Growth and Survival Rates of Sea Cucumbers

(*Holothuria scabra* Jaeger, 1833 and *H. leucospilota* Brandt, 1835)
Fed with Different Feeds

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**Abstract**

The growth and survival rates of sea cucumbers *Holothuria scabra* and *H. leucospilota* cultured with artificial feed and different kinds of seaweed; *Ulva rigida*, *Solieria robusta*, *Gracilaria fisheri* and mixed seaweeds were studied at Prachuap Khiri Khan Coastal Aquaculture Research and Development Center. The initial average weight and length of *H. scabra* were 7.36±0.35 g and 5.36±0.72 cm, and those of *H. leucospilota* were 1.68±0.04 g and 2.88±0.06 cm, respectively. Sea cucumbers were fed with the experimental diet once a day at 1% of their body weight in the afternoon (04:00 pm).

The results showed that diets affected growth performance of sea cucumbers. The weight, daily weight gain, specific growth rate and length of *H. scabra* fed with artificial feed were 34.31±11.42 g, 0.06±0.02 g/day, 0.36±0.11% and 7.39±0.81 cm, respectively, which were significantly different (p<0.05) from the group fed with seaweeds. Those of *H. leucospilota* fed with artificial feed were 48.56±6.03 g, 0.17±0.02 g/day, 1.23±0.06 % and 11.59±0.74 cm, respectively, which were significantly different (p<0.05) from the group fed with seaweeds. The survival rate of *H. scabra* fed with artificial feed was significantly lower (p<0.05) than those of the group fed with seaweeds, but there was no significant difference on survival of *H. leucospilota* (p>0.05).

**Key word:** *Holothuria scabra*, *Holothuria leucospilota*, Growth, Survival, Feed

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