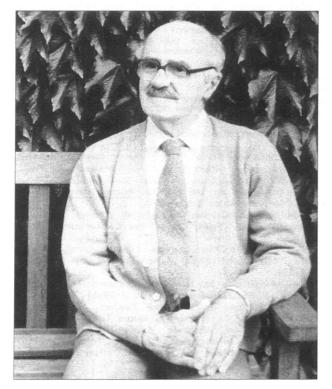
## BRAUERIA (Lunz am See, Austria) 20:10 (1993)

## George Norman PHILIPSON, 1916 - 1991

Norman Philipson's scientific career was spent in the Department of Zoology in the University of Durham, later the University of Newcastle upon Tyne. As with so many others of his generation, it was interrupted at an early stage by the Second World War, and he saw service in REME from 1939 to 1946. On his return, he was appointed Demonstrator in 1946, Lecturer in 1947 and Senior Lecturer in 1970. He retired in 1981.

In the post-war years, before the great surge in university expansion, departments had a modest staff but what today would be seen as a quite insupportable teaching commitment. Like many other zoology departments, that at Newcastle offered a four year science degree programme as well as first year courses in zoology for medical, dental, agriculture, and general arts students. Norman Philipson was a dedicated teacher and threw himself into this activity with his great enthusiasm. Although his main interest was in freshwater biology, he taught a wide range of Zoological subjects with skill and authority.



Not surprisingly, under this regime, he had little time for research, but he completed his Ph.D. thesis during the period of his Demonstratorship, the research having been carried out before he joined the forces in 1939, and he then began to set the stage for what was to be the main contribution of his school: caddis larvae and their biology. Caddis larvae are ecologically important freshwater insects, but their taxonomy was very poorly known and their biology uncertain. It took some years before he had the opportunity to develop the research facilities he needed, but in the meantime he made use of every effective Heath Robinson devices to simulate mountain streams. The 'Meccano' structures that filled his office looked improbable, but the caddis larvae were fooled by them and the systems produced the desired results.

Later, he was able to transfer this technology to a dedicated freshwater biology laboratory, though it was a sadness to him that its potential was never fully realized because its inauguration coincided with the decline of university finances.

Nevertheless, whether at the 'Heath Robinson' stage or later, a distinguished group of students enlarged on Dr Philipson's work on the respiratory behaviour of caddis larvae and its influence on their distribution, as well as on the taxonomy of the larvae. His strict and rigorous scientific discipline was impressed on them and they now occupy senior positions as freshwater biologists in British universities, research institutes, water quality bodies and government agencies. Collectively, Dr Philipson and his students set the essential basis for much current research on the ecology of Scandinavian river systems, and the work also resulted in the production of the Freshwater Biological Association Key to the Cased Caddis Larvae.

Norman Philipson was a surprising person. On first acquaintance he appeared reserved, almost self-effacing, but that did not equate with his war-time record or the fact he had been a skilled rock climber and mountaineer from boyhood and continued this activity for much of his life. He joined two expeditions to remote parts of Iceland in 1970 and 1971 as biologist with the British Schools Exploring Society. In 1974 he made a field excursion in Arctic Canada.

His colleagues had great affection for him, as did his students who also were indebted to him for the way in which he promoted their interests, often over his own.

In retirement he pursued his interest in astronomy, botany and ornithology. He is survived by his wife and two sons.

## G.N.Philipson: Publications

- 1948. A study of certain trichopterous latvae with reference to some factors affecting their distribution. Unpublished PhD thesis, University of Durham. (Copy lodged in the library of the University of Newcastle upon Tyne)

- 1953a. A method of rearing trichopterous larvae collected from swift-flowing waters. -Proc.R.Ent.Soc.Lond, ser.A 28:15-16.

- 1953b. The larva and pupa of Hydropsyche instabilis Curtis (Trichoptera, Hydropsychidae). -Proc.R.Ent.Soc.Lond. ser.A 28:17-23.

- 1953c. The larva and pupa of Wormaldia subnigra McLachlan (Trichoptera, Philopotamidae). -Proc.R.Ent.Soc.Lond. sewr.A 28:57-62.

1954. The effect of water flow and oxygen concentration on six species of caddis fly (Trichoptera) larvae. - Proc.Zool.Soc.Lond 124:547-564.
1955. Trichoptera in Northumberland. - Ent.Mon.Mag. 91:3.

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Newcastle upon Tyne N.S. 12(3):77-92.

- 1961. The fifth instar larva of Potamophylax stellatus (Curtis) (Limnephilidae: Trichoptera). -Hydrobiologia 18:321-326.

- 1968. Ecological pyramids: a field study at Malham Tarn. - School Science Review 171:262-278.

- 1969. Some factors affecting the net-spinning of the caddis fly, Hydropsyche instabilis Curtis (Trichoptera, Hydropsychidae). - Hydrobiologia 34:369-377.

- 1971. Studies on a lake and a pond on the Arnarvatnsheidi. - British Schools Exploration Society Report, 1969 - 1971:144-158.

- 1972a. Further studies on lakes of the Arnarvatnsheidi. - Brit.Schools Expl.Soc.Rep. 1971-1972:85-102.

- 1972b. Studies on a lake and a small pond on the Arnarvatnsheidi, West-Central Iceland. -Verh.int.Ver.Theor.Ang.Limn. 18:312-319.

- 1974. & B.H.S.Moorhouse. Observations on ventilatory and net spinning activities of the genus Hydropsyche Pictet (Trichoptera: Hydropsychidae) under experimental conditions. - Freshw.Biol. 4:525-533.

- 1975. The distribution of caddis flies in streams. - Proc.R.Ent.Soc. 39:35-36.

1978. The undulatory behaviour of larvae of Hydropsyche pellucidula Curtis and H.siltalai Döhler.
Proc.2nd Int.Symp.Trich.:241-247.

- 1989, & I.D.Wallace, & B.Wallace. A kew to the casebearing caddis larvae of Britain and Ireland. - Freshw.Biol.Ass.Sci.Publ. no.51.

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