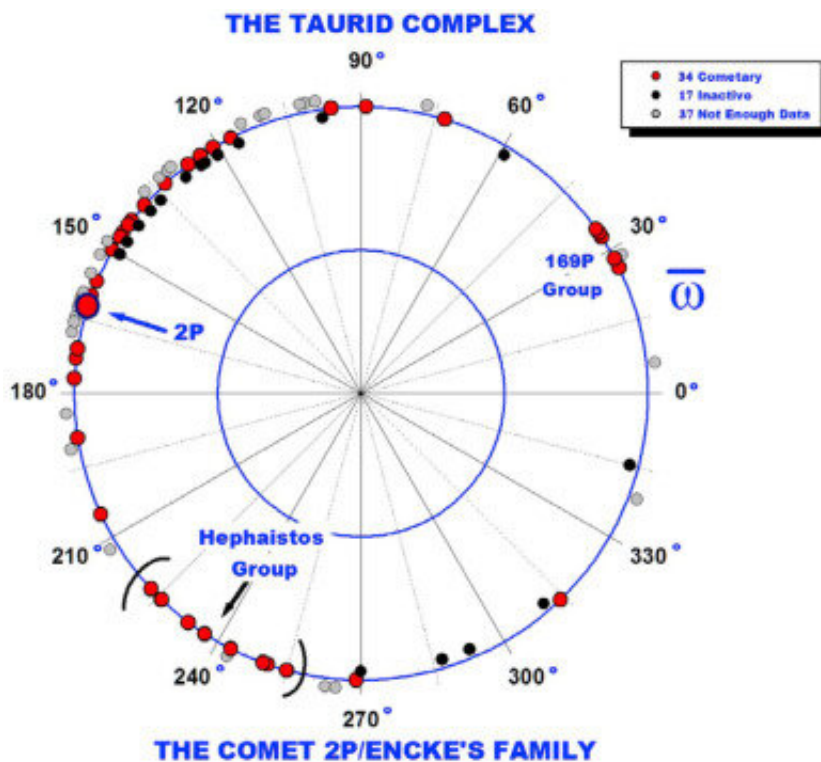


# Study of prior research suggests there is a swarm of large asteroids hidden in the Taurid complex

October 5 2021, by Bob Yirka



Credit: DOI: 10.1016/j.pss.2021.105306

A pair of space scientists, one with the University of Antioquia, the other the University of Salento, has found evidence of a swarm of large asteroids hidden in the Taurid complex. Ignacio Ferrín and Vincenzo Orofino have written a paper describing their findings in the journal

*Planetary and Space Science.*

Every year at the end of October, an event known as the Taurid meteor shower occurs, giving those who venture out into dark spaces the opportunity to witness a host of shooting stars. Prior research has shown that they are actually [debris](#) left behind by Encke's [comet](#) as it passes relatively close to the sun each year. In this new effort, Ferrín and Orofino claim they have found evidence of a swarm of large asteroids hiding in the Taurid complex. They further suggest that the [asteroid](#) swarm is part of a debris field left behind by a very large, as yet unnamed comet—the one that gave birth to Encke's comet.

While studying the Taurid complex, the researchers found two asteroids that had not been seen before. Measurements of the two [space](#) rocks showed them to be 200 and 300 meters across respectively, which is too large to be simple debris from Encke's comet. That got them to wondering if there might be other large asteroids hiding in the complex. To find out, they scanned published papers on the Taurid complex and found mention of a total of 88 asteroids that appeared to be too large to belong to Encke's debris field. As part of their work, they also looked for measurements of reflected light from the asteroids which helped them compare the paths taken by the asteroids to see if they matched those of debris from Encke's comet.

The data showed evidence of the large asteroids and Encke's comet (and thus, its debris) originating from a shared comet, and that both likely came into being approximately 20,000 years ago. The researchers also write that the large asteroids could pose a threat to Earth, noting that the Tunguska event has been linked to the Taurid complex, as has the disappearance of some early cultures during the Younger Dryas.

**More information:** Ignacio Ferrín et al, Taurid complex smoking gun: Detection of cometary activity, *Planetary and Space Science* (2021).

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