

Thesis Title            Cultivation of *Rana tigerina* and *R. catesbeiana*  
                              Using Artificial Feed

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### ABSTRACT

Frog cultures of *R. tigerina* and *R. catesbeiana* using the outdoor facility was performed in the Biology Department, Mahidol University. The objectives of this investigation is to study the life cycles of *R. tigerina* and *R. catesbeiana*, and the effects of diets varying in protein concentrations on frogs at various stages. It was observed that *R. tigerina* should be held for a minimum of 30-40 days, during the eggs hatched into tadpoles and froglets, and they completed their reproductive maturity within 12 months. For *R. catesbeiana*, they should be held for a minimum of 60-80 days, during the eggs hatched into tadpoles and froglets, and reproductive maturity was completed within 18 months. Both *R. tigerina* and *R. catesbeiana* tadpoles

fed with diet containing 35% protein concentration achieved the best results with regard to growth (weight gain, growth rate, feed conversion) and development (length of larval period, percentage of metamorphosis). For froglets and adult frogs, the diet containing 21% protein was the most suitable in terms of growth and survival rates, and feed conversion.