OBITUARY

Graeme Lawrence Baker BSc (Syd.) Dip. Ed. 27 February 1942S 21 February 2004†

Graeme was born at Quirindi in north-western NSW, where he and his sister (Anne) attended the local primary school. Both showed such aptitude that their parents (Lawrence and Mavis) decided to move to Sydney in 1954 so that the children's educational and career prospects would be greatly enhanced.

Whilst at Quirindi, Graeme started collecting and observing insects when only 3-4 years old. He and his sister harvested pupae of the oleander butterfly so that the adults would emerge in their bedrooms. Anne also kept silkworms and Graeme often persuaded the family to go on outings so that he could observe and collect insects, especially butterflies.

Even as a child Graeme had a born wanderlust with an engaging personality and enquiring mind. In later years these attributes served to open many otherwise closed doors to him during his overseas trips to attend conferences, do collaborative research or simply be an independent tourist.

In Sydney, the family lived at Roseville where the parents operated an antique shop for about 15 years. They also became known to several prominent artists and writers including Albert Sherman and Dame Mary Gilmour. They subsequently endorsed Graeme's ability as an illustrator, painter and writer.

Graeme's secondary education was completed at Crows Nest Boys High and whilst there he often went on Saturday field trips (with Max Moulds) to collect butterflies. He matriculated in 1958 and went to the University of Sydney where he graduated in April 1964 with a Bachelor of Science degree. He also obtained a Diploma of Education and whilst remaining at the University to sit-in on anthropology lectures taught geology at nearby Sydney Technical College. Between September 1960 and July 1965 Graeme published an irregular series of 13 short stories in *Honi Soit*, the University newspaper. One of these entitled "The Obituary" (July 1963) receiving high praise from some academic literary staff.

Graeme would have preferred employment as an anthropologist, but since no jobs were available he applied for a position as entomologist with the Department of Agriculture, Stock and Fisheries, at Popondetta in Papua New Guinea (PNG). Whilst stationed there he became involved in work on the control of migratory locust on Goodenough Island and cocoa pests, particularly cocoa weevil borer, in the Northern District. At that time, the soldier settler cocoa growers were in dire straits fighting falling commodity prices and a new pest that could not be controlled cheaply and effectively. Graeme's investigations showed that yellow crazy ant, *Anoplolepis gracilipes*, was an effective predator. Hitherto the ant had only been regarded as a serious impediment to the successful biological control of various hemipterous pests of other tropical tree crops, e.g. coconuts.

In 1973 Graeme transferred to Kuk Agricultural Research Station near Mt Hagen in the Central Highlands and worked for a while on vegetable pests before moving to the Markham Valley (south of Lae) to combat another migratory locust outbreak. He left PNG in late 1974 and later applied for a position as locust and grasshopper entomologist with the NSW Department of Agriculture at the Biological and Chemical Research Institute (BCRI) in Sydney, but briefly returned to PNG in early 1976 when there was a further locust outbreak.

Whilst in PNG, Graeme found time to observe the natives, especially their face and body painting/decoration with feathers, boar tusks and soot/pig grease in combination with superimposed pigments. He also painted for relaxation and although his works were deemed worthy of a one-man Sydney exhibition this never occurred.

It is related by Ted Fenner, that when he and another of Graeme's PNG colleagues visited the Markham Valley to see the locusts, their damage and how the control effort was progressing, the late afternoon discussion turned to use of locusts as human food elsewhere in the world. Graeme had some caged, unsprayed and unfed locusts on hand and suggested "How about we fry them up?" After being killed in the freezer (which made it easier to

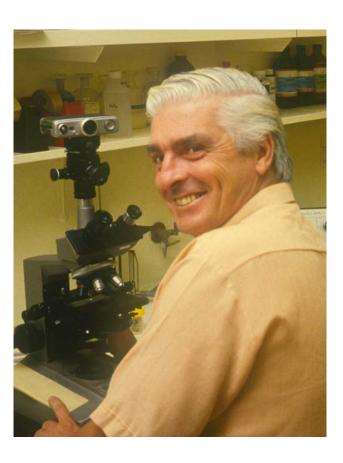
snap off the wings and legs) the bodies and attached heads were briefly deep fried in vegetable oil, lightly salted and eaten. The unanimous verdict being "Pretty darned good".

The real enjoyment, however, came at breakfast next morning when the radio news had a story that a local politician was fed up with the inability (his view) of the Department to deal with the locusts and stated that their officers "should be made to EAT them". Little did he know.

Graeme was located at Biological and Chemical Research Institute (BCRI) from 1975 until the facility closed in January 1997. During that time he investigated the population dynamics and control of locust and grasshopper pests, especially Australian plague locust and wingless grasshopper. His work on mermithid nematode parasites and scelionid wasp parasites was particularly outstanding. In collaboration with Dr George O. Poinar Jr., University of California, Berkeley, six new mermithid species were described from south-eastern Australia and in 2001 a long awaited and very well received textbook on Australian *Scelio* spp. wasps was produced in association with Dr Paul C. Dangerfield and Associate Professor Andrew D. Austin.

During and following his employment at BCRI Graeme spent much of his leisure time renovating houses at Rozelle and Waterloo in Sydney, and a holiday home near Cairns in far-north Queensland. Graeme formed an enduring relationship with far-north Queensland whilst at Cooktown during his University days, studying the origins, history and customs of the Chinese residents. After BCRI closed he continued to study nematodes at the Australian Museum and also did part-time consultative work on locusts and grasshoppers until shortly before being diagnosed with brain cancer in early 2003.

Graeme was not only multi-talented, but also devoted himself fully to each of his many interests at different times. He regularly attended local and overseas scientific meetings to make his ongoing research results widely available, and also wrote a large number of advisory publications, especially in New South Wales. Following is a list of his scientific journals, book and book chapter contributions.



Graham. J. Goodyer

PUBLICATIONS

Scientific journals

- Baker, G.L., Arndt, F. and Loh, D.W. (1974). The development of a population of *Pantorhytes szentivanyi* Marshall (Coleoptera: Curculionidae) within a cocoa planting in Papua New Guinea. *Papua New Guinea Agricultural Journal* 25: 1-5.
- Baker, G.L. (1974). An outbreak of *Tiracola plagiata* Walker (Lepidoptera: Noctuidae) on coffee in the Western Highland District of Papua New Guinea. *Papua New Guinea* Agricultural Journal 25: 54-58.
- Baker, G.L. (1974). Notes and News: Locusta migratoria L. outbreak in Papua New Guinea. PANS 20: 327.
- Baker, G.L. (1976). Cryptophlebia encarpa (Meyrick) (Lepidoptera: Tortricidae) a pest of cocoa pods in the Northern Province of Papua New Guinea. Papua New Guinea Agricultural Journal 27: 11-17.
- Baker, G.L. (1976). The seasonal life-cycle of *Anoplolepis longipes* (Jerdon) (Hymenoptera: Formicidae) in a cocoa plantation and under brushed rainforest in the Northern District of Papua New Guinea. *Insectes Sociaux* 23: 253-262.
- Baker, G.L. (1976). The biology of Pristocera rufa Kieffer (Hymenoptera: Bethylidae) a parasite of Pantorhytes szentivanyi Marshall (Coleoptera: Curculionidae) in Papua New Guinea. Journal of the Australian Entomological Society 15: 153-160.
- Baker, G.L. (1978). An outbreak of Spodoptera exempta (Walker) (Lepidoptera: Noctuidae) in the highlands of Papua New Guinea. Papua New Guinea Agricultural Journal 29: 11-25.
- Baker, G.L. (1978). The biology of a species of *Doleschalla* (Diptera: Tachinidae), a parasite of *Pantorhytes szentivanyi* Marshall (Coleoptera: Curculionidae). *Pacific Insects* 19: 53-64.
- Baker, G.L. and Pigott, R. (1979). Perilampus australis Girault (Hymenoptera: Pteromalidae: Perilampinae), a hyperparasite of the Australian plague locust, Chortoicetes terminifera (Walker) (Orthoptera: Acrididae). Journal of the Australian Entomological Society 18: 109-110.
- Baker, G.L., Brown, G.R. and Pigott, R. (1982). Dirhinus rufricornus (Girault) (Hymenoptera: Chalcididae: Dirhininae), a parasite of Diptera, two of which are primary parasites of Orthoptera. Australian Entomological Magazine 9: 27-32.
- Ernst, P. and Baker, G.L. (1982). Malameba locustea (King and Taylor) (Protozoa: Amoebidae) in field populations of Orthoptera in Australia. Journal of the Australian Entomological Society 21: 295-296.
- Baker, G.L. and Pigott, R. (1983). Parasitism of the Australian plague locust, Chortoicetes terminifera (Walker) (Orthoptera: Acrididae) by Prionyx saevus (Smith) (Hymenoptera: Sphecidae). Australian Entomological Magazine 10: 67-74.
- Baker, G.L. and Holmes, H.M. (1986). Protracted parasitic development of mermithid parasites under drought conditions. Revue de Nematologie 9: 287.
- Baker, G.L. and Poinar, G.O., Jr. (1986). Mermis quirindiensis n.sp. (Nematoda; Mermithidae), a parasite of locusts and grasshoppers (Orthoptera: Acrididae) in south-eastern Australia. Revue de Nematologie 9: 125-134.
- Baker, G.L. and Poinar, G.O., Jr. (1988). A description of the male and redescription of the female *Mermis athysanota* Steiner, 1921 (Nematoda: Mermithidae). Revue de Nematologie 11: 343-350.
- Robinson, A.F., Baker, G.L. and Heald, C.M. (1990). Transverse phototaxis by infective juveniles of *Agamermis* sp. and *Hexamermis* sp. (Nematoda: Mermithidae). *Journal of Parasitology* 76: 147-152.

- Herron, G.A. and Baker, G.L. (1991). The effect of host stage and temperature on the development of *Hexamermis* sp. (Nematoda: Mermithidae) in the Australian plague locust *Chortoicetes terminifera* (Walker) (Orthoptera: Acrididae). *Nematologica* 37: 213-224.
- Baker, G.L. and Dysart, R. (1992). Development of Scelio bipartitus Kieffer (Hymenoptera: Scelionidae) in diapause eggs of Gastrimargus musicus (F.) (Orthoptera: Acrididae). Journal of the Australian Entomological Society 31: 241-242.
- Baker, G.L. and Pigott, R. (1993). Parasitism of *Chortoicetes* terminifera (Walker) (Orthoptera: Acrididae) eggs by *Scelio* parvicornis Dodd (Hymenoptera: Scelionidae). Journal of the Australian Entomological Society 32: 121-126.
- Rajakulendran, S.V., Pigott, R. and Baker, G.L. (1993). Biology and phenology of the giant grasshopper, *Valanga irregularis* (Walker) (Orthoptera: Acrididae: Crytacanthacridinae), a pest of citrus in Central Western New South Wales. *Australian Entomologist* 20: 81-90.
- Baker, G.L. and Poinar, G.O., Jr. (1994). Studies on the genus *Amphimermis* (Nematoda: Mermithidae): Five new species, including four from Orthoptera in southeastern Australia. *Fundamental and Applied Nematology* **17**: 303-321.
- Baker, G.L., Milner, R.J., Lutton, G.G. and Watson, D. (1994).
 Preliminary field trial to control *Phaulacridium vittatum* (Sjöstedt) populations with *Metarhizium flavoviride* Gams and Rozsypal (Deuteromycetina: Hyphomycetes). *Journal of the Australian Entomological Society* 33: 190-192.
- Baker, G.L. (1995). Larval development of *Blaesoxipha pachytyli* (Skuse) (Diptera: Sarcophagidae), a parasite of grasshoppers and locusts (Orthoptera: Acrididae) in Australia. *Journal of the Australian Entomological Society* **34**: 129-134.
- Baker, G.L. and Poinar, G.O. (1995). Agamermis catadecaudata n.sp. (Nematoda: Mermithidae), a parasite of Orthoptera in south-eastern Australia. Fundamental and Applied Nematology 18: 139-148.
- Pigott, R.G., Baker, G.L. and Clift, A.D. (1995). The effect of ploughing *Chortoicetes terminifera* (Walker) (Orthoptera: Acrididae) oviposition sites on egg survival. *General and Applied Entomology* 26: 19-24.
- Baker, G.L., Dysart, R.J., Xavier, E.C. and Pigott, R.G. (1995).
 Apparent site affinity in Scelio parvicornis Dodd and Scelio improcerus Dodd (Hymenoptera: Scelionidae) in pastures infested with Phaulacridium vittatum (Sjöstedt) (Orthoptera: Acrididae). Australian Entomologist 22: 97-106.
- Baker, G.L. and Pigott, R. (1995). The impact of biotic factors on Chortoicetes terminifera (Walker) in invasion areas of south eastern Australia. Journal of Orthoptera Research 4: 49-55.
- Kaldor, C.J. and Baker, G.L. (1996). Estimation of mortality of Chortoicetes terminifera (Walker) (Orthoptera: Acrididae) from parasitism by Blaesoxipha pachytyli (Skuse) (Diptera: Sarcophagidae). General and Applied Entomology 27: 49-56.
- Baker, G.L., Dysart, R.J. and Pigott, R.G. (1996). Parasitism of grasshopper and locust eggs (Orthoptera: Acrididae) by Scelio spp. (Hymenoptera: Scelionidae) in southern Australia. Australian Journal of Zoology. 44: 427-443.
- Baker, G.L., Poinar, G.O., Jr. and Campbell, A.J. (1997). Psammomermis sericesthis n.sp. (Nematoda: Mermithidae) a parasitoid of pasture feeding scarabs (Coleoptera: Scarabaeidae) in southeastern Australia. Fundamental and Applied Nematology 20: 571-580.
- Baker, G.L. and Barchia, I. (1997). The effect of chemical control on parasitism of *Chortoicetes terminifera* (Walker) (Orthoptera: Acrididae). *Australian Journal of Entomology* 36: 293-298.
- Baker, G.L. and Xavier, E. (1998). Parasitism of overwintering

- grasshoppers by mermithid nematodes. Australian Journal of Entomology 37: 80-82.
- Hunter, D., Baker, G.L., Pigott, R. and Barchia, I. (1998).
 Parasitism of Chortoicetes terminifera (Orthoptera: Acrididae) eggs by Scelio fulgidus Crawford (Hymenoptera: Scelionidae) in south-east Australia. Journal of Orthoptera Research 7: 107-112.

Books

- Baker, G.L. (1993). Locusts and Grasshoppers of the Australian Region. The Orthopterists' Society, Ste-Anne-de-Bellevue, Canada: 66 pp.
- Dangerfield, P.C., Austin, A.D. and Baker, G.L. (2001). Biology, Ecology and Systematics of Australian *Scelio* wasp parasitoids of locust and grasshopper eggs. CSIRO Publishing: 264 pp.

Book chapters

- Baker, G.L. (1986). The ecology of mermithid nematode parasites of grasshoppers and locusts in south-eastern Australia. In: Samson, R.A. Vlak, F.M. and Peters, D (Eds.) *Fundamental and applied aspects of invertebrate pathology*. Foundation of the 4th International Colloquium of Invertebrate Pathology, Wageningen. pp. 277-280.
- Baker, G.L. (1992). Current outbreak and pest status of wingless grasshopper, *Phaulacridium vittatum* (Sjöstedt) in south eastern Australia. In Delfosse E. (Ed.) *Pests of Pastures*. CSIRO, Melbourne. pp. 121-127.
- Farrow, R.A. and Baker, G.L. (1992). The reduction in wingless grasshopper numbers by sound farm management practices. In Delfosse, E. (Ed.) *Pests of Pastures*. CSIRO, Melbourne. pp. 202-205.
- Milner, R.J., Baker, G.L., Hooper, G.H.S. and Prior, C. (1996).

 Development of a mycoinsecticide for the Australian plague locust. In Krall, S., Peveling, R. and Ba Daoulé Diallo (Eds.). *New strategies in locust control.* Birkhäuser Verlag, Basil, Switzerland ISBN 3-7643-5442-9.
- Baker, G.L. and Capinera, J.L. (1997). Nematodes and nematomorphs as biological control agents of grasshoppers and locusts. In: Goethel, M. and Johnson, D. (Eds.). *Microbial control of locusts and grasshoppers*. Memoirs of the Canadian Entomological Society 171: 157-221.