

Mick Gillies (1920 – 1999)

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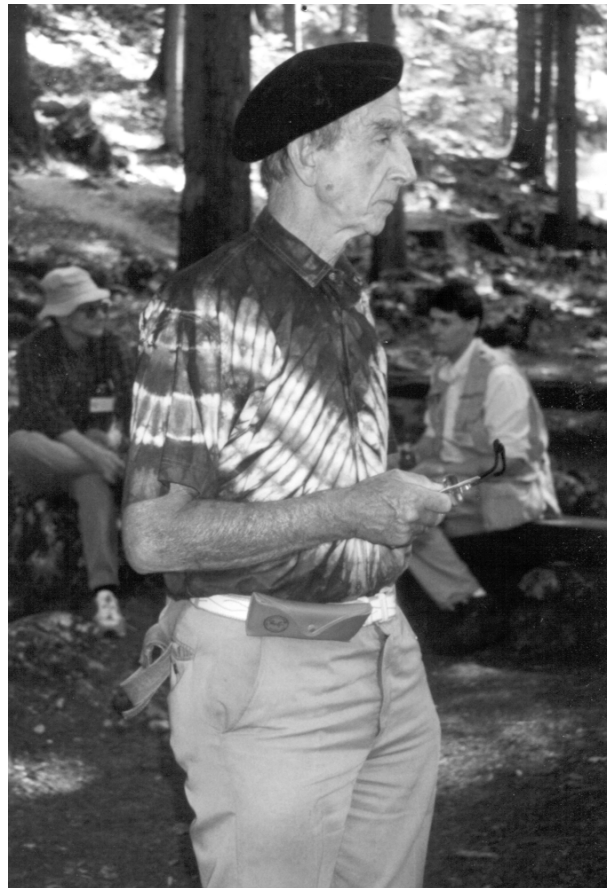
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Mike Gillies was the 4th child of a renown New Zealander plastic surgeon, Sir Harold Gillies, FRS. His entomologist career began early since he obtained the Winchester College Natural History Prize in 1938 for his essay on "*The egg laying behaviour and biology of the immature stages of Ephemeroptera*".

After the College, he followed his medical training and in 1944 was a military Medical Officer in the Far East. Then, after his release from the army, he was a doctor of the British Embassy in Moscow. When returning from Moscow, he abandoned medicine to study the insects carrying diseases rather than the diseases themselves. He became a talented "medical entomologist", studying *Anopheles* vectors of malaria. In 1951, he got a position at the "East African High Commission Medical Research Institute" in Amani, Tanganyika Territory (currently Tanzania) where he worked for 12 years. He then spent two years at the British Museum (Natural History) in London during which he revised the African mosquitoes collections. The result was the reference book he wrote with B. de Meillon on African *Anopheles*: "The Anophelinae of Africa South of the Sahara" (1968), supplemented later with M. Coetzee by "A supplement to the Anophelinae of Africa south of the Sahara" (1987).



Mick Gillies during the field trip at the 8th International Conference on Ephemeroptera held in Lausanne (Switzerland) in 1995 (photo Michel Sartori).

In 1965, he was the head of the newly formed "Mosquito Biology Unit" in Sussex University, England, in parallel with researches undertaken with students in Gambia. He was also an expert to evaluate the potential risks of development of the Mosquitoes in Egypt during the construction of the Aswan dam. Mick retired in 1983 from his post at Sussex University.

The quality of his researches was several times rewarded: the Royal Society of Tropical Medicine and Hygiene in London awarded him in 1965 the "Chalmers Medal" for his research in tropical Medicine, as well as the "Christophers Medal" in 1982 for his work on tropical Medicine and Hygiene.

This is not the medical entomologist who is familiar to us, but the impassioned man of a peculiar group of insects considered as minor: mayflies. He had the opportunity to collect them throughout his peregrinations due to his military service in Asia (Pakistan, India, Burma, Thailand, Hong-Kong), during his assignment in Russia, or during his journeys in Africa: Egypt, Tanzania, West Africa. Both activities were well separated as it can be seen in his publication list. 61 of his

64 papers on mosquitoes were published when he was active as a medical entomologist (1953 – 1983), whereas he published 33 papers out of 52 on mayflies since 1983. He even published a paper on the Skippers (Lepidoptera, Hesperidae).

We have to underline the accuracy of Mick's diagnoses and writings concerning the mayflies. He was interested mainly in Baetidae, but published on all major mayfly families. One of his most famous work is without any doubt the first description of the adults of *Prosopistoma* in 1954.

As a young researcher, we went to know Mick through his publications on African mayflies, then through his correspondence. His letters, always kind, were not those of the doctor holder of the knowledge to his pupil knowing little about systematic and bioecology of the mayflies, but those of the anxious pedagogue to forge the spirit of future colleague, future researcher, even future rival. Mick always encouraged to observe, which is much more difficult than to see and even to look at. Later, during missions on the field, in Mali, Ivory-Coast and Guinea, Mike show us how to observe hidden facts, that is to say, to deduce a multitude of elements of morphology, biology, ecology and ethology of mayflies through very few judiciously interpreted observations. He had a rare vision of the interrelationships between the heredity and the environment, deduced from biological or morphological characteristics of the organisms observed.

Among many examples, I will quote only two of them: that of a nymph named *Machadorythus palanquin* and an adult named *Tricorythus maculatus*, two Tricorythidae not very frequent, but which were regularly collected in Guinea. One day thus, during an evening on the bank of the Niandan river, Mick told after one of these very long silences of which he had the secret: "you see, this nymph (*M. palanquin*) must live in sand, according to its protected gills and pedonculated eyes, undoubtedly in the nests dig by *Tilapia* and its adult must be *Tricorythus maculatus*. The males probably do not perform swarms because vegetation marks do not occur in these zones. That could be the reason why we caught so few of them at the same time, in the light traps". The rearing of nymphs and the future gave him reason.

The discovery of the mayfly nymphs colonising freshwater mussels was of the same type. *Mutelocloeon bihoumi* is a large baetid mayfly whose only adults were known so far. We never collected nymphs, even after thorough samplings of the rivers. One day Mick says "If the nymph is not found, it is because it is hidden. As

the Baetidae nymphs are fragile, they must hide in a well oxygenated place where they have space and food. I see only the large freshwater mussels." A few time later, mussels gave him reason.

His sense of humour, considered by French as typically British, was fine and percussive. Everybody now always enjoy his answer, when he dozed at the nap hour, jolting on a dust road of Guinea. "Mick, do you feel well?". "Oh, Yes! I'm still alive... and flourishing!".

Mick never missed the International Ephemeroptera Conferences; he was always joined by his wife, Eva, who took an important role in these events as a multilingual translator. Mick decided to write his biography a couple of years ago. The final point was written in December 1999. He passed away a couple of days later.

Those who want to know in more details Mick's extraordinary life should definitively read his book "*Mayfly on the stream of time*", published in 2000 by Messuage Books, Whitfeld, Hamsey, East Sussex, England.

Mick Gillies' publications on Ephemeroptera

- Gillies, M. T. 1949. Notes on some Ephemeroptera Baetidae from India and South East Asia. Transactions of the Royal Entomological Society of London, 100: 161-177.
- Gillies, M. T. 1950. Egg laying of Olives. *The Salmon and Trout Magazine*, 129: 106-108.
- Gillies, M. T. 1951. Association of a chironomid (Diptera) larva with *Ephemera danica* Müll. (Ephemeroptera). Entomologist's Monthly Magazine, 87: 200-201.
- Gillies, M. T. 1951. Further notes on Ephemeroptera from India and South East Asia. Proceedings of the Royal Entomological Society of London B, 20: 121-130.
- Gillies, M. T. 1954. The adult stages of *Prosopistoma* Latreille (Ephemeroptera) with descriptions of two new species from Africa. Transactions of the Royal Entomological Society of London, 105: 355-372.
- Gillies, M. T. 1956. A supplementary note on *Prosopistoma* Latreille (Ephemeroptera). Proceedings of the Royal Entomological Society of London A, 31: 165-166.
- Gillies, M. T. 1957. New records and species of *Euthraulius* Barnard (Ephemeroptera) from East Africa and the Oriental region. Proceedings of the Royal Entomological Society of London B, 26: 43-48.
- Gillies, M. T. 1960. A new genus of Tricorythidae (Ephemeroptera) from East Africa. Proceedings of the Royal Entomological Society of London B, 29: 35-40.

- Gillies, M. T. 1963. A list of Ephemeroptera in the National Museum, Bulawayo, Southern Rhodesia. *Entomologist's Monthly Magazine*, 98: 232-233.
- Peters, W. L., Gillies, M. T. & Edmunds, G. F. 1964. Two new genera of mayflies from the Ethiopian and Oriental region (Ephemeroptera: Leptophlebiidae). *Proceedings of the royal Entomological Society of London B*, 33: 117-124.
- Gillies, M. T. 1974. Three new species of *Elassoneuria* (Ephemeroptera: Oligoneuriidae) from tropical Africa. *Journal of Entomology B*, 43: 73-82.
- Gillies, M. T. 1975. Winter swarming of *Cloeon* in the tropics. *Eatonia*, 20: 10-11.
- Gillies, M. T. 1977. A new genus of Caenidae (Ephemeroptera) from East Africa. *Journal of Natural History*, 11: 451-455.
- Gillies, M. T. 1978. *Cloeon pusillum* Navas, a species of *Afrobaetodes* Demoulin (Ephemeroptera: Baetidae). *Entomologist's Monthly Magazine*, 114: 153-154.
- Gillies, M. T. 1978. Polymorphism in the turbinate eyes of an African *Cloeon* (Ephemeroptera: Baetidae). *Entomologist's Monthly Magazine*, 114: 155.
- McCafferty, W. P. & Gillies, M. T. 1979. The African Ephemerae (Ephemeroptera). *Aquatic Insects*, 1: 169-178.
- Gillies, M. T. 1980a. The African Euthyplociidae (Ephemeroptera) (Euthyplociinae subfam. n.). *Aquatic Insects*, 2: 217-224.
- Gillies, M. T. 1980b. An introduction to the study of *Cloëon* Leach (Baetidae, Ephemeroptera) in West Africa. *Bulletin de l'I.F.A.N. serie A*, 42: 135-156.
- Gillies, M. T. 1982. A second large-eyed genus of Caenidae (Ephemeroptera) from Africa. *Journal of Natural History*, 16: 15-22.
- Gillies, M. T. 1984. On the synonymy of *Notonurus* Crass with *Compsoneriella* Ulmer (Heptageniidae). In: *Proceeding of the fourth international conference on Ephemeroptera* (Landa, V., Soldán, T. & Tonner, M., ed.), pp. 21-25. Bechyne: CSAV.
- Gillies, M. T. 1985. A preliminary account of the East African species of *Cloeon* Leach and *Rhithrocloeon* gen. n. (Ephemeroptera). *Aquatic Insects*, 7: 1-17.
- Gillies, M. T. 1988. Description of the nymphs of some Afrotropical Baetidae (Ephemeroptera). I. *Cloeon* Leach and *Rhithrocloeon* Gillies. *Aquatic Insects*, 10: 49-59.
- Elouard, J.-M. & Gillies, M. T. 1989. West African Ephemeroptera: the genus *Machadorythus* (Tricorythidae). *Aquatic Insects*, 11: 1-10.
- Gillies, M. T. 1989. Occurrence of *Rhithrocloeon* (Baetidae: Ephemeroptera) in West Africa. *Revue d'Hydrobiologie tropicale*, 22: 287-288.
- Elouard, J.-M., Gillies, M. T. & Wuillot, J. 1990. Ephemeroptera from West Africa : The genus *Pseudopannota* (Baetidae). *Revue d'Hydrobiologie tropicale*, 23: 27-39.
- Gillies, M. T. 1990. Development of the mayfly *Siphonurus armatus* in two Southern English rivers (Siphonuridae: Ephemeroptera). *The Entomologist*, 109: 17-23.
- Gillies, M. T. 1990. A new genus for the Afrotropical mayfly, *Cloeon dentatum* Kimmins (Ephemeroptera, Baetidae). *Entomologist's Monthly Magazine*, 126: 207-208.
- Gillies, M. T. 1990. A revision of the African species of *Centroptilum* Eaton (Baetidae, Ephemeroptera). *Aquatic Insects*, 12: 97-128.
- Gillies, M. T. 1990. A revision of the Argentine species of *Callibaetis* Eaton (Baetidae ; Ephemeroptera). *Revista de la Sociedad Entomologica Argentina*, 48: 15-39.
- Gillies, M. T. & Elouard, J.-M. 1990. The mayfly-mussel association, a new example from the River Niger Basin. In: *Mayflies and Stoneflies: Life Histories and Biology* (Campbell, I. C., ed.), pp. 289-298. Dordrecht: Kluwer Academic Publishers.
- Gillies, M. T., Elouard, J.-M. & Wuillot, J. 1990. Ephemeroptera from West Africa : the genus *Ophematostoma* (Baetidae). *Revue d'Hydrobiologie Tropicale*, 23: 115-120.
- Gillies, M. T. & Knowles, R. J. 1990. Colonisation of a parthenogenetic mayfly (Caenidae: Ephemeroptera) from Central Africa. In: *Mayflies and Stoneflies: Life Histories and Biology* (Campbell, I. C., ed.), pp. 341-346. Dordrecht: Kluwer Academic Publishers.
- Sartori, M. & Gillies, M. T. 1990. Further Records of Mayflies (Insecta: Ephemeroptera) from the Arabian Peninsula. *Leptophlebiidae and Baetidae. Fauna of Saudi Arabia*, 11: 10-17.
- Gillies, M. T. 1991. New records and a new species of *Afrobaetodes* Demoulin (Baetidae, Ephemeroptera) from Tanzania. *Revue d'Hydrobiologie tropicale*, 24: 105-110.
- Gillies, M. T. 1991. A new species of *Afroptilum* (*Afroptiloides*) from East Africa (Ephem., Baetidae). *Entomologist's Monthly Magazine*, 127: 109-115.
- Gillies, M. T. 1991. A diphyletic origin for the two-tailed baetid nymphs occurring in East African stony streams with a description of the new genus and species *Tanzaniella spinosa* gen. sp. nov. In: *Overview and strategies of Ephemeroptera and Plecoptera* (Alba-Tercedor, J. & Sanchez-Ortega, A., ed.), pp. 175-187. Gainesville: Sandhill Crane Press., Inc.
- Peters, W. L. & Gillies, M. T. 1991. The male imago of *Protobehningia* Tshernova from Thailand (Ephemeroptera: Behningiidae). In: *Overviews and strategies of the Ephemeroptera and Plecoptera* (Alba-Tercedor, J. & Sanchez-Ortega, A., ed.), pp. 207-216. Gainesville: Sandhill Crane Press, Inc.
- Gillies, M. T. 1992. A new synonym and distribution records of *Afroptilum sudafricanum* (Lestage) (Baetidae : Ephemeroptera) from the East African highlands. *Journal of the entomological Society of South Africa*, 55: 33-38.

- Gillies, M. T. 1993. Descriptions of some Afrotropical Baetidae (Ephemeroptera) II. *Baetis* Leach, s.l., West African species. *Aquatic Insects*, 15: 213-223.
- Wuillot, J. & Gillies, M. T. 1993a. *Cheleocloeon*, a new genus of Baetidae (Ephemeroptera) from West Africa. *Revue d'Hydrobiologie tropicale*, 26: 213-217.
- Wuillot, J. & Gillies, M. T. 1993b. New species of *Afroptilum* (Baetidae, Ephemeroptera) from West Africa. *Revue d'Hydrobiologie tropicale*, 26: 269-277.
- Gillies, M. T. 1994. Descriptions of some Afrotropical Baetidae (Ephemeroptera) II. *Baetis* Leach, s.l., East African species. *Aquatic Insects*, 16: 105-118.
- Wuillot, J. & Gillies, M. T. 1994. *Dicentropilum*, a new genus of mayflies (Baetidae, Ephemeroptera) from Africa. *Aquatic Insects*, 16: 133-140
- Peters, W. L. & Gillies, M. T. 1995. Square Facets in a Hexagonal World. In: *Current directions in research on Ephemeroptera* (Corkum, L. D. & Ciborowski, J. J. H., ed.), pp. 371-376. Toronto: Canadian Scholars' Press Inc.
- Gillies, M. T. & Thorpe, J. R. 1996. When is a spine not a spine ? A new look at an old problem in the taxonomy of Baetidae (Ephemeroptera). *The Entomologist*, 115: 86-90.
- Gillies, M. T. 1997. Gill mobility in the Baetidae (Ephemeroptera): results of a short study in Africa. In: *Ephemeroptera & Plecoptera Biology-Ecology-Systematics* (Landolt, P. & Sartori, M., ed.), pp. 113-116. Fribourg: Mauron+Tinguely & Lachat SA.
- Gillies, M. T. 1997. A new species of *Procloeon* Bengtsson from the forest zone of West Africa (Ephem., Baetidae). *Entomologist's Monthly Magazine*, 133: 247-250.
- Gillies, M. T. & Wuillot, J. 1997. *Platycloeon*, a new genus of Baetidae (Ephemeroptera) from East Africa. *Aquatic Insects*, 19: 185-189.
- Gillies, M. T. 1998. The mayflies (Ephemeroptera) of the upper River Sigi, North-East Tanzania. *Freshwater Forum*, 10: 49-57.
- Gillies, M. T. 1999. Reinstatement of *Afroptiloides* as a genus (Baetidae, Ephemeroptera). *Aquatic Insects*, 21: 197-203.
- Gillies, M. T. 2001. A new species of *Aturbina* (Ephemeroptera, Baetidae) Lugo-Ortiz and McCafferty from Uruguay. In: *Trends in Research in Ephemeroptera and Plecoptera* (Dominguez, E., ed.), pp. 331-335. New York: Kluwer Academic/Plenum Publishers.
- Gillies, M. T. 2001. New species of Baetidae (Ephemeroptera) from the Upper River Sigi, Usambara, Tanzania. *Journal of Natural History*, 35: 23-32.