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A Product of the Integrated Pest Management Working Group

## Gray or Longtailed Silverfish

*Ctenolepisma longicaudata* Escherich



### GENERAL INFORMATION

Silverfish and similar species are placed in the order Thysanura which is considered one of the most primitive of the living insect orders. There are four species considered common in North America; the Common Silverfish (*Lepisma saccharina*), the Gray Silverfish (*Ctenolepisma longicaudata*), the Firebrat (*Thermobia domestica*) and the Four-Lined Silverfish (*Ctenolepisma lineata*). Though most are generally cosmopolitan in distribution, the Gray Silverfish is found most in the Midwest to California and the South. Presence of the Silverfish, *Lepisma saccharina* indicate a cool and humid environment.

Gray Silverfish will favor areas of high temperature, while Firebrats need even hotter temperatures. Adverse to light, they all tend to be found in dark areas of suitable climate with an abundant supply of food. However, their presence at a feeding site not warm or humid may indicate a nearby preferred micro-climate. The color of the different species can vary.

Common Silverfish= silvery metallic

Gray Silverfish = dull gray

Four Lined Silverfish = dark and light scales

appear as four lines running down back

Firebrat = large patches of dark scales on the back.

In Europe the small and white *Ctenolepisma calva* is also found and is spreading in museums and buildings

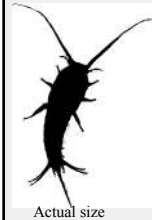


Grey Silverfish  
*Ctenolepisma longicaudata*

### DIAGNOSTIC MORPHOLOGY

Adults:

- Size up to 15 mm
- Flattened body with carrot shaped outline
- Long segmented antennae
- Body covered with scales, gray spots
- Head surrounded with yellow bristles
- 3 tail - like appendages, as long as the body



Immature Stage:

Nymphs appear as young adults



Grey Silverfish  
*Ctenolepisma longicaudata*

### SIGNS OF INFESTATION

Damage from Gray Silverfish on paper products is often characterized by ragged scraped areas and irregular holes. Damage to textiles is indicated by the presence of feces (described as small, dark, and visible to the naked eye), scales (visible with a hand lens), and ground fibers.

### FOOD SOURCES

Silverfish are particularly fond of starch and items containing starch. They can often be found to be feeding on wallpaper and its adhesive paste as well as glazed paper, as both have a high starch content. They are also reported to feed upon other paper products, tissue paper, other packaging material book bindings, textiles, cotton, silk and other glues.

### LIFE CYCLE

Eggs of the Gray Silverfish tend towards a yellowish color. Generally eggs hatch anywhere from 35 days and young spend 12 months as nymphs. The average lifespan for the various Silverfish species can be from 5-7 years.

Sexual maturity is reached in 16-24 months. With a high birth rate Gray Silverfish can multiply quickly and have an enormous biotic potential. About 50-60 eggs are laid every year by females.

### CONTROL & TREATMENT

Gray Silverfish thrive in warm environments. Climate control in terms of reducing humidity and lowering temperature can cause populations to decline. Also, controlling nearby micro-environments where pests can migrate from is important.

Controlling food sources such as removing dust, cardboard boxes and removing paper products not part of a collection is advised. It is also recommended whenever possible that books and documents be placed in sealed containers or metal shelves with a smooth surface.

Regular cleaning around bookcases in cracks and crevices with a HEPA vacuum and sealing afterward can reduce potential breeding habitat. Application of desiccant dust in the cracks and along walls is another option.



*Ctenolepisma calva*  
(No Common Name)



Four Lined Silverfish  
*Ctenolepisma lineata*

Information current as of 7 June, 2019

Additional information available at [www.museumpests.net](http://www.museumpests.net)

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## Fact Sheet: Gray or Longtailed Silverfish

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