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**SOME BIOLOGICAL AND ECOLOGICAL CHARACTERISTICS OF  
*Serrognathue platymelus sika* Krieshe, 1920  
AT PU LUONG NATURE RESERVE, THANH HOA PROVINCE**

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**SUMMARY**

This study was conducted in Pu Luong Nature Reserve, from September 2015 to December 2017, to identify some biological and ecological characteristics of *S. platymelus sika*. The results indicated that *S. platymelus sika* undergoes holometabola, its eggs are white, soft, spherical, with an average diameter of  $2 \pm 0.25$  mm. Larvae of *S. platymelus sika* develop through 3 growth stages (instars). The average body length and width of the 1<sup>st</sup> instars, the 2<sup>nd</sup> instars, and the 3<sup>rd</sup> instars are  $18 \pm 0.5$  mm and 4.0 mm,  $9 \pm 0.5$  mm and 6.0 mm, and  $45 \pm 0.5$  mm and  $9 \pm 0.5$  mm, respectively. The average body length of pupae is  $31 \pm 0.5$  mm, and the width average is  $10 \pm 0.5$  mm. The average body length and width of female adults are about 39.0 mm, and  $13 \pm 0.5$  mm, respectively, while these of male adults are 48.5 mm, and  $20 \pm 0.5$  mm, respectively. The favorable conditions for the development of *S. platymelus sika* are at a cool temperature and high humidity. In addition, they often reside in stems and stumps of plants which are also their suitable food source. The adult phase is active at night, while the larvae act mainly in during the daylight. *S. platymelus sika* often emerge in June, after that they begin to mate, lay eggs, these periods last until August. Each female can lay from 23 - 40 eggs with an average of 32.43 eggs per female. The sex ratio of female and male in pupae is 1.0:1.16. The average development time of eggs, larvae, pupae, and adults in different environmental conditions are  $23 \pm 0.67$ ;  $315 \pm 0.5$ ; 41.0 and 45.0 days, respectively. The lifespan of the adults ranges from 50 to 71 days, and at lower temperatures in summer, the higher the lifespan is. The rate of development completion from eggs to adults at different conditions ranges from 52.73% to 59.09%.

**Keywords:** Biology, Coleoptera, Ecology, Lucanidae, Pu luong Nature reserve, *Serrognathue platymelus sika*.

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