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By Carl M. Yoshimoto and D. D. Millspaugh

The typical bluebottle and greenbottle flies are one of the five subfamilies under the family Calliphoridae. They are generally known as the blowflies.

The subfamilies are classified chiefly on the bases of the bristles on their thorax. Other characteristics are provided for substantial clarification.

The external male and female characteristics of Calliphoridae are identical but they may be differentiated by the genital segments of the female which are of an extensile ovipositor and usually concealed in the fourth abdominal segment. The general characteristics of the family are: The thorax with metanotum (oval arched part behind, beneath the scutellum); hypopleuron with a well-defined row of bristles; pteropleuron setose on the posterior half; pteropleural bristles in tuft (well-defined); mesopleuron bare on the anterior fifth; mesopleural bristles in well defined row; notopleural bristle usually two; lateral postscutellar plates setose; and intrasternopleural row of bristles.

A resume of the subfamilies is given to distinguish one from the other. The first subfamily Mesembrinellinae is treated as one of the family because the male genital structure is very similar to that found in other typical Calliphoridae. They are recognized by bare propleuron and with a scutellum finely setose, and with one discal and one apical bristle. These flies are never found in the bright sunlight. They always conceal themselves in shaded areas such as those found in a forest.

Few species are known in the subfamily Rhiniinae of which only one genus is found in the Western Hemisphere. They lack intrapostocular cilia and narrow occipital orbits.

The subfamily Chrysomyinae are commonly known as "screwworm," or "black blowflies." Upon superficial examination, the subfamily is divided into two tribes: the Chrysomyini are recognized by their blue or green metallic bodies, bright orange head, and dark longitudinal stripes on the dorsum of thorax; the Phormiini are recognized by their black heads and legs, while thorax and abdomen are dull-green or bluish-green. Differentiating characteristics are the fact that the thorax has the propleuron strongly pilose and the scutellum without apical bristles.

Very few species are known in the subfamily Polleniinae. They are dull black with thin silvery pollen and small eyes. The scutellum has the under surface bare in the center and has four strong lateral bristles.

This report of species includes only those found under the subfamily Calliphorinae. They are divided into two tribes. The first, the Luciliini has absence of pile (fine setose hair) on the upper surface of the lower squamal lobe; and second, the Calliphorini with the pile on the entire lower squamal lobe.

The Luciliini are small to average-sized, and include shining bronzy green or blue-green to purple species. The Calliphorini includes from small to large species with pollinose thoraces and shining to pollinose metallic bluish to greenish abdomen.

All the species have the prosternum and the propleuron setulose; without crinkly hair on the thorax and with the parafaciale bare on the lower third or more. The scutellum is without apical bristles. The apical cell of the wing is narrowed at the tip but never closed. The head width is greater than the head height and the bucca is usually high in relation to the height of the eyes.

Abdomen shape is oviconical to ovate and more conical in the male than in the female. Legs are of moderate length; hind coxa is bare posteriorly.

Most of the Calliphorinae in this locality are collected during summer when our climate is the most favorable for them. They gather around human foods, garbage disposal, excrement and disposal of dead animals. Large numbers of these flies may be taken from trap baited with these foods.

The blowflies have considerable effect on the health of man and his livestock. Human beings can practice thorough sanitation or personal hygiene, by keeping the environment of your home clean and by complete screening of the doors and windows. Wounds and sores must be nursed properly. The Calliphorini and Lucilliini carry over 2,000,000 bacteria per each adult, even in the cleanest and most sanitated city. One of the important diseases to occur in United States is Polio. The blowflies have been said to carry the Virus of poliomyelitis on the surface or within their bodies. There is uncertainty as to their ability to transmit these organisms. Blowfly larvae have been known to cause intestinal myiasis in man.

Livestock may be attacked by blowflies and cause maggot infestation.

The following list of species are taken from those included in Iowa Insect Survey Collection.

Cochliomyia macellaria Fab.
Phormia regina Meigen.
Protophormia terrae-novae Desv.
Cynomyia cadaverina Desv.
Cynomyia mortuorum L.
Calliphora erythrocephala Meig.
Calliphora viridescens Desv.
Calliphora vomitoria L.
Calliphora vomitoria nigribarbis Snn.
Calliphora coloradensis Hgh.
Lucilia caesar L.
Lucilia sericata Meig.
Lucilia sylvarum Meigen
Lucilia australis Tns.
Lucilia cuprina Wd.
Lucilia caeruleiviridis Macq.
Lucilia illustris Mg.

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