



# A Tribute to BRIAN GEORGE GARDINER PPLS (1932–2021)

Fellows of the Linnean Society will be greatly saddened to note the passing, on 21 January 2021, of distinguished biologist and palaeontologist Professor Brian George Gardiner PPLS. Brian was born at Cashes Green, Stroud, on 30 October 1932. He died, aged 88, in St George's Hospital, Tooting, London, from acute respiratory failure. A devoted family man, Brian is survived by his caring and supportive wife Elizabeth (married in 1961), children Nicholas, Catherine and Clare and grandchildren Flora, Albert, Grace, Joshua, Mathew, Lydia and Bethan. He inspired in all of them a love of science, natural history and nature conservation. Through frequent visits to 'the allotment', he pursued an enthusiasm for horticulture and kept the family well-fed. Brian's rich, soothing Gloucestershire accent radiated warmth and charm. He had bold, handsome features with, in his youth, thick, dark curly hair, a powerful handshake and athletic build. Indeed, in 1952, he played in the back-row for Gloucester Rugby Club, who are currently in the top division. A real (as well as academic) marksman, he often practised at the Bisley Shooting Range, Surrey, with Alison Longbottom and others from the Rifle Club of London's Natural History Museum (NHM).

Under the aegis of the formidable Errol White PPLS (1964–67), Brian was admitted to the Linnean Society's Fellowship (June, 1968), served on its Council (from 1971), as Zoological Secretary (1974–81) and as President (1994–97). He was also Editor of the *Zoological Journal*, the *Symposia* series, the original *Newsletter* (1974–81) and its successor *The Linnean* (1983–2013, with increasing support from Mary Morris). For this exemplary work, he was awarded an Honorary Fellowship in 1999. He was a popular and high-profile character in the Society over many decades. Honorary Archivist and close family friend Gina Douglas FLS fondly remembers the cheerful whistle as he bounded up the main staircase to the Library of which she was then in

charge. A showman, he followed the custom (revived by Botanist Willie Stearn PPLS 1979–82) of wearing an 18th-century-style tri-corner hat when presiding over formal meetings.

Brian was educated at Marling School, Stroud (1943–52), then gained the degrees of BSc in Zoology, (1955, Imperial College London, specialising in entomology) and PhD in palaeontology (1958, University College London, under Kenneth Kermack FLS). He worked in conjunction with the NHM, specialising on Liassic fishes in their collections. Later, in 1958, he was appointed Junior Lecturer in the Biology Department of Queen Elizabeth College (QEC), later King's College, by amalgamation in 1985. He gained the degree of DSc (1975) from the University of London for his outstanding research record and progressed through the academic ranks at King's to become Professor in 1985. Brian was a gifted teacher, academic supervisor and supportive mentor to a host of undergraduate and postgraduate students. He took undergraduates out on lively field excursions, including visits to St Mary's Church, Washington village, West Sussex to study bats in the belfry—concluding with delicious lunches hosted in the farm opposite by his friends the Turner family. His lectures (within and outside of the university) were popular and invariably animated, colourful, and humorous, if sometimes a tad chaotic. Brian once gave a talk to Members of the North of England Zoological Society (Chester Zoo, where he was a Trustee on the governing Council 1996–2002). He accidentally dropped his transparencies on the floor—rendering them out of sequence, upside-down and back-to-front. Unflustered, he showed them in the same random order as retrieved. The audience were, by turns, amused and spellbound as he powered through a brilliant back-and-forth account of the 'Pitdown man fossil' controversy of 1912 (Gardiner 2003).

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**Private Meeting of Fish Experts, 23 June 1976 (Fish Section, Natural History Museum, London).** L to R: Alwynne Wheeler, Peter Whitehead, HIH Crown Prince Akihito (Emperor of Japan 1989–2019 and Foreign Member of the Linnean Society), Colin Patterson, Brian Gardiner, Geoffrey Palmer, Keith Bannister, Humphry Greenwood, Peter Miller, Gordon McGregor Reid and Gordon Howes.



The Old Coach House in 1976 (L to R): Colin Patterson, Stanley Westoll, Pete Forey (to rear), Roger Miles, Brian Gardiner and Gordon McGregor Reid.

His office at QEC was in the Old Coach House, West Kensington. This Georgian annexe (playfully called ‘The Philosophers Den’ by Brian, now demolished) came complete with hi-tech microscopes, vintage desks, heaped muddles of fossils, pickled specimens, books and research papers, a rickety staircase, a baby rattle employed as a light pull and a large dinosaur vertebral disc used as an ashtray (Reid 2000). The Old Coach House had a cosmopolitan feel, as it was also an outpost for the Primate Research Unit, Smithsonian Institution, Washington, D.C., under Alison Jolly. Brian’s office became an oasis for these and other researchers from, for example, the Swedish Museum of Natural History, Stockholm (Erik Jarvik, Erik Stensiö, Lars Brundin), American Museum of Natural History, New York (Donn Rosen, Gary

Nelson and Norman Platnick) and the NHM. Visiting NHM luminaries, who conducted research with Brian and co-supervised postgraduate students, included his friends and academic collaborators Humphry Greenwood PPLS, Colin Patterson VPLS, Roger Miles FLS and Roger Miles FLS.

The postgraduates usually worked on the NHM collections (both fossil and present-day specimens) but were registered with the University of London under Brian’s care. Research topics included the anatomy, phyletic relationships, zoogeography, taxonomy and classification of fishes; but a few students were entomologists. The long list of postgraduates includes Gordon McGregor Reid PPLS, Melanie Stiassny, Gavin Young, Martha Richter, Angel Vilorio, Peter Forey, Peter Zaborski, Alan Bartram and Liz Todd (who famously needed a wheelbarrow to transport her massive, two-volume thesis from the binders). Alan Bartram, when a post-doctoral student at the Natural History Museum, Paris, disappeared under strange circumstances. Working with Alan’s parents and French police, Brian went to great lengths to find out what happened but the mystery was never solved.

Past ‘disciples’, including (as listed above) Melanie (AMNH, New York) and Gavin (ex Bureau of Mineral Resources, Australia), have remarked on his energy, honesty,



humility, sincerity, loyalty and kindness—serving as a role model or father figure. Systematist Angel Vilorio from Venezuela acknowledged in his thesis that: ‘Adapting to a new environment would not have been as agreeable as it was without the warm welcome and immediate friendship I had from my supervisor Brian Gardiner.’ As an External Examiner, he wanted students to be relaxed ahead of a verbal inquisition. Vertebrate palaeontologist Angela Milner (NHM) happily recalls him telling funny anecdotes for half an hour before getting down to the serious business of examining her 1978 thesis. Brian had a forgiving disposition. For example, Gordon McGregor Reid was tasked in 1974 with rewiring a vintage heater and thermostat for a laboratory aquarium full of Calabar Eels (*Erpetoichthys*). Brian was studying the evolutionary relationships of these rare, lobe-fin (palaeoniscoid) fishes. Unfortunately, the water boiled overnight and Brian was confronted next day with the pungent aroma of ‘fish soup’! Grateful for a second chance, Gordon was persuaded to babysit at Brian and Elizabeth’s home. Absent-mindedly snibbing the front door lock before going to bed, he was roused after midnight by Brian tapping frantically on a second story window, shouting to be admitted while teetering precariously on a ladder held by Elizabeth. ‘Accidents will happen, my boy!’ he said, good naturedly, with a comforting elbow squeeze. Gordon subsequently redeemed himself by sectioning numerous fossil skulls for Brian in the NHM palaeontology laboratory.

Brian’s great intellect, affability and personal magnetism made his laboratory an informal international hub for intense and important late 20th-century debates and key research collaborations on the exact relationships between comparative biology, fossils, evolution, biogeography, taxonomy and classification. This involved analyses (or re-evaluation) of anatomical characters in the light of the then revolutionary new discipline of phylogenetic systematics (or cladistics) as developed by Willi Hennig (1966), and helpfully illuminated by the hitherto neglected panbiogeography of Léon Croizat (Croizat 1958). Discussions embraced senior researchers and students alike and often spilled over to a pub, the Cranley or ‘Cladists’ Arms’, as nicknamed by the debaters. Over beer they swapped controversial cladograms sketched on the back of cigarette packets. There was also, from 1985



(L to R): Colin Patterson, Peter Forey, Dave Johnson, Brian Gardiner and Dick Vane-Wright on one of the many walks organised by Brian and Colin.



(L to R): Richard Fortey, Brian Gardiner, Peter Forey and Brian Rosen.

onwards, a more exclusive and senior group who pursued these issues—and other key topics such as industrial archaeology, ornithology, butterflies, plants, books, politics, food and the excessive price of ale—on long, leisurely walks organised by Brian and Colin Patterson. At first, this group comprised Brian, Colin Patterson, Peter Forey, Chris Humphries and Dick Vane-Wright, but later included as guests Richard Fortey, Gary Nelson, David Johnson, Brian Rosen and David Williams (Humphries 2000). Richard recalls Brian regaling them with fascinating stories such as the traditional annual tribute of lampreys (jawless fish) from the City of Gloucester to the Crown.

**A landmark collaboration between what became known as the ‘Gang of Four’ concerned cladistic analyses of fossil and living lungfishes alongside bony, ray-finned fishes and tetrapods.**

Throughout his career, Brian wrote scores of published scientific papers, singly or in collaboration with others (see full bibliography [www.linnean.org/bgg](http://www.linnean.org/bgg)). Pursuing early interests, Brian was, in 1963, briefly seconded to the University of Alberta, Edmonton, Canada. This resulted in a (now classic) Catalogue of Canadian fossil fishes (Gardiner 1966). He described taxa new to science such as seven genera of palaeoniscoid fishes from Witteberg, South Africa (Gardiner 1969) and revisited the classification of tetrapods (Gardiner 1982). A landmark collaboration between what became known as the ‘Gang of Four’ (Peter Forey, Brian Gardiner, Colin Patterson and Donn Rosen) concerned cladistic analyses of fossil

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and living lungfishes alongside bony, ray-finned fishes and tetrapods (Rosen *et al.* 1981). This challenged the conventional ‘Adam and Eve’ scenario of a linear (ancestor-descendant) evolutionary transition of vertebrates from water to land; and fuelled the ‘salmon, lungfish and cow’ controversy which at that time raged in the correspondence section of *Nature* (e.g. Gardiner *et al.* 1979).

He made valuable contributions to botany, entomology, ecology and conservation, including through volumes edited for the Linnean Society (e.g. Perring and Gardiner 1976; Sherwood *et al.* 2000). He also wrote extensively on the history of natural history (e.g. Gardiner 1984, 2003) and on popular science (e.g. Dixon *et al.* 1988).

Sir David Attenborough HonMLS warmly acknowledges Brian’s contribution as referee for the book *Life on Earth*; and Brian also provided (via producer Chris Parsons) expert biological advice for the iconic television series of the same title (Attenborough 1979, p. 312).

As a fitting tribute to a lifetime of dedicated academic service, two Permian palaeoniscoid genera *Gardinerichthys* Heyler, 1976, and *Gardinerpiscis* Romano & Kogan, 2015, and the ptyctodontid placoderm *Ctenurella gardineri* (Miles & Young, 1977; now *Austroptyctodus gardineri*), were named in Brian’s honour. His was a life full of outstanding personal and professional achievements. Brian left a large and valuable legacy and will be greatly missed by all who were fortunate enough to know him.

**Gordon McGregor Reid PPLS | Richard I Vane-Wright FLS | Gina Douglas FLS |  
Nicholas Gardiner FLS | Leonie Berwick**

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A Virtual Issue of the *Zoological Journal of the Linnean Society* honouring Brian will be published in April 2021. ([https://academic.oup.com/zoolinnea/pages/virtual\\_issues](https://academic.oup.com/zoolinnea/pages/virtual_issues))

An obituary for Brian can also be found in *The Guardian*:  
<https://www.theguardian.com/science/2021/apr/15/brian-gardiner-obituary>



## REFERENCES

- Attenborough, D. 1979. *Life on Earth*. William Collins & BBC Books, London.
- Croizat, L. 1958. *Panbiogeography*. Caracas, published by the author.
- Dixon, D., Cox, B., Savage, R.J.G. & Gardiner, B.G. 1988. *The Macmillan Illustrated Encyclopedia of Dinosaurs and Prehistoric Animals*. Macmillan, London & New York.
- Gardiner, B.G. 1966. *Catalogue of Canadian Fossil Fishes*. Royal Ontario Museum, Governors of the University of Toronto, Toronto.
- Gardiner, B.G. 1969. New Palaeoniscoid Fish from the Witteberg Series of South Africa. *Zoological Journal of the Linnean Society* 48: 423–452
- Gardiner, B.G. 1982. Tetrapod Classification. *Zoological Journal of the Linnean Society* 74(3): 207–232.
- Gardiner, B.G. 1984. Linnaeus's Medical Career. *The Linnean* 1(1): 11–17.
- Gardiner, B.G. 2003. The Piltdown Forgery: A re-statement of the case against Hinton. *Zoological Journal of the Linnean Society* 139(3): 315–335.
- Gardiner, B.G., Janvier, P., Patterson, C., Forey, P.L., Greenwood, P.H., Miles, R.S. & Jefferies, R.P.S. 1979. The Salmon, the Lungfish and the Cow: A reply. *Nature* 277: 175–176.
- Hennig, W. 1966. *Phylogenetic Systematics*. University of Illinois Press, Urbana. [See also Willi Hennig (1913–1976): His Life, Legacy and the Future of Phylogenetic Systematics. Joint Symposium with the Linnean Society of London, Natural History Museum, London and the Systematics Association (27 November 2013).]
- Heyler, D. 1976. Sur le genre *Amblypterus* Aggasiz (actinoptérygien du Permian inférieur). *Bulletin de la Société d'Histoire Naturelle d'Autun* 78: 17–37.
- Humphries, C. 2000. On Friendship. Pp. 69–74 in Forey, P.L., Gardiner, B.G. & Humphries, C. (eds), Colin Patterson (1933–1998) A Celebration of his Life. *The Linnean Special Issue* (2). Academic Press, London.
- Miles, R.S. & Young, G.C. 1977. Placoderm interrelationships reconsidered in the light of new ptyctodontids from Gogo Western Australia. *Linnean Society Symposium Series* (4): 123–198.
- Perring, F.H. & Gardiner, B.G. (eds.) 1976. The biology of bracken. *Botanical Journal of the Linnean Society* 73(1–3): vi + 1–302 pp.
- Reid, G.McG. 2000. Pp. 82–86 in Forey, P.L., Gardiner, B.G. & Humphries, C. (eds), Colin Patterson (1933–1998) A Celebration of his Life. *The Linnean Special Issue* (2). Academic Press, London.
- Romano, C. & Kogan, I. 2015. *Gardinerpiscis* nom. nov., a replacement name for the preoccupied genus name *Gardineria* Kazantseva-Selezneva, 1981 (Actinopterygii, Osteichthyes). *Paleontological Journal* 49(6): 677–678. [Original Russian text published in *Paleontologicheskii Zhurnal* 2015(6): 111–112.]
- Rosen, D.E., Forey, P.L., Gardiner, B.G. & Patterson, C. 1981. Lungfishes, tetrapods, paleontology and plesiomorphy. *Bulletin of the American Museum of Natural History* 167(4): 159–276.
- Sherwood, B.R., Gardiner, B.G. & Harris, T. (eds.) 2000. *British Saltmarshes*. Linnean Society and Forrest Text, Tresaith, Ceredigion, UK.