



THE INVERTEBRATE DRIFT ON THE SURFACE OF A PREALPINE STREAM AND ITS SELECTIVE EXPLOITATION BY RAINBOW TROUT—(Notice.) Samples of the invertebrate drift on the surface of a eutrophic prealpine stream were collected over 6 days in September 1970 with a floating trap. Eighty-five percent of the drift were emerging and egg-laying aquatic insects, mainly Ephemeroptera and Chironomidae; the remaining 15% was composed of winged terrestrial insects like Aphidae and ants. The diel pattern of the drift showed 2 strongly marked peaks; the first, at about 15.00 h, being caused by emerging Ephemeroptera, the second, at about 19.00 h, by egg-laying adults of the mayfly *Caenis macrura* and by Chironomidae.

The composition of the drift was compared with the composition of the stomach contents of rainbow trout (*Salmo gairdneri*) of age classes 2+ to 4+ caught during the same time period and in the same part of the stream. The trout were exploiting only the surface insect drift.

Good correlation was found between the diel variations in the abundance of most insect groups in the drift and in the stomachs.

The trout fed selectively within the drift: a very close correlation was found between the mean body length of the insects and the logarithm of the electivity coefficient (forage ratio). A further important criterion of selection is the degree of familiarity with the prey organisms. The relative abundance of the different prey species has no influence on the selective behaviour.

The importance of environmental factors in the choice of food sources and for the selective feeding behaviour of trout and the possible influence of the selective feeding on the composition of the invertebrate stream fauna are discussed. *Oecologia (Berl.)* 1974, 14, 247-267; J.-P. Metz, Univ. Munchen.