

Berachos 9:2 - What are זיקין?

According to the Bartenura's second explanation, זיקין are comets.

A comet is relatively small (0.1km – 40km) planet-like body that orbits the sun. Comets contain frozen gas, ice, dust and rocky particles. One might think of a comet as a huge, dirty snowball.



*Comet Hale-Bopp, as seen in Croatia in 1997*

As a comet approaches the Sun, solar radiation causes the frozen materials in the comet's nucleus (core) to vaporize. Gas and dust are released forming a huge, "fuzzy" atmosphere around the comet called the *coma*. The force exerted on the coma by the sun's radiation cause an enormous *tail* to form in the direction opposite the Sun. Both the coma and tail are illuminated by the Sun and may become visible from Earth when a comet passes close by.

The solid nucleus of a comet is generally less than 50 km across and is irregularly shaped; however, the round coma may be larger than the Sun, and comet tails have been observed to extend 150 million km or more!

As of May 2009, there are a reported 3,648 known comets; however, this represents only a tiny fraction of the total unseen comet population, which may number one trillion! About every decade or so, a comet will become bright enough to be noticed by a casual observer. Recent great comets have included Hyakutake in 1996, Hale-Bopp in 1997, and McNaught in 2007.



*Comet Hyakutake*



*Comet McNaught*