

Culture performance and biofouling of different net cage bi-culture manipulations of Asian sea bass (*Lates calcarifer* Bloch, 1790) and spotted scat (*Scatophagus argus* Linnaeus, 1766) in Songkhla lake

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Five different modes of net cage bi-culture of sea bass (*Lates calcarifer*) (SB) and spotted scat (*Scatophagus argus*) (SS) in Songkla lagoon were investigated for 8 months. Double cages; 4x4 m of outer cage and 3x3 m of inner cage were applied for each mode. Mode 1: Only 240 SB were reared in inner cage (L). Mode 2: 240 SB and 180 SS were reared in inner cage (L+S). Mode 3: 240 SB and 72 SS were reared in inner cage and 108 SS were reared in outer (L+S/S). Mode 4: 240 SB and 180 SS were reared in inner and outer cage respectively (L/S). Mode 5: Only 180 SS were reared in inner cage (S). The result showed that SS biomass was not significant difference ranging at $149.1 \pm 23.5 - 194.0 \pm 11.6$ kg/cage while SS biomass was statically differed. L/S obtained lowest biomass at 9.8 ± 1.9 kg/cage while S obtained highest biomass at 16.5 ± 2.7 kg/cage but not differed with L+S and L+S/S. Sediment and biofouling attaching the cage of L was highest at 51.84 kg/m², following with L/S, L+S and S at 20.88, 12.90 and 11.61 kg/m² respectively while L+S/S was lowest biofouling weight at 9.76 kg/m². The result indicated that L+S/S mode may be the suitable for sea bass and spotted scat bi-culture due to not differed production compare with sea bass or scat monoculture solely. In addition, the cage of this mode was likely cleaner due to low biofouling attachment.

Keywords: spotted scat, sea bass, bi-culture, net cage, Songkhla lake

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