CHAPTER 2

REVIEW OF LITERATURE
Man has ever been interested on freshwater. The fascinating world of freshwater attracts people since time immemorial. Though the primary requisite of man from freshwater was drinking, food and cleaning, later, people could understand the inherent mysteries of aquatic phenomenon that it is the basis of all life activities. Subsequently, some inquisitive observations have brought to light some facts such as the habit and habitat of the fish, emergence of insects, and amphibians etc. These vague observations give birth to a new branch of science, the freshwater biology and their ecological relevance.

The idea of eco-biological relevance of freshwater was inaugurated by Forel of Switzerland during first decade of 20th century (Das, 1989). However, the most detailed researches on physicochemical and biological characteristics of freshwater were carried out by Birge and Juday in 1922 (Das, 1989). That the study has been extended to the various parts of the world, is known from the contributions of Welch (1948, 1952), Hutchinson (1957a, 1957b), Wetzel (1975), Hilsenhoff (1977), Junk (1977), Moss (1980), Chilton (1990) and Abramovitz (1996).

Freshwater macro-invertebrates in India fascinate researchers from very early period. Quite a large number of investigations on aquatic faunal diversity specially on the macro-invertebrates are known since the beginning of the 20th century from the works of Distant (1903, 1906, 1910), Annandale (1905, 1906, 1911, 1912, 1919, 1921a, 1921b), Blanford and Godwin-Austen (1908), Gude (1914), Preston (1915), Annandale and Prashad (1918, 1920, 1921), Stephenson (1923), Prashad (1925), Harding and Moore (1927), Dover (1928), d’Orchymont (1928), Ochs (1930), Fraser (1936), Chopra and

Laboratory rearing and culture of aquatic macro-invertebrate in India is known from the works of Khatib (1934), Subba Rao (1989), Misra and Raut (1998). However, the life cycle and development of aquatic macro-invertebrate faunae are described by Khatib (1934), Nagabhushanam and Sarojini (1985), Misra and Raut (1998), Goswami et al. (1996-1999), Kalita and Goswami (2006d).


However, a little is known about the ecology and distribution of enmeshed macro-invertebrate fauna in freshwater habitats in India (Srivastava, 1959; Rai et al., 1981; Roy and Sharma, 1983; Goswami, 1985; Sen et al., 1989; Ghosh and Chattopadhyay, 1990, 1994; Rai and Sharma, 1991; Singh and Roy, 1991; Mishra et al., 1992; Jhingran, 1997; Bhattacharya, 1998; Pal et al., 1998; Ramakrishna, 2000; Jayanth and Nagar, 2000; Khan, 2002; Kalita and Goswami, 2005, 2006a, 2006b, 2006c, 2006d). Indeed some valuable investigations on enmeshed macro-invertebrates are brought in by many workers outside the Indian territory (Bennet, 1972; Baloch and Sana-Ullah, 1974; Soszka, 1975; Junk, 1977; Julien, 1982; Downing and Rigler, 1984; Chilton, 1990; Wilson and Keddy, 1991; Bennett and Buckingham, 2000; Madsen, 2000; Dorn et al., 2001).