

Ruthairat Songchan 2007: External Morphological Characters of Some Tadpoles as Related to Different Habitat Types in Chiang Dao, Chiang Mai Province. Master of Science (Forestry), Major Field: Forest Biology, Department of Forest Biology. Thesis Advisor: Mr. Jarujin Nabhitabhata, Ph.D. 103 pages.

The external morphological characters of some tadpoles related to different habitat types in Chiang Dao, Chiang Mai Province were intended to explain the relationship between environmental variables and external morphologies. This research was conducted in Chiang Dao, Chiang Mai Province between January – December 2005. Data were collecting in different habitat types for six times in 61 sample points by random sampling techniques. Sample points were also recorded for environmental data. Nineteen tadpole species were encountered during the entire study. Four (*Amolops marmoratus*, *Brachytarsophrys carinensis*, *Huia melasma* and *Leptobrachium chapaense*) species were recorded only in permanent water, three (*Microhyla heymonsi*, *Microhyla ornata* and *Rana livida*) species only in temporary ponds, and twelve species occurred in both kinds of water body. *Rhacophorus bipunctatus* occurred in many sites more than other species.

The result of cluster analysis could be categorized in five groups based on 21 external morphological characters at 62.5 percent difference. The ordination technique showed the relationship among tadpole appearance and 3 abiotic factors in 3 axes and correlation between Axis 1 and 3 was the strongest. Each individual have different linear regression model and being correlated with their external morphologies. *A. marmoratus* was most related to current water. *Rana cubitalis* was most related to dissolved oxygen. *Leptolalax pelodytoides* was most related to temperature. *Polypedates leucomystax* was most related to rainfall.

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Thesis Advisor's signature

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