CHAPTER – 10
SUMMARY AND CONCLUSIONS

The summary and findings, conclusions drawn from future scope of study were details in this chapter. A total number of 60 sps, 47 genera, 29 families and 7 orders of fishes were reported during the present investigations. The present study reports the following 23 species as new records to the River Krishna estuary; *Moringua raitaborua* (Hamilton); *Gymnothorax meleagris* (Shaw); *Strophidon sathețe* (Hamilton); *Pisodonophis boro* (Hamilton); *P. cancrivorus* (Richardson); *Muraenichthys schultzei* Bleeker; *Uroconger lepturus* (Richardson); *Muraenesox bagio* (Hamilton); *Sardinella gibbosa* (Bleeker); *Coilia reynaldi* Valenciennes; *Stolephorus baganensis* Hardenberg; *Ambasis kopsii* Bleeker; *Epinephalus maculates* (Bloch); *Promicrops lanceolatus* (Bloch); *Terapon puta* (Cuvier); *Leiognathus daura* Cuvier; *Lutjanus flaviflammus* (Forsskal); *L. russellii* (Bleeker); *Gerres limbatis* Cuvier; *Acentrogobius cyanomos* (Bleeker); *Psammogobius biocellatus* (Valenciennes); *Brachyamblyopus brachysoma* (Bleeker); *Taenioides buchanani* (Day). Of these 2 species namely *Muraenichthys schultzei* Bleeker and *Brachyamblyopus brachysoma* (Bleeker) are being reported for the first time from India and 1 species *Gymnothorax meleagris* (Shaw) is reported for the first time from east coast of India.

**Conclusions and future study:** In spite of pressure from anthropogenic activities of mangrove swamps the fish landing of Krishna estuary were overwhelming due to perennial flow of river Krishna.
However recent industrialization in the upstream and core mangroves might hamper the faunal diversity in the coming year, through artisanal fishery exploitation decreased, this reflected in the present study. Regular close monitoring of fish landing and estimations should be conducted and check the variation any industrial impact on the aquatic organisms. Because, Krishna estuarine mangrove system are decrease in the mangrove areas and the changes in the species diversity noticed can be attributed to the impacts of solid waste from shrimp and fish ponds effluents released from the surrounding areas and decreased inflow of freshwater from the surrounding areas and decreased inflow of freshwater from the river Krishna due to the construction of dams across the river for used of water for agriculture and other purpose. Further, proposed construction of the port city at Machilipatnam and declaration of coastal corridor by the Government of Andhra Pradesh are going huge affect on the sustainability of the mangrove swamps as well as fisheries in this region. So far studies on endangered species were contributed to Elasmobranches and Serranidaes. There is urgently to extend the study to other groups. Genetic depend fishing (species specific) should be kept at by which effect the diversity.

It was concluded that the future studies may be done to development techniques for conservation. The use of illegal methods of catch of fish should be banned in this area to prevent further depletion of fish resources. The fishermen should make aware with about fishing, scientific trining and facilities made available to the fish farmers fishing
of the spawn, larvae and juveniles of fish should be avoided and subsides loan facility may be a long scale which may help in high yield of fish production in the Interu mangrove swamp.

There is a need to continue the present study with the barcode. Developments in genetic research indicate that should DNA sequence known as a barcode, taken from the Cytochrome C Oxidase subunit I (COI) location of mitochondrial DNA (mtDNA), is an effective marker for identification species in the animal Kingdom.

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