Sarcophagid fly passes through a series of stages while developing from larva to adult. The appearance of these stages and the time spent within each stages varies from species to species and with the environmental conditions that are present. For example, the developmental cycle is usually accelerated as temperature increases, that is why accurate climatic data are of utmost importance in the calculation and estimation of the postmortem interval based on insect evidence. The process of undergoing physical changes from one life stage to the next is known as metamorphosis. This is accomplished by means of the insect “shedding its skin” or undergoing ecdysis at certain points as it grows. The skin that is left behind is called an exuvium. The time period spent in any particular life stage is referred to as a stadium. The insect itself also may be called an instar, especially during larval development. For example, a second larval instar has shed its skin once to proceed to its second stage.

Forensically important calliphorid fly and sarcophagid fly undergo complete metamorphosis, but their egg and pupal stages are often hidden in protected areas. The larvae are often
underground or under the body in contact with the exudates soaked ground beneath and not readily visible. The same distinct four stages of egg, larva, pupa, and adult are part of each beetle life cycle. Although it is still complete metamorphosis, the chain of events and appearance of the life stages are quite different. Those families of flies those are both most commonly encountered and most useful as forensic evidence is the Calliphoridae (blow flies), Sarcophagidae (flesh flies). All are among the most evolutionarily advanced of the flies and belong to the suborder Cyclorrapha. These flies begin life as eggs that are usually laid in large numbers on carrion, feces, or decaying material. In the flesh flies, the eggs are retained by the female until hatching. The small, first-instar larvae are then deposited directly on the food source. The young or maggots pass through three larva stages and are then ready to pupate. At this point, the mature maggots usually migrate away from the remains or food source to pupate in the soil. Sometimes, however, fly puparia can be found in the clothing of the deceased or under carpets or in furniture when in a house environment. Blow flies and flesh flies larvae both molt or shed their skin to form an exarate pupa,
but they do it inside the old skin of the mature larva which then shrinks and hardens. This outer skin is called the puparium, and this pupal type is referred to as coarctate. The puparium darkens with time to brown, reddish brown, or almost black depending on the species. Morphological characteristics of the larvae are retained on the outer surface of the puparium and are often distinctive enough to permit a species identification to be made. Insects in aquatic environments also undergo gradual or complete metamorphosis.

On the putrefied flesh such calliphorid flies lay the eggs and sarcophagid flies lay larvae. Insects and other arthropods are found in almost every conceivable type of habitat. As a result, human remains are often found colonized by carrion-feeding invertebrates or in association with species that are scavengers or opportunistic feeders. The ability of true carrion-feeding insects to rapidly locate a body enables them to colonize remains that have even been wrapped, buried, or otherwise protected. The ubiquitous nature of insects makes their eventual appearance at a death scene a near certainty. To take advantage of the potential forensic value of arthropods, evidence must be
systematically collected and processed. For an investigator or crime scene technician to collect such material, they must first know what to look for. A basic understanding of insect biology and anatomy, especially with regards to the flies and beetles, shall facilitate the search, recognition, and collection of insect specimens for evidence. Recognition of insects and other arthropods to a greater taxonomic level, such as that of family or species.

Flesh flies comprise a large family with over 2000 species. Representatives of this family are found throughout the world, with most species occurring either in tropical or warm temperate regions. Adults are common and often found on flowers where they are attracted to nectar. The adult flies feed on other sweet substances as well, including sap and honeydew. This family’s Latin name means “flesh eating” and apparently refers to the larvae or maggots that typically feed on some sort of animal material. In addition to carrion, they also may feed on excrement or exposed meats. They have been known to cause myiasis and may be involved in the mechanical transmission of
diseases. Many species of sarcophagid or flesh flies are parasitic on other insects, especially bees and wasps. Flesh flies are medium-sized and range in length from 2 to 14 mm. The adults commonly have gray and black longitudinal stripes on the thorax and have a tessellated (checkerboard) pattern on the abdomen. Although they are roughly the same size as the blow flies and the bottle flies (Family Calliphoridae), flesh fly adults never have a metallic coloration like the others. Also, the arista of the antennae of flesh flies is plumose only at the base, while in calliphorids it is plumose throughout the length. The bodies of sarcophagids tend to be bristly and the eyes are fairly widely separated in both sexes. The eyes are bright red in color, as are the highly visible genitalia at the tip of the abdomen. The larvae of flesh flies have the posterior spiracles located in a pit or depression at the tip of the abdomen, which is edged with fleshy tubercles. This characteristic can be used to differentiate between flesh fly and blow fly larvae.

Posterior spiracle display narrow distance between both the spiracles. D-shaped incomplete sclerotised peritreme encircle three straight spiracular opening (slits) oriented vertically. At
upper side in between the slits indicates slight inner projection. In sarcophaga ruficornis, the distinct feature was the inner projections the spiracular slits. The prominent tail of the upper end of the peritreme was noticed. The end of the lower peritreme was located at base of middle slit. (Sukontason et al., 2010)
Species of sarcophagids are similar to one another in both the adult and larval stages, and are notoriously difficult to identify to the species level. Maggots should always be reared to the adult stage to facilitate positive species identification. Flesh flies are attracted to carrion under most conditions, including sun, shade, dry, wet, indoors, and outdoors. They can be found associated with carcasses throughout both the early and late stages of decomposition. Female flies in this family deposit living first instar larvae on decomposing remains. They do not lay eggs and, thus, fly egg masses associated with human remains cannot be attributed to sarcophagids. The time period necessary for egg development also must be eliminated when calculating a postmortem interval (PMI) based on flesh fly evidence. Flies of the genus *Sarcophaga* arrive on human remains slightly after.

The blow flies are known to fly under inclement conditions that would prevent the flight of most other flies and, therefore,
may actually be the first species to arrive on carrion. The adults commonly enter indoor habitats and, thus, the larvae are often recovered from human remains located in homes. This is the predominant fly recovered on human bodies located in indoor habitats during the summer months in the southeastern U.S. (Aldrich, 1916; Arnett and Jacques, 1981; Bland and Jacques, 1978; Borror and White, 1970; Borror et al., 1989; Castner et al., 1995; Greenberg, 1971; Hall and Doisy, 1993; Hogue, 1993; James, 1947; James and Harwood, 1969; Knipling, 1936; Payne, 1965; Peterson, 1978; Shewell, 1987; Smith, 1956, 1975, 1986.)

Blow flies fail to lay eggs at night both in urban habitats with lighting and rural habitats without lighting. (Tessmer et al. 1995). But the calliphorid flies can lay eggs during the night time also (Greenberg, 1990). Three species of blow flies that have been used as forensic indicators by a number of workers have tendency for nocturnal oviposition. However, the probability of egg laying and the number of egg laid was greatly reduced as compared day time. It is a matter of common observation as has also been seen during day trials that any exposed piece of meat
will always attract blowflies within a few hours. This period can be in minutes or even in seconds. (De Jong, 1995)

The larvae laid by sarcophagid fly are first instar. They are having eleven segments. Larvae are white in colour. Its anterior end bears chitinous hook. At the posterior side larva bears two spiracles. At the anterior side also small anterior spiracles are present. Larva are voracious feeder and feed upon putrefied liver meat. Larva enters in to second instar. Shape of larva remains as it is but changes the size. Then it goes in to third instar larva which is full grown larva. Its length is maximum in this instar. Then larva starts to shrink, goes in prepupal stage and its Colour starts to become light brown. Then this larva goes for pupation. Pupal colour is light brown then it starts to become dark brown from both the ends of pupa. Then whole pupas become blackish brown. Adult emerges from this pupa.

Calliphorid fly emerges the ovipositor for laying the eggs. The ovipositor emerges like radio antenna but it is flexible. Eggs laid by female in bunches in adhesive condition. Near about 200 to 260 eggs are laid by female. Eggs are white in colour, elongated. An egg shows fluid movement inside to exert
pressure on chorion. Due to this pressure chorion break and the first instar larvae emerges from eggs. Larval and pupal development takes as like of sarcophagid fly. Finally adult fly emerges.

A number of factors are known to affect the predictability of the relationship between larval development rate, size and temperature, and consequently post mortem interval estimates. Growth rates may be affected by daily fluctuation in temperature, prolonged episode of low temperature (Ames et al., 2003) or by production of metabolic heat by aggregation of larvae (Catts et al., 1992)

Season has a major impact on life cycle of sarcophagid fly and calliphorid fly of different regions. Thus, the faunal colonization of a body also is impacted. Many blow fly species vary in abundance depending on season. For instance, in Mississippi *Phaenicia (= Lucilia) coeruleiviridis* and *Cochliomyia macellaria* were dominant in the warmer summer months from April to September, whereas *Calliphora livida* (Hall) and *Cynomyopsis cadaverina* (Robineau-Desvoidy)
dominated in the winter months from October to March, with *P. regina* being found throughout the year (Goddard and Lago, 1985). In Maryland, *P. coeruleiviridis* and *P. regina* were found in both spring and summer, whereas *C. vicina, C. livida,* and *L. illustris* were found only in spring, and *P. sericata* was found only in summer (Introna et al., 1991).

In a study in Finland, considerable seasonal fluctuation and regional differences were seen between blow fly species (Nuorteva, 1959). Recent and ongoing work in Australia also has shown a dramatic effect of season and sun exposure on pig carcass decomposition (MacGregor, 1999a; 1999b). *P. regina* is normally considered a cool weather species, but in British Columbia it was collected in spring, summer, and fall despite high summer temperatures (Anderson and VanLaerhoven, 1996; Dillon, 1997; Dillon and Anderson, 1996a; Dillon and Anderson, 1995). However, blow fly colonization also appears to be a function of altitude more than season in some regions (Dillon, 1997; Dillon and Anderson, 1995).

In summer season the Sarcophagid fly takes 14 days for the completion of life cycle (From larvae to adult).
calliphorid flies takes 8 days for the completion of life cycle (From egg to adult) in Ahmednagar. In both flies life cycle hasten in summer season in this region. Since from laying larvae by female fly, larvae starts feeding on putrefied liver. These are first instar larvae. They are white in colour. They bear small chitinuous hooks. They are voracious feeder. *Necrophilus hydrophiloides* Guérin-Méneville (Coleoptera: Abyrgidae) was collected 128 days after death on pig carcasses placed out during the summer in British Columbia (Anderson and VanLaerhoven, 1996), but this elapsed time since death was reached in mid-October, which is the beginning of the species’ period of activity, with peak activity reported between November and May (Anderson and Peck, 1985). Later work in this region showed that *N. hydrophiloides* was characteristic of temperatures below 10 °C (Dillon, 1997). Therefore, time of colonization for some species may relate less to time since death and more to season. Colonization of remains in water by aquatic organisms also is influenced by season and corresponds to the life cycle of the organism (Hobischak, 1997). The seasonality, or relative abundance, of certain insects and the potentially
differing times of colonization of the remains in different seasons are important for several reasons. First, it means that carrion studies should be performed throughout the year in order to develop a valid database for an area. Second, it means that insects may be valuable in determining season of death.

In winter season sarcophagid flies takes 21 days for the completion of life cycle (from larva to adult) and calliphorid flies takes 13 days for completion of life cycle (from egg to adult) in winter season in Ahmednagar. The life cycle was delayed in this season. The life cycle stages are healthy also. There are many species usable to calculate the time of death especially in the warm season, but it is commonly known that less insect species are active during the cold season. (Hilke Schroeder et al., 2003)

In one case involving skeletonized remains discovered in a shallow grave more than 10 years after the disappearance of the victim, the total lack of entomological evidence indicated to the investigators that death had occurred in winter (Rodriquez et al., 1993). This supported the police investigation that indicated a winter death and refuted the defendant’s claim that an
associate had killed the victim in summer (Rodriquez et al., 1993). However, care must be taken when interpreting such evidence as the time it takes for the natural decomposition of insect material (such as empty pupal cases and beetle exuviae) is affected by many factors, such as period of exposure, level of moisture, soil pH etc. During the excavation of Arikara burials in South Dakota, empty pupal cases of blow flies and flesh flies were found in graves known to be 130 to 160 years old. This indicated that death had occurred between late March and mid-October when such flies are active in that area (Gilbert and Bass, 1967). The excellent preservation was attributed to the low annual rainfall in the region, and to generally dry conditions (Gilbert and Bass, 1967).

In rainy season, sarcophagid flies takes 16 days for completion of life cycle from larva to adult) And calliphorid flies take 8 days for completion of life cycle (from egg to adult) in Ahmednagar.. It takes moderate time for completion of life cycle as compared to summer season and winter season.

The most obvious effect is that of sunlight and heat on life cycle of sarcophagid flies and calliphorid flies life cycle. Bodies
found in direct sunlight will be warmer, heating up more rapidly and decomposing faster. They will lose biomass more rapidly than bodies in shade and progress through the decompositional stages faster (Dillon, 1997; Dillon and Anderson, 1996a; Dillon and Anderson, 1995; Reed, 1958; Shean et al., 1993). Recent work in Australia has shown dramatic differences between decomposition rates of pig carcasses in sun vs. shade (MacGregor, 1999a; 1999b). Vertebrate scavengers also impact the decomposition and were found less frequently in sunny habitats (Dillon, 1997; Dillon and Anderson, 1995), therefore having less effect on remains in such locations. Blow flies exhibit habitat preferences within their regional distribution (Erzinclioglu, 1996) but these may vary by region. In Britain, *C. vicina* and *L. illustris* were found most commonly in open conditions, and *C. vomitoria* and *L. ampullacea* Villeneuve seemed to require dense cover. *L. caesar* appeared to be an intermediate species, preferentially being found in scrub areas with sparse trees (MacLeod and Donnelly, 1957).
A later study in Britain revealed that *C. vicina* was found in both sun and shade (Lane, 1975), and in France, *L. caesar* was found to prefer shady habitats (Holdaway, 1930). In British Columbia, *L. illustris*, traditionally considered to be found only in direct sunlight (Smith, 1986), was found on pig carcasses in both open pasture (Anderson and VanLaerhoven, 1996) and in dense forest (Dillon, 1997; Dillon and Anderson, 1996a; Dillon and Anderson, 1995). However, most of the work that refers to *L. illustris* and other flies in the tribe Luciliini colonizing remains only in direct sunlight, originates from studies performed in Northern Europe (Smith, 1986). Therefore, it seems probable that habitat preferences may vary between Europe and Canada, explaining the behavioral differences observed. This is supported by observations in Germany (Haskell et al., 1997) in which only flies in the tribe Calliphorini were attracted to bait when conditions were overcast, but flies in the tribe Luciliini were attracted as soon as the sun shone directly on the bait. This was in contrast to studies in the U.S. (Haskell et al., 1997).
Calliphora vomitoria is traditionally considered to be primarily a shade species (Smith, 1986). In British Columbia, it was usually found on pig carcasses in dense forest, although during the fall it was collected from carcasses in direct sunlight in open regions of the forest (Dillon, 1997; Dillon and Anderson, 1996a; Dillon and Anderson, 1995). It was not collected in open pasture (Anderson and VanLaerhoven, 1996). In the state of Washington, L. illustris and C. vomitoria were collected from a carcass in direct sun and from a carcass in shade. However, more C. vomitoria were collected in the shade, and more L. illustris were collected in the sun (Shean et al., 1993). P. regina was collected in both scenarios (Shean et al., 1993). The arrival time of several species of beetles in the families Carabidae, Staphylinidae, Silphidae, and Histeridae varied with exposure, and members of some families such as the Dermestidae, Cleridae, and Nitidulidae were only found on the exposed pig in Washington State (Shean et al., 1993). However, only one carcass was examined in each habitat, and it is difficult to determine whether these are actual trends for this area. In Canada, where a large number of carcasses were studied in a
similar habitat, some beetle species were regularly found on both sun-exposed and shaded carcasses. Others varied in their preferences or times of arrival, although this also was impacted by season and geographic region (Dillon, 1997; Dillon and Anderson, 1996a; Dillon and Anderson, 1995). In direct sunlight during summer in British Columbia, a study using clothed and unclothed pig carcasses show that the unclothed carcasses were heavily inundated by blow fly eggs, and they also mummified rapidly due to high temperatures. This resulted in the mass migration of undersized 2\textsuperscript{nd} and 3\textsuperscript{rd} instar calliphorid larvae in search of other food sources (Dillon, 1997; Dillon and Anderson, 1995). Such depletion of resources was not observed on shaded carcasses (Dillon, 1997; Dillon and Anderson, 1995), or on clothed carcasses in either sun or shade (Dillon and Anderson, 1996a). In Tennessee, Reed (1958) noted that insect populations were smaller at carcasses in pasture areas than in wooded, shaded areas, but this was not supported in other studies (Dillon, 1997; Dillon and Anderson, 1996a; Dillon and Anderson, 1995; Goddard and Lago, 1985).
Insects colonize remains indoors easily as outdoors. The public and police often believe that insects will not colonize remains inside a building. The succession is limited by the species that can and will enter a dwelling, and on how well the dwelling is sealed. Blow flies are strong fliers that can follow an odor plume over a long distance (Erzinclioglu, 1996) and can easily enter buildings. In British Columbia, an analysis of cases over a 5-year period showed that *P. sericata* and *P. regina* were commonly collected from victims found inside houses, while *C. vicina* and *C. terraenovae* were sometimes collected indoors (Anderson, 1995). *P. terraenovae*, *E. latifrons*, and *C. vomitoria* were not collected indoors (Anderson, 1995). Other insect species such as *Piophila* spp., *Hydrotaea* spp. (Muscidae), *Thanatophilus lapponicus* (Herbst) (Coleoptera: Silphidae), and *Necrophilus hydrophiloides* (Coleoptera: Agyrtidae) were collected from human cases indoors, but not exclusively (Anderson, 1995).

We have collected the flies from the terrace of building on the putrefied raw meat. Insects are found even in high-rise apartments. In Germany, numerous carrion frequenting flies
were collected inside a multilevel apartment building, including *Fannia canicularis* (L.) (the most numerous), *P. sericata*, *Sarcophaga carnaria* L., *C. vicina*, *Muscina stabulans* (L.), and *F. manicata* (Meigen) (Schumann, 1990). In Gdansk (Poland), *F. canicularis*, *M. stabulans*, and *L. sericata* were found in an 11-story apartment building (Piatkowski, 1991). In Canada, *C. vicina* has been collected on the 18th floor of an apartment complex (Anderson, unpublished data). In all these cases, no remains were present to attract insects, so they were presumably attracted by the presence of normal household garbage. In Germany, the presence of *Parasarcophaga argyrostoma* (Robineau-Desvoidy) (Diptera: Sarcophagidae) is an indicator that remains have been outside at some time, as it is considered to be an exclusively outdoor species (Benecke, 1998). In a comparison of insects collected from 35 cases of decomposing remains in Hawaii, in both indoor and outdoor situations, Goff (1991) found a greater variety of fly larvae associated with indoor deaths and a greater variety of beetles associated with outdoor deaths.
Some species were restricted to remains discovered indoors, while some were restricted to outdoor deaths. Certain taxa were considered to be sufficiently restricted to one environment in this region (i.e., Hawaii) to serve as indicator species (Goff, 1991). Therefore, in some cases, it may be possible to determine whether remains have decomposed in situ, or have been moved either from an indoor to an outdoor scenario or vice versa. In a case in England, remains were concluded to have decomposed completely inside a house due to the presence of *Leptocera caenosa* Rondani (Diptera: Sphaeroceridae), a species that the author reported to be common in human habitations but rarely collected out of doors (Erzinclioglu, 1985). Care should be taken with such conclusions, however, as other members of this genus have been found in large numbers on remains buried outdoors in rural areas in both experimental studies (VanLaerhoven, 1997; VanLaerhoven and Anderson, 1996; 1999) and in actual cases. It is to be noted that Smith (1975) collected this species from a dead fox in an outdoor environment. Moreover, species that may be considered to be indicators of an indoor scenario in one region may not
necessarily be restricted to an indoor scenario in another region. For example, *Stomoxys calcitrans* (L.) (Diptera: Muscidae) was considered to be sufficiently restricted to indoor situations in the Hawaiian Islands to serve as an indicator species (Goff, 1991). However, this species is a major livestock pest frequently recovered in and around stables, and commonly found outdoors in other geographic regions (Kettle, 1990).

Measurement (length, width and weight) and photographs of each life cycle stage was taken in three seasons. This data is useful for the estimation of death period. Wells and coworkers (Wells and Kurahashi, 1994; Wells and LaMotte, 1995) have considered variation in age estimates from length and weight measures of fly larvae, and offer some approaches for developing confidence intervals in such estimates.

At the same time the temperature and humidity (maximum and minimum) was recorded on each day of each season during the experimentation. This data will be useful for determination of season and temperature dependant development. There are number of potential problems and limitations in the use of temperatures for determining insect development, perhaps the
key limitation is using the appropriate temperature data to
determine development. In reviewing degree-day calculation
methods, Higley et al., (1986) concluded that the source of
temperature data used in degree-day calculations was likely the
most significant single source of error. Temperature and
humidity heavily influence insect activities, such as the rate of
oviposition and maturity (Anderson & Cervenka 2001; Gillot
1995; Smith 1986). Temperature has a direct impact on insect
metabolic and developmental rate (Andrewartha and Birch 1954;
Chapman 1982). Development of insects is confined within a
certain temperature range; temperatures too high or too low
below the threshold can prove fatal.

**Effect of sedative drugs**

Diazepam is a benzodiazepine derivative drug. It is
commonly used for treating anxiety, insomnia, seizures including
status epilepticus, muscle spasms, restless legs syndrome, alcohol
withdrawal, benzodiazepine withdrawal and Ménière's disease. It
may also be used before certain medical procedures (such as
endoscopies) to reduce tension and anxiety, and in some surgical
procedures to induce amnesia. It possesses anxiolytic, anticonvulsant, hypnotic, sedative, skeletal muscle relaxant, and amnestic properties. The pharmacological action of diazepam enhances the effect of the neurotransmitter GABA by binding to the benzodiazepine site on the GABA_\text{A} receptor leading to central nervous system depression. Diazepam has also been used as a recreational drug.

Adverse effects of diazepam include anterograde amnesia (especially at higher doses) and sedation as well as paradoxical effects such as excitement, rage or worsening of seizures in epileptics. Benzodiazepines also can cause or worsen depression. Long-term effects of benzodiazepines such as diazepam include tolerance, benzodiazepine dependence as well as a benzodiazepine withdrawal syndrome upon dose reduction; additionally after cessation of benzodiazepines cognitive deficits may persist for at least 6 months and may not fully return to normal, however it was suggested that longer than 6 months may be needed for recovery from some deficits. Diazepam also has abuse potential and can cause serious problems of addiction.
Urgent action by National Governments to improve prescribing practices has been recommended.

Advantages of diazepam are a rapid onset of action and high efficacy rates which is important for managing acute seizures; benzodiazepines also have a relatively low toxicity in overdose. Diazepam is a core medicine in the World Health Organization's "Essential Drugs List", which is a list of minimum medical needs for a basic health care system. Diazepam is used to treat a wide range of conditions and has been one of the most frequently prescribed medications in the world for the past 40 years.

The oral LD$_{50}$ (lethal dose in 50% of the population) of diazepam is 720 mg/kg in mice and 1240 mg/kg in rats.

Benzodiazepine drug misuse, sometimes called benzodiazepine drug abuse, is defined as using benzodiazepines for recreational purposes i.e. to get "high" or continuing benzodiazepines long term against medical advice. The level of benzodiazepine misuse is as high as other common drugs of
misuse. When used recreationally benzodiazepines are usually administered orally but sometimes they are taken intranasally or intravenously. Recreational use produces effects similar to alcohol intoxication and in tests in primates benzodiazepines also produce effects similar to barbiturates, with triazolam, alprazolam, clonazepam, diazepam and lorazepam having a higher abuse potential than other benzodiazepines such as oxazepam or chlordiazepoxide. The elimination half life and potency of a benzodiazepine appears relevant to the degree of abuse potential a benzodiazepine has.

**Alprazolam** is a potent short-acting drug of the benzodiazepine class. It is primarily used to treat moderate to severe anxiety disorders (e.g., social anxiety disorder) and panic attacks, and is used as an adjunctive treatment for anxiety associated with moderate depression. It is available in an instant release and an extended-release preparation, both of which are available under several generic names. Alprazolam possesses anxiolytic, sedative, hypnotic, anticonvulsant, and muscle relaxant properties.
Alprazolam has a fast onset of symptom relief (within the first week). It is the most commonly misused benzodiazepine; however, the majority of prescribed users do not develop a substance use disorder. Tolerance to the therapeutic effects of alprazolam is controversial with one view being that alprazolam is ineffective with long term use and the other view being that tolerance to the therapeutic effects does not occur. A physical dependence commonly occurs as a result of alprazolam treatment, typified by a withdrawal and rebound symptoms necessitating a gradual reduction in dosage to minimize withdrawal effects when discontinuing. Withdrawal symptoms similar in character to those noted with sedative-hypnotics such as alcohol have occurred following discontinuance of benzodiazepines, including alprazolam. The symptoms can range from mild dysphoria and insomnia to a major syndrome that may include anxiety, abdominal pain, muscle cramps, vomiting, depression, sweating, tremors and in rare cases seizures, suicidal ideation or suicide itself.
Many of the suicides or murders are due to the sedative drugs. In such condition, the dead body may have high concentration of the drugs which can affect the duration of the life cycle of these insects and hence for the correct estimation of period since death, it is necessary to have the data of the effect of the drugs on the duration of the life cycle stages of the carrion feeder insects. Treatment of diazepam was given through the food (Decaying flesh) on which the eggs of the calliphorid flies were distributed. Four different doses of diazepam 4ppm, 8ppm, 12ppm, 16ppm were given to the developing larvae of calliphorid larvae through 50 gm grinded flesh. As the larvae emerged from the eggs, they fed upon treated food. Diazepam was found to delay the period of life cycle and with the increase of the dose there was increased delay of life cycle.