Reduviids are the largest group of land Heteroptera and efficient predators of insect pests of agriculture and forest importance. These predators are found in the agroecosystems, semiarid zones, scrub jungles and tropical rain forests in association with their prey and preying upon a wider array of pests. The interaction of these predators with their prey is governed by many factors. Reduviid predators immobilize their prey by injecting toxic saliva into the prey, then the digestive enzymes in the salivary gland complex liquefy the internal prey content and is ingested by their sucking mouth parts. This ingested prey materials are further digested by the enzymes in the digestive system. It was found that the toxicity of saliva and potent lytic enzymes in salivary gland and digestive system are the prime factors for the success of these group of insects in any predatory niche. Hence attention was paid to study the morphology and histology of salivary gland and digestive system, toxicity of saliva and enzymes in the salivary gland complex and digestive system. As these group of predators are EOD users, the same was also given due consideration.

The predator - prey interaction is also influenced by the texture, defensive function and the agility of prey. These prey characteristics influence the growth and development of the predators. Apart from these factors, the prey borne volatile
chemicals (Kairomones) are involving in the predator-prey interaction. If only the mechanism of predator-prey interaction is known, perfect biological control will be possible. Moreover the conservation and augmentation of these predators need careful manipulation of their nutritional and pheromonal ecology.

Investigations were carried out in the Entomology Research Unit, St. Xavier's College, Palayankottai for the part three years on the morphology of salivary and digestive system, toxicity of saliva, prey influence on development, extra oral digestion, protease enzymes and pheromonal ecology of *Rhynocoris fuscipes* (Fabricius), *Rhynocoris kumarii* Ambrose and Livingstone and *Rhynocoris marginatus* (Fabricius). The results are presented in the thesis entitled CHOSEN REDUVIID PREDATORS - PREY INTERACTION: NUTRITIONAL AND PHEROMONAL CHEMICAL ECOLOGY (INSECTA: HETEROPTERA: REDUVIIDAE) in 7 chapters viz., Morphology of salivary system, Morphology of digestive system, Toxinology, Nutritional ecology, Extra oral digestion, Protease assay and Pheronomal ecology. An attempt to present the findings in better convincing manner has necessiated the inclusion of 49 tables, 28 figures and 3 plates.