ABSTRACT: Population dynamics of *Oxya hyla hyla* was studied in three sites of Cachar District of Assam, viz. Dargakona, Dudhpail and Kalain in three seasons (Shali, Boro, Aus) on rice during September, 2009-2010. During Shali season the maximum population (4.2±0.86 nos./5 quadrat) was recorded on Dumsail variety on first part of November, 2009 in Kalain. In Boro season the maximum population (2.8±0.66 nos./5 quadrat) showed by Chocklate variety on first part of April, 2010 in Dudhpail. During Aus season the maximum population (4.2±0.92 nos./5 quadrat) was shown by Krishna variety on last part of August, 2010 in Dargakona. A multiple correlation was employed which indicated significant correlationship with all abiotic factors with variety Dumsail and Chatoki during Shali season and Sonamukhi variety during Aus season. Partial correlation (t-test) indicated significant effect with Chatoki variety by all the abiotic factors whereas temperature and rainfall were negatively significant with Kachal and Sonamukhi varieties.

**Keywords:** Population dynamics, *Oxya hyla hyla*, Rice, Cachar District, NE India.