

Simulated experiment on ghost fishing of collapsible crab trap in Sriracha Bay, Thailand

°S. Putsa, T.Arimoto(TUMSAT), K.Ebata(Kagoshima Univ.)
A. Boutson and S. Tunkijjanukij (Kasetsart Univ.),

【Objectives】The impact of ghost fishing on collapsible crab trap targeting blue swimming crab *Portunus pelagicus* was examined with simulated lost-gear experiment with comparison between conventional and vented traps, for evaluating the escape window effects to minimize by-catch, with long-term diving monitoring.

【Methods】 The study site was located in Sriracha Bay, Gulf of Thailand, about 1 km. from shore? at the depth of 4-6m around the green mussel farming raft, during the period from 6 Jan-30 Mar 2013. 12 pairs of box shaped traps of 36x54x19cm were compared as the conventional and vented trap with escape windows of 35x45 mm. All pairs of traps were monitored by SCUBA diving for recording the entrapped species, number and size after the deployment as everyday for the first 2 weeks, and then continuously every 2-3 days or 3-4 days in 3 months.

【 Results 】 Throughout 83 days of the experiment, 372 individuals for 20 different species in total were confirmed in the conventional traps, which were classified as 14 individuals of blue swimming crab, and 358 individuals as by-catch species. While, in the vented traps, 116 individuals for 19 species in total, which were classified as 15 target, and 101 by-catch. The major by-catch was *Siganus* sp. in conventional traps and *Diadema setosum* in vented traps. Overall catch trends of blue swimming crab for both trap types show similar trends in numbers. However for by-catch composition by number of individuals shows less catch in vented traps than conventional traps. This demonstrates the positive function of escape windows to reduce the amount of by-catch species.