

Thesis Title Utilization of *Azolla* Species as  
Feed for Thai Silver Barb, *Puntius  
gonionotus* (Bleeker).  
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#### ABSTRACT

Three species of fresh *Azolla*; *A. caroliniana*, *A. microphylla* and *A. pinnata*, were used in this study. Their nutritional values were compared, characterized and found that dry matter contents were 3.5 to 5.0%, crude protein contents were 28.03 to 28.62%, crude fat contents were 2.41 to 2.65%, crude fibre contents were 10.99 to 16.26% and ash contents were 11.74 to 12.87%. Feeding each species of *Azolla* to Thai silver barb (*Puntius gonionotus*) of 1.63 g and 4.0 cm initial size stocking in cages, resulted in a comparable slow growth rate which was not different from that of the unfed control. Survival rates were high and similar to that of the control group. Feed conversion ratio were 94.24 : 1, 70.19 : 1 and 62.19 : 1 for fish fed with *A. caroliniana*, *A. microphylla* and *A. pinnata* respectively. Protein digestibility of the three species of *Azolla* by Thai silver barb were moderate. They were 59.98%, 54.55% and 57.91% respectively. Water quality parameters were in the optimum range for growth of Thai silver barb excepted low water temperature during the first few weeks and slightly low pH.