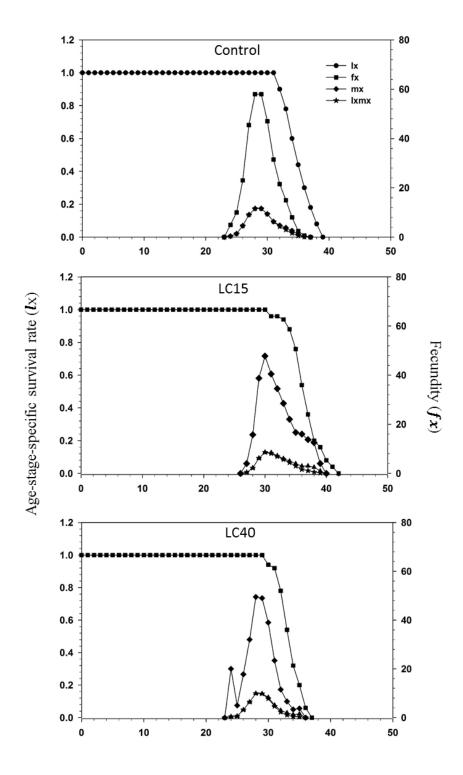
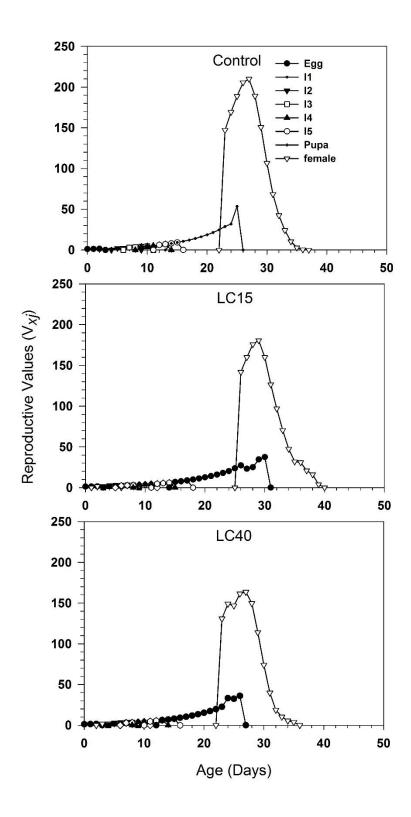


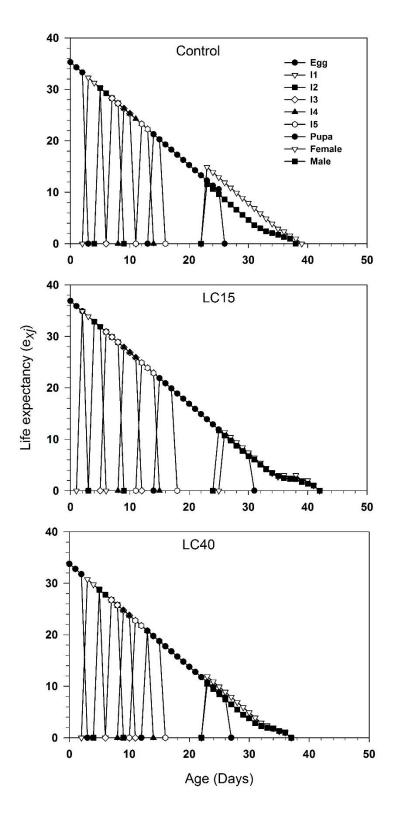
**Fig. 1** Age-stage-specific survival rates  $(S_{xy})$  of E .vittella in which second instars larvae of parental generation were exposed to (LC40) and (LC15) concentrations of lufenuron insecticide and Control group.



**Fig. 2** Age-stage-specific survival rate ( $I_x$ ) Female age-stage-specific ( $f_x$ ) age-stage-specific fecundity of the total population ( $m_x$ ) and age-stage-specific maternity ( $I_x$   $m_x$ ) of E. vittella in which second instars larvae of parental generation were exposed to(LC<sub>40</sub>) and (LC<sub>15</sub>) concentrations of lufenuron insecticide and Control group.



**Fig. 3** Age-stage-specific reproductive value  $(V_{xj})$  of *E. vittella* in which second instars larvae of parental generation were exposed to  $(LC_{40})$  and  $(LC_{15})$  concentrations of lufenuron insecticide and control group.



**Fig. 4** Life expectancy  $(e_{xj})$  of E .vittella in which second instars larvae of parental generation were exposed to  $(LC_{40})$  and  $(LC_{15})$  concentrations of lufenuron insecticide and control group.