The tropical regions of the world have been affected more severely by infectious diseases than the temperate world, where warm climate create favourable conditions favouring such diseases. Tropical diseases are often affects the poor people, those without basic health services, adequate housing, safe water and good sanitation and those living in remote or isolated areas. In tropical regions most of the infectious diseases are caused by biological agents like bacteria, virus, fungus, parasites and prions. Snails, insects such as mosquitoes and flies are the most common disease carriers. Hot humid environment provides ideal conditions for a number of diseases causing agents or their vector to survive and spread. Climatic, social and economic factors create environmental conditions that facilitate transmission and the lack of resources prevents affected population from obtaining effective prevention and adequate care.

Many pathogens that infect human beings developed resistance to most of the available antibiotics. Chemical drugs may lead to adverse effects and recent researchers now focus on pharmacologically active compounds from natural sources. Natural products have pharmacological or biological activity which can be of therapeutic benefit in treating diseases. Furthermore synthetic analogs of natural products with improved potency and safety can be prepared and therefore natural products are often used as starting points for drug discovery.

Modern technologies have opened vast areas of research for the extraction of biomedical compounds from ocean and seas to treat the deadly diseases. The marine environment is an exceptional reservoir of bioactive natural compounds, which
exhibit structural/chemical features not found in terrestrial natural products (Carter, 1996). They have strategies to defend themselves against foreign organisms, by production of secondary metabolites. In addition, they develop a chemical strategy for defence to ensure their survival and to synthesize extremely active molecules, since having to act as aqueous medium much diluted (Konig et al., 1994).

In recent years, a significant number of novel metabolites with pharmacological properties have been discovered from the marine organisms (Kijjioa and Sawangwong, 2004). Researchers have isolated approximately 7000 marine natural products, 25% of which are from algae, 33% from sponges and 24% representatives of other invertebrates such as molluscs and echinoderms (Faulkner, 1995). This diversity has been the source of unique chemical compounds with the potential for industrial development as pharmaceuticals, cosmetics, nutritional supplements and molecular probes.

Most of these bioactive compounds have been identified from marine invertebrates. Marine invertebrates are extremely large and diverse group that includes corals, sea anemones, sea urchins, starfish, crustaceans, molluscs and worms. Among them the molluscs are the potential source of bioactive substances. They comprise the second largest phylum of invertebrates in the number of species next to arthropoda (Jordan and Verma, 1997). They are widely distributed throughout the world, have many representatives in the marine and estuarine ecosystem. Molluscs contain rich nutrients that are beneficial to people of all ages (Anand et al., 2010). A variety of bioactive compounds including chlorinated acetylenes (Walkner and Faulkner, 1981), terpenes (Ireland and Faulkner, 1978), indole derivatives (Benkendorff et al., 2001), glycerol derivatives (Gustafson and
Andersen, 1985), macrolides (Matsunaga et al., 1986), lysozymes (Nilsen et al., 1999), glycoproteins (Yamazaki, 1993) and proteins (Kamiya et al., 1986; Mitta et al., 1999 and Iijima et al., 2003) have been isolated from molluscs. They have been predominantly investigated for their antimicrobial, cytotoxic, anti-tumor, anti-inflammatory, antileukemic, antineoplastic and antiviral properties (Kisugi et al., 1987; Pettit et al., 1987; Kamiya et al., 1989; Rajaganapathi et al., 2000 and Anand and Edward, 2002). Compounds isolated from molluscs were also used in the treatment of rheumatoid arthritis and osteoarthritis (Chellaram and Edward 2009a).

Among the moluscs, gastropods are one of the most extremely diverse groups of animals that include snails, slugs, limpets and whelks. They are by far the largest group of molluscs, with more than 62,000 described living species and they comprise about 80% of living molluscs. Of them 30,000 are marine, 5000 live in fresh water and 30,000 live on land. They have a long and rich fossil record from the early Cambrian.

Gastropods are among the oldest known fossils, with their shells being found in rocks dating 540 million years ago. Many species today have remained unchanged for over 350 million years. Gastropods are extremely diverse in morphology (shape), feeding behaviour, reproductive strategies, habit range and size. They have the widest range of ecological niches of all molluscs. In the ocean, they live in both shallow, intertidal areas and the deep sea. Many gastropods are used by humans for food, decoration and jewelry. A few gastropods types (such as conch, abalone, limpets and whelks) are used as food and several different species may be used in the preparation of escargot. Some gastropods are scavengers, feeding on dead plant
or animal matter, others are predators some are herbivores, feeding on algae or plant material and a few species are external and internal parasites of other invertebrates.

Marine gastropods have been favoured in previous studies on rocky shores and inter-tidal zones because they are numerous, relatively slow moving and easy to identify (Benkendorff and Davis, 2002; Chiba, 2007 and Benkendorff and Przeslawski, 2008). They are an important component of intertidal biota, with a unique combination of assets that make them readily studied. The majority of marine gastropods of economic importance are distributed in the coastal zones of the Gulf of Mannar. Among them *Diodora aspera, Trochus radiatus* and *Turbo brunneus* are very common. They belong to the subclass Prosbranchia. The majority of the gastropods are prosobranchs. It is the largest subclass with a total of about 152 families and over 20,000 species. A total of 82 families and 1000 species are reported from India. These gastropods respire by means of gills and in which the mantle cavity, gill and anus are located at the anterior part of the body. They possess a shell and torsion. Some members of this subclass are the limpets, periwinkles, conchs, whelks, cones, murexes, cowries and volutes.

The limpet like sea snail *D. aspera* is otherwise known as rough keyhole limpets or slit limpet. They belong to the family Fissurellidae. It is distributed worldwide from cold waters to tropical waters under rocks in the lower zones to deeper waters during any season of the year. This gastropod has a unique and diagnostic hole in the apex of its shell which functions as an exhalant opening. Water is drawn up under the shell from the forward end and over the gills where it is then forced out of the hole. These animals are most active in terms of feeding during
high tides. It is an omnivore grazer; feed various bryozoans, algae and some sponge species (Morton, 1958).

The radiate top shell species *T. radiatus* belongs to the family Trochidae. This species lives either in intertidal zone or subtidal zone, usually abundant in solid suitable substrate like rocky shores and reefs. They are herbivores primitive grazers that feed by rasping on algae and vegetable detritus. This species are delicious, collected for food and their shells that are made into ornaments.

*T. brunneus* is otherwise known as dwarf turban snail under the family Turbinidae. They are large marine gastropod molluscs have a strong thick calcareous operculum. The strong operculum serves as a passive defensive structure against predators. This predatory gastropod lives in tropical and subtropical shallow and deep water. They are available in plenty on the rocks and dead corals in the coastal area of the Gulf of Mannar. The nacreous shell of *T. brunneus* is highly prized for inlay materials of lacquerware and jewellery. India has a long record of inventories of coastal and marine biodiversity dating back to atleast two centuries. In term of marine environment, India has a coastline of about 8000 km adjoining the continental regions and the offshore islands and a very wide range of coastal ecosystems such as estuaries, lagoons, mangroves, backwaters, salt marshes, rocky coasts, sandy stretches and coral reefs (Venkataraman, 2003 and Venkataraman and Wafar, 2005).

Molluscs in these regions are common sight and are virtually untapped resource for the discovery of novel compounds. But the potential of marine molluscs as a source of biologically active products is largely unexplored in India. Keeping
the importance of gastropods, the present study has been undertaken to ascertain the activity of extracts from the common marine gastropods *D. aspera, T. radiatus* and *T. brunneus* against the common tropical diseases spreading microbes, vector and parasites.