General Introduction
The insects comprise the most diverse group of organisms that exist on earth. Yet less than 3% of the total insect diversity have aquatic life stages (Daly, 1984). Nevertheless, in many freshwater systems, insects comprise the dominant group of macroinvertebrates and may account for over 95% of the total macroinvertebrate density or diversity (Ward, 1992).

One of the earliest accounts of aquatic insects is possibly that of the Greek Claudius Aelianus (Ca. 175-235 A.D) who recorded swarms of adult caddisflies over the River Astraeus in Macedonia. Even the importance of these
creatures in the aquatic food chain, albeit in a practical way, was known to him, as he described the use of artificial flies to catch fishes like trouts and grayling (Williams and Feltmate, 1992). However, one of the earliest published works dealing comprehensively with the natural history of aquatic insects is that of Miall (1895). In the early and middle parts of 20th century, several pioneering works on the morphology, systematics and different aspects of biology of European species of aquatic insects were published (Rousseau 1921, Karny 1934, Wesenberg-Lund 1943, Bertrand 1954). Another significant work was that of Macan (1962, 1963). Although studies on aquatic insect in North America started some what later than that in Europe, a very informative and comprehensive study on a specific group of aquatic insects, viz, the may flies (Ephemeroptera) appeared as early as in the mid 1930’s (Needham et al., 1935). Yet another significant contribution to the study of fresh water macroinvertebrates including the aquatic insects was that of R.W. Pennak in 1968. Nevertheless the emphasis till the 1970’s was that on taxonomy, phylogeny and systematics, and general biology, rather than on ecology. Besides the work of Macan mentioned earlier, one of the most important volumes dealing with the ecology of lotic insects and other microinvertebrates was that of Hynes (1970). The other significant contributions on the taxonomy and ecology of aquatic insects that have been published since the 1980 include those by Merritt and Cummins (1978), Resh and Rosenberg (1984), Williams and Feltmate (1992) and Ward (1992).

It needs mentioned here that all the aforesaid publications dealt primarily with the European and the North American species. In contrast, comprehensive volumes dealing exclusively with aquatic insects on the tropics
and subtropics including India, are virtually non-existent. although a fairly large number of research papers as detailed in different chapters of this dissertation have appeared since the pioneering contributions of Hora (1928,1930) on the composition, adaptation and ecology of the insect and other invertebrate fauna of torrential streams. The importance of regional studies on the various groups of aquatic insects need, therefore, to be hardly emphasized. In this context, the aquatic insect fauna of North East India, which is a biodiversity hot spot, and more so of Assam, still remains poorly investigated. The present study, has therefore been taken up on the diversity and ecology of lentic aquatic insects in certain waterbodies of North Cachar Hills. Assam, that are located on the Borail range of mountains, both on its higher elevations as well as on its northern and southern flanks.