

SIMULIUM

**Morphology, bionomics, life cycle,
vector potentiality, pathogenesis &
control.**

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SIMULIUM

Common name : Black flies ,Turkey gnats , Buffalo gnats.

Species : *Simulium indicum* , *Simulium ornatum* .

Morphology :

- ❑ They are stout bodied black coloured small sized flies .
- ❑ The piercing proboscis is short thorax is humped over the head
- ❑ The male and female are morphologically .
- ❑ The pupa is boot shaped or slipper shaped .
- ❑ The antennae is 11 segmented.



SIMULIUM FLY



SIMULIUM FLY

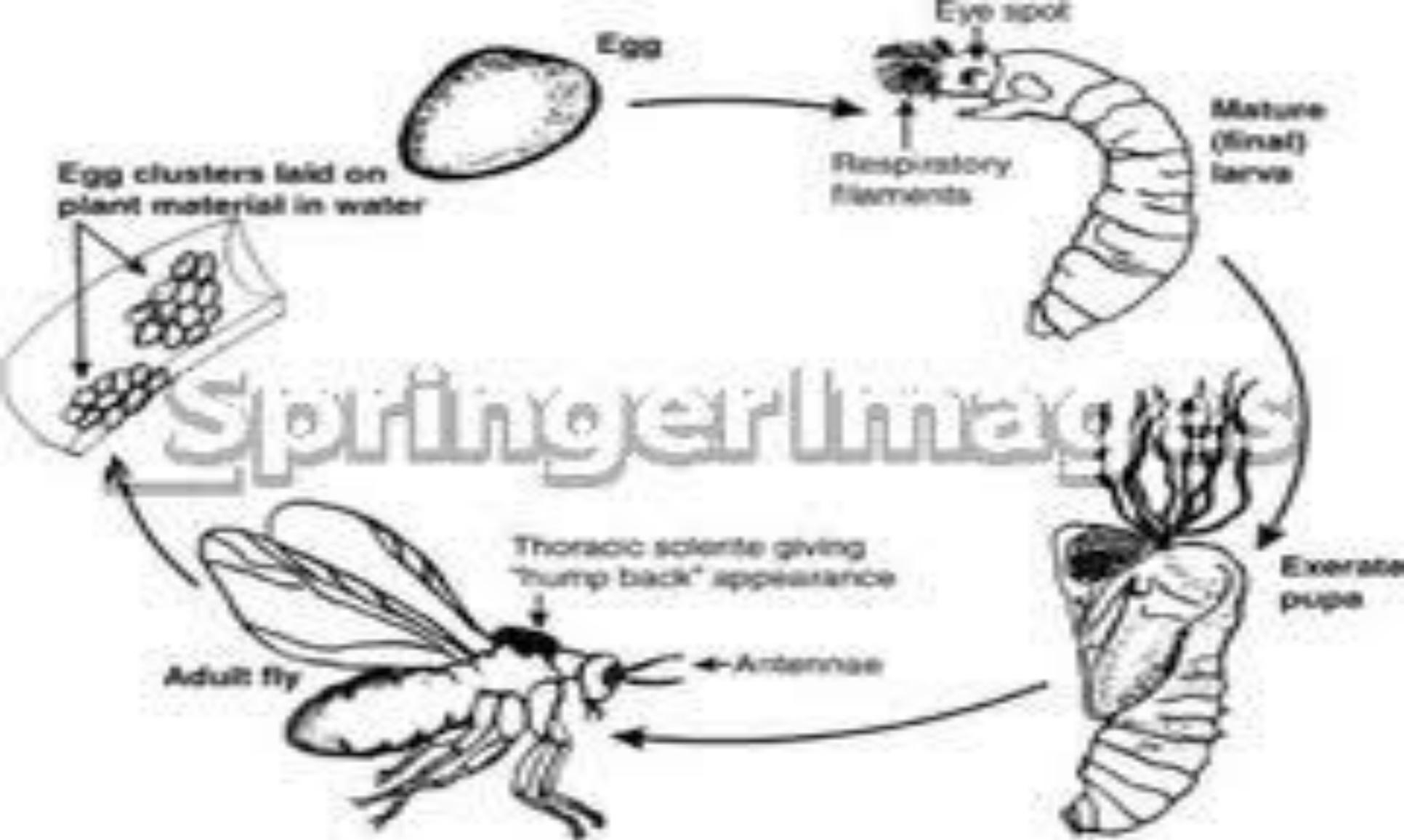
LIFE CYCLE

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LIFE CYCLE OF SIMULIUM



PROLEG OF SIMULIUM



VESICULAR STOMATITIS



ESTERN EQUINE ENCEPHALITIS

DR.R.K.SHARMA.

SOURCE-GOOGLE