all wise. Huw was also capable of judging his scientific achievements objectively, but not in an egocentric way, and respected work done by others no less than his own.

Huw worked hard, starting early and working late, and rarely sitting and doing nothing. There was always a book in his hands or a heap of paper in front of him. He did a tremendous amount of work for his colleagues and friends by commenting on manuscripts and improving written English. In spite of his workaholic lifestyle, Huw threw himself with equal enthusiasm into his social life, making a point of allowing time for relaxation with music and a bottle. Both at work and at home he did not pay much attention to formalities and was renowned for his crumpled T-shirts and shapeless pullovers, which accompanied him not only on field work but also to important meetings with the university authorities or other senior figures. Even in parts of the world where scientists are judged by such formalities rather than by their academic qualifications, however, I never heard anyone protest since Huw's reputation was simply indisputable.

Conversely, Huw himself evaluated people solely on the basis of their scientific merit and personality, rather than on their official title. In personal terms, Huw treated technical assistants in the same way as their managers, a trait which was, again, uncommon in many of the regions in which he was working. Huw always did his best to understand the cultural and historical background of locals and to respect this in every way. He was also very keen to master at least a few phrases in the language of the country he was staying in, both to make communication easier and also as a mark of respect.

To get a more complete picture of Huw, one needs also to consider his ethical standards in research work. He never regarded animals simply as tools or scientific objects; he disliked scarifying living creatures for scientific purposes, for example, and always took as little as possible when it was unavoidable. Huw adhered to these standards strictly, whether it be a carnivore or an ostracod at issue. Conservation biology filled an important part of both his private and professional activities. Although Huw perceived the biodiversity crisis as his



*Huw preparing for field work on Lake Dojran. Summer 1997.*

own personal tragedy, and did the best he could towards the conservation of species, he did not accept green fundamentalism. Being capable of evaluating the situation more objectively, Huw did not approve the ban on fox hunting in the UK, for example. This was not simply because he considered fox hunting to be ethically acceptable, but rather because he believed the benefits of maintaining the landscape for fox hunting outweighed the disadvantages associated with the sport.

Huw had long been closely associated with Slovenian science, since his first visit to the country in summer 1992. His strongest collaboration was with the vertebrate biologists from the Slovenian Museum of Natural History, but he was also in touch with a number of other researchers with shared interests. Since he found hunters well organised into a national hunter's association (in contrast to the UK), he developed a keen interest in the functioning of this body, the problems it was facing and the possibilities for increasing awareness of nature conservation issues amongst its members. Optimistic as he was, Huw believed firmly that as many groups of people as possible should be actively involved in conservation. Thus, although not interested in hunting *per se*, Huw saw no sense in banning it so long as it was based on a long term and sustainable population management strategy.

Being slightly disappointed that his frequent proposals for upgrading the collaboration between the Slovenian Natural History Museum and the University of Hull did not receive support from the Museum's authorities, Huw enthusiastically joined a small research group of the newly-founded Institute for Biodiversity Studies at the Science and Research Centre of the Republic of Slovenia Koper from its inception in summer 2001. This collaboration was extremely fruitful and resulted in the organisation of the aforementioned "Pattern and Process in Balkan Biodiversity" workshop in September 2001, only a few months after the Institute was formed. The meeting was a result of joint efforts on the parts of the Science and Research Centre in Koper and Hull University. For Huw's key role in the preparation of the meeting, as well as for his outstanding scientific output, the Science and Research Centre of the Republic of Slovenia Koper elected him a research associate. Huw was tireless in his efforts to encourage collaboration between British and Slovenian scientists. He sent several students from Hull to undertake field work in Slovenia and was planning more for the future; he was also very willing to provide facilities and training in the UK for young scientists from Slovenia. Having such a brilliant scientist and a keen organiser for a research associate, the Institute for Biodiversity Studies had good reason to be optimistic about its future. It goes without saying how painful the impact of Huw's death has been to us, both at a personal level and because it ruined so many joint plans and prospects. The Institute lost a devoted and loyal friend and we know only too well that we won't ever

meet another like him. Huw enriched our lives tremendously and influenced our professional careers, and mine in particular. His name will continue to survive in science as his figure will never fade in the memory of those of us who have had the privilege of being his friend. No matter how little time we had. As a mark of recognition of his merit, Huw was posthumously promoted to Reader in the Department of Geography, Hull, in October 2002. It is also likely that a new ostracod species will be officially named after him in the future, in his honour.

## PUBLICATIONS

### 2002

- Griffiths, H. I.** A note from the new MVSP SG Chair: Huw Griffiths. *Small Carnivore Conservation* 26: 1.
- Schreve, D. C., Bridgeland, D. R., Allen, P., Blackford, J. J., Gleed-Owen, C. P., Griffiths, H. I., Keen, D. H. & White, M. J.** Late Middle Pleistocene environments of the Lower Thames: Sedimentology, palaeontology and archaeology of the Corbets Tey Formation at Purfleet, Essex, UK. *Journal of Quaternary Science* 21: 1423-1464.
- Kryštufek, B. & Griffiths, H. I.** Species richness and rarity in European rodents. *Ecography* 25: 120-128.
- Griffiths, H. I., Reed, J. M., Leng, M. J., Ryan, S. & Petkovski, S.** The recent palaeoecology and conservation status of Balkan Lake Dojran. *Biological Conservation* 104: 35-49

### 2001

- Altınışlı, S. & Griffiths, H. I.** The freshwater ostracods *Hungarocypris* and *Leucocythere* from Turkey. *Crustaceana* 74: 681-688.
- Altınışlı, S. & Griffiths, H. I.** Ostracoda (Crustacea) from the Turkish Ramsar site of Lake Kuş (Manyas Gölü). *Aquatic Conservation: Marine and Freshwater Ecosystems* 11: 217-225.
- Altınışlı, S. & Griffiths, H. I.** Ostracoda (Crustacea) of Lake Uluabat (Apoluyont Gölü) (Bursa Province, Turkey). *Limnologica* 31: 109-117.
- Davison, A., Brookes, R. C., Birks, J. D. S., Messenger, J. E. & Griffiths, H. I.** Mitochondrial phylogeography and population history of pine martens *Martes martes* compared with polecats *Mustela putorius*. *Molecular Ecology* 10: 2479-2488.
- French, B. I., Mezquita, F. & Griffiths, H. I.** Habitat variables affecting occurrence of *Neomys fodiens* (Mammalia, Insectivora) in Kent, UK. *Folia Zoologica* 50: 99-105.

Frogley, M. R., Griffiths, H. I. & Heaton, T. H. E. Historical biogeography and Late Quaternary environmental change at Lake Pamvotis, Ioannina (NW Greece); evidence from ostracods. *Journal of Biogeography* 28: 745-756.

Griffiths, H. I. Ostracod evolution and extinction - its biostratigraphic value in the European Quaternary. *Quaternary Science Reviews* 20: 1743-1751.

Griffiths, H. I. & Reed, J. M. Using palaeolimnological techniques for biomonitoring: the case of Balkan Lake Dojran. *Interaction between fish and birds: implications for management*. HIFI, Hull, April, 2001: unpaginated.

Griffiths, H. I., Reed, J. M., Leng, M. J., Ryan, S. & Petkovski, S. Combining ecology and palaeoecology: Balkan Lake Dojran. *Modern analogues and their value for the interpretation of past environments - QRA Annual Discussion Meeting*, Cardiff. 5.

Griffiths, H. I., Schwalb, A. & Stevens, L. R. Environmental change in NE Iran: the Holocene ostracod fauna of Lake Mirabad. *The Holocene* 11: 755-762.

Leroy, S., Kazancı, N., Ileri, Ö., Kibar, M. & Griffiths, H. I. An abrupt (seismic) event recorded in Lake Manyas (N-W Turkey) sediment dating from the Byzantine period. *Environmental changes and the rise and fall of the civilizations (Asian Lake Drilling Programme Meeting, Kyoto, Japan, November, 2001)*. *Monsoon* 3: 53-59.

Leroy, S., Kazancı, N., Ileri, Ö., Kibar, M., McGee, E. & Griffiths, H. I. An abrupt (seismic) event recorded in Lake Manyas (N-W Turkey) sediment dating from the Byzantine period. In: *High-resolution lake sediment records in climate and environment variability studies (6<sup>th</sup> Workshop of the European Lake Drilling Programme)*, Potsdam, May 2001. *Terra Nostra*, 2001 (3): 125-131.

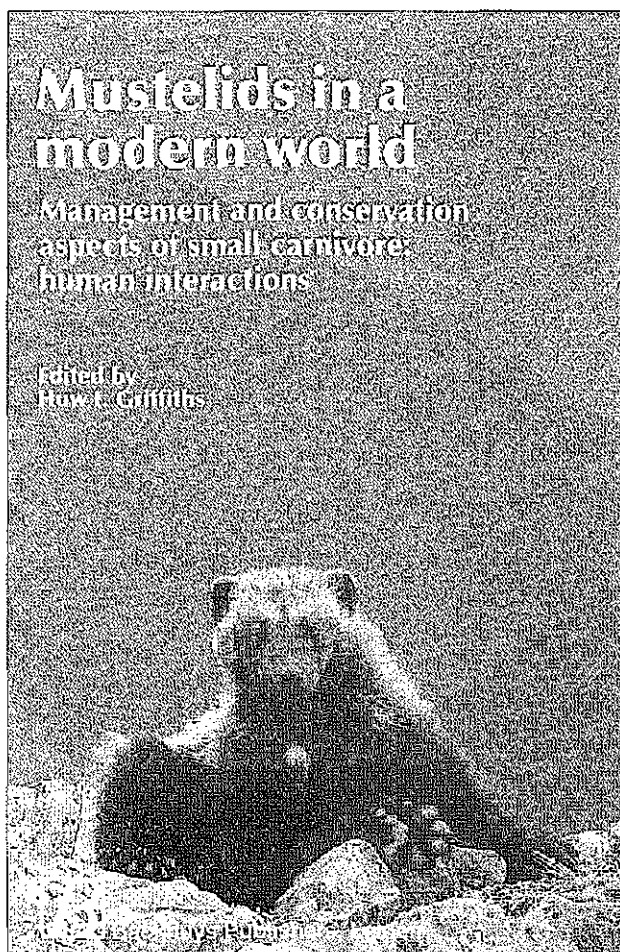
Matzke-Karasz, R., Horne, D. C., Janz, H., Griffiths, H. I., Hutchinson, W. F. & Preece, R. C. 5000-year-old spermatozoa in Quaternary Ostracoda (Crustacea). *Naturwissenschaften* 88: 268-272.

Ryan, S. & Griffiths, H. I. The decline and probable extinction of *Graecoanatica macedonica* (Gastropoda, Orientallnidae) in Balkan Lake Dojran. *Journal of Conchology* 37: 261-266.

Mezquita, F., Griffiths, H. I., Domínguez, M. I. & Lozano-Quilis, M. A. Ostracoda (Crustacea) from brooks as ecological indicators: a case study from Valencia, E. Spain. *Archiv für Hydrobiologie* 150: 545-560.

## 2000

Davison, A., Birks, J. D. S., Maran, T., Macdonald, D. W., Sidorovich, V. E. & Griffiths, H. I. Hybridization and the phylogenetic relationship between polecats, domestic ferrets, and European mink. In: H. I. Griffiths (ed.), *Mustelids in a Modern World*: 153-162. Leiden; Dr. W. Backhuys.



*Huw's most important single contribution to small carnivore biology and conservation must be the edited volume on mustelid carnivores (Griffiths, 2000) which originated from the very successful and entertaining workshop which Huw convened during the Euro-American Mammal Congress in Santiago de Compostela, Spain, in July 1998.*

Davison, A., Griffiths, H. I., Brookes, R., Maran, T., Macdonald, D. W., Sidorovich, V., Kitchener, A. C., Irizar, I., Villate, I., González-Esteban, J., Ceña, J. C., Ceña, A., Moya, I., Miñanao, S. P. Mitochondrial DNA and palaeontological evidence for the origins of endangered European mink, *Mustela lutreola*. *Animal Conservation* 3: 345-355.

Griffiths, H. I. (Ed.) *Mustelids in a Modern World. Conservation and Management Aspects of Small Carnivore: Human interactions*. Leiden; Dr. W. Backhuys, ISBN 90-5782-066-8.

Griffiths, H. I. & Holmes, J. A. *Non-marine Ostracods and Quaternary Palaeoenvironments (QRA Technical Guide No. 8)*. London; Quaternary Research Association.

Griffiths, H. I., Poulter, I. & Sibley, D. Feral cats in the city. In: C. Philo & C. Wilbert (Eds.), *Animal spaces, beastly places*: 56-70. London; Routledge.

Griffiths, H. I., Reed, J. M., Leng, M. J., Ryan, S. & Petkovski, S. The recent and palaeo-ecology of Balkan Lake Dojran. In: *Programa Científico y Libro de Resúmenes: X Congreso de la Asociación Española de Limnología y II Congreso Ibérico de Limnología, Valencia, 12-16 June, 2000*: 275.

Howard, A. J., Keen, D. H., Mighall, T. M., Field, M. H., Coope, G. R., Griffiths, H. I. & Macklin, M. G. Early Holocene environments of the River Ure near Ripon, North Yorkshire, UK. *Proceedings of the Yorkshire Geological Society* 53: 31-42.

Kryštufek, B., Davison, A. & Griffiths, H. I. Evolutionary biogeography of *Neomys* water shrews in the Western Palaearctic. *Canadian Journal of Zoology* 78: 1616-1625.

Kryštufek, B. & Griffiths, H. I. Cranial differentiation in *Neomys* water shrews. *Folia Zoologica* 49: 81-87.

Paunović, M., Mraković, M., Abel, H. V. & Griffiths, H. I. The marbled polecat, *Vormela peregusna* (Güldenstaedt, 1770), in FR Yugoslavia and elsewhere. In: H. I. Griffiths (ed.), *Mustelids in a Modern World*: 321-329. Leiden; Dr. W. Backhuys.

Preece, R. C., Bridgland, D. R., Lewis, S. G., Parfitt, S. A. & Griffiths, H. I. Beeches Pit, West Stow, Suffolk (TL 798719). In: S. G. Lewis, C. A. Whiteman & R. C. Preece (eds.), *The Quaternary of Norfolk and Suffolk: Field Guide*: 185-195. London; Quaternary Research Association.

Schön, I., Gandolfi, A., Di Masso, E., Rossi, V., Griffiths H. I., Martens, K. & Butlin, R. K. Persistence of asexuality through mixed reproduction in *Eucypris virens* (Crustacea, Ostracoda). *Heredity* 84: 161-169.

Schwalb, A., Burns, S. J., Griffiths, H. I. & Wessels, M. Ostracode assemblages and stable isotopes from Lake Constance: a 16 kyr record of faunal succession and climate for the central Alps. *DEUQUA 2000, Eiszeitalter und Alltag. Kurzfassungen der Vorträge und Posters*: 72.

#### 1999

Davison, A., Birks, J. D. S., Griffiths, H. I., Kitchener, A., Biggins, D. & Butlin, R. K. Hybridization and the phylogenetic relationship between polecats (*Mustela putorius*, *M. eversmanni*) and ferrets (*M. furo*). *Biological Conservation* 87: 155-161.

Griffiths, H. I. Biogeography and ostracod biostratigraphy. *Recent advances in Quaternary Biostratigraphy, QRA Annual Discussion Meeting, Cambridge, January, 1999*: 8-9 (Abstract).

Griffiths, H. I. Freshwater Ostracoda from the Mesolithic lake site at Lough Boora (Co. Offaly, Ireland). *Irish Journal of Earth Sciences* 17: 39-49.

Kryštufek, B. & Griffiths, H. I. Mediterranean v. continental small mammal communities and the environmental degradation of the Dinaric Alps. *Journal of Biogeography* 26: 167-177.

Holmes, J. A. & Griffiths, H. I. Ostracoda from Star Carr. In: P. Mellars & S.P. Day (Eds.), *Star Carr in context: new archaeological and palaeoenvironmental investigations at the early Mesolithic site of Star Carr, North Yorkshire*: 175-178. Cambridge; McDonald Institute Monographs.

Mezquita, F., Griffiths, H. I., Sanz, S., Soria, J. M., & Piñón, A. Ecology and distribution of ostracods associated with flowing waters in the eastern Iberian Peninsula. *Journal of Crustacean Biology* 19: 344-354.

Roberts, N., Black, S., Boyer, P., Eastwood, W. J., Griffiths, H. I., Leng, M., Parish, R., Reed, J. M., Twigg, D. and Yigitbasioğlu, H. Chronology and Stratigraphy of Late Quaternary sediments in the Konya Basin, Turkey: results from the KOPAL project. *Quaternary Science Review* 18: 611-630.

Schwalb, A., Burns, S. J., Griffiths, H. I. & Wessels, M. Ostracod assemblages and stable isotopes from Lake Constance: A 16 kyr record of faunal succession and climate. *European Union of Geosciences, Journal of Conference Abstracts*, 4: 192-193.

#### 1998

Butlin, R. K., Schön, I. & Griffiths, H. I. Introduction to reproductive modes. In: K. Martens (Ed.), *Sex and Parthenogenesis: evolutionary ecology of reproduction in non-marine Ostracoda (Crustacea)*: 1-24. Leiden; Backhuys.

Davison, A., Birks, J., Griffiths, H. I., Kitchener, A. C. & Butlin, R. K. Hybridization and the phylogenetic relationship between polecats, domestic ferrets and European mink. *Abstracts Euro-American Mammal Congress, Santiago de Compostela, Spain, July 1998*: A105.

Griffiths, H. I. Conservation and Balkan biodiversity (plenary lecture). In: S. Petkovski, V. Siderovska, B. Curčić, H. Griffiths & W. Haberl (Organisers), *BIOECCO 2: 2<sup>nd</sup> Int. Cong. Biodiversity, Ecology and Conservation of the Balkan fauna, Ohrid, Sept. 1998*: 42-46.

Griffiths, H. I., Butlin, R. K. & Geiger, W. Considerations of timescale effects in the evolution of parthenogenesis in freshwater Ostracoda. In: S. Crasquin, E. Braccini & F. Lethiers (eds.), *What about Ostracoda? Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine, Mémoire* 20: 27-32.

Griffiths, H. I. & Horne, D. J. Fossil distribution of reproductive modes. In: K. Martens (Ed.), *Sex and parthenogenesis: evolutionary ecology of reproductive modes in non-marine Ostracoda (Crustacea)*: 101-118. Leiden; Backhuys.

- Griffiths, H. I., Pietrzeniuk, E., Fuhrmann, R., Lennon, J. J., Martens, K. & Evans, J. G. *Tonnacypris glacialis* (Ostracoda, Cyprididae): taxonomic position, (palaeo)-ecology and zoogeography. *Journal of Biogeography* 25: 515-526.
- Griffiths, H. I., Reed, J. M. & Petkovski, S. Environmental change at Lake Dojran: preliminary data from benthos and sediments. In: In: S. Petkovski, V. Siderovska, B. Curčić, H. Griffiths & W. Haberl (Organisers), *BIOECCO 2: 2<sup>nd</sup> Int. Cong. Biodiversity, Ecology and Conservation of the Balkan fauna, Ohrid, Sept. 1998*: 73.
- Griffiths, H. I. & Thomas, D. H. *La conservation et la gestion du blaireau d'Europe (Meles meles)*. (Sauvegard de la Nature No 90). Strasbourg; Council of Europe Press, ISBN 92-871-3446-4.
- Kryštufek, B., Davison, A. & Griffiths, H. I. Evolutionary relationships among the Palaearctic water shrews (genus *Neomys*). *Abstracts 78<sup>th</sup> Annual Meeting of the American Society of Mammalogists, Blacksburg (Va.), June, 1998*: A169.
- Martens, K., Horne, D. J. & Griffiths, H. I. Age and diversity of non-marine ostracods. In: K. Martens (Ed.), *Sex and Parthenogenesis: evolutionary ecology of reproduction in non-marine Ostracoda (Ostracoda)*: 37-35. Leiden; Backhuys.
- Rossi, V., Gentile, G., Otero, M., Pospisil, P., Baltanás, A., Geiger, W., Griffiths, H. I. & Menozzi, P. Comparison of genetic variability in two species with geographic parthenogenesis: *Eucypris virens* and *Limnocythere inopinata*. In: S. Crasquin, E. Braccini & F. Lethiers (eds.), *What about Ostracoda! Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine, Mémoire* 20: 427 (Abstract).
- Rossi, V., Gentile, G., Geiger, W., Griffiths, H. I., Martens, K. & Menozzi, P. Genetic structure of European populations of *Darwinula stevensoni* (Crustacea, Ostracoda). In: S. Crasquin, E. Braccini & F. Lethiers (eds.), *What about Ostracoda! Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine, Mémoire* 20: 426-427 (Abstract).
- Schön, I., Butlin, R. K., Griffiths, H. I. & Martens, K. Slow molecular evolution in an ancient asexual ostracod. *Proceedings of the Royal Society of London (Series B)* 265: 235-242.
- Schoen, I., Di Mazzo, E., Gandolfi, A., Griffiths, H. I., Verheyen, E. & Butlin, R. K. The application of molecular techniques to the study of ostracods. In: S. Crasquin, E. Braccini & F. Lethiers (eds.), *What about Ostracoda! Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine, Mémoire* 20: 47-52.
- Smith, A. B. & Griffiths, H. I. Apparent recovery from a broken femur in the Indian flying fox, *Pteropus giganteus* (Chiroptera, Pteropodidae). *Mammalia* 62: 457-460.
- 1997
- Griffiths, H. I. & Brancelj, A. Preliminary list of freshwater Ostracoda (Crustacea) from Slovenia. *Annales - Annals of Istrian and Mediterranean Studies* 9 (1996): 201-210.
- Griffiths, H. I. & Thomas, D. H. *The conservation and management of the European Badger (Meles meles)*. (Council of Europe Nature & Environment Monograph No 90). Strasbourg; Council of Europe Press. ISBN 92-871-3447-2.
- Keen, D. H., Coope, G. R., Jones, R. L., Field, M. H., Griffiths, H. I., Lewis, S. G. & Bowen, D. Q. Middle Pleistocene deposits at Frog Hall Pit, Stretton-on-Dunsmore, Warwickshire, English Midlands, and their implications for the age of the type Wolstonian. *Journal of Quaternary Science* 12: 183-208.
- Reed, J. M., Black, S., Eastwood, W. J., Griffiths, H. I., Lamb, H. F., Leng, M., Parish, R. & Roberts, N. Late Quaternary limnological and climatic changes in the Konya Basin, Turkey. *Int. Symp. on the Late Quaternary in the Eastern Mediterranean, Ankara, April, 1997*.
- 1996
- Griffiths, H. I. Conservation, welfare, and caring for the wild. *Small Carnivore Conservation* 15: 14-16.
- Griffiths, H. I. European Quaternary freshwater Ostracoda; A biostratigraphic and palaeobiogeographic primer. *Scopelia* 34 (1995): 1-168.
- Griffiths, H. I. & Brancelj, A. The (palaeo)-biogeography of *Candona bimucronata*: an unusual candonid ostracod from the Balkans. *Crustaceana* 69: 882-889.
- Griffiths, H. I., Butlin, R. K. & Geiger, W. Considerations of timescale effects in the evolution of parthenogenesis in freshwater Ostracoda. In: *Abstracts 3<sup>rd</sup> European Ostracodologists meeting, Paris - Bierville, July 1996*: 31.
- Griffiths, H. I., Davison, A. & Birks, J. Species reintroductions. *Conservation Biology* 10: 923.
- Griffiths, H. I., Pilling, K. E., Hill, C. J., Evans, J. G. & Learner, M. A. Ostracod gradients in a calcareous stream: implications for the palaeoecological interpretation of tufas and travertines. *Limnologica* 26: 49-61.
- Kryštufek, B., Griffiths, H. I. & Vohralík, V. The status and use of *Terricola* FATIO, 1867 in the taxonomy of Palaearctic "pine voles" (*Pitymys*) (Rodentia, Arvicolinae). *Bulletin de l'Institute Royal des Sciences Naturelles de Belgique, Biologie* 66: 237-240.
- Rossi, V., Gentile, G., Otero, M., Pospisil, P., Baltanás, A., Geiger, W., Griffiths, H. I. & Menozzi, P. Comparison of genetic variability in two species with geographic parthenogenesis: *Eucypris virens* and *Limnocythere inopinata* (Crustacea, Ostracoda). In: *Abstracts 3<sup>rd</sup> European Ostracodologists' Meeting, Paris - Bierville, July 1996*: 69.



Rossi, V., Gentile, G., Geiger, W., Griffiths, H. I., Martens, K. & Menozzi, P. Genetic structure of European populations of *Darwinula stevensoni* (Crustacea, Ostracoda). In: *Abstracts 3<sup>rd</sup> European Ostracologists' Meeting, Paris - Bierville, July 1996*: 67.

Schön, I. & Griffiths, H. I. Molecular techniques and small carnivore conservation. *Small Carnivore Conservation* 14: 2-6.

Schoen, I., Di Masso, E., Gandolfi, A., Griffiths, H. I. & Butlin, R. K. The application of molecular techniques to the study of ostracods. In: *Abstracts 3<sup>rd</sup> European Ostracodologists meeting, Paris - Bierville, July 1996*: 72.

## 1995

Griffiths, H. I. An electron microscopic study of gill epithelium in *Ambystoma mexicanum* (Amphibia, Urodela). *Folia Zoologica* 44: 279-283.

Griffiths, H. I. & Butlin, R. K. A timescale for sex vs. parthenogenesis - evidence from Holocene subfossil ostracods. *Proceedings of the Royal Society of London (Series B)* 260: 65-71.

Griffiths, H. I. & Evans, J. G. The Late-glacial and early Holocene colonisation of the British Isles by freshwater ostracods. In: J. Ríha (Ed.), *Ostracoda and Biostratigraphy*: 291-302. Rotterdam; A. A. Balkema.

Griffiths, H. I. & Evans, J. G. Seasonal dynamics of *Cypria ophthalmica* (Jurine) in permanent and temporary subdivisions of a temperate pond. In: J. Ríha (Ed.), *Ostracoda and Biostratigraphy*: 444. Rotterdam; A. A. Balkema (Abstract).

Griffiths, H. I. & Evans, J. G. An annotated check-list of British Pleistocene, Holocene and Modern freshwater Ostracoda. *Journal of Micropalaeontology* 14: 59-65.

Griffiths, H. I. & Pedley, H. M. Did changes in late last glacial and early Holocene atmospheric CO<sub>2</sub> availability play a role in episodic tufa formation? *The Holocene* 5: 238-242.

Kontrovitz, M., Slack, J. & Griffiths, H. I. Ostracoda from the moats of a Medieval Castle, Scotland. *Abstracts with Programmes, Annual Meeting Geological Society of America, New Orleans, November, 1995. Geological Society of America*, 27 (6): A-415.

## 1994

Bego, F. & Griffiths, H. I. Preliminary data on the bats (Mammalia, Chiroptera) of Albania. *Studies in Speleology* 9: 21-25.

Butlin, R. K. & Griffiths, H. I. DNA sequence analysis and the problem of parthenogenesis. In: D. J. Horne & K. Martens (Eds.), *The Evolutionary Ecology of Reproductive Modes in Non-marine Ostracoda*: 37-42. London; University of Greenwich Press.

Evans, J. G. & Griffiths, H. I. Investigations towards the reconstruction of the Late-glacial environment at Lurga, S. E. Burren. II. Mollusc and ostracod evidence (Site P1). In: M. O'Connell (Ed.), *Boireann, Co. an Chláir/Burren, Co. Clare (Field Guide No. 18)* (2<sup>nd</sup> ed.): 48-50. Galway; Irish Association for Quaternary Studies.

Griffiths, H. I. The effects upon badgers (*Meles meles*) of the activities of a single, persistent poacher. *Animal Welfare* 3: 219-225.

Griffiths, H. I. Pre- and early historic records of the Eurasian badger *Meles meles* (L., 1758) (Carnivora, Mustelidae), in Britain. *Studies in Speleology* 9: 27-36.

Griffiths, H. I. & Butlin, R. K. *Darwinula stevensoni*: a review of the biology of a persistent parthenogen. In: D. J. Horne & K. Martens (Eds.), *The Evolutionary Ecology of Reproductive Modes in Non-marine Ostracoda*: 27-36. London; University of Greenwich Press.

Griffiths, H. I. & Evans, J. G. Infestation of the freshwater Ostracod *Cypria ophthalmica* (JURINE) by the Peritrich *Nüchterleinella corneliae* (MATTHES). *Archiv für Protistenkunde* 144: 23-25.

Griffiths, H. I. & Evans, J. G. The Late Last glacial and early Holocene colonisation of the British Isles by freshwater ostracods. *Abstracts 12<sup>th</sup> International Conference on Ostracoda, Prague, July 1994*: unpaginated.

Griffiths, H. I. & Evans, J. G. Seasonal dynamics of *Cypria ophthalmica* (Jurine) in permanent and temporary subdivisions of a temperate pond. *Abstracts 12<sup>th</sup> International Conference on Ostracoda, Prague, July 1994*: unpaginated.

Griffiths, H. I., Ringwood, V. & Evans, J. G. Weichselian Late-glacial and early Holocene molluscan and ostracod sequences from lake sediments at Stellmoor, north Germany. *Archiv für Hydrobiologie* 99 (5): 357-380.

Kryštufek, B., Griffiths, H. I. & Grubesić, M. Some new information on the distributions of the American and European mink (*Mustela* spp.) in the former Yugoslavia. *Small Carnivore Conservation*, 10: 2-3.

Taylor, D. M., Griffiths, H. I., Pedley, H. M. & Prince, I. Radiocarbon-dated Holocene pollen and ostracod sequences from barrage tufa-dammed fluvial systems in the White Peak, Derbyshire, UK. *The Holocene* 4: 356-364.

## 1993

Butlin, R. K. & Griffiths, H. I. Ageing without sex? *Nature* 364: 680.

Evans, J. G. & Griffiths, H. I. Holocene mollusc and ostracod sequences: their potential for examining short-timescale evolution. In: D. R. Lees & D. Walker (Eds.), *Evolutionary Patterns and Processes*: 125-137. London; Academic Press.

Evans, J. G. & Griffiths, H. I. Mollusc and ostracod evidence. In: W. P. Warren & M. O'Connell (eds.), *An Boireann / The Burren (Field Guide No. 15)*: 52-54. Galway; Irish Association for Quaternary Studies.

**Griffiths, H. I.** The hunting of badgers in Britain: past, present and future? In: *National Federation of Badger Groups Annual Conference, Preston, September 1993*: 61-68. London; NFBC.

**Griffiths, H. I.** The Eurasian badger, *Meles meles* (L., 1758), as a commodity species. *Journal of Zoology* 230: 340-342.

**Griffiths, H. I.** Badger game-bag data estimates of badger (*Meles meles*) population sizes in Europe. *Small Carnivore Conservation* 9: 9-10.

**Griffiths, H. I., Griffiths, C. A. & Thomas, D. H.** *The Badger, Meles meles* (L., 1758): *An Assessment of the Population Status, Conservation Needs, and Management Requirements of the Species in the Western Palaearctic*. Report to the Permanent Committee of the Convention on the Conservation of European Wildlife and Natural Habitats. Strasbourg; Council of Europe. 97 pp. (also available in French).

**Griffiths, H. I. & Kryštufek, B.** Hunting pressures and badgers *Meles meles*: patterns and possible futures. *Lutra* 36: 49-61.

**Griffiths, H. I., Martin, D. S., Shine, A. J. & Evans, J. G.** The ostracod fauna (Crustacea, Ostracoda) of the profundal benthos of Loch Ness. *Hydrobiologia* 254: 111-117.

**Griffiths, H. I. & Martin, D. S.** The spatial distribution of benthic ostracods in the profundal zone of Loch Ness. In: *Collected Papers on Loch Ness Research Initiated by the Loch Ness and Morar Project. The Scottish Naturalist* 105: 137-147.

**Griffiths, H. I. & Mount, R.** Ostracods, pp. 181-184. In: *An environmental history of the Upper Kennet Valley, Wiltshire, for the last 10,000 years*, by J. G. Evans, S. Limbrey, R. Mount & I. Máté. *Proceedings of the Prehistoric Society* 59: 139-195.

**Griffiths, H. I., Pillidge, K. E., Hill, C. J., Evans, J. G. & Learner, M. A.** Ostracod gradients in a calcareous stream: implications for the palaeoecological interpretation of tufas and travertines. In: M. C. Keen (ed.), *Preprints 2<sup>nd</sup> European Ostracodologists' Meeting, Glasgow, July 1993*: 109-121.

**Griffiths, H. I., Rouse, A. J. & Evans, J. G.** Processing freshwater ostracods from archaeological deposits, with a key to the valves of the major British genera. *Circaea - the Journal of the Association for Environmental Archaeology* 10: 53-62.

**Griffiths, H. I. & Thomas, D. H.** The status of the badger *Meles meles* (L. 1758) (Carnivora, Mustelidae) in Europe. *Mammal Review* 23: 17-58.

**Walker, M. J. C., Griffiths, H. I., Ringwood, V. & Evans, J. G.** An early-Holocene pollen, mollusc and ostracod sequence from lake marl at Llangorse Lake, South Wales, UK. *The Holocene* 3: 138-149.

1992

**Griffiths, H. I.** Police prosecutions and badger persecution in England and Wales. *Animal Welfare* 1: 291-296.

**Griffiths, H. I. & Evans, J. G.** A simple notation scheme to describe time-averaged ostracod assemblages (Crustacea, Ostracoda) by their taxonomic composition. *Journal of Micropalaeontology* 11: 31-35.

**Griffiths, H. I. & Evans, J. G.** *Potamocypris arcuata* (SARS, 1903) (Ostracoda) new to Britain. *Crustaceana* 62: 110-112.

**Griffiths, H. I. & Thomas, D. H.** Aquatic oxygen conformity in the Mexican axolotl *Ambystoma mexicanum*. *Herpetological Journal* 2: 1-4.

1991

**Griffiths, H. I.** *On the hunting of badgers*. Brynna; Piglet Press.

**Griffiths, H. I.** Statut actuel du blaireau (*Meles meles*) en Europe: chasse et protection. *Cahiers d'Ethologie* 11: 67-80.

**Griffiths, H. I.** The hunting of badgers in Europe. In: *National Federation of Badger Groups Annual Conference, Harper Adams Agricultural College, September 1991*: 26-32. London; NFBC.

**Griffiths, H. I. & Evans, J. G.** Some freshwater ostracods (Crustacea, Ostracoda) from South Wales. *Freshwater Forum* 1: 64-72.

1990

**Griffiths, H. I., Hicks, D. C. & Morris, V.** The distribution and status of the badger in Glamorgan, Wales. *Mustelid and Viverrid Conservation* 2: 8-9.

1989

**Griffiths, H. I. & Thomas, D. H.** What is the status of the Mexican axolotl? *Bulletin of the British Herpetological Society* 26: 3-5.

In Press

**Griffiths, H. I.** Non-marine ostracods as indicator taxa in ancient wetlands. In: M. C. Lillie (ed.), *Wetland archaeology and environments: local issues, global perspectives*. London; Routledge.

**Altunsaçlı, S. & Griffiths, H. I.** A review of the occurrence and distribution of recent non-marine Ostracoda in Turkey. *Zoology in the Middle East*.

**Leroy, S., Kazancı, N., Ileri, Ö., Kibar, M., Emre, O., McGee, E. & Griffiths, H. I.** Abrupt environmental changes within a Holocene lacustrine sequence south of the Marmara Sea (Lake Manyas, N-W Turkey): possible links with seismic events. *Marine Geology*.

**Reid, V. A., Carvalho, G. R., George, D. G. & Griffiths, H. I.** A technique for the molecular genetic analysis of *Daphnia* resting eggs from sub-recent lake sediments. *Journal of Paleolimnology*.

**Frogley, M. R., Griffiths, H. I. & Martens, K.** Recent and fossil ostracodes from ancient lakes. In: J. A. Holmes & A. Chivas (eds.), *The Ostracoda: applications in Quaternary research (Geophysical Monograph Number 131)*: Washington (DC); American Geophysical Union, 2002.

#### Submitted

**Davies, P. & Griffiths, H. I.** Molluscan and ostracod biostratigraphy of early to Mid Holocene paludal tufa deposits within the valley fill of the River Test at Bossington, Hampshire, UK. *The Holocene*.

**Griffiths, H. I. & Cuzin, F.** Ferret, *Mustela furo*. In: J. Kingdon & T. Butynski (eds.), *Mammals of Africa, Vol. 5*. London; Academic Press.

**Ferrier, G., Kryštufek, B., Griffiths, H. I. & Wilson, D.** Management of bear population dynamics in Slovenia using GIS and remote sensing. *Conservation Biology*.

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