

## Key Physical Features Used to Separate a Bed Bug from Related Insects (Bat Bugs, Swallow Bugs)

There are three features that can be used to separate a bed bug from the other related insects (cimicids) that also may be found in a home in Colorado:

**Length of hairs relative to the size of the eye.** Look at the length of the body hairs fringing the body in the area around the eye. Check to see if these are longer than the width of the eye (left) or shorter (right).



**Shape of the wing pads on the back of the insect.** Look at the wing pads located in the area behind the head and prothorax. Check their shape and to whether the inner margins touch broadly (right) or only partially (left).



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**Relative length of the last antennal segment.** Look at the length of the last antennal segment and compare its length to the segment before it. Check to see if the length of the last segment is shorter than the segment preceding it (left) or equal in length (right). (Note: This can be a difficult feature to observe.)



Species	Length of hairs around the eyes	Form of the wing pads on the thorax	Length of the last (4 <sup>th</sup> ) antennal segment	General hairiness of the body	Typical period when found in living areas of building
<b>Bed bug</b> <i>Cimex lectularius</i>	Hairs are shorter than the width of the eye	Wing pads are narrow at the inner margin and barely touch	Shorter than the preceding (3 <sup>rd</sup> ) segment	Hairs are short and sparse	Year round. Common.
<b>Bat bugs</b> <i>Cimex pilosellus</i> <i>Cimex adjunctus</i>	Hairs are longer than the width of the eye	Wing pads are broad at the inner margin and touch for about half or more of their length	Shorter than the preceding (3 <sup>rd</sup> ) segment	Hairs are long and grow densely along the sides and back, giving bristly appearance	Early autumn and midspring, as migrating bats leave and return to buildings. Common.
<b>Swallow bug</b> <i>Oeciacus vicarius</i>	Hairs are shorter than the width of the eye	Wing pads are broad at the inner margin and touch for about half of their length	Equal in length or a bit longer than the preceding (3 <sup>rd</sup> ) antennal segment	Hairs grow densely and lie flat all over the body.	Early autumn and midspring, as migrating swallows leave and return to the building
<i>Hesperocimex coloradensis</i>	Most hairs shorter, a few longer, than the width of the eye	Wing pads are broad at the inner margin and touch for about half of their length	Shorter than the preceding (3 <sup>rd</sup> ) segment	Hairs are sparse with scattered with long hairs among shorter hairs	No pattern identified. Associated birds nesting in cavities in building walls. Rare.