Food resource partitioning of fish caught in the stilt fishery, Southern coastal belt of Sri Lanka

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Stilt fishing method is practiced only in the coastal belt of Southern Sri Lanka. This study was carried out to investigate the dietary habits and food partitioning of fish species caught by stilt fishing. The selected site was Talpe in the Galle District. Fish caught by rod and line were identified using standard keys. Fish were dissected and stomach and gut contents were preserved in 5% formalin. Food items found in the stomach were identified at the laboratory to the nearest taxonomic level using binocular microscope. The food overlaps were calculated for fish species using Schoener's overlap formula. Trophic niche breadth was measured by the diversity of food items eaten by each fish species. The food preference of different fish species was determined by calculating the coefficient of electivity. Only two fish species namely, Herklotsichthys quadrimaculatus and Selar crumenopthalmus were caught by stilt fishing during the study period. H. quadrimaculatus preferred diatoms, dinoflagellates, calonoid copepods and unidentified phytoplankton particles. 5. crumenopthalmus mainly fed on calonoid copepods, cyclopoid copepods, protozoea and nauplii. Those two species had low dietary overlap (16.51%) and their niche breadth was significantly different (P<0.05). Due to the low overlap and the difference in niche breadth these two fish species could live at the same habitat with a minimum competition for food.