

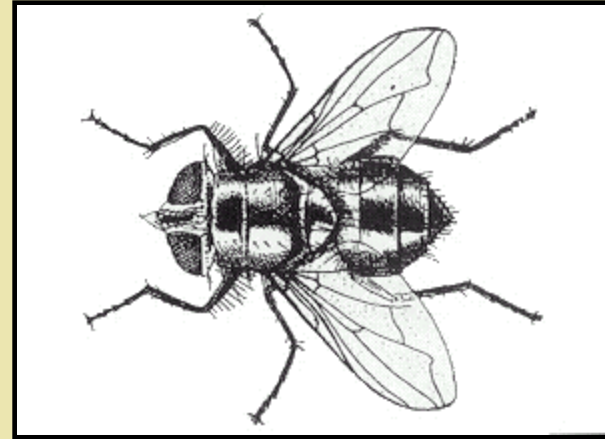
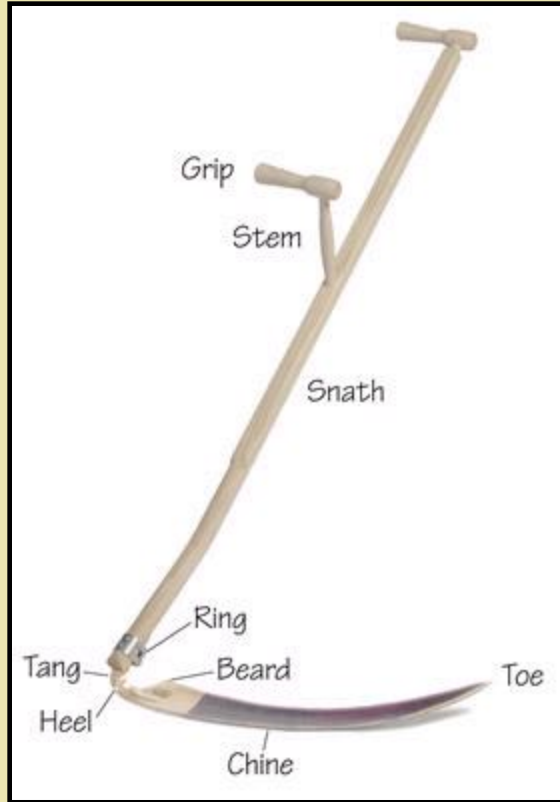
# Innovations in Forensic Entomology

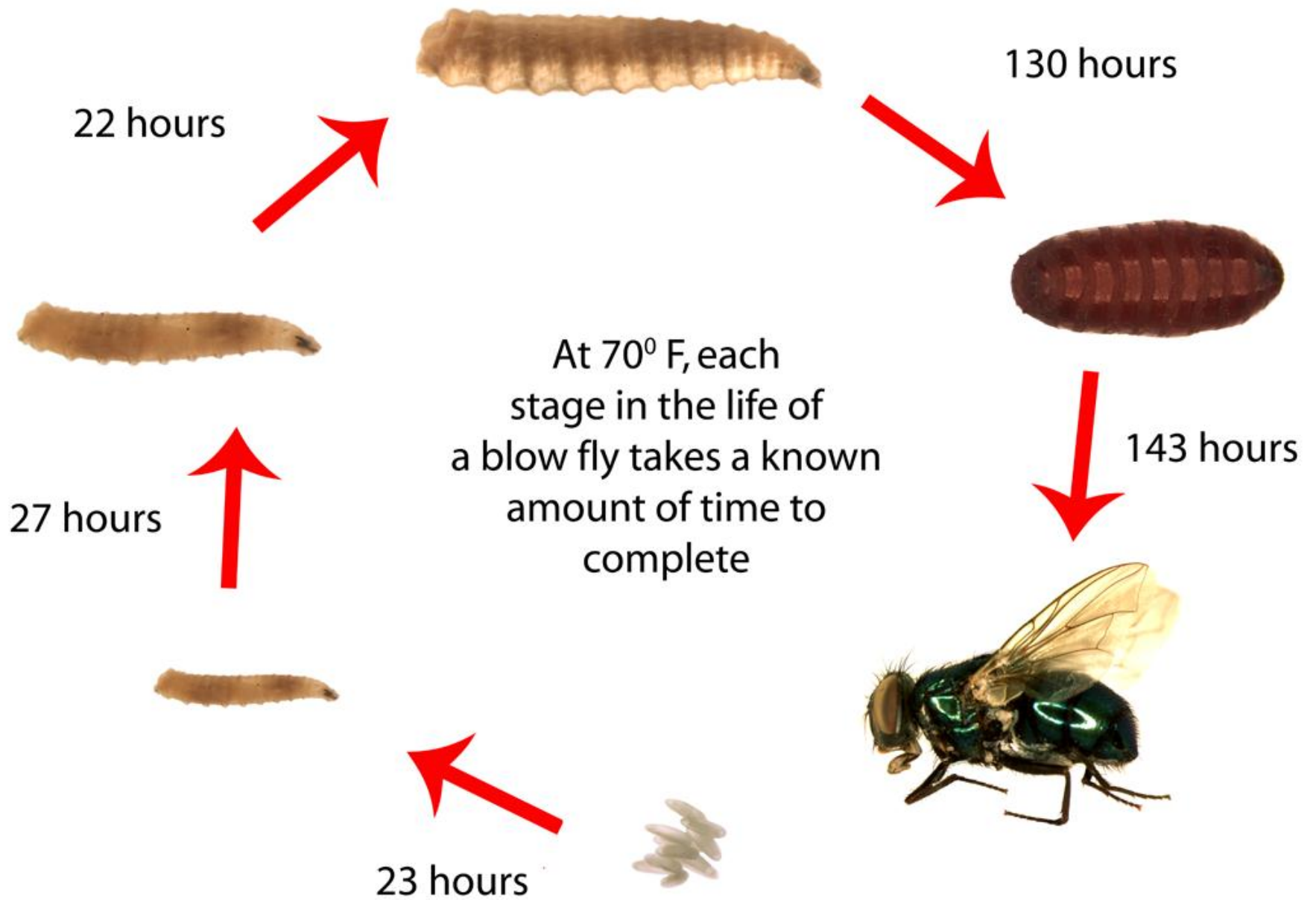
Joe B. Keiper, Ph.D.  
Virginia Museum of Natural History

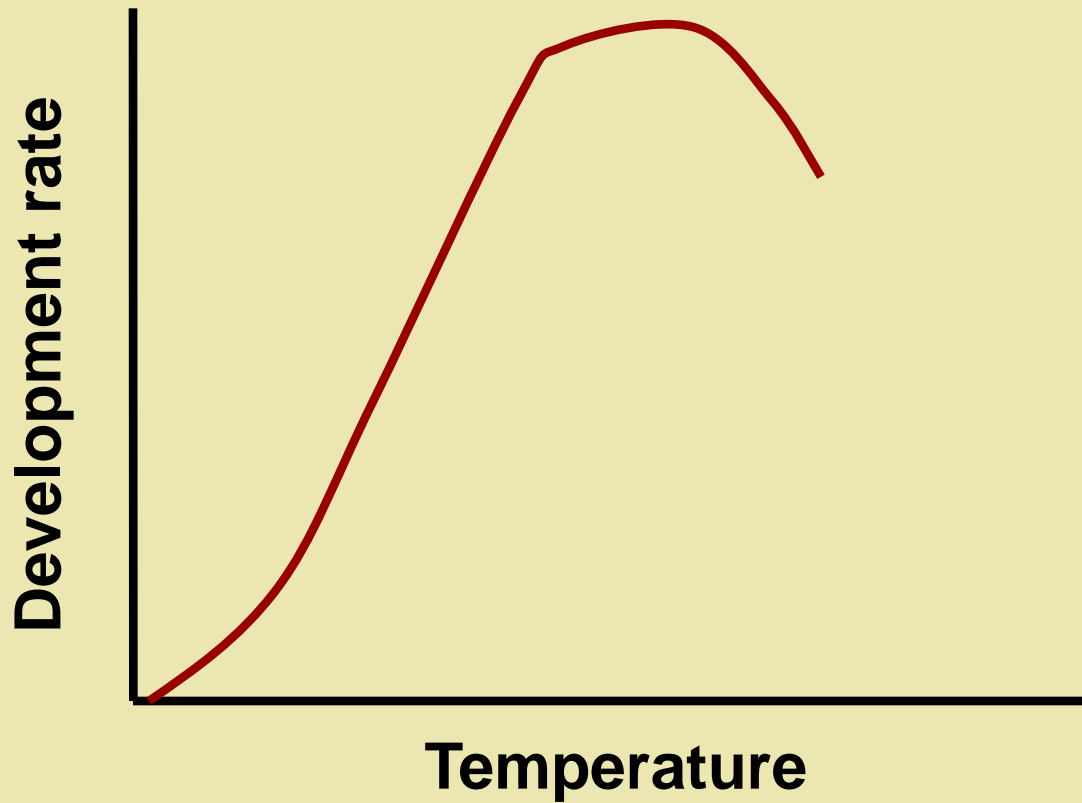


## **What we will do:**

- Importance of insects**
- What the forensic entomologist does**
- Case studies**
- Collect & preserve insects**
- Prepare live insects**





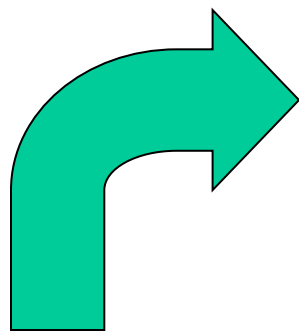


*Calliphora vicina*  
“Blue bottle fly”





HOW OLD IS THIS MAGGOT?



Posterior spiracle with 3 slits



Cleveland Museum of  
NATURAL HISTORY

*Cochliomya macellaria*



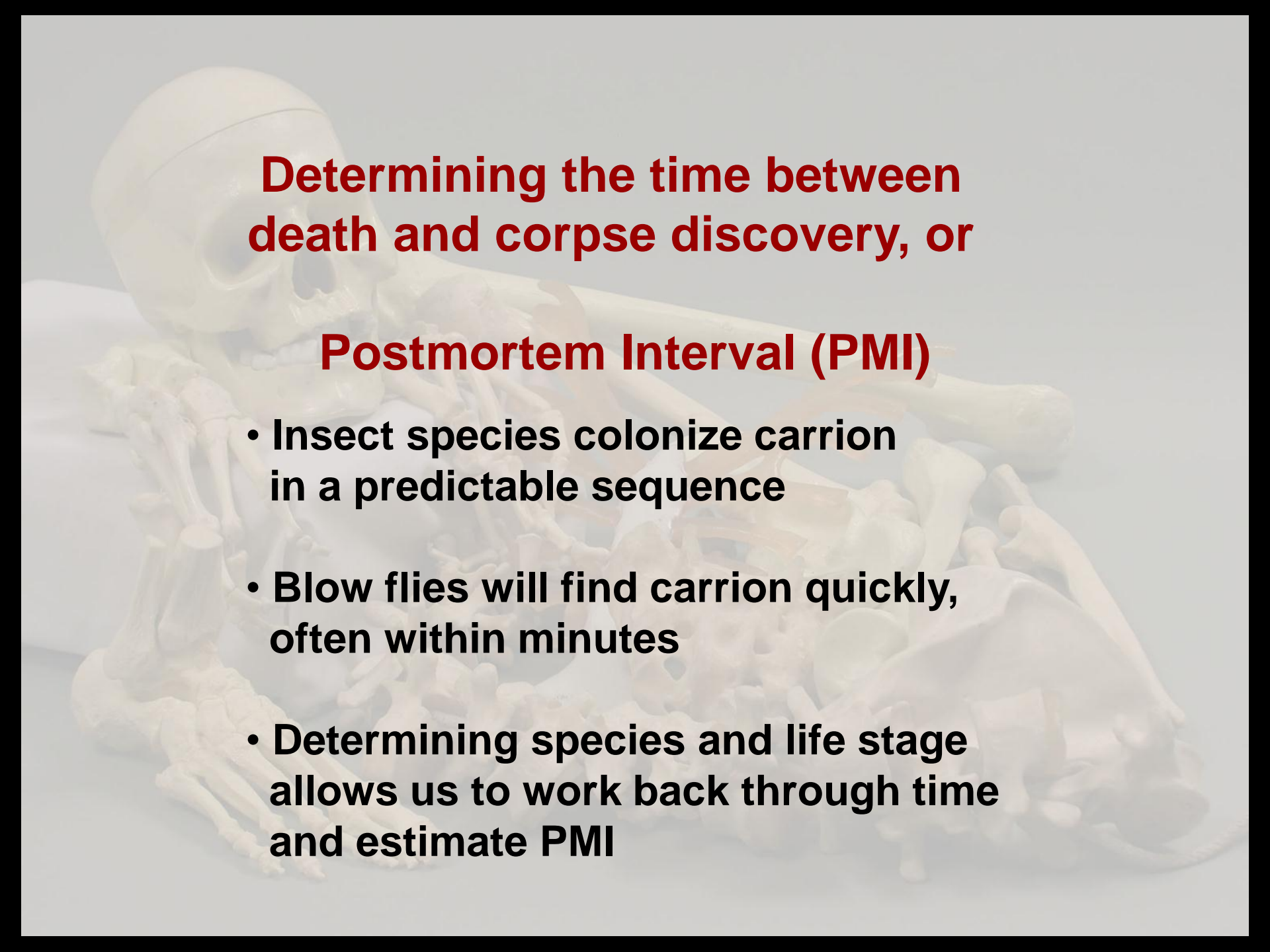




# BEETLES

- Appear later in *succession*

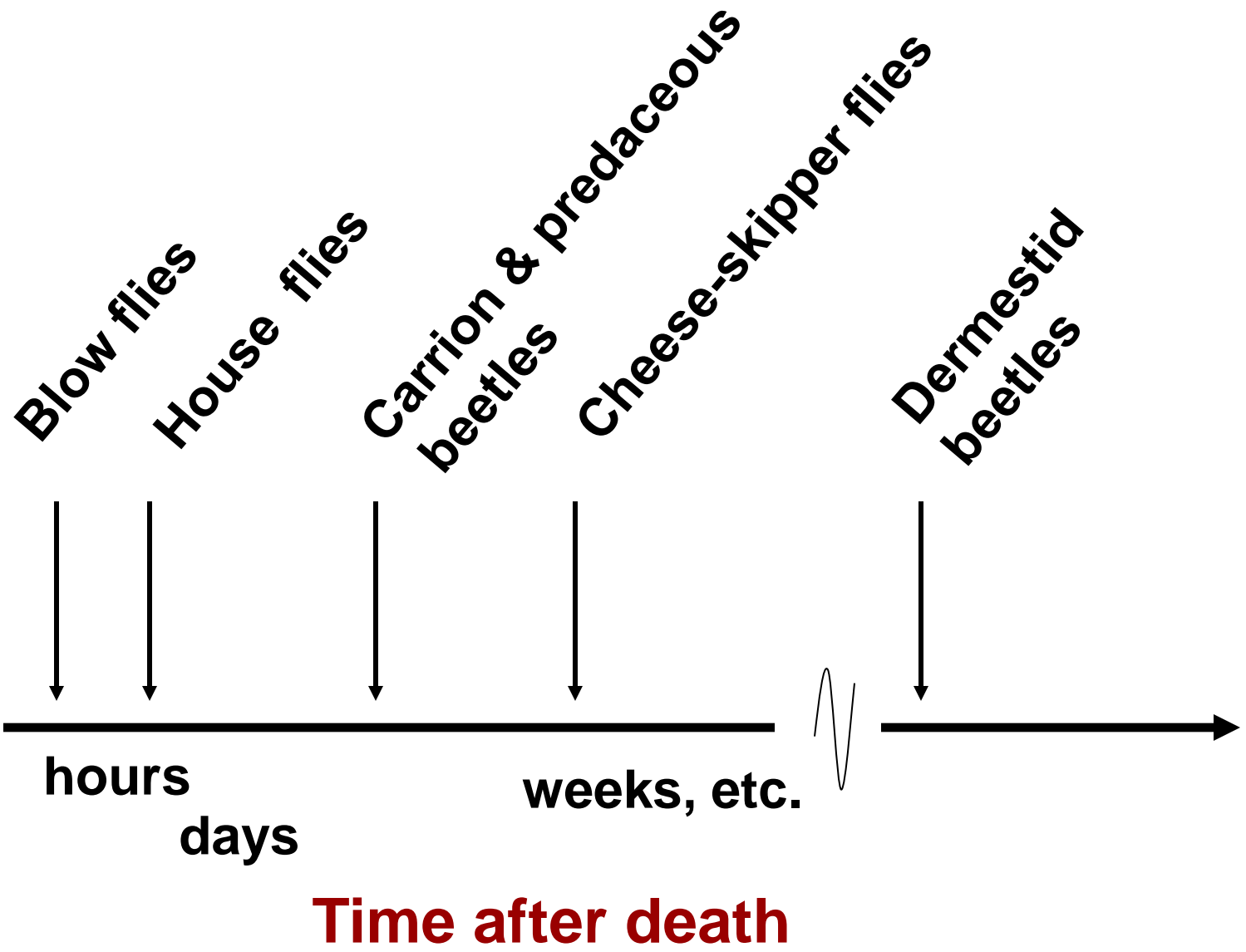




**Determining the time between  
death and corpse discovery, or**

**Postmortem Interval (PMI)**

- **Insect species colonize carrion in a predictable sequence**
- **Blow flies will find carrion quickly, often within minutes**
- **Determining species and life stage allows us to work back through time and estimate PMI**



# What might alter insect development on a corpse?

- **Temperature**
- **Physical obstacles**
- **Drugs**
  - **stimulants speed development (eg, cocaine)**

# **CASE STUDIES...**

# Forensic Entomology

**BODY OF HOMICIDE VICTIM NEAR SUMMIT LAKE  
SUMMER 2005**

**BODY RIDDLED WITH FLY MAGGOTS**



# **The death of Gabriel Feliciano**

**Body found 4 Oct. 2007**

**Near intersection of Ridge Road  
& Nagy Blvd.**





*Calliphora vicina*  
“Blue bottle fly”

