

Study on bottom gill-net targeting blue swimming crab around Tha Chat Chai coastal , Phuket province.

Thanakorn Sa-ngeamwong¹, Thanyaporn Chuesawat¹, Palida Yimsri¹, Wareerin Premrit¹, Pongphop Rasikoon¹ and Anukorn Boutson¹

¹Department of Marine Science, Faculty of Fisheries, Kasetsart University, Bangkok

Abstract

Bottom gillnet targeting blue swimming crab (BSC), *Portunus pelagicus* is a common fishing gear in Thailand. It is set on the seafloor and widely operated along Thai waters. Relative papers were reviewed and interview fishers at Tha Chat Chai coastal, Phuket and filed survey were conducted on 5 Nov 2017. The gillnet in the site made from nylon monofilament (PA), clear color, 100 mm mesh size, 12 meshes depth, total length about 450 m/set. The float line consisted of two polyethylene (PE) ropes with the diameter of 3 mm, attached with the plastic floats (4.5 m interval). The sinker line consisted of 1 PE rope, diameter of 4 mm, attached the rugby-shaped lead weights of 10 g each (0.6 m interval). The stone weights were set at the start and the end points of the net set. The bamboo poles were attached with buoy and flag, connected to the net end for marking the location. The fishing depth was 12-45 m, 3-5 km from shore with the soaking time of 1-3 days. Long-tail boats with the length of 5.5-14.0 m, 5-24 HP were used for the operation. The average carapace width of the BSC catch in Phuket was 13.9 cm. The crab prices were 250 and 180 baht/kg (4-5 and 10-12 crab individuals respectively). The gillnet caught some bycatch species. Some were economic important such as Dwarf whipray (*Himantura walga*), Scaly whipray (*Himantura imbricate*), Rock crab (*Charybdis natator*), Sand Lobster (*Thenus orientalis*), Bigeyes (*Priacanthus* spp.) etc. Some bycatch were non/low marketable value such as White long-armed crab (*Parthenope longimanus*), Porter crab (*Dorippe quadridens*), Black long-armed crab (*Rhinolambrus longispinis*), Decorator crab (*Camposcia retusa*), Box crab (*Calappa clypeata*) etc. those discarded. The catch compositions (% by weight) were blue swimming crabs (75.31%), other crabs (8%), other animals (8%) and fish (7.71%). After the gillnets are dilapidated, some nets are abandoned at sea and considered continue to catch the organisms that associate to ghost fishing. The appropriate measurements from Department of Fisheries should be defined for sustainable BSC resource use.