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The five lakes of Campo occupy distinct glacial levels in the Campo valley between 2220 and 2340 m. in the high Bognadneo valley (Piemonte). Preliminary physiographical and hydrobiological studies were made in them by Tonolli (1947 & 1949).

In the months when these lakes are free of ice, (June to November) a varied and abundant planktonic fauna can be found there of which the most representative species both in numbers and biomass is the copepod A.bacillifer Koeibel.

The seasonal dynamics of the zooplankton of these lakes was studied during summer and autumn of 1968 and 1969. Observations on temperature and chemistry of the water were made at the same time as the collection of plankton samples. Adult females of A.bacillifer were segregated and eggs/sac counted. Seasonal variation in clutch-size is highly specific for each lake examined. Seasonal variation in clutch-size is closely correlated with the local situation in each lake, and in particular with the seasonal population cycle of A.bacillifer, development time of which is mainly controlled by temperature, also by morphometry and hydrology of each basin, and finally by presence of other phytophagous species which compete with the diaptomid for algal food.

Thus in Campo lake 3<sup>o</sup>, where the dominance of A. bacillifer over other zooplankters is unquestioned, maximal abundance and maturity occur somewhat later than in populations of the same species in other lakes and also in colder waters in the valley. Also in Campo 3<sup>o</sup> dimensions are maintained at a constant value throughout the period of reproduction without the reduction observed in lakes where phytophagous cladocerans and rotifers were numerous contemporaneously.

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