

The **Schmidt Sting Pain Index** (a.k.a. the **Justin O. Schmidt Pain Index**) is a [pain scale](#) rating the relative [pain](#) caused by different [Hymenopteran](#) stings. It is mainly the work of [Justin O. Schmidt](#), an [entomologist](#) at the [Carl Hayden](#) Bee Research Center. Schmidt has published a number of papers on the subject and claims to have been stung by the majority of stinging [Hymenoptera](#).



European paper wasp ([Polistes dominula](#))

His original paper in 1984^[1] was an attempt to systematize and compare the [hemolytic](#) properties of insect venoms. The index contained in the paper started from 0 for stings that are completely ineffective against humans, progressed through 2, a familiar pain such as a common bee or wasp sting, and finished at 4 for the most painful stings. In the conclusion, some descriptions of the most painful examples were given, e.g.: "[Paraponera clavata](#) stings induced immediate, excruciating pain and numbness to pencil-point pressure, as well as trembling in the form of a totally uncontrollable urge to shake the affected part."

Subsequently, Schmidt has refined his scale, culminating in a paper published in 1990^[2] which classifies the stings of 78 species and 41 genera of Hymenoptera. Schmidt described some of the experiences in vivid detail:

- 1.0 [Sweat bee](#): Light, ephemeral, almost fruity. A tiny spark has singed a single hair on your arm.
- 1.2 [Fire ant](#): Sharp, sudden, mildly alarming. Like walking across a [shag carpet](#) and [reaching for the light switch](#).
- 1.8 [Bullhorn acacia ant](#): A rare, piercing, elevated sort of pain. Someone has fired a staple into your cheek.
- 2.0 [Bald-faced hornet](#): Rich, hearty, slightly crunchy. Similar to getting your hand mashed in a [revolving door](#).

- 2.0 [Yellowjacket](#): Hot and smoky, almost irreverent. Imagine [W. C. Fields](#) extinguishing a [cigar](#) on your [tongue](#).
- 2.x [Honey bee](#) and [European hornet](#): Like a matchhead that flips off and burns on your skin.
- 3.0 [Red harvester ant](#): Bold and unrelenting. Somebody is using a drill to excavate your [ingrown toenail](#).
- 3.0 [Paper wasp](#): Caustic and burning. Distinctly bitter aftertaste. Like spilling a [beaker](#) of [hydrochloric acid](#) on a [paper cut](#).
- 4.0 [Pepsis wasp](#): Blinding, fierce, shockingly electric. A running hair drier has been dropped into your bubble bath.
- 4.0+ [Bullet ant](#): Pure, intense, brilliant pain. Like [fire-walking](#) over flaming [charcoal](#) with a 3-inch [rusty nail](#) in your heel.^[3]