



# The South China Sea Fisheries *Refugia* Project: Fish Life-Cycle and Critical Habitat Linkages

Life - History Phase	Known Habitat/ Critical Area	Threat
Early - life history	near shore - Mangrove - Intertidal - Rivermouth	Predation - Swamp pond / Mangrove cut - water pollution - Over fish - Brackish water - Push net
Juvenile Intertidal - 5-10m	Intertidal Mangrove Rivermouth	- Eutrophication - Fishing Act. (Push net) - Pollution - Predators - Trawl net
Pre - recruit	Intertidal Rivermouth	Fish Act. - Push net - Trawl net
Adult Depth 60-92m	<del>off-shore</del> 20-92 m depth	Fish Act - Push net - Trawl net
Spawning	Mangrove River mouth	- Mangrove cut - water pollution Fishing Act (Push net, Trawl net)



max 222cm  
Common length 17.0cm

Jinga shrimp (*Metapenaeus affinis*)

**Activity descriptor:** Identifying fisheries *refugia* requires an understanding of the critical linkages between the life-cycles of fish species and their habitats. This inception workshop activity aims to stimulate discussion among participants of the fisheries *refugia* concept and benchmark our collective understanding of how economically important species utilize coastal and marine areas at various stages of their life-cycles. Participants are also invited to identify any known threats to fish life-cycle and habitat linkages for the species they have been assigned.

± mud VS Sandy-mud Bottom  
Environment → Brackish, Brackish, Depth, 5-92 m