Abstract

In December 2001, Hsin Chu City Government set up “Hsin Chu City Coastal Wildlife Protected Area” and bulletined to the public under “Wildlife Conservation Act”. For wisely managing this area, this report is concerned with the current status of mangrove and habitat of *Uca formosensis*. The principle and direction for the management of this protected area are recommended, as follows.

1. Mangrove areas along Hsin Chu City coastal zone are divided into 9 parts. Most of them are in the estuary of Keya Stream, Dachuang wetland and the area between south of Haeshang fishery port and north of Yenxiukang Stream. The total mangrove areas are 21.57 hectare, but they are growing now. Beyond the flood safe condition, mangroves in wildlife protected area can be allowed to increase naturally, and mangrove seedlings live along the stream way. Artificial seedlings in intertidal mudflat are not recommended.
2. Although mangroves and *Uca formosensis* both live in high tidal line, the living condition of *Uca formosensis* is stricter than mangroves in terms of habitat. Mangroves can change the physics and chemical character of *Uca formosensis* habitats. An area specific for the *Uca formosensis* conservation areas should be set up in high tidal line of Haeshangku wetland and south of Haeshang fishery port. Buffering zone should also be set up outside the conservation areas. Mangrove seedlings in conservation areas and buffering zones must be moved away to make sure habitats of *Uca formosensis* being complete.
3. Estuary of Dachuang Stream must maintain a plume (horn)-like area so that water can flow fluently. Mangroves in estuary should move away to avoid sediments silt quickly, and the newly attached young plant should be removed regularly, otherwise it may cause flood.
4. *Uca formosensis* and horseshoe crab are the highly recommend main species to restore in the protected area. Besides setting up the *Uca formosensis* conservation areas and buffering zone, studying aquaculture of *Uca formosensis* should be conducted. The megalopa larva then can be released into field habitats. Restoration of horseshoe crab will be conducted in Nankang wetland, where the sand and mudflat habitats will provide spawning and nursing site.
5. Community renaissance should be the first step of the whole protected area management project, and it requires environmental education and ecotourism as its basis, and integrating followed by multiple resources through forming a strategy alliance. In addition, we must build up the database of protected area in Hsin Chu City coastal zone concerning its environment and ecology. Monitoring environment with GIS technology is one of the important ways to manage the protected area.