

CASE RESOURCES



Life Cycle of the House Fly
(*Musca domestica*)

What do we know about flies?



KEY

<i>Musca domestica</i>	House fly	Blue
<i>Calliphora vomitoria</i>	Blow fly	Yellow
<i>Sarcophaga carnaria</i>	Flesh fly	White
<i>Piophilina nigriceps</i>	Skipper fly	Pink
Pupae	Species of pupae can't be determined except by size	Brown

Table 1: Life History of Flies. The development of body length (in millimeters) of some fly species during their metamorphosis at 72° F (L = Larvae, P = Pupae, A = Adult Fly).

Days after Death	Species			
	<i>Musca domestica</i> House fly	<i>Calliphora vomitoria</i> Blow fly	<i>Sarcophaga carnaria</i> Flesh fly	<i>Piophilina nigriceps</i> Skipper fly
1		Egg	L 9-11	
2	Egg	L 9-11	L 12-16	
3	Egg	L 9-11	L 17-20	
4	L 6	L 12-16	L 21-25	
5	L 6	L 12-16	L 26-30	Egg
6	L 7-11	L 17-20	L 31-35	Egg
7	L 12-16	L 17-20	L 36-40	L 3
8	L 17-20	L 21-25	L 41-44	L 3
9	L 21-25	L 21-25	L 44-46	L 4-6
10	L 26-30	L 26-30	L 44-46	L 7-9
11	L 31-35	L 26-30	P 38-40	L 10-13
12	P 26-29	L 31-35	P 38-40	L 14-16
13	P 26-29	L 31-35	P 38-40	P 13-15
14	P 26-29	P 31-34	P 38-40	P 13-15
15	P 26-29	P 31-34	P 38-40	P 13-15
16	P 26-29	P 31-34	P 38-40	P 13-15
17	P 26-29	P 31-34	P 38-40	P 13-15
18	A 30-32	P 31-34	P 38-40	P 13-15
19		P 31-34	A 42-45	A 16-18
20		P 31-34		
21		A 36-38		

What *else* do we know about flies?



SPECIES



Table 2: Ecological information for certain species of flies. The developmental delays/accelerations are given in number of days relative to the developmental schedule in Table 1 above.

		<i>Musca domestica</i> House fly	<i>Calliphora vomitoria</i> Blow fly	<i>Sarcophaga carnaria</i> Flesh fly	<i>Piophilina nigriceps</i> Skipper fly
Temperature (°F)	55°	delayed 4	delayed 4.5	delayed 4	delayed 3
	65°	delayed 4	delayed 3	delayed 2	delayed 1
	80°	accelerated 1	accelerated 2	accelerated 1.5	accelerated 1
	85°	accelerated 3	accelerated 4	accelerated 3	accelerated 2
Ecological Traits	Habitat	urban and rural	urban and rural	urban and rural	urban
	Lighting	full to partial sun	partial sun to shady	prefers sunny	prefers sunny
	Drugs	no effect	sensitive to effects	no effect	no effect

Sources:

Materials adapted from: Bambara, S., & Carloye, L. (2006). *Crime Solving Insects*. North Carolina Cooperative Extension Service. <https://fyi.extension.wisc.edu/wi4hstem/files/2015/02/CSifinal.pdf>

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